The Retirement Plan Dilemma: Who Is Best Prepared for Retirement in Today's Environment?

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This study examines the factors affecting retirement preparation through employer-sponsored retirement plans using the Survey of Consumer Finances' (SCF) 2019 data. Various socio-economic and demographic variables are analyzed for significance regarding employee participation in and contributions to employer sponsored retirement plans. Our results indicate that gender, marital status, age, race, financial literacy, risk tolerance, inheritance expectation, and income are all important factors that affect plan participation rates as well as contribution levels. For minority women, income appears to be the most crucial factor in increasing participation. The results provide some implications for policymakers about improving retirement plan policies for women and minorities. The findings may also help individuals make better retirement planning decisions, especially in the face of possible social security benefit shortages and pension plan changes. This study is of great importance, as current retirement plans place a greater responsibility on both employers and individuals for retirement planning.

Keywords: retirement preparation, employer-sponsored retirement plans, Survey of Consumer Finances

INTRODUCTION

When contemplating retirement, most Americans may think of Social Security benefits, which originated from the efforts of the Committee on Economic Security and began paying benefits on August 14, 1935 (Martin and Weaver, 2005). Due to demographic shifts, the Social Security program, after a period of expansion, is now facing significant challenges as an increasing number of retirees rely on a diminishing workforce (Martin and Weaver, 2005; Auerbach, et al., 2017). In addition, based on the 2023 reports from the Social Security and Medicare Boards of Trustees, the long-term unfunded obligations for Medicare and Social Security have exceeded $78 trillion (Boccia, R., 2023). Confronting financial difficulties, the Social

Security system is progressively increasing its full retirement age from 65 years to 67 years. Workers who choose early retirement cannot receive their Social Security benefits before turning 62 years old, and even then, they encounter a permanent reduction in their monthly benefit amount. For example, if you receive Social Security benefits at age 62 in 2023, your benefit would be about 30% lower than it would be at your full retirement age of 67 (SSA, 2022).

Due to insufficient social security funds, the pressure has shifted to employer-sponsored retirement plans. Approximately half of all U.S. households are covered by employer-provided plans (Kennickell and Sunden, 1997). In the absence of a nationwide supplement to Social Security, a significant portion of the 24 million workers aged 55-64 will confront a decrease in their quality of life or the risk of poverty in just 10 years because one-third of older workers are not covered by employer-sponsored retirement plans (Ghilarducci, 2017).

The purpose of this study is to analyze which factors affect employees' participation and contribution to employer-sponsored retirement plans and provide suggestions to stimulate the willingness of individuals to contribute to those plans, which is of great significance for the overall future of retirement funds. We use the 2019 Survey of Consumer Finances' (SCF) data to test our hypotheses. We estimate the probability of participation in employer-sponsored retirement plans with a probit regression, and contribution levels with an ordinary least squares (OLS) model. Our results show that gender, marital status, age, race, financial literacy, risk tolerance, inheritance expectation, and income are all important factors that affect plan participation rates as well as contribution levels.

This paper contributes to the existing literature in the following ways:

First, it uses the most up-to-date data available for this type of analysis. To the best of our knowledge, this is one of the most current studies that employ the latest SCF data in examining individual's contributions to employer-sponsored retirement plans. By doing so, this paper offers a contemporary perspective on such topics.

Second, this study delves into the multifaceted influences of demographic and individual financial factors. Whereas many previous studies have predominantly focused on one or a limited number of influencing factors, this paper takes a comprehensive approach. It explores a wider range of factors and provides a more holistic understanding of the variables affecting employees' contributions to retirement plans. This exploration offers valuable insights into the complexities of the issue.

Lastly, the analysis in this paper takes into account the unique challenges that minority women face when it comes to retirement planning. It recognizes that minority women often contend with different socio-economic realities compared to other demographic groups. By shedding light on their specific financial decisions regarding retirement, this research contributes to a more comprehensive understanding of the Diversity, Equity, and Inclusion (DEI) dimensions within retirement preparation.

