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Financial Literacy and Victimization

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ABSTRACT

FINANCIAL LITERACY AND VICTIMIZATION

By

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This paper examines the relationship between financial literacy (FL) and susceptibility to economic victimization. Susceptibility to victimization functions as a proxy variable for victimization. It employs a modified, quasi-experimental case study approach and pulls from survey and interview data. It measures changes to FL and susceptibility to victimization after a FL workshop was delivered to a sample of refugees based in a city in southeastern US. Results demonstrate that FL seemed to increase for those within the treatment group. Subsequent changes to susceptibility to victimization indicated a decrease. The study also notes some evidence of a multiplier and reverse multiplier effect. Implications for future research, policy, and behavioral theories are discussed.

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ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Thesis Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Master of Science in Criminal Justice in the Andrew Young School of Policy Studies of Georgia State University.

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Mecca Samaria Muhammad

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CHAPTER 1: INTRODUCTION

Understanding financial concepts, institutions, and management techniques is considered crucial for improving one's financial life (Lusardi 2009; Cole et al. 2011; Klapper and Panos 2011). This understanding – henceforth referred to as *financial literacy* (FL) – has been found to reduce default rates (Hartarska and Gonzalez-Vega 2006) and debt accumulation (Lusardi 2009). It also has had more proximal effects on factors such as business outcomes (Berge et al. 2014) and retirement (Yoong et al. 2012). One potential, though understudied, effect of FL might be that it inversely affects financial victimization experiences. While little is known about the relationship between FL and victimization, studies (Gamble et al. 2013; James et al. 2014) have noted a relationship amongst certain populations. This study seeks to address the lacuna in research on FL and victimization, employing quasi-experimental mixed methods in a modified case study to isolate the effect of FL on victimization.

While criminological literature on FL is lacking, academics from other disciplines have documented its effects. During some interventions, FL has been found to change people's understanding of finances; that knowledge subsequently affected economic outcomes (Xu and Zia 2012). In Tanzania, microenterprise and entrepreneurial endeavors amongst men improved after receiving financial education (Berge et al. 2011); in the US, financial counseling sessions decreased the number of participants who defaulted on their mortgage (Hartarska and Gonzalez-Vega 2006). These studies illustrate cases in which FL has affected people's relationships with their money as well as with the financial institutions within their society. They document the potential of FL to reduce negative financial outcomes.

FL might inversely affect financial victimization. Though academics have not yet determined the relationship between FL and victimization, several studies have suggested that a lack of literacy might have an effect on victimization. James et al. (2014) found that decreasing FL accompanies increasing victimization experiences. Other papers (Gamble et al. 2013; Sukumaran 2015) similarly note that low FL is associated with financial exclusion. They further speculate that lack of familiarity with financial systems and concepts makes one more susceptible to predatory economic victimization. This includes high-risk lending practices and debt accumulation. Such links lead authors to infer the ability of FL to affect victimization. Consequently, these authors and others (i.e., Marlowe and Atiles 2005) ultimately make recommendations to increase FL should one hope to decrease financial victimization amongst populations which are traditionally vulnerable to it.

Researchers have begun to explore why some communities are systematically more vulnerable to economic predation. Populations which are most consistently targets of predatory economic behavior are those which have had historically fewer economic services available to them (Gallmeyer and Roberts 2009). That is, these communities face a structural lack of financial services, both practical (i.e., banking services) and educational (i.e., financial counseling services). Such a context leads to low familiarity with and little access to traditional financial services. It creates a financially marginalized population with heightened susceptibility to economic victimization. Thus, it is possible that communal vulnerability to financial predation is in part due to a structural lack of FL.

Despite the research on FL, financial stratification, and victimization across different literatures, research has yet to explicitly examine the relationship between FL and crime. Some studies have noted the relationship between FL, financial marginalization, and victimization (Marlowe and Atiles 2005; James et al. 2014). Others have noted instances in which FL interventions mitigate negative financial outcomes and encourage positive ones (Lusardi 2009;

Cole et al. 2011; Berge et al. 2014). None, however, has evaluated the effect of FL on victimization experiences. This paper sets out to rectify the gap in the literature.

By studying the relationship between FL and victimization more closely, researchers can document notable implications for policymaking and criminological research. Should FL stimulate changes in victimization, the most evident policy imperative would be to invest in FL initiatives aimed at populations vulnerable to victimization. Less apparent, though no less important, are implications for criminal behavior. If FL rectifies financial marginalization and offers people tools to protect themselves from victimization, it can serve as a *target hardener,* or a protective factor against acquisitive and interpersonal crime (Mayhew 1984).

FL was previously thought to be unrelated to financial victimization and crime. Research is increasingly hinting that this might not be the case. FL is an inconsistently-defined and understudied topic, specifically regarding the relationship between it and victimization. Understanding more about this relationship can guide further research and policy development. Thus, the lack of research on FL and the potential implications for such research creates the context for this paper. It will attempt to explore the relationship between FL and victimization, as well as the potential of FL interventions to affect victimization.

CHAPTER 2: LITERATURE REVIEW

2.1 Defining Financial Literacy

Researchers have defined FL in several ways. Annamaria Lusardi's works have been pivotal in defining and evaluating FL. Her definition is woven throughout FL literature. "Debt Literacy, Financial Experiences, and Overindebtedness" (Lusardi 2009) defines FL as the "ability to perform simple economic calculations and knowledge of basic financial concepts…and the knowledge of more complete concepts." She ultimately characterizes this knowledge as necessary to make informed financial decisions. Unlike others (see below), Lusardi's definition prioritizes one's knowledge of financial concepts over one's actual decision-making practices. In this way, it separates financial knowledge from the financial outcomes that accrue from such decision-making. It conceptualizes and operationalizes them differently.

Hira and Schuchardt's "Setting the Standard for Financial Literacy" (2008) defines FL as a form of financial knowledge, mirroring Lusardi's (2009) definition, but adds to it an important component: the relevancy of the knowledge to the learner. In doing so, the authors recognize that the concepts which are most important vary by population. Hira and Schuchardt define a financially literate person as one who understands "the concepts of controlling cash flow, saving, investing, borrowing wisely, managing risk, and transferring assets. Every person deemed financially literate understands and applies the concepts appropriate to their life stage and circumstance" (Hira and Schuchardt 2008). In addition to conceptualizing FL as a general understanding of financial processes, they caution that the concepts one needs to understand to be "functionally" literate are those most relevant to their specific life circumstance.

Given the multitude of definitions and their contributions to the literature, David L. Remund (2010) organizes and characterizes FL definitions by categories. He observes that most conceptualizations fall into one or more of five main components. These components identify FL as, the "(1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skill in making appropriate financial decisions," and/or "(5) confidence in planning for future financial needs" (Remund 2010).

Though each of these components is represented in different definitions in the literature, I argue that only some of them accurately characterize what it means to have FL. I support a definition of financial literacy which takes from the most common themes in the literature but disqualifies those components which, albeit related, are not directly inherent to financial literacy. This brings us to the current paper's working definition of FL. I define FL as the ability to understand financial concepts, institutions, and techniques to manage individual financial resources. That is, if one is *financially literate*, they understand how they can manage their financial resources using their society's economic institutions, and they understand the potential costs and benefits associated with different management techniques. Such knowledge is marked by an understanding of how to access and open bank accounts, identify legitimate and fraudulent tax preparers, and identify high-risk lending practices, to name a few. These skills allow you to understand legitimate and illegitimate financial systems within your society and, ultimately, make more informed decisions regarding your own money. This working definition of FL builds upon several of the above definitions featured in the literature.

It should be noted that I only accept some of the characteristics of FL that Remund (2010) identifies in his analysis of FL definitions. Remund's fifth component measures confidence in making financial decisions as essential to having FL. I do not include this theme in this paper's definition because of other pieces which have noted *perceived* FL as often separate from *observed* FL. Gamble et al. (2013), for instance, found that, when people believed themselves to be financially literate but were objectively not, they had negative financial outcomes. This group made financial decisions unilaterally *because* of their confidence in financial planning and *despite* their lack of FL. From works like these, one gathers that confidence in financial decision-making does not necessarily indicate FL, and thus I do not include confidence as either a measure of literacy or inherent to its definition.

Similarly, Remund's third and fourth themes define FL as the ability to make the "best" or "most appropriate" financial decision. Remund notes that definitions which incorporate these themes tend to pinpoint specific financial decisions and behaviors that define "aptitude," or an appropriate financial choice. I do not include these themes in this paper's definition, arguing that the determination of which behaviors are "appropriate" is subjective. Variability in financial decisions across people does not necessarily determine whether a given person is more or less able than another to comprehend the risks and ramifications of those decisions. Thus, this paper's definition focuses on the ability to understand the pros and cons of different financial decisions and techniques for financial management, not in selecting the "best" one.

Regarding the third and fourth themes, it is also important to consider that, even if there were a universal "best" financial decision, FL does not always translate into optimal financial decision-making. It is intuitive to believe that knowledge of financial concepts would lead to one to make ideal financial decisions. The literature informs us, however, that this is not necessarily true. Instead, FL interacts with sociopolitical structures in such a way that one's improved understanding of finances tends to translate to improved financial decisions only within certain contexts. Tuominen, M. C., & Thompson, E. L. (2015) and Berge et al. (2014) observe that, if certain economic institutions are not available to the population or if social stratification makes engaging in certain financial behaviors unfavorable for particular groups, people might not be able to meaningfully employ their financial education. Thus, this paper's working definition distinguishes between actual decision-making practices and FL. Instead, my definition specifically hones in on the first theme (knowledge of financial concepts), which is the most common across definitions. This allows researchers to distinguish across confidence; financial decision-making in practice; and ability to understand financial concepts and decision-making, or literacy.

2.2 The Effectiveness of Financial Literacy in Practice

While FL has putative benefits for everyone in that it should allow for better financial decision-making, its actual effectiveness varies depending on context. Several studies have evaluated FL programs' consequences on different populations, documenting a range of outcomes. In considering whether or not FL programs have been effective thus far, the short answer is *sometimes*. Variables including the demographics of the sample receiving financial literacy training, the social hierarchy of the society, and the manner in which the class is taught seem to play important roles in determining how helpful a program can be to its beneficiaries (see below). Even with these limitations, previous evaluations consistently document the potential for improved FL initiatives to positively affect beneficiaries' lives in several contexts.

FL programs have had mixed results amongst youth. McCormick (2009) summarizes youth experiences with FL programs, noting their effectiveness seems to depend on the specific age of the youth as well as the format of the class. She finds that some programs amongst college students led to increased knowledge of financial concepts and improved attitudes about money-making decisions (though, these evaluations do not attempt to measure actual behavioral change). These findings suggest some promise for youth FL initiatives. Mandell and Klein (2009), however, observe high school programs that generally produce no difference in knowledge nor even in perceived knowledge amongst youth around 15-16 years old. They account for the difference in findings by noting that students with interactive learning materials did improve significantly (Mandell and Klein 2009). They also speculate that the results of FL programs could largely depend on whether the students perceive the information to be relevant or not. This would help explain why youth in their mid-teens (under the legal working age; likely financially dependent on their guardians) might be less receptive than teens with jobs or those who are in or about to go to college, where they will presumably become more financially independent.

