



Women's Pathways to Financial Well-being

The Fundamentals

Gender inequalities: midlife and beyond

Women are in a disadvantaged position when it comes to maintaining financial security into late life. In a study analyzing cumulative wealth of a representative older American sample (i.e., 50 years old and above; [1]), older men were shown to have accumulated more wealth than women. This gap has been shown to be \$100,000 at a minimum. Findings from the Health and Retirement Study (HRS) also show that older women earn significantly less than men in terms of salary and pension income (Figure 1).

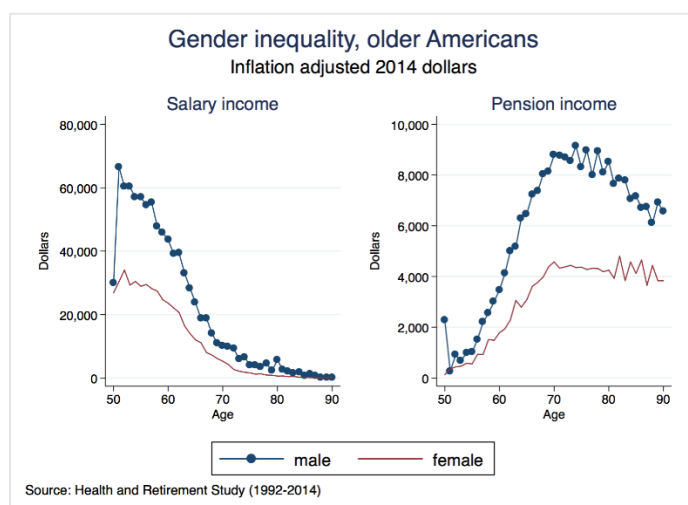


Figure 1 Gender gaps in salary and pension incomes

Gender inequalities: the fourth age

When examining people aged 75 years and older, the [Sightlines Project](#) shows that older women are particularly prone to falling behind men. In general, fewer women (57%) than men (63%) were classified as financially secure. More specifically, as of 2015, more women (48%) than men (33%) lived below the poverty line and fewer women (28.2%) than men (34%) had a retirement plan.

The observed inequality in the second half of life is concerning. Women on average live longer than men and require financial resources to support themselves independently. In 2015, life expectancy was 76.3 years for men and 81.2 years for women [2]. To prepare

future generations of women for this situation, it is critical to promote financial preparedness for women of all ages today.

According to a recent analysis of the National Capability Financial Survey [3], compared to men, about 20% fewer women consider themselves to be the most financially knowledgeable in their household – and this holds across generations. However, among women there appears to be generational growth, with 7% more younger women claiming that position when comparing married Millennial women (53%) versus married Boomer women (40%). A variety of arguments have been proposed that suggest gender gaps observed in late life are no longer relevant among younger generations, such as Millennials. For example, relative to men in previous generations:

1. [Younger women are more likely to be recruited for jobs and educational opportunities in math, and thus may have attained higher levels of financial literacy.](#) Research shows that girls perform as well as boys in standardized scores in math throughout high school [4]. More women join the workforce in some STEM fields, specifically physical and life sciences: the percentage of female workers rose from 36% in 2000 to 40% in 2009 and 43% in 2015 [5] [6].
2. [Younger women are more likely to be college educated and thus may feel more confident in their ability to make financial decisions.](#) In 2005, women (32.3%) are equivalent to men (32.7%) in their attainment of a bachelor's degree [7]. A recent report released by the Stanford Center on Poverty and Inequality indicates that women benefit more financially from college education compared to their male counterparts [8].
3. [Younger women are more likely to be single longer and thus, may be more likely to make their own financial decisions.](#) The percentage of women who are never married between age 25 and 29 increased from 26.9% in 1986 to 46.8% in 2009 [9].

Study Overview

Why do we still see gender gaps in financial literacy?

Given the advancements described above, it is reasonable to expect the gender gap to be narrowing in younger generations. Nevertheless, multiple studies consistently show that men still outperform women in financial knowledge, or financial literacy [10, 11, 12].

