Northeastern University
Dukakis Center for Urban and Regional Policy

An Evaluation of the **Boston Youth Credit Building Initiative** Baseline Report

Acknowledgements

Any report of this scope and magnitude requires the assistance of a variety of organizations and individuals. We gratefully acknowledge the time and effort put forward by the members of the organizations listed below who provided us with helpful guidance about the population, the recruitment process, and the program itself. We could not have accomplished this work without their insights and knowledge. We also wish to thank the City of Boston for developing this initiative and Working Credit NFP for requesting this research. We hope that this baseline report is a useful addition to the dialogue about the City's effort to help young adults build credit. Any errors in the analysis or conclusions are entirely our own.

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The Mayor's Office of Workforce Development (OWD) is an innovative public agency that seeks to promote economic self-sufficiency to ensure the full participation of all Boston residents in the city's economic vitality and future, seeking to connect low-income residents with job training and employment opportunities and to promote lifelong literacy and educational pathways. The primary focus of OWD is to enable competitive workforce development initiatives and policies to put Boston's youth and adults on career paths toward economic security. While OWD continues to support adult basic education, ESOL and HiSET related programs, OWD stresses the importance of collaboration with the city's workforce development and education initiatives, with an overall emphasis on empowering Bostonians to fulfill their educational and employment aspirations.

Report Team

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Dukakis Center for Urban and Regional Policy

As a "think and do" tank, the Dukakis Center's collaborative research and problem-solving model applies powerful data analysis, multidisciplinary research and evaluation techniques, and a policy-driven perspective to address a wide range of issues facing cities, towns, and suburbs, with a particular emphasis on the greater Boston region. Northeastern University conducted the evaluation on behalf of Working Credit.

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Working Credit is a nonprofit organization that brings credit building services and products to workers in the form of an employee benefit, including its innovative CW-3™ credit building product. Working Credit implemented the Boston Youth Credit Building Initiative by modifying their credit building model to serve OFE's young adult worker population, many of whom currently participate in government-funded workforce development programs. Northeastern University conducted the evaluation on behalf of Working Credit.

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The Office of Financial Empowerment (OFE) works to link Boston residents seeking financial security and wealth generation with access to capital, financial education, and financial services. OFE developed the concept of the Boston Youth Credit Building Initiative, which included a formal evaluation, and engaged Working Credit to implement the program. After Working Credit directed Northeastern University to design the evaluation, OFE was responsible for recruiting study participants. OFE is part of the Office of Workforce Development. OWD and the City of Boston provided a grant of $110,000 to help fund this project as well as staff time to manage it.

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I. Introduction: Why Focus on Credit Building?

The current credit reporting system in the U.S. creates a barrier for millions of low-income individuals with poor credit or no credit to fully participate in the mainstream financial system. According to the Consumer Financial Protection Bureau (CFPB), 45 percent of all U.S. adults in low-income neighborhoods have no credit score (Credit Invisibles, May 2015). In Boston, nearly half of all households are considered to be liquid asset poor, and the figure is even higher for Latinos (75 percent) and African Americans (69 percent) (CFED's Family Assets Count (2014) data). For example, white Boston residents typically have median liquid assets of $25,000 compared to $670 for African Americans, $150 for Cape Verdeans, $20 for Puerto Ricans, $150 for Dominicans, and $700 for Other Hispanics (Federal Reserve Bank of Boston in March 2015, "The Color of Wealth in Boston").

Good credit is essential to achieving and maintaining financial stability, accessing opportunities, and building a future that allows individuals to pursue their career and life goals. For example, U. S. workers with poor credit (scores below 620) or no credit at all pay inflated prices for a variety of essential products including auto loans at interest rates over 20 percent and leases for items such as mattresses and refrigerators from rent-to-own stores that quadruple market prices. This population struggles to access credit cards and mainstream consumer loans, and so – in emergencies – has little choice but to borrow from high-priced payday and auto title lenders. When turning on utility or cell phone services, people with poor or no credit are often required to provide deposits of several hundred dollars, and, because many landlords check credit, these workers struggle to rent quality apartments. Finally, nearly half — 47 percent — of employers use credit checks when making a hiring decision, suggesting that having bad credit can be an additional barrier to landing a job—especially for positions that handle payments (Society of Human Resource Management, 2012).

At the same time, the road to good credit is shorter than many people think. Anyone with access to at least one mainstream loan or credit card can build credit. Unfortunately, individuals with no credit score – or poor credit scores – cannot easily access such products, leaving them with few opportunities to improve their financial situation. Financial education programs can fill that gap by providing access to products that report to the credit bureaus as well as accurate and timely information on how the credit reporting system works and support throughout the loan period from credit building counselors. Recent studies by the Consumer Financial Protection Bureau suggest that financial education is most effective when provided at a point in time when people feel that the information is relevant to their lives and that they can apply their new knowledge promptly. This concept, known as "financial capability," has prompted the development of new financial education interventions that are aimed at individuals who are currently working or receiving training through a workforce development program.

The Boston Youth Credit Building Initiative (BYCBI), developed by Mayor Martin J. Walsh's Office of Financial Empowerment (OFE) and implemented by Working Credit NFP, extends the financial capability model to young adults age 18-28 who are currently working or in a workforce development program. This initial pilot will focus on low- and moderate-income youth, of which over one-third live at or below 200 percent of the poverty line. By targeting financial education and services to young workers, many of whom are receiving their first paychecks, the program is seen as an effective way to boost financial capability and develop good financial habits at a formative time when individuals are starting to build their credit history. These young workers may be especially receptive to information about financial

management and more likely to take up opportunities to apply this knowledge and build behaviors that can last a lifetime, having an even greater net benefit to both individuals as well as society.

The goal of the program is to help individuals build strong credit scores, increase their familiarity with credit building and saving products, and provide them with opportunities to continue building credit indefinitely through use of a secured credit card. OFE has contracted with Working Credit NFP to provide the core of the credit building program, and Working Credit has requested Northeastern University produce research on the credit building program. The program includes a financial workshop, one-on-one coaching, and the opportunity to enroll in the CW-3™ credit building product. Developed initially for the Local Initiatives Support Corporation (LISC) by a former employee, now the founder of Working Credit, the CW-3™ product is a secured loan and savings product. Participants are issued a 12-month, $300 loan, which is transferred into a "locked" savings account, where it remains until the loan is repaid. Participants make monthly payments of $26 (including interest), reported directly to the credit bureaus, so that individuals who make 12 on-time payments can build their credit score in six months to a year. At the end of the 12 months, the participants are able to access the money they have saved and are encouraged to continue saving while also applying for a secured credit card.

Funded in collaboration by the Office of Financial Empowerment and Citi Community Development, the Boston Youth Credit Building Initiative builds directly on the City of Boston's collaborative efforts to develop strategies and programming to create individual, family, and community wealth building. Boston was one of 10 cities selected by Corporation for Enterprise Development (CFED) and Citi Community Development for the Family Assets Count Project in 2014, supporting Mayor Walsh's "Cities of Opportunity Agenda" for the U.S. Conference of Mayors to transform employment centers into Financial Opportunity Centers (FOCs). OFE currently provides free financial coaching and credit building education at its FOC at the Roxbury Center for Financial Empowerment, an effort that will be expanded if the Boston Youth Credit Building Initiative, implemented by Working Credit, proves effective.

Finally, while this is an evaluation of Working Credit's credit building program and its impact on young adult workers, the research will also contribute to the broader policy context of improving financial opportunity for young adults. Under the 2014 Workforce Innovation and Opportunity Act, youth workforce development programs are required to include financial literacy as one of the components. To our knowledge the Boston Youth Credit Building Initiative is one of the first to implement such a program for young adults in the context of a workforce development program and to evaluate the outcomes in a rigorous manner. The Dukakis Center for Urban and Regional Policy will evaluate the program using a randomized control treatment design that will compare the outcomes of individuals who were randomly chosen to participate to those of the control group who were not selected. The evaluation will assess improvements in knowledge and skills regarding credit building and financial capability, changes in credit scores, as well as trends in employment and wage outcomes. Quantitative information from pre- and post- surveys as well as administrative credit and employment records will be used to compare changes over time for those in the treatment versus the control group. More narrative qualitative information gleaned from the focus groups will be collected to better understand which features of the program are most effective.

This report provides the initial baseline characteristics of the treatment and control groups and also compares outcomes between the two groups during the first six months of the program. The **baseline characteristics** of the treatment and control groups are compared ***before the start of the program*** to

show that the two groups are balanced according to the evaluation design and do not systematically differ from each other in terms of demographics, pre-survey responses, or initial credit histories. We also make comparisons between those in the treatment group who participated in the program ("compliers") versus those who chose not to participate even after applying ("non-compliers"). In addition, because very little is known about how low-income young adults perceive and use credit, this report provides a summary of the pre-survey results to paint a portrait of all study participants at baseline—before they are randomly assigned to treatment and control groups.

In addition, we present the **preliminary impacts through six months** to provide an ***early snapshot*** of the program's potential impact. Although at the time of this analysis, the program is only at the halfway mark, a comparison of the six-month credit reports demonstrates significant improvement in the treatment group that is highly encouraging. We augment these impacts with findings from our focus group discussions which occurred after the treatment group had attended the workshop. We conclude with our initial findings and a list of next steps as the evaluation continues.

II. Literature Review

Before delving into the evaluation details and baseline results, it is useful to provide some context from both the academic literature as well as various industry and policy reports. The academic literature provides us with some understanding of the determinants of credit as well as the consequences for having poor credit or a lack of credit. In contrast, the policy reports describe the shift from financial literacy to financial capability programs and the promising outcomes that have been observed thus far.

A. Determinants and consequences of poor credit/lack of credit

Prior to the Great Recession, there were few studies that had explored the determinants of credit scores. Aside from demographic characteristics, few studies explicitly linked credit scores to financial attitudes, behavior, or knowledge. Since the financial meltdown there has been renewed interest in identifying which individuals are at greater risk for having poor credit and understanding the underlying factors that come into play in mediating certain behaviors that lead to poor outcomes.

In this section we explore the literature regarding the determinants of credit status in three major areas: economic, sociological, and psychological factors—all of which appear to have some degree of independent correlation with both credit and debt. It is important to remember that although credit and debt are often related, the two concepts are distinct. Here, we define debt as money that is owed while credit is one's reputation as a borrower, which is based on whether you repay your debt. In general, the literature on debt is far more extensive, likely because it is easier to measure debt than credit, and so we include studies relating to both concepts.

While it is likely that some combination of economic, sociological and psychological factors contribute to an individual's use of credit, it is unclear which of these factors matter the most as they are likely to be interrelated. For example, some studies emphasize economic factors that show a negative correlation between debt and socioeconomic class, income, and homeownership (Elliott 2012; Houle 2013). Other studies emphasize sociological factors finding that serious debtors had slightly more permissive attitudes towards debt, were more likely to know other people who were in debt, and they were less likely to think that their friends or relations would disapprove if they knew they were in debt (Lea, Stephen, Webley, and Levine 1993). Finally, there are a number of studies documenting that

psychological factors such as locus of control and coping strategies are also related to experiences of debt (Livingstone and Lunt 1992).

Moreover, some of the above-mentioned factors are likely to be endogenous such that it has often been suggested that the conditions for the development of a self-sustaining "culture of debt" exist. Educational attainment, employment status, and health status have all been linked to having poor credit but the direction of causation is unclear. For example, having poor credit may reduce the ability to finance one's education which in turn may reduce the likelihood of finding and maintaining employment. Conversely, lack of degree completion may create barriers to finding regular full-time employment which may lead to poor financial outcomes, including indebtedness. As a result, there is room for debate in the academic literature as to which factors matter most for determining one's level of debt and credit status.

1. Economic Factors

Socioeconomic background: Studies indicate that children from low-income households have less access to information regarding finances, lower expectations regarding saving, and fewer opportunities to obtain financial services compared to middle and upper class children (Elliott 2012). Without access to mainstream financial services, low-income youth and young adults face greater challenges in achieving financial stability and utilizing wealth-building tools. In addition, socioeconomic disparities in debt appear to be primarily driven by the probability of going into debt rather than differences among debtors. However, compared to their more advantaged counterparts, young adults from low-socioeconomic backgrounds have a higher risk of accruing debt burdens that exceed the national average (Houle 2013).

Lack of stable employment and income: Not surprisingly, being employed full-time is associated with greater financial capability; however, it is unclear as to whether or not this is a causal relationship. On the one hand, having a full-time job provides one with greater income to be able to manage one's finances (Taylor 2011), yet what seems to be more important is the type and regularity of income received. For example, one study found that disposable income did not differ between those in debt and not in debt, although it predicted how far people were in debt and was most important in determining debt repayment (Livingstone and Lunt 1992). In contrast, irregular income, especially in the form of cash, adds to the challenge of converting financial resources into savings (Beverly, McBride, and Schreiner 2003).

However, the causality may also run in the other direction such that having greater financial difficulty may also make it difficult to maintain employment. The common anecdotal example often given is not having access to credit to repair one's car can make it difficult to get to work consistently.

Educational attainment: The relationship between educational attainment and credit is more nuanced than other factors and likely reflects the complicated role of debt in obtaining post-secondary education. On the one hand, individuals who have completed a college degree often demonstrate greater financial capability, higher incomes, and fewer problems with credit. On the other, having some post-secondary education without having completed a degree is associated with lower financial capability and greater student loan default than those with only a high school degree (Taylor 2011). Interestingly, both men and women experience slowing and even diminishing probabilities of graduating when carrying high levels of debt, but men drop out at lower levels of debt than do women (Dwyer,

Hodson, and McCloud 2013). This difference across genders may reflect the different attitudes towards debt that are discussed below among the sociological factors.

A number of recent articles have highlighted that individuals attending inexpensive community colleges often have higher rates of default on student loans compared to those attending more expensive four-year programs (Dynarski 2015). Community colleges have far lower degree completion rates than four-year schools, leaving more students without a degree and unable to obtain the types of employment and earnings levels that they anticipated, making it difficult to repay their student loans (Houle 2013). Indeed, other studies of college students find that grade point average was not a unique predictor of debt, suggesting that factors that affect degree completion beyond innate ability are important in explaining the relationship between education and indebtedness (Norvilitis, et al. 2006). In addition, recent concerns about student loan defaults and burdensome debt loads suggest that many young adults do not fully understand the nature of the financial decisions they are making with regards to paying for their education.

2. Sociological Factors

Demographic characteristics (e.g., age, gender, and race): Not surprisingly, previous studies in the sociology literature have found a negative relationship between financial capability and age (Taylor 2011). This relationship with age is consistent with other literature indicating that younger adults are most at risk of financial difficulties and poor financial planning (e.g., Atkinson et al. 2006; Kempson et al. 2004). It is also consistent with human capital theories that suggest people's abilities increase with experience. However, this relationship between score and age does not hold uniformly across racial and ethnic groups. Among African-American and Hispanic adults, growing older does not make them more likely to obtain a credit score given that these groups are less likely to participate in the mainstream economy as they age (Brevoort, Grimm, and Kambara 2015).