Whereas youth have a mixed response to FL initiatives, research demonstrates the elderly to be more uniformly responsive. Lusardi and Mitchell (2011), for instance, use survey data to examine the elderly’s general FL rates as well as their receptiveness to financial training methods. Researchers consistently find FL amongst the elderly to be systematically low (Lusardi and Mitchell 2011; Gamble et al. 2013; James et al. 2014); though, Lusardi and Mitchell document patterns of receptivity amongst the elderly, as well. Their findings suggest that more financially savvy elders tend to get their knowledge from recent FL training services, including seminars and expert financial consultation. This, in addition to studies that show positive outcomes correlated with higher FL amongst the elderly (Klapper and Panos 2011; Yoong et al. 2012), suggests that tailored FL initiatives within this population could be worthwhile investments.

The effectiveness of FL programs on subsequent outcomes might also be a gendered phenomenon. Berge et al. (2014) evaluate a mixed-gender financial literacy program in Tanzania that was specifically geared toward microfinance entrepreneurs. Amongst men and women, the authors found improved literacy; though, this did not translate into improved business or financial outcomes for women as it did for men. Through surveys assessing other aspects of the entrepreneurs' lives, Berge et al. assert that the ineffectiveness of the knowledge for women was likely due to external societal constraints. Women entrepreneurs had less decision-making power over their businesses than men (the women's spouses were more heavily involved); women spent 10 hours fewer per week on their businesses than men due to household responsibilities; and women were less likely to engage in competitive business practices due to discomfort acting competitively, or aggressively (Berge et al. 2014). Despite this study, Field et al. (2010) similarly evaluated women in a literacy program for entrepreneurs in India, and found some women's income to improve. Such studies indicate that FL programs interact with sociological factors within the society and, depending on the context, may or may not be consequential enough to themselves influence outcomes. They also suggest that, only when participants in FL programs can apply their knowledge can they experience the intuitively beneficial effects of improved financial understanding.

Programs have also led to mixed results amongst low-income populations, sparking controversy regarding their viability. In some cases, positive results may include decreased rates of mortgage defaulting and improved saving practices (Hartarska and Gonzalez-Vega 2006; Xu and Zia 2012; Braunstein and Welch 2002). These cases suggest that FL programs are worthwhile for people in financially precarious situations. However, Tuominen and Thompson (2015) document an instance in which a FL program is inconsequential for low-income families. In this case, families saved a few more dollars per month post-intervention, but that was too low an amount to translate into anything meaningful. Such mixed findings again suggest nuance to how effective FL programs are. They seem to work in certain situations but not others.

To look further into the effectiveness of FL in practice, several researchers examined the specific contexts in which FL programs seem to most effectively increase both financial understanding and subsequent outcomes. Hathaway and Khatiwada (2008) and Mandell and Klein (2007) are representative of these papers. Both advise program directors to train beneficiaries on concepts that are necessary to the participants at or near the moment it is being taught. That is, FL trainings are unsurprisingly evidenced to be more effective when the learners perceive the information to be immediately relevant to their lives. Braunstein and Welch (2002) also note that the relevancy of the materials, the manner in which they are learned (e.g., passively vs. actively), and the personal characteristics of the learners (e.g., comfort in changing one's behaviors) all affect the potential of FL programs to improve literacy. Finally, Tuominen and Thompson (2015) remind policymakers and researchers that financial literacy programs must consider and address structural factors that would inhibit positive outcomes even if financial literacy improved. A program's potential to affect its participants' lives works quite markedly well in some contexts and negligibly in others.

Researchers have explored the impact of FL programs in several contexts. The studies that have evaluated them so far have produced mixed results, though, results that show a trend. FL initiatives seem to have the most potential in contexts in which the participants a) view the training as useful (Mandell and Klein 2007; Hathaway and Khatiwada 2008); b) feel comfortable employing the tools they master (Braunstein and Welch 2002; Berge et al. 2014); and c) have some access to the financial institutions they learn about (Tuominen and Thompson 2015). Given the presence of these stipulations, FL programs seem to show potential for effectiveness.

2.3 Direct Effects of Financial Literacy

The previous section describes which populations are receptive to FL programs. It also delineates the conditions where such programs produce successful outcomes. Moving forward, researchers should consider what the effects of successful programs have been[1]. FL studies suggest that effective financial literacy initiatives can influence several different outcomes. Because of their variety, this paper divides outcomes into *direct* and *indirect* effects. Direct effects are those which are an immediate and un-mediated result of increased FL. Indirect effects are mediated results. In the literature, direct effects are mostly to do with a subject's interaction with financial systems.

One example of a direct effect of FL is its relationship to reducing mortgage defaults. Hartarska and Gonzalez-Vega (2006) analyze a Midwestern American FL program that had a training dedicated to bettering one's understanding of mortgages. The sample, comprised of adults from low-income households, could receive counseling on their mortgages, and the authors studied mortgage default rates amongst those who were counselled or not. They found that participants who received counseling were less likely to default on their mortgages, and simultaneously more likely to employ the default option optimally[2]. This study suggests increased information about default options lessens negative financial outcomes (e.g., default rates), particularly for vulnerable populations.

Similarly, Cole et al. (2011) document the ability of FL initiatives to prompt individuals to become "banked" (i.e., to open and utilize a bank account). The longitudinal study, which was conducted in India and Indonesia using survey data, finds a strong correlation between FL and

[1] It should be noted that outcomes discussed within this and the next section are from programs that were deemed effective. That is, of effective programs, these sections discuss outcomes of financial literacy initiatives.
[2] "Optimally" is when the participant's default option had value and their refinance option did not.

your likelihood of employing banking services. Cole et al. observe a FL intervention about banking, which was provided to unbanked households at random. They then note a significant effect on their sample's likelihood to open bank accounts, especially amongst those with lower initial FL. This effect persists through time, as their second wave of data collection shows that the bank accounts opened in response to the FL program remained open and in use for two years post-intervention (Cole et al. 2011). Such findings imply that access to basic financial information can affect long-lasting outcomes on participation in a society's financial institutions. They also suggest that a lack of access to information can directly exclude populations from financial institutions. These results demonstrate promise for FL initiatives amongst unbanked and underbanked populations.

Another potential direct effect is the ability of FL to influence debt accumulation outcomes (Lusardi 2009). Though Lusardi's study was based on survey data that is correlational, her work suggests that your debt situation might be a direct effect of FL. Lusardi's survey measures participants' FL and their debt outcomes, operationalized as ability to judge debt, amount of debt accrued, and kind of debt accrued (i.e., payday loans, auto title loans, etc.). Lusardi's weighted sample shows strong and significant differences between groups that were financially literate versus those who were not and their debt outcomes. Those who were financially literate were better able to understand lending practices, and thus were better able to judge the severity of their own debt (Lusardi 2009). Consistently, they had accrued less debt than their less financially-literate counterparts. Finally, those who were not financially literate were more likely to take high-risk, high-interest loans from predatory lenders, such as payday lenders. It is not clear if having low levels of FL and borrowing from predatory lenders are confounding variables (i.e., both the result of living in a community with little access to financial information and little access to low-risk lenders), or if borrowing from high-risk lenders is a consequence of having poor FL. Still, given the other correlates (e.g., poor ability to judge debt), Lusardi's study implies FL might have an inverse, direct, and causal relationship with several debt outcomes.

The above studies suggest that, in the appropriate contexts, FL programs can and do have notable effects on different populations. As such, they lead researchers and policymakers to consider the potential of FL programs to serve as interventions for poor financial outcomes.

2.4 Indirect Effects of Financial Literacy

The direct effects of FL programs on financial outcomes are relatively straightforward. However, researchers have also documented several indirect, or mediated, effects of these programs. In these cases, FL programs have led to one outcome which has in turn caused another.

As an example, Berge et al. (2014) observed the indirect effect of FL initiatives on business outcomes. These include both (1) profit and (2) business practices (indicated by superior-employee relations, involvement in certain markets, and record-keeping). The authors conducted a case study in Tanzania on FL training for microfinance entrepreneurs. Using several sources of data, including records from the organization that delivered the training as well as multiple waves of surveys, Berge et al. measure the impact of the program. When it was effective[3], they found that entrepreneurs in the intervention group took calculated steps to expand their businesses post-treatment. These practices then increased the profits of said entrepreneurs (Berge et al. 2014).

[3] Only some entrepreneurs experienced the indirect effects discussed here, namely, the men. The effects of this particular intervention were gendered, with women who received treatment experiencing outcomes only for some variables and men benefiting from every effect (see section 2.2 for further explanation).

Similarly, the treatment group attempted to run their businesses more efficiently, taking advantage of tools they had acquired during the training. Their improved knowledge of financial management techniques and marketplaces led entrepreneurs to manage their employees in a way that increased productivity. The entrepreneurs both terminated employees who were stealing and offered impressive employees rewards for their behavior (Berge et al. 2014). Business owners also exploited their newfound resources from the training by venturing into more profitable markets, thereby increasing their revenue (Berge et al. 2014). Finally, the treatment group put their management skills to use by improving record-keeping practices, which would allow for better analysis of funds and practices in the future. These business improvements led men in particular to report having a higher quality of life post-treatment as well as increased personal satisfaction surrounding their endeavors (Berge et al. 2014). The improvements also suggest that, amongst some populations, FL interventions can lead to better economic outcomes for businesses and quality of life.

Multiple authors have also written on the ability to retire. Yoong et al. (2012) conducted a study in Malaysia using survey data. In their study, they assess the effect of financial training exposure on FL rates, self-perception, and overall economic well-being amongst older age groups (operationalized as 50+ years old). They find that those who received financial education were more likely to have higher financial literacy (Yoong et al. 2012). Those who received the training perceived themselves to have greater financial ability and thus felt more confident directing their finances and modifying their financial behavior. Because their perception was accurate[4] (they did, in fact, have considerably higher amounts of financial literacy), behavioral

[4] Some studies have documented increased confidence in financial decision-making to be uncorrelated to actual financial literacy (see Gamble et al. 2013); thus, perceived financial literacy does not always equal financial literacy and it is important to differentiate when it does.

modifications ultimately resulted in improved economic standing, particularly in the ability to plan for retirement. These results indicate that FL training helped the older population attain a higher quality of life. This was especially true as they aged, which has historically been atypical (Lusardi and Mitchell 2011).

Using data from Russia, Klapper and Panos (2011) similarly examine the effect of FL on the ability to retire in good economic standing. The authors use in-person survey data from a 2008 World Bank-supported endeavor that documented FL and retirement behaviors. In compiling data from over one thousand participants, mostly heads of household, Klapper and Panos found that increased FL was significantly correlated with the employment of responsible retirement mechanisms, namely, the ability to pursue private retirement pension plans and evaluate their terms, costs, and benefits. While this study does not attempt to claim causal relationships between FL and retirement planning, it does suggest the possibility that FL could facilitate optimal retirement planning, especially in the context of Yoong et al.'s 2012 findings. As such, Klapper and Panos' study holds implications for future investment in FL programs. It is likely they possess the potential to decrease economic vulnerability and increase quality of life in retirement amongst the elderly population.

