Factors Affecting Workers' Retirement Confidence: A Gender Perspective

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The purpose of this study was to determine the factors affecting male and female workers' retirement confidence. Retirement confidence in this study was measured with series of questions on confidence about retirement income prospects. Using the 1999 Retirement Confidence Survey, it was found that working men compared to women; who were younger; had higher levels of education; higher levels of income; positive financial attitudes and behaviors; lower level of risk aversion; received employer financial education; and were savers had higher levels of retirement confidence. With an understanding of retirement confidence, planners and benefit providers can better serve their clients.

Key words: *Gender differences, Retirement planning, Retirement and employees*

Introduction

According to the U.S. Department of Commerce, by the year 2030, more than one out of five individuals is projected to be age 65 or older (U.S. Department of Commerce, 1996). There has been a great deal of attention surrounding retirement preparedness of Americans for the past two decades (Behling & Merves, 1985; Borzi, 1995). Because of declining individual savings, uncertainty about Social Security, and increases in health care costs and the cost of living, about half of households will not have adequate resources to retire as planned (Yuh, Montalto & Hanna, 1998). A survey shows that even though many workers think that people their age will face financial difficulty when they retire, they were confident that they would be secure in retirement (Borzi, 1995). These findings suggest that people tend to think pessimistically regarding other people's retirement, but think optimistically regarding their own retirement. In the same survey, Borzi found that more than half admitted that they have not begun to save for retirement.

In 1991 Employee Benefit Research Institute (EBRI) started a national Retirement Confidence Survey (RCS). The RCS is "an annual survey that gauges the views and attitudes of working and retired Americans regarding retirement, their preparations for retirement, their confidence with regard to various aspects of retirement, and related issues" (Yakoboski & Dickemper, 1997, p. 3). Retirement confidence in the RCS was measured with a series of questions on confidence about retirement income prospects. Specifically, it includes confidence about (a) the ability to live comfortably in retirement, (b) financial preparation that they are engaging as pre-retirees, (c) the ability to cover medical expenses during retirement, (d) the ability to cover basic expenses, and (e) the ability to cover expenses throughout their life expectancy. Since its inception, RCS has shown neither upward nor downward trends in workers retirement confidence. About one-fifth to one-fourth of workers surveyed reported that they are very confident in their overall retirement income prospects during 1994-2002. Another 40% of the workers surveyed reported that they are somewhat confident about their retirement income prospects (EBRI, n.d./2002a). However, RCS also shows that only about half of the workers have calculated their retirement needs and have a savings program.

It is clear that those who have prepared for retirement are more confident about their retirement income prospects (EBRI, n.d./2002a). With the increasing concerns regarding retirement issues among the general public, individuals' retirement confidence is worth studying because it is affected by retirement preparedness and also affects retirement behavior.

When examining retirement confidence by gender, the RCS indicates a gap exists between men's and women's retirement confidence (EBRI, n.d./2002b). Retirement security may be particularly illusive for women, since they face many barriers to retirement. Previous research has shown that women lack knowledge about retirement and that older women are at even more of a disadvantage because of lack of knowldege (Alcon, 1999). Other studies indicated that women invest differently than their male counterparts, which can result in inadequate funds upon retirement (Embrey & Fox, 1997; Bajtelsmit, Bernasek & Jianakoplos, 1999). In addition, the sources of income available to women may prove to be inadequate when they reach retirement (Hayes, 1991; Junk, Fox, Einerson & Taff, 1997). Traditional gender roles may affect decisions in the workplace, which may lead women to choose to leave the workforce, thereby reducing their earned income and access to retirement benefits (Talaga & Beehr, 1995). Finally, many women work without employee benefits due to the balance between work and family responsibilities and this leads to retirement income insecurity (Caputo, 2000).

Several factors may contribute to retirement confidence, and they may differ for men and women. The purpose of this study is to examine the factors affecting retirement confidence in the working population age 25 and older and whether they differ between male and female workers. By examining factors of retirement confidence of men and female workers, the gender gap in retirement confidence will be explored. An understanding of this issue has implications for financial planners, benefit providers, policymakers, and educators. With a better understanding of the factors affecting retirement confidence for men and women and any gender differences in the factors, planners and benefit providers can better serve their clients and employees by developing target programs and services. Policymakers and educators can benefit from this research by considering the results in future policy and education development. In addition, policies may also be developed for the purpose of achieving a more equitable situation for women by providing necessary information to working women. And finally, if gender differences are identified, special education materials can be developed specifically for men and women to meet their distinct retirement educational needs.