In contrast, there is no clear correlation between an individual's credit score and his or her gender or race. However, these demographic factors often predict financial knowledge, attitudes, and behaviors that are linked to credit use and loan application behavior that in turn reinforce stereotypes about certain groups (Borden, Lynne M., et al. 2008). For example, women often report significantly higher subjective debt burdens and lower expectations for their future compared to men—even if there are no significant differences in their current financial situations (Keese and Matthias, 2012). Similarly, African-Americans with good credit risk ratings underestimate their credit worthiness and apply for loans in lower numbers so that the pool of applicants for loans contains a greater proportion of African-American applicants with poor credit. This, in turn, confirms prior beliefs about the poor credit of average African-American applicants. (Ards, et al. 2015). Researchers attribute these differences in the subjective perception of objective debt burdens to psychological factors such as locus of control which we discuss further below.

Parental influence: Beyond access and opportunity, parental influence has been shown to have a direct and moderately significant influence on the financial attitudes and behaviors of young adults (Jorgensen and Savla 2010). The human development and sociological literatures show that children learn increasingly complex economic and financial concepts as they progress through various psychological and cognitive stages (Berti and Bombi 1988; Strauss 1952; Webley, Burgoyne, Lea and Young 2001). Typically, families are the first agents of socialization teaching self-control and healthy financial practices both through modeling as well as providing opportunities for practice through activities such as

receiving an allowance, visiting a bank, or participating in discussions around the dinner table (Moschis 1985; Kourilsky 1977; Rettig and Mortenson 1986; Webley and Nyhus 2012).

Unlike their peers from middle and upper-income families, low-income young adults grow up in households where they were less likely to have consistent and positive role models to help prepare them for adult financial responsibilities. Indeed, parental hands-on mentoring of financial skills was most strongly related to lower levels of credit card debt and this relationship was partially mediated by greater delay of gratification and less impulsive credit card purchasing, which in turn were related to less problematic credit card use. Having parents who struggled with debt was not significantly related to debt although having parents who avoided talking about finances predicted problematic credit card use (Norvilitis, et al. 2006). In these ways, children raised in middle and upper class families typically receive more guidance than those from low-income households.

3. Psychological Factors

Attitudes: Research suggests that young people have divergent perspectives on debt: some focus on credit as a necessary investment in status attainment, while others worry that readily available credit invites improvidence that can erode self-confidence by limiting future consumption and increasing feelings of powerlessness. Previous research has demonstrated that attitudes toward credit-card use among college students such as being pro-credit rather than anti-debt or seeing credit as useful but problematic were found to be important predictors of debt and debt repayments (Livingstone and Lunt 1992; Norvilitis, et al. 2006).

Coping strategies: Young adulthood is a crucial developmental period for mastery and self-esteem, which then serve as a social psychological resource (or deficit) into the adult years. Previous studies have found that an individual's credit score is correlated with measures of impulsivity and delay of gratification—even when controlling for income differences (Arya, Eckel, and Wichman 2013; Norvilitis, et al. 2006). Unsuccessful credit users also display greater external locus of control, lower self-efficacy, and expressed greater anxiety about financial matters than successful users (Tokunaga and Howard 1993; Caputo 2012).

Mental and physical health status: The sociology literature also finds that a lack of financial capability is associated with being in poor mental and physical health (Taylor 2011, Caputo 2012). However, it is unclear as to the underlying mechanisms behind this relationship. For example, individuals in debt may experience greater stress leading to diminished mental and physical health. (Norvilitis, et al. 2006; Fitch et al. 2011; Drentea and Lavrakas 2000). This has been shown to be particularly prevalent among populations such as women and Hispanics that have a higher level of anxiety regarding their financial situation (Dunn and Mirzaie 2016).

Alternatively, individuals in poor mental and physical health may have difficulty maintaining employment, thereby reducing their ability to accrue income and financial assets and be more likely to become indebted (Richardson, Elliott and Roberts 2013). Alternatively, health problems have also been associated with increased indebtedness due to lack of sufficient insurance coverage for health expenses, often leading to bankruptcy (Himmelstein et al. 2005). Finally, it may also be the case that individuals suffering from poor health status experience diminished "cognitive load" in making financial decisions and/or have mental health deficiencies that make it difficult to manage their finances (National Endowment for Financial Education 2014).

B. The effectiveness of financial literacy versus financial capability programs

A number of studies have attempted to evaluate the impact of financial education on a variety of outcomes, and while the general consensus is that financial education should have a positive effect, the findings across programs are mixed (Lyons et al. 2006). For example, while some studies find that ***financial literacy*** can lead to positive knowledge, attitude, and behavior change (Boyce and Danes 1998; Danes 2005; Varcoe et al. 2005; Borden et al. 2008), others show no significant difference in behavior change between the treatment and comparison groups (Gartner and Todd 2005). Other research focusing on the effects of state mandates requiring financial education in public schools also produce mixed results. While some researchers have demonstrated that state mandates for personal financial education in high school have a positive effect on savings rates and net worth later in life (Bernheim, Garrett and Maki 2001), others have shown that the mandates were introduced during periods of high economic growth, thus resulting in a spurious correlation between state mandates and savings rates among students (Cole and Shastry 2009).

In contrast, ***financial capability*** efforts that incorporate access to financial products and services, in addition to the educational component, appear to be a more effective approach (Sherraden 2013). The general consensus is that the ability to put knowledge immediately into practice is most helpful in establishing healthy financial habits and behaviors. For example, previous studies have found that both education and credit-card use increase mastery and self-esteem, helping young people experience debt as an investment in the future. These effects are greater for those of lower- and middle-class origins by providing them the knowledge, skills, and *opportunity* to establish healthy financial futures early on and saving them from having to repair their credit or manage excessive debt later on in life (Dwyer, McCloud, and Hodson 2011).

Similarly, establishing positive savings behaviors early in life has been shown to be particularly advantageous for youth from lower-income households (Cramer, Cooper and Luengo-Prado 2009). Indeed, the process by which young people gain the ability to manage money and save as they transition to adulthood has been shown to be important—even beyond the additional income that is accumulated. For example, accumulating savings and assets has been shown to generate positive outcomes for children by increasing orientation toward the future and stimulating development, enabling focus and specialization, providing a foundation for positive risk taking, encouraging postsecondary educational attainment and increasing personal efficacy (Sherraden 1991; Elliott, et al.; Elliott and Beverley 2011). Although savings itself has no causal effect on credit scores, encouraging these types of savings behaviors may lead to better behaviors related to using credit.

Even better outcomes can possibly be achieved if educators can take advantage of the teachable moments that occur during the transition into early adulthood when many youth are receiving their first paychecks and making their first financial decisions, such as opening a bank account, acquiring a credit card or preparing to pay for college. While the research findings on the outcomes of financial capability programs are not as extensive as those for financial education programs in general, prior studies have indicated that successful interventions are those which:

- are both individual and structural in nature (Sherraden 2013)
- are targeted and narrowly focused (Klinge, Harper, and Vaziri 1974)

- demonstrate relevance, engage participant's motivation, and capitalize on teachable moments (Hathaway and Khatiwada 2008; McCormick 2008, Center for Psychological Studies, n.d.)
- include program design features such as automatic enrollment and the establishments of defaults (Thaler and Sunstein 2009)
- incorporate cognition elements (subject content knowledge) and socialization (parents, peers) (Levesque 2014)
- engage participants with real-world financial products and services (Land & Russell 1996; McCormick 2008)
- leverage incentives and principles from behavioral economics (Hernandez 2011)

1. Examples of current financial capability programs

Similar to the Boston Youth Credit Building Initiative, which tests Working Credit NFP's credit building model, a growing number of initiatives are focusing more intentionally on building financial capability rather than simply delivering financial education. These programs typically offer financial education paired with an individual development account (IDA) at a mainstream financial institution so that participants can apply financial concepts and increase their familiarity with financial institutions. We discuss two such examples of promising financial capability programs aimed at young adults in this section.

MyPath: MyPath is a financial capability initiative that began delivering its services in 2011-12 to 10 youth development agencies participating in the San Francisco Mayor's Youth Employment and Education Program (MYEEP). Over 86 percent of participants were from households that had annual incomes below half of San Francisco's median household income of $71,304. The program focuses on disadvantaged youth earning their first paycheck and provides them with peer-led financial education trainings, an IDA at a mainstream institution, and incentives to set and meet savings goals. Since its original inception, the standard MyPath program has also added credit building component to its service model called MyPath Plus.

Both standard MyPath and MyPath Plus participants experienced increases in youth banking and saving outcomes and significantly improved confidence in their ability to carry out basic financial tasks compared to the comparison group, with no statistically significant differences between the two treatment groups in those areas. Both models are equally effective in producing youth financial capability outcomes, including:

- 97 percent of youth participants enrolled into safe youth-friendly accounts;
- 100 percent set a personal savings goal, using a MyPath Savings contract;
- 96 percent met their savings goal.

In addition, youth saved on average 34 percent of their income, for an average of $329 each, amounting to a total of $66,500 in savings across all participants. Youth in treatment groups were also 3-5 times more likely than those in the comparison group to have increased confidence to carry out basic financial behaviors, including saving, budgeting and smart spending.

The addition of peer-led group coaching sessions served to further enhance the program. Youth who receive coaching were nine times more likely than the comparison group to have increased financial knowledge. In addition, these youth were 11 times more likely than the comparison group to report

increased usage of more complicated financial management behaviors such as comparison shopping before making a purchase.

Opportunity Passport: Another financial capability program aimed at young adults is the Opportunity Passport program, developed by the Casey Foundation, which targets youth transitioning out of foster care. Upon the completion of financial education training, Opportunity Passport provides participants with both a personal debit account as well as an Opportunity Passport savings account at a mainstream financial institution that acts as an IDA with an initial balance of $100. When participants withdraw money from the IDA to purchase an approved asset, the Opportunity Passport program matches it dollar for dollar. Approved assets included educational expenses (books, computers, and required software), housing costs (apartment security deposits), vehicles, microenterprise costs, and health care costs. Continued participation requires that participants keep their Opportunity Passport accounts open and active.

A series of interviews with initial Opportunity Passport participants revealed that saving was a complex undertaking, especially for young people with low incomes and little experience managing money and making financial decisions. Individual factors that contributed to the ability to save successfully in the matched savings account were circumstances (e.g., having a regular well-paying job and/or low expenses), personal knowledge and skills, and cognitive orientation to saving.[1] Program features that appeared to contribute to successful savings were having an account where the money was not readily available, having a realistic monthly goal, the ability to automatically deposit incremental amounts, and the incentive of the match.[2]

For many participants, the positive outcomes extended beyond the purely financial benefits of having dollars in the bank. These included having made meaningful savings investments, being introduced to mainstream banking services, improving their financial capability, enhancing their sense of independence and responsibility, gaining greater stability in their residence and better educational opportunities, as well as providing additional benefits for their children as good role models.

2. The Need for More Research

Several studies have documented a number of promising findings from financial capability programs, particularly those that enroll participants in an IDA. For example, a three-year longitudinal exploratory study of credit outcomes for IDA participants found that participant credit score improvements are achieved and maintained with those completing the IDA program within two years experiencing the highest credit gains (Birkenmaier, Curley, and Kelly 2014). Another study found that those who successfully complete the IDA program report higher levels of asset ownership after completing the program, compared to those dropping out of the program prematurely, possibly suggesting that IDA programs affect the dispositions and behaviors necessary to successfully maintain a home, complete post-secondary education, and establish a small business (Loibl and Bird 2009).

However, although these studies have indicated positive impacts stemming from financial capability, the lack of a robust control group has made it difficult to extrapolate the results to the general population,

[1] Research shows that people tend to mentally divide income sources into separate accounts by describing them in different ways that affect the likelihood of spending each (Tversky and Kahneman 1981; Zelizer 1989).
[2] Research that shows when money for saving is also in a different physical account people are more able to exercise self-control and resist the temptation to spend (Kahneman and Tversky 1979; Shefrim and Thaler 1988).

highlighting the need for additional research. Of critical importance is the need to disentangle the development of financial management skills from selection into the program and the natural maturation that occurs over the time period of the program's duration. There is a clear need for experimental designs, such as that used in this evaluation, to better discern the effectiveness of specific interventions aimed at building financial capability as well as the consequences for improving longer-term outcomes such as stable employment and earnings.

Finally, it is not clear that the one-size-fits-all approach of IDA programs is necessarily the best use of resources for low-income individuals. Indeed, a meta-study of IDA programs found that IDA participants are capable of saving; however, the total amount of savings is limited and may simply represent a reallocation of assets from other productive uses, such as paying down debt (Richards and Thyer 2016). Moreover, nearly half of participants drop out of such programs, in part because of financial circumstances such as already carrying high levels of debt or program design such as low match rates, short timetables for payments, and lack of automatic deposit (Schreiner and Sherraden 2005). As a result, it may be premature to conclude that IDAs are an effective means of assisting low-income individuals in the development of assets without some kind of cost-effectiveness or cost–benefit analysis.

In the following sections, we will describe the unique features of the Boston Young Adult Credit Building Program. The primary innovation is the use of a more holistic approach where a one-on-one coaching session is used to advise individuals on a variety of strategies to improve their credit score such as resolving errors or identify theft, paying down debt, opening new lines of credit, or enrolling in the CW-3™product. In addition, the evaluation makes use of a robust design that includes a randomized control trial to assess the impacts on participants relative to a randomly selected control group.

III. Description of the Boston Youth Credit Building Initiative

The Boston Youth Credit Building Initiative, implemented by Working Credit NFP, aims to build financial capability among low-income young adults by helping them build or improve their credit history at a point in time when the information is relevant to their lives and that they can apply their new knowledge promptly. Specifically, the program provides a workshop that teaches participants how the credit reporting system works, one-on-one financial coaching on how to build or repair their credit history, information about how to open and/or manage reporting lines of credit, and access to the CW-3™product that can be used to directly improve their credit score—all at a time when many of these individuals are receiving their first paychecks. The basic premise is for the program to act as an "early intervention" to boost financial capability and develop good financial habits at a formative time when individuals are starting to build their credit history. By targeting young adults age 18-28 years who have had less time to develop bad habits and more opportunity to apply new knowledge and build behaviors that can last a lifetime, the program is expected to have an even greater impact at a lower cost than similar interventions aimed at more traditional working-age adults.

Developed by the City's Office of Financial Empowerment, the Boston Youth Credit Building Initiative brings together a number of key partners to help recruit participants, deliver the program, study the program, and provide funding. These include:

- **Educational and Community Based Organizations:** To help with recruitment, OFE has engaged with a host of local educational and community based organizations that provide workforce

development targeted at youth and young adults. These include BEST Corp. Hospitality Training Center, Boston Cares, Boston Day & Evening Academy, Boston Housing Authority, Boston Public Health Commission, Boston Division of Youth Engagement and Employment, Catholic Charities, CityYear, Dudley Street Neighborhood Initiative, Hyde Park YCD, LISC AmeriCorps, Madison Park Housing Development, ROCA, Roxbury Community College, Roxbury YouthWorks, and YearUp.

- **Working Credit NFP:** To implement the credit building program, OFE has contracted with Working Credit NFP to deliver its credit building model, including access to its innovative CW-3™ credit building product, a secured loan and savings program. Working Credit is a nonprofit organization that brings credit building services and products to workers in the form of an employee benefit. The organization helps individuals establish and sustain strong credit scores, and then use those scores to reduce personal or household expenses inflated by poor credit or no credit. The overall goal of Working Credit is to reduce financial stress among employees, so they can concentrate on their jobs and advance in the workplace.