Berge et al. (2014) write that financial literacy training is an investment in a country's human capital, and studies such as the above demonstrate that this could be the case. By increasing educational resources for a country's population, countries allow for the possibility that their people will experience positive outcomes, including improved business performance and ability to retire[5]. These outcomes likely also advance quality of life for their beneficiaries.

[5] This is keeping in mind the caveat that such resources must be provided in the appropriate contexts to be effective.

These results indicate that the larger benefits of FL programs may be in their ability to result in indirect effects, with implications for aspects of peoples' lives that go beyond their financial health. The results of studies focused on indirect outcomes suggest that there are distal effects of FL programs which may be related to less obvious but no less important facets of a person's life. It is these areas to which we turn in the next section.

2.5 Financial Literacy and Victimization

In noting the indirect effects of FL, it is reasonable to consider that indirect effects extend beyond traditional financial outcomes. One possibility is that FL may provide some individuals protection against victimization. Previous work identifying FL as a causal factor on victimization does not exist, but extant work strongly suggests it is so (see below). One can therefore hypothesize that increased FL could decrease your vulnerability to victimization, particularly economic victimization. This hypothesis is based on previous findings that have indicated a relationship between the two variables.

The below studies build a foundation for the notion that FL might have preventative effects on victimization that are twofold. First, they allow for the more intuitive idea that improved FL might foil victimization. This is because increased financial literacy should theoretically render people (1) more able to identify potential victimizations before they happen; (2) more able to identify and employ legitimate entities (e.g. IRS-certified tax preparers) as alternatives to predatory entities (e.g. tax scammers); (3) more familiar with the financial jargon needed to navigate certain financial systems[6]; and (4) more trusting of formal institutions and thereby likely to report victimization. Second, increased FL might deter victimization through a

[6] This jargon seems most obviously beneficial to non-native English speakers; though, one can hypothesize that such jargon would benefit native English speakers with little financial literacy, as well.

target hardening effect (Whitaker 1964; Clarke 1983). The subject would be able to exhibit more familiarity with financial processes, communicating to potential predators that they are a suboptimal target for victimization. As such, studies like this allow researchers to theorize the effects of FL on victimization experiences.

Several authors have suggested that their samples experienced economic victimization in part because they were unfamiliar with financial tools and institutions. Most of these studies focus on whether a group is likely to be victimized (see section 2.6 on victimization susceptibility), and their authors then draw connections between victimization and unfamiliarity with financial systems. Marlowe and Atiles (2005), for example, conducted a study on Latino immigrant vulnerability to victimization, from which they identify a lack of familiarity with American financial systems as systematically contributing to vulnerability amongst their sample. Gamble et al. (2013) also note low levels of FL preceding economic victimization amongst the elderly. The authors assert that this is because their sample needed to employ financial services at a constant rate, but their FL was decreasing with their cognitive abilities. Such studies demonstrate that FL might be a predictor of economic victimization.

James et al. (2014) tested the correlation between FL and economic victimization, measuring both explicitly (among other variables) in their sample. They surveyed over 600 elderly people without dementia, attempting to highlight the relationship between victimization experiences and financial literacy. The authors identify an inverse relationship between the two variables: those who were likely to have experienced fraud had lower rates of financial literacy and vice versa.

To understand the extent to which FL may have an ameliorative effect on victimization, it is preferable to study FL in populations that are vulnerable to victimization. Immigrants and refugees are good examples of these populations (Davis et al. 2001; Marlowe and Atiles 2005). Although they did not study FL as a cause of victimization, Marlowe and Atiles (2005) found that Latino immigrants were more likely to be economically victimized because of their lack of familiarity with financial and legal resources. The authors suggest investing in FL programs for Latino immigrants, writing that “understanding of the formal financial system can reduce the need to utilize or obtain high-cost, non-traditional, law-defying consumer financial services, such as advance-fee loan scams” (Marlowe and Atiles 2005).

Though the above studies do not test financial literacy initiatives’ ability to alter victimization experiences, they do indicate support for the idea that initiatives could potentially do so. Studies like these suggest that financial literacy programs could be especially consequential for groups who are susceptible to economic victimization. While the literature has evidenced a correlation between financial literacy and victimization, it has not yet identified a causal relationship which asserts that increased financial literacy can lead to a decrease in victimization experiences. They have instead only suggested that the hypothesis might be supported.

2.6 Groups Vulnerable to Economic Victimization

The research hypothesis, that increased FL leads to decreased victimization, implies that FL initiatives can mitigate victimization experiences. As such, FL initiatives with this purpose would potentially be most meaningful if they were targeted toward groups that are susceptible to economic victimization. Several authors (see below) have explored these groups. This literature is vital to financial literacy research in that it allows researchers to identify potential groups for which financial literacy initiatives might be most impactful, assuming their effectiveness.

Financially-marginalized communities often make ideal targets for economic predation. Gallmeyer and Roberts (2009) attempt to identify the most susceptible communities. The authors employ geographic spatial analyses to examine the communities in Colorado where payday lenders are common. In doing so, they were able to identify a clear pattern linking financial marginalization (indicated by having less access to both capital and formal financial services) and financial victimization (the presence of predatory lenders). Communities that were financially marginalized (i.e., which had less familiarity with and access to the financial institutions of their society) were systematically the same communities in which financially predatory entities operated.

Though they shared experiences of financial marginalization, communities susceptible to economic victimization did vary (Gallmeyer and Robert 2009). Moderately low-income neighborhoods as well as communities with a relatively high percentage of immigrants, the elderly, or military personnel were most vulnerable to the presence of predatory industries. Upon delving further into the characteristics of these communities, Gallmeyer and Roberts speculated that the low but steady income commonly found in susceptible neighborhoods as well as residents' unfamiliarity with financial institutions, either due to linguistic barriers or geospatial ones[7], made these neighborhoods ideal locations for payday lenders to set up and maintain business operations. The authors emphasize the need for formal financial services, such as banks and traditionally lower-interest lenders, to begin development in financially marginalized communities; though, Gallmeyer and Roberts also propose that, within some communities, lack of financial experience with traditional institutions might facilitate economic predation. In this

[7] Communities with systematically lower incomes are less attractive communities for banks and other financial institutions to set up locations. Thus, Gallmeyer and Roberts offer that physical isolation from these systems might lead to less interaction and familiarity with them within financially marginalized communities.

case, it is reasonable to surmise that supplying financially marginalized communities with information regarding predatory lending practices and financial scams could make groups less vulnerable to economic victimization[8]. In its use of spatial analyses on the payday lending industry, their study provides a wealth of data that offers insight regarding which populations are frequent targets of economic predation. It also identifies the structural institutions that make them so.

Gamble et al.'s 2013 study analyzes the vulnerability of elderly populations to fraud. In using longitudinal data on the elderly population's cognitive abilities, FL, and economic victimization experiences, the authors create risk-factors for victimization. They find that, as their sample gets older, their cognitive skills and FL both decrease. They also find that when FL decreases, especially when the participant is unaware of the deficit, their susceptibility to fraud increases. As such, their findings back Gallmeyer and Robert's, asserting that the elderly are a group with comparatively high propensity for economic victimization.

Marlow and Atiles's 2005 study specifically examines immigrant susceptibility to economic victimization in Georgia. Though they employ a convenience sample, they were able to conduct dozens of interviews with Latino immigrants on victimization experiences. They find that Latino immigrants were highly susceptible to predatory lending practices (corroborated by Gallmeyer and Roberts [2009]) and of outright fraud. Study participants had experienced affinity fraud[9] in several settings, were provided misinformation about financial systems, and were charged high prices for services and then delivered fraudulent ones. While the sample is limited,

[8] I offer this idea with the caveat that such an initiative might be most effective alongside increased presence of traditional financial services, creating a compound effect.

[9] Affinity fraud is fraud in which the offender uses shared identity to take advantage of their prey. That is, an offender presents themselves as a member of a particular group (religious, ethnic, or otherwise) and capitalizes upon shared identity to build trust and victimize the target (SEC 2013).

its findings do support existing theory (Marlowe and Atiles 2005). In combination with Gallmeyer and Robert's findings, Marlowe and Atiles's results suggest that predatory entities' have a high propensity for capitalizing on financially-distressed, linguistically-isolated, and/or geospatially-isolated communities. As such, Marlowe and Atiles ultimately recommend investing in financial literacy programs that familiarize vulnerable populations with legitimate financial systems and resources. Their study holds implications for conceptualizing how financial literacy might affect communities with barriers to financial systems and linguistic knowledge, suggesting that such initiatives might provide the tools to lessen a community's susceptibility to being victimized.

Davis et al. (2001) also examine immigrant and refugee susceptibility to victimization, noting that a fear of law enforcement, mistrust of legal institutions, and linguistic barriers often make the groups highly susceptible to crime, specifically without retaliation. Davis et al. (2001) base their findings on survey data from law enforcement and legal officials' opinions, half of whom cite community leaders' concerns as the basis for their ideas. Because the data is a collection of opinions, its substance cannot be assumed as true. Still, Davis et al.'s findings are relevant in that they delineate between immigrants and refugees. They evidence that these populations are less likely to report crime and that, as such, predators can target these populations with little fear of consequence. While Davis et al. do not study FL explicitly, they allow for a fuller understanding of groups who are vulnerable to victimization and why. In considering their findings alongside those of Marlow and Atiles's (2005), scholars can envision communities where FL initiatives might be especially impactful and in what ways (i.e., increased ability to foil victimization[10]; increased ability to deter victimization).

Understanding which populations experience comparatively high rates of economic victimization is pivotal to selecting contexts in which FL interventions are most impactful. Should FL initiatives hope to mitigate susceptibility to victimization, they would be most useful in contexts in which victimization is more likely a concern. Likewise, understanding the dynamics of economic predation and victimization allows researchers to draw evidence-based conclusions about where FL initiatives should be directed. In this way, the literature on economic victimization is invaluable to discussions of FL and informed practice.

2.7 The Current Gap in Research

To gather more informed ideas on the effectiveness of FL and optimal (or ineffective) contexts, research should address current gaps in the literature on financial literacy. Namely, it should attempt to examine the relationship between FL and economic victimization, aiming to get as close to identifying causality as possible.

The literature on FL identifies the same communities (i.e., elderly, low-income, immigrant) as having systematically poor access to financial information and education, leading to low levels of FL (Marlowe and Atiles 2005; Gallmeyer and Roberts 2009; Gamble et al. 2013). Structural deprivation of financial resources likely creates a climate in which victimization, particularly economic, is much more possible (Marlowe and Atiles 2005; James et al. 2014). Thus, rectifying poor access to financial education and increasing FL could

[10] See section 2.5 for ways in which financial literacy initiatives might increase ability to foil victimization.

theoretically[11] decrease some instances of financial victimization[12]. Because academics have never studied or tested the effect of a FL initiative on victimization, however, it is difficult to assert this statement with confidence. Research should take into account empirical findings on (1) the settings in which FL interventions are most effective, (2) the relationship between FL and victimization, and (3) group vulnerability to victimization. In this way, this current study seeks to address the lacuna in knowledge on how FL affects victimization. It seeks to shed light on the merit of using FL to ameliorate victimization experiences. It will test whether a financial literacy workshop given to a community with systematically high susceptibility to economic victimization could lessen that community's vulnerability to economic predation.

