Investing in the Future

A Geographic Investigation of Brick-and-Mortar Financial Services and Households' Financial Health

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Acknowledgments

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Recommended Citation

Overview

Households need access to financial services that enhance their long-term financial health by providing opportunities to accumulate assets and build credit. Under this purview, banks and credit unions can be used for future investment, and alternative financial service (AFS) providers have been heavily critiqued for their role in undermining households' long-term financial health. The types of financial services available within the community may be associated with financial health, improving or impeding a **household's** ability to invest in the future, maintain a manageable level of debt, and achieve long-term goals.

This study used data on financial services, individual/household and community demographics (including smartphone use), and household financial health to test whether the geographic concentrations or densities of bank and credit union branches and AFS providers within **communities were associated with households' financial health. We used two measures of** financial services: the numbers of financial services per 1,000 population, or densities, and the composition of financial services densities relative to one another. We explored these associations by income as the availability of financial services within communities varies based on household income levels.

The findings from this study are not intended to be used for drawing clear prescriptions about building brick-and-mortar branches in communities. Instead, these findings offer preliminary understandings of whether the availability of financial services in communities relates to **households' financial health, for which households, and under what conditions.**

Key Findings

- Financial services are almost exclusively associated with the future financial investments of lowest-income households. These households may be the most responsive or sensitive to the availability and composition of financial services in their communities than households with greater income.
    - The probability of lowest-income households owning investment accounts rises by 6% for each additional bank or credit union branch per 1,000 population.
    - The probability of lowest-income households maintaining their debt at a manageable level rises by 9% for every additional bank or credit union branch or AFS provider per 1,000 population.

- The composition of financial services densities—relative to one another—appear to matter more for lowest-income households, especially when communities have higher densities of banks and credit unions than AFS providers.
    - For lowest-income households, living in communities with densities of bank and credit union branches that equal and outnumber those of AFS providers is associated with a 30% rise in the rate of accumulating financial assets.
    - The probability of being confident in meeting long-term savings goals rises by 16% when lowest-income households are located in communities where densities of bank and credit union branches outnumber those of AFS providers.

Introduction

Financial health has been defined as being able to manage day-to-day finances, adjust to changing financial circumstances and unexpected expenses, and plan for long-term financial goals (Gutman, Garon, Hogarth, & Schneider, 2015). Not only must households be able to manage day-to-day finances and adjust to changes, they also need and deserve opportunities to plan for their long-term financial health and invest in their futures. Families and their children may worry less about today **when they know that tomorrow's financial health is secured through** their accumulated assets and manageable debt.

Financial services set the stage for long-term financial health by offering products and services that help households achieve long-term financial health. For example, if a household invests and accumulates assets in the products and services offered by banks and credit unions (e.g., money market accounts, stocks, and mutual funds), they have assets that provide a sense of financial security in case the car breaks down or they need a new roof on their home. Banks and credit unions can also provide a household with the credit, or debt, that they can leverage for additional future investments. Indeed, owning financial products and services from banks and credit unions is associated with **households'** accumulated assets and collateralized debts (Friedline & Freeman, 2016; Friedline, Johnson, & Hughes, 2014). A household accumulates more assets in money market and retirement accounts, stocks, and mutual funds when they also have checking and savings accounts (Friedline, Johnson, & Hughes, 2014).

In contrast, there is concern that the use of alternative financial services (AFS) may undermine a **household's** long-term financial plans and degrade their financial health. A household may pay high interest rates tomorrow for being able to borrow the money they need today, and, in the process, undermine their ability to invest in the future. A twenty percent interest rate on a $500, two-week loan from an AFS provider like a payday lender can translate into an annualized percentage rate (APR) of over 1,000%. This APR is substantially higher than the average APR of 4% on loans from banks and credit unions (Saunders & Schumacher, 2000).[1] What makes this rate even more egregious is that this interest compounds each time the loan is renewed, which seems to happen frequently among those who take out loans from AFS providers. Recent studies of AFS providers suggests that 80% of borrowers who take out a loan from AFS providers renew their loan within 14 days (Consumer Financial Protection Bureau [CFPB], 2014) and that 15% of borrowers who renew their loan do so at least 10 times (Stegman & Faris, 2003).

