

March 2018

Author:

Gary Mottola, Ph.D.
FINRA Investor Education
Foundation

What's Inside:

Women, Men and Financial Literacy	1
Gender Differences in Investor Literacy	4
Self-Assessed Financial Knowledge	5
Who is the Most Financially Knowledgeable in the Household?	6
Conclusion	7
About the Data	7
References	8
Appendix	8
Endnotes	9
Acknowledgements	9

Gender, Generation and Financial Knowledge: A Six-Year Perspective

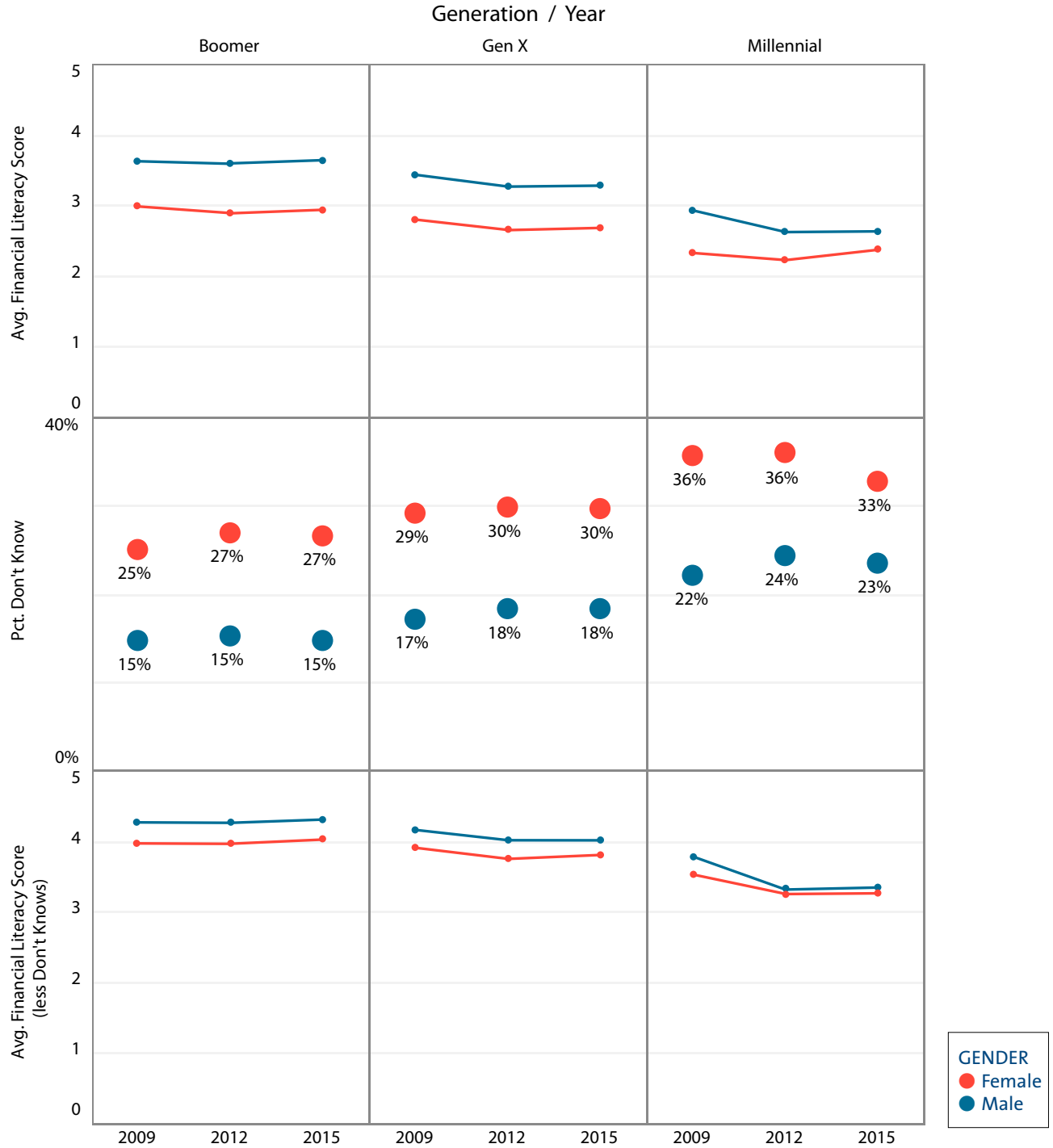
Women consistently score lower than men on financial literacy measures, and this gender-based gap may negatively impact women’s long-term financial well-being. Financial literacy has been linked to a number of important outcomes, including wealth accumulation, stock market participation and retirement planning. So lower levels of financial literacy among women may impede their ability to accumulate and manage assets and, ultimately, secure a promising financial future. To better understand the gender gap, this fact sheet examines financial knowledge levels in America by gender and generation at three points in time over a six-year period. Data from the FINRA Foundation’s National Financial Capability Study (NFCS) were used for this analysis.