The most important focus of this study is to test the potential ability of FL to decrease victimization experiences, specifically amongst persons vulnerable to victimization. It will employ mixed methods via survey and interview data to deliver a FL intervention and then measure changes in FL as well as victimization over time. It aims to inform researchers and policymakers about the viability of FL interventions as a mechanism for increasing participation in the mainstream economy and decreasing victimization (and thus crime).

In better grasping the effects of FL initiatives on a variety of indicators, researchers and policymakers can more accurately understand it and its potential in practice. Addressing the current gap in FL research can propel these actors toward evidence-based practices which have the potential to positively affect our world.

[11] Assuming the context is conducive to financial literacy initiatives: see section 1.2 for guidelines.
[12] Evidence suggests that financial literacy could potentially remedy some instances of financial victimization, as in the cases of tax scams which arise out of unfamiliarity with financial systems. However, the literature indicates and I emphasize that it does not seem to potentially remedy every incident of financial predation, such as in cases in which an individual relies on a predatory lender because there is a physical absence of traditional lending alternatives.

CHAPTER 3: METHODOLOGY

3.1 Hypothesis and Variables of Interest

This study will test the hypothesis that FL has an inverse effect on economic victimization susceptibility (see figure 1). It will measure, via survey and interview questions, subjects' vulnerability to victimization alongside their FL levels.

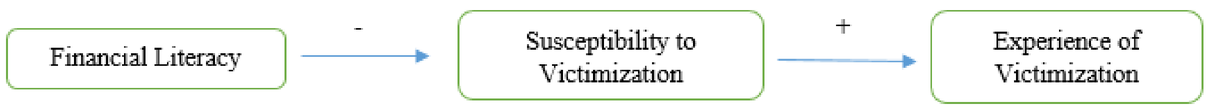

Figure 1: Depiction of Hypothesized Relationship

The primary independent variable of this study is FL. It will be operationalized through knowledge-based survey questions about basic American financial tools (see Appendix A for full survey). Questions on the survey are designed to provide an assessment of the participants' levels of FL. Most questions have correct and incorrect answers so I can assign subjects a clear, definable score with a meaningful distance between units. Others, which do not have a "correct" answer, still offer an intuitive measure of FL which allow them to be categorized into the financial literacy score as correct or incorrect (i.e., "Do you know how to open a checking and savings bank account? A. Yes. B. No."). This will allow subjects to receive an interpretable financial literacy score that can vary in response to a FL intervention.

The dependent variable of interest to this paper is "susceptibility to victimization." Susceptibility to victimization is the dependent variable as opposed to victimization itself because of the rarity of victimizing experiences. Less than 10% of American households encounter any one particular kind of crime (BJS 2014). As such, there is a considerable possibility that, even amongst a population with greater criminal victimization rates, I will not be able to detect a change in victimization. This is especially true within small sample sizes, such as the one in this study. Examining changes in susceptibility to victimization will inform how victimization could change thereafter.

This study extends the definition of victimization beyond criminal victimization to encapsulate other victimizing experiences. I am not only interested in criminal victimization (e.g., tax fraud scams), but also predatory economic behaviors that capitalize on someone's inability to avoid predatory financial systems and their consequences due to some barrier. This barrier includes financial desperation, linguistic barriers, or unfamiliarity. The theme connecting these experiences to victimization is the same: they are instances in which a person is unable to avoid an institution that then exploits them.

Susceptibility to victimization will be operationalized through survey and interview questions which elicit from the subject whether they engage in protective behaviors likely to reduce victimization (ex., "Where do you plan on getting your taxes done this year, and why?"). Interview-style questions will be completed after the final post-test survey has been collected (see Appendix B for interview guide). Topics include (1) how, if at all, their behavior has changed regarding filing taxes, (2) how, if at all, their feelings about formal institutions have changed, and (3) how the FL workshop affected their lives. Collecting data in this way will permit me to assess how changes in financial literacy correlate with changes in protective behaviors (and thus, susceptibility to victimization).

3.2 Research Design

To measure the effect of FL on victimization, this study will employ a quasi-experimental, modified case study approach. In this approach, participants will be given the survey as a pre-test and as several post-tests. They will also be asked open-ended, in-person interview questions.

The reason for this design is threefold. First, the sample should be comprised of a group more susceptible to victimization, and thus more likely to evidence documentable changes. Second, while it would be methodologically preferable to randomly select at-risk persons to take the FL workshop, this is not logistically possible. Therefore, it is necessary to use an available (convenience) sample. Because the convenience sample is considerably small (n=10), statistical analyses will have little power. Thus, a more appropriate design is to follow study participants over time and document how the FL course affected their lives. Finally, this design calls for a post-test immediately after the financial literacy course, four months after the course, and five months after the course[13]. This will allow me to gauge whether the results of the intervention were sustained over time.

The sample for this study are participants of a Georgia State University-affiliated organization called Mentoring Initiative for New Americans (MINA). This is a convenience sample (n=10) comprised of refugees who are learning skills that will help them attend college. Based on the literature (Davis et al. 2001; Marlowe and Atiles 2005), vulnerable immigrants

[13] The distance between the first, second, and third post-tests is largely dependent upon the sample's meeting times. The meeting immediately after the pre-test/first post-test date is four months later.

such as refugees are more likely to have been victimized, making this sample useful for documenting changes in susceptibility to victimization. Refugees often face linguistic and geospatial barriers that make them (a) vulnerable to victimization such as affinity fraud and (b) less likely to report such victimization. The sample from MINA is made up of mostly college-aged (19 – 25 years old) participants, with one participant age 34. It is also comprised of mostly women (7:3 ratio).

The MINA sample will be given a pre-test survey and then randomly assigned to treatment and control groups. After this, I will deliver a FL workshop to the treatment group. The workshop will provide information on budgeting, banking, loans/grants, and taxes (see Appendix C for workshop materials). It will offer tools for creating a budget as well as explain the differences between bank accounts and the processes one can use to choose a bank. It will delve into both grants and loans, discussing which lenders have comparatively higher and lower interest and what that means definitionally. Finally, it will describe the American tax process, common tax scams, and explain the implications taxes can have on one's ability to borrow from the government. In covering these topics during a workshop that will last roughly two hours[14], the FL course will offer information that is intended to improve upon the sample's FL scores.

To measure immediate changes, the FL survey will be re-administered to the treatment group immediately post-workshop. This immediate post-test will not be administered to the control group because there will not have been time for other factors to affect the control group's FL (the pre- and post-tests will be roughly two hours apart, and the control group will have been

[14] During this time, the control group will carry out their MINA meeting as usual.

in a MINA meeting during this time). I will therefore assume there is no change from pre- to immediate post-test amongst the control group.

I will re-administer the survey to all participants four months after the course and five months after the course. This will inform me of the degree to which subjects experience and maintain changes in FL and susceptibility to victimization. After the final survey has been collected, I will ask all participants in-person, open-ended questions. These questions will allow for more nuance in understanding how the intervention affected participants.

I will use data from both the survey as well as the open-ended, interview-style questions to conduct analyses. These analyses will inform how the FL workshop affected susceptibility to victimization in the case of MINA. From survey data, I can identify patterns in knowledge-based changes, including what participants have and have not learned or retained. I can also identify trends in behavioral changes, such as where participants saved their money pre- and post-intervention. Interviews will add to survey data, for example in asking participants about their tax preparation practices pre- and post-intervention. Interviews will also enrich existing survey data. I will ask participants to elaborate on patterns recorded on former pre- and post-test surveys, for example by discussing how people have implemented their demonstrated knowledge from the FL workshop. This will provide me a more thorough understanding of how the FL workshop affected participants' lives. As such, I will be able to identify more nuanced changes in behavior pre- and post-intervention and draw more informed conclusions on FL and susceptibility to victimization.

3.3 Limitations

Though the study was designed with analytical rigor in mind, it is not without its limitations. The research design faces some threats to both internal and external validity which must be addressed before much weight can be attributed to its findings.

Regarding internal validity, there are some factors about this study design that could affect its findings. First, because of the nature of MINA's organizational structure, experimental mortality is a concern. MINA is an organization in which participants choose to attend meetings, meaning that not all participants are at every meeting. This could translate into subject attrition. There is also a risk of contamination of the comparison group. Because participants are all members of the same organization and some are related or friends, members of the treatment group could offer members of the comparison group information they received in the FL workshop, especially if they found it useful. While this could be good in practice for the participants, all of whom might benefit from engaging in protective behaviors, it could falsely increase the comparison group's protective behaviors and mute effects of the program. To gauge the effects of contamination, the treatment group will be asked during the interview-style questions if they have communicated information they learned about in the workshop.

Regarding external validity, this study faces the challenge of not being generalizable. Because I am using a convenience sample, there could be an interaction of the treatment and selection process, meaning that the sample is not representative of the population. MINA members might be systematically different from other refugees in Atlanta, the study location, or the U.S. This could make them unrepresentative. For example, their enrollment in MINA may mean that they have more resources than other refugees and are thus less susceptible to victimization. They also may be more likely to retain FL lessons, because they are constantly in a school-like learning environment. Finally, many programs face the threat of having unique program features, and this workshop is no exception. The deliverer of this program could be better or worse at communicating than the average teacher; MINA participants could be more or less comfortable asking questions than most students; and unique features like these could affect results. Therefore, one must consider these threats when drawing implications from the research.

While the study is not fully generalizable, its potential implications for future research as well for FL is notable. Because its methodology is designed in such a way that the researcher will document changes or lack thereof on the treatment group's FL score immediately post-course, there will a reliable and valid measure of how a FL workshop immediately affects one group's FL. Also, the interviews will explicitly elicit from subjects their feelings on the class, steps they have taken to reduce susceptibility to victimization, and how the class has affected other aspects of their lives. Findings from these tools will allow me to qualitatively follow participants and observe how the FL workshop affected their knowledge, behaviors, and experiences.

The above methodology is most appropriate for documenting the relationship between FL and susceptibility to victimization. Attention has been given to the methodology to ensure that findings are attributable to the FL workshop. These include (1) the use of several post-test surveys, one of which is immediately after the workshop to mitigate risk of attrition; (2) the measurement of protective factors against victimization so as to document observable changes, and (3) interviews that prompt subjects to speak directly and openly about their experience with the FL workshop, their communities, and victimization. Because of these precautions, this study's methodology allows me to measure each variable of interest, isolated and alongside the other. It allows for reliable and valid findings.

CHAPTER 4: RESULTS

I issued a FL survey pre-intervention, immediately post-intervention, and then four months post-intervention. I conducted interview-style questioning after the second post-test (four months post-intervention). About half of the original participants attended. Because no participants were able to attend the MINA meeting five months post-intervention, disqualifying the possibility for a third survey, the second survey served as the final survey, which preceded the interviews. Table 1 below details the number of participants at each wave of data collection.

Table 1: Study Design Sample Sizes

Study Design Sample Sizes (as planned and as actually implemented)					
	Measurements and Number Surveyed/Interviewed				
Group	Pre-Test	Immediate post-test	4-month follow-up	5-month follow-up	Open-ended interview
Treatment	6/6	6/6	6/3	n/a	6/2
Control/Comparison	4/4	0/0	4/1	n/a	4/1
Note: Elements in red text were not implemented due to attrition.					

