FINRA Investor Education FOUNDATION

Insights: Financial Capability

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Author:

Gary Mottola, Ph.D.

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A Snapshot of Investor Households in America

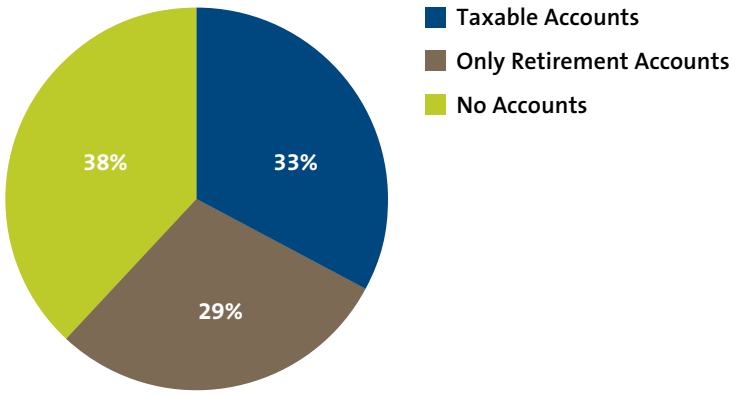
Summary

Approximately 6 in 10 households in the United States own securities investments—typically through taxable accounts, IRAs or employer-sponsored retirement plans. However, this figure drops to a little over 3 in 10 if only taxable investments are considered. Households that own taxable accounts are more likely to be older, affluent, college educated and white relative to households with only retirement accounts or households without investment accounts. They also have much higher levels of financial literacy and moderately higher risk-tolerance levels. Certain demographic groups are significantly under-represented among investor households, including blacks and Hispanics—although these differences narrow after controlling for factors such as income, education and age.

What U.S. Investors Own

Data from the 2012 National Financial Capability study indicate that 33 percent of U.S. households own taxable investment accounts, like stocks, bonds or mutual funds (Figure 1).[1] Importantly, most of these taxable investor households (89 percent) also own a retirement account like a 401(k) or IRA. Twenty-nine percent of U.S. households own only retirement accounts, like employer-sponsored retirement plans and various IRAs. The remaining 38 percent do not own any investment accounts.[2]

Figure 1. Investment Status

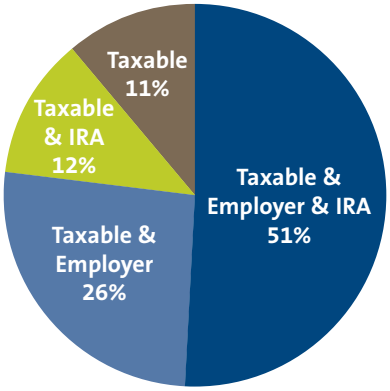


Source: 2012 National Financial Capability Study State-by-State Survey

A Closer Look at Investment Account Ownership

A deeper analysis of investors with taxable accounts reveals a more complex story of the U.S. investor. The vast majority of investors who have a taxable account also have additional investments in tax-deferred or tax-incentivized accounts such as employer-sponsored retirement plans and IRAs. Indeed, over half have a taxable account, an employer-sponsored retirement account and an IRA. Another 26 percent have a taxable account and an employer-sponsored retirement account, and 12 percent have a taxable account and an IRA. Only 11 percent of households in this segment have just a taxable account (Figure 2).

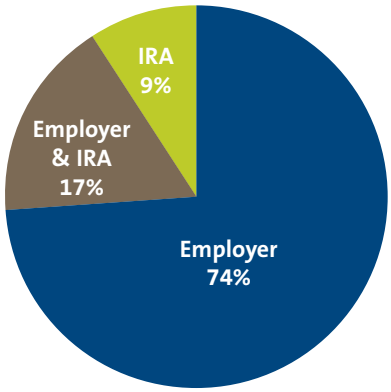
Figure 2. Households With Taxable Accounts



Source: 2012 National Financial Capability Study
State-by-State Survey

A similar look at investors with only retirement accounts reveals that this segment is dominated by households that only have employer-sponsored retirement accounts—74 percent. An additional 17 percent have both an employer-sponsored account and an IRA, while fewer than one-tenth (9 percent) have only an IRA (Figure 3).

Figure 3. Households With Only Retirement Accounts



Source: 2012 National Financial Capability Study
State-by-State Survey

Different Investments, Different Demographics

There are some significant demographic differences between groups that hold taxable accounts, retirement accounts and no investment accounts at all (Figure 4). For example, households that own taxable investments are much more likely to have higher incomes. Thirty-four percent of households with taxable accounts have incomes of $100,000 or more, compared to 15 percent for households with only retirement accounts and 3 percent for households with no investment accounts.