- **Citi Community Development:** This initiative was created with support from Citi Community Development, a corporate group that leads Citi's commitment to financial inclusion and economic empowerment for underserved individuals, families and communities in order to build cities and communities that are inclusive. Through innovative collaborations with municipalities and community groups, Citi Community Development harnesses Citi's expertise, products and services to improve opportunity for all – including those in low and moderate income neighborhoods and in communities of color.

Working Credit's program is a comprehensive intervention that is tailored to the individual needs of the participant and requires minimal assistance from the educational and community based organizations for implementation. OFE was responsible for all recruitment activities, and recruited most of the study participants from these organizations at a pre-arranged meeting where the program was explained in a five minute presentation and application forms were distributed. Additional individuals were recruited by OFE directly via a marketing campaign. Once all applications were collected, individuals were randomly assigned to the treatment and control groups, and OFE invited participants to a one hour credit building workshop and a one-on-one counseling session, often at or near their work site.[3] Working Credit then stepped in to deliver its credit building program. They delivered their credit building workshop, and signed up participants for the one-on-one counseling, either immediately after the workshop or at a later date. Through the counseling process it was determined whether an individual participant was eligible and would benefit from enrolling in the CW-3™ credit building product. Specifically, the program works as follows:

1) **One Hour Workshop:** Eligible individuals assigned to the treatment group participate in a one hour workshop on the ins and outs of the credit scoring system and how the CW-3™ product works,

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[3] Note that this is a departure from the usual model that Working Credit has developed to be able to provide a control group for the evaluation study. If the pilot were developed further then the procedure would be to offer the workshop to all young adults at a worksite and encourage them to apply to the program afterward. In the past, Working Credit has found this model to be an effective recruitment process given that individuals often do not know enough about credit use and reporting to decide if they want to participate in the program before attending the workshop.

presented by Working Credit. The workshop is ideally offered at or near their worksite if they are recruited through an organization and may be part of a mandatory staff meeting or a previously-scheduled training. At the end of the workshop, participants are urged to sign up for a one-on-one coaching session with a credit building counselor. Participants receive a $150 financial incentive if they participate in the study for a year.[4]

2) **One-on-One Coaching:** This one-on-one coaching includes a review of the participant's credit report and score, as well as the development of a budget and credit action plan – an individualized plan focused on increasing the participant's credit score. Also at this session, the counselor assesses the participant's eligibility for the CW-3™ product. If eligible, the counselor enrolls the participant immediately. If not yet eligible, the participant receives clear direction about what he/she needs to do to qualify for the product. The only criteria for enrollment in the CW-3™ product is that an individual must have a budget that shows he/she can afford to save $26/month and would benefit from it. Regardless of whether a person is enrolled in the CW-3 product, counselors continue to support participants with credit coaching following the first appointment. At a minimum, the counselor pulls a subsequent credit report and score for every participant at six month intervals and then shares the results (along with additional credit building guidance) either in person or by email.

3) **Enrollment in CW-3™matched savings account:** Working Credit partners with mainstream financial institutions to offer the specific financial products that make up the CW-3™ secured loan and savings program. In Massachusetts, Working Credit partners with Great Rivers Community Capital – a nationally-acclaimed CDFI based in St. Louis. The product works as follows:

   a) The individual opens a 12-month $300 Installment loan, but does not take the loan proceeds. The lender keeps loan proceeds in a "locked" Savings Account until the loan is paid off.

   b) The individual makes 12 monthly payments of $26 and therefore saves $300 over the year. The lender reports each payment to the credit bureaus, building a positive track record for the participant.

   c) At the end of the 12-month loan term, the individual has $300 in savings as well as an improved credit score. The individual is encouraged to use the $300 in savings to open a secured credit card to continue building credit and can use the improved credit score to reduce expenses and/or gain access to additional credit products.

Note that there is no risk of delinquency or default. If an individual fails to make a loan payment, Working Credit pays off the loan with money from the "locked" savings account, and shuts the product down. This avoids any negative information going to the credit bureaus – and therefore any negative credit consequences for the participant. Note that impacts will be assessed for the treatment group as a whole regardless of whether they are able to enroll in the credit loan product.

[4] Working Credit typically offers the one-one-one coaching immediately after the workshop at the work site to ensure participation but that was not possible given that the program was implemented across 18 different community based organizations. In addition, some individuals were directly recruited and were not affiliated with an organization. For these individuals additional workshops were held at OFE.

IV. Evaluation Plan

To our knowledge the Boston Youth Credit Building Initiative is one of the first to implement such a program for young adults and evaluate the outcomes in a rigorous manner. Based on the experience of employer programs with similar models, we anticipate that the Boston Youth Credit Building Initiative has the potential to improve outcomes for young adults along several dimensions. These include direct outcomes such as building credit, maintaining credit, and gaining skills and knowledge that follow directly from the program's financial workshops, one-on-one coaching, and enrollment in the CW-3™ secured loan and savings program.[5] In addition, indirect outcomes such as the ability to maintain employment (and hence, a steady paycheck) may also be positively impacted by an individual's enhanced access to credit by reducing financial stress among participants so they can concentrate on their jobs and advance in the workplace. We turn to the details of the evaluation in this section.

A. Research questions

In the course of our evaluation, Working Credit has asked Northeastern to determine what types of outcomes are impacted by Working Credit's program, how these impacts are achieved, and for whom the impacts are the largest. The evaluation will employ a mixed-methods approach using both quantitative information from pre- and post- surveys and administrative data, as well as more narrative qualitative information gleaned from focus groups and interviews. Using this approach, we aim to answer the following research questions:

- Does Working Credit's program **improve direct outcomes for young adults** relative to a control group? How do outcomes vary for those that choose to participate in the program (e.g., "compliers") versus those that do not? These include outcomes such as an individual's credit score as well as other intermediate outcomes associated with building an optimal credit profile such as reducing delinquencies and using credit appropriately.

- Does the program also **improve indirect outcomes** such as the attitudes and behaviors associated with financial capability as well as the ability to maintain employment (and hence, a steady paycheck)?

- Do the observed **outcomes vary for different demographic groups**? Are the impacts greater for individuals with characteristics typically associated with lower initial levels of financial capability (e.g., by age, gender, race/ethnicity, education, and socioeconomic status)? Do these factors affect participation (e.g., compliance) even after being assigned to treatment?

- **Under what conditions** is the program most likely to produce positive outcomes? Do outcomes vary for young adults that participate through an organization through which they have regular and meaningful contact versus those that do not? Do outcomes vary for young adults who are engaged in employment and/or programs that continue for the duration of the treatment versus those that end half-way?

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[5] For example, among the first 500 people enrolled in a similar LISC product called Twin Accounts, 85 percent completed the 12-month credit builder loan – and saved $300 in the process. Among unscored participants (people with no credit score at program entry), the average credit score at 6-months was 650. Among scored participants, the average increase in credit score was 30 points in 6 months. http://www.lisc-chicago.org/news/2561

- Do program **impacts multiply or fade** over time? Are young adults participating in the program able to maintain their credit record in the six months following the end of the treatment?

B. Methodology

To evaluate these outcomes, we will use a simple differences-in-differences approach which compares the outcomes of randomly selected individuals in the treatment group to those in the control group over time. Since we anticipate that the number of individuals applying for the program is likely to exceed the number ultimately selected for participation, we will use winning this lottery as an instrument for participating in the program, providing a robust control group for evaluation.

1. Application Process

As part of the application process, individuals supplied information to assess their basic eligibility (e.g., currently working and able to save $26/month) and provided a written request to perform an initial credit check for the one-on-one coaching as well as for the subsequent credit pulls.[6] Applicants also gave written consent to conduct an administrative wage record match to verify employment after the program has ended. Finally, individuals also completed a pre-survey that included demographic questions as well as questions related to their current financial situation, knowledge and behaviors. This same survey will be administered at the end of the program to assess the educational impacts.

2. Recruitment

Working Credit's program is best tailored to people with steady income for 12 months who have regular and strong attachment to an organization (e.g., an employer) so that they can be tracked. For example, this is the population best represented by the private sector employees that Working Credit typically engages with such as those enrolled in workforce training through BEST Corp. We were unable to recruit all 300 participants from such organizations because they serve a small share of the at-risk young adult population that was targeted for this intervention.

As a result, it was necessary to cast a wider net for recruitment resulting in a total of 18 different organizations that participated in the study (see Table 1). While these educational and community based organizations serve low-income young adults, they do not exactly conform to the model that Working Credit has developed for delivering the program. To take this into account, we characterized organizations as "eligible," "near-eligible," and "not-eligible" based on the criteria that they have:

1. Regular/strong contact with individuals
2. Employment duration that is roughly equivalent to that of the credit program (e.g., 12 months)

According to Table 1 below, a total of 171 individuals were recruited from "eligible" or "near-eligible" organizations accounting for roughly half (53 percent) of all participants. Among "eligible" organizations meeting both of the above criteria, about half of the individuals were recruited from YearUp. Among "near-eligible" organizations, defined as those that have strong and regular contact with individuals but for less than one year, most individuals were recruited from CityYear and Madison Park Housing Development. Among "not-eligible" organizations that met neither of the two criteria, the majority of

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[6] It should be noted that individuals were excluded from the research study if they were not 18 years old. This resulted in just three individuals being deemed ineligible for the study. Working Credit has agreed to work with these individuals if requested but they were not ultimately included as part of the research study.

individuals were recruited from OFE, Roxbury Community College, and Youth Employment and Engagement.

Although complicated, this recruitment method allows us to also test the delivery model of the program to determine whether it is necessary for individuals to have regular and strong contact for one year in order to benefit from the program. This can inform OFE as to how they would need to scale-up the program in the future if it is deemed successful. To do this, we recruited treatment and controls from each group (e.g., "eligible," "near-eligible," and "not-eligible") to ensure that program impacts were not driven by a particular group.[7]

Table 1. Recruitment from Organizations: Number of Applicants

Organization	Age of Population	Employment/ Program Duration	Regular / Strong Contact?	Number of Applicants	
				Original	Share of Total
Eligible Organizations					
BEST Corp Hospitality Training Center	21-28	Year round	Yes	10	3.1%
Boston Housing Authority	26-27	Year round	Yes	5	1.6%
BPHC	23-29	Year round	Yes	6	1.9%
Catholic Charities	24-27	Year round	Yes	5	1.6%
OFE Boston	21-29	Year round	Yes	15	4.7%
ROCA	23-30	Year round	Yes	14	4.4%
YearUp	19-27	Year round	Yes	59	18.6%
Near-Eligible Organizations					
Boston Day & Evening Academy	24-27	School year	Yes	2	0.6%
CityYear	19-27	6 months	Yes	18	5.7%
LISC Americorps	23-29	6 months	Yes	6	1.9%
Hyde Park YCD	20-26	6 months	Yes	3	0.9%
Madison Park Housing Development	18-24	School year	Yes	20	6.3%
Not-Eligible Organizations					
Boston Cares	22-27	No formal program	No	3	0.9%
Roxbury Community College	18-29	School year	No	60	18.9%
Roxbury YouthWorks	25-28	Year round	No	2	0.6%
Youth Employment & Engagement	19-29	6 months	No	29	9.1%
TOTAL					
Total Number of Applicants				315	100%
Eligible Organizations				114	36%
Near-Eligible Organizations				49	16%
Not-Eligible Organizations				152	48%

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Note: Number of applicants = applicants recruited prior to random assignment. Applicants as share of total = Applicants (Treatments + Controls) for a given organization / Total Applicants across all organizations.

3. <u>Random assignment</u>

A total of 318 individuals were recruited from across all organizations. A total of 15 individuals were deemed ineligible due to not being employed. The remaining three individuals were put on a wait list in case any of those chosen to participate in the study were not willing to enroll. As it turned out, there

[7] Note that depending on the size of the impacts, this may reduce the statistical power of the evaluation and make it rather difficult to test program impacts across other, more refined subgroups such as by age, gender, race/ethnicity, and socioeconomic status.

were three individuals who were found to be under 18 years of age and so they were replaced by the three individuals on the wait list. From the 300 individuals who were chosen to participate in the study (e.g., based on their current employment and intention to save $26 per month), we randomly assigned applicants to one of the following two groups:

- Treatment Group: This group of 150 individuals will receive the financial workshop and the one-on-one coaching. They will also be offered the CW-3T^M product if it is deemed appropriate given their current financial situation and credit history. A financial incentive of $150 per participant will be paid at the end of the study upon completion of the post-survey.

- Control Group: This group of 150 individuals will receive no intervention but will receive a financial incentive of $150 per participant that will be paid in two installments at the beginning and end of the program to compensate them for their involvement.

Based on initial indications of the sizeable treatment effects observed by the Working Credit staff in other settings, it is expected that these two groups will yield a sufficiently large sample for comparison to address each of the research questions listed above. For example, comparisons made between the treatment group and the control group will enable us to detect whether the program has any impact on direct outcomes such as attitudes, behaviors and practices associated with building an optimal credit profile and indirect outcomes such as maintaining employment. And because applicants are randomly assigned to groups, we are assured that there is no selection into the groups based on individual characteristics—either observed (e.g., age, gender, race) or unobserved (e.g., motivation), thereby producing robust estimates of the program's impacts.

In addition, we stratified our random assignment across the 18 organizations to take into account the different populations that they serve and the setting in which the program is delivered. This will ensure that the treatment and control groups contain equivalent numbers of individuals across eligible, near-eligible, and not-eligible organizations so that we can test the efficacy of the setting in which the program is delivered. Table 2 confirms that the initial distribution of treatments versus controls was fairly even within organizations, resulting in a relatively balanced distribution within our "Eligible," "Near Eligible," and "Not Eligible" categorizations. In addition, we also stratified by age (18-24 versus 25-39), gender (male versus female), and race (African-American versus non-African-American) so that we can detect whether the program has a differential impact for these demographic groups.

While we chose to stratify our sample across the dimensions displayed below in Table 2, the distribution of the remaining demographic factors across the treatment and control groups was left to chance as is the case with random assignment. Among the random sample, the treatment and control groups were roughly equivalent across almost all other observable characteristics including type of organization, age, gender, and percent African-American as shown above as well as ethnicity, employment tenure, marital status, household size, number of children, health insurance, homeowner status, and confidence in the ability to save $26 per month. [8] The only significant differences between the treatment and control groups at baseline were that the treatment group had a higher share of individuals that were Asian, a lower share of individuals with just "some college," and a lower share who were uncertain about whether the size of their household income. Again, these significant differences—few as they are—also

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[8] See Appendix Table 2 for a full comparison of the treatment and control groups across all demographic characteristics.

arise purely by chance and so are not likely to affect the program outcomes we observe across the treatment and control groups because of the design of the randomization.