Through these data collection measures, I was able to observe several changes within my sample. Still, these findings must be caveated: because of the small and ever-decreasing sample size, the strength of the results is questionable. Statistical testing with power was not possible. Therefore, results below describe individual changes as well as group tendencies to change. Similarly, discussions stemming from the study will analyze these tendencies and their implications.

Participants indicated notable changes throughout the study. FL improved amongst the treatment group. Susceptibility to victimization also indicated a decrease. People from the treatment group were better able to identify and avoid predatory behavior, especially regarding topics they found relevant to their own lives. Finally, there appeared to be evidence of a multiplier effect, in which one person's knowledge and beliefs about finances altered the lives of those around them. This multiplier effect persisted regardless of if the financial perspective would benefit or adversely affect the advisee. All these results are detailed below.

4.1 Changes to Financial Literacy

Before the intervention, FL was relatively low amongst MINA members in both the control and treatment groups. Virtually no one knew what a mortgage was; no one knew which lenders traditionally charged high interest; and no one knew what a shareholder was. Everyone, however, reported that they knew how to open a bank account. Similarly, when asked to circle all situations that would likely lead to economic predation, many participants selected soliciting someone they did not know and who did not work with a business for tax preparation services. It is worth noting, however, that no one identified both likely predatory situations[15] in question. Overall, MINA members showed a relatively low FL score.

Survey data indicated that FL tended to increase amongst the treatment group (see figure 2)[16]. This lasted throughout the final wave of data collection. Members noted this, one of whom stated, *"I learned a lot from this [FL] class. I think it was very useful."* Several members were able to identify predatory situations they did not identify pre-intervention. Likewise, most workshop recipients could identify more lenders that traditionally charge high interest rates.

[15] The situations in question were a) soliciting the services of an unknown and uncertified tax preparer and b) paying someone who calls, states that they are a bill collector, and requests that a balance be paid immediately.
[16] It is assumed that the control group's FL did not change during the two hours from the pre- to immediate post-test (see section 3.2 for further details).

These skills lasted amongst those who were present for the second wave of data collection. That is, their ability to identify predatory behavior, pinpoint varied policies between banks, and recognize high-risk lenders remained better than it was pre-intervention.

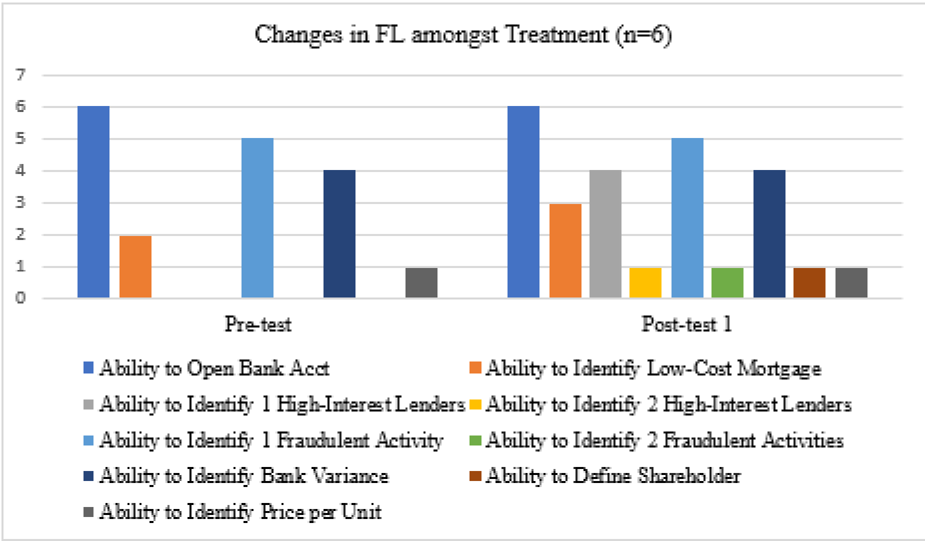

Figure 2: Changes in FL from Pre-test to Post-test One

Notable, however, is that the extent of the effect of the FL course decreased over time for some topics. For example, one subject could not identify any high-risk lenders pre-intervention. Immediately post-intervention, they were able to identify two of the three listed lenders. Four months later, they could only identify one. Likewise, two members displayed more intimate knowledge of mortgages immediately post-intervention; though, this knowledge decreased over time. Still, one of those members maintained in full their increased knowledge on high-risk lenders and bank policies.

Such findings suggest that subjects would benefit from, and in some cases require, booster treatments, or renewed exposure to a FL initiative, for sustained effectiveness. It also suggests that there are determinants that factor into whether someone retains their newly-acquired knowledge. While there is room for speculation on what those determinants are, the findings suggest that they might be influenced by what information is relevant to and applied in the recipient's life. The participant who remembered that rent-to-own lenders traditionally charge higher interest encountered a rent-to-own lender shortly after the course, they shared in the interview-style questions. They also remembered information about mortgages, which they were actively pursuing. A participant who recalled other high-risk lenders was engaged in searching for grants and loans to help them through higher education. This participant was not interested in mortgages, though, and (perhaps consequently) did not retain formerly-learned information on mortgages four months after the intervention.

There was one member of the control group (called "001") who attended the final wave of data collection four months post-intervention. Their FL did not improve from pre-test to post-test; it actually suggested a decrease. On the pre-test, 001 indicated that they were able to open a bank account, identified informal and unknown tax preparers as potentially predatory, and showed familiarity with the concept of prices per unit. Four months post-intervention, however, they only indicated that they were able to open a bank account. Their assessment of their own financial knowledge was consistent was this, as they stated they had not learned anything about finances since the last MINA meeting (when the pre-test and intervention were delivered). While the causes of their lowered score are unknown, 001's data does not indicate any increase in FL.

Participants of the treatment group were receptive to the FL workshop. Their knowledge and understanding of financial concepts and management techniques increased immediately post-intervention. This effect depreciated over time in some cases; however, it was still apparent almost half a year post-intervention.

4.2 Changes to Susceptibility to Victimization

MINA members reported making behavioral changes after their FL improved[17]. Because only one member of the control group attended the second MINA meeting (and thus, wave of data collection), quasi-experimental comparisons using survey data were not feasible. However, participants' interviews proved particularly insightful for understanding if and how they employed their improved FL. These data describe subjects whose FL improved and who then reported implementing that FL to improve other areas of their lives.

One participant (called "012") recalled changing several behaviors in an active attempt to decrease the likelihood that they would be victimized post-intervention. As referenced in the previous section, 012 cited the FL workshop as cause for their avoiding a high-risk contract that they would have otherwise patronized. Shortly after the intervention, 012 was presented with a rent-to-own contract in place of a mortgage. Because they remembered rent-to-own lenders being mentioned during the workshop as lenders who traditionally charge high interest, 012 said they met the contractor with more skepticism than they would have otherwise. During the interview, 012 referenced the amount of people who lose homes in rent-to-owns, stating, *"I was thinking about doing the rent-to-own, but then I remembered what [the teacher] said! During the class – [rent-to-own lenders] were in the class. Because of that, I read some more…and did some more research. It's a trap."* 012 then expressed deeper trust of the teacher and asserted their preference to consult financial professionals as opposed to non-professionals, who, in 012's

[17] Using interview data means that behavioral changes were measured via self-report instead of direct measurement. Findings assume reports are accurate; though, this is discussed in section 5.3.

experience, offer conflicting advice. These behaviors suggest decreasing susceptibility to victimization and support the notion of FL as a target hardener.

The intervention also encouraged 012 to pursue more financial knowledge outside of homebuying practices as they became retrospectively aware of things that had happened to their money without their knowledge. Because 012 was interested in pursuing a degree, they were concerned with the use of federal grants. They had formerly attended a local college to better their English language skills; though, they did not know how to handle financial aid. They had someone else handle it instead. After learning about federal lenders and the distinction between loans and grants via the intervention, 012 became concerned that their federal grants were already used for the language school without their understanding. *"I'm worried that another school used my grants without my knowing,"* they said. They then expressed their desire to continue FL training and learn more about loans, grants, and techniques to optimize their loans and grants. Overall, they said that, because of the class, they felt more confident and happier with their ability to engage financial systems.

Another participant ("010") recalled information on loans and grants to be particularly useful in their life. As an incoming college student looking to supplement income and reduce costs of education, 010 described the FL workshop as useful in identifying and understanding lenders. They also mentioned a better understanding of their options to pay for expenses, either with borrowed or awarded money. When asked if the class was helpful to them, 010 described using it to help friends in similar positions. They stated, *"Yeah, now [after the class], I help my friends with filling [out] FAFSA and with loans and grants for school…Yeah, I learned about [loans and grants] from this [FL] class."* They said that, though they were a beneficiary of

MINA, they themselves now functioned as a mentor through their experiences, having gotten into college and having learned more about its financing.

Despite the susceptibility of refugees and immigrants to suffer from tax fraud scams, it does not appear that the FL course inspired change in tax preparation practices amongst participants. Even pre-intervention, just over half of participants identified soliciting unknown tax preparers who were not affiliated with businesses as a likely predatory situation. Four months post-intervention, though, two of the four participants (one assigned treatment, one assigned control) still planned to patronize tax preparers they did not personally know from the informal sector. The other two planned to use one of the participant's family members, who was an accountant they had used the year prior. As such, susceptibility to tax fraud did not seem to change pre- to post-intervention.

While the lack of an effect may not seem intuitive, it appears that participants did not perceive their tax preparers to be fully "unknown." Instead, they received tax preparers' information based on the recommendations of friends and family members, who they know intimately and trust. In that way, participants might have perceived these tax preparers to have less risk associated with them than tax preparers with whom there was no mutual contact, even if neither tax preparer were formally recognized. The control group member, 001, represented this possibility when they said that their family would patronize *"a friend of my uncle's."*[18] When asked if they knew that tax preparer, or if the preparer was from a professional company, they stated, *"No, but I think my uncle knows him. He did my uncle's taxes last year, and we will go to*

[18] The only observed behaviors relating to 001's finances were their tax preparation plans. Outside of this, I did not observe any new or relevant behaviors.

him this year." 010 also employed this method of identifying a tax preparer, stating that they would take recommendations from friends.

Still, it remains difficult to discern whether participants' friends and family members were unknowingly victimized[19]. This practice indicates that, despite participants' ability to identify informal tax preparation as potentially risky, trust in their preparer (or in the individual recommending the preparer) could be a factor that mitigates the translation from knowledge of risk to behavioral avoidance of risk. This mitigation and other potential explanations for it is discussed in further detail in section 5.2.

Overall, beneficiaries of the intervention altered some of their behaviors as a result of the course, according to their own accounts. They reported becoming more cautious before engaging with strangers[20], did more research on potentially predatory experiences, began to consider addressing previous mistakes, and used new information to advise others. In this way, it appears that their susceptibility to victimization – and, potentially, the susceptibility of those around them – decreased.

4.3 The Possibility of a Multiplier Effect

During in-person questioning, participants from both treatment and control groups disclosed information about how they made financial decisions pre- and post-intervention. They recounted instances in which others' advice informed their financial behavior and vice versa. The consistency in their recollections led me to consider the possibility of a multiplier effect, in which one person's financial perspective and behavior influences others' in their community.

