The Association between Ownership of Non-Retirement Investments and Household Income

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Introduction

- The stock market has always been depicted and stereotyped as something that **the wealthy people use to grow their wealth**, and isn't often seen as something used by the common American as much (Khan, Rabbani, & Kadoya, 2020).
- For example, stock market participation is **more pronounced in high-income, high-education**, high-population-density groups (Gao et al., 2019).
- For example, evidence from the 1983-1989 Survey of Consumer Finances indicates that households with higher education and greater wealth who were non-stockholders in 1983 had an **increased probability** of entering by 1989. However, in 1983 stockholders with lower resources and more limited education were more likely to be non-stockholders by 1989 (Bertaut, 1998).
- People with **higher income or higher education** are more optimistic about future macroeconomic developments, such as stock market returns (Das et al., 2020).

Research Questions

- Are individuals with higher household incomes **more likely** to own non-retirement investments?
- Does the relationship between household income and owning non-retirement investments **differ** based on **education.**
- Are these differences **consistent and significant** across all observations?

Methods

Sample

- Respondents (n=6,394) were drawn from address-based sampling, dual-frame landline, and cell phone random digit dialing methods. **The National Financial Well-being survey**, a nationally representative sample of adults in the U.S.

Measures

- The first variable is the **presence of non-retirement investments**. This variable is a two level categorical variable simply determining the presence or absence of non-retirements investments for the individual.
- **Household income** is a categorical variable that is ordered. Household income was gathered in the form of ranges starting at less than 20k to more than 150k and then set to a corresponding dummy value ranging from 1 to 9.
- **Education** to the highest degree is a third variable used and is divided into 5 categories, each a different degree.

Results

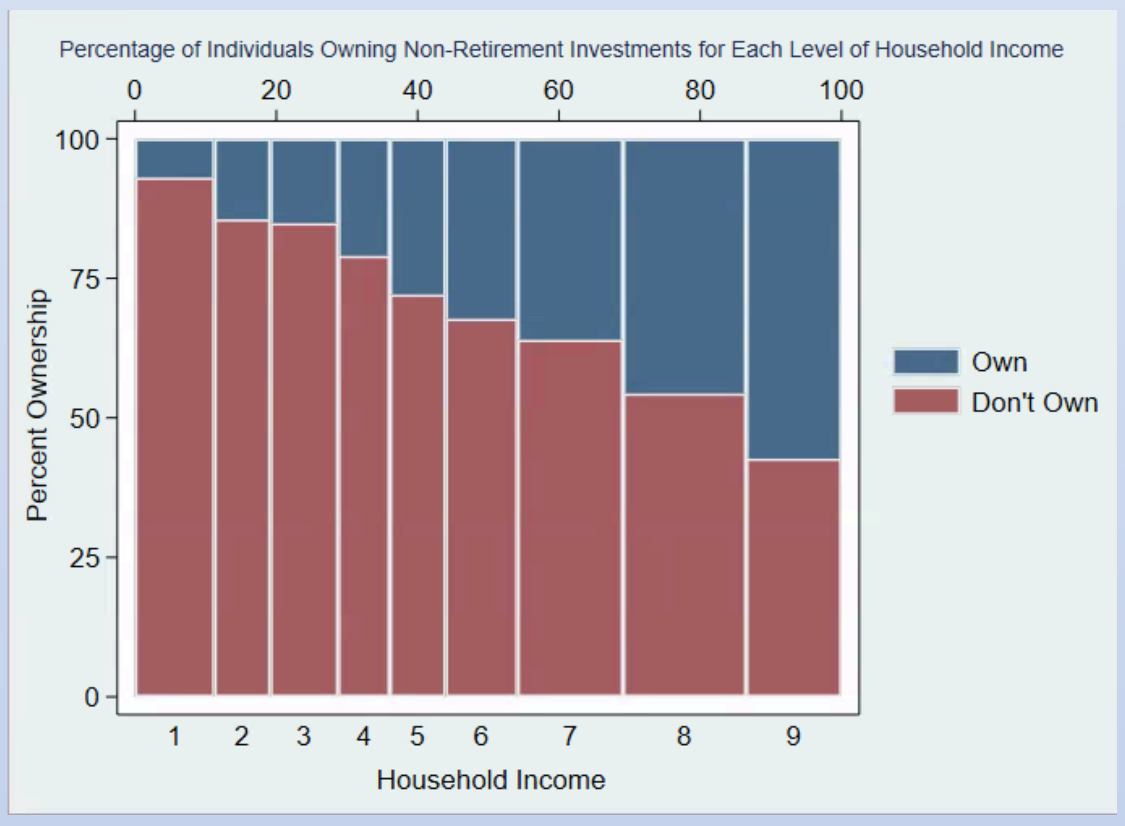
Univariate

- **31.5%** of the survey's participants reported owning non-retirement investments such as stocks, mutual funds, or bonds.
- The most likely household income range is category 8, \$100,000 to \$149,999 range (**17.44%** of participants).
- The most likely education category is number 3, representing some college time or an associate degree (**30.2%**).

Bivariate

- A Pearson chi-square correlation test showed that ownership of non-retirement investments **were significantly and positively associated** with household income (X2=751.34, p=0.000).