Table 2. Stratification of Applicants across Treatment and Control Groups by Basic Characteristics

By Type of Organization		
	Number	Percent
Eligible Organization	107	
Treatment	52	48.6
Control	55	51.4
Near-Eligible Organization	47	
Treatment	24	51.1
Control	23	48.9
Not-Eligible Organization	146	
Treatment	74	50.7
Control	72	49.3

By Age		
	Number	Percent
Age 18-24 years	180	
Treatment	89	49.4
Control	91	50.6
Age 25-29 years	120	
Treatment	61	50.8
Control	59	49.2

By Gender		
	Number	Percent
Female	183	
Treatment	94	51.4
Control	89	48.6
Male	117	
Treatment	56	47.9
Control	61	52.1

By Race		
	Number	Percent
African-American	140	
Treatment	73	52.1
Control	67	47.9
Not African-American	160	
Treatment	77	48.1
Control	83	51.9

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

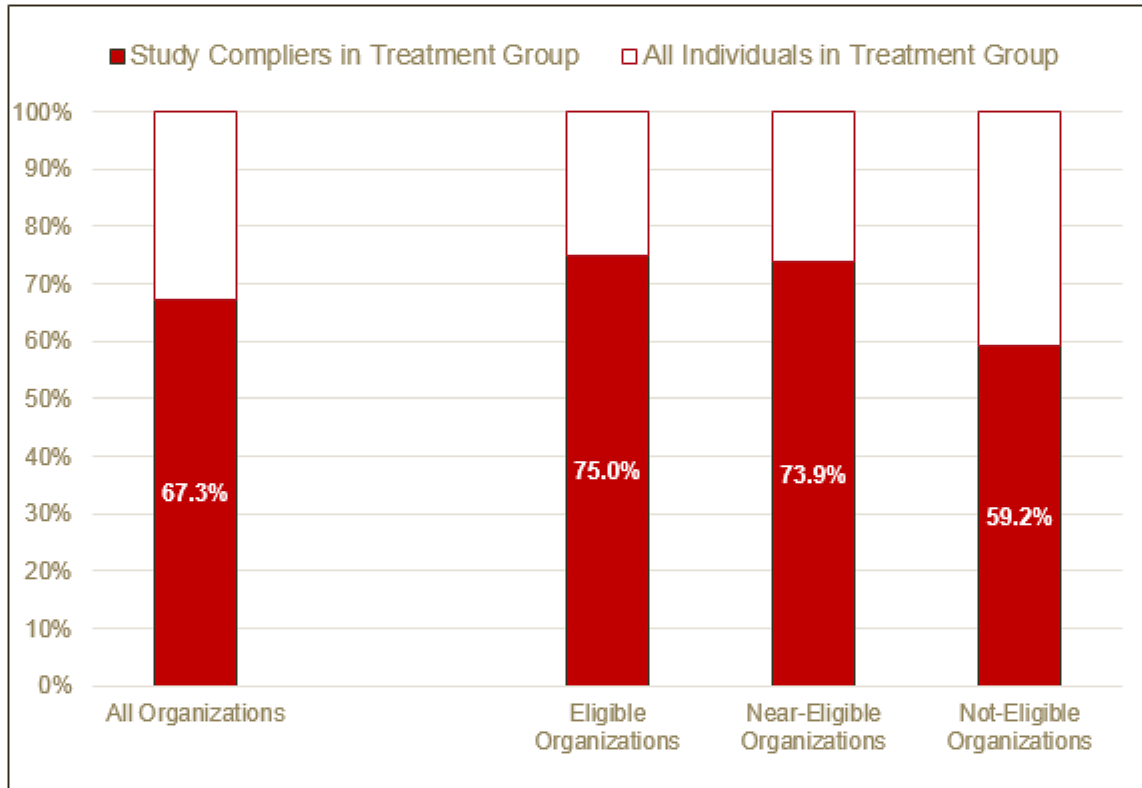
4. Compliance

Despite having applied for the program, about one-third of individuals assigned to the treatment group did not attend a workshop nor a one-on-one coaching session. We call these individuals "study non-compliers" because despite being assigned to receive the program, they did not comply with the requirements and chose not to participate. This is not uncommon among randomized control treatment studies of financial coaching programs where roughly half of participants drop out even when services are offered for free (Theodos et al. 2015). As one can imagine, it is typically lower-income and underserved populations that have "second thoughts" after applying (Rothwell and Han 2010). We should emphasize that our study non-compliers did not even begin the program in the first place—they applied and then failed to show up at the first workshop. Under the standard Working Credit model, individuals do not apply to the program until after the initial workshop which typically yields a participation rate of over 90 percent. Indeed, among those in the study treatment group who attended a workshop, 91 percent signed up for the one-on-one coaching.

In addition, recall that the Working Credit model is designed to be delivered in an employer setting where individuals are continually employed and have strong and regular contact with their employer. In such a setting, the workshop is mandatory and nearly three-quarters of participants sign up for a one-on-one coaching session held directly afterwards. Due to the need to recruit from many different types

of organizations, it was not possible to exactly match the conditions under which the typical Working Credit model is delivered. This should not be a problem in terms of the robustness of the evaluation as we still have sufficient numbers of individuals to make comparisons between treatment and control groups within organization types. As discussed above, we stratified our sample by type of organization ("eligible," "near-eligible," and "not-eligible") to test whether the context in which the program was delivered affected participation, and ultimately outcomes.

Figure 1. Compliance Rate among Treatment Group



Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

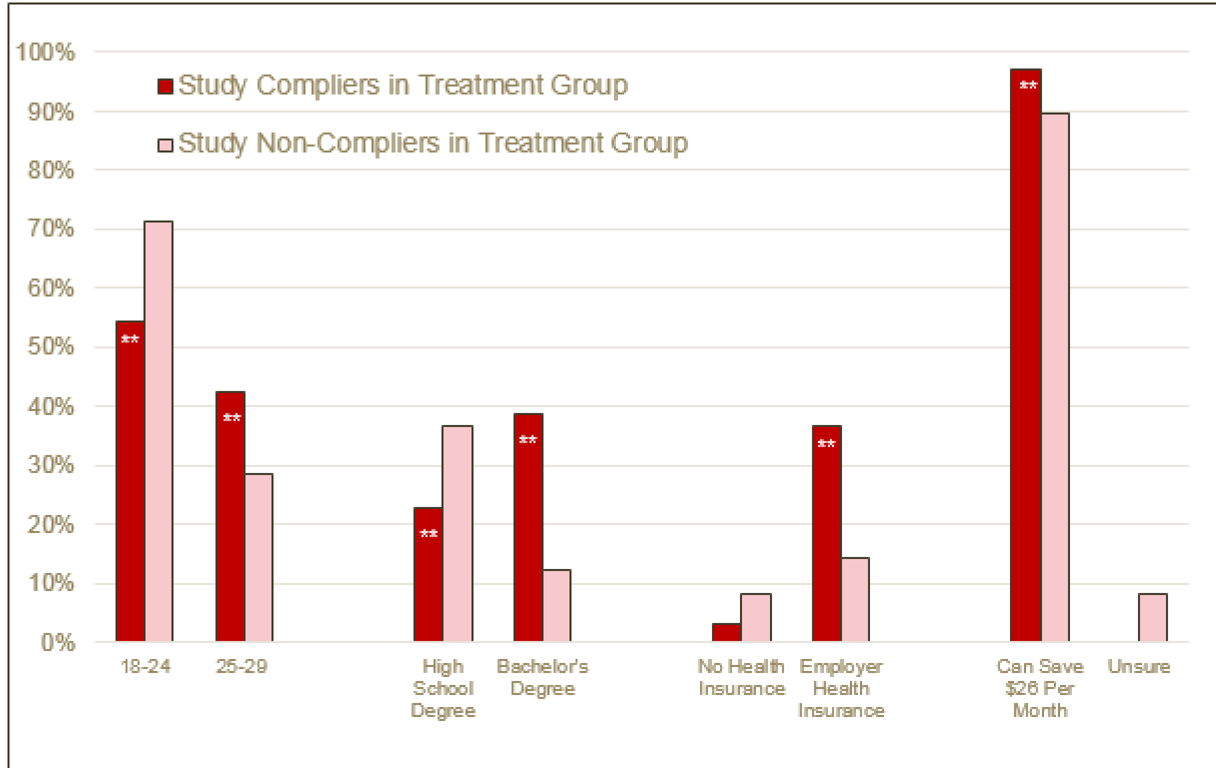
Not surprisingly, the compliance rate is higher among organizations that come closer to meeting the eligibility criteria associated with the typical Working Credit model. Figure 1 shows that among the treatment group, eligible organizations had a compliance rate of 75.0 percent compared to 73.9 percent for near-eligible organizations. In contrast, the compliance rate for not-eligible organizations was only 59.2 percent.[9] Here we define compliance as having attended either the workshop or the one-on-one counseling session. However, almost all individuals who were compliant attended both program components.

As one might imagine, the non-compliers differ in terms of other characteristics that might ultimately affect our comparison of program outcomes between the treatment and control groups. Figure 2 shows

[9] See Appendix Table 1 for details on compliance rates by organization.

that non-compliers were significantly younger, less educated, did not have health insurance through their employer, and were more likely to be recruited from a non-eligible organization. The non-compliers were also more likely to indicate that they were unsure as to whether they would be able to save $26 per month, perhaps an important indication as to why they chose not to participate after applying for the program. [10] As such, we will report changes in outcomes for both intention-to-treat (all treatments versus controls) as well as treatment-on-the-treated (e.g., compliers versus controls).

Figure 2.
Comparison of Compliers versus Non-Compliers by Selected Demographic Characteristics



Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.
Note: All differences between the complier and non-complier groups are statistically significant at the 5 percent level.

C. Data Collection and Measurement of Outcomes

The evaluation will employ a mixed-methods approach using both quantitative information from pre- and post- surveys and administrative data as well as more narrative qualitative information gleaned from focus groups. The quantitative data from the survey and the administrative data will be useful in identifying the main impacts of the Boston Youth Credit Building Initiative. Specifically, we will link the survey and administrative data to analyze differences across demographic groups (e.g., age, gender, race, and socioeconomic status) and organization types (e.g., eligible versus near- and not-eligible) where sample size is sufficient to do so.

[10] See Appendix Table 2 for a full comparison of compliers versus non-compliers from the treatment group across all demographic characteristics.

In contrast, the more qualitative data collected from the focus groups can be used to determine the plausibility of the various mechanisms behind the observed outcomes and to address the gaps in our understanding around why the program yields different impacts across demographic groups as well as which features (e.g., workshop, one-on-one coaching, credit building product) are most effective at reducing those differential impacts. Below we describe each type of data and how it will be used.

1. Data Collection

Pre- and Post-Surveys: All individuals are asked to complete both a pre-and post-survey that captured detailed demographic information and current financial situation as well as individual financial knowledge and beliefs, concerns, and habits regarding credit building. To increase the completion rate for the application and pre-survey, we offered a monetary incentive (e.g., a $5 gift card plus a raffle to win one of ten iPads). The post-survey will be completed either online or by mail with participants receiving the final installment of their $150 financial incentive only upon completion.

Focus Groups: We will conduct two focus groups comprised of a random sample of individuals drawn from each of the two groups listed above (e.g., treatment and control group) at both the beginning and the end of the program. Each group will be composed of five to seven young adults and will be led by a skilled facilitator who will engage participants in a wide-ranging conversation to better understand the mechanisms at work behind the outcomes that we observe. To ensure participation, we will offer a modest incentive (e.g., $50 gift card) to individuals who attend one of the focus groups.

Administrative Data: We will collect administrative data on credit histories and possibly subsequent employment and wages for all individuals in both the treatment and control groups. Individuals in both the treatment and control groups will be monitored for up to 18 months. Credit pulls will occur at the initial time of application, and again at 6, 12, and 18 months after the start of the program with each individual's consent. In addition, we plan to conduct a wage record match to assess employment and wage outcomes at 6, 12, and 18 months after the start of the program that includes a retrospective history looking back as far as two years prior to the start of the research study.

2. Measurement of Impacts and Outcomes

Using these data, we will evaluate both direct outcomes related to building an optimal credit profile as well as indirect outcomes related to employment. A full listing of the impact and outcome measures that we will evaluate is provided in the table below. We will assess these outcome measures at baseline and at 6 months, 12 months, and 18 months for both treatment and controls. This timeframe extends beyond the duration of the program to test whether impacts fade or multiply over time, at least in the near term. In addition, we will supplement our analysis with information collected from the pre- and post-survey as well as the focus groups to determine the potential mechanisms and/or program features that are correlated with successful outcomes.

Table 3. Outcome Measures to be Assessed and Target Goals for Success

Outcome	Description of Measure	Target Goal (s)	Data Source
Program Impacts			
Knowledge and Beliefs	Understands budgeting, planning, credit reports, and use of credit	Gets more than 75% of the true/false questions correct on Section C of the survey	Survey response
Confidence and Concerns	Feels confident about finances	Reports being confident about managing money Reports being comfortable making financial decisions	Survey response
	Worries about finances	Does not worry about paying expenses Is less concerned about debt after college	Survey response
Good and Bad Habits	Bad habits	In the past three months has decreased the number of times that they have: • Paid a late fee • Borrowed money from a friend • Used a check cashing service • Used a payday lender • Used a pawn shop	Survey response
	Good habits	In the past three months has increased the number of times that they have: • Deposited money into savings/checking • Used a stored value or prepaid debit card • Paid a bill online using billpay • Used a credit card • Used direct deposit • Used a budget	Survey response
Financial Situation	Savings	Has a savings account Participates in 401(k)	Survey response
	Collections	Over the past 12 months has **not** had: • Wages garnished • Utilities disconnected • Car repossessed • Collection agencies called • Been evicted or foreclosed • Filed for bankruptcy	Survey response
Direct Credit Outcomes			
Lines of credit	Number of open lines of credit	Increasing over 12 months At least three open lines of credit	Credit report
	Mix of types of lines of credit	Both revolving and installment	Credit report
Use of credit	Number/$Amount of outstanding negatives (collections, charge-offs, or judgments)	Decreasing by 50% over 12 months No outstanding negatives	Credit report
	Delinquency (payment 30 days past due)	Decreasing by 50% over 12 months	Credit report
	Utilization ratio (amount owed relative to credit limit)	Decreasing by 30% over 12 months Utilization below 30%	Credit report
	Length of credit history	At least one line of credit managed well for 12 months	Credit report
Access to credit	Available credit amount	Increasing by 30% over 12 months	Credit

			report
		Has a national credit card	Credit report
Credit history	Credit score	Increasing by 30 points over 12 months	Credit report
		Has prime status	Credit report
Indirect Employment Outcomes			
Employment	Hours worked over the quarter	Number of FTE days employed each quarter Employed continuously for 12 months Number of hours worked (full versus part time)	Wage record
Tenure	Employment over the quarter	Length of tenure with current employer Number of jobs held	Wage record
Type of job	Employer during the quarter	Government, community based organization, private sector	Wage record
Wages	Wages earned over the quarter	Average earnings each quarter Wages increasing over 12 months	Wage record

V. Pre-Survey Results at Baseline

In this section we describe the results for the pre-survey which was administered during the application process before individuals were randomly assigned to the treatment and control groups. The survey covered four study areas: knowledge and beliefs, confidence and concerns, good and bad habits, and financial situation. We first discuss the pre-survey responses for all study participants as a group to paint a portrait of credit knowledge and use among this low-income young adult population. We then test whether there are any significant differences between the treatment and control groups to demonstrate that the randomization produced a robust and balanced comparison group and any differences would emerge only by chance. Finally, we also note any significant difference between the compliers versus the non-compliers in the treatment group to provide some insights as to why an individual might choose not to participate even after being randomly selected.