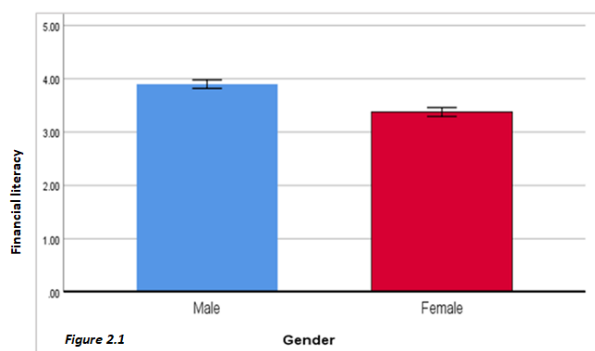
One reason for this persistent gender gap in financial literacy posited by experts across social sciences may involve women's relative lack of confidence in making financial decisions. Less known is how this may also link to actual involvement in making different types of financial decisions ranging from daily household expenditures to higher stakes investments. To explore the role of confidence and involvement in financial decisions, we surveyed a nationally-representative sample (N = 1734) aged from 20 to 94 through the RAND American Life Panel. From this study we hope to better understand the importance of confidence and involvement in financial decision making across age groups in order to bolster women's financial literacy as well as to further women's chances to reach important financial milestones at various life stages.

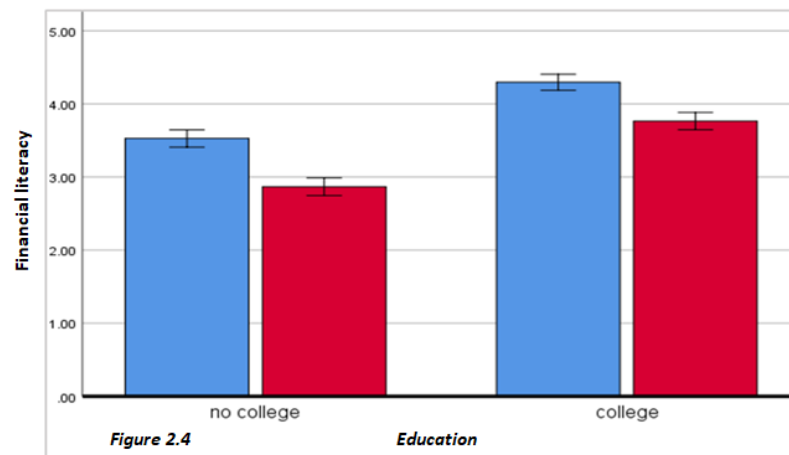
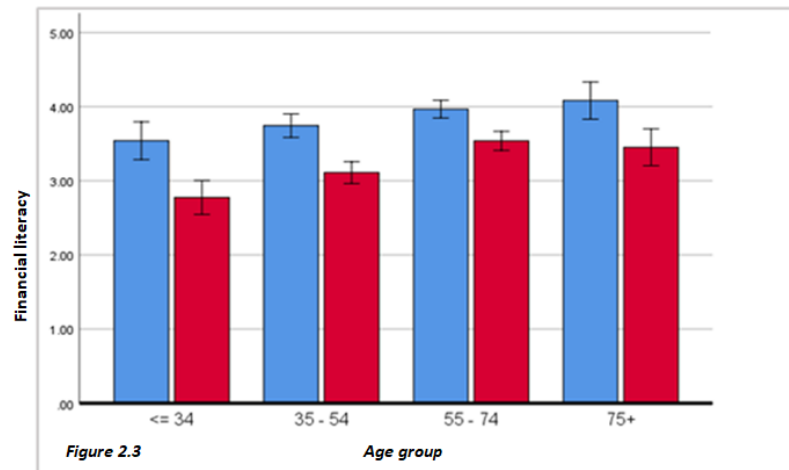
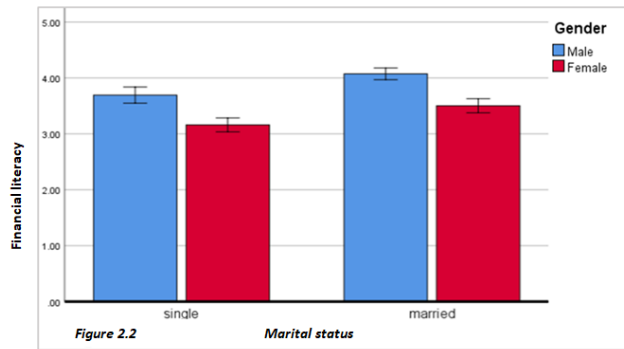
Financial literacy

Financial literacy is a robust indicator of financial well-being linked to higher rates of financial security in late life [13]. In recent years, many programs have been implemented to enhance financial knowledge (see [Chapter 8 - A Critical Review of Financial Education Programs for All](#)). Successful financial education interventions, then, should also help to narrow gender gaps in financial literacy. Despite recent advancements in gender equality described earlier and advocacy of financial education, recent studies show that the literacy gap favoring men remains persistent across basic financial quizzes as well as in more advanced financial investment performance tests. For example, in a 2018 report based on the National Financial Capability Study conducted by the FINRA investor education foundation, young millennial women were found to have lower financial literacy than men across generations [3]. Notably, sociodemographic factors did little to explain gender disparities (e.g., income levels; [12]; age, race, education, family income, marital status; [11]).