Households that own taxable accounts are also older, more likely to be college educated and more likely to be white. Forty-two percent of the respondents from households with taxable investment accounts have a college degree compared to 27 percent for households with only retirement accounts, and 12 percent for households with no accounts. And 73 percent of respondents from households that own taxable investments are white, compared to 67 percent for households with only retirement accounts, and 61 percent for households without accounts.[3]

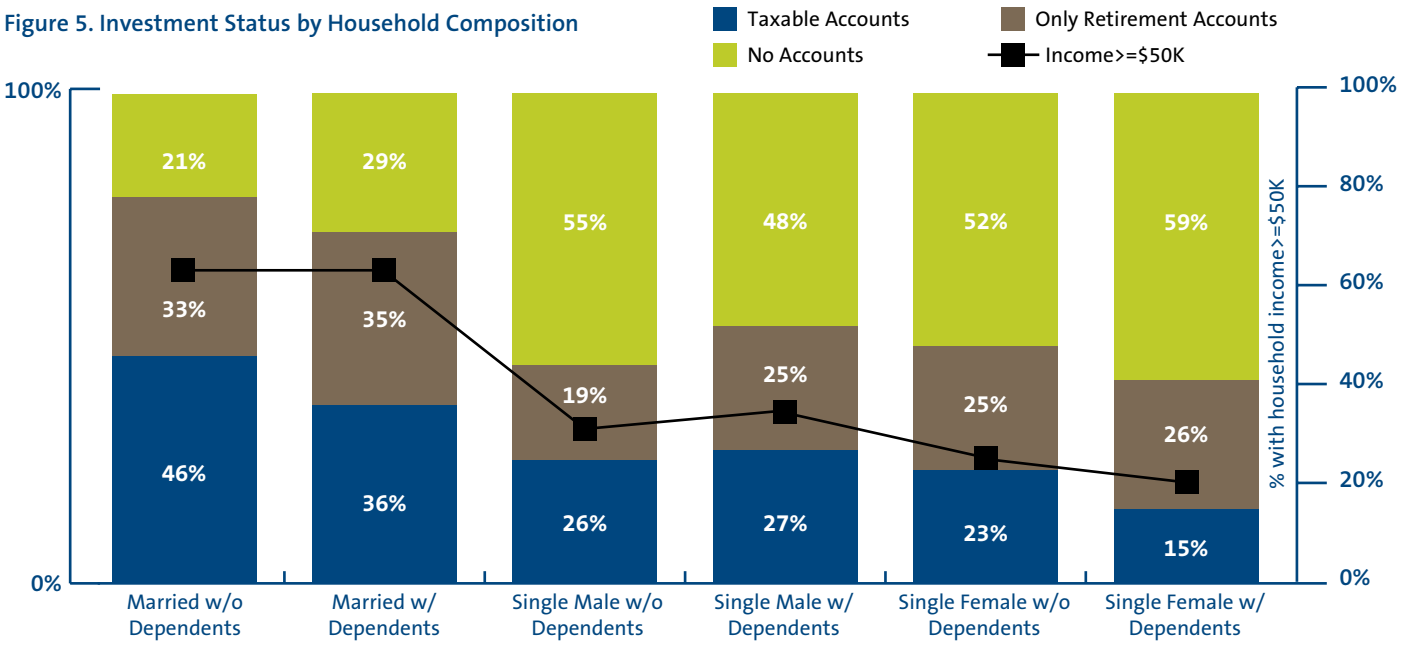
Figure 4. Demographic Characteristics by Investment Status

		Taxable Accounts	Only Retirement Accounts	No Accounts
Sample Size		8,830	7,451	8,896
Mean Age		51	47	40
Household Income	Less Than $25K	8%	13%	53%
	$25 to $50K	17%	32%	29%
	$50 to $100K	41%	40%	14%
	$100 to $150K	20%	11%	2%
	$150K+	14%	4%	1%
Race/Ethnicity	White	73%	67%	61%
	Black	8%	12%	15%
	Hispanic	11%	14%	18%
	Asian	7%	5%	3%
	Native American	1%	1%	2%
College Degree		42%	27%	12%

Source: 2012 National Financial Capability Study State-by-State Survey
Note: Due to missing data, 332 respondents could not be placed into one of the three segments.

These three groups also vary considerably by household composition. As seen in Figure 5, married households are more likely to own investments compared to single households. Forty-six percent of married households without dependents own taxable accounts, and 36 percent of married households with dependents own taxable accounts. Taxable account ownership drops for single households—with a low of 15 percent for single households headed by females with dependents. As represented by the line in Figure 5, married households have higher incomes relative to single households, which could explain some of the account ownership differences.