The remainder of the paper is organized as follows. Section 2 provides a literature review and develops our hypotheses. Section 3 describes the data and research methods. Section 4 presents the results. Section 5 concludes.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Social Security Benefit

For most households, Social Security benefits are the most important sources of income during retirement. The Social Security Act (SSA) was signed into law in 1935. The original purpose of Social Security was to provide financial assistance to retired individuals. It provided for unemployment insurance, old-age insurance, and means-tested welfare programs. The initial 48 years of the Social Security program, from 1935-1983, were primarily characterized by periods of expansion (Martin and Weaver, 2005).

Although the 1983 reforms have generated large surpluses in the program, the retirement of the baby boomers and the shrinking workforce will result in the exhaustion of the Social Security fund by 2042 (Martin and Weaver, 2005).

Employer-Sponsored Retirement Plans

In addition to social security benefits, employer-sponsored retirement plans are another important branch of the U.S. retirement system. There are two forms of these plans: defined benefit plans and defined contribution plans.

Defined benefit plans are retirement arrangements where an employer or sponsor provides a predetermined pension payout. This payout is determined based on an employee's earnings history, length of service, and age, rather than being tied to the performance of individual investments.

The biggest issue with defined benefit plans is that they are not very widely adopted by private employers. Whereas 88 percent of public employees are covered by a defined benefit plan, only 32 percent of employees of large- and medium-sized employers have such a plan (Statesman, 2009).

On the other hand, defined contribution plans are retirement arrangements where both employers and employees contribute a portion of money into an individual account with each paycheck. Future benefits primarily depend on investment earnings. This type of retirement system alleviates the burden on the employers, as employees personally select and manage the types of investments.

Factors Affect Retirement Planning

Previous research has examined several demographic factors affecting planning for retirement (i.e., Power and Hira, 2004; Noone, et al., 2010; Hira, et al., 2009; Tamborini and Kim, 2020, etc.).

Power and Hira (2004) used a list of 1,609 eligible retirees who had retired from a major midwestern University in 1975 or later to investigate the university's retirement planning support. Their findings revealed that males were more likely than females to make larger contributions to their retirement funds, approaching the maximum, while females tended to contribute at the minimum level.

Using a subsample of 2,277 employed individuals from the New Zealand Health, Work, and Retirement Survey, Noone et al. (2010) found that women did not exhibit significant disparities from men in terms of their retirement perceptions or their informal retirement planning. However, women have lower levels of formal financial preparation for retirement because they participate less in paid employment.

Besides gender, marital status also affects retirement preparation. Szinovacz and Gerontology Institute (2013) found that married women exhibit a lower inclination to anticipate working beyond the ages of 62 and 65 compared to unmarried women and men. Furthermore, married women are more likely than individuals in any other marital status category to cease working upon retirement.

In addition, Knoll et al. (2012) studied how marital status affects retirement savings behavior among young individuals. They used SCF survey data concerning young adult households aged 22 to 35. Their results showed that married young adults prioritized retirement savings as a crucial goal more often than any other group. Moreover, married individuals showed a higher likelihood of having individual retirement accounts, and they are also more likely to participate in defined contribution plans compared to their single counterparts.

Previous studies on demographic factors as predictors of retirement planning have consistently found age to be a key factor. Older people are more likely to plan for their retirement. This finding has been supported by Lim (2003) and Ng et al. (2011).

Hira et al. (2009) used three age groups to investigate the factors influencing retirement planning behavior: individuals aged 21 to 39, those aged 40 to 59, and those aged 60 and above. They found that respondents in the two younger age groups, 21 to 39 and 40 to 59, were more likely to maximize their contributions if they had actively saved during the past six months. They also found that individuals in the 40 to 59 age group and those aged 60 and above were more likely to maximize their retirement contributions if they had automatic deposits.

Ethnic minorities have been documented to have less access to employer-sponsored retirement plans, which leads to fewer contributions. Butrica (2010) mentioned that white employees are more likely to work for employers who provide retirement plans, whereas Hispanic employees are the least likely to do so. In 2009, 64.6 percent of white workers had access to employer-sponsored retirement plans. In contrast, only 55.7 percent of black wage and salary workers and 38.4 percent of Hispanic wage and salary workers were employed by companies offering retirement plans.