Related Literature

Gender and Retirement Confidence

Retirement and retirement-related issues have been the topic of scholarly research for over 40 years. Tibbits (1954) described retirement as "a relatively new phenomenon", emphasizing that changes in family life, occupations, and society's position have occurred. Retirement issues have traditionally been considered to pertain to the male population, but increasingly, the importance to the female population has been recognized (Weaver, 1994). Hogan and Perrucci (1998) stated that gender and racial gaps in employment in the United States have resulted in inequalities in retirement.

Results from the 2000 Women's Retirement Confidence Survey showed that women were less likely than men to say they were confident about many financial aspects of retirement. It also showed that women with higher educational levels have greater retirement confidence (American Savings Education Council (ASEC), n.d./2001). Alcon (2000) found a significant relationship between the amount of employer-sponsored financial education and information and retirement confidence for women. However, the employer-sponsored financial education and information was not found to contribute to increased knowledge. Women, therefore, are more confident after receiving education, but not necessarily more knowledgeable. Even though Alcon's research suggests the need for improvement in workplace financial education, it shows significant effects of workplace education on women's retirement confidence.

In a study conducted by the Dreyfus Corporation, 48 % of the female respondents cited lack of knowledge as a barrier to retirement planning (Catrambone, 1998). This study also indicated that there is a significant inadequacy in financial education in the college years, particularly for women. Only 32% of male respondents and 20% of female respondents reported receiving financial education in college.

Factors Related to Retirement Confidence

Retirement confidence is influenced by several factors, including age, level of education, marital status, ethnic background, number of financial dependents, level of income, financial attitudes and behavior, risk tolerance, amount invested in retirement savings, and employer education. These factors can be categorized as demographic-socioeconomic, and attitudinal and behavioral factors.

Demographic and Socioeconomic Factors Among the factors related to retirement confidence, age, education, marital status, ethnic background, number of financial dependents, level of income, and amount invested in retirement savings are categorized as demographic and socioeconomic factors. As individuals approach retirement age, they experience more concern and apprehension regarding their preparedness. Ekerdt, Kosloski, and DeViney (2000) found that workers age 51 to 61 who considered themselves to be within 15 years of retiring showed extended involvement with retirement. The workers spoke more often about retirement and thought about retirement more frequently as well. The 2002 RCS showed that 24% of workers age 20-39 and 21% of workers age 40-59 said that they are very confident that they will have enough money to live comfortably throughout retirement. The percentages for somewhat confident for the two age groups are 46% and 49% respectively. Those who said they are not too confident that they have enough money to live comfortably throughout retirement were 23% and 17% for the two age groups (EBRI, n.d./2002c).

Level of educational attainment also affects retirement confidence. Employees are making investment decisions regarding their retirement. In a study concerning retirement and level of education, Mastin (1998) found that those who had less education were less knowledgeable about both general and specific retirement concepts, such as investment return on bonds and stocks, mutual funds, and specific benefit provider information at their workplace. The 2000 Women's Retirement Confidence Survey showed education affects women's retirement confidence. Those who have higher levels of education reported higher levels of retirement confidence (ASEC, n.d./2001).

Szinovacz and DeViney (2000) found that marital status affects retirement decisions. Marital status is an economic factor in retirement decisions. Married couples with both husband and wife working see retirement as more economically feasible. For example, Szinovacz and DeViney found that husbands tended to retire from work if their wives had a long history of employment, which reflected wives benefit eligibility. Wives' retirement was contingent on the couple's income, and for many women, retirement income was based primarily or exclusively on husband's earnings. Marital status also affects retirement investment decisions. Sundén and Surette (1998) found that marital status significantly affects asset allocation in defined-contribution plans. They also found that single women have a higher probability of having a defined contribution plan than single men and married women have the least likelihood of having defined contribution plans among all groups (i.e., single women, single men, married women, and married men).

Another factor that is related to retirement confidence is the number of financial dependents. Dependent care has been an issue that affects more female workers than male workers. Previous research estimated that about 75% of the employees who have elderly dependents were women (American Association of Retired Person (AARP), 1989) and having financial dependents affects retirement investment decisions and confidence (Weaver, 1994).

