FINRA Investor Education FOUNDATION

Insights: Financial Capability

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Authors:

Timothy Brown
Associate Professor,
San Diego State University

Marc D. Glidden
Assistant Professor,
California State University,
Northridge

What's Inside:

Gender and Financial Capability from Behind Bars

Summary

This paper summarizes the findings from an exploratory study on the financial literacy and habits of incarcerated individuals. The research used primary survey data collected from 515 women and men incarcerated in five correctional facilities in Arkansas. We found that incarcerated women relative to incarcerated men have higher poverty rates, lower financial literacy levels, and are more likely to use high-cost borrowing methods. However, while there were significant divergences between incarcerated men and incarcerated women, the more substantial differences were between the incarcerated population and the general population. Those who were incarcerated, especially females, fared much worse financially, whether it was their education, assets or economic practices. Regarding chronic offenders, we found that recidivated respondents did not have different levels of financial literacy than non-recidivated respondents. However, we found that the use of high-cost borrowing methods was positively associated with the likelihood of recidivating, even after controlling for key demographic variables.

Background

The rate of incarcerated individuals in the United States has risen from around 300,000 in the 1970s to over two million people incarcerated within state and federal prisons in 2016 (Kaeble & Cowhig, 2016). Both female and male prisoner populations increased in 2013 by 26 percent and 17 percent, respectively (Carson, 2014). Furthermore, the United States releases over 600,000 former offenders back into mainstream society every year (Carson & Golinelli, 2014). These former offenders often encounter difficulties when returning to society, due to low educational attainment, having relatively few marketable career skills, a lack of financial means, and other financial stressors (Clear, 2007; McLean & Thompson, 2007). Potentially exacerbating this issue are findings in previous research documenting that both male and female inmates have lower levels of financial literacy in comparison to individuals not incarcerated (Glidden & Brown 2016, 2018). Despite these alarming statistics and their interplay with financial education, there is limited empirical insight on the financial knowledge of those within prison populations. Furthermore, while past research has shown that there are significant differences between men and women regarding levels of financial knowledge, whether this gap exists between incarcerated males and females is not as well known. This is especially important given the significant differences between men and women in regard to both re-entry (Spieldnes & Goodkind, 2009) and financial knowledge.

Current Study

This research utilizes primary survey data collected between 2013 and 2015 from 515 women and men incarcerated in five correctional institutions in Arkansas and financial data on the Arkansas general public from the 2012 National Financial Capability Study conducted by the FINRA Investor Education Foundation (FINRA Foundation). Inmates were asked questions on financial literacy in addition to questions aimed at assessing their financial habits. This data was then analyzed to compare male and female incarcerated individuals' practices of asset accumulation, financial planning, personal finances, predatory lender use, financial literacy and specific offender information. Furthermore, ordinal logistic regressions were used to investigate any relationship between recidivism and one's level of financial literacy, predatory lender use, and asset and financial planning.

We examined two research questions:

1. How do incarcerated men and women differ in terms of financial literacy and financial habits between themselves and the general public?
2. How does recidivism relate to financial literacy, predatory lender use, and asset and financial planning?

To address the first question, we surveyed both incarcerated males (n=358) and incarcerated females (n=157) on the same financial questions gathered in the 2012 NFCS dataset generated by the FINRA Foundation, which provided the data on non-incarcerated males and females in Arkansas. The list of variables included within this examination, as well as general population comparisons, can be found in Table 1 in Appendix A.

Table 1 reveals some stark differences between the populations, most notably differences in racial composition and poverty rates. Specifically, 80 percent of non-incarcerated males are white compared to only 45 percent of incarcerated males; and 82 percent of non-incarcerated females are white compared to 60 percent of incarcerated females. Similarly, 18 percent of non-incarcerated males live below the poverty line compared to 26 percent for incarcerated males, and only 16 percent of non-incarcerated females live below the poverty line compared to staggering 54 percent for incarcerated females. These differences reflect national statistics that show minorities are incarcerated at significantly higher rates in America and are much more likely to live in poverty. They also reflect a history of systemic racism and gender discrimination in the United States that has limited the economic opportunities of minorities and women. While we examine gender differences in this study, our sample size does not permit us to examine how race may influence the financial capability of incarcerated populations for all analyses, though race is included as an explanatory variable in the regressions that address research question number two.