Figure 5. Investment Status by Household Composition



Source: 2012 National Financial Capability Study State-by-State Survey

The Knowledge, Attitudes and Behavior of Investors

Beyond demographics, financial literacy and self-assessed math knowledge vary substantially by investment status. Financial literacy was measured by administering a widely used, five-question financial literacy quiz covering fundamental concepts of economics and finance expressed in everyday life, such as calculations involving interest rates and inflation, principles relating to risk and diversification, the relationship between bond prices and interest rates, and the impact that a shorter term can have on total interest payments over the life of a mortgage (*see* Appendix A for actual questions).[4] Respondents were classified as having high financial literacy if they answered four or five questions correctly on the five-question financial literacy quiz and as having low financial literacy otherwise.

Figure 6 shows the percent of each group that could correctly answer each question, as well as the percent of each group coded as "high financial literacy." Respondents from households that own taxable investments were more likely to answer the questions correctly relative to households with only retirement accounts or no accounts. Further, respondents from households with taxable accounts are much more likely to be considered highly financially literate compared to respondents from households only holding retirement accounts or no accounts—60 percent, 40 percent and 21 percent, respectively.

Households that own taxable investments did not, however, perform particularly well on the two investment-related questions. For example, only 42 percent of respondents from households that own taxable accounts answered the bond price question correctly, and only 68 percent answered the financial risk question correctly. While these percentages are higher than the percentages for households with only retirement accounts and no accounts, they are not particularly impressive on an absolute basis and suggest that significant gaps in financial knowledge exist even among older, more affluent U.S. adults who have higher levels of educational attainment.

Figure 6. Financial Knowledge by Investment Status

	Taxable Accounts	Only Retirement Accounts	No Accounts
Interest Rate Question	84%	79%	66%
Inflation Question	74%	66%	48%
Bond Price Question	42%	26%	18%
Mortgage Question	87%	82%	62%
Risk Question	68%	49%	32%
High Financial Literacy	60%	40%	21%

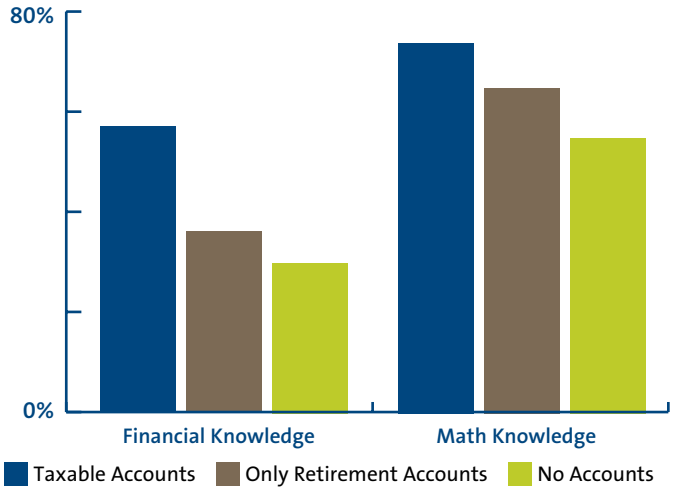
Source: 2012 National Financial Capability Study State-by-State Survey

A similar pattern emerges when you look at self-assessed financial knowledge. Respondents were asked to rate their own financial knowledge on a 7-point scale, where 1 equals "very low" and 7 equals "very high"—and respondents who rated themselves as 5, 6 or 7 were coded as "high self-assessed financial knowledge" and those who coded themselves as 1, 2, 3 or 4 were coded as "low self-assessed financial knowledge." Figure 7 shows that respondents from households with taxable accounts were more likely to rate themselves high in terms of financial knowledge (57 percent) compared to respondents from households with only retirement accounts (36 percent) or no accounts (30 percent).

A similar but less pronounced pattern exists for self-assessed math knowledge. Respondents were asked to rate their mathematical ability on a 7-point scale, where 1 equals "very low" and 7 equals "very high"—and respondents who rated themselves as 5, 6 or 7 were coded as "high self-assessed math knowledge" and those who coded themselves as 1, 2, 3 or 4 were coded as "low self-assessed math knowledge." As seen in Figure 7, respondents from households with taxable accounts were more likely to rate their math knowledge as high compared to respondents from households without

taxable accounts. Math knowledge—sometimes referred to as numeracy—is an important aspect of financial literacy because many financial transactions require mathematical calculations, and numeracy has been shown to be related to financial decisions.[5]