[19] In some cases, tax preparers lie about the refund amount guaranteed to filers so they can quietly steal some of it (Brody et al. 2014).
[20] With the exception of strangers with a mutual contact (i.e., informal tax preparers).

This effect was present when subjects were the “multiplier,” or the person whose perspective influenced their communities. In these cases, subjects would likely reduce communal susceptibility to victimization. It was also present in the reverse, when other people in the community were multipliers who could potentially increase susceptibility to victimization.

Participants’ interviews indicated that FL (or lack thereof) might have a multiplier effect. The former section discusses the case of 012, who recounted avoiding a high-risk homebuying option after learning about mortgages and lending options. In that instance, 012 served as the financial decision-maker for the family, opting to employ newfound tools given their comparative expertise on the topic. Their decision-making directly changed their household’s. Their FL served as a target hardener not only for them, but for their immediate family, as well.

Similarly, 010 discussed their new role as a mentor to others in the community who sought out loans and grants, specifically for expenses during higher education. In this way, 010’s increased knowledge base served as a resource for others, presumably affecting their borrowing and financial decisions. Notable in 010’s case is that they did not only consult with members of their own family: instead, 010 aided friends and other members of the community. While this study did not measure how many people 010 reached or to what extent 010’s perspective influenced others’ (see section 5.4 for implications for future research), it does suggest that the multiplier effect of a treatment like a FL workshop could extend into the community at large.

The study also revealed the possibility of a reverse multiplier effect. In this instance, other persons’ financial behavior could inadvertently increase susceptibility to victimization. Despite their recognition of the risks associated with patronizing informal tax preparers, participants were willing to take other community members’ advice on informal tax preparers with whom they had no former contact. If community members were unknowingly victimized, this effect would likely extend to others who solicited the tax preparer's services. It would increase communal susceptibility to victimization.

These accounts suggest the possibility of two multiplier effects that are at odds with each other, competing for influence. There is one that benefits those involved, and one that disadvantages them. In this case, regardless of actual FL, the exchange of financial knowledge is constant and consequential. It is helpful and harmful simultaneously.

CHAPTER 5: DISCUSSION

5.1 Takeaways from the Results

In the case of MINA, implementing a FL workshop caused noticeable increases in FL. Survey data indicated that participants displayed a better understanding of several financial institutions, particularly regarding topics that participants felt were personally relevant to them. It also indicated that the treatment created a lasting, if not slowly deteriorating in some instances, effect.

An increase in FL translated to an indicated decrease in susceptibility to victimization. Subjects reported engaging less with predatory or illegal financial entities that could harm them without their knowledge. They indicated that they were more aware of risks associated with certain behaviors. They seemed subsequently less likely to unwittingly make financial decisions they felt could be dangerous. In this way, outside entities seemed less able to prey upon recipients of the intervention. This held except, perhaps, in the case of taxes, when participants reported taking recommendations from friends and family members for informal tax preparers.

Finally, narratives of how one person's FL altered the behaviors of those around them allowed for the conceptualization of a multiplier effect. Treatment group members' increased FL appeared to translate into meaningful actions. Those actions would either directly shielded or informed others who were faced with the option of pursuing traditionally predatory, non-predatory, and/or illegal financial institutions. Reversely, those who had engaged high-risk entities appeared to influence study participants, both from treatment and control groups, to engage the same entities. While it is unknown whether those entities were in fact victimizing, in which case it is possible that the victim would be unaware of such activity, the implication remains. Multiplier effects seem present and potentially two-way.

5.2 From Change in Knowledge to Change in Behavior

This study demonstrates cases in which people acquired new knowledge and then reported molding that knowledge into new behaviors. However, the transition from knowledge to behavior more generally is not always consistent. There are several explanations that can help researchers and policymakers reason through why and when an education initiative, such as the one in this study, might lead to altered behaviors. The relationship between knowledge and behavior – or between FL and susceptibility to victimization, in this case – is a heavily mediated one. Determinants of the effectiveness of FL programs (i.e., participant receptiveness, participant comfortability with change, access to financial institutions) are detailed in section 2.2. Still, existing psychological and economic theories offer insight as to why these determinants exist and when knowledge transforms into behavior.

The theory of planned behavior (Madden et al. 1992), an extension of the theory of reasoned action (Fishbein and Ajzen 1975), might help explain why and when subjects would have changed their behavior after FL increased. According to the theory of planned behavior, someone’s beliefs and attitudes about a specific action combine with their perceived ability to do (or not do) the action. These factors guide whether they will act upon their belief.

To apply this to the current study, MINA members might have believed, as their surveys indicated, “It is generally a high-risk situation to patronize an unknown tax preparer who is not affiliated with a formal business.” However, in their own cases, their beliefs might have changed to, for example, “It is not very high-risk for me to patronize this tax preparer, despite the fact that we have not met before and they are not affiliated with a business, because they were recommended by someone I trust.” Likewise, 012’s decision not to commit to a rent-to-own home might have been guided by their belief about their specific situation. In this case, rather than having opted out of the contract because of the general belief about rent-to-own homes ("Rent-to-own homebuying is generally a high-risk endeavor."), 012 would have opted out because of the belief guiding their specific behavior ("This rent-to-own contract I have been presented with is 'a trap.'"). 012 also would have perceived control over whether they did or did not engage: they believed that they had access to other, better options. In this way, the theory of planned behavior can help conjecture why and when new ideas translated into new behaviors amongst this sample.

The theory of bounded rationality (Simon 1972) also sheds light on when knowledge evolves into behavior. Bounded rationality posits that humans make decisions based on cost-benefit analyses; though, their end is not to select the optimal decision. Instead, they are "satisficing" decision-makers. Limited by time, cognitive ability, and problem manageability, people elect for satisfactory solutions. They stop searching for other possible pathways after they have selected one that they feel adequately satisfies their goals.

Applied to a FL initiative, bounded rationality suggests that knowledge might not always develop into different behaviors. If someone feels their goal is met, they might choose a less-than-optimal path to that goal, especially given their constraints. For instance, someone who needs to get a loan or file taxes might elect for a high-risk lender or a high-risk tax preparer if those entities are in closer proximity (and thus, require less time and resources) to access. According to the theory of bounded rationality, decision-making is limited by other constraints, in which case satisfactory decisions suffice.

Trust between decision-makers and other actors could also mitigate the relationship between recognition of a risk and outright avoidance of the risk. Participants of this study accepted advice from community members about tax filing. This could be because they had strong bonds and familiarity with the advisers. One participant expressed a newfound trust in the FL course deliverer and financial professionals at large, afterwards stating that they would rather seek professional advice on financial matters. These relationships could mute or encourage transitions from knowledge to behavior.

It is also possible that community ties could mediate changes from knowledge to behavior. Participants could have been more likely to pursue local financial services from people with whom they felt a sense of community, despite recognition that informal services from strangers could be risky. If this were true, it would suggest that crimes like affinity fraud might be more resistant to changes in FL. Participants also could have been uncomfortable rejecting advice from a community member. When they talked about why they pursued informal tax services post-intervention, they essentially stated that “X financial service was recommended by a friend or family member; therefore, I feel comfortable patronizing it.” Therefore, a sense of community could have been a factor that made informal financial services more attractive.

Finally, risk preference might inform whether a recipient of a FL initiative avoids potentially victimizing experiences, even after they recognize them. For instance, someone with a comparatively higher risk preference might be more likely to accept a service from a high-risk entity if it meant the consumer could receive a lower upfront cost. The opposite could be true for someone else in the same situation, except with a lesser taste for risk: they might accept costs associated with a lower-risk entity. Tolerance for risk might alter someone’s willingness to interact with potentially victimizing entities, especially if there are some perceived benefits to interacting with that entity.

The transition from knowledge to action is not always a straightforward one. There are a variety of variables that factor into decision-making outside of knowledge. These can include perceived and actual ability to pursue alternative options, specific beliefs about the action, relationships to other actors involved in the decision, and risk preference. Considering variables that interact with FL and guide the process from knowledge to behavior can help researchers better understand when an intervention may or may not be effective.

5.3 Limitations of the Results

While there are several implications of this study's results, its limitations should first be made clear. These limitations stem from the study's low sample size and attrition. They disallow researchers from making generalizable inferences about the case of MINA.

This study's sample is unique in several capacities. It is comprised of refugees who are members of an organization that provides its members college readiness tools. In that regard, researchers cannot confidently generalize study findings to dissimilar populations. Instead, the study provides useful insight as to how a FL initiative affected susceptibility to victimization in this case. It also illuminates how these variables might interact within other populations relatively similar to MINA (i.e., refugees in the Atlanta area)[21]. Still, the study does not explicitly measure FL or susceptibility to victimization in other populations and cannot confidently generalize its findings to them.

Similarly, participant attendance to MINA meetings decreased over time. This led to a small sample size becoming smaller and reduced the number of cases to study. This is relevant to the findings because there could have been something unique about those who continued to attend MINA meetings (and thus, whose data was collected). People with the motivation to continue attending MINA might also be the people who were most receptive to the lessons they

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[21] MINA's representativeness is discussed in more detail in section 3.3.

learned at MINA. While this does not pose a threat to documentation of FL's initial increase, which captured every participant, it does mean that reported results on FL retention and susceptibility to victimization could have been inflated. If that is the case, the portion of participants at the second wave of data collection would have been the highest-performing and perhaps most likely to implement lessons from the workshop.

Finally, this study relies on self-report data to identify changes in susceptibility to victimization. This leaves it vulnerable to the threat of an experimenter demand effect, wherein subjects recall experiences that did not really happen because they feel it is what the researcher wants to hear. Subjects were asked open-ended questions regarding information they recalled from the intervention and how they used it, if at all. These questions allowed them to volunteer any information they found relevant or to refrain from answering. Despite this context, it is possible that subjects created or inflated reports for the purposes of answering interview questions.

Despite these limitations, the MINA case documents an instance in which FL indicated a lasting increase after one workshop. It also illustrates a setting in which increased FL indicated a decrease in susceptibility to victimization amongst at least some members. This effect seemed to extend to others in their community. For this reason, the findings are notable even in considering their limitations.

5.4 Implications for Future Research

This study examined the relationship between FL and susceptibility to victimization; though, there is much more analysis to be done. Future research would benefit from delving further into this topic and exploring the questions that have been raised in this chapter.

Future studies would greatly contribute to the discussion on FL initiatives and their potential by replicating this study on a larger scale. Recreating the FL workshop with a bigger sample would rectify some of this study's methodological limitations. It would also allow for more inferential conclusions and more rigorous quantitative analyses. As such, future researchers should increase sample size and adjust their data analysis accordingly.

Similarly, future works should measure FL and susceptibility to victimization over a longer period of time. This study's first and second waves of data collection were captured four months apart. However, it is possible that changes extend past this period. In following participants for a longer period of time, researchers can observe whether FL continues to depreciate. They can also document if and how changes in FL continue to affect susceptibility to victimization. Such work would offer a more nuanced understanding of the relationship between FL and susceptibility to victimization. It would also have noteworthy implications on the necessity of booster treatments

Future research should consider measuring risk preference more explicitly. While this study did not focus on risk preference as a mitigating factor, survey questions 53, 59, and 60 (see Appendix A) probed respondents about their taste for risk (ex. "Taking risks keeps my life from becoming boring."). However, responses to these questions were very mixed. Given the sample size, it is not clear, then, if and how these beliefs guided decision-making with predatory entities.