The types of financial services that a household uses—and how the use of these services relates to their investments in future financial health—may depend in part on their availability within a community. There is some evidence for this with regard to AFS providers. For instance, Friedline and Kepple (2016) found that when **communities'** AFS densities were higher, these services were more widely used by households from all income levels. They also found that when

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[1] It should be noted that the supply of small-dollar loans from banks and credit unions is limited, and the fees that banks and credit unions charge can operate much like the high-cost interest rates charged by AFS providers. In 2011, banks generated nearly $17 billion from overdraft fees (Borné & Smith, 2013). Thirty percent of account holders are charged overdraft fees (Consumer Financial Protection Bureau [CFPB], 2014), and these fees are concentrated in accounts held by lower-income households.

AFS densities were higher, lower-income households tended to use them more chronically than other income groups. In other words, the increased availability of AFS within their community helps to explain a **household's** increased use of these services, with implications for their ability to invest in the future.

> *The types of financial services that a household uses—and how the use of these services relates to their financial health—may depend in part on the availability of these services within a household's community.*

When it comes to the relationship between the availability of financial services and a **household's** investments in the future, the research presented above provides some limited perspective on the issue, and also raises a number of pertinent questions that require further study. For example, is a higher concentration or density of AFS negatively associated with the ability to maintain manageable levels of debt? Is a **household's** ability to use and accumulate assets associated with living in a community with more bank and credit union branches than AFS providers? Is the availability of financial services associated with achieving long-term savings goals?

We test these questions using data on financial services, community demographics, and household financial health. Moreover, we explore these associations by income[2] given that households may be exposed to varying densities of bank and credit union branches and AFS providers within communities based on their income levels.

A Geographic Investigation of Financial Services and **Households' Future Investments in** Financial Health

This brief report investigates the association between the geographic availability of financial services—the concentrations or densities of bank and credit union branches and alternative financial service providers within communities—and **households'** financial health using data from the 2012 National Financial Capability Study (NFCS), 2014 Consumer Financial Health Study (CFHS), US Geological Survey, FDIC, National Credit Union Administration (NCUA), Esri **Business Analyst, and US Census Bureau's American Com**munity Survey (ACS). Zip codes served as a proxy for communities given that the use of geographic space (i.e., activity space) is larger than other, smaller geographic units such as census blocks (Crawford, Jilcott Pitts, McGuirt, Keyserling, & Ammerman, 2014).

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[2] The samples were divided into lowest-income households with less than $35,000 in annual income, modest-income households with between $35,000 and $75,000 in annual income, and highest-income households with more than $75,000 in annual income.

Financial services in communities were measured in two different ways. First, we examined the densities of bank and credit union branches and AFS providers[3] as the numbers of financial services per 1,000 population in a zip code. Density measures adjust for the population size and, when examined as predictors, can indicate whether there is an increase or reduction in a **household's financial health for each ad**ditional financial service within every 1,000 people.[4] Second, we examined the composition of financial services relative to one another. That is, there **may be differences in a household's financial health if the density of bank and credit union** branches in their community is greater than the density of AFS providers. From this perspective, **the relative mix of financial services may relate to households' financial health.** Additional information on the data and methods is available in the technical appendix.

Investing in the Future

A household that is planning for the long term is likely able to make investments in their future, as indicated by owning investment accounts and accumulating assets. Owning investment accounts and accumulating assets are important because they may facilitate a **household'**s ability to afford college tuition, make a down payment on a home, or save to provide inheritances to future generations. In addition, these investments also provide a more substantial cushion for adjusting to changing financial circumstances.

When it c**omes to investing in one'**s future, the density of financial services within communities has associations with investing in the future for lowest-income households. More specifically, the probability of lowest-income households owning investment accounts rises by 6% for each additional bank or credit union branch per 1,000 population. At the same time, the probability of owning investment accounts increases by 2% when they live in communities with densities of bank and credit union branches that equal those of AFS providers, compared to communities with higher densities of AFS providers. These result may indicate that lowest-income households**' investments** may be more sensitive to the resources and opportunities in the communities in which they live than their modest- and highest-income counterparts.