Women, Men and Financial Literacy

Despite efforts to close the gender gap in financial literacy, women—regardless of generation—have consistently trailed men over a six-year period. The top panel of Figure 1 shows the average number of correct answers on a basic [five-question financial literacy quiz](#) broken out by gender and generation at three points in time—2009, 2012 and 2015. For all generations and at all three points in time, men exhibit higher levels of financial literacy.¹ Millennial women exhibit the lowest levels of financial literacy, and it is noteworthy that the financial literacy level of boomer women and gen X women is roughly on par with millennial men.

Importantly, while the gender gap for boomers and gen Xers did not change from 2009 to 2015, the gap for millennials narrowed, driven by a decrease in financial literacy for millennial men and a slight increase for millennial women. In 2009, the financial literacy score of millennial men was 0.60 higher (i.e., about half a question higher) than the score for women. In 2012, the gap narrowed to 0.40, and in 2015, it dropped further to 0.26. On a percentage basis, this translates to a difference in knowledge levels between millennial women and millennial men of only 10 percent in 2015. Comparatively, in 2015, the size of the gap between gen X women and gen X men was 18 percent, and the size of the gap between boomer women and boomer men was 19 percent.

Figure 1. Financial Literacy by Gender, Generation and Year



Note: The financial literacy scores for the top and bottom panels of this figure can be found in the Appendix.

It is important to note that researchers have found that women tend to answer “Don’t know” significantly more often than men when taking this five-question quiz.² Responding “Don’t know” to these quiz questions should not necessarily be viewed negatively. Rather, it suggests that women may be more open to assistance than men or that women are less confident than men. Another interpretation is that men are overconfident in their financial knowledge. In any event, the middle panel of Figure 1 shows this difference. Across generations and across years, between 25 percent and 36 percent of women, on average, respond that they “Don’t know” the answer to at least one quiz question compared to 15 percent to 24 percent of men.