Figure 7. Self-Assessed Financial Knowledge and Math Knowledge



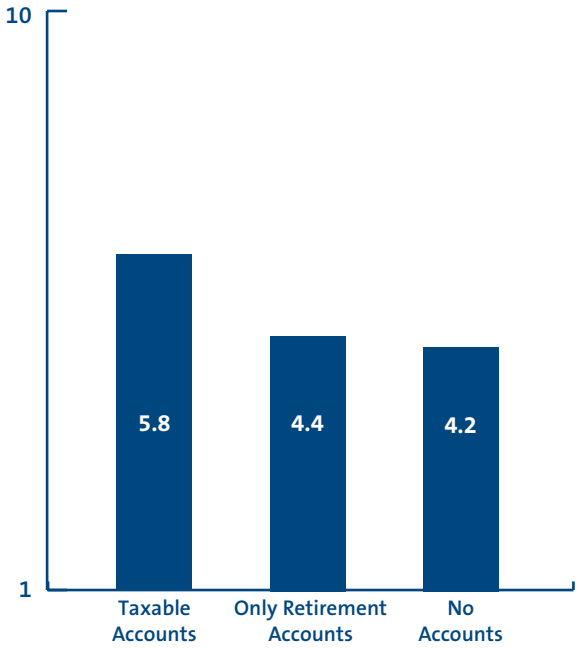
Source: 2012 National Financial Capability Study State-by-State Survey

By its very nature, investing typically involves taking on some degree of risk—ranging from the risk of returns failing to keep pace with inflation to the risk of incurring losses on your investment or even losing your entire investment. As such, people who are interested in participating in stock and bond markets must be willing to tolerate risk. To assess respondents' willingness to take investment risk, they were asked the following question:

> **When thinking of your financial investments, how willing are you to take risks? Please use a 10-point scale, where 1 means "Not At All Willing" and 10 means "Very Willing."**

The mean risk tolerance rating for all respondents was 4.8—a fairly low tolerance, but perhaps not surprising in the wake of the Great Recession. Risk tolerance ratings did vary by investment status, though. As seen in Figure 8, respondents from households with taxable accounts had a higher risk tolerance rating than respondents from households with only retirement accounts or households without accounts. Although the absolute differences do not look very pronounced, the relative differences are meaningful. For example, respondents from households with taxable investment accounts had a risk tolerance rating of 5.8 compared to a rating of 4.4 for respondents from households with only retirement accounts. While this is only an absolute difference of 1.4 points, it translates to a relative difference of 32 percent.[6] Households with taxable accounts may have a higher risk tolerance because they are more affluent and likely better able to absorb a financial loss relative to less affluent households.

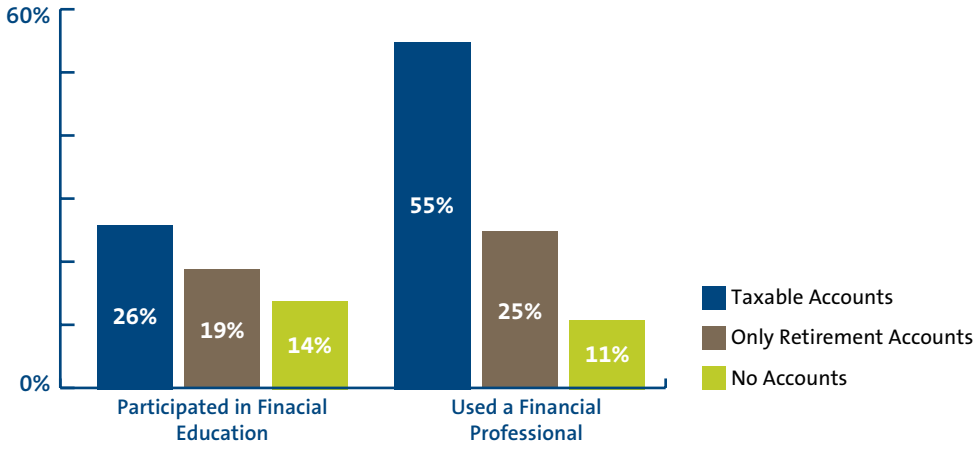
Figure 8. Risk Tolerance by Investment Status



Source: 2012 National Financial Capability Study State-by-State Survey

The three different groups also differ behaviorally—that is, they differ in the amount of financial education they have participated in and in their use of financial professionals (Figure 9). Respondents from households with taxable accounts are much more likely to have participated in financial education at some point in their life, and they are over twice as likely to use a financial professional for savings or investment advice: 55 percent of households with taxable accounts used a financial professional compared to 25 percent of respondents from households with only retirement accounts and 11 percent of respondents from households with no investment accounts.[7]

