



Research and Statistics Note

Financial Literacy Among American Indians and Alaska Natives

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Introduction

Many Americans lack important financial skills and knowledge of critical concepts that can help ensure sound retirement planning and future economic security. Prior research has suggested that low levels of financial literacy are particularly acute among certain groups such as women, blacks, and persons with lower levels of educational attainment (Dunaway-Knight and others 2012; Hung, Parker, and Yoong 2009; Huston 2010; Lusardi 2008; A. Murphy 2005). This study adds to previous work on financial literacy among minority groups by examining the American Indian and Alaska Native (AIAN) population. Prior research on AIANs has often used convenience samples of university students and has been limited by the lack of nationally representative samples (for example, Anderson and others (2010); Chen and Volpe (2002); Mandell (2009); and Mandell and Klein (2007)).

In this note, we use a nationally representative sample from the Health and Retirement Study (HRS) to analyze how AIAN respondents scored on the 2008 HRS financial literacy module compared with white respondents (reference group) and other minority groups. The HRS is one of the foremost sources of information on the population aged 50 or older. We use an 18-item financial sophistication and investment decision-making (FSIDM) questionnaire.¹ Each correct answer receives one point; thus, the scale ranges from 0 to 18, with higher values representing more financial sophistication. The FSIDM questionnaire has been widely used in other studies to investigate financial literacy (for example, Agarwal and others (2009); Lusardi (2008); Lusardi and Mitchell (2007, 2008, 2011); and Lusardi,

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The findings and conclusions presented in this note are those of the authors and do not necessarily represent the views of the Social Security Administration or any other author affiliations.

¹ Although the financial sophistication scale includes 19 items, we selected only 18 of those items for use in this study. We omitted the item “I understand the stock market reasonable well.” for two primary reasons: (1) the scale’s reliability increases substantially without including the 19th item; and (2) all of the other items are objective questions, which can be scored as correct or incorrect, while the omitted item is subjective and cannot be scored similarly.

Mitchell, and Curto (2009)). Researchers have primarily used the FSIDM questionnaire to examine overall knowledge of financial literacy across broad swaths of the older U.S. population by sex, age, income, and race. However, racial differences in the aforementioned studies have been primarily limited to those between blacks and whites.

Selected Abbreviations	
AIAN	American Indian and Alaska Native
FSIDM	financial sophistication and investment decision making
HRS	Health and Retirement Survey

Our analysis finds that the mean number of questions that AIAN respondents correctly answered was significantly lower than the comparable figures for white, black, and Asian respondents. For each of the 18 questions in the module, we find that there are specific financial literacy topics in which the knowledge gap between AIANs and other race/ethnic groups was particularly large. However, a limited sample size constrains this analysis, and additional data and research are needed to fully address financial literacy within the AIAN population.

Sample Characteristics

Our analysis includes a total sample of 2,817 respondents aged 50 or older who completed the 2008 HRS financial literacy module. The proportion of respondents in each racial/ethnic group roughly approximates the U.S. population. We identify AIAN status by a respondent's self-report of race/ethnicity. Fifty-six respondents indicated that they were AIAN alone or in combination with another race/ethnicity; that represents about 2 percent of the sample and approximates the AIAN share of the population in the country (Census Bureau 2014; Norris, Vines, and Hoeffel 2012). The AIAN sample is heterogeneous, including respondents who live in urban and rural areas, for example. The study is not limited to single-race AIAN respondents and does not code for geographic location because to do so would have further limited the AIAN sample. Although our sample is larger than others (most of which use convenience samples), the limited sample size for the target population highlights the need for additional data and reinforces the fact that our results should only be viewed as preliminary exploration of financial literacy within the AIAN population.

Table 1 shows demographic characteristics of the sample in our analysis, by race. On average, compared with the results for the complete sample of respondents aged 50 or older, AIAN respondents were more likely to be single and have lower levels of education and income, which is comparable to the total AIAN population (Census Bureau 2014).²

² The exception is that the sex distribution differs. HRS samples generally tend to have higher proportions of women—about 60 percent of respondents (Lusardi, Mitchell, and Curto 2009; J. Murphy 2013). However, the proportion of women in this sample is a bit higher than expected. The financial literacy scale used in this study was, at the time of data collection, a new item in the HRS that replaced the shorter 3-item financial literacy scale. The financial literacy measure is a separate and additional survey to the core HRS questions. That is, respondents complete this measure at a later time than the bulk of HRS questions, often as a “leave-behind” questionnaire to be returned later. The confluence of the longer scale, the method of data collection for the module, and the pattern that women are generally more likely than men to complete surveys (Atkeson and Rapoport 2003) may explain the higher proportion of women in the sample.