More specifically, for research question number two, we conducted a series of ordinal logistic regression models to determine the relationship between recidivism (whether or not the respondent served time before) and three dependent variables: financial literacy, predatory lender use, and asset and financial planning. For this study, recidivism was identified as an independent variable. While the argument could be made that, for example, financial literacy affects recidivism, this study placed emphasis on recidivism, or going to prison on more than one occasion, as a means of causing a change in the other variables. In other words, recidivism is viewed as a means of impacting the ability of an individual to gain financial literacy, avoid predatory lenders, and collect assets and plan for future financial events. For example, being incarcerated could negate one's ability to gain financial literacy either through everyday experience or through schooling outside of prison. Furthermore, stagnant or lowered levels of financial literacy could be exacerbated among inmates in institutions that lack financial literacy programming, which most do. This lack of financial literacy in combination with institutionalization inhibiting one's ability to gain and secure financial assets could increase the likelihood of utilizing predatory lenders, both out of necessity and lack of knowledge of their deleterious nature. Last, lowered financial literacy and incarceration could limit one's ability and/or interest in future financial planning. To gauge the impact of incarceration and recidivism on these outcomes, relationships were examined while controlling for seven variables: age, gender, race, marital status, education, income and banked status. Appendix B includes a brief operationalization of the primary explanatory variable and seven control variables followed by the measurement processes associated with the dependent variables.

Findings

In this section, we present the results of our research questions. Specifically, we recognize the significant differences between incarcerated men and women, and their financial knowledge and habits. Additionally, we present regression findings that explore the relationship between recidivism and financial literacy, predatory lender use, and asset and financial planning.

How do incarcerated men and women differ in terms of financial literacy and financial habits between themselves and the general public?

While there were statistically significant differences demographically between incarcerated men and incarcerated women, the more substantial differences were between the incarcerated population and the general population (see Table 1 in Appendix A for detailed findings). As noted above, the incarcerated samples had higher percentages of individuals that were younger, non-white, not married, had lowered levels of educational achievement, or were living in poverty.

Incarcerated females in Arkansas had the highest rates of poverty at 54 percent, with incarcerated males next at 26 percent; only 18 percent of males and 16 percent of females in the general population of Arkansas shared similar economic circumstances (Figure 1). Incarcerated men had the lowest levels of educational achievement, with a large difference between them and non-incarcerated men in Arkansas. Interestingly, the educational attainment of females did not vary much between those in prison and those not.

It is important to note that the cross-sectional nature of our analysis does not permit us to determine if these differences are caused by incarceration, if the demographics are leading to incarceration or some combination thereof. The same can be said for the financial behaviors that we examine below. That is, we do not know if the demographics or incarceration or some unobserved variable is driving the differences in financial behavior, but we can confirm that the differences exist and that they are troubling in some places.

The biggest difference in asset accumulation regarded home ownership. Like our findings on poverty, incarcerated females fared worse in home ownership. While incarcerated men were only slightly more likely to own a home at 26 percent compared to 18 percent, this is in stark contrast to 70 percent of males and 63 percent of females in the Arkansas general public owning homes (FINRA Investor Education Foundation, 2013).