Tamborini and Kim (2020) explored the extent of variation in retirement plan savings by race using the data from the Census Bureau's 2004 and 2008 panels of the Survey of Income and Program Participation, linked to restricted-access W-2 tax records compiled by the Social Security Administration. Their results indicate that participation and contributions in defined contribution retirement plans are lower among black and Hispanic workers compared to white workers, whereas Asian Americans exhibit higher levels of participation and contributions.

Based on the above-mentioned research findings, we hypothesize that the following demographic characteristics are associated with employees' participation and contributions to employer-sponsored retirement plans:

H1a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and gender.*

H1b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and gender.*

H2a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and marital status.*

H2b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and marital status.*

H3a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and age.*

H3b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and age.*

H4a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and race.*

H4b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and race.*

Besides demographic characteristics, personal finance factors are also documented to affect retirement preparations (i.e., Lusardi and Mitchell, 2011; Mahdzan et al., 2017; DeVaney, 1995; Vivel-Búa et al., 2019, etc.).

Lusardi and Mitchell (2011) analyzed financial literacy in the United States using the 2009 National Financial Capability Study. Their findings demonstrate a significant relationship between higher scores on financial literacy questions and an increased likelihood of retirement preparation.

Similar to the findings of Lusardi and Mitchell (2011), Clark et al. (2017) also discovered that higher levels of financial literacy positively impact retirement saving behaviors using the administrative data from Federal Reserve system employees. They found that Federal Reserve employees have a notably higher level of financial literacy compared to the general population. In addition, they assessed changes in employee plan behavior one year after completing a learning module on retirement planning. Their results indicated that employees who completed the learning module were more likely to contribute to the defined contribution plan.

Some international studies also find similar results. For example, Moure (2016) studied retirement planning in Chile, a country where mandatory defined contribution pension plans are important to its retirement policy. The findings indicated that very few Chileans are actively preparing for retirement, and

their financial literacy levels are notably low. Furthermore, the study revealed a positive and significant association between financial literacy and retirement planning.

Mahdzan et al. (2017) collected data through a self-administered questionnaire from a sample of 270 employed individuals in Malaysia. The results from the logistic regression demonstrated that future expectations significantly influence the likelihood of planning for retirement. Individuals with higher levels of financial literacy and lower risk aversion are more likely to include risky assets in their retirement portfolios.

In terms of risk preferences, Clark and Strauss (2008) used a random sample of the British adult population to examine people's attitudes towards pension-related risks. The study showed that individuals who participate in employer-sponsored retirement plans may not fully comprehend the varying risks associated with different plans. Furthermore, their analysis showed that there are no statistically significant differences in the risk preferences of respondents based on the type of retirement plans they participated in.

Inheritance is an important part of retirement wealth (Harrington, 2008). Based on the information from the Federal Reserve Bank, around $200 billion is transferred annually from parents to their children in the form of inheritances. Projections by the Boston College Center for Wealth and Philanthropy suggest that by 2050, the baby boomer generation will inherit over $25 trillion (Hinson, 2006).

How inheritance expectation affects retirement planning is a matter of concern for many researchers. Using the 1989 Survey of Consumer Finances, DeVaney (1995) found that the expectation of inheriting a substantial sum of money is positively related to the likelihood of retirement preparation for the younger baby boomers. However, the inheritance expectation is not significant for the older baby boomers.

Income is also a vital metric in various aspects related to retirement preparations. As a worker's income increases, the likelihood that he or she will participate in a retirement plan also increases. In 2012, for individuals earning less than $5,000 annually, only 14 percent were enrolled in a retirement plan, in contrast to 79 percent of those earning $50,000 or more (Copeland, 2013).

Vivel-Búa et al. (2019) investigated an annual survey designed for households of the Spanish population. The survey data show that income plays a substantial role in influencing the choice to engage in private pension plans and the amount saved. Specifically, for every €1,000 increase in household income, there is an associated annual rise in retirement contributions of €26.30.