> *Lowest-income households may accumulate more financial assets when they live in communities with densities of bank and credit union branches that equal or outnumber those of AFS providers.*

Apart from investments, there are relationships between the composition of financial services within a community and the amount of assets accumulated by lowest-income households. In fact, there is almost a 30% rise in the accumulation of financial assets associated with lowest-income households who live in communities with densities of bank and credit union branches that equal and outnumber those of AFS providers. In this case, the separate densities of financial

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[3] AFS providers included auto title loan, payday loan, check cashing, tax refund, pawn shop, and rent-to-own services.
[4] Please note that the analyses used to produce the findings in this report utilized linear regression and the relationships that were tested were correlational.

services are not associated with **households'** accumulated assets. Instead, the composition of financial services densities appears to matter more for lowest-income households.

The Rise in the Accumulation of Liquid Assets for a Lowest-Income Household
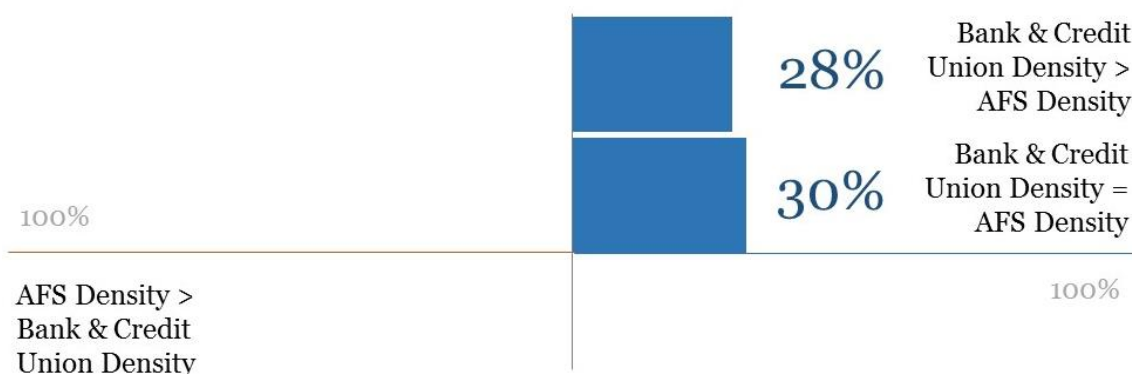
Note: This figure presents findings from the correlational relationships between financial services densities and lowest-**income households'** (*N* = 1,451) reported accumulated liquid assets from the 2014 Consumer Financial Health Study (CFHS). The complete analysis is available in the technical appendix.

Maintaining Manageable Debt

Maintaining debt at a manageable level is another indicator of a **household's** ability to plan for the long-term and to advance their financial health over time (Gutman et al., 2015). Debt can be used in productive ways that can promote financial health by building credit and improving financial standing (Dwyer, McCloud, & Hodson, 2011). Mortgage debt undertaken on a home is one example of this. A borrower who makes regular mortgage payments has the benefits of improving their credit score and investing in a type of debt that may eventually increase wealth via home equity.[5] However, to advance financial health, the amount of debt should be manageable. This means that a borrower should be able to make regular, timely payments and maintain a debt-to-income ratio of approximately 40 percent (Bricker, Dettling, Henriques, Hsu, et al., 2014; Federal Housing Authority, 2016).

The densities of financial services within lowest-income **households' communities** relate to their ability to maintain manageable debt. Again, these relationships only emerge among lowest-income households and not their modest- and highest-income peers. The probability of lowest-income households maintaining their debt at a manageable level rises by 9% for every additional bank or credit union branch or AFS provider per 1,000 population. Similarly, the probability of lowest-income households maintaining manageable debt increases by 1% when they live in

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[5] While secured debt is not always associated with improved financial health—as was the case during the Great Recession when equity on some home mortgages was negative and many households found themselves overleveraged (Ferreira, Gyourko, & Tracy, 2010)—its collateralized nature allows borrowers to leverage existing assets and bend credit markets to their advantage (Campbell & Hercowitz, 2005).

communities with densities of bank and credit union branches that outnumber those of AFS providers, compared to the opposite composition of densities.