Figure 1: Financial Realities of Arkansas

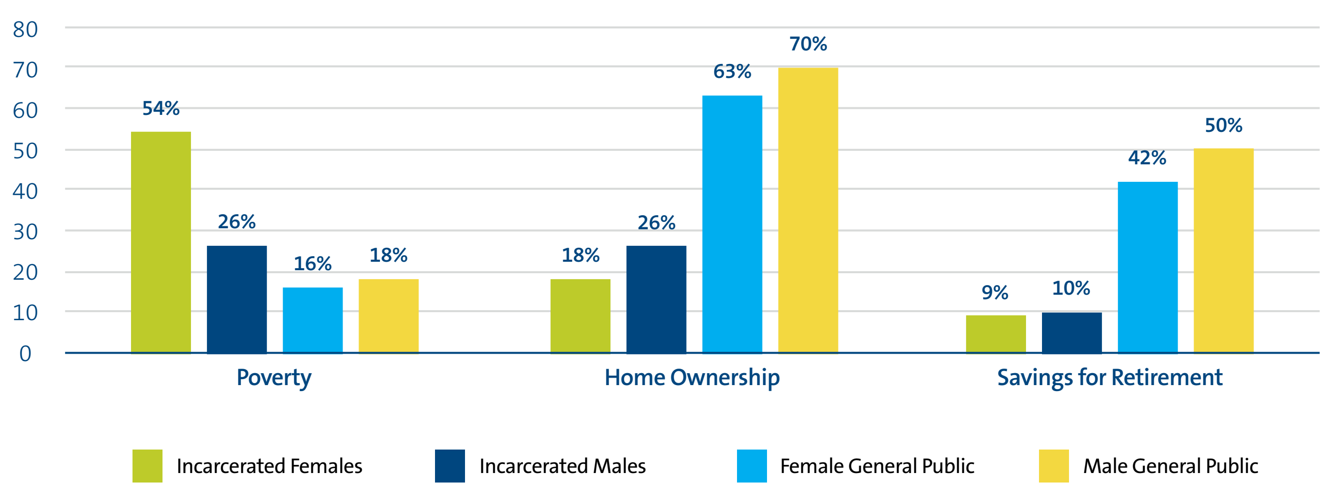
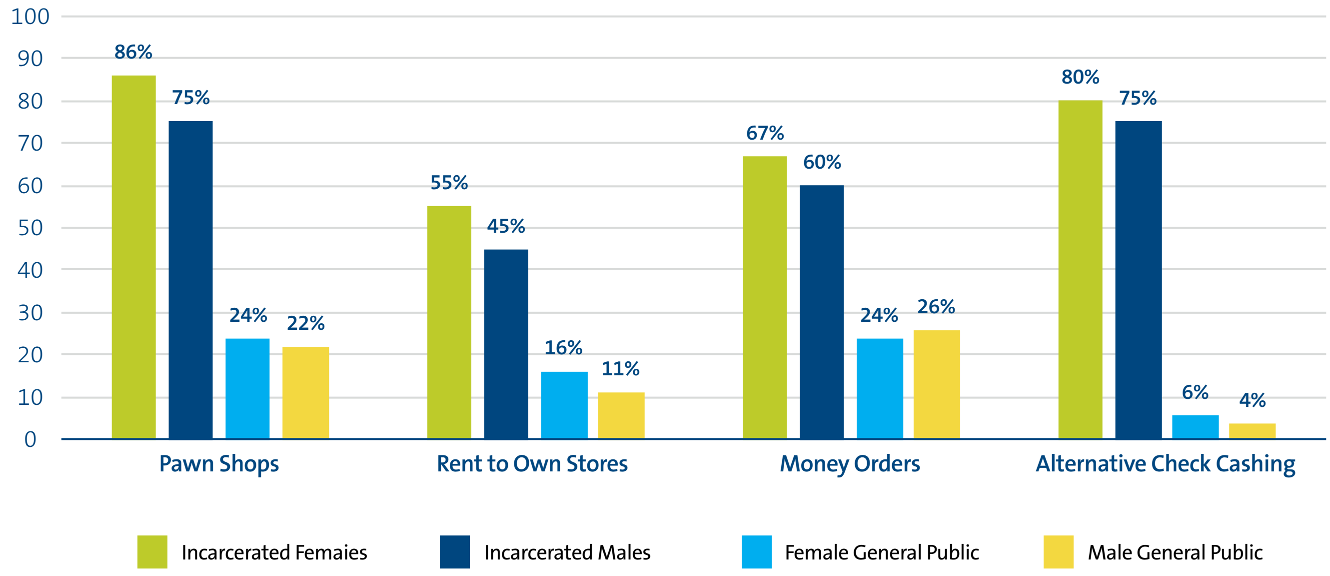