Figure 9. Financial Education and Advice by Investment Status

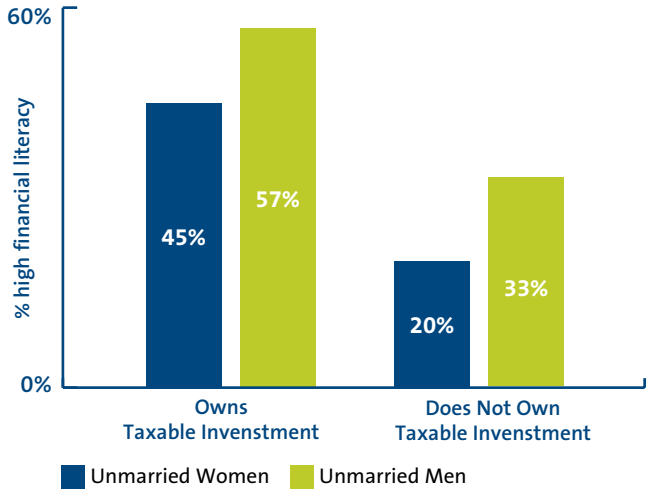


Source: 2012 National Financial Capability Study State-by-State Survey

Understanding the Role of Gender

Interpreting the relationship between gender and investment behavior is complicated by household composition. Investment decisions are often made at the household level, so it can be difficult to tease apart gender effects because husbands and wives may be making investment decisions jointly, or the survey respondent (regardless of gender) may not be solely responsible for the investment decisions.[8]

To get a purer understanding of gender and investment behavior, unmarried women are compared with unmarried men in the chart below. While this approach has its own limitations—for instance, the age and income of unmarried men and women is generally lower than the age and income of married men and women—this approach does afford the opportunity to examine gender effects in a cleaner manner.



The percentage of unmarried women and unmarried men with taxable investment accounts is similar—21 percent for women and 24 percent for men. Unmarried women with taxable investment accounts have significantly lower risk tolerance levels than men (4.0 vs. 5.3 on a 10-pt scale where 1 means "not at all willing" to take investment risk and 10 means "very willing" to take risk). And unmarried women with taxable investments are slightly more likely use a financial professional for savings and investment advice, 55 percent for women compared to 50 percent for men.

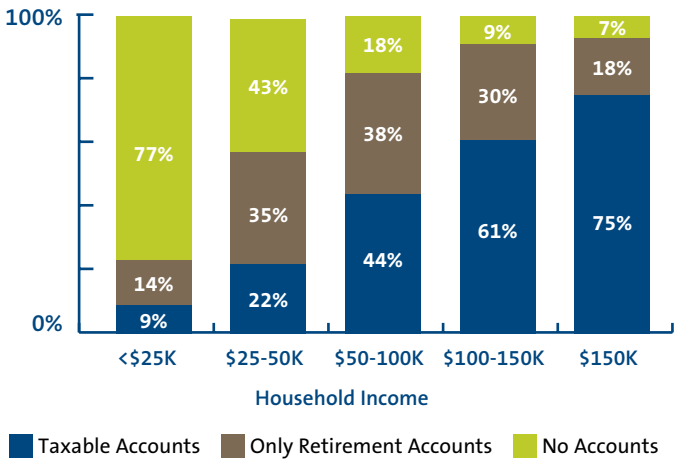
It is encouraging that unmarried women with taxable investment accounts have fairly high levels of financial literacy—higher than unmarried women and men without taxable investment accounts (see figure to the left). However, they still trail the financial literacy of unmarried men by a meaningful 12 percentage points.

Source: 2012 National Financial Capability Study State-by-State Survey

Vulnerable Segments and Retail Investing

Looking across the entire population, it is evident that there are demographic differences by investment status. However, a closer look at certain demographic groups sheds valuable insight into how account ownership varies within these groups. For example, Figure 10 shows account ownership within different household income bands—and, not surprisingly, account ownership is concentrated in the higher income levels. Taxable account ownership is at a low of 9 percent for households with less than $25,000 in household income and at a high of 75 percent for households with incomes above $150,000. That is over an eight-fold difference in taxable account ownership between the lowest and highest income bands.

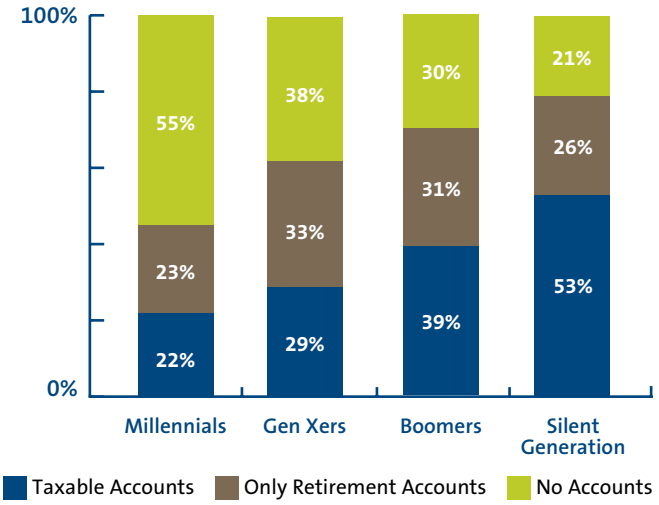
Figure 10. Investment Status by Household Income