> *The probability of lowest-income households maintaining their debt at a manageable level rises by 9% for every additional bank or credit union branch per 1,000 population.*

The Change in Probability that a Lowest-Income Household Maintains a Manageable Level of Debt
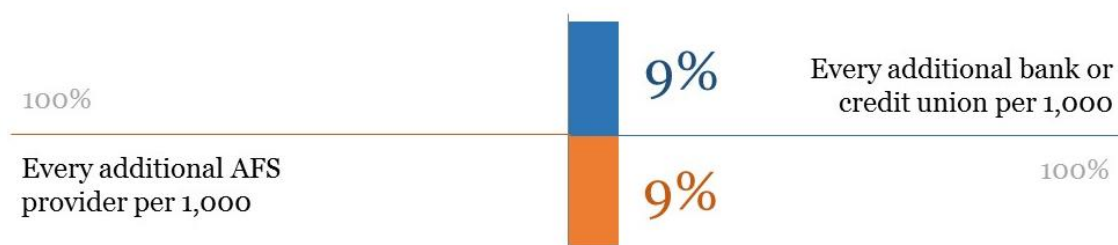
100%

9% Every additional bank or credit union per 1,000

Every additional AFS provider per 1,000

9% 100%

Note: This figure presents findings from the correlational relationships between financial services densities and lowest-**income households'** (*N* = 8,586) reported manageable debt from the 2012 National Financial Capability Study (NFCS). The complete analysis is available in the technical appendix.

Meeting Long-Term Financial Goals

A household should be better equipped to meet their long-term financial goals when they invest in the future and maintain a manageable debt level. A **household's** belief in their ability to meet these goals gives some indication as to whether they can lead their preferred financial lives over the long term and, perhaps, the extent to which they perceive that they have control over their future.

> *The probability of lowest-**income households' confidence** in meeting long-term savings goals rises by 16% when they live in communities with greater densities of bank and credit union branches.*

In this case, the composition of financial services densities relates to lowest-income **households'** confidence in meeting long-term savings goals, while the densities of AFS providers—irrespective of bank and credit union branch densities—appear to be important for modest-income households. The probability of being confident in their ability to meet long-term savings goals rises by 16% when lowest-income households are located in communities where densities of bank and credit union branches outnumber those of AFS providers, when compared to living in communities with higher densities of AFS providers. Among modest-income households, the

probability of being confident about meeting long-term savings goals falls by 4% for each additional AFS provider per 1,000 population.

Discussion

In this brief, we present findings on the relationship between the presence of financial services **within communities and multiple indicators of households'** long-term financial health. There are two notable findings. The first is that financial services are almost exclusively associated with the future financial investments of lowest-income households. Lowest-income households may be more responsive or sensitive to the availability and composition of financial services in their communities than modest- or highest-income households.

The second finding is that lowest-income households may be better able to improve their long-term financial health when they live in communities with higher densities of banks and credit unions than AFS providers. When they live in communities with a greater presence of banks and credit unions than AFS providers, lowest-income households tend to be more likely to own investment accounts, accumulate more financial assets, keep debt at manageable levels, and meet their long-term savings goals.

Limitations

Readers should be aware of certain limitations concerning data and findings in this brief. First, these findings should not be interpreted as causal. That is, an association between availability of financial services and household financial health does not mean, for example, that having a certain density of banks in **a household's** community means that the household will accumulate more assets. Other factors not available in the data are likely at play, such as whether these financial services are used and whether the products themselves are affordable. Factors that affect the use of financial services and the affordability of their products can include having checking accounts closed due to overdrafting (Campbell, Jerez, & Tufano, 2008) and insufficient funds to meet minimum monthly account balance requirements (FDIC, 2016).

Second, though the household financial data are drawn from nationally representative samples, zip code-level data on financial services densities differ somewhat from the data for the nation as a whole. For example, the average bank and credit union density for zip codes in the NFCS data is .19 per 1,000 population, which is somewhat lower than the average bank and credit union density for all zip codes, which is .33 per 1,000 population.

Finally, concerning AFS, data were available for 2015 and not matched to the years that household financial data were collected in 2012 and 2014. The available data also do not allow us to make a distinction between credit-related AFS like payday loans, and transaction-related AFS like check cashing. The data do not allow us to consider this distinction, even though payday loans are potentially more damaging to household financial health than check cashing.

Conclusion

This geographic investigation provides some evidence that financial services within households' communities—particularly for households with the lowest incomes—may be important for their future investments. A geographic investigation does not refute the potential of mobile banking for expanding financial access since it is not confined to a community or specific geographic space. Instead, this investigation helps us to further understand how households make use of the financial services that are available to them in their communities, whether any investments **into communities' financial services availability are warranted, and which households might** experience the greatest benefits from these investments. This research is only a first step toward considering these possibilities.