Figure 2: Use of Non-Traditional Banking Methods

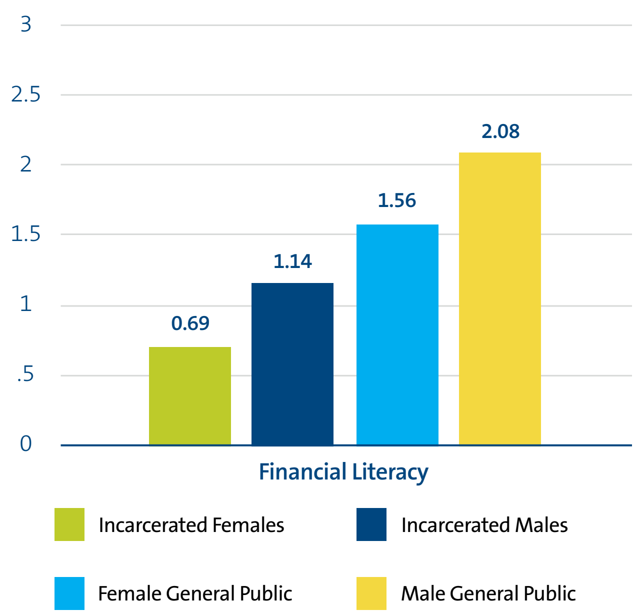


Unfortunately, our research shows alarming results for all of our samples when it comes to planning for the future, and those who are incarcerated, especially females, fare the worst. For example, only 9 percent of incarcerated females and 10 percent of incarcerated males had retirement savings, compared to higher but still low numbers of 42 percent for non-incarcerated females and 50 percent for non-incarcerated males within Arkansas. Furthermore, in all cases of financial planning, other than checking credit scores and reports, females behind bars had the lowest levels of participation.

The financial decisions incarcerated individuals make are problematic, and so are the financial institutions they use. Our incarcerated sample had very high usage rates of non-traditional banking methods. Furthermore, in line with our other findings, it was incarcerated females who were suffering the most from using these predatory methods. They had the highest rates in every category, and significantly higher rates in using pawn shops and rent to own stores. More specifically, our sample shows that 86 percent of female offenders and 75 percent of male offenders use pawn shops, compared to only 24 percent and 22 percent of non-incarcerated females and males, respectively (Figure 2). Furthermore, 55 percent of incarcerated females and 45 percent of incarcerated males used rent to own stores, compared to only 16 percent of Arkansas females and 11 percent of Arkansas males. The largest, and perhaps most important difference, between those in Arkansas behind bars and those not was in the use of check cashing services, with over 75 percent of both incarcerated males and females utilizing these methods, compared to less than 10 percent of those not in prison.

We found similar results based on sex regarding financial literacy in Arkansas. For our incarcerated sample, males scored significantly higher on the three-question scale, with an average of 1.14 correct, compared to 0.69 correct answers for females (Figure 3). Among the general public, females also demonstrated a lower mean score of 1.56 correct, compared to 2.08 correct for males. In addition to this difference, there was a large divide between the average score for all incarcerated respondents (men and women combined) and the average score for non-incarcerated respondents.

Figure 3: Levels of Financial Literacy



In summary, the financial climate for those behind bars in Arkansas is grim when compared to the general public. This is especially true for females who are incarcerated. They have the highest rates of poverty and use of predatory lenders, as well as the lowest levels of financial literacy and assets.