Based on the literature discussed above, we have the following hypotheses related to personal finance factors:

H5a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and financial literacy.*

H5b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and financial literacy.*

H6a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and financial risk willingness.*

H6b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and financial risk willingness.*

H7a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and inheritance expectations.*

H7b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and inheritance expectations.*

H8a: *There is a significant relationship between employee participation in employer-sponsored retirement plans and total income.*

H8b: *There is a significant relationship between employee contributions to employer-sponsored retirement plans and total income.*

DATA AND RESEARCH METHODS

Data

The data used in this study are from the Survey of Consumer Finances (SCF) conducted in 2019. The SCF is supported by the Board of Governors of the Federal Reserve System in collaboration with the Statistics of Income Division of the Internal Revenue Service. Data collection for the 2019 SCF was carried out by NORC, a social science research center affiliated with the University of Chicago. The 2019 Survey of Consumer Finances (SCF) is the latest conducted survey.

Missing data are addressed through multiple imputations, resulting in five distinct imputation replicates. Consequently, the dataset comprises 28,915 records for the 5,783 interviewed families. To protect privacy, six families were removed from the public version of the dataset, leaving 28,885 records of 5,777 families.

Research Methods

We have two dependent variables in this study. The first one is whether an individual participates in employer-sponsored retirement plans. The second one is an individual's contributions to employer-sponsored retirement plans. The retirement plans under this study include both defined benefit plans and defined contribution plans.

Since our first dependent variable is a binary variable with only two possible values: participation (Y=1) and non-participation (Y=0). Probit regression is suitable for this type of study (Long, 1997). We use the following model to observe the statistical significance of our independent variables on whether an individual participates in an employer-sponsored retirement plan.

$$\text{Participation} = \alpha + \beta_1 \text{ gender} + \sum\beta_{2\text{-}6} \text{ marital status} + \beta_7\text{Age} + \sum\beta_{8\text{-}10}\text{Race} + \beta_{11} \text{ financial literacy} + \beta_{12} \text{ Risk tolerance} + \beta_{13} \text{ Inheritance expectation} + \beta_{14} \text{ income} + \varepsilon \quad (1)$$

where:

- Participation =1 if the individual participates in an employer-sponsored retirement plan, and 0 otherwise.
- Gender=1 if the individual is a male and 0 for a female.
- Marital status = Five dummy variables: Married, Living with partner, Separated, Divorced, and Widowed. Married takes a value of 1 if the individual is married, and 0 otherwise. The same coding applies to other dummy variables.
- Age = The reconciled age in the SCF 2019 survey data.
- Race = Three dummy variables: White, Black, and Hispanic. White takes a value of 1 if the individual is white, and 0 otherwise. The same coding applies to other dummy variables.
- Financial literacy = zero to ten, where zero is not at all knowledgeable about personal finance and ten is very knowledgeable about personal finance.
- Risk tolerance = zero to ten, where zero is not at all willing to take risks and ten is very willing to take risks.
- Inheritance expectation = 1 if the individual expects to receive a substantial inheritance or transfer of assets in the future, and 0 otherwise.
- Income = The total income received in 2018 from all sources, before taxes and other deductions were made.

Our second dependent variable is contribution percentage. We use the following ordinary least squares (OLS) model to test our hypotheses related to this dependent variable.

Contribution = $\alpha + \beta_1$ gender + $\sum\beta_{2\text{-}6}$ marital status + β_7Age+ $\sum\beta_{8\text{-}10}$Race+ β_{11} financial literacy + β_{12}Risk tolerance+ β_{13} Inheritance expectation+ β_{14} income+ ε (2)

where: Contribution = Percent of pay contributed currently per pay period*100

The definitions of the independent variables are the same as in Model 1.

RESULTS

Table 1 reports the summary statistics of the dependent and independent variables of the full sample. The mean of Participation is 0.29, which means that 29% of the respondents participated in an employer-sponsored retirement plan. Contribution has a mean of 191.08, suggesting that on average, the respondents contributed 1.91% of their pay each pay period. For the SCF 2019 survey, 78% of the respondents are male, 54% are married, 72% are White, and 15% expect to receive a substantial inheritance or transfer of assets in the future.

The average age of the respondents is 53.22 years. When asked about their knowledge of personal finance on a scale from 0 to 10, with 0 indicating no knowledge and 10 indicating very knowledgeable, the respondents had an average score of 7.4 and a median score of 8, indicating that, on average, the respondents are confident in their personal finance knowledge. When asked about their willingness to take risks on a scale from 0 to 10, with 0 indicating not at all willing to take risks and 10 very willing to take risks, the respondents had an average score of 4.83 and a median score of 5, showing that the respondents hold a neutral attitude towards risk on average. The median total income of respondents in 2018 was 75,000.