Technical Appendix

Data Sources

This study used several sources of data to test associations between the financial services within **individuals' and/or households' residential communities and their financial health, including** the 2012 National Financial Capability Study (NFCS), 2014 Consumer Financial Health Study (CFHS), Federal Deposit of Insurance Corporation (FDIC), National Credit Union Association **(NCUA), Esri Business Analyst, and US Census Bureau's American Community Survey (ACS).** Zip codes served as a proxy for communities given that zip codes are units defined by the US Postal Service and that use of geographic space (i.e., activity space) is larger than smaller geographic units such as census blocks (Crawford, Jilcott Pitts, McGuirt, Keyserling, & Ammerman, 2014).

Financial health data were drawn from the 2012 NFCS and 2014 CFHS. The 2012 NFCS was commissioned by the FINRA Investor Education Foundation and was completed online by a sample of 25,509 adults in the United States between July and October 2012. Additional information regarding the 2012 NFCS is available from the FINRA Investor Education Foundation. The 2014 CFHS was commissioned by the Center for Financial Services Innovation (CFSI) and was completed in partnership with GfK by a sample of 7,152 adults in the United States between June and August 2014. Additional information regarding the 2014 CFHS is available in a published report by CFSI (Gutman, Garon, Hogarth, & Schneider, 2015).

Measures

Financial services density. Financial services data were collected through several sources. The FDIC and NCUA provided data for bank and credit union branch locations, including their **street addresses and zip codes. Bank branch locations were collected through the FDIC's** summary of deposits, which provided quarterly information on all bank and bank branch locations. Credit union branch locations were collected through the NCUA call reports, which provided quarterly information on all credit union and credit union branch locations. Bank and credit union branch location data were retrieved from the first quarters in 2012 and 2014. Branch location data from 2012 were used with the 2012 NFCS and data from 2014 were used with the 2014 CFHS.

Data by zip code on alternative financial service locations and market potential were collected from 2015 Esri Business Analyst Geographic Information System (GIS). Unfortunately, Esri Business Analyst only maintains current year data, meaning that it was not possible to collect archived AFS data from 2012 or 2014 that corresponded with the timing of the NFCS or CFHS survey data collection. Information on changes in AFS locations between 2012, 2014, and 2015 was unavailable; however, there is reason to believe that any changes during these years would have been small and would not have substantially altered our results. Major state regulatory policies that could have impacted AFS locations were implemented during the preceding decade before our data were collected (Bhutta, 2014). Moreover, substantial changes have typically

occurred over longer time periods such as 10 years or more and any dramatic changes were likely confined to the Great Recession through 2011 (Agarwal, Gross, & Mazumder, 2016). Twelve codes from the North American Industry Classification Systems (NAICS) were used to identify alternative financial services and included auto title loan, payday loan, check cashing, tax refund, pawn shop, and rent-to-own services.

Density measures were calculated by aggregating the locations of bank and credit union branches and alternative financial services within zip codes and calculating their total numbers of locations per 1,000 population. Zip codes with no matching density measure were considered to not have any post offices, bank and credit union branches, or alternative financial services within their communities. Densities were capped at the 99th percentile. Density measures were merged with household financial health data using zip codes. In the NFCS data, there were 10,207 zip codes (32% of all residential zip codes in the US), and an average of 2.5 households per zip code (*SD* = 3.21; range: 1 to 54). In the CFHS data, there were 5,298 zip codes (17% of all residential zip codes in the US), and an average of 1.4 households per zip code (*SD* = 0.68; range: 1 to 6).

State regulation of payday lenders. Given that regulation may have played a role in the density of AFS within a zip code and **a household's** use of these services (Bhutta, 2014; Melzer, 2011), the states in which individual respondents lived were coded for their regulation of payday lenders in 2011 (no regulation = 0; light or heavy regulation = 1; prohibited regulation = 2). The measure **for a community's density of** AFS was more comprehensive than just payday lending services, also including auto title loans, check cashers, tax refunds, pawn shops, and rent-to-own stores that may not have been affected by payday lending regulation. However, in some cases individuals have been found to adjust their use of AFS depending on the regulatory environment (Friedline & Kepple, 2016), and perhaps rely more often on auto title loans or pawn shops where payday lenders are prohibited (Carter, 2015; McKernan, Ratcliffe, & Kuehn, 2013).