Using five basic questions (e.g., suppose you have \$100 in a savings account earning 2 percent interest a year. After five years, how much would you have?), our study replicated these findings in a separate sample evenly stratified by age groups and education levels. Overall, women answered fewer questions correctly than men (see Figure 2.1; for a complete quiz, see [19]). As shown in Figure 2.3, Millennial women (i.e., the youngest group age 34 and younger) scored the lowest on the financial literacy survey, both compared to men and to their older female counterparts. Similar to past research, when we controlled for sociodemographic factors, gender disparities persisted.

We further broke down gender differences in financial literacy scores by education, age, and marital status -all factors mentioned previously that might influence gender differences in financial knowledge. Gender gaps were not specific to less educated women, older women, or married women. As shown in Figures 2.2-2.4, regardless of any of these characteristics, women underperformed men across the board.





Figures 2.1-2.4 Gender differences in financial literacy performance (i.e., correct answers)

Note. Error bars = $SE \pm 2$. Married persons scored higher than single persons; the two older groups scored higher than the two younger groups; individuals with a bachelor's degree scored higher than those without.

Confidence and involvement in making financial decisions as precursors to vs. outcomes of financial knowledge

Given the robustness of this gender gap, it may be that focusing on teaching financial knowledge is not the optimal intervention. Rather, it may be more tenable to address psychological factors like confidence, which have great potential to accelerate or decelerate the acquisition and retention of information. Linking confidence and knowledge are not new ideas in the domain of finance. However, most research assumes lower levels of confidence are a direct result of lower levels of financial literacy, rather than the other way around. In the current study, we examined whether gender disparities in lack of financial knowledge are a result of a more generalized psychological process including feelings of confidence and actual experience, or instead result from involvement in financial decision-making.

Confidence in making financial decisions

Our first aim was to examine the role of confidence in explaining gender differences in financial literacy. It has long been documented that women generally have lower self-esteem than men [14]. Compared to boys, girls show a greater lack of confidence in the ability to excel at tasks that require “being smart” among those as young as age 6 [15]. Moreover, women repeatedly report feeling less capable at mastering mathematics [16], which is likely critical to acquiring numerical skills such as financial knowledge. More directly, women feel less confident in their ability to achieve financial goals compared to men [17]. Taken together, research suggests confidence is related to financial knowledge, but we do not know whether confidence in making financial decisions explains, or is a precursor to, women’s lower financial literacy performance.

Involvement in financial decision-making

In addition to confidence, research also suggests the importance of learning by doing for women because women generally have fewer opportunities to practice making financial decisions themselves (e.g., wealth management; [18]). Indeed, men are more likely than women to be responsible for financial decisions that require greater financial knowledge [11]. About half of men considered themselves to be the primary person for filing taxes and tracking investments and insurance. Only about one-third of women reported being the primary household decision maker. By contrast, women, more frequently than men, reported being the primary person in their household in charge of paying bills (women: men = 51.2%: 36.9%) and making short-term spending decisions (women: men = 43.2%: 24.6%).

Of note, involvement in higher level financial decisions has been associated with better financial literacy in married couples, although this is primarily driven by married men [11]. Across all decisions measured (i.e., paying bills, preparing taxes, making short-term and long-term spending plans, and tracking investments and insurance), married men who were highly involved in making the decisions scored higher on financial literacy than those married men who were uninvolved. Among married women, as involvement increased, the increase in financial literacy was limited to two types of decisions: high involvement in preparing taxes and in making long-term spending plans. These findings suggest that married women do not attribute their experience in financial decision making to confidence in their own capabilities, in contrast to men.