Table 1.
Characteristics of the total 2008 HRS financial literacy module sample, by race

Characteristic	AIAN	Asian	Black	White	Total
Sample size					
Number	^a 56	85	366	2,310	2,817
Percent	2	3	13	82	100
Age (mean)	66.1	65.0	65.8	67.8	66.2
Sex (%)					
Men	29	24	25	21	22
Women	72	76	75	79	78
Education (mean years)	10.5	14.0	12.0	13.0	12.8
Marital status (%)					
Single	63	64	71	47	65
Married	37	36	29	52	35
Annual income (mean \$) ^b	8,720	13,776	10,920	12,815	13,150

SOURCE: Authors' derivations based on Health and Retirement Study (HRS) cases.

- a. The 56 American Indian and Alaska Native (AIAN) respondents is the confluence of the 18 single-race and 38 multi-race AIANs in the sample. Because of the small sample size, no subanalyses were performed on the subset of AIAN respondents.
- b. Annual income is in 2010 dollars and includes total earnings and total retirement income (pensions, Social Security benefits, and other retirement income).

Results

The financial literacy measure used in this study comprises 18 questions that assess a respondent's attitudes toward investing and risk and his or her knowledge of capital markets, risk diversification, fees, and investment risk and numeracy (Lusardi, Mitchell, and Curto 2009).³ The questionnaire asks respondents whether the given statements are true or false. Each correct answer receives one point; thus, the scale ranges from 0 to 18, with higher values representing more financial sophistication. Table 2 shows the percentage of respondents answering each question correctly, by racial group.⁴

Asians were the most financially literate, with a mean score of 11.6—meaning they answered more than half of the questions correctly. Whites had the second highest financial literacy scores, with a mean score of 10.8; blacks scored an average of 8.5. AIANs had the lowest average scores of all racial groups, with a mean of roughly 8 points.⁵

³ Readers should note that there is no universal agreement on the conceptual and operational definitions of financial literacy (Hung, Parker, and Yoong 2009; Huston 2010). Consequently, the financial sophistication scale does not represent a consensus measure of “financial literacy,” but is widely cited in the relevant literature. Future research could improve the robustness of our understanding of financial literacy among AIANs by using different questions for measuring financial literacy and determining whether the results are consistent with our results.

⁴ To reduce test-retest bias, the FSIDM questionnaire has two versions. Both versions contain the same questions in the same sequence, but use alternative wording (indicated in brackets in Table 2) that reverse the direction of a response. For example, in question 2, if the bracketed phrase “little or none” were used, a correct response would be “agree.” If the phrase “a lot” were used, the correct response to the question would be “disagree.”

⁵ The demographic and economic characteristics in Table 1 may play a role in AIAN financial literacy scores. However, the current analysis is descriptive, and additional research would be required to determine whether being AIAN has an independent, statistically significant effect on financial literacy when controlling for variables such as education and income.

Table 2.
FSIDM questions and percentage of correct responses, by race

Question	AIAN	Asian	Black	White (reference group)
1. You should put all your money into the safest investment you can find and accept whatever return it pays.	70.0	83.0**	71.0	70.0
2. An employee of a company with publicly traded stock should have [a lot/little or none] of his or her retirement savings in the company's stock.	31.0	60.0*	57.0*	59.0**
3. It is [best to avoid owning/a good idea to own] stocks of foreign companies.	63.0	71.0**	78.0*	79.0*
4. [Even older/Older] retired people should [hold some/not hold any] stocks.	38.0	54.0*	46.0**	48.0**
5. You should invest [most of your money in a few good stocks that you select rather than in lots of stocks or in mutual funds/in either mutual funds or a large number of different stocks instead of just a few stocks].	38.0	57.0**	52.0*	69.0**
6. To make money in the stock market, you [should not/have to] buy and sell stocks [too/not too] often.	56.0	69.0**	55.0	67.0**
7. For a family with a working husband and a wife staying home to take care of their young children, life insurance that will replace three years of income is [not/more than] enough life insurance.	56.0	100.0*	70.0**	77.0**
8. If you have to sell one of your stocks, you should sell one which has gone [up/down] in price rather than one which has gone [down/up].	56.0	67.0**	48.0	58.0
9. If you invest for the long run, the annual fees of mutual funds are [unimportant/important].	63.0	76.0**	70.0	77.0**
10. If the interest rate falls, bond prices will [rise/fall].	20.0	43.0**	41.0**	48.0**
11. When an investor spreads money between 20 stocks, rather than 2, the risk of losing a lot of money [decreases/increases].	44.0	70.0*	47.0	64.0**
12. It is [hard/easy] to find mutual funds that have annual fees of less than one percent of assets.	25.0	40.0**	35.0**	43.0**
13. The more you diversify among stocks, the [more/less] of your money you [can/should] invest in stocks.	38.0	60.0**	54.0**	59.0**
14. [If/Even if] you are smart, it is [easy/hard] to pick individual company stocks that will have better than average returns.	44.0	74.0*	57.0**	67.0**
15. Financially, investing in the stock market is [no better/better] than buying lottery tickets.	71.0	71.0	64.0	80.0**
16. Using money in a bank savings account to pay off credit card debt is usually a [good/bad] idea.	60.0	67.0	52.0	61.0
17. If you start out with \$1,000 and earn an average return of 10% per year for 30 years, after compounding, the initial \$1,000 will have grown to [more/less] than \$6,000.	47.0	71.0*	59.0*	76.0**
18. [There is no way to avoid people taking advantage of you if you invest in the stock market./It's possible to invest in the stock market in a way that makes it hard for people to take unfair advantage of you.]	50.0	75.0*	61.0*	70.0**