A. Knowledge and Beliefs

In general, most participants in the study (treatments and controls) had fairly accurate knowledge and beliefs about credit with a few notable exceptions. For example, Table 4 shows that roughly two-thirds of individuals thought that an asset was something that *always* increased in value—clearly the recent housing crash demonstrated that this statement is not true. And about half agreed with the statement that "Credit is money you owe." Only about 40 percent agreed with the statement "A credit report is a document that contains only some of your bill paying history." In addition to seeing how these responses change over time, our final report will also compare responses from study participants to a nationally representative sample of young adults.

Treatment versus control group: As expected from being randomly assigned, there were few significant differences between the treatment group and the control group in their pre-survey responses with a few notable exceptions. For example, 14.7 percent of the treatment group thought that credit reports were completely accurate compared to only 6.0 percent of the control group. However, there was no significant difference in the overall scoring of these responses between the treatment and control groups nor the share getting at least 75 percent of the questions correct.

Study compliers versus non-compliers: Within the treatment group there were other significant differences between those who participated (the compliers) versus those who chose not to participate (the non-compliers). Compliers were less likely than non-compliers to incorrectly believe that "vision and goals have nothing to do with managing your money" and that "credit reports are completely accurate; you never need to check for mistakes." Compliers were also more likely than non-compliers to correctly understand that saving is setting aside money now for use at some future time, that using direct deposit can save you money and time, and that your money is insured at banks with FDIC insurance. Overall, compliers scored significantly higher than non-compliers (77.2 percent versus 70.2 percent) and had a significantly higher share of individuals get at least 75 percent of the questions correct. This suggests that a general lack of knowledge may be one potential reason for non-compliance and that delivering the workshop as part of the application process could help young adults understand what they do not know and possibly see greater value in participating. Of course, for the purposes of this study, it was not possible for OFE to offer the workshop during the application process as that would contaminate the control group.

A. Confidence and Concerns

For the most part, participants in the study were confident in their abilities in some areas but had cause for concern in others. Table 5 shows that upwards of 60 percent of participants felt confident in managing their finances and making financial decisions, yet only 30 percent felt they had the skills and resources to plan for the future and meet their goals. Upwards of two-thirds were concerned with paying for their monthly expenses as well as their college debt, and less than one-third were satisfied with how much money they were able to save. In terms of their level of understanding, about half reported that they knew how to make a budget and understood how credit worked but less than one-third knew how to build assets.

Treatment group versus control group: Although there were no significant differences between the treatment group and the control group with regard to their level of confidence in managing their finances, there were some notable differences in their concerns and level of understanding. For example, the treatment group was significantly less concerned about paying for their college debt (56.0 percent versus 67.3 percent) compared to the control group. In terms of their level of understanding, the treatment group was more likely to report that they could make a budget than the control group (66.0 percent versus 55.3 percent).

Study compliers versus non-compliers: Compliers did not express more confidence in their abilities than non-compliers, nor were they less likely to express greater concerns. However, they did exhibit interesting differences in terms of their level of understanding. For example, compliers were significantly less likely than non-compliers to report that they knew how to build assets (-11.1 percentage points) and where to get help with money matters (-20.4 percentage points). This suggests that non-compliers may be overconfident in their level of understanding relative to their actual knowledge as measured in the previous section. The old adage "ignorance is bliss" may indeed apply to the non-compliers in this case.

Table 4. Knowledge and Beliefs: Comparison of Treatment and Control Groups at Baseline

	ANSWER KEY	Control Group	Treatment Group: All	Treatment Group: Study Compliers	Treatment Group: Study Non-compliers	Difference (Percentage Points): All - Control	Difference (Percentage Points): Study Compliers- Study Non Compliers
Number		150	150	101	49		
Percent Responding True in Each Group							
Vision and goals have nothing to do with managing your money.	FALSE	8.7%	12.7%	6.9%	24.5%	4.0	-17.6 **
Contingency planning is thinking about what could go wrong and making alternative plans.	TRUE	89.3%	82.7%	86.1%	75.5%	-6.6	10.6
An asset is something you own that always increases in value.	FALSE	65.1%	61.3%	63.4%	57.1%	-3.8	6.2
Saving is setting aside money now for use at some future time.	TRUE	96.0%	95.3%	99.0%	87.8%	-0.7	11.3 **
Having positive credit reports, high credit scores and affordable credit are productive assets	TRUE	96.0%	90.7%	92.1%	87.8%	-5.3	4.3
A credit report is a document that contains only some of your bill paying history.	TRUE	43.3%	41.3%	40.6%	42.9%	-2.0	-2.3
You have the right to get your credit reports from each of the credit reporting agencies each year.	TRUE	92.7%	88.0%	90.1%	83.7%	-4.7	6.4
Credit reports are completely accurate; you never need to check for mistakes.	FALSE	6.0%	14.7%	10.9%	22.5%	8.7 **	-11.6 *
A poor credit history can prevent you from getting insurance coverage, an apartment, or a job.	TRUE	83.3%	86.0%	88.1%	81.6%	2.7	6.5
If you are under 18 and have a credit report, you may have been the victim of identity theft.	TRUE	61.3%	64.0%	61.4%	69.4%	2.7	-8.0
Credit is money you owe.	FALSE	48.7%	46.7%	43.6%	53.1%	-2.0	-9.5
When you use credit, you are obligating future income.	TRUE	68.0%	64.0%	67.3%	57.1%	-4.0	10.2
Your credit score is calculated from your income, your assets, your age, and where you live.	FALSE	33.3%	32.0%	28.7%	38.8%	-1.3	-10.1
There is nothing you can do to change your credit score.	FALSE	3.3%	8.7%	6.9%	12.2%	5.3	-5.3
Using direct deposit for your paycheck can save you money and time.	TRUE	91.3%	88.7%	92.1%	81.6%	-2.7	10.5 *
A bank or credit union with FDIC or NCUA insurance means the money in yout account is insured.	TRUE	69.3%	72.0%	77.2%	61.2%	2.7	16.0 **
If you bounce checks, you could be listed in a database that may keep you from opening accounts.	TRUE	74.7%	67.3%	69.3%	63.3%	-7.3	6.0
The best ways to find money to save in your budget is to cut spending or increase income.	TRUE	90.0%	90.0%	92.1%	85.7%	0.0	6.4
Total score (percent right)		76.5%	74.9%	77.2%	70.2%	-1.6	7.0 **
Share getting more than 75% correct		62.0%	58.0%	64.4%	44.9%	-4.0	19.5 **

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes: Compliers refer to those who have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% level.

Table 5. Confidence and Concerns: Comparison of Treatment and Control Groups at Baseline

	Control Group	Treatment Group			Difference (Percentage Points)	
		All	Study Compliers	Study Non-compliers	All - Control	Study Compliers- Study Non Compliers
Number	150	150	101	49		
Percent Responding Agree or Strongly Agree in Each Group						
Confidence						
I feel confident about managing my money and personal finances.	55.3%	62.7%	64.4%	59.2%	7.3	5.2
I am comfortable making financial decisions.	58.0%	64.7%	63.4%	67.4%	6.7	-4.0
I have the skills to plan for my financial future.	38.7%	42.7%	39.6%	49.0%	4.0	-9.4
I feel I have all the resources I need to succeed with my goals.	29.3%	36.7%	33.7%	42.9%	7.3	-9.2
Concerns						
I worry about being able to pay monthly living expenses once I am on my own.	63.3%	54.0%	52.5%	57.1%	-9.3	-4.7
I feel concern about how much money I will owe after college.	67.3%	56.0%	57.4%	53.1%	-11.3 **	4.4
I am satisfied with the amount of money I am able to save.	29.3%	26.0%	24.8%	28.6%	-3.3	-3.8
Level of Understanding						
I know how to build assets.	26.9%	33.3%	29.7%	40.8%	6.5	-11.1 *
I understand how credit works.	46.7%	50.0%	49.5%	51.0%	3.3	-1.5
I can read a credit report.	36.7%	46.0%	45.5%	46.9%	9.3	-1.4
I know how to make a budget.	55.3%	66.0%	66.3%	65.3%	10.7 *	1.0
I know where to get help with money matters.	36.0%	39.3%	32.7%	53.1%	3.3	-20.4 **
Average: Confidence measures	11.3	12.2	12.0	12.6	0.93	-0.61
Average: Concern measures	9.5	8.9	8.8	9.0	-0.66	-0.23
Average: Understanding measures	13.4	14.6	14.2	15.2	1.20	-0.94
Measure of Self-Efficacy	11.2	11.7	11.5	12.1	0.49	-0.64

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes: Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% level.

B. Good and Bad Habits

Overall, participants did not report excessive "bad" habits (see Table 6). Only about one percent of participants reported using a payday lender or a pawn shop four or more times over the past three months.[11] The most common bad habits were paying a late fee for a bill or service (about 8 percent) and using a check-cashing service (about 13 percent).

Yet the frequency of "good" financial habits was not as high as one might have hoped. While upwards of 60 percent of participants had deposited money into a checking or savings account and used direct deposit four or more times over the past three months, only about 40 percent had paid a bill online. Moreover, only about one in five used a budget to manage income and expenses.

Finally, we also asked about credit card use—which can be a good or a bad habit depending on how it is used. About one out of three participants had used a credit card four or more times in the past three months and one out of five had used a prepaid credit or debit card.

Treatment group versus control group: There were no significant differences between the treatment group and the control group in any of the habits that we asked about. We also constructed a habits "score" calculated simply as the number of good habits minus the number of bad habits. The habits scores were nearly identical across the two groups with those in the treatment group having an average score of 1.8 versus an average score of 1.9 for the control group.

Study compliers versus non-compliers: Not surprisingly, compliers had significantly different habits compared to non-compliers in a number of cases, resulting in an overall habits score of 2.0 among compliers versus only 1.5 among non-compliers. Among the "bad" habits, they were significantly less likely to pay a late fee for a bill or service (-8.3 percentage points) or use a check-cashing service (-7.5 percentage points) compared to non-compliers. Among the "good" habits, they were far more likely to use a direct deposit than non-compliers (57.4 percent versus 46.9 percent). And finally, the compliers were almost twice as likely to have used a credit card four or more times in the past three months. Perhaps non-compliers did not understand that the program could help them establish as well as repair their credit scores.

[11] Note that there are very few payday lenders operating in Massachusetts although those operating outside the Commonwealth may also be accessed online.

Table 6. Good and Bad Habits: Comparison of Treatment and Control Groups at Baseline

	Control Group	Treatment Group			Difference (Percentage Point)	
		All	Study Compliers	Study Non compliers	All - Control	Study Compliers-Study Non Compliers
Number	150	150	101	49		
Percent Responding More than Four Times						
Bad Habits						
Used a payday lender.	0.7%	0.7%	0.0%	2.0%	0.0	-2.0
Used a pawn shop.	1.3%	1.3%	1.0%	2.0%	0.0	-1.1
Borrowed money from a friend.	3.3%	4.0%	3.0%	6.3%	0.7	-3.3
Paid a late fee for a bill or service.	8.0%	6.7%	4.0%	12.2%	-1.3	-8.3 **
Used a check cashing service.	13.3%	13.3%	10.9%	18.4%	0.0	-7.5 *
Good Habits						
Used direct deposit.	62.7%	54.0%	57.4%	46.9%	-8.7	10.5 *
Deposited money into a savings or checking account.	58.0%	59.3%	57.4%	63.3%	1.3	-5.8
Paid a bill using online bill pay.	40.7%	38.9%	39.0%	38.8%	-1.7	0.2
Used a budget to manage income and expenses.	19.5%	22.0%	22.8%	20.4%	2.5	2.4
Neutral Habits						
Used a credit card.	32.7%	34.7%	40.6%	22.5%	2.0	18.1 *
Used a stored value card or prepaid debit card.	18.1%	23.3%	24.8%	20.4%	5.2	4.3
Total score=Number of good habits-number of bad habits	1.9	1.8	2.0	1.5	0.0	0.4 *

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes: Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% level.

C. Financial Situation

In terms of their current financial situation, Table 7 shows that the picture looks mixed for participants. In terms of positive factors, roughly 80 percent of participants have a checking account and upwards of 60 percent have a savings account, but only half set aside money for saving. Only one in five reported participating in a 401K although that may reflect the rather short tenure that some participants have with their employers such that they may not be able to enroll yet or that they are working part-time and may not qualify to receive such a benefit.

In terms of negative factors, about 20 percent of participants had a collection agency contact them about unsettled claims. Upwards of 10 percent had their utilities disconnected or in danger of disconnection over the past year and roughly five percent had a utility company holding a deposit. However, less than 5 percent had experienced any involvement with eviction, foreclosure, repossession or bankruptcy.

Among the neutral factors listed, the majority of participants filed a tax return. About half of participants reported having a credit card but another 20 percent responded that they no longer had one. Indeed, having one or more cards with at least $1,000 available is, in fact, one of our three key indicators of financial health that the program aims to achieve.[12] Roughly eight percent hoped to apply for a mortgage or car loan in the next three months.

Treatment group versus control group: The financial situations of the treatment group and the control group were not significantly different, with two exceptions. Compared to the control group, the treatment group was somewhat less likely to have a savings account (63.5 percent versus 73.2 percent), although this is marginally significant. The treatment group was also less likely to have filed a tax return last year (66.0 percent versus 80.7 percent), although this behavior could reflect other factors beyond the individual's financial situation such as whether or not they could be claimed as a dependent on someone else's tax return. Finally, we also constructed a "score" calculated as the number of positive minus the number of negative factors and found that there was no significant difference between the two groups.

Study compliers versus non-compliers: The financial situation of those in the treatment group who complied with attending the workshops and coaching was significantly different from non-compliers in several categories. In terms of positive factors, compliers were more likely to have a checking account (+17.6 percentage points) as well as a savings account (+12.6 percentage points) compared to non-compliers. In terms of negative factors, compliers were significantly (and surprisingly!) more likely than non-compliers to have collection agencies contacting them about unsettled claims (22.8 percent versus 12.2 percent). In terms of credit card use, they were more likely to currently have a credit card (+13.8 percentage points) and less likely to have given one up (-7.7 percentage points). Although compliers had a higher overall score in terms of their financial situation compared to non-compliers, this difference was not statistically significant.

[12] We will assess these outcomes by measuring "Available Credit" from each individual's credit report.