How does recidivism relate to financial literacy, predatory lender use, and asset and financial planning?

Next, we conducted ordinal logistic regressions to predict variations in financial literacy, predatory lender use, and asset and financial planning (see Appendix B for more information on how the variables were defined). In terms of financial literacy, several factors indicated an increased likelihood of higher levels of financial literacy, including individuals who are older (25 percent higher odds), identified as white (60 percent higher odds), had greater educational attainment (12 percent higher odds), and were banked (97 percent higher odds). Similarly, an increase in asset and financial planning was associated with an increased likelihood of higher levels of financial literacy (24 percent higher odds). In contrast to these increased odds, being a woman (96 percent decreased odds) represented a decreased likelihood of financial literacy.

In regard to the use of predatory lenders, findings indicate that older individuals (32 percent increased odds), being a woman (528 percent increased odds) all represented a statistically significant increase in the likelihood of having used predatory lenders. Additionally, individuals who indicated they had recidivated were more likely to have utilized predatory lenders (57 percent higher odds). Counterintuitively being banked was found to have positive (121 percent increase in odds) relationship with the use of predatory lenders. While future research is needed to parse out this relationship, this finding might acknowledge that even inmates with banking accounts utilize unconventional loaning institutions due to being denied loans from conventional banking establishments. Anecdotally, some inmates did mention a hesitancy to use some banking services, including loans, due to a lack of knowledge of the mechanisms, leading to mistrust and intimidation. This lack of knowledge was not mentioned regarding the services provided by pawn or check cashing shops since their predatory practices were more upfront.