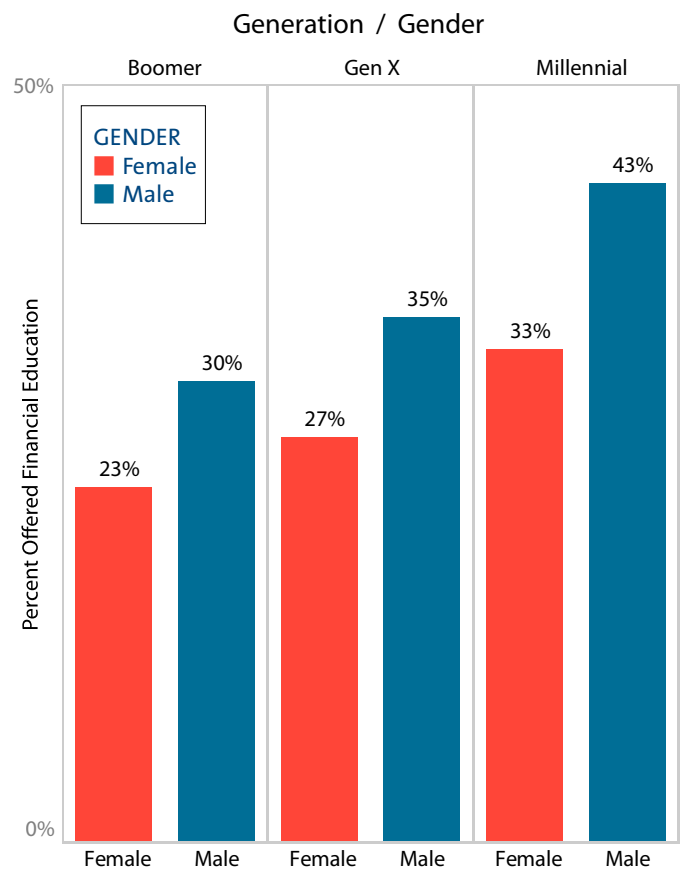
Typically, when a respondent answers “Don’t know,” researchers code this as an incorrect answer, which is true of the top panel in Figure 1. However, another option is to simply exclude the respondents who answer “Don’t know” instead of marking their response as incorrect. Taking this approach, the gender gap in financial literacy decreases sharply and nearly disappears for millennials in 2012 and 2015, as shown in the bottom panel of Figure 1.

What could explain the gender gap in financial literacy and the narrowing of the gap for millennials? There are undoubtedly a multitude of factors contributing to the current state of affairs, and access to financial education could be one of them.

What could explain the gender gap in financial literacy and the narrowing of the gap for millennials? There are undoubtedly a multitude of factors contributing to the current state of affairs, and access to financial education could be one of them. Figure 2 shows the percent of men and women who stated that they were offered some form of financial education when they were in high school, college or working by generation in 2015.³ For every generation, men were more likely than women to report having been offered financial education. This could be due to the fact that men are more likely than women to be employed full time, and financial education is often delivered through the workplace. In addition, millennial women report that they were offered financial education significantly more often than boomer women and gen X women. Similarly, millennial men were offered financial education more often than boomer men and gen X men, suggesting that financial education is a relatively young field and

that it may have become more available in recent years. Thirty-three percent of millennial women state that they have been offered financial education compared to 23 percent for boomer women and 27 percent for gen X women. Similarly, 43 percent of male millennials report they have been offered financial education compared to 30 and 35 percent for male boomers and male Gen Xers, respectively.

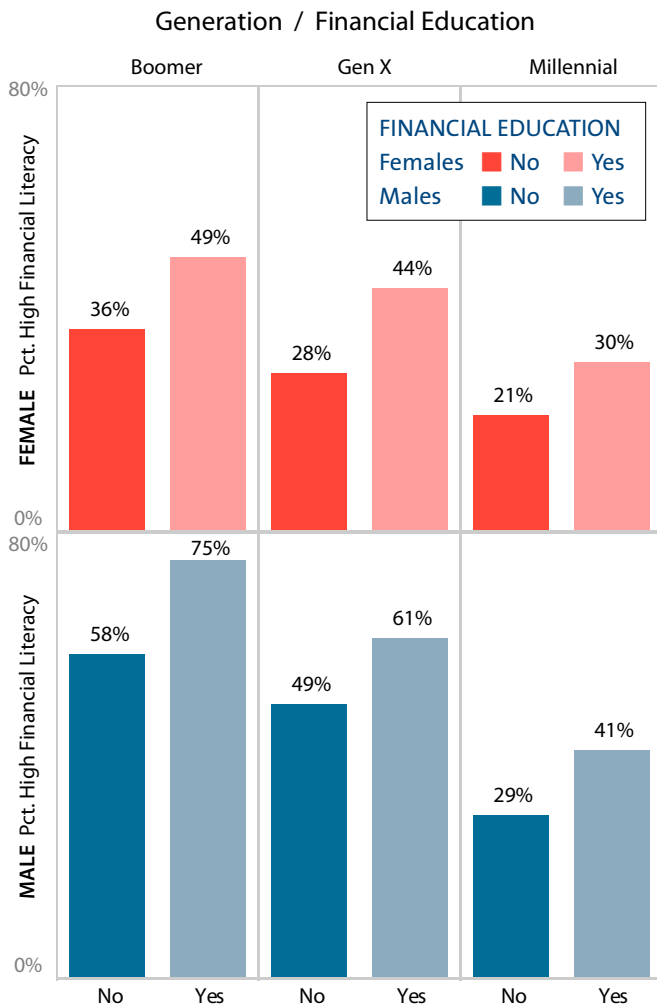
Figure 2. Women and Men Offered Financial Education by Generation, 2015 NFCS