Research has shown differences in retirement issues and confidence among different ethnic groups. For example, the findings from the 1998 RCS showed the percentages of those who have personally saved for retirement for various ethnic groups as 66% for White, 47% for African-American, 37% for Hispanic-American, and 62% for Asian-American (EBRI, n.d./2001a). The 2001 Minority Retirement Survey reported that Asian-Americans have the highest level of confidence regarding retirement planning and Hispanic-Americans reported the lowest level of confidence (EBRI, n.d./2002d). Caputo (2000) found that Black women experience more difficulty than White women obtaining and maintaining jobs and this leads to differences in retirement preparedness. Racial inequality in employment and retirement is prevalent for men as well (Hogan, Kim & Perrucci, 1997). Blacks and Latinos were less likely to report stable employment, and, on average, reported only 60% of the average earnings for White men. Consequently, it is expected that ethnicity will have an effect on retirement confidence.

Income is another factor that affects retirement confidence. Malroutu and Xiao (1995) studied the perceived adequacy of retirement income of preretirees and found that those with low incomes (between $10,000 and $19,999) were less likely to perceive their future retirement income to be adequate. Junk and her associates (1997) found that for both men and women preretirees, income was positively related to the number of retirement income sources. The 2000 Women's RCS showed those women with higher income tend to have high levels of retirement confidence (ASEC, n.d./2001).

Attitudinal and Behavioral Factors Attitudes towards financial setbacks, discipline regarding saving, impulsive spending, credit card debt, research and planning of large purchases, and financial planning contribute to retirement confidence (Joo & Grable, 2000; Pauwels, 2001). Studies indicate that differences exist in the investment strategies of men and women (Bajtelsmit & Bernasek, 1996; Jianakoplos & Bernasek, 1998, Hinz, McCarthy & Turner, 1997). Bajitelsmit and Bernasek, and Jianakoplos and Bernasek observed that women have lower levels of wealth on average than men due to the higher levels of risk aversion. Regarding retirement confidence and investment, research showed a significant relationship between retirement investment and retirement confidence for women (Pauwels, 2001).

Whether or not an employee is provided with educational materials by the employer affects retirement confidence. Mastin (1998) states that a knowledge gap exists in the area of employees' understanding of employer-sponsored retirement plans explaining that many are not receiving adequate information from their employer. When employees are provided with information from their employers, their self-assessed financial knowledge increases (McCarthy & Turner, 2000). If employees are provided with information regarding their retirement plan and possession of such knowledge leads them to secure retirement decisions, they may be more confident about their preparedness for retirement. Previous research showed the positive impact of workplace education on retirement planning and investment decision-making (Garman, Kim, Kratzer, Brunson & Joo, 1999; Joo & Grable, 2000). The 1998 RCS showed significant differences in retirement confidence and retirement preparedness between workers who received financial education at the workplace and workers who did not have financial education at the workplace (EBRI, n.d./2002e).

Methodology

Data

This study used a data set from the 1999 RCS conducted by the EBRI. The 1999 RCS consists of cross-sectional data. The observations for the data set were 1002 individuals who were interviewed via 22-minute telephone calls. Random digit dialing was used to obtain a representative cross section of the U.S. population. Five hundred and twenty-three were female and 479 were male. They responded to a series of questions, and interviewers recorded responses to questions (EBRI, n.d./2001b). The sample of this study is limited to the worker respondents (those who answered self-employed, employed full-time, and employed part-time) of the 1999 RCS. Among the 523 female respondents, 308 were employed, and among the 479 male respondents 355 were employed.

Analysis

All analyses were performed using SPSS for Windows. Regression and hierarchical regression analyses were performed to determine what factors were related to men's and women's retirement confidence. To assess multiple correlation problems, variables were examined using a correlation matrix. This initial correlation diagnosis revealed a possible collinearity constraint between income and amount of savings for retirement. Therefore, the amount of savings for retirement was removed from the final regression and a dummy variable for savings was created. Tolerance indices and eigenvalues were created using procedures in SPSS to test for multicollinearity among the variables. Using above procedures, as outlined by Hair, Anderson, Tatham, and Black (1995), the variables in final regression do not show multiple correlation problems.