Table 7. Financial Situation: Comparison of Treatment and Control Groups at Baseline

	Control Group	Treatment Group			Differences (Precentage Point)	
		All	Study Compliers	Study Non-compliers	All - Control	Study Compliers - Study Non Compliers
Number	150	150	101	49		
Percent Responding Yes in Each Group						
Positive Factors						
Have a checking account	84.7%	87.3%	93.1%	75.5%	2.7	17.6 **
Have a savings account	73.2%	63.5%	67.7%	55.1%	-9.6 *	12.6 *
Set aside money regularly for saving	49.3%	43.3%	43.6%	42.9%	-6.0	0.7
Participate in employer 401K or 403B	20.0%	21.3%	19.8%	24.5%	1.3	-4.7
Negative Factors						
Collection agencies contacting about unsettled claims	20.1%	19.3%	22.8%	12.2%	-0.8	10.5 *
Cell phone company holding a deposit	12.0%	12.0%	10.9%	14.3%	0.0	-3.4
Utilities been disconnected in past year or in danger of disconnection	10.7%	8.0%	9.9%	4.1%	-2.7	5.8
Wages been garnished in past year	7.3%	8.7%	8.9%	8.2%	1.3	0.7
Utility company holding a deposit	5.3%	6.0%	5.0%	8.2%	0.7	-3.2
In credit counseling or debt management plan or working with one	4.0%	3.3%	3.0%	4.1%	-0.7	-1.1
Been evicted in past year or in process of eviction	4.0%	1.3%	0.0%	4.1%	-2.7	-4.1
Car been repossessed in past year or in danger of reposession	3.3%	1.3%	1.0%	2.0%	-2.0	-1.1
In bankruptcy or in process of bankruptcy	2.0%	0.0%	0.0%	0.0%	-2.0	0.0
Foreclosure started or in danger of foreclosure	0.7%	0.7%	0.0%	2.0%	0.0	-2.0
Neutral Factors						
Filed a tax return last year	80.7%	66.0%	69.3%	59.2%	-14.7 **	10.1 *
Have one or more credit cards	49.3%	46.0%	50.5%	36.7%	-3.3	13.8 *
If you don't have a credit card, ever had one	24.8%	21.3%	18.8%	26.5%	-3.5	-7.7 *
Will be applying for a mortgage or car loan in next three months	8.7%	8.0%	7.9%	8.2%	-0.7	-0.2
Total score = Number of positive factors-number of negative factors	3.21	2.95	3.08	2.69	-0.25	0.39

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes: Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% level.

VI. Credit Report Characteristics at Baseline

In this section we examine the credit histories of all participants at baseline before the program started to test for differences in overall credit score, use of credit, and loan re-payment for which Working Credit collected data from the credit reports of all participants. These data elements included measures of credit use such as the overall credit score, the total number of open lines of credit, types of credit (e.g., installment or revolving), number of delinquent accounts, and number of outstanding negatives (e.g., collections, charge-offs, judgments). Information was also collected on loans such as the type of loan (e.g., car loan or student loan) and the payment history (e.g., history of on-time payments, delinquencies, and collections). In this section, we highlight the notable trends and differences.[13]

As before, we first discuss the credit histories for all study participants as a group to provide a baseline assessment of all young adults. We then note any significant differences between the treatment and control groups as well as for the compliers versus the non-compliers in the treatment group. Remember that the credit histories of all participants were pulled during the application phase before the program began so that any differences between the treatment group and the control group should be random.

A. Overall Credit Score

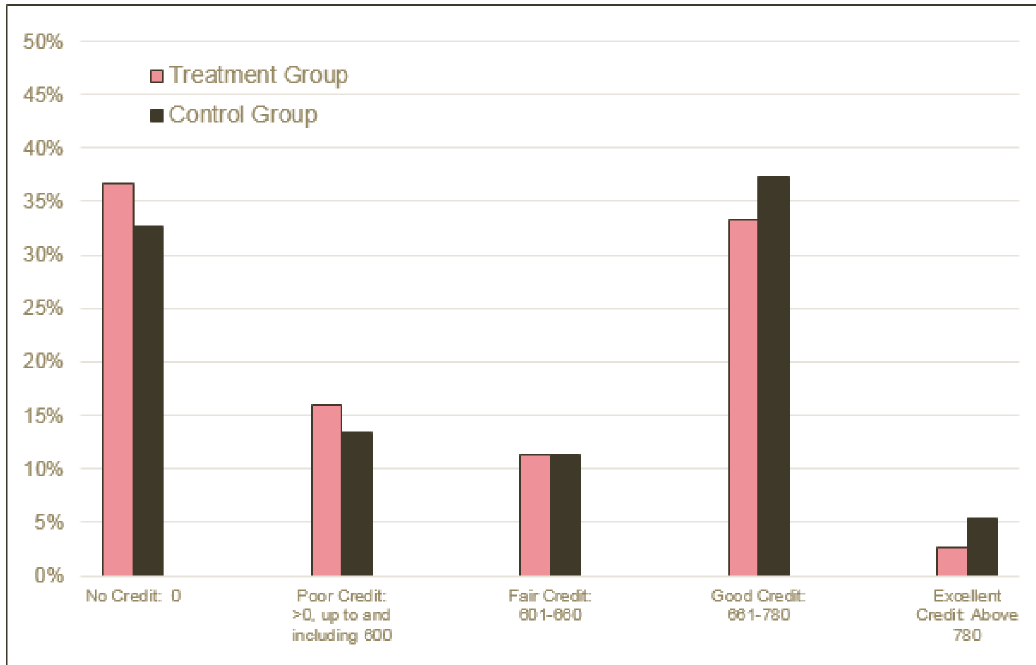
In general, most participants had room to improve their credit scores, although to varying degrees. About 30 percent of the participants in the study (treatment plus controls) had no credit score at all. Another 25 percent had scores in the poor (>0 but below 600) or fair (600-660) range. Upwards of 40 percent had fair good (661-780) scores, while only five percent had excellent (>780) credit.

Treatment group versus control group: At baseline, there were no significant differences in the overall credit scores of the treatment group compared to the control group (see Figure 3).

Study compliers versus non-compliers: As one might expect, there were significant differences in the credit scores of compliers relative to non-compliers at baseline. Figure 4 shows that compliers were significantly less likely to have scores that fell into the poor range (-12.6 percentage points) while being far more likely to have scores that were in the excellent range (+22.2 percentage points). Unfortunately, it appears that those for whom the program would be most helpful are those who are less likely to comply and participate in the treatment. Again, our study design necessarily differs from the usual Working Credit model of having individuals apply after receiving a mandatory workshop. This was done intentionally to be able to compare outcomes across the treatment and control groups. It is unclear how the program might be administered by OFE in the future as recruitment was a challenge among the few organizations that serve young adults. As such, understanding more about the reasons why these individuals did not participate after applying and being assigned to the treatment group would be helpful. We hope to contact these individuals for a focus group sometime in the next six months to better understand their lack of participation.

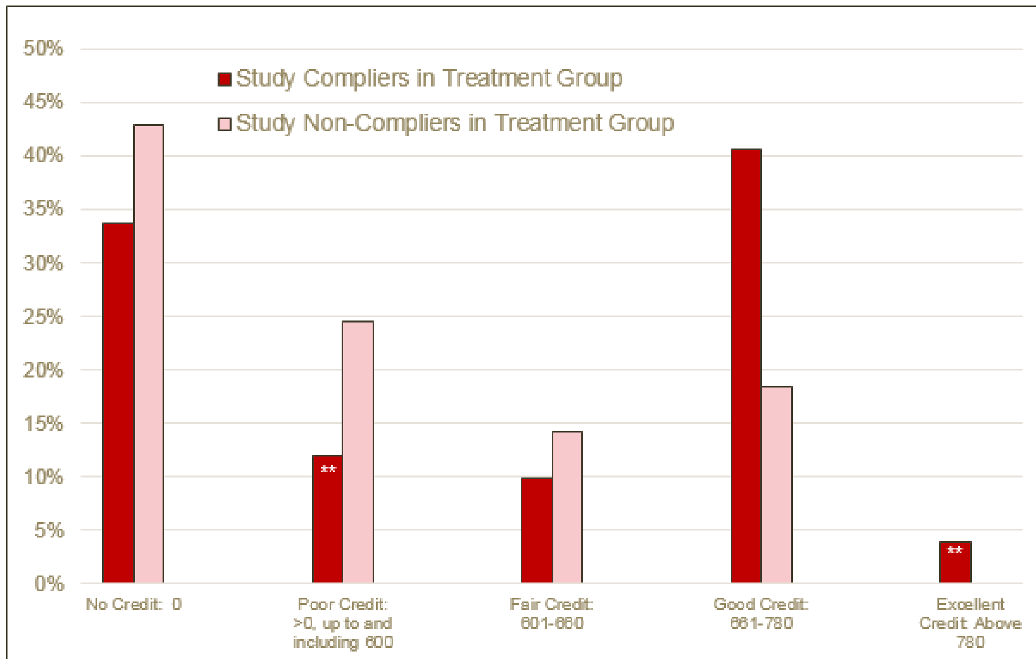
[13] See Table A3 for a full listing of these measures for all participants.

Figure 3. Credit Report Scores: Treatment versus Control Group at Baseline



Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.
Note: None of the differences between the treatment and control groups are statistically significant.

Figure 4. Credit Report Scores: Compliers versus Non-Compliers at Baseline



Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.
Note: **Differences between compliers and non-compliers are statistically significant at the 5 percent level.

B. Credit Use History

At baseline, it seems that many young adults were sitting on the sidelines when it comes to using credit. Table 8 shows that upwards of 40 percent of participants had no current open lines of credit. Among those individuals that had credit, about half had a mix of installment and revolving credit lines while the other half had only one or the other. While only about three percent of participants were delinquent (30 days past due), upwards of 30 percent had at least one outstanding negative (collections, charge-offs, judgments).

Treatment group versus control group: There were only two significant differences between the treatment and the control group at baseline. Participants in the treatment group were less likely (-9.3 percentage points) to have five to nine open lines of credit compared to the control group although equally as likely to have ten or more. The treatment group was also less likely to only have an installment line of credit (-7.3 percentage points). However, there were no significant differences between the two groups when it came to being delinquent or having an outstanding negative.

Study compliers versus non-compliers: Not surprisingly, compliers exhibited more favorable characteristics associated with using credit than non-compliers at baseline. Compliers were more likely to have an open line of credit compared to non-compliers (58.4 percent versus 42.9 percent). Compliers were also more likely to have revolving (+15.4 percentage points) versus installment (-9.3 percent) lines of credit than non-compliers. In terms of their credit history, compliers were less likely than non-compliers to be 30 days delinquent on two lines of credit and were more likely to have no outstanding negatives.

C. Loan Payment History

At baseline, few participants had a good track record when it came to making loan payments. This was due in part because few individuals had a loan. Although about 40 percent of participants had a student loan, less than 10 percent had a car loan. Among those that had any type of loan, about one-third of participants had a history of being 30 days delinquent and about half lacked a history of sustained on-time payments. However, only five percent had a history of paying off a collection.

Treatment group versus control group: At baseline, there were no significant differences between the treatment and control groups when it came to their loan payment histories.

Study compliers versus non-compliers: Although compliers were no more or less likely to have a loan than non-compliers, there were significant differences in their payment histories at baseline. Compliers were less likely to be 30 days delinquent than non-compliers (15.1 percentage points) and more likely to have a history of sustained on-time payments (31.7 percentage points). Again, it is hard to tell why the non-compliers chose not to participate in a program that they would be the most likely to benefit from. One focus group participant indicated that her co-workers did not attend the workshop because they felt that they were “beyond help” since their credit histories were so bad. In the next section, we further explore the insights gleaned from the focus group sessions.

Table 8. Credit Use History: Comparison of Treatment and Control Groups at Baseline

	Control Group	Treatment Group			Differences (Percentage Points)	
		All	Study Compliers	Study Non-compliers	All - Control	Study Compliers-Study Non Compliers
Number	150	150	101	49		
Percent in Each Group						
Total number of open lines of credit						
None	39.3%	46.7%	41.6%	57.1%	7.3	-15.6 **
One	13.3%	15.3%	16.8%	12.2%	2.0	4.6
Two	7.3%	9.3%	10.9%	6.1%	2.0	4.8
Three	9.3%	7.3%	6.9%	8.2%	-2.0	-1.2
Four	8.0%	7.3%	7.9%	6.1%	-0.7	1.8
Five to nine	16.7%	7.3%	7.9%	6.1%	-9.3 **	1.8
Ten or more	6.0%	6.7%	7.9%	4.1%	0.7	3.8
Types of credit						
Revolving only	21.3%	24.7%	29.7%	14.3%	3.3	15.4 **
Installment only	13.3%	6.0%	3.0%	12.2%	-7.3 **	-9.3 **
Both revolving and installment	26.0%	22.7%	25.7%	16.3%	-3.3	9.4
NA	39.3%	46.7%	41.6%	57.1%	7.3	-15.6 *
Number of lines of credit that are delinquent (30 days currently past due)						
None	97.3%	95.3%	96.0%	93.9%	-2.0	2.2
One	1.3%	3.3%	4.0%	2.0%	2.0	1.9
Two	0.7%	1.3%	0.0%	4.1%	0.7	-4.1 **
Three	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Four	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Five or more	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Number of outstanding negatives (collections, charge-offs, judgements)						
None	71.3%	74.0%	77.2%	67.4%	2.7	9.9 **
One	17.3%	14.0%	12.9%	16.3%	-3.3	-3.5
Two	5.3%	4.0%	3.0%	6.1%	-1.3	-3.2
Three	2.0%	3.3%	3.0%	4.1%	1.3	-1.1
Four	2.0%	1.3%	2.0%	4.1%	-0.7	-2.1 **
Five or more	2.0%	3.3%	4.0%	2.0%	1.3	1.9

Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.

Notes: Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% level.

Table 9. Loan Payment History: Comparison of Treatment and Control Groups at Baseline

	Control Group	Treatment Group			Differences (Percentage Points)	
		All	Study Compliers	Study Non-compliers	All - Control	Study Compliers- Study Non Compliers
Number	150	150	101	49		
Percent in Each Group						
Has a car loan						
No	91.3%	92.0%	92.1%	91.8%	0.7	0.2
Yes	8.7%	8.0%	7.9%	8.2%	-0.7	-0.2
Has a student loan						
No	58.0%	60.0%	59.4%	61.2%	2.0	-1.8
Yes	42.0%	40.0%	40.6%	38.8%	-2.0	1.8
History of 30 day delinquent						
N/A	38.7%	37.3%	34.7%	42.9%	-1.3	-8.2
No	40.7%	34.7%	39.6%	24.5%	-6.0	15.1 *
Yes	20.7%	28.0%	25.7%	32.7%	7.3	-6.9
History of sustained on-time payments						
N/A	2.7%	7.3%	10.9%	0.0%	4.7	10.9 **
No	49.3%	46.0%	35.6%	67.4%	-3.3	-31.7 **
Yes - both revolving and installment	17.3%	20.0%	22.8%	14.3%	2.7	8.5
Yes - revolving only	24.0%	20.7%	25.7%	10.2%	-3.3	15.5 **
Yes - installment only	6.7%	6.0%	5.0%	8.2%	-0.7	-3.2
History of paying off collection						
N/A	71.3%	73.3%	75.3%	69.4%	2.0	5.9
No	25.3%	21.3%	17.8%	28.6%	-4.0	-10.8
Yes	3.3%	5.3%	6.9%	2.0%	2.0	4.9

Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.

Notes: Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither. **Indicates significance at the 5% level and *indicates significance at the 10% levels.