Is there any evidence that financial education is associated with higher levels of financial literacy? As seen in Figure 3, the answer is yes. Figure 3 shows the percent of respondents who are considered high financial literacy—meaning they could answer four or five of the five financial literacy questions on the quiz correctly—by generation and by financial education for the 2015 wave of the NFCS.⁴ Female and male respondents who reported they participated in a financial education program are more likely to be high financial literacy

relative to those who stated that they did not participate in a financial education program.⁵ For example, among millennial females only 21 percent of respondents who did not participate in a financial education program are high financial literacy compared to 30 percent for those who did participate in a financial education program. Similarly, the comparable figures for male millennials are 29 percent and 41 percent. It is important to note that this is a cross-sectional data set; we cannot conclude that there is a causal relationship between financial education and financial literacy levels. However, we can conclude that participating in financial education is associated with higher levels of financial literacy for both men and women.

Figure 3. High Financial Literacy by Generation and Financial Education, 2015 NFCS

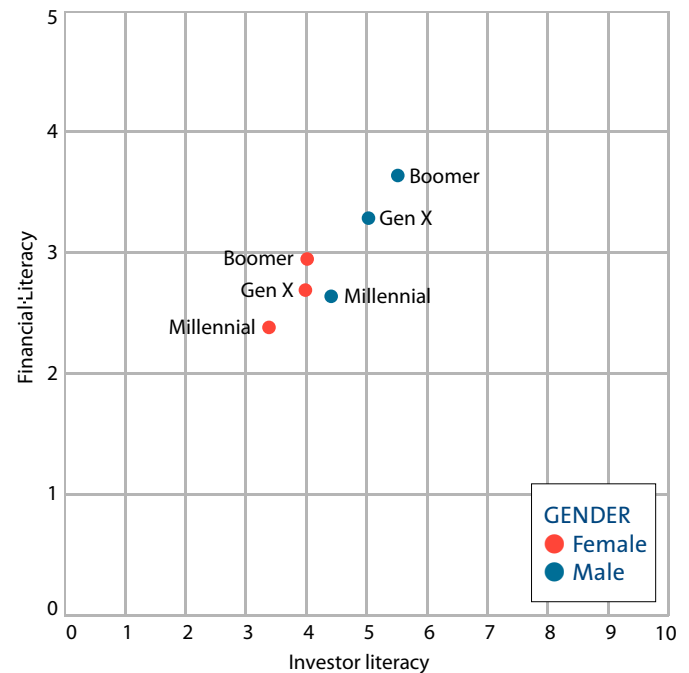


Gender Differences in Investor Literacy

Shifting from financial literacy to investor literacy, we examine how women and men differ in terms of their knowledge regarding investments and investing concepts. Figure 4 shows the average number of correct answers on a [10-question investor literacy quiz](#) and the average number of correct answers on the previously cited five-question financial literacy quiz.⁶

Figure 4 illustrates that across all generations women have lower levels of investor literacy than men. The investor literacy scores are based on a subsample of respondents who indicated that they had taxable investment accounts in 2015 (most had retirement accounts, as well). And like financial literacy, we see that older generations of both men and women exhibit higher levels of investor literacy than younger generations. Boomer men score the highest with an average of 5.5 (out of 10) correct answers, and millennial women score the lowest with an average of 3.4 correct answers, so the investor literacy of boomer men is roughly 60 percent higher than the investor literacy of millennial women.⁷

Figure 4. Investor Literacy and Financial Literacy by Gender, 2015 NFCS



Note: The financial literacy scores and investor literacy scores for this figure can be found in the Appendix.