(Continued)

Table 2.
FSIDM questions and percentage of correct responses, by race—Continued

Question	AIAN	Asian	Black	White (reference group)
Overall financial literacy score (mean)	7.9 (2.1)	11.6** (3.1)	8.5* (3.3)	10.8** (3.3)

SOURCE: Authors' derivations based on 2,817 Health and Retirement Study cases, using the 2008 (Module 8) FSIDM questionnaire and associated response data.

NOTES: The calculations presented are a product of multiple statistical comparisons rather than a single statistical model. Because there are 18 questions and three different race comparisons, there are 54 individual comparisons. Consequently, we would expect 2.7 significant outcomes by chance at the 5 percent level even if there were no actual differences (54 comparisons times .05).

AIAN = American Indian and Alaska Native; FSIDM = financial sophistication and investment decision making.

Standard errors are in parentheses.

* Percentage answering correctly for the indicated racial group is significantly higher than the percentage of AIANs answering correctly at the $p \leq .05$ level.

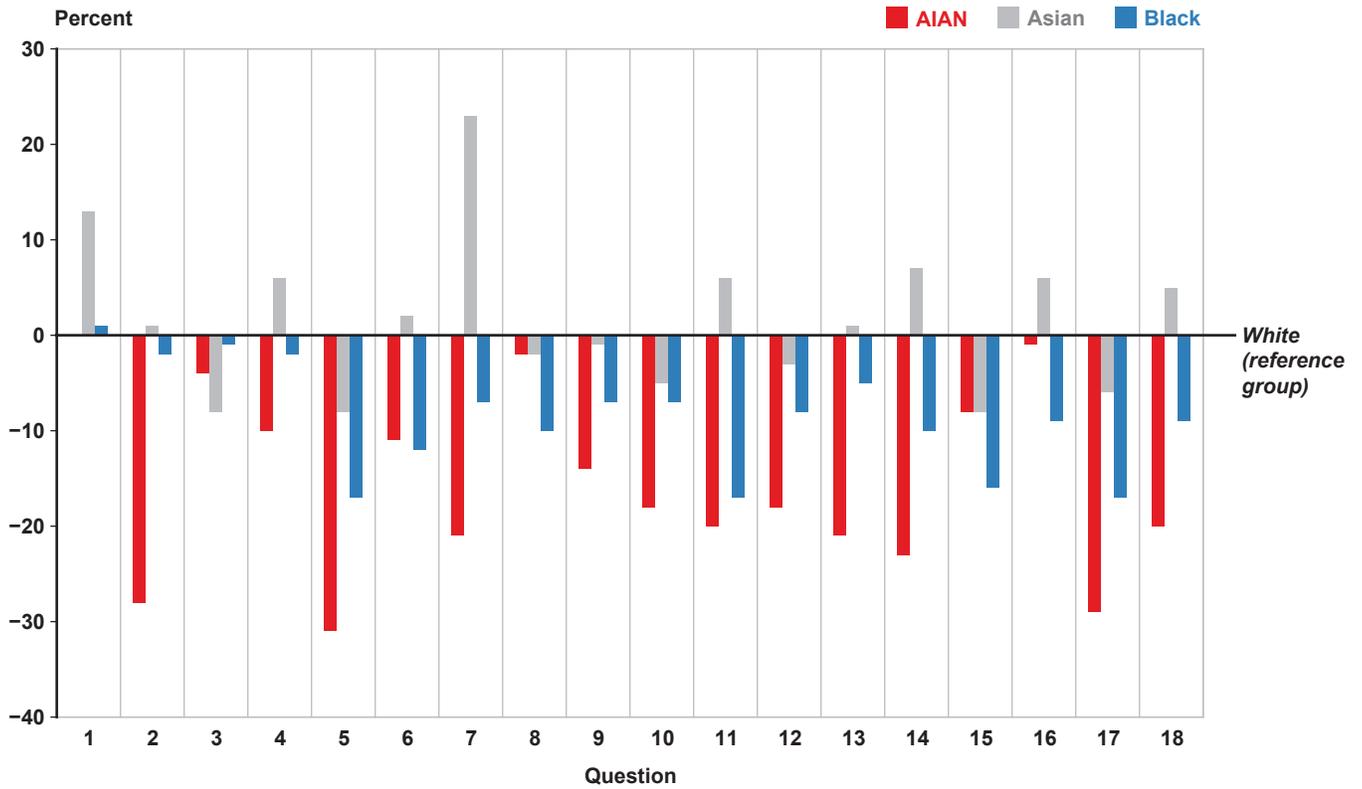
** Percentage answering correctly for the indicated racial group is significantly higher than the percentage of AIANs answering correctly at the $p \leq .01$ level.