Individual and/or household demographics. Individual and/or household demographic variables previously found to have associations with financial health were taken from the 2012 NFCS and 2014 CFHS and controlled in the analyses. These variables included age, gender, race, gender, presence of children in the household, marital status, education level, employment status, annual household income (lowest < $35,000 *N* = 9,250; modest $35,000 to < $75,000 *N* = 8,616; highest ≥ $75,000 *N* = 7,643), financial literacy, and bank account ownership.

Community demographics. Additional community demographic data were collected from **the US Census Bureau American Community Survey's (ACS) 2010 to 2014 five**-year estimates and Esri Business Analyst. These data provided aggregate population estimates by Census Bureau zip code tabulation areas (ZCTAs), which were cross-walked to zip codes. Population density equaling 1,000 residents per square mile was controlled in order to account for the variation in geographic size across zip codes. These variables also measured the percent of the population that was of different racial groups, was unemployed, and was living in poverty. For example, the US Census Bureau calculated the unemployment rate dividing the total number of the unemployed by the total number of the population ages 16 years and older who reported

participating in the labor force. These data also included whether the zip code was located within urban clusters or towns.

The market potential or local consumption rate of savings accounts and smartphones were **included, which were collected from 2015 Esri Business Analyst. Zip codes' market potential was** defined as the expected number of consumers who had savings accounts or used smartphones divided by the total number of adults. The use of smartphones served as a proxy for the potential **of mobile banking within a household's community.**

Analysis Plan

Linear regression was the primary analytic tool used to assess statistical significance for the relationship between densities of financial services and financial health. Logistic, multiple, and zero-inflated negative binomial regression in Stata version 12 were used to predict financial **health outcomes. Regression coefficients and predicted probabilities using Stata's .***margins, atmeans* command were used to report statistical significance.

Propensity score weighting was used for analyses of financial health based on whether households were in one of three types of communities, where (1) bank and credit union branch density < alternative financial services density; (2) bank and credit union branch density = alternative financial services density; and (3) bank and credit union branch density > alternative financial services density. Financial health may differ based on the relative availability of different types of financial services in one's community. To examine this possibility, we used propensity score weighting to adjust for differences in household characteristics among these three types of communities that otherwise might explain differences in financial health (Guo & Fraser, 2010; Imbens, 2000). First, we examined differences in household characteristics for the three types of communities. Next, we used multinomial logit regression to predict the probablities of living in each of the three communities based on differences in household characteristics that were statistically significant (Guo & Fraser, 2010). Lastly, we used these predicted probabilities to calculate average treatment-effect-for-the-treated (ATT) propensity score weights which were used in analyses to balance the three types of communities. Models incorporated robust standard errors to adjust for correlations among households in the same zip code.

Results

A summary of the results is provided here and complete results are available upon request.

Investing in the future. With regard to investing in the future, data from the 2012 NFCS and 2014 CFHS were used (see Tables 1 and 2). In measuring ownership of investment accounts, participants responded to a question in the 2012 NFCS that asked whether or not they owned or held any investments in stocks, bonds, mutual funds, or other types of securities (see Table 1). Among lowest-income households (*n* = 7,354), bank and credit union density was positively associated with owning investment a**ccounts (β =** .602; SE = .143; Pr = .060; *p* < .05). Compared to AFS densities that outnumbered those of banks and credit unions, having equal and greater

densities of banks and credit unions was positively related to lowest-**income households'** ownership of investment accounts (respectively, **β** = **.**507; SE = .130; Pr = .023; *p* < .01 and **β** = .229; SE = .101; Pr = .010; *p* < .05). There were no significant associations among modest-income (*n* = 7,787) or highest-income (*n* = 7,118) households.

In measuring accumulated financial assets, participants responded to a question in the 2014 CFHS that asked how much money their households had in checking, savings, money market accounts, stocks, and bonds (see Table 2). Among lowest-income households (*n* = 1,451), the composition of financial services densities were related to the amount of accumulated assets. Compared to AFS densities that outnumbered those of banks and credit unions, having equal and greater densities of banks and credit unions was positively related to lowest-income **households'** amount of accumulated assets (respectively, **β** = **.**296; SE = .155; *p* < .10 and **β** = .281; SE = .137; *p* < .05). There were no significant associations among modest-income (*n* = 1,301) or highest-income (*n* = 2,310) households.