Self-Assessed Financial Knowledge

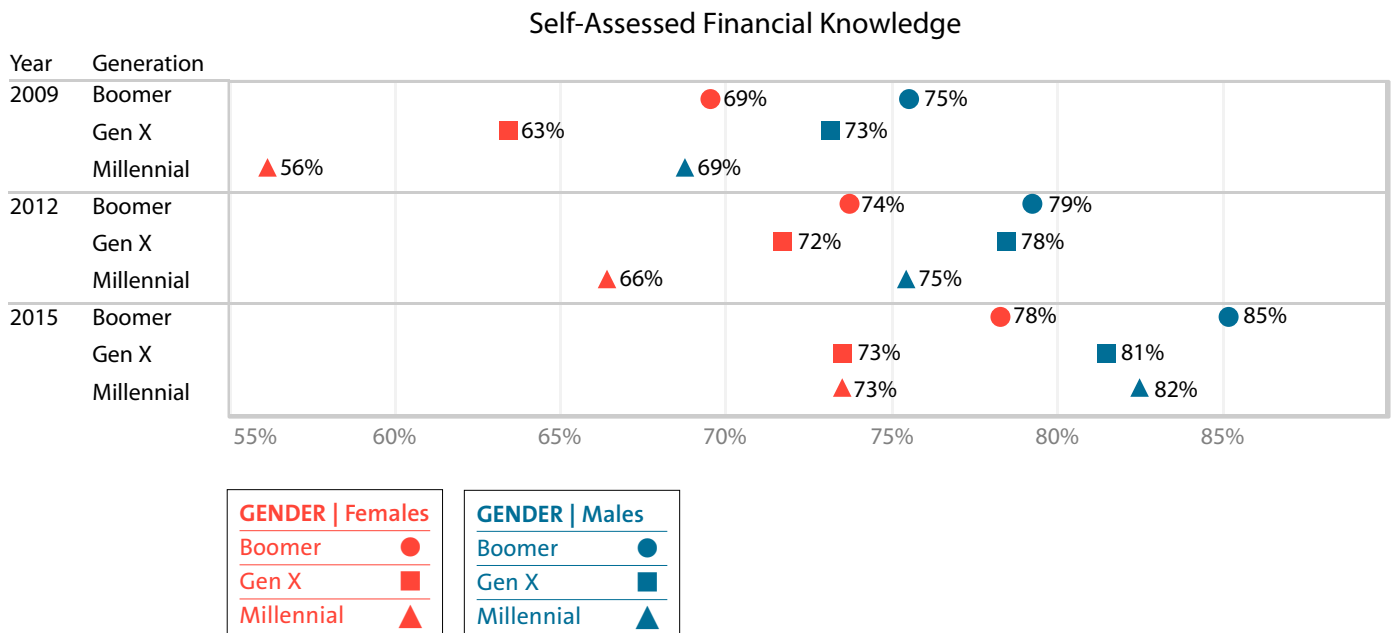
Consistent with findings related to gender differences in financial literacy, women rate their own financial knowledge lower than men rank theirs. When asked to self-assess their “overall financial knowledge” on a 7-point scale, where 1 means “very low” and 7 means “very high,” the percentage of women who rate themselves high (5, 6 or 7) is significantly lower than men. As shown in Figure 5, for every generation in every year women rate their financial knowledge lower than men, though the gap is closing for millennial women. In 2009, millennial women trailed millennial men by 13 percentage points, but this spread dropped to nine percentage points in 2012 and 2015, and the narrowing of this gap is driven primarily by an increase in self-assessed financial knowledge among millennial women.