Figure 4: Arkansas Inmates Odds of Higher Financial Literacy

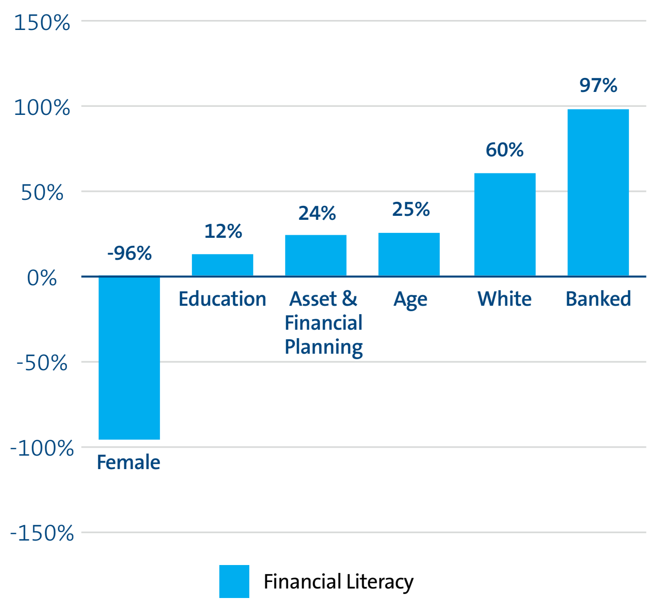


Figure 5: Arkansas Inmates Odds of Utilizing Predatory Lenders

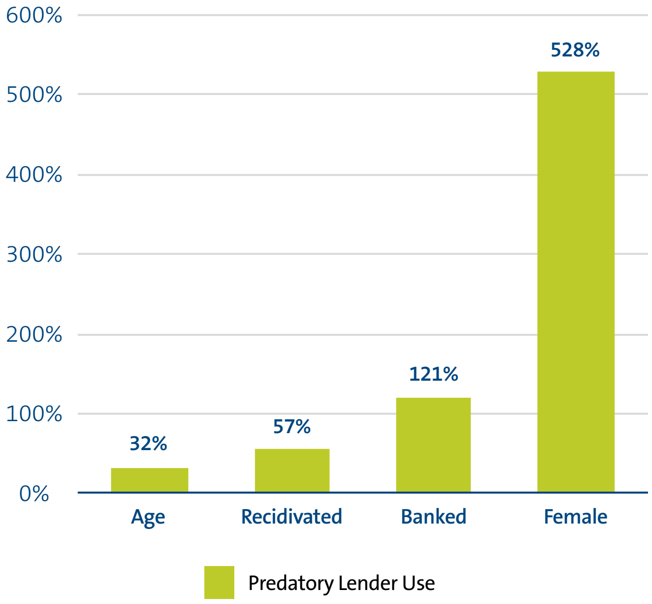
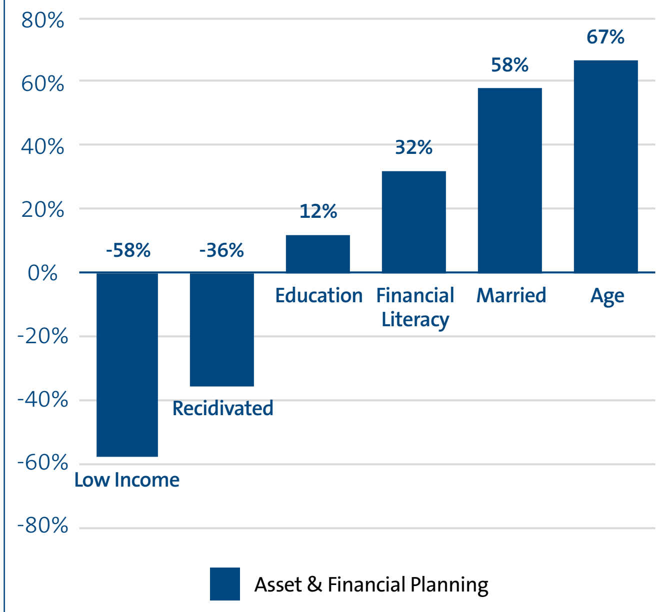


Figure 6: Arkansas Inmates odds of increased Asset and Financial Planning



Findings related to asset and financial planning show similar significant predictors. Individuals who were older (67 percent higher odds), married (58 percent higher odds), better educated (12 percent higher odds), and had higher financial literacy (32 percent higher odds) were more likely to have increased habits related to asset and financial planning. Conversely, individuals with lower incomes (58 percent decreased odds) and those who indicated they had recidivated (36 percent decreased odds) were more likely to display lower levels of asset and financial planning.

Individuals who have recidivated are more likely to utilize predatory lending institutions and less likely to participate in behaviors that are associated with asset and financial planning.

The findings from the regression models present a clear picture of two notable outcomes. First, these results demonstrate the exacerbated circumstances related to incarcerated women and their experiences with diminished financial literacy and a reliance on predatory lending institutions. Additionally, the findings from these models indicate that individuals who have recidivated are more likely to utilize predatory lending institutions and less likely to participate in behaviors that are associated with asset and financial planning.

Conclusion

The findings from this research have identified a number of important conclusions related to the financial knowledge and habits of the incarcerated population. Findings indicate that vast differences exist between this population and individuals from the general public in regard to both financial competency and practices. Most notably, incarcerated individuals are more likely to demonstrate diminished levels of financial planning and asset accumulation, and an increased reliance on non-traditional banking institutions. In terms of the incarcerated populations, this research identified a vast difference between incarcerated women and incarcerated men. Specifically, findings indicate that incarcerated women are more likely to be challenged with difficulties related to poverty and are more likely to struggle with financial literacy. Incarcerated women also demonstrate an overreliance on predatory lenders. Additionally, it is imperative to note that individuals who have recidivated were more likely to demonstrate increased likelihood of predatory lender use, and a lower likelihood of asset and financial planning.

While this study does represent novel research in the area of inmate financial capability, it does suffer from issues related to generalizability, given that the sample is limited to one state. The authors caution that the data and results might not represent other states or be representative of the entire incarcerated population in the United States.