VII. Preliminary Impacts through Six Months

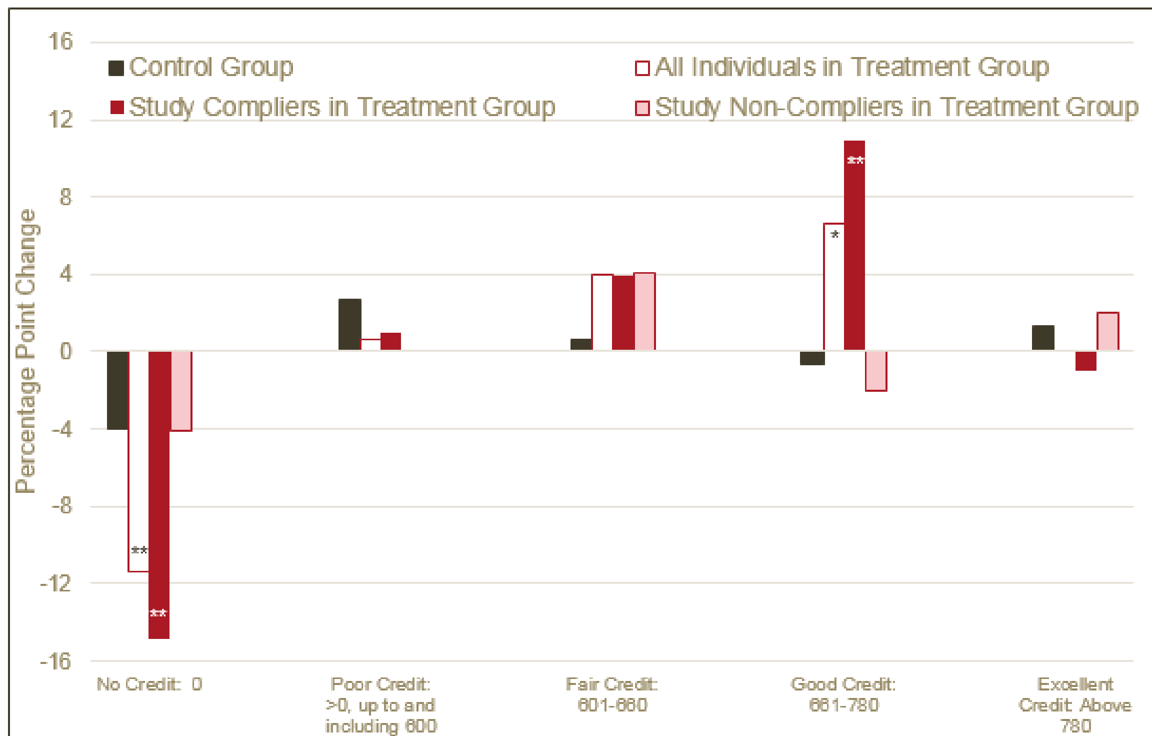
In this section we examine the program's preliminary impacts through six months to provide an early snapshot of the potential impact for the BYCBI. Although the program is only at the halfway mark, a comparison of the six-month credit reports demonstrates significant improvements in the treatment group that is highly encouraging. We augment these impacts with findings from our focus group discussions which occurred after the treatment group had attended the workshop.

A. Changes in Credit Report Characteristics at Six Months

In accordance with the evaluation plan, Working Credit pulled the credit reports of all participants in the study (treatment and control groups) six months after the program began. This interim measure was designed to give an early indication of the program's potential impacts. The full impact of the program will be evaluated at the end of the study after 12 months at which time Working Credit will again pull each individual's credit histories and OFE will administer the post-survey.

The six month credit histories yield several positive results regarding both credit use as well as loan payment history. In terms of credit use, Figure 5 shows the change in the share of individuals falling into each credit score category (no credit, poor credit, fair credit, good credit, and excellent credit) for the control group versus the treatment group, including study compliers and non-compliers.

Figure 5. Credit Report Scores: Percentage Point Change Over Six Months

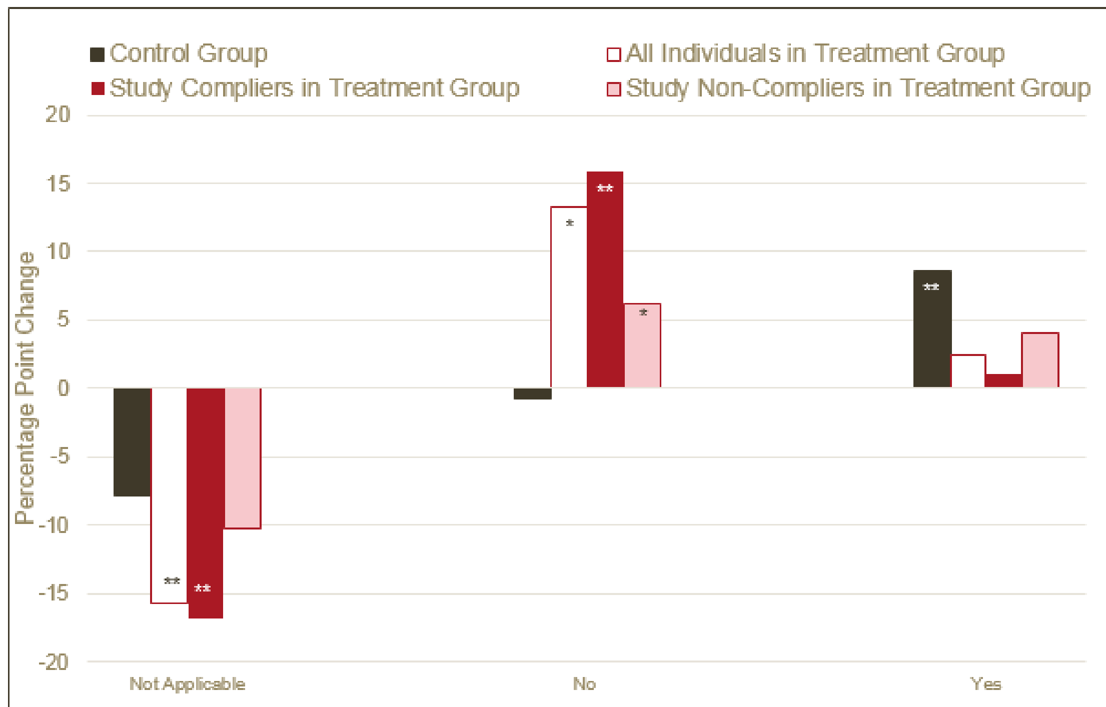


Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.
Note: **Differences between compliers and non-compliers are statistically significant at the 5 percent level.

The six month changes indicate that the percentage of individuals in the treatment group with no credit history fell by 11.3 percentage points compared to a decrease of only 4.0 percentage points for the control group. Similarly, the percentage of individuals in the treatment group with good credit scores increased by 6.7 percentage points during the first six months of the program compared to a decrease of -0.7 percentage points for the control group. In both cases, the changes were statistically significant for the treatment group relative to the control group and were entirely driven by those individuals who complied with the program. Appendix Table A3 shows that these improvements were related to individuals opening at least one line of credit and also increasing their use of both revolving and installment types of credit.

In terms of loan history, Figure 6 shows the changes in the share of individuals who had a history of being 30 days delinquent on their payments. The six month changes indicate that the percentage of individuals in the treatment group who were not delinquent had risen by 13.3 percentage points compared to a decrease of -0.8 percentage points for the control group. This result was driven largely by study compliers of whom a greater share of individuals took out a new loan during the first six months of the program and were able to make their payments on time. In addition, the share of individuals in the control group who became delinquent on their loans over the past six months increased by 8.7 percentage points compared to only a small but insignificant increase in the treatment group. Appendix Table A4 shows positive improvements in other measures of loan history such as making sustained on-time payments and fewer collection pay-offs but neither change was statistically significant.

Figure 6. History of 30-Day Delinquent: Percentage Point Change Over Six Months



Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.
Note: **Differences between compliers and non-compliers are statistically significant at the 5 percent level.

B. Focus Group Discussions

In May 2016, we held two focus groups—one for individuals in the treatment group and one for individuals in the control group. There were a total of seven individuals in the treatment focus group and six individuals in the control focus group who accepted our invitation, although one individual in the control group did not actually attend. Note that these focus groups were held after the treatment group had participated in the workshop and one-on-one coaching provided by Working Credit. The goal was to get an early assessment of how the program was going, as well as to uncover additional insights about recruitment.

1. Representativeness of focus group relative to the full sample

Although focus group participants were recruited at random, we again had issues with getting individuals to respond and accept our invitation, even with the incentive of a $50 gift card. We subsequently invited additional focus group participants, being mindful to try and maintain balance across age, gender, racial, and organizational categories. That said, there was certainly some selection bias in terms of who accepted our invitation with only 13 total participants (Table 10).

In this section we explore the characteristics of focus group participants compared to the full sample to understand these differences before delving into the focus group findings. Demographically, focus group participants were fairly representative of the full cohort. Overall, there is no evidence that focus group participants had more difficult or extreme financial circumstances than the full group. Instead, focus group participants were more highly educated and were slightly less likely to have credit problems.

- **Gender**: There was no significant difference between the focus group versus the full group in gender composition.
- **Race/ ethnicity:** The focus group had a higher percentage of white participants than the full group (p=0.034). About 15% of the full group identified as white, while about 36% of focus group participants were white.
- **Education level**: The focus group participants had a higher average level of education than the full group (p=0.0028), with the average education level of focus group participants falling between Associate's and a Bachelor's degree, while the full group had an average level of education falling between "some college" and an Associate's degree.
- **Poverty**: There was no significant difference in the likelihood of the focus group versus the full group of earning a household income of less than $72,000 per year: on average, about 12 to 13 percent of each group.
- **Tenure at current job**: There was no significant difference between the focus group versus the full group in terms of their tenure at their current job. The tenure was around 6 months, on average.
- **Problems with credit**: Focus group participants were less likely to have a credit problem (e.g., having wages garnished, eviction, car repossession, etc.) than members of the full group (p=0.035).
- **Confidence with financial planning:** There was no significant difference in levels of confidence about financial matters between the focus and full groups.

2. Major themes by frequency

We began our analysis of the focus group discussion by exploring the proportion of each focus group dedicated to different topics. In the treatment group, a discussion of credit history, lessons learned in the credit workshop and counseling, and strategies for dealing with credit predominated. In the control group, approximately a third of the time was devoted to credit history and strategies for dealing with credit, but discussions of the participants' dire financial situations and their lack of financial guidance/ sparse background in financial literacy clearly dominated the conversation. These two areas received little attention in the treatment group. To some extent, this is to be expected, since the control group would not have any lessons learned to report; the group's preoccupation with skills needed or lacking reflects the need of the group of low-income working young adults at large for credit and financial education. Themes that appeared most frequently include:

Treatment	Control
Made credit mistakes due to ignorance	Financially strapped
Feels regret over past credit mistakes	In a precarious financial position
Received credit in the past but did not understand it	Never learned about credit before
Learned concrete steps to improve credit score through the program	Never received guidance when making credit decisions
Uses a strategy for dealing with credit	Uses a strategy for dealing with credit
Schools or agencies should offer opportunity to learn about credit/ finances to younger kids	Schools or agencies should offer opportunity to learn about credit/ finances to younger kids

Nevertheless, there are several notable differences between groups within these larger themes, as noted below:

Credit mistakes: While members of both groups expressed the idea that they had made credit mistakes in the past, members of the treatment group stated this four times, while members of the control group stated this only once. Members of the treatment knew specific things they had done that had damaged their credit, while members of the control group still did not have a clear idea of what their specific mistakes had been. In summary, it appears that members of the treatment group are more likely to recognize past actions as mistakes and to understand why they had been mistakes.

Specific steps for dealing with credit histories: Members of both groups described their strategies for dealing with past credit mistakes, paying off credit cards and other debts, budgeting, etc. However, while many members of the treatment group referenced concrete steps they had learned through the credit workshop and/or counseling, and seemed confident that these steps would be beneficial, several members of the control group who described their financial strategies stated that they still did not understand whether they were doing the "right" thing in regards to budgeting, opening up bank accounts and new credit cards, choosing which debts to pay off, etc.

Financial anxiety: In addition, members of both groups described how financially strapped and insecure they felt. This was true not only of the five AmeriCorps volunteers between the two groups, but also of the participants who worked for the City of Boston or in the private sector. Several participants described how they had been forced to drop out of college because they were unable to pay the fees.

They now owed money to their colleges that they were obligated to repay, even though they would not receive a degree. Getting their transcripts released to transfer into a less expensive college was contingent upon paying these bills, which were as much a source of anxiety as college loans. Members of the control group mentioned financial anxiety much more frequently than the treatment group (they mentioned being financially strapped five times, versus one time for the treatment group; they mentioned the challenge of household costs four times, versus zero times for the treatment group; they mentioned not having enough income to budget five times, versus one time for the treatment group; they mentioned being in a precarious financial situation seven times, versus two times for the treatment group; they raised the idea that either they or other youth they knew had had to help out with family finances two times, versus zero times for the treatment group). They also reported several times feeling overwhelmed by paying off credit, whereas this was not reported in the treatment group, despite some members of the treatment group having large amounts of credit card debt and fraught credit histories. In summary, the control group seemed much more focused on the precarious or overwhelming aspects of their financial situation.

3. Overlapping themes by co-occurrence

Several sets of themes were examined for clustering tendency by looking for co-occurrence of themes in transcript excerpts during the focus group sessions.[14] Table 10 displays the four sets of clusters we examined including “Dealing with credit,” “Feelings about finances and credit,” and “Need additional skills.” We note important findings in each category below.

Feelings about finances and credit

In the treatment group, several pairings and one small cluster emerged. The pairings included:

- Regret about past credit mistakes + worry about new debt commitments.
- Feeling of confidence at managing cash and credit + the acknowledgment that they needed additional skills in managing money or credit.

A tight cluster of four thematic nodes included: not knowing how to plan financially, not trusting themselves with a credit card, feeling hopeless, and having credit but still not understanding how to use it properly.

In the control group, several pairings and one large cluster emerged. The pairings included:

- A sense of regret over past credit mistakes + trying to only use credit when having the money to pay it off immediately;
- Wage being too low to do any financial planning + worry about new debt commitments due to past experience;
- The “cost of not having money” (e.g., bank overdraft fees) + demonstrating an understanding of credit or financial planning;
- Being financially strapped + having a strategy for dealing with credit ;
- Being in a precarious financial position + feeling of confidence at managing cash and credit.

A tight cluster with five themes emerged: not having enough income to pay off credit; being overwhelmed by paying off debt; youth helping family financially; feeling hopeless; and dealing with the high household costs of family and roommates.

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[14] Clustering was measured by calculating Pearson’s R for co-occurrence of themes in transcript excerpts during the focus group sessions.