However, unlike financial literacy, which has remained at about the same level over the last six years, self-assessed financial knowledge—regardless of gender—increased

significantly between 2009 and 2015. For example, in 2009 75 percent of boomer men rated their financial knowledge as high, in 2012 the figure went up to 79 percent, and in 2015 it rose to 85 percent. That same upward trend can be seen for men and women in all three generations.

Comparing Figure 1 to Figure 5, it becomes evident that self-assessed financial knowledge increased over the last six years, but financial literacy as measured by the five-question quiz held steady or slightly decreased. It is not clear why this is occurring, and it is not clear whether the differences between men and women result from men being overconfident, women being under confident, both genders being accurate in their assessments or some combination of these possibilities. Other explanations are also possible, like simple measurement error. Additional research is needed to better understand this relationship and uncover the drivers of these trends.

Figure 5. Self-Assessed Financial Knowledge by Gender and Year

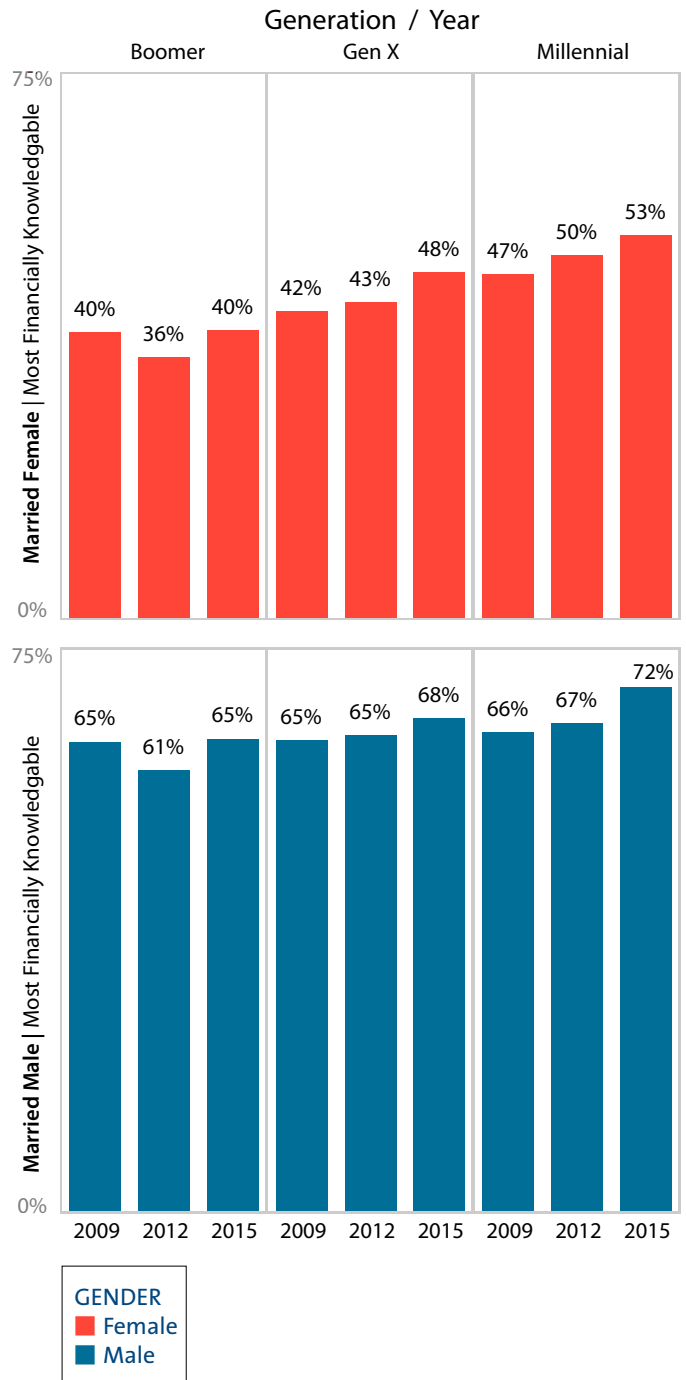


Who is the Most Financially Knowledgeable in the Household?