Taken together, while gender disparities in finance are ubiquitous, the path by which these gaps are produced and reinforced is still unclear. Still too often, gender differences are attributed to women's lack of knowledge despite evidence against this explanation. Consequently, it is difficult to ascertain when and for whom an intervention will ensure optimum impact on women's financial future. In the current study, we investigate the role of both confidence and involvement as predeterminants of women's financial literacy. As such, we can assess the potential of enhancing confidence and experience in improving financial outcomes of women.

Hypotheses

Pathway A: Confidence in Financial Decision Making

1. Women will show less confidence than men in making financial decisions.
2. Women's lower confidence will account for lower levels of financial literacy.

Pathway B: Involvement in Financial Decision Making

3. Women will be less involved in financial decision making than men and these differences will be most pronounced among married women.
4. Greater involvement in financial decision making will predict higher financial literacy and this association will be less pronounced among married women.

The specifics

We measured confidence both in terms of the number of times a respondent indicated "don't know" on a quiz assessing financial literacy [19]. We also asked respondents to indicate how confident they felt when making a variety of financial decisions described below using a 5 point scale (1 = not at all confident; 5 = extremely confident).

We assessed both financial experience, or involvement, and confidence across a variety of household and non-household decisions (see Table 1). In addition to confidence, respondents indicated on a 5 point scale how involved they were in each of the following decisions with lower scores indicating higher degree of involvement (1 = I am the sole decision maker; 3 = I make these decisions with someone else; 5 = Someone else is the sole decision maker).

Table 1 Household and non-household financial decisions

Household	Non-household	
	Periodic	Long range
• Making utility bill payment	• Auto loans	• Retirement plan
• Managing household budget	• Auto insurance	• Investing
• Buying home appliance	• Car purchase	• Home loans
• Shopping for groceries	• Health insurance	
	• Tax preparation	
	• Home search	

Note. Periodic and long-range financial decisions were grouped together as non-household decisions in our analyses because they showed similar gender differences patterns.

Pathway A: Confidence in making financial decisions

1. Do gender gaps persist across different aspects of financial confidence?

When examining financial confidence as represented by number of “don’t know” responses on a financial literacy quiz, we found that in line with other surveys, women answered “don’t know” almost twice as often as men (19.4% vs. 10%).

When examining levels of confidence specific to household decisions (e.g., making utility bill payment), contrary to hypothesis 1, we found *no* gender differences. Consistent with hypothesis 1, women, were less confident than men in making non-household financial decisions (e.g., tax preparation, home loans). Lower confidence in non-household decisions among women was robust across age groups and marital status (see Figure 3). Education (i.e., had a college degree or not) had no effect on confidence. Note that our findings show that millennial women (i.e., the youngest group) were the least confident compared to the older groups. Among women, those who were single (i.e., never married or widowed) were more confident than those who were married in making non-household financial decisions. This pattern was not found in men (see Figure 4).

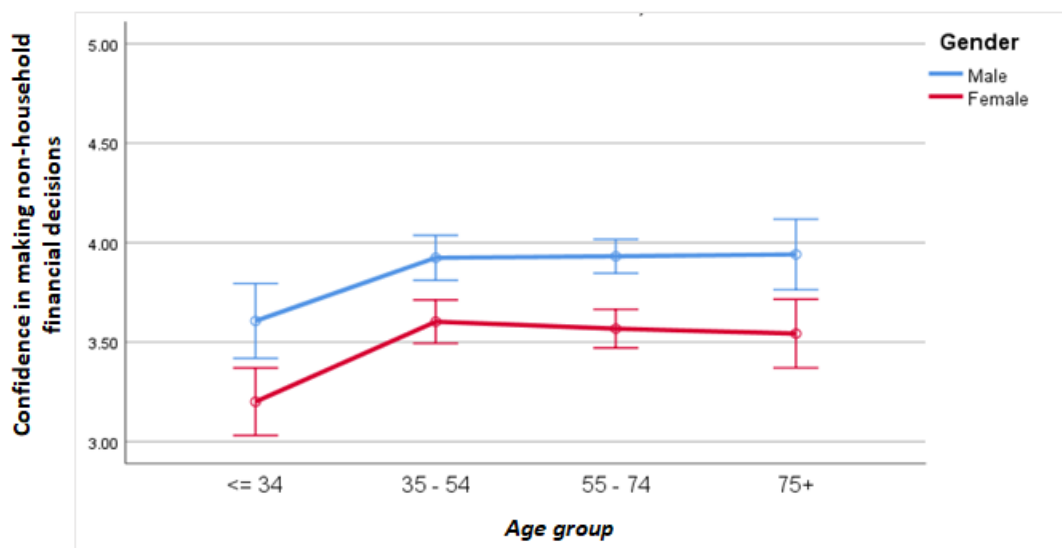


Figure 3 Confidence in making non-household financial decisions by gender and age group

Note. Confidence scores range from 1 to 5. Error bars = $SE \pm 2$ with marital status and education as covariates. The youngest group scored lower than the three older groups.