Although AIAN respondents did well on a few questions (for example, 71 percent correctly answered question 15 (investing in the stock market and buying lottery tickets)), more than half of AIAN respondents answered 9 of the 18 questions incorrectly. The question with the lowest rate of correct responses (20 percent) among AIANs was question 10, which asked about the relationship between interest rates and bond prices. Other areas of notable weakness for AIANs involved constructs of mutual fund fees (question 12) and the desirability of holding large concentrations of company stock (question 2).

Asians scored significantly higher than AIANs in 16 of the 18 financial literacy questions, and whites scored significantly higher than did AIANs in 15 of the 18 questions. The gap between AIANs and blacks was less pronounced. Blacks outscored AIANs in only 11 of 18 financial literacy questions.

The following chart shows the difference in financial literacy scores between the racial groups in the study, with whites used as the reference group. For example, question 2 asks whether “An employee of a company with publicly traded stock should have [a lot/little or none] of his or her retirement savings in the company’s stock.” While 59 percent of white respondents answered the question correctly, only 31 percent of AIAN respondents did, resulting in a difference of 28 percentage points. In addition to the gap in scores for question 2 (company stock), the biggest gaps between AIANs and whites were for question 5 (investing in stocks) and question 17 (compound interest). For all three of those questions, the share of AIAN respondents providing the correct answer was around 30 percentage points lower than that for whites and significantly below the corresponding percentage for blacks.

Chart.
Financial literacy score differentials, by race: A comparison with whites (in percent)



SOURCE: Authors' derivations based on 2,817 Health and Retirement Study cases, using the 2008 (Module 8) FSIDM questionnaire and associated response data.

NOTES: AIAN = American Indian and Alaska Native; FSIDM = financial sophistication and investment decision making.

Conclusion

Our analysis of the 2008 HRS FSIDM module provides preliminary evidence that begins to address the lack of research on financial literacy within the AIAN population. Overall, we find that AIANs aged 50 or older have significantly lower financial literacy scores than do blacks, whites, and Asians of the same age, although the gap is narrower between blacks and AIANs. However, additional work is required to better address financial literacy among AIANs.

Although AIANs fared worse than all other racial groups, there is no clear pattern of deficiency within the group. AIANs performed poorly on a broad range of topics, so to begin to close the financial literacy gap, they may benefit from a wide range of financial education on a variety of topics, including investing and saving.

A critical factor in future research is obtaining more comprehensive data. The implications of our study are limited by the AIAN sample size. That limitation could be addressed if nationally representative data sets with larger AIAN samples—such as the American Community Survey, the Survey of Income and Program Participation, the Survey of Consumer Finances, and the Current Population Survey—were to begin collecting data on financial literacy and retirement planning. In addition, data sets that do contain financial literacy or retirement planning information, such as Jump\$start, could begin to oversample currently underrepresented AIAN populations to provide for in-depth explorations.⁶ Moreover, because this study is descriptive, the differences we identify may be due to underlying differences in education and/or income among the race categories used in the analysis.

More robust data could allow future research to better identify independent and statistically significant differences in financial literacy between AIANs and other racial groups as well as within specific segments of the heterogeneous AIAN population. New data could also inform critical efforts to address financial education in culturally appropriate and effective ways.⁷

⁶ The Jump\$start financial literacy survey can be found at <http://www.jumpstart.org/survey.html>. In addition, Jump\$start data are summarized at <http://www.jumpstart.org/assets/files/2008SurveyBook.pdf>. Chen and Volpe (2002) also present Jump\$start data findings.

⁷ The latter point may be particularly important in efforts to lessen economic vulnerability among AIANs, as the First Nations Development Institute (2007) suggests that some AIANs may be more invested in and adept at planning for retirement if a more culturally appropriate approach was used to determine and teach financial literacy: “Using culturally competent curricula in Native-serving schools, making strong linkages between financial education and Native students’ hopes and dreams, and increasing opportunities for Native youth to manage money and take responsibility for financial decisions are all promising approaches.”

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