Source: 2012 National Financial Capability Study State-by-State Survey

Taxable account ownership is also highly correlated with age. As seen in Figure 11, only 22 percent of millennial households (ages 18 to 34) own a taxable account, compared to 29 percent for gen X households (35 to 49), 39 percent for boomer households (50 to 66) and 53 percent for households from the silent generation (67 and older).[9] The percent of households owning only retirement accounts is fairly even across the generations, although somewhat lower for millennials.

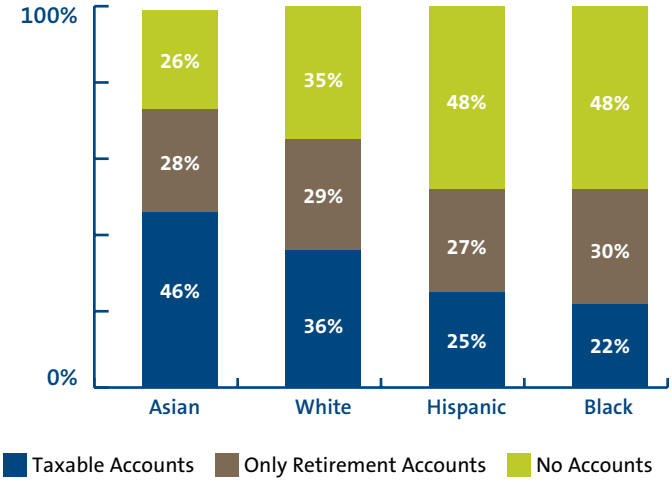
Figure 11. Investment Status by Generation



Source: 2012 National Financial Capability Study State-by-State Survey

Pronounced differences in investment account ownership also vary with race (Figure 12). Asians have the highest concentration of households with taxable accounts at 46 percent, compared to 36 percent for whites. Hispanics and blacks have significantly fewer households with taxable accounts, 25 percent and 22 percent, respectively. So relative to whites, Hispanics are 11 percentage points less likely to own taxable investment accounts and blacks are 14 percentage points less likely to own taxable accounts.[10]

Figure 12. Investment Status by Race



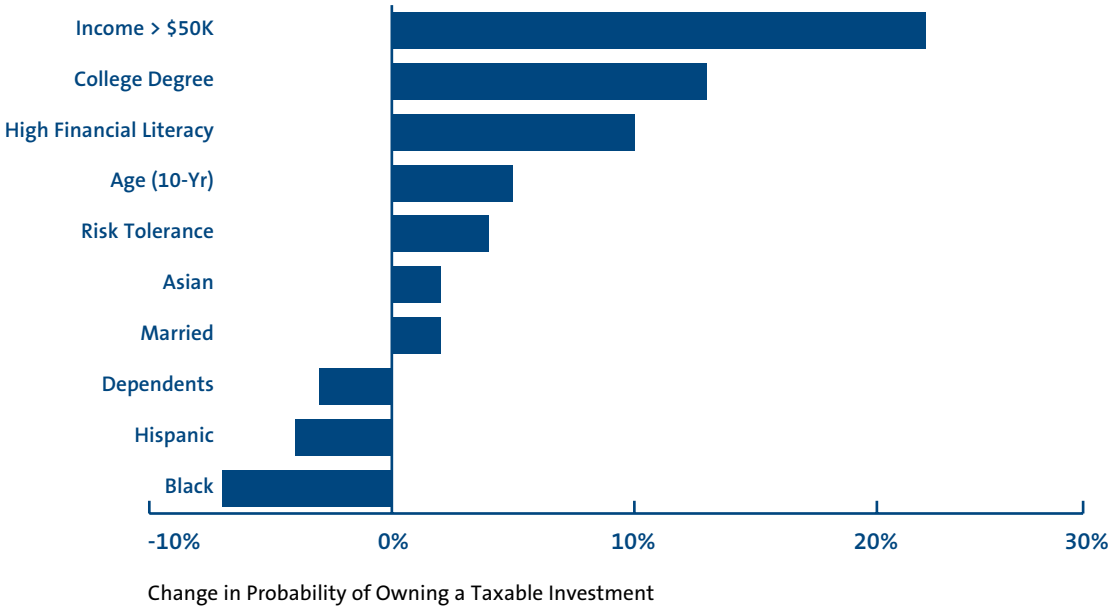
Source: 2012 National Financial Capability Study State-by-State Survey