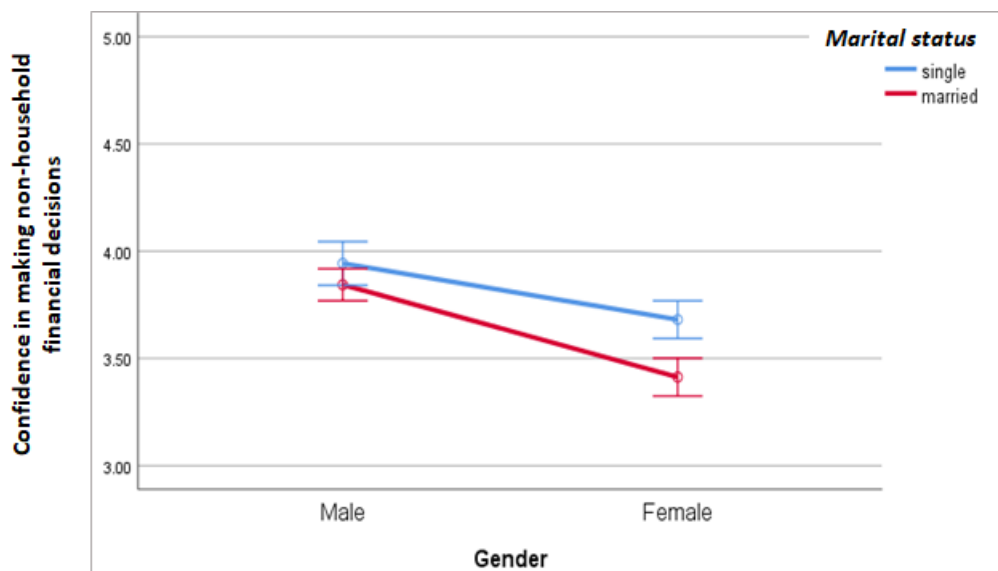


Figure 4 Confidence in making non-household financial decisions by gender and marital status
 Note. Confidence scores range from 1 to 5. Error bars = $SE \pm 2$. Education and age were covariates.

2. Does confidence in making decisions help explain the gender gap in financial literacy?

As hypothesized, women's lower financial literacy performance was partially explained by women's lower confidence in making non-household decisions. This finding holds when controlling for the effect of marital status and age on confidence. The same indirect pattern was found in the financial literacy outcome of the total "don't know" responses. These findings identify confidence as a viable pathway for improving women's performance on tests of financial literacy and suggest that for women, their performance on such tests does not reflect their competence. Therefore, enhancing confidence in making *non-household decisions* may help to narrow gender gaps in perceived knowledge and actual financial literacy.

Pathway B: Involvement in financial decision making

3. Are there gender differences in levels of involvement?

In support of hypothesis 3, and consistent with previous research, we observed gender differences in involvement which varied as a function of marital status and the type of financial decision made. Across age groups, single persons indicated that they were the primary decision-maker for most of their decisions regardless of gender and decision type. We found no gender differences in how involved people were in financial decisions among those who are unmarried across age groups. On the other hand, we found married women were more involved in "household" financial decisions than married men across age groups (Figure 5). By contrast, for non-household decisions, married men were more involved than married women (Figure 6). As with financial confidence, gender differences in involvement in non-household decisions was consistent across age groups. Furthermore, among single persons, fewer Millennials (i.e., the youngest age group) were involved in household (68%) and non-household decisions (70%) compared to all older cohorts (household: 90%; non-household: 84%). This may reflect a lack of interest but might also

suggest that single Millennials are more likely to seek help when making financial decisions in general.