TABLE 1
SUMMARY STATISTICS OF THE FULL SAMPLE OF THE SCF2019 SURVEY

Variables	N	Mean	Median	Lower quartile	Upper quartile	Std Dev
Participation	28,885	0.29	0	0	1	0.45
Contribution	28,885	191.08	0	0	200	444.78
Gender	28,885	0.78	1	1	1	0.42
Marital Status:	28,885					
Married	28,885	0.54	1	0	1	0.50
Living with partner	28,885	0.09	0	0	0	0.28
Separated	28,885	0.02	0	0	0	0.15
Divorced	28,885	0.13	0	0	0	0.33
Widowed	28,885	0.07	0	0	0	0.25
Age	28,885	53.22	54	40	65	16.24
Race:	28,885					
White	28,885	0.72	1	0	1	0.45
Black	28,885	0.13	0	0	0	0.34
Hispanic	28,885	0.10	0	0	0	0.30
Financial literacy	28,885	7.40	8	6	9	2.14
Risk tolerance	28,885	4.83	5	3	7	2.73
Inheritance expectation	28,885	0.15	0	0	0	0.36
Total Income	28,885	947,912	75,000	35,000	190,000	10,005,235

Table 2 shows the probit and OLS regression results. Our results are consistent with prior literature that gender, marital status, age, race, financial literacy, risk tolerance, inheritance expectation, and total income are important factors related to retirement preparation.

To be more specific, in terms of the participation rates, the probit model shows that, holding all other variables constant, being male is associated with a 12 percent increase in the probability of participating in an employer-sponsored retirement plan. This increase is very significant at the 1% level. However, in terms of the percent of pay contributed per pay period, males contribute less, but this coefficient of the OLS model is insignificant.

In terms of the marital status dummy variables, compared to the never-married respondents (the baseline group), the married respondents are less likely to participate in an employer-sponsored retirement plan (Coefficient=-.43, p-value <.0001), but they contribute a higher percentage of their pay each pay period (Coefficient=70.94, p-value <.0001).

Age is positively related to Participation (Coefficient=0.02, p-value <.0001) which is consistent with prior studies (Lim, 2003 and Ng et al., 2011). However, age is negatively related to Contribution (Coefficient=-3.75, p-value <.0001).

Race is also significantly related to Participation and Contribution. Although black and Hispanic respondents are more likely to participate in an employer-sponsored retirement plan, they contribute less percentage of their pay to employer-sponsored retirement plans.

Contrary to the research results of Lusardi and Mitchell (2011), our findings indicate that having knowledge about personal finance reduces the likelihood of participation, but those who have more personal finance knowledge contribute a higher percentage of their pay to employer-sponsored retirement plans.

Moreover, willingness to take risks is negatively related to Participation but positively related to Contribution. Expectation to receive a substantial inheritance has the same signs.

Finally, higher income leads to higher participation rates but lower contribution percentages of pay. This makes sense because, with higher income, even a smaller percentage represents a substantial number.

TABLE 2
PROBIT AND OLS REGRESSION RESULTS (FULL SAMPLE)

	Probit Model			**OLS Model**		
	Participation			**Contribution**		
Independent Variable	**Coefficient**	**Chi-Square**	**Pr > ChiSq**	**Coefficient**	**t Value**	**Pr > |t|**
Intercept	-0.07	1.58	0.21	271.04***	16.30	<.0001
Gender	0.12***	18.10	<.0001	-7.50	-0.89	0.37
Marital Status:						
Married	-0.43***	229.97	<.0001	70.94***	7.95	<.0001
Living with partner	-0.02	0.39	0.53	-25.45**	-2.20	0.03
Separated	-0.20***	11.46	0.00	23.16	1.30	0.19
Divorced	-0.25***	56.47	<.0001	30.24***	2.94	0.00
Widowed	0.29***	28.88	<.0001	-12.91	-0.97	0.33
Age	0.02***	1314.37	<.0001	-3.75***	-20.02	<.0001
Race:						
White	0.04	1.52	0.22	-5.20	-0.46	0.65
Black	0.17***	18.16	<.0001	-43.22***	-3.29	0.00
Hispanic	0.49***	129.49	<.0001	-101.12***	-7.40	<.0001
Financial literacy	-0.02***	26.41	<.0001	4.72***	3.61	0.00