Variables

Dependent Variable The dependent variable of this study is retirement confidence. The 1999 RCS has five questions on assessing respondents' retirement confidence. These questions include (a) confidence about having enough money to live comfortably in retirement years (b) confidence about financial preparation, (c) confidence about having enough money to cover medical expenses, (d) confidence about having enough money to take care of basic expenses, and (e) confidence about having enough money to support themselves throughout their life, no matter how long they live. Each question was measured with a 4-point Likert-type scale, ranging from "very confident" to "not at all confident." Those who answered "very confident" were assigned 4 and those who answered "not at all confident" were assigned 1. The answers for the five questions were then summed to create a retirement confidence scale. The possible range and the actual range of the retirement confidence scale were 5 to 20. The mean score for the female worker sample was 14.1, and the mean score for the male worker sample was 15.0 (Table 2). A t-test result showed that the mean retirement confidence between male and female is significantly different.

Independent Variables This research will focus on the question, "What are the factors that explain the variance in confidence regarding preparedness for retirement for working men and women?" As such, 10 independent variables were selected initially: age, level of education, marital status, ethnicity, financial attitudes and behavior, risk tolerance, income, amount of savings for retirement, number of financial dependents, and employer education. From the correlation diagnoses, the amount of savings for retirement was removed from the final regression analysis and a dummy variable for saver was created to reflect the amount of savings for retirement. All the savers were coded 1, otherwise 0.

Age and the number of financial dependents were measured at a continuous level. Marital status, ethnicity, and employer education were dummy coded. Those who were married, were White/Caucasian, or had been provided financial education from their employer were coded 1, otherwise 0. The 1999 RCS measured education using six categories: (a) some high school or less, (b) high school graduate, (c) some college/trade or business school, (d) college graduate,

(e) post graduate work, and (f) graduate degree. Education was recoded to reflect years of education and considered as a continuous variable in order to reduce possible collinearity problems with income. This recoding ranged from a 10 for some high school or less to 19 for a graduate degree.

The 1999 RCS measured income using seven categories: (a) less than $15,000; (b) $15,000 - $24,999; (c) $25,000 - $34,999; (d) $35,000 - $49,999; (e) $50,000 - $74,999; (f) $75,000- $99,999; and (g) $100,000 or more. Also, there were two non-response choices in the answer category: "do not know" and "refused". Due to large responses on the two non-response categories, two dummy variables were created for income: Those who had household income over $50,000 were coded 1 for income1 dummy variable and those who reported "do not know" or "refused" were coded 1 for income2 variable. The omitted group was respondents with income less than $50,000.

Table 1

Factor Analysis Results of the Financial Attitudes and Behaviors Items in RCS

Item	Factor 1	Factor 2
I am disciplined at saving.	.747	.006
Just when I think I have a handle on my finances, something always happens that sets me back from my financial goals.	-.597	.240
I pay off my credit cards at the end of every month.	.596	-.110
I enjoy financial planning.	.590	-.004
I always research and plan for a big purchase.	.540	.077
I frequently spend money when I do not plan to buy anything.	-.473	-.119
I am willing to take substantial financial risk for substantial gain.	.100	-.688
I am more of a saver than an investor.	.222	.667
I am not willing to take any risks, no matter what the gain.	-.009	.660

The 1999 RCS includes some questions on measuring various financial attitudes and behaviors. Based on a factor analysis, two different measures were created: financial attitude and behavior scale and risk tolerance scale. A financial attitude and behavior scale was created using factor scores of six questions that composed one factor. The six questions were: (a) Just when I think I have a handle on my finances, something always happens that sets me back from my financial goals; (b) I am disciplined at saving; (c) I frequently spend money when I do not plan to buy anything; (d) I pay off my credit cards at the end of every month; (e) I always research and plan for a big purchase; and (f) I enjoy financial planning. Three questions were used to create a risk aversion scale: (a) I am willing to take substantial financial risk for substantial gain, (b) I am not willing to take any financial risks, no matter what the gain, and (c) I am more of a saver than investor. Factor scores of these questions then used as risk tolerance scale. As shown in Table 1, the higher factor scores on financial attitudes and behaviors represents positive financial attitudes and behavior, on the other hand higher scores on risk aversion represents higher levels of risk aversion. These factor scores were created using regression method.

Results and Discussion

Demographic Characteristics of the Sample

Demographic characteristics of the sample are presented in Table 2. Men and female showed similar demographic characteristics, except for marital status, income, and retirement confidence. Female workers tended to be non-married and have lower levels of retirement confidence compared to their male counterparts.