A Broader View of Retail Account Ownership

Up until this point, the relationship between investment account ownership and various measures has been investigated in a bivariate fashion. For example, age and investment account ownership, race and investment account ownership, and financial literacy and investment account ownership were all examined, but each pair of variables was examined in isolation. In reality, investment account ownership is likely driven by a mix of these and other factors. Regression analysis is a tool that can be used to assess the relationships among these variables simultaneously and isolate variables of interest. So, for example, the strength of the relationship between race and investment status can be examined while holding constant other important variables like income and education.

Figure 13 shows the results of a regression analysis that predicts the likelihood of owning a taxable investment account using a number of variables. It is immediately clear that household income has the strongest relationship with taxable account ownership. Households with incomes of $50,000 or more are 22 percentage points more likely than households with household incomes of less than $50,000 to own taxable accounts. Considering that, on average, 33 percent of households own retail accounts, a 22 percentage-point swing in taxable account ownership is quite large.

Figure 13. Factors Related to Taxable Investment Account Ownership



Source: 2012 National Financial Capability Study State-by-State Survey

Notes: A linear probability regression with correction for heteroskedastic errors was used, collinearity was checked for and not found. The sample size for the regression was 24,456, and all variables are significant at alpha .01 except Asian. The adjusted r-square is 26 percent, and white is the reference group for the race variables. Logistic regression yielded very similar results. Regression output available upon request.

Beyond household income, education level and financial literacy are strongly related to taxable investment account ownership. Households in which the respondent has a college degree are 13 percentage points more likely than households in which the respondent does not have a college degree to own taxable investment accounts. And households where the respondent is classified as high financial literacy are 10 percentage points more likely than households where the respondent is classified as low financial literacy to own taxable investment accounts.[11]

Other demographic variables like age and race are also associated with taxable account ownership. For example, black households are 7 percentage points less likely than white households to own taxable investments, all things equal. Hispanic households are 4 percentage points less likely to own taxable investments relative to white households, all things equal.

Importantly, the 14 percentage point difference between white and black households in terms of taxable account ownership noted above drops in half to 7 percentage points after controlling for key demographic variables such as income and education. And the 11 percentage-point difference between white and Hispanic households drops to 4 percentage points. So, even though race-based differences in taxable account ownership persist, they are significantly smaller after one adjusts for other demographic variables like income and education. For example, if a white respondent and black respondent with roughly the same age, income and education level were compared, the white respondent's household would be about 7 percentage points more likely to own a taxable investment account—not 14 percentage points.

Other noteworthy findings from this regression include the following: for every 1-point increase on the risk tolerance scale, the likelihood of retail account ownership increases by 4 percentage points; and for every 10-year increase in age, retail account ownership increases by 5 percentage points.

Conclusion

Approximately 33 percent of U.S. households own taxable investment accounts, 29 percent own only retirement accounts, and 38 percent do not own any investment accounts. Households that own taxable investment accounts are more affluent and financially knowledgeable than households with only retirement accounts, which are in turn more affluent and financially knowledgeable than the households without investment accounts.

There are some demographic segments that are under-represented in the retail investor world—most notably black and Hispanic households. And while it can be argued that these households are under-represented because they tend to have lower household incomes, the differences persist, albeit at a smaller rate, even when adjustments are made for key demographic factors, like household income and education level.

Household income has the strongest relationship with taxable investment account ownership. While household incomes can increase, stagnating incomes could serve as a barrier to taxable investment account ownership.

The relationship between financial literacy and taxable investment account ownership is promising because it suggests that one means of increasing investment account ownership for under-represented demographic groups could be through financial education initiatives targeted to these groups.

About the Data

This study uses data from the State-by-State version of the 2012 National Financial Capability Study. The National Financial Capability Study was funded by the FINRA Investor Education Foundation and conducted by Applied Research and Consulting. The study used a sample of 25,509 adults ages 18 and older (approximately 500 per state plus the District of Columbia) obtained from Research Now, SSI (Survey Sampling International) and EMI Online Research Solutions via proprietary online panels of individuals who have agreed to participate in the panel and who are compensated for completing surveys. Nonprobability quota sampling was used to obtain the sample. The data is representative of the U.S. adult population (ages 18 and up) on age by gender, ethnicity, education and census division when weighted. Data from the U.S. Census Bureau's American Community Survey were used to construct the weights. All statistics in this report are weighted, but the sample sizes are unweighted. Figures may not always sum to 100 percent due to rounding. The survey was fielded from July 2012 through October 2012. A pure probability sample of this size would have an estimated margin of error of half a percentage point (*i.e.*, plus or minus 0.5 percent), and the margin of error would increase somewhat for sub-groupings of the sample. As in all survey research, there are possible sources of error, such as coverage, nonresponse and measurement error that could affect the results. More information about the National Financial Capability Study—including the questionnaire and detailed methodology documents—can be found at *www.USFinancialCapability.org.* Appendix B contains sample demographics.