Table 1. Owning Investment Accounts

	Lowest-Income Individuals			Modest-Income Individuals		Highest-Income Individuals	
	β (SE)		Pr	β (SE)		β (SE)	
Bank and credit union density	.602*	(.143)	.060	.979	(.157)	1.207	(.217)
AFS density	.695	(.219)		1.034	(.250)	.683	(.195)
Model	.034***	(.016)		.031***	(.012)	.052***	(.022)
Psuedo R²	.078			.085		.093	
Financial services density (Reference: Banks and credit unions < AFS)							
Banks and credit unions = AFS	.507**	(.130)	.023	.102	(.105)	.115	(.105)
Banks and credit unions > AFS	.229*	(.101)	.010	.083	(.077)	.083	(.080)
Model	−4.681***	(.579)		−5.060***	(.595)	−4.053***	(.576)
Psuedo R²	.351			.194		.115	
N	7,354			7,787		7,118	

Source: Data from the 2012 National Financial Capability Study (NFCS).
Notes: Participants responded to a question that asked whether or not they owned or held any investments in stocks, bonds, mutual funds, or other types of securities. Logistic regression analyses controlled for community and individual demographics and state regulation of payday lenders. Models with categorizations of financial service density were weighted using the average treatment-effect-for-the-treated (ATT) propensity score weights to adjust for observed selection. Analyses only undertaken with NFCS data. β = regression coefficients. Robust SE = robust standard error. Pr = predicted probability. * *p* < .05; ** *p* < .01; *** *p* < **.001;** † *p* < .10

Table 2: Total Financial Assets

	Lowest-Income Individuals		Modest-Income Individuals		Highest-Income Individuals	
	Any Assets	Asset Amount	Any Assets	Asset Amount	Any Assets	Asset Amount
	β (LSE)	β (LSE)	β (LSE)	β (LSE)	β (LSE)	β (LSE)

Bank and credit union density	.455	(.347)	.527	(.156)	−1.055	(.895)	−.087	(.231)	−.417	(.904)	.009	(.134)
AFS density	1.556	(.289)	−.156	(.231)	−.244	(.984)	−.219	(.267)	.484	(.823)	−.006	(.164)
Model	−1.999	(3.411)	−2.227**	(.678)	−2.308	(.389)	.549	(.476)	2.356	(1.451)	.614*	(.307)
Ln α	.397***	(.106)			−1.309***	(.159)			−1.643***	(.104)		

Financial services density (Reference: Banks and credit unions < AFS)												
Banks and credit unions = AFS	−.116	(.347)	.296†	(.155)	.470	(.427)	−.093	(.119)	.162	(.362)	−.089	(.059)
Banks and credit unions > AFS	−.087	(.289)	.281*	(.137)	.531	(.452)	−.032	(.094)	.220	(.281)	−.009	(.043)
Model	−4.441**	(1.639)	−.143	(.874)	.324	(3.561)	.475	(.743)	−3.222	(2.030)	.812*	(.407)
Ln α	.668*	(.313)			1.090***	(.232)			1.642***	(.177)		
N		1,451				1,301				2,310		

Source: Data from the 2014 Consumer Financial Health Study (CFHS).

Notes: Participants responded to a question that asked how much money their households had in checking, savings, money market accounts, stocks, and bonds. The question excluded money held in retirement accounts. Zero-inflated negative binomial (ZINB) regression analyses separately modeled the presence of any assets ($0; > $0) and the amount of assets that participants had accumulated (> $0), while controlling for community and individual demographics and state regulation of payday lenders. Models with categorizations of financial service density were weighted using the average treatment-effect-for-the-treated (ATT) propensity score weights to adjust for observed selection. Analyses only undertaken with CFHS data; a corresponding variable measuring asset amounts is not available in NFCS data. β = regression coefficients. LSE = linearized standard error. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

Maintaining manageable debt. With regard to keeping their debt at a manageable level, data from the 2012 NFCS were used (see Table 3). Participants responded to a seven-point Likert scale question that asked their report on having too much debt. Their responses were dichotomized to measure whether or not they believed their debt was at manageable levels. Among lowest-income households ($n = 8,586$), bank and credit union density and AFS density were positively associated with maintaining manageable debt (respectively, β = 1.444; SE = .207; Pr = .089; $p < .01$ and β = .691; SE = .128; Pr = .089; $p < .05$). Compared to AFS densities that outnumbered those of banks and credit unions, having greater densities of banks and credit unions was positively related at trend level to lowest-income households' manageable debt (β = .103; SE = .062; Pr = .011; $p < .10$ There were no significant associations among modest-income ($n = 8,176$) or highest-income ($n = 7,312$) households.