Table 2

Demographic Characteristics of Worker Sample (1999 RCS)

Category	Mean (S.D.)/ % Men (N=355)	Mean (S.D.)/ % Women (N=308)
Age in years	42.35 (11.13)	43.43 (11.35)
Ethnicity (White)	83.2%	83.1%
Marital Status (Married)	68.6%	61.7%
Education	14.58 (2.52)	14.35 (2.18)
Income		
< $15,000	3.9%	4.5%
$15,000-$24,999	9.9%	10.7%
$25,000-$34,999	14.1%	14.9%
$35,000-$49,999	21.1%	19.5%
$50,000-$74,999	17.7%	19.5%
$75,000-$99,999	10.1%	9.1%
$100,000 over	10.4%	8.4%
Don’t Know	2.8%	2.9%
Refused	9.9%	10.4%
Financial Dependents	1.52 (1.75)	1.50 (1.49)
Financial Attitudes and Behaviors	0.05 (0.97)	-.06 Q(0.98)
Risk Aversion	-.20 (0.99)	.22 (0.97)
Employer Education Yes	43.3%	46.1%
Savers	76.3%	79.9%
Retirement Confidence Scores	15.01 (3.61)	14.09 (3.46)

Factors Affecting Retirement Confidence: Regression Results on Gender Differences

Tables 3 to 5 show regression results on factors related to retirement confidence. In terms of men's retirement confidence (Table 3), age, education, income, financial attitudes and behavior, and having savings were significant factors. Younger men versus older were more confident about their retirement, controlling for other factors. Men who had higher levels of education tended to be more confident about their retirement compared to those who had lower levels of education, controlling for other factors. Income was positively related to retirement confidence of men. Those men who had positive financial attitudes and behaviors tended to be more confident regarding their retirement. Finally, having savings was positively related to retirement confidence for men. On the other hand, ethnicity, marital status, number of financial dependents, and risk tolerance were not statistically significant factors for men. Employer education, however, was approaching statistical significance on men's retirement confidence (p=.061). The standardized regression coefficients show the relative significance of each of the independent variables in explaining the variance of the dependent variable. The financial attitudes and behaviors variable was the most significant variable in retirement confidence for men.

In terms of women's retirement confidence (Table 4), education, income, financial attitudes and behaviors, risk tolerance, number of financial dependents, and savings were significant factors. Women who have higher levels of education were more confident about their retirement. Income was positively related to retirement confidence. Women who reported that they do not know their household income or refused to report their household income tended to have higher levels of retirement confidence, controlling for other factors.

Financial attitudes and behaviors and risk tolerance were positive factors on women's retirement confidence. Women who had positive financial attitudes and behaviors and those who had lower levels of risk aversion tended to be more confident about their retirement compared to other women. Having savings was positively related women's retirement confidence. On the other hand, the number of financial dependents was negatively associated with women's retirement confidence.

Table 3

Factors Affecting Retirement Confidence: Regression Results for Male Workers (N=291)

Variables	b	Beta	t
Age	-0.036	-0.108	-2.108†
Ethnicity (White)	0.335	0.038	0.758
Marital Status (Married)	0.174	0.023	0.436
Education	0.152	0.108	2.025*
Income (>$50,000)	1.478	0.21	3.720†
Income (DK, Refused)	0.381	0.034	0.629
Financial Dependents	-0.006	-0.032	-0.633
Financial Attitude and Behavior	1.158	0.328	5.918*
Risk Aversion	-0.195	-0.054	-1.084
Employer Education	0.631	0.090	1.817
Savings	1.472	0.171	3.239‡
Constant	11.82		8.346*

Note: F=13.89*** Adjusted R^2=.354
†p<.05, ‡p<.01, *p<.001.
The regression sample size for men (N=291) was reduced from the entire male worker sample (N=355) due to missing values in certain variables. The demographic characteristics of the regression samples were compared to the original worker samples and there were no systematic differences between the two samples.

Table 4

Factors Affecting Retirement Confidence: Regression Results for Female Workers (N=254)

Variables	b	Beta	t
Age	-0.002	-0.094	-1.669
Ethnicity (White)	-0.317	-0.035	-0.647
Marital Status (Married)	0.395	0.057	0.950
Education	0.204	0.126	2.313‡
Income (>$50,000)	1.543	0.226	3.559*
Income (DK, Refused)	2.139	0.203	3.530*
Financial Dependents	-0.254	-0.111	-2.004‡
Financial Attitude and Behavior	0.751	0.230	4.161*
Risk Aversion	-0.643	-0.186	-3.408‡
Employer Education	0.337	0.050	0.933
Savings	1.468	0.661	2.866‡
Constant	10.82		6.518*

Note: F=12.12* Adjusted R^2=.326
†p<.05, ‡p<.01, *p<.001.
The regression sample size for women (N=254) was reduced from the entire female worker sample (N=308) due to missing values in certain variables. The demographic characteristics of the regression samples were compared to the original worker samples and there

were no systematic differences between the two samples.