It is possible that more specific questions about risk preference asked to a larger sample would improve a researcher's ability to understand the relationship between risk preference, FL, and susceptibility to victimization. Future studies should ask if and to what extent risk preference influences one's likelihood of engaging in a potentially victimizing situation. They should also measure whether this relationship is mediated by perceived benefit to taking the risk.

Similarly, future studies should include trust more explicitly. During the second wave of data collection, subjects of this study exemplified strong trust in their community members' recommendations. They also displayed trust in government bodies, asserting that they would feel comfortable reporting crimes against them to the police. Finally, one study member demonstrated their trust in financial professionals. Academics should measure levels of trust subjects feel towards community members, financial professionals, and government. This could guide the discussion on whether trust makes someone more likely to fall victim to crimes like, for example, affinity fraud, or if other factors (e.g., proximity to a lender) are more predictive. Measuring these variables would allow researchers to pinpoint, and thus address, determinants of victimization more accurately.

Delving further into the multiplier effect noticed in this study would prove useful to researchers and policymakers alike. Scholars should measure both the extent of the multiplier effect of a FL program as well as which beneficiary multiplies the effects of the program most effectively. If researchers explore which demographics (e.g., child caretakers, financial decision-makers, etc.) are more likely to transfer knowledge to others, they could target FL initiatives to be more consequential. Likewise, in exploring the extent of the multiplier effect, they could contribute to conversations on how to maximize program effectiveness.

Finally, future research would benefit from measuring changes in victimization itself as opposed to susceptibility to victimization. If a study were to replicate this study on a larger scale and for a larger period of time, it would increase the external validity of the process by documenting actual changes in victimization. Doing so would allow researchers to study the relationship between FL and victimization more explicitly.

The study of FL is relatively limited, and work on the relationship between FL and victimization is even more so. Simultaneously, the potential for FL to inform policy is vast. With more empirical studies of FL, researchers and policymakers could develop a greater understanding of what FL can and cannot do. They could better conceptualize what it is and is not related to. As such, researchers face a host of questions that bear relevance to criminology, policy, economics, and political science. These questions are ones that are waiting to be answered.

5.5 Policy Implications

Should this study's findings remain consistent in future replicative studies, the policy implications are many. In testing a FL initiative and its effect on a vulnerable population, this study tested the promise of a policy that addresses crime, victimization, and disparity.

Based on the above results, a FL workshop would be a promising pursuit for a policymaker seeking to reduce economic crime. FL seems to equip its beneficiaries with tools to identify and avoid financial predators. As such, areas or groups that experience a comparatively high amount of these crimes would benefit from a FL endeavor. However, the program developer would have to consider the potentially mitigating effect that financial information from other trusted sources could have on program effectiveness and crime. Future research and program evaluation projects might measure the extent of these challenges and their solutions.

A FL intervention would also be a plausible method to reduce victimization. As discussed in section 3.1, this study employs a broad definition of victimization that extends beyond criminal victimization. It encompasses predatory economic behaviors that capitalize on someone's inability to avoid financial systems and their consequences due to some barrier. Because of this extension, a FL intervention would likely elicit more change in victimization than it even does crime. For example, low-income beneficiaries and beneficiaries with poor credit would be more likely to have stable financial lives, as they would be less likely to enter predatory agreements that benefit from and perpetuate their financial standing. These outcomes would occur in conjunction with a reduction in criminal victimization. Thus, this study suggests that policies meant to reduce financial predation would benefit from implementing a FL program. It would be most consequential amongst groups susceptible to victimization.

Outside of crime and victimization, this study suggests that policymakers should be interested in a FL initiative if they are interested in reducing inequality. Other studies (Cole et al. 2011; Yoong et al. 2012; Berge et al. 2014) have demonstrated FL to be effective in banking a population, improving retirement outcomes, and increasing income. This study is consistent with that literature. MINA members indicated improved knowledge regarding several financial topics, and those who participated in the second wave of data collection indicated a willingness to act upon that knowledge. These instances suggest that policymakers who would like to encourage citizen interaction with complex financial institutions, such as banks, lenders, and investment accounts, are likely to do so if they employ a FL initiative. Increasing participation in these institutions, especially while engagement with predatory entities is decreasing, could raise the amount of money FL program beneficiaries have to spend. Similarly, increased participation with formal institutions would reduce costs associated with non-participation (e.g., check-cashing fees; inflated interest payments). Thus, inequality rates would likely decrease, triggering improvement of other, more distal outcomes.

This study also indicates that booster treatments could be important to maintaining results. Four months post-treatment, study participants showed some decay in their knowledge. It is possible that this decay continues over time. Therefore, policymakers keen on producing a FL course might produce a “refresher” course of some sort. This would ensure that resources expended to create a FL initiative were not in vain, and results do not deplete over time.

To limit the amount of resources necessary to create a FL program, policymakers might also pursue targeted treatments. In this case, program developers would strategically identify recipients of the program and gear it towards them. This study captured a multiplier effect, in which one beneficiary of a FL program transferred the benefits of their knowledge to others in their community. Policymakers could take advantage of this effect, reducing inputs required to see an effect of their program. Future research would do well to identify which demographics are optimal targets for FL programs so that policymakers can act upon such knowledge. This would make carrying out programs in resource-scarce areas more feasible.

The potential for FL to affect change via policy is well-documented. This study contributes to that documentation. By collaborating, policymakers and academics can improve upon societal grievances such as victimization and inequality. This study suggests that they can do so via FL initiatives. In an effort to reach a common goal, researchers and policymakers might consider the implications of this research on policy and of that policy on lives. In doing so, it is possible that they pursue evidence-based policy initiatives that improve the lives of many.

APPENDIX A

I agree to participate in this study.

Agree ☐ Disagree ☐

Name:

E-mail Address:

Financial Literacy Survey

1. Subject Number _______

2. Date:___/___/___

3. Sex

    a. Male

    b. Female

    c. Other

4. Age ________

5. Race (check all that apply)

    a. Black

    b. White

    c. Asian

    d. Latino

    e. Native American or Alaska Native

    f. Multi-racial

    g. Other

    h. Refused

6. Marital status

    a. Single/never married

    b. Married

    c. Divorced

    d. Widowed

    e. Refused

7. Number of children _________

8. Zip code __________

9. What is your highest level of education?

a. Less than high school

b. High school/GED

c. Bachelor’s

d. Master’s/specialists

e. Ph.D./MD/JD

The following questions will ask about your lifestyle.

10. Are your children enrolled in school, if applicable?

a. Yes

b. No

c. N/A

11. How far in education do you expect your child to go, if applicable?

a. Below high school

b. High school

c. Bachelor’s

d. Master’s

e. Ph.D.

12. Are you enrolled in school (high school/college classes)?

a. Yes

b. No

13. Do you expect to go back to school, if not currently enrolled?

a. Yes

b. No

14. How far in education do you expect to go, if applicable?

a. Below high school

b. High school

c. Bachelor's

d. Master's

e. Ph.D.

15. Are you able to see a doctor if you get sick?

a. Yes

b. No

16. Do you have health insurance?

a. Yes (skip to question 42)

b. No

17. If not, do you expect to get health insurance within the next year?

a. Yes

b. No

18. Do you have your own apartment/house to go to every day?

a. Yes

b. No

19. Are you currently employed?

a. Yes

b. No

20. Do you expect to have a job within the next four weeks?

a. Yes

b. No

21. Do you expect to have a job within the next six months?

a. Yes

b. No

22. Over the past 7 nights, how many nights have you slept in the same bed? _____

23. Do you know where you're going to be living next week?

a. Yes

b. No

24. Do you know where you're going to be living next month?

    a. Yes

    b. No

25. Within the past year, have you worried about whether or not you're going to be able to eat?

    a. Yes

    b. No

26. Do you have some place to go to be able to eat tomorrow?

    a. Yes

    b. No

The following questions will ask you about finances.

27. What was your household income last year? _______

28. What is your primary source of income? ________

29. What is your annual income from that source? ________

30. What is your secondary source of income, if you have one?

31. What is your annual income from that source, if applicable?

32. Do you expect to make more than you do now one year from now?

    a. Yes

    b. No

33. Do you receive any public assistance from the government (ex., SNAP, disability, Veterans)?

    a. Yes, ______
    b. No

34. Do you expect to receive government assistance one year from now?

35. Who do you ask first when you need financial advice?

    a. Family

    b. Friend

    c. A financial advisor

    d. No one/myself

36. Do you know how to open a checking and savings bank account?

    a. Yes

b. No

37. Do you have a bank account?

a. Yes

b. No

38. During the past 6 months, have you stuck to a financial budget?

a. Yes

b. No (skip to question 27)

39. If yes, to what extent?

a. I am strict in sticking to my budget.

b. I stick to it, but I often go a little over.

c. I often spend a lot over.

d. N/A

40. During the past 6 months, have you saved any money?

a. Yes

b. No (skip to question 29)

41. If yes, where? Check all that apply.

a. Bank

b. IUL/mutual fund/stock

c. 401k

d. At my house

e. N/A

42. Do you own any of the following? Check all that apply.

a. Car

b. House

d. Business (______)

e. I don’t own any of these.

43. What kind, if any, debt do you have?

a. Student loan debt

b. Personal loan debt

c. Credit card debt

d. Mortgage

e. Car loan debt

f. Other

g. I don't have any debt.

44. How much debt are you currently in? _______

45. If the interest rate is the same for each option, which mortgage is usually the best to take out?

a. I don't know what a mortgage is.

b. When it's a fixed-rate

c. When it's an option ARM

d. When it's interest-only

e. Renting is always better than taking out a mortgage

46. Which lenders tend to charge comparatively high interest? Check all.

a. I don't know.

b. Payday loan shops

c. Rent-to-own shops

d. FAFSA (Free Application for Federal Student Aid) lenders

e. Title lenders

47. In which of the following transactions can someone steal money from you if you are not careful? Check all that apply.

a. I don't know.

b. When someone calls and says they're from a billing company, your bills are overdue, and you need to pay your balance immediately

c. When you let someone who does not work for a business or who you have never heard of do your taxes

d. When you hand your debit card to a cashier to pay for something in person

e. When you use the ATM with no one around inside of a bank

48. What is most important to think about when getting a credit card from a bank?

a. I don’t know.

b. How popular the bank is

c. Whether you get gifts from the bank for banking there

d. Credit interest rate and credit cost

e. Any bank will do

49. Which of these do you have to buy to become a shareholder in a company?

a. I don’t know.

b. A stock

c. A bond

d. A credit

e. A bank account

50. If there is a 12 ounce bag of rice for $3 and a 16 ounce bag for $5, how do you know which one is a better value?

a. I don’t know.

b. It’s the cheaper one – always $3.

c. The bigger bag is always the better value.

d. Look at the price per unit sign.

e. The smaller bag is always the better value.

The following questions will ask about your opinions.