Endnotes

1. Respondents are coded as owning taxable accounts if they answer yes to the following question: "Not including retirement accounts, does your household have any investments in stocks, bonds, mutual funds or other securities."
2. Although different measurement methodologies can yield different estimates of households without investable assets, a custom analysis conducted by Greenwald & Associates using EBRI's 2015 Retirement Confidence survey found that 37 percent of workers and 42 percent of retirees have no defined-contribution, IRA or defined-benefit assets. Since it is uncommon for households without retirement accounts to have taxable accounts, these are reasonable estimates of households without any investable assets, and they are very close to the 38 percent statistic cited in Figure 1.
3. For married respondents (who make up 54 percent of the sample), we do not have data on the age, race or education level of their spouses. In these instances, data from the respondent was used to characterize the household in terms of age, race and education level. However, using a married respondent's data to proxy for the household typically leads to an accurate characterization of the household, in part because marriages in the U.S. have historically tended to be among demographically similar individuals. For example, fewer than one-tenth of marriages (8.4 percent) are interracial or interethnic (Taylor, Wang, Parker Passell, Patten and Motel, 2012), more than half of married couples have the same education level (Taylor, Fry Cohn Wang, Velasco and Dockterman, 2010), and 60 percent of married couples are separated by three years of age or fewer (Current Population Survey, 2013).
4. The financial literacy quiz can also be found at *www.USFinancialCapbility.org*.
5. Lusardi (2012).
6. (5.8-4.4)/4.4=.32
7. Most households without investment accounts have bank accounts, so they may be using the advice of financial professionals to assist with their savings decisions.
8. See Theodos, Kalish McKernan and Ratcliffe (2014) for an in-depth examination of financial knowledge, behavior and well-being by gender.
9. Respondent ages are as of 2012.
10. Ariel/Hewitt (2008) found that even after controlling for important demographic variables, blacks and Hispanics had lower 401(k) participation and contribution rates than whites, and Pagliaro and Utkus (2014) found blacks and Hispanics had lower account balances for a given level of income. However, Munnell and Sullivan (2009) found that with additional control variables not used in the Ariel/Hewitt (2008) study, 401(k) participation and contribution decisions did not vary by race.
11. Using data from the Dutch Central Bank Household Survey, Rooij, Lusardi and Alessie (2011) found that financial literacy increased the likelihood of stock market participation.

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Appendix A: Financial Literacy Quiz

Correct answers are in bold

Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- ☑ **More than $102**
- ☐ Exactly $102
- ☐ Less than $102
- ☐ Don't know
- ☐ Prefer not to say

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- ☐ More than today
- ☐ Exactly the same
- ☑ **Less than today**
- ☐ Don't know
- ☐ Prefer not to say

If interest rates rise, what will typically happen to bond prices?

- ☐ They will rise
- ☑ **They will fall**
- ☐ They will stay the same
- ☐ There is no relationship between bond prices and the interest rate
- ☐ Don't know
- ☐ Prefer not to say

A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

- ☑ **True**
- ☐ False
- ☐ Don't know
- ☐ Prefer not to say

Buying a single company's stock usually provides a safer return than a stock mutual fund.

- ☐ True
- ☑ **False**
- ☐ Don't know
- ☐ Prefer not to say

Appendix B: Sample Demographics

Age	Unweighted Frequency	Weighted Percent
Millennials (18-34)	6,865	31%
Gen Xers (35-49)	6,642	25%
Boomers (50-66)	8,951	33%
Silent Generation (67+)	3,051	11%
Gender		
Male	11,382	49%
Female	14,127	51%
Household Income		
< $25K	6,365	27%
$25K-$50K	6,634	26%
$50K-$100K	7,956	30%
$100K-$150K	2,865	11%
$150K+	1,689	6%
Ethnicity		
White	18,715	66%
Black	2,700	12%
Hispanic	2,253	15%
Asian	946	5%
Other	895	2%
Household Composition		
Married Without Dependents	7,471	27%
Married With Dependents	6,849	27%
Single Male Without Dependents	3,911	18%
Single Male With Dependents	927	4%
Single Female Without Dependents	4,262	16%
Single Female With Dependents	2,089	8%

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Washington, DC 20006-1506
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