Results in Table 3 and 4 show similarities in factors affecting retirement confidence between men and women with minor dissimilarities. Age is one of the factors affecting retirement confidence for men but not for women. However, even though age was not a significant factor for women the direction of impact was similar to that of men. For men, younger workers tended to have higher levels of retirement confidence compared to older workers, controlling for other factors. This could reflect the fact that people generally become more concerned about retirement as they approach retirement age. The 2002 RCS showed similar results. Younger generations reported higher retirement confidence compared to older generations, and more people in younger generations reported that they are ahead of schedule in retirement planning and savings status (EBRI, n.d./2002c). This could be the result of planning early or could represent false confidence due to the belief that they would have adequate time to save for retirement.

Risk aversion level was a significant factor in the female worker sample only. Generally, previous research showed lower levels of risk aversion in men than women (cf. Bajtelsmit et al., 1999). This was true for the sample of this research (Table 2). The risk aversion scores between male and female workers were statistically different showing men's risk aversion is lower than women's. Research also revealed that the different levels of risk aversion result in different investment decisions and that such decisions lead to different investment outcomes. Previous research also suggests that women have lower levels of wealth due to their higher levels of risk aversion (Jianakoplos & Bernasek, 1998). The level of risk aversion was a significant factor for women's retirement confidence and it was positively related to retirement confidence in this study. It is possible that those women who had a lower level of risk aversion also had higher levels of wealth accumulated due to their shrewd investment decisions leading to more retirement confidence. This finding could imply a different psychological process between men and women. It is possible that risk aversion is an indirect factor of men's retirement confidence, while it is a direct factor of women's retirement confidence.

For female workers, those who answered that they do not know their household income or refused to report their household income tended to have higher levels of retirement confidence, whereas for male workers, there was little difference in retirement confidence between those who reported income and those who did not report income (Table 5, Equation 2, net effect for male workers = 2.14-1.80). Previous research has found that people with higher levels of wealth are less likely to report their income (Smith, 1995). It is unclear why this effect should be significant for female workers but not for male workers.

Dependent care has been an issue that affects more female workers than male workers. Previous research estimated that women have more dependent care issues than men (AARP, 1989). The current research findings support these previous studies. The number of financial dependents is a factor that has negative influence on female workers' retirement confidence

Table 5

Factors Affecting Retirement Confidence: Full Model Regression Results for Male and Female Workers (N=545)

Variables	Equation 1		Equation 2	
	b	Beta	b	Beta
Male	.52	.08†	.54	.08
Age	-.03	-.11‡	-.03	-.09
White	.15	.02	-.32	-.04
Married	.28	.04	.40	.05
Education	.17	.12‡	.20	.14†
Income (>$50,000)	1.59	.23*	1.54	.22‡
Income (DK, Refused)	1.22	.11‡	2.14	.20‡
Financial Dependents	-.13	-.06	-.25	-.12†
Financial Attitude&Behavior	.95	.27*	.75	.22*
Risk Aversion	-.40	-.11‡	-.64	-.18‡
Employer Education	.52	.08†	.34	.05
Savings	1.48	.17*	1.47	.17‡
Age * Male			-.06	-.01
Ethnicity*Male			.65	.09
Marital Status * Male			-.22	-.03
Education * Male			-.05	-.03
Income (>$50,000)*Male			-.06	-.01
Income (DK, Refused) *Male			-1.8	-.12†
Financial Dependent *Male			.19	.07
Financial Attitudes and Behavior * Male			.09	.07
Risk Aversion * Male			.45	.09
Employer Education *Male			.29	.04
Savings *Male			.003	.01
Constant	10.94*		10.81*	
F	23.82*		13.02*	
Adjusted R^2	.33		.34	

†p<.05, ‡p<.01, *p<.001.