Our primary survey data, coupled with 2012 NFCS data on Arkansas, allowed us the unique ability to fill gaps in the literature on overall offender levels of financial literacy and additionally to make comparisons between genders and between the incarcerated population and the general public. Although prior research on the financial literacy of non-incarcerated populations is extensive, research on the financial literacy of individuals currently incarcerated is sparse and their comparison to the general public even more so. Furthermore, this literature is often qualitative in nature and does not directly assess financial literacy. Because this research only represents offenders within Arkansas, future research should seek to ascertain national-level or more diverse state data to see if levels of inmate financial literacy are similar across the U.S. Future research should include a more robust inquiry of financial literacy by incorporating additional measures of financial competency and habits.

Disclaimer

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Appendix A

Table 1: Financial Habit Percentages of Incarcerated and Non-Incarcerated Men and Women in Arkansas

	Incarcerated Male (n=358)	Incarcerated Female (n=157)	Non-Incarcerated Male Average (n = 211)	Non-Incarcerated Female Average (n = 289)
Demographic				
Age [a]	2.63	2.56	3.93	3.78
White	45%	60%	80%	82%
Married	22%	30%	59%	54%
Education [a]	2.12	2.58	3.08	2.8
Poverty	26%	54%	18%	16%
Asset Accumulation				
Own Home	26%	18%	70%	63%
Home Mortgage	22%	17%	36%	38%
Own Car	92%	82%	---	---
Car Loan	40%	39%	36%	32%
Financial Planning				
Life Insurance	25%	18%	57%	51%
Household Budget	58%	56%	---	---
Determine Retirement Needs	12%	9%	39%	27%
Save for Retirement	10%	9%	50%	42%
Checked Credit Score	38%	52%	46%	44%
Checked Credit Report	38%	51%	43%	40%
Personal Finances				
Checking Account	73%	75%	90%	87%
Savings Account	73%	66%	66%	60%
Banked	83%	84%	92%	89%
Debit Card	61%	75%	73%	72%
Used Online Banking	23%	37%	68%	62%
Had a Credit Card	44%	41%	72%	67%
# of Credit Cards	1.87	1.12	1.68	1.44
Declared Bankruptcy	5%	8%	7%	5%
Predatory Lending				
Payday Lenders	22%	25%	11%	9%
Pawn Shops	75%	86%	22%	24%
Rent to Own Stores	45%	55%	11%	16%
Money Orders	60%	67%	26%	24%
Alternative Check Cashing	75%	80%	4%	6%
# Used	2.02	3.16	.72	.78
Financial Literacy				
Interest Rate	32%	20%	80%	70%
Inflation Rates	46%	19%	73%	49%
Stock/Mutual Funds	36%	29%	55%	48%
# Correct	1.14	.69	2.08	1.56
Self-Reported Financial Knowledge	3.34	2.95	5.24	5.15
Offender Information				
Has Recidivated	52%	49%		
# of Times Incarcerated Prior	2.77	2.80		

[a] Age and Education utilize a categorical variable

Table 2: Ordinal Logistic Regression models predicting Financial Literacy, Predatory Lender Use, and Asset & Financial Planning

	Financial Literacy		Predatory Use		Asset & Financial Planning	
Characteristics	b (se)	OR	b (se)	OR	b (se)	OR
Age	.222*	1.249	.280**	1.323	.512***	1.669
	(.093)		(.089)		(.091)	
Gender (1=Female)	-.922***	.040	1.837***	6.278	.177	1.194
	(.230)		(.216)		(.228)	
Race (1=White)	.471**	1.602	.215	1.240	-.211	.810
	(.180)		(.172)		(.182)	
Married (1=Yes)	-.141	.0868	-.020	.980	.460*	1.584
	(.207)		(.198)		(.204)	
Education	.113*	1.120	.015	1.015	.113*	1.120
	(.053)		(.051)		(.051)	
Low income (1=Yes)	-.396+	.673	-.303	.739	-.869***	.419
	(.203)		(.193)		(.207)	
Banked (1=Yes)	.675*	1.964	.795***	2.214	.356	1.427
	(.260)		(.236)		(.265)	
Financial literacy	--	--	-.045	.956	.278**	1.320
			(.088)		(.091)	
Predatory lending	.009	1.009	--	--	.090	1.094
	(.072)				(.073)	
Asset & financial planning	.215**	1.240	.009	1.009	--	--
	(.079)		(.077)			
Has recidivated	-.027	.973	.450**	1.568	-.454*	.635
	(.179)		(.171)		(.180)	