Probit Model	**OLS Model**

Independent Variable	Participation			Contribution		
	Coefficient	**Chi-Square**	**Pr > ChiSq**	**Coefficient**	**t Value**	**Pr > |t|**
Risk tolerance	-0.05***	250.01	<.0001	13.92***	13.81	<.0001
Inheritance expectation	-0.10***	22.48	<.0001	23.77***	3.22	0.00
Total Income	0.00	7.83	0.01	-0.00***	-3.72	0.00
N	28,885			28,885		
Adjusted-R^2				0.0384		
F Statistic					83.38***	<.0001

***, **, * denotes significance at the 1%, 5%, and 10% levels respectively.

The full sample includes all participants, some of whom are self-employed or not eligible for an employer-sponsored retirement plan. Some have exceeded the normal retirement age for defined benefit plans, usually 65. To address those issues, we use a subsample of those who are not self-employed, under 65 years old, and are eligible to be included in an employer-sponsored retirement plan as a robustness check. Our subsample comprises 2,356 observations.

Table 3 demonstrates the probit and OLS regression results from the subsample. The results are similar to the full sample. Gender still plays an important role. Males have a 18% higher probability of participating while they tend to contribute less percentage of their pay to employer-sponsored retirement plans. Most of the marital status dummy variables have negative coefficients. Since the base group is never married, which means all other marital statuses are less likely to participate in a retirement plan compared to those who are never married. White, Black, and Hispanic respondents all have higher participation rates and lower per paycheck contribution compared to the based group, which consists of Asian, American Indian, and Hawaiian Native respondents.

Financial literacy is insignificant for both participation and contribution models. This might be because the measure of financial literacy in this study is the self-identified level of personal finance knowledge. Risk tolerance is negatively related to Participation but positively related to Contribution.

Unlike the results of the full sample, inheritance expectation is positively related to participation but negatively related to the level of contribution. Finally, total income is still negatively related to contribution, which is measured by the percentage per paycheck.

Based on the findings from Tables 2 and 3, we notice that women have a lower participation rate in employer-sponsored retirement plans than men. Minorities, as the baseline group, also show a lower participation rate. Policymakers aimed at addressing economic disparities need to consider the specific needs of minority women. Therefore, we investigated what factors may affect minority women's participation and contributions to employer-sponsored retirement plans.

The test results are shown in Table 4. Married, living with a partner, and divorced minority women are less likely to participate in an employer-sponsored retirement plan. On the other hand, widowed minority women are more likely to participate. However, they tend to contribute a smaller amount of their pay. Consistent with prior research, older minority women are more likely to participate. Financial literacy, risk tolerance, and inheritance expectation negatively affect participation rates but positively affect contribution percentages. For minority women, if they have higher incomes, they will be more inclined to participate in employer-sponsored retirement plans.

TABLE 3
PROBIT AND OLS REGRESSION RESULTS (SUBSAMPLE)

	Probit Model Participation			OLS Model Contribution		
Independent Variable	**Coefficient**	**Chi-Square**	**Pr > ChiSq**	**Coefficient**	**t Value**	**Pr > |t|**
Intercept	1.44***	46.10	<.0001	-0.69	-0.02	0.98
Gender	0.18*	2.74	0.10	-30.41*	-1.79	0.07
Marital Status:						
Married	-0.49***	18.06	<.0001	55.75***	3.11	0.00
Living with partner	-0.24**	3.69	0.05	42.89**	2.21	0.03
Separated	-0.64***	16.93	<.0001	36.16	1.25	0.21
Divorced	-0.11	0.77	0.38	-20.25	-0.97	0.33
Widowed	5.58	0.00	1.00	-114.64***	-2.48	0.01
Age	-0.01***	15.19	<.0001	2.06***	4.14	<.0001
Race:						
White	0.29**	5.33	0.02	-16.54	-0.70	0.48
Black	0.56***	15.05	0.00	-73.04***	-2.82	0.00
Hispanic	1.01***	34.48	<.0001	-128.40***	-4.67	<.0001
Financial literacy	0.00	0.00	0.97	3.79	1.30	0.19
Risk tolerance	-0.05***	11.49	0.00	7.22***	3.34	0.00
Inheritance expectation	0.08	0.89	0.35	-40.52***	-2.84	0.00
Total Income	0.00	2.16	0.14	-0.00**	-2.16	0.03
N	2,356			2,356		
Adjusted-R2				0.0465		
F Statistic					9.20***	<.0001