When asked to identify the most financially knowledgeable person in their household, married women are less likely than married men to identify themselves, although there is variation across generations. Figure 6 shows that between 36 and 53 percent of married millennial women think they are the most financially knowledgeable person in their household. Among women, the percentages are lowest for gen Xers and boomers. In fact, only between 36 and 40 percent of married boomer women think they are the most financially knowledgeable person in the household. Comparatively, about 61 to 72 percent of married men believe they are the most financially knowledgeable person in the household, a figure that does not vary much by generation.

It is important to remind the reader that these figures are for married respondents, so when a woman or man self-identifies as the most financially knowledgeable person in their household they are saying, in effect, that they are more financially knowledgeable than their spouse.⁸ It will be interesting to see if this upward trend for women continues when the 2018 wave of the NFCS data is released.

Figure 6. Most Financially Knowledgeable in the Household by Gender, Generation and Year



Conclusion

Overall, the data suggest that over a six-year period the gender gap in financial literacy has persisted, though the gap decreased for millennials—particularly when “Don’t know” responses, which women use more often than men, are excluded. Across generations, women were less likely than men to report that they were offered financial education, and this is important because participating in financial education is associated with higher levels of financial literacy for both women and men. In addition, the self-assessed financial knowledge of women is lower than that of men, but the gap between millennial women and millennial men has decreased. Lastly, married millennial women are more likely than married Gen X and married boomer women to identify themselves as the most financially knowledgeable person in their households, suggesting rising levels of financial confidence among younger American women.

Married millennial women are more likely than married Gen X and married boomer women to identify themselves as the most financially knowledgeable person in their households, suggesting rising levels of financial confidence among younger American women.

These gender-based differences in financial knowledge are stubbornly persistent. However, taken together, the trends are encouraging. The narrowing of the financial literacy and self-assessed financial knowledge gender gaps for millennials is heartening, and so too is the increased likelihood of married millennial women identifying themselves as the most financially knowledgeable person in their household relative to married women in older generations. Both trends may pay future dividends in the form of millennial women’s ability to confidently invest and effectively manage their financial resources.

Although some of the trends in this issue brief are promising, they will need to be reexamined in the future with new data to ensure they are robust. In addition, our understanding of the gender gap in financial literacy could benefit from research that more closely examines the demographic, attitudinal and behavioral characteristics of women who use the “Don’t know” response on the financial literacy quiz compared to women who do not use the “Don’t know” response.

Last, obtaining a deeper understanding of why women are less likely to report being offered financial education is important, as is continuing to establish causal links between financial education and financial literacy—across both genders and generations.

About the Data

This fact sheet is based on data from the FINRA Foundation’s National Financial Capability Study, which is a large-scale, multi-year project with the goal of monitoring and better understanding financial capability in America. It consists of reports that document the results of survey research on the state of financial capability in America and their associated data sets, which can be used to examine a wide variety of financial capability topics and populations. To date, the NFCS includes seven reports and nine data sets that span six years and three waves of data collection (2009, 2012 and 2015), and plans are underway to administer a fourth wave in 2018. Information about the NFCS, including surveys, data sets and methodological documents can be found at USFinancialCapability.org. In addition, more detailed data for all figures is available from the author upon request. The total sample size and sample sizes for the various segments reported in this fact sheet can be found in the Appendix.