***p<.001; **p<.01; *p<.05; +p<.1

Appendix B

The primary explanatory variable within this study, recidivism, was operationalized as whether an individual had self-reported that they had been incarcerated previously (1) or had never been incarcerated prior to the time of measurement (0). The first control variable, age, was operationalized with a six-attribute ordinal variable in which 1 represented respondents aged "18–24," 2 represented respondents aged "25–34," 3 represented respondents aged "35–44," 4 represented respondents aged "45–54," 5 represented respondents aged "55–64," and 6 represented respondents aged "65 and over." The second control variable, gender, was operationalized with a dichotomous variable in which 0 represented male respondents and 1 represented female respondents. Race was operationalized with a dichotomous variable of white (1) and non-white (0). Marital status was measured using a dichotomous variable in which 0 represented not married, divorced, widow/widower, and 1 represented married at the time of measurement. Education was operationalized as a five-attribute ordinal variable. The variables were ordered from did not complete high school (1), high school graduate (2), some college (3), college graduate (4), and postgraduate education (5). Income was dichotomized into low-income (1), or respondents who reported an income of less than $15,000, or high income (0), or respondents who reported an income greater than $15,000. Finally, banked status was operationalized with a dichotomous variable where 1 represented that the respondent had indicated having either a checking account or a savings account or both types of accounts. A respondent who indicated that they had neither a checking account nor a savings account, or no relationship with a mainstream financial institution, was coded as 0.

The first dependent variable, financial literacy, was operationalized by examining the answers to questions related to interest rates ("Suppose you had $100 in a savings account, and the interest rate was 2 percent per year. After 5 years, how much would you have in the account if you left the money to grow?"), inflation ("Imagine that the interest rate on your savings account was 1 percent per year, and inflation was 2 percent per year. After one year, how much would you be able to buy with the money in the account?"), and stocks/mutual funds ("Buying a single company's stock usually provides a safer return than a stock mutual fund."). Answers for each question were dichotomized into correct (1) or incorrect (0). The scores were then aggregated into a scale of 0–3, in which 0 represented low financial literacy and 3 represented high financial literacy. These questions have been utilized by previous research to examine the understanding of financial concepts among varying groups of individuals (see Lusardi and Mitchell, 2008).

The second dependent variable, predatory lender use, was operationalized by examining the prior use of five predatory lending services among the incarcerated sample. These predatory services options included money order services, pawn shops, alternative check cashing services, payday lenders and rent-to-own stores. Respondents indicated whether they had never used the service (0) or if they had used the service (1). Their responses were composited into a scale of 0–5 to represent their previous use of predatory lending services. A score of 0 represented no previous use of predatory lending, while a score of 5 represented an increased use of these services.

The final dependent variable examined habits related to asset and financial planning. In order to operationalize this concept, respondents indicated whether they had ever planned for retirement, had life insurance, had owned their home, had a home mortgage, or had ever checked their credit score. These habits were operationalized as whether the individual had participated in the behavior (1) or had not participated in the behavior (0). The results were then used to create a composite scale of asset and financial planning in which a score of 0 represented diminished planning, while a score of 5 represented increased habits related to asset and financial planning.

1735 K Street, NW
Washington, DC 20006-1506
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