To further examine the gender differences on the factors affecting retirement confidence, hierarchical regression analysis was conducted using the entire sample of working men and women. In the first step the entire sample of working men and women's retirement confidence was regressed with all 10 independent variables and gender. In the second step, in addition to the independent variables in the first step, gender interaction terms of each independent variable were included in the equation. The following table shows the hierarchical regression results. To reduce multicollinearity problems among the independent variables, mean centering was conducted as suggested by other researchers (Aiken & West, 1991; Jaccard, 2001).

Equation 1 in Table 5 shows significant factors affecting men's and women's retirement confidence. Men workers compared to female workers, those who were younger compared to older workers, those who had higher levels of education, those who had household income over $50,000, those who report their income as unknown or refused, those who exhibited more positive financial attitudes and behaviors, those who have lower levels of risk aversion, those who received financial education at their workplace, and those who had savings were more confident about their retirement compared to others, controlling other conditions. Table 5 also shows that when all the interaction terms of gender (male) and independent variables were included in the equation the R-square does not change significantly. Only one interaction term (Income (don't know and refused) and male) was significant. The interaction of risk aversion and male interaction was not quite significant. This suggests that even though gender was a significant factor affecting retirement confidence, similarities rather than dissimilarities exist in the factors affecting working men's and working women's retirement confidence.

Implications and Recommendations

The purpose of this study was to determine the factors affecting retirement confidence in the working population and whether they differ between males and females. Even though differences exist in male and female workers' retirement confidence level, there are many similarities in factors affecting retirement confidence for men and women. For both men and women, education, income, and financial attitudes and behaviors affect retirement confidence.

The level of income was a significant factor for both men's and women's retirement confidence. Previous research showed that there were no differences on retirement intentions between professional men and women, and professional women had low resources (Behling & Merves, 1985). Policymakers and social advocates must continue to promote equality in the workforce for women.

Financial education has been identified as one of the most significant factors influencing financial attitudes and behaviors (Bernheim & Garrett, 1996; Grable & Joo, 1999; Kratzer, Brunson, Garman, Kim & Joo, 1998). Financial attitudes and behaviors are one of the most significant factors affecting retirement confidence of both men and women in this study. Policy makers and employers need to pay attention to workplace education, because as a whole, workers' retirement confidence is positively related to workplace financial education. And the mode of communication should be carefully considered as well, since studies (Mastin, 1998) indicate that not all materials were understood or resulted in a change in behavior (an increase in retirement savings). Research showed minority women were more likely to report failure to receive material on retirement planning and savings (Alcon, 2000). Therefore, employers and educators need to develop effective workplace education programs that can reach out to all employees and improve employee participation in the education programs.

Financial planners and other experts should also take action in an effort to contact prospective female clients and attempt to cater to this niche in the market. In the 2000 Women's Retirement Confidence Survey (ASEC, n.d./2001), 1 in 10 women reported that their reason for not saving for retirement was that it takes too much time and effort. Financial planners can take advantage of this opportunity by providing financial planning services to women in a time efficient manner and marketing their services as not being time-intensive. For female workers, risk aversion was significantly related to the retirement confidence and this finding presents another opportunity for financial professionals. When working with female clients, financial professionals need to pay attention to the risk aversion level. Women might learn more to have more appropriate levels of risk aversion through education, services, and experiences on investment activities, because in some cases risk aversion can reflect investment experience (Grable & Lytton, 1999).

In addition, women and men should be encouraged to determine their financial retirement needs since research indicates that calculating retirement need increases the probability of making retirement contributions. In fact, research showed that 54 % of the women who calculated their retirement needs indicated that they made subsequent changes to their retirement planning (ASEC, n.d./2001). From the current sample, 54.8% of working men had calculated the retirement needs, whereas only 46% of working women had calculated the retirement needs. In addition, educators should encourage people to start planning for retirement early. The findings from this research showed younger male workers tended to report higher levels of retirement confidence.

Future research with various psychological variables is recommended to test possible differences in psychological process between men and women in retirement issues. The current survey does not include psychological factors, such as emotional stability and conscientiousness, which are identified psychological factors affecting retirement preparedness (Hershey & Mowen, 2000). Therefore, future research with broad psychological factors could be beneficial in explaining the gender differences in retirement. Other socio-economic factors, such as assets, could be significant factors in retirement confidence. Research incorporating such variables is also recommended. As discussed earlier, the factors related to retirement confidence could possess direct and indirect relationships between and among variables. Therefore, development of a model is recommended for future research. Replication of this study with different samples is also recommended. Finally, more research on the linkage between retirement preparedness and retirement confidence is recommended.

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