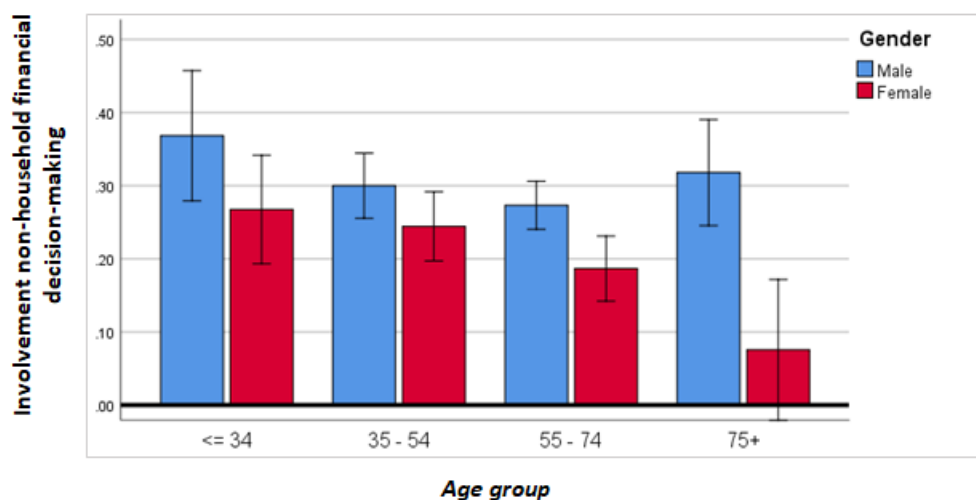


Figure 5. Gender differences in levels of involvement in non-household financial decisions in married persons
Note. The age by gender interaction is not statistically significant, indicating that the gender difference was robust across age groups.

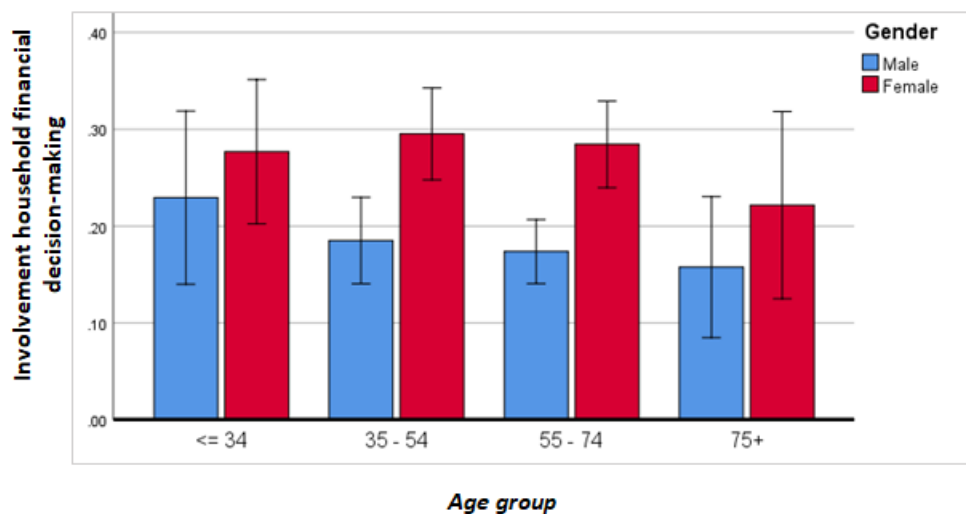


Figure 6. Gender differences in levels of involvement in household financial decisions in married persons
Note. The age by gender interaction is not statistically significant, indicating that the gender difference was robust across age groups.

4. Is involvement in financial decision-making associated with financial literacy?

Although as with previous research, we found that gender effects can depend on marital status for certain types of financial decisions, the implications for financial literacy are still unclear. It may be that like married men, there will be a positive association between involvement in financial decisions and financial literacy among single women because, in contrast to married women, they do not have the opportunity to delegate or attribute

accomplishment of financial tasks to a partner. To test this possibility, we examined the association between involvement in non-household financial decisions and financial literacy in single and married persons separately. Similar to previous findings, we found that involvement was positively associated with financial literacy in single persons, but not in married people. When breaking this analysis down further by gender, we found that greater involvement in making non-household decisions was positively associated with financial literacy in single women, but not single men (see Figure 7). Involvement in household decision-making was also associated with better financial literacy in single women. Thus, being responsible for financial decisions may pave the way for single women to more effectively learn about finances. If so, women lacking responsibility in non-household financial decisions may not benefit as much from financial education as those with real life experience, whether married or single.