Table 3. Debt at Manageable Levels

	Lowest-Income Individuals			Modest-Income Individuals		Highest-Income Individuals	
	β (SE)		Pr	β (SE)		β (SE)	
Bank and credit union density	1.444**	(.207)	.089	1.224	(.186)	1.199	(.216)
AFS density	.691*	(.128)	.089	1.220	(.267)	1.185	(.335)
Model	1.042	(.296)		.916	(.300)	.297**	(.122)
Psuedo R²	.022			.047		.081	

	β	(SE)		β	(SE)		β	(SE)
Financial services density (Reference: Banks and credit unions < AFS)								
Banks and credit unions = AFS	.131	(.081)		−.036	(.096)		−.052	(.103)
Banks and credit unions > AFS	.103†	(.062)	.011	.046	(.069)		−.026	(.079)
Model	−.023	(.370)		.391	(.496)		1.588	(.557)
Psuedo R²	.424			.115			.087	
N		8,586			8,176			7,312

Source: Data from the 2012 National Financial Capability Study (NFCS).

Notes: Participants responded to a seven-point Likert scale question that asked their report on having too much debt. Their responses were dichotomized to measure whether or not they believed their debt was at manageable levels. Logistic regression analyses controlled for community and individual demographics and state regulation of payday lenders. Models with categorizations of financial service density were weighted using the average treatment-effect-for-the-treated (ATT) propensity score weights to adjust for observed selection. Analyses undertaken with CFHS data did not reveal any significant relationships **between financial services densities and debt outcomes; however, CFHS' debt m**easurements were different than those in the NFCS, such as calculating total debt payments per month and debt-to-income ratios. β = regression coefficients. Robust SE = robust standard error. Pr = predicted probability. * *p* < .05; ** *p* < .01; *** *p* < .001; † *p* < .10

Meeting long-term financial goals. With regard to meeting long-term financial goals, data from the 2014 CFHS were used (see Table 4). Participants responded to a five-point Likert scale question that asked them to rate their confidence in meeting long-term saving goals. Among lowest-income households (*n* = 1,478), neither bank and credit union density nor AFS density was associated with confidence in meeting short-term savings goals. However, compared to AFS densities that outnumbered those of banks and credit unions, having a greater density of banks and credit unions was positively related to lowest-**income households'** confidence in meeting these long-term goals (β = .156; SE = .079; *p* < .05). Among modest-income households (*n* = 1,343), there was some evidence that AFS density was negatively associated with their confidence in meeting long-term financial goals (β = −.432; SE = .252; *p* < .10). There were no significant associations among highest-income (*n* = 2,379) households.

Table 4. Long-Term Savings Goals

	Lowest-Income Individuals		Modest-Income Individuals		Highest-Income Individuals	
	β (SE)		β (SE)		β (SE)	
Bank and credit union density	.054	(.247)	.278	(.227)	−.071	(.163)
AFS density	−.395	(.247)	−.432†	(.252)	.093	(.194)
Model	1.648***	(.378)	1.370**	(.415)	2.227***	(.342)
R²	.030		.037		.025	
Financial services density (Reference: Banks and credit unions < AFS)						
Banks and credit unions = AFS	.130	(.098)	.031	(.096)	−.028	(.068)
Banks and credit unions > AFS	.156*	(.079)	.077	(.070)	.033	(.057)
Model	1.790**	(.561)	1.448	(.505)	2.030	(.429)
R²	.088		.056		.052	

| N | 1,478 | 1,343 | 2,379 |

Source: Data from the 2014 Consumer Financial Health Study (CFHS).

Notes: Participants responded to a five-point Likert scale question that asked them to rate their confidence in meeting long-term saving goals. Multiple regression analyses modeled the continuous responses and controlled for community and individual demographics and state regulation of payday lenders. Models with categorizations of financial service density were weighted using the average treatment-effect-for-the-treated (ATT) propensity score weights to adjust for observed selection. Analyses only undertaken with CFHS data; a corresponding variable is not available in NFCS data. β = regression coefficients. Robust SE = robust standard error. * $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

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