The NFCS includes weights that can be used to ensure the entire sample is representative of the national population in terms of age, gender, ethnicity, education and Census Division. However, given that subsamples were analyzed (*i.e.*, the data were reported by gender and age/generation), weights were not used since they might not result in estimates that are representative of these subgroups. However, weighted and unweighted estimates for all figures in this report were calculated and evaluated, and while there were small differences between the estimates, the direction of the differences was stable. For example, on some measures the weighted values were slightly higher for all subgroups, and for other measures the weighted values were slightly lower for all subgroups, suggesting that any bias resulting from not using the weights is consistent across subgroups.

References

Hasler, A. and A. Lusardi (2017). The Gender Gap in Financial Literacy: A Global Perspective. Global Center for Financial Literacy Excellence Working Paper.

Lusardi, A. and O. S. Mitchell (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature* 52 (1): 5-44.

Appendix

Financial Literacy Scores for Top Panel of Figure 1

	2009	2012	2015
Male			
Boomer	3.6	3.6	3.6
Gen X	3.4	3.3	3.3
Millennial	2.9	2.6	2.6
Female			
Boomer	3.0	2.9	2.9
Gen X	2.8	2.7	2.7
Millennial	2.3	2.2	2.4

Financial Literacy Scores for Bottom Panel of Figure 1

	2009	2012	2015
Male			
Boomer	4.3	4.3	4.3
Gen X	4.2	4.0	4.0
Millennial	3.8	3.3	3.3
Female			
Boomer	4.0	4.0	4.0
Gen X	3.9	3.8	3.8
Millennial	3.5	2.6	3.3

Financial Literacy and Investor Literacy Scores for Figure 4

	2015 Financial Literacy	2015 Investor Literacy
Male		
Boomer	3.6	5.5
Gen X	3.3	5.0
Millennial	2.6	4.4
Female		
Boomer	2.9	4.0
Gen X	2.7	4.0
Millennial	2.4	3.4

Sample Size

	2009	2012	2015	Total
Male				
Boomer	4,050	3,579	3,566	11,195
Gen X	3,739	2,869	3,086	9,694
Millennial	2,571	2,016	2,644	7,231
Female				
Boomer	4,451	4,249	4,096	12,796
Gen X	4,228	3,635	3,647	11,510
Millennial	3,081	3,013	3,510	9,604
Total	22,120	19,361	20,549	62,030

Endnotes

1. Regardless of point in time, millennials were defined as those born between 1980 and 1991, gen Xers those born between 1965 and 1979, and boomers those born between 1950 and 1964.
2. See Hasler and Lusardi (2017).
3. Respondents were asked “Was financial education offered by a school or college you attended, or a workplace where you were employed”. Respondents who answered “Yes” regardless of whether or not they participated in the financial education offered were coded as being offered financial education.
4. Only 2015 data is shown for ease of viewing, but the pattern was very similar in 2009 and 2012.
5. Respondents were asked “Was financial education offered by a school or college you attended, or a workplace where you were employed”. Respondents who answered “Yes” to this question and indicated they participated in the financial education offered are included in this figure.
6. Due to sample size restrictions, the investor literacy scores in Figure 4 include respondents who answered “Don’t know.” To be consistent, the financial literacy scores also include the respondents who answered “Don’t know.” More research with larger samples is needed to understand the impact of removing the respondents who answered “Don’t know” on the investor literacy quiz.
7. While the investor literacy quiz scores are based on a subsample of 2,000 investors who reported having taxable (i.e., non-retirement) investment accounts in 2015, the financial literacy scores are based on all 27,564 respondents in 2015. The figure is restricted to 2015 data because that is the only year that investor literacy data was available.
8. Typically, the survey only has one respondent per household, so although the respondents supplying data for this figure are married, we only have data from one member of the couple.

Acknowledgements:

The author thanks the following FINRA and FINRA Foundation employees for their helpful comments on early drafts of this paper: Peter Chandler, Erika Karell, Christine Kieffer, Kaitlyn Kiernan, Michelle Volpe-Kohler and Gerri Walsh. The author also thanks Mimi Massé and Shari Crawford of FINRA for designing the paper.