51. I think about the bad things that have happened to me in the past.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

52. I often think of what I should have done differently in my life.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

53. Taking risks keeps my life from becoming boring.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

54. I often follow my heart more than my head.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

55. Meeting tomorrow's deadline and doing other necessary work comes before tonight's play.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

56. I make lists of things to do.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

57. On balance, there is much more good to recall than bad in my past.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

58. It gives me pleasure to think about my past.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

59. It doesn’t make sense to worry about the future, since there is nothing that I can do about it, anyway.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

60. Since whatever will happen is going to happen, it doesn’t really matter what I do.

a. Very untrue

b. Somewhat untrue

c. Neither true nor untrue

d Somewhat true

e. Very true

The following questions will ask you about crime you have committed.

61. Have you ever committed a crime?

a. Yes

b. No (skip to question 93)

62. Have you ever committed armed robbery, not counting carjacking (NOTE: armed robbery can include any weapon)?

a. Yes

b. No

63. How recently did you commit it? _______

64. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

65. Have you ever committed burglary?

a. Yes

b. No

66. How recently did you commit it? _______

67. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

68. Have you ever committed theft?

a. Yes

b. No

69. How recently did you commit it? _______

70. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

71. Have you ever committed a carjacking?

a. Yes

b. No

72. How recently did you commit it? ________

73. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

74. Have you ever prostituted yourself or another person?

a. Yes

b. No

75. How recently did you do this? ________

76. How many times have you done it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

77. Have you ever committed a physical offense against an immediate family member?

a. Yes

b. No

78. How recently did you commit it? ________

79. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

80. Have you ever committed fraud?

a. Yes

b. No

81. How recently did you commit it? _______

82. How many times have you committed it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

83. Have you ever sold any drugs?

a. Yes

b. No

84. What kind of drugs were they?

85. How recently did you sell it? _______

86. How many times have you sold it?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

87. Have you ever committed embezzlement?

a. Yes

b. No

88. How recently did you commit it? _______

89. How many times have you committed it?

    a. 0 times

    b. Once

    c. Twice

    d. 3-9 times

    e. More than 10 times

90. Has your financial situation ever led you to commit a crime?

    a. Yes

    b. No

91. If yes, explain further.

92. If yes, did you feel like you had any other way of making money?

93. Do you gamble?

    a. Yes

    b. No (skip to question 96)

94. Do you gamble legally or illegally?

    a. Legally

    b. Illegally

    c. Both

    d. N/A

95. How do you decide how much money to spend?

The following questions will ask you about crime you have been a victim of.

96. Have you ever been a victim of a crime?

    a. Yes

    b. No (skip to end)

97. Have you ever been a victim of armed robbery, not counting carjacking (NOTE: armed robbery can include any weapon)?

    a. Yes

    b. No

98. How recently? ________

99. How many times?

    a. 0 times

    b. Once

    c. Twice

    d. 3-9 times

    e. More than 10 times

100. Have you ever been a victim of burglary?

    a. Yes

    b. No

101. How recently? ________

102. How many times?

    a. 0 times

    b. Once

    c. Twice

    d. 3-9 times

    e. More than 10 times

103. Have you ever been a victim of theft?

    a. Yes

    b. No

104. How recently? ________

105. How many times?

    a. 0 times

    b. Once

    c. Twice

d. 3-9 times

e. More than 10 times

106. Have you ever been a victim of a carjacking?

a. Yes

b. No

107. How recently? _______

108. How many times?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

109. Have you ever been prostituted by another person?

a. Yes

b. No

110. How recently? _______

111. How many times?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

112. Have you ever had an immediate family member commit a physical offense against you?

a. Yes

b. No

113. How recently? ________

114. How many times?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

115. Have you ever been a victim of fraud?

a. Yes

b. No

116. How recently? ______

117. How many times?

a. 0 times

b. Once

c. Twice

d. 3-9 times

e. More than 10 times

118. Has being a victim of a crime affected your financial situation?

a. Yes

b. No

119. If yes, explain further.

APPENDIX B

1) Did everyone understand all of the survey questions?
2) Was the survey clear?
3) Did anyone have a friend or family member do their taxes last year, and if so, why?
4) Did anyone go to a professional company to do their taxes last year, and if so, why?
5) Did anyone have someone from the community who they did not know their taxes last year, and if so, why?
6) Does anyone plan on going somewhere different to do their taxes this year, and if so, why?
7) Does anyone feel any more or less confident dealing with financial institutions like loans, banks, and shopping than they did a few months ago, and if so, how?
8) If you felt like you had been scammed, would you report it or leave it alone, and if so, why?
9) If you took the class, have you told anyone about anything you've learned in it or advised anyone else about their finances?
10) If you took the class, do you feel like it has been helpful to you, and if so, how?

APPENDIX C

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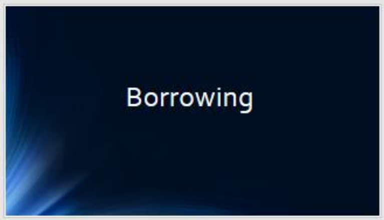

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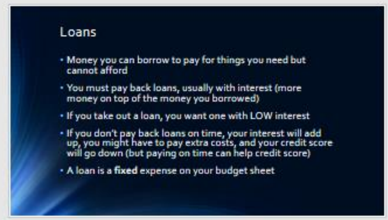

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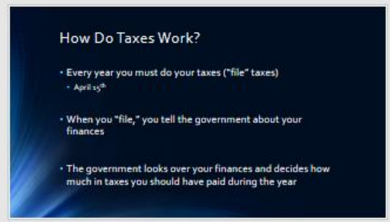

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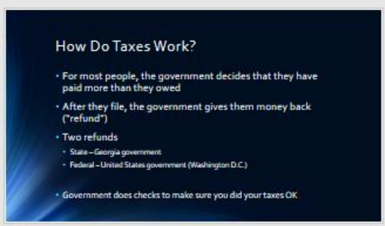

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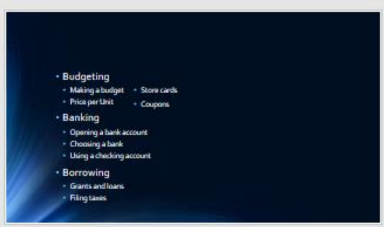

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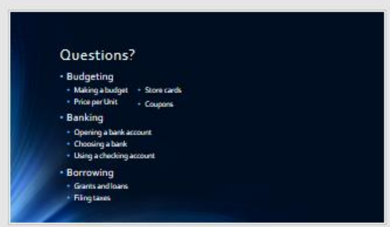

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REFERENCES

Berge, L. I., Bjorvatn, K., & Tungodden, B. (2014). Human and Financial Capital for Microenterprise Development: Evidence from a Field and Lab Experiment. *Management Science*,*61*(4), 707-722. doi:10.1287/mnsc.2014.1933

Braunstein, S., & Welch, C. (2002). Financial Literacy: An Overview of Practice, Research, and Policy. *Fed. Res. Bull.*,*88*, 445.

Brody, R. G., Haynes, C. M., & Mejia, H. (2014). Income Tax Return Scams and Identity Theft. *Accounting and Finance Research*, *3*(1), 90.

Cole, S., Sampson, T., & Zia, B. (2011). Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets? *The Journal of Finance*,*66*(6), 1933-1967. doi:10.1111/j.1540-6261.2011.01696.x

Davis, R. C., Erez, E., & Avitabile, N. (2001). Access to Justice for Immigrants who are Victimized: The Perspectives of Police and Prosecutors. *Criminal Justice Policy Review*,*12*(3), 183-196. doi:10.1177/0887403401012003001

Field, E., Jayachandran, S., & Pande, R. (2010). Do Traditional Institutions Constrain Female Entrepreneurship? A Field Experiment on Business Training in India. *American Economic Review*,*100*(2), 125-129. doi:10.1257/aer.100.2.125

Gallmeyer, A., & Roberts, W. T. (2009). Payday Lenders and Economically Distressed Communities: A Spatial Analysis of Financial Predation. *The Social Science Journal*,*46*(3), 521-538. doi:10.1016/j.soscij.2009.02.008

Gamble, K. J., Boyle, P., Yu, L., & Bennett, D. A. (2013). Aging, Financial Literacy, and Fraud. *SSRN Electronic Journal*. doi:10.2139/ssrn.2361151

Hathaway, I., & Khatiwada, S. (2008). Do Financial Education Programs Work? *Working paper (Federal Reserve Bank of Cleveland)*. doi:10.26509/frbc-wp-200803

Hartarska, V., & Gonzalez-Vega, C. (2006). Evidence on the Effect of Credit Counseling on Mortgage Loan Default by Low-income Households. *Journal of Housing*

Economics,15(1), 63-79. doi:10.1016/j.jhe.2006.02.002

Hira, T. K., & Schuchardt, J. (2008). Setting the Standard for Financial Literacy. *The Standard,26*(4).

James, B. D., Boyle, P. A., & Bennett, D. A. (2014). Susceptibility to Scams Scale. *PsycTESTS Dataset*. doi:10.1037/t62359-000

Klapper, L., & Panos, G. A. (2011). Financial Literacy and Retirement Planning: The Russian Case. *Policy Research Working Papers*. doi:10.1596/1813-9450-5827

Lusardi, A., & Tufano, P. (2009). Debt Literacy, Financial Experiences, and Overindebtedness. *National Bureau of Economic Research*. doi:10.3386/w14808

Lusardi, A., & Mitchell, O. (2011). The Outlook for Financial Literacy. *National Bureau of Economic Research*. doi:10.3386/w17077

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin, 18*(1), 3-9.

Mandell, L., & Klein, L. S. (2007). Motivation and Financial Literacy. *Financial Services Review,16*(2), 105.

Marlowe, J., & Atiles, J. H. (2005). Consumer Fraud and Latino Immigrant Consumers in the United States. *International Journal of Consumer Studies,29*(5), 391-400. doi:10.1111/j.1470-6431.2005.00463.x

Mayhew, P. (1984). Target-Hardening: How Much of an Answer? *Coping with Burglary International Series in Social Welfare*,29-44. doi:10.1007/978-94-009-5652-0_3

McCormick, M. H. (2009). The Effectiveness of Youth Financial Education: A Review of the Literature. *Journal of Financial Counseling and Planning,20*(1), 70-83.

Remund, D. L. (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs,44*(2), 276-295. doi:10.1111/j.1745-6606.2010.01169.x

Simon, H. A. (1972). Theories of bounded rationality. *Decision and organization*, *1*(1), 161-176.

Sukumaran, K. (2015). Financial Literacy -- Concept and Practice. *DAWN: Journal for Contemporary Research in Management*,59-65.

Tuominen, M. C., & Thompson, E. L. (2015). “There Was No Money Left to Save”: Financial Literacy and the Lives of Low-Income People. *Journal of Progressive Human Services*,*26*(2), 148-165. doi:10.1080/10428232.2015.1018104

Xu, L., & Zia, B. (2012). Financial Literacy around the World: An Overview of the Evidence with Practical Suggestions for the Way Forward. *Policy Research Working Papers*. doi:10.1596/1813-9450-6107

Yoong, F. J., See, B. L., & Baronovich, D. (2012). Financial Literacy Key to Retirement Planning in Malaysia. *Journal of Management and Sustainability*,*2*(1), 75. doi:10.5539/jms.v2n1p75

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