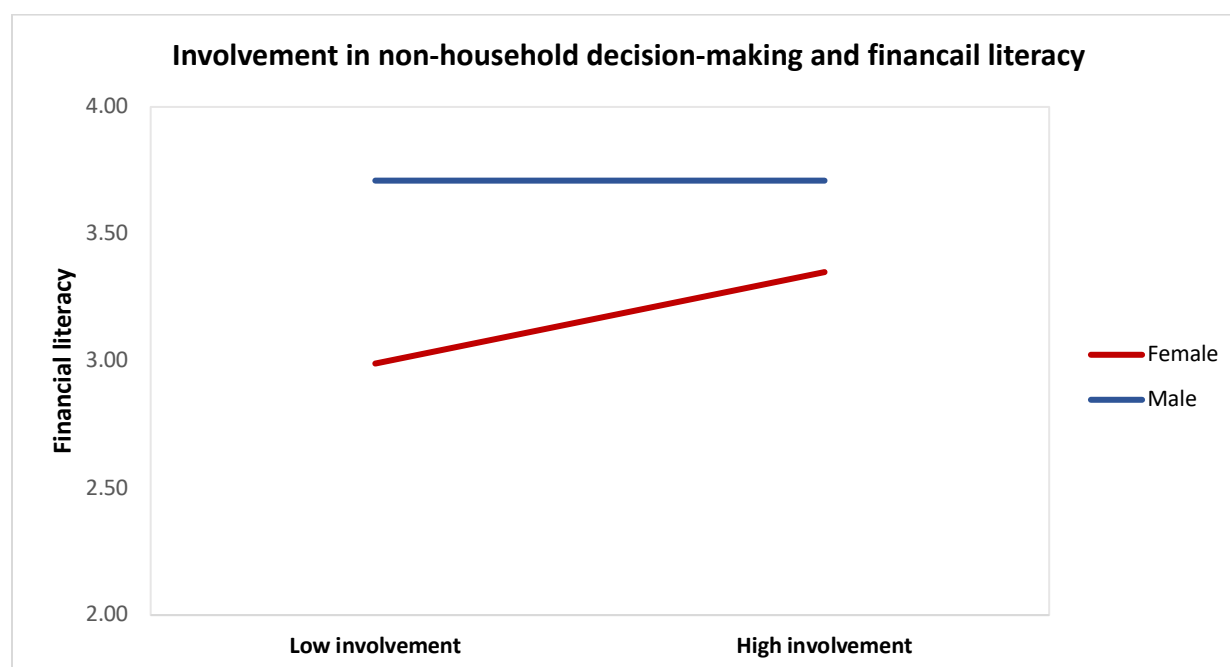


Figure 7. Single people's involvement in non-household decisions and financial literacy
Note. The slope was significant for female only. Covariates: education and age.

Conclusion

To live a satisfactory long life, financial security is a necessity. Yet, despite modern improvements in parity between men and women, regardless of generation, women still fall behind men in financial status. This study contributes to this field by identifying potential processes and contexts that may help explain the gender differences in financial literacy so that we may better hone in on when and for whom financial interventions could be most effective for narrowing ubiquitous financial gender gaps.

For one, having confidence in making high-stakes financial decisions, instead of relatively mundane household decisions, could be especially critical for women's acquiring and

maintaining financial knowledge. For another, our findings show that marital status shapes our understanding of the relationships among financial confidence, experience, and literacy in different ways among men and women. Such findings highlight that people's particular circumstances can be a powerful determinant in how effective we can be at improving financial security.

Key Takeaways

- Women were less confident than men in making non-household decisions such as preparing taxes, taking home loans, and investing -decisions that were shown to be significantly related to financial literacy.
- Although our focus was on gender, the importance of financial confidence was found for both men and women when evaluating financial literacy. The association is likely reciprocal; yet if confidence is indeed a precursor to financial knowledge, then it must be considered before any benefit of financial education can be realized.
- We must consider the interactions between gender and marital status in how experience or involvement in financial decisions shapes financial outcomes. Even among young generations, we observe a traditional division of labor within a household and find married men to be the most involved in major financial decisions, whereas married women assume responsibility for minor financial decisions [20]. Single people were similar in how they managed financial decisions across gender. This may indicate the opportune time to intervene among women before they marry and assume traditional division of financial decisions.
- Notably, while engagement in financial decision making was associated with higher levels of financial literacy among men [11]; we only observed this association among women who were single. This points to married women as particularly vulnerable and in need of financial education. Nevertheless, these findings also suggest that simply providing them with experience in financial decisions may be insufficient.

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