***, **, * denotes significance at the 1%, 5%, and 10% levels respectively.

TABLE 4
PROBIT AND OLS REGRESSION RESULTS OF MINORITY WOMEN

	Probit Model Participation			OLS Model Contribution		
Independent Variable	**Coefficient**	**Chi-Square**	**Pr > ChiSq**	**Coefficient**	**t Value**	**Pr > |t|**
Intercept	0.73***	34.08	<.0001	87.77***	3.04	0.00
Marital Status:						
Married	-0.93***	27.32	<.0001	208.92***	4.46	<.0001
Living with partner	-0.36**	4.19	0.04	23.72	0.52	0.60
Separated	-0.12	1.23	0.27	-5.20	-0.20	0.84
Divorced	-0.36***	22.95	<.0001	21.45	1.15	0.25
Widowed	0.25**	5.06	0.02	-55.35**	-2.26	0.02
Age	0.01***	40.37	<.0001	-1.35***	-2.57	0.01
Financial literacy	-0.06***	25.72	<.0001	12.81***	4.55	<.0001
Risk tolerance	-0.03***	7.17	0.01	7.42***	3.26	0.00

Inheritance expectation	-0.34***	6.24	0.01	172.74***	4.82	<.0001
Total Income	0.00***	12.29	0.00	0.00	1.57	0.12
N	2,515			2,515		
Adjusted-R2				0.0458		
F Statistic					12.02***	<.0001

***, **, * denotes significance at the 1%, 5%, and 10% levels respectively.

CONCLUSION

In many countries, governments are facing the challenge of ensuring an adequate retirement income for an increasingly aging population, driven by decreased mortality rates. The aging demographic places significant financial pressure on government budgets due to rising welfare expenditures and a decrease in the proportion of working-age taxpayers.

According to the Social Security and Medicare Boards of Trustees' 2023 report, there will be a significant shortfall in Medicare and Social Security in the future. More and more people are now relying on employer-sponsored retirement plans. It is of significant importance for individuals who want to maintain a stable standard of living in retirement to understand and participate in such plans. This paper delves into some factors that influence participation and contributions to employer-sponsored retirement plans.

Results from this study indicate that women have a lower participation rate in employer-sponsored retirement plans than men. Most marital statuses (i.e. Married, Living with a partner, Separated, Divorced) have lower participation rates than the never-married group. Ethnic minorities, such as Asian, American Indian, and Hawaiian Native respondents have lower participation rates as well.

In terms of contribution, women and those who are married seem to contribute a significant portion of their pay to retirement plans, compared to other groups.

The additional test of minority women shows that high-income individuals are more likely to prepare for retirement, i.e., by participating in employer-sponsored retirement plans. However, those who are married or have a partner are less likely to participate. Increasing the income of minority women and encouraging married minority women to participate can be effective strategies to boost their participation rates.

Our research results provide some implications for policymakers about improving retirement plan policies for women and minorities. Our findings may also help individuals make better retirement planning decisions, especially in the face of possible social security benefit shortages and pension plan changes. The reduced sample size of eligible respondents suggests that it is very important for enterprises to provide retirement plans to more individuals. This is also very important for companies to attract talent because employees consider retirement plans when joining a company.

When the 2022 survey data are available to the public, future research can use the new data to test how COVID-19 affects individual participation and contribution to employer-sponsored retirement plans. The current SCF survey data does not provide enough data to test whether factors affect defined benefit plans and defined contribution plans differently. If there are data available, these studies can also be conducted in the future.

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