Figure 1



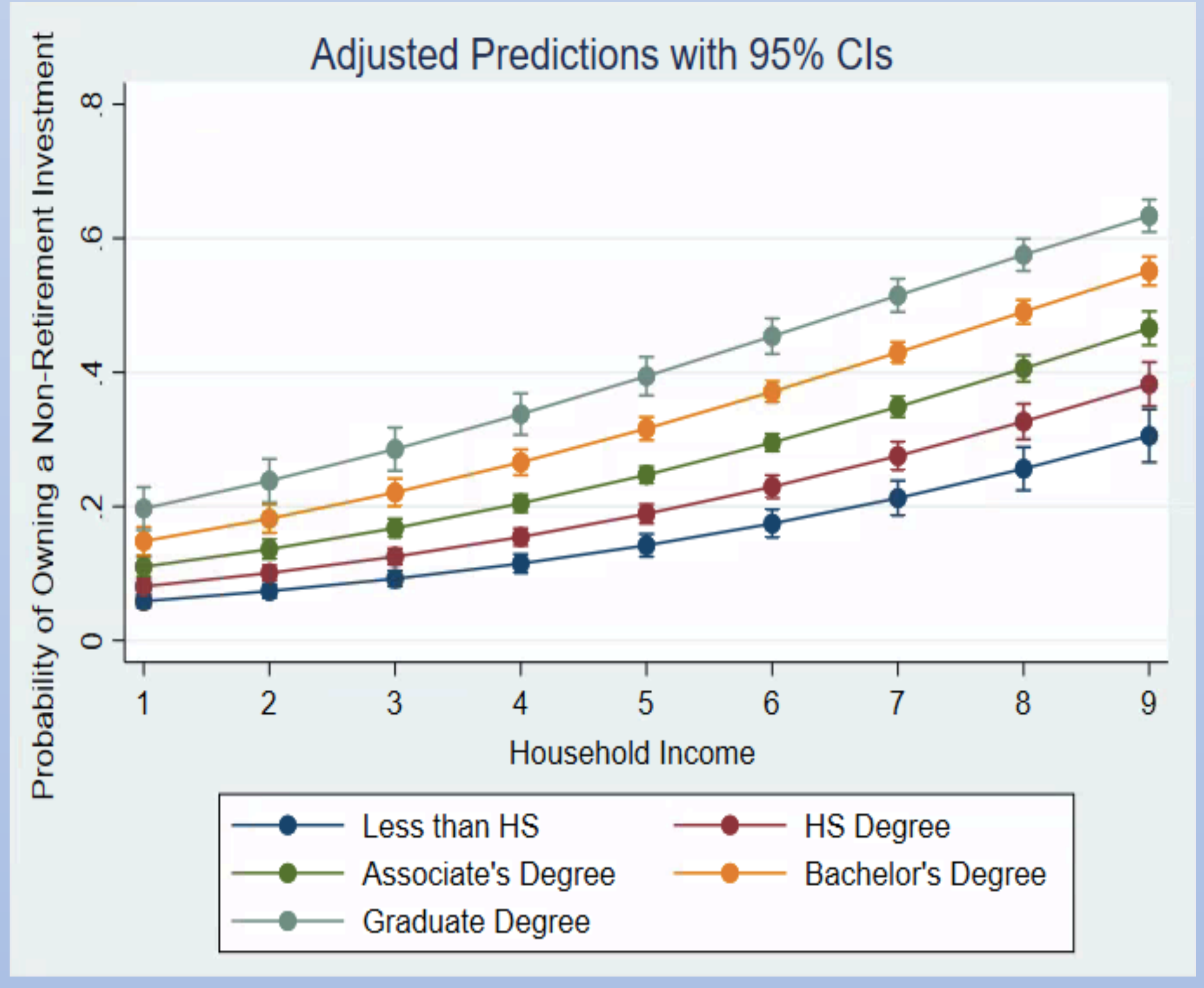
Note: Household Income level 1 represents an income less than 20k all the way up to level 9 which represents 150K+.

- Additionally, a post hoc test revealed that there was **significant association** within all household income levels except between neighboring levels. (ie. Income level 2 is significantly associated (p<.05) with all levels except level 1 and 3).

Multivariate

- **Multiple logistic regression** demonstrated that for all household income levels, the **probability** of owning an investment product increased as the individual's education level increased (Figure 2).
- After controlling for household income, the odds of owning a investment product is **6.67 times greater** for respondents who have a graduate degree than for respondents who have less than a high school diploma.

Figure 2: Probability of Ownership of Investment Products for Each Level of Education, Sorted by Household Income



Note: Y axis ranges from 0 to 1 with intervals of 0.2 (20%).

Discussion

- The odds of having an investment product **increases by 1.27** as the respondents income level increases by 1.
- Owning non-retirement investments is **positively and significantly associated** with household income.
- The odds of having an income greater than 74,999 (closest interval cutoff to average median household income in U.S.) is **3.57 times greater** for respondents owning an investment product than those who do not.
- This information could be used to make policy reform incentivizing low-income and less educated individuals to invest money and help increase their financial literacy to potentially **help narrow the wealth gap** created in financial markets such as the stock market.
- Further research is required to determine if a more balanced distribution of individuals owning non-retirement investments across all levels of household income and education would be **beneficial in increasing** the median household income in the United States.

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