Table 10
Frequency of Focus Group Themes

	Dealing with credit\has strategy for dealing with credit	Dealing with credit\demonstrates understanding of credit or financial planning	Dealing with credit\overwhelmed by paying off debt	Dealing with credit\try to only use credit when I have the money to pay it off immediately	Feelings about finances and credit\feel hopeless	Feelings about finances and credit\I am good at managing my cash and credit	Feelings about finances and credit\regret	Feelings about finances and credit\worried about new debt commitments due to past experience	Need additional skills\don't know how to plan	Need additional skills\don't trust myself with credit card	Need additional skills\have credit but still do not understand it	Need additional skills\need additional skills in managing money or credit	Need additional skills\need additional skills in setting financial goals	Need additional skills\never learned about credit before	Need additional skills\never received guidance	Need additional skills\not able to budget	Need additional skills\worried about developing or continuing bad habits
Dealing with credit\has strategy for dealing with credit	1.00																
Dealing with credit\demonstrates understanding of credit or financial planning	0.75	1.00															
Dealing with credit\overwhelmed by paying off debt	0.46	0.28	1.00														
Dealing with credit\try to only use credit when I have the money to pay it off immediately	0.43	0.44	0.29	1.00													
Feelings about finances and credit\feel hopeless	0.43	0.27	0.26	0.23	1.00												
Feelings about finances and credit\I am good at managing my cash and credit	0.38	0.38	0.21	0.23	0.18	1.00											
Feelings about finances and credit\regret	0.64	0.33	0.29	0.32	0.39	0.30	1.00										
Feelings about finances and credit\worried about new debt commitments due to past experience	0.49	0.32	0.37	0.25	0.25	0.33	0.47	1.00									
Need additional skills\don't know how to plan	0.38	0.24	0.24	0.16	0.16	0.12	0.27	0.25	1.00								
Need additional skills\don't trust myself with credit card	0.58	0.37	0.28	0.38	0.45	0.23	0.47	0.33	0.31	1.00							
Need additional skills\have credit but still do not understand it	0.38	0.25	0.25	0.30	0.41	0.20	0.31	0.24	0.25	0.43	1.00						
Need additional skills\need additional skills in managing money or credit	0.41	0.32	0.39	0.23	0.23	0.25	0.24	0.75	0.27	0.26	0.30	1.00					
Need additional skills\need additional skills in setting financial goals	0.45	0.34	0.38	0.27	0.32	0.30	0.30	0.75	0.23	0.34	0.36	0.91	1.00				
Need additional skills\never learned about credit before	0.41	0.34	0.42	0.30	0.32	0.28	0.27	0.75	0.26	0.27	0.35	0.74	0.75	1.00			
Need additional skills\never received	0.56	0.42	0.43	0.30	0.42	0.29	0.38	0.75	0.39	0.44	0.42	0.75	0.76	0.92	1.00		
Need additional skills\not able to budget	0.40	0.24	0.35	0.34	0.46	0.23	0.34	0.19	0.21	0.33	0.34	0.22	0.27	0.29	0.37	1.00	
Need additional skills\worried about developing or continuing bad habits	0.39	0.34	0.35	0.31	0.20	0.26	0.25	0.85	0.25	0.30	0.21	0.75	0.73	0.76	0.72	0.14	1.00

KEY

Color	Correlation
	0.70-0.99
	0.50-0.69
	0.30-0.49
	0.00-0.29

Source: Derived from transcription of focus group discussions on May 10, 2016.

Note: Frequencies are for both treatment and control groups combined. Differences between the treatment and control groups are noted in the text.

In both groups, regret over past credit mistakes appeared to affect current feelings and behaviors yet the treatment group was more able to be forward-looking. A complex of feelings also occurred in both groups over managing tight finances. These feelings included hopelessness and being overwhelmed. However, while in the treatment group these feelings appeared correlated with not having specific, identifiable skills (financial planning, using a credit card responsibly), in the control group these feelings were entwined with the members' financial situations (low income, high household costs, young people needing to work to help their family financially). This suggests that the credit workshop and counseling may encourage participants to channel their financial worries into specific, potentially surmountable challenges, and help them to focus on sources of concern over which they have some control. In addition, the difficult financial situation of control group members surfaced much more frequently during the focus group conversation than the treatment group, potentially reflecting this group's feeling of helplessness and floundering for solutions on this topic.[15]

Nevertheless, one further notable correlation in the control group was the correlation between being in a precarious or highly constrained financial situation and having/feeling confident about strategies for financial management. Individuals who had little to no disposable income were highly focused on making sure they could pay their bills. While they may have felt overwhelmed or at a loss for more effective ways of budgeting or managing financially, they still employed strategies at their disposal in order to survive.

A sense of being good at managing cash and credit was correlated in the treatment group with the feeling that group members needed additional money management or credit skills. This is an interesting finding whose mechanism may be probed further through survey or additional focus group data and should also be considered in light of gender differences described below. It is possible that a feeling of self-confidence may derive from an internal locus of control, which also prompts individuals to seek additional skills because of a higher sense of self-efficacy in using those skills. Whether self-efficacy may be increased through educational programs, and whether it results in better financial outcomes, may be examined when comparing the post-program survey results of treatment versus control groups.

Need for Additional Skills

In the treatment group, several pairings and one large cluster emerged. The pairings included:

- Feeling of confidence at managing cash and credit + needing additional skills in managing money or credit
- Regret over past credit mistakes + needing to fix credit situation
- Worry about new debt commitments due to past experience + needing additional skills in setting financial goals

A tight cluster with eight themes emerged: not knowing how to plan; not trusting themselves with a credit card; feeling hopeless; having credit but still not understanding it; never having learned about credit before; never having received guidance on credit decisions; not being able to budget; and worry about developing or continuing bad habits.

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[15] While the control group may have simply included individuals in greater financial need, it is worth noting that each group was composed of approximately 50% AmeriCorps volunteers, 25% City of Boston employees, and 25% private sector employees.

In the control group, several pairings and one large cluster emerged. The pairings included:

- Feeling of confidence at managing cash and credit + needing additional skills in managing money or credit
- Regret over past credit mistakes + needing additional skills in setting financial goals
- Worry about new debt commitments due to past experience + large cluster with eight themes, including: not knowing how to plan financially; not trusting themselves with a credit card; feeling hopeless; having credit but still not understanding it; never having never having learned about credit before; never having received guidance on credit decisions; not being able to budget; and worry about developing or continuing bad habits.

Correlations and clusters in this section were quite similar between treatment and control groups. Any slight differences reflected the pattern noted above that individuals in the treatment group who felt confident, regretful or worried identified the need for specific additional skills, while for individuals in the control group, these feelings raised a host of issues relating to never having had guidance in financial matters, still not understanding what they were doing with their credit, and worrying about making bad decisions. This sense of helplessness was reflected throughout their conversation.

4. Detailed accounts

When asked about how they got into trouble with credit and/or debt, several themes emerged. On the one hand, four participants mentioned that they encountered difficulty when they got a credit card and spent beyond their means. Three participants talked about not having trouble with credit but just that it was hard to build.

When asked about how their lack of knowledge about specific areas contributed to their financial situation, two distinct stories emerged around credit cards and student debt. In terms of credit cards, one participant noted that he did not get a credit card till much later because he was scared of it, "but that also hurts you because then you don't have any credit at all." Another participant noted that she did not realize that opening a lot of credit cards could affect credit scores and thought it would be ok if you paid it all off. She also did not realize closing credit cards could harm you as well. Finally, another participant described the difference between being notified and having a real understanding of the effect of not paying off credit cards: "I just really didn't get what I was doing. I understood that I was signing a piece of paper, but they were also telling me I was going to get what I wanted when I signed it, and I really didn't get it. It affects everything… So even though I'm doing fine with it now and I'm not taking any money out recklessly, paying it back has been painful 'cause I have nothing to show for it."

In terms of student debt, three participants talked about problems with student debt including both loans and direct debt to the college. Two of the three participants said that they took on student debt without understanding what it would mean to pay it back. In fact one participant seemed to not understand the financial commitment involved in indebting herself to college and was surprised that they were "strict" with her when she could not pay for the spring semester. Two of the three individuals have had to stop attending school before completing their degrees because of financial difficulty, making it even harder to pay back their loans.

When asked about how their credit history has affected their current and/or future plans, a range of answers was given. Almost all participants reported having to rely on cash availability to meet expenses

and none felt they could cover themselves in case of an emergency. One participant talked about being hesitant to get married and buy a home. Another talked about how she wants to buy a house but it was hard to save money because of credit card payments. Similarly, a third individual talked about being forced to wait to buy a car because she will have to take a high interest rate unless she improves her credit score. Finally, one participant reported she was unable to get a car and had to get two people to cosign for an apartment so she was "not even thinking about house, car, future planning, etc. for at least five years" until she gets her finances in order.

5. Differences by demographic characteristics: Gender

Although the focus groups were not large enough to examine difference by age or race, we did observe some interesting differences by gender. For example, women made a statement that demonstrated understanding of financial planning one time, while men made a statement that demonstrated understanding of financial planning five times during the two focus groups. Women mentioned a strategy for dealing with credit 11 times, while men mentioned a strategy for dealing with credit seven times.

Yet, despite this proportional distribution of having a strategy for dealing with credit across genders, women mentioned feeling overwhelmed by paying off debt three times, while men did not mention being overwhelmed at all. Women expressed regret over credit mistakes three times, hopelessness one time, and worry about new debt commitments twice. Men expressed regret one time and did not express hopelessness or worry about new debt commitments. Women expressed the idea that they were good at managing cash and/ or credit one time, while men expressed the idea that they were good at managing cash and/ or credit four times during the two focus groups. In summary, women seemed to be less confident about their ability to manage finances and navigate credit problems than did men, despite the fact that they had a similar level of cognitive awareness of strategies and/ or steps they could take to manage finances and credit.

How does this compare to the pre-survey data for all participants? Similar to the focus group findings, women displayed less confidence than men in a summed scale of self-reported knowledge, comfort, and concerns about finances. This finding was largely driven by women being significantly less likely to report having confidence about managing money and personal finances, knowing how to build assets, and feeling they have all the resources needed to succeed with their goals. In addition, there were marginally significant differences with women reporting less confidence than men in feeling that they had the skills to plan for a financial future and knowing where to get help for money matters.

Again, when we examined questions relating to concrete knowledge or their current financial situation, no such differences emerged. For example, there was no significant difference between men's and women's scores in regards to understanding how credit works, understanding how to read a credit report, and in knowing how to make a budget. Even more striking, despite differences in confidence levels about financial matters, there was no statistically significant difference in number of credit-related problems by gender.

These findings suggest that there are important differences in how men and women feel confident in managing their money. Certainly in our observations men talked about their financial situations with less urgency, suggesting that perhaps they do not feel as stressed about their financial situations. As such, it will be interesting to see how this program differentially affects women's confidence levels and if this might in turn reduce the cognitive load associated with their financial situations simply by reducing their feelings of concern.

VIII. Conclusions and Next Steps

This initial report has highlighted a number of potentially interesting findings. For example, the pre-survey data that was collected at baseline indicates some deficits in terms of knowledge about credit among low-income young adults that provide low-hanging fruit for similar programs to address through an educational workshop. Similarly, the baseline credit report data demonstrate that for about one-third of the participants, the biggest problem is having no credit history—an encouraging sign that intervening at this point in their lives can potentially prevent future missteps.

The initial six-month credit pulls indicate several positive results regarding both credit use as well as loan payment history. In terms of credit use, those in the treatment group who complied with the study were more likely to establish a credit history over the past six months and also improve their credit standing relative to the control group. In terms of loan history, more individuals in the treatment group had taken out loans over the past six months and fewer had become 30-days delinquent on their loans compared to the control group. While the six-month credit pulls show positive improvements in other measures of credit us and loan history, they were not statistically significant. However, this is perhaps not surprising given that participants are only halfway through the program and it presumably takes time to implement changes and adopt new habits.

However, the report also highlights the need to be careful in how we report and interpret the results of the Boston Youth Credit Building Initiative and this study. A significant share of individuals assigned to the treatment group—about one-third—failed to comply with the study and take advantage of the opportunity to participate in the workshop and one-on-one coaching. These "study non-compliers" differed along a number of dimensions from those that participated in the program—they are younger, less educated, less likely to have health insurance through an employer, and less confident in their ability to save $26 per month. Study non-compliers also appeared overconfident in their skills despite exhibiting less knowledge and revealed more bad habits than good habits. Although their overall financial situation was not dire, study non-compliers had worse credit and payment histories than compliers.

In general, it appears that those who would be most helped by the program were less likely to participate even after applying and being assigned to the treatment group. Despite having applied for the program, about one-third of individuals assigned to the treatment group did not attend a workshop nor a one-on-one coaching session. This is not uncommon among randomized control treatment studies of financial coaching programs where roughly half of participants drop out even when services are offered for free (Theodos et al. 2015). We should emphasize that our study non-compliers did not even begin the program in the first place—they applied and then failed to show up at any of the workshops provided. Under the standard Working Credit model, individuals do not apply to the program until after the initial workshop which typically yields a participation rate of over 90 percent. Indeed, among those in the study treatment group who attended a workshop, 91 percent signed up for the one-on-one coaching.

However, it will be important for us to continue tracking all individuals to provide assessments and recommendations regarding both the treatment of those who ultimately participated as well as the intention to treat those originally recruited who did not comply. We will aim to conduct at least one focus group of study non-compliers to better understand the reasons behind their lack of participation and what could be done differently in the future to encourage compliance among program participants.

For example, attending the workshop in advance could be a mandatory requirement for those applying to the program—similar to the model that Working Credit typically uses at their employer worksites.

A. Next Steps

Going forward, individuals in the treatment and control group will continue to be monitored by Working Credit with credit pulls occurring at 12 and 18 months after the start of the program. The survey will also be administered again at 12 months when the program ends to assess improvements in knowledge and practices regarding credit building. Finally, we will conduct another round of focus groups at the 12 month mark to gain valuable insights into the various mechanisms behind the observed outcomes, which features of the program seem most effective, and why some individuals who were randomly selected chose not to participate. Our hope is that this study, by providing one of the first robust evaluations of credit building among low-income youth, will yield practical lessons and guidance that can be used by policymakers in other cities who are considering the development of similar programs.

B. Products

The main products from this evaluation will be a series of reports that will be produced for Working Credit, and shared with OFE, OWD, and Citi. A series of updates will assess the treatment and control groups at 12 months and 18 months (see Appendix Table A5 for the remaining project timeline). A final report, produced for Working Credit, will assess the impact of the program at 12 months. In addition, Working Credit may request that Northeastern University produce other research and practitioner-oriented pieces. These may include an issue brief for the Federal Reserve Bank of Boston, a blog post for the Brookings Institution, or an academic paper that can be submitted to a peer reviewed journal (e.g., *Journal of Consumer Research, American Journal of Sociology, Journal of Consumer Affairs, Journal of Financial Intermediation, Journal of Public Policy Analysis and Management, Journal of Financial Services Research, or RSF: The Russell Sage Foundation Journal of the Social Sciences*).

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Appendix Table 1
Random Assignment and Compliance Among Treatment Group

Organization	Number of Controls	Number Treatments Randomly Assigned						Partial Compliance Rate	Full Compliance Rate
		Total	Study Compliers			Study Non-Compliers (Attended None)			
			Workshop Only	Workshop and Coaching	Enrolled in CW3				
Eligible Organizations									
BEST Corp Hospitality Training Center	4	5	0	2	0	3		40%	40%
Boston Housing Authority	3	2	0	1	0	1		50%	50%
BHPC	3	3	0	3	0	0		100%	100%
Catholic Charities	2	3	0	2	0	1		67%	67%
OFE Boston	7	8	1	7	1	0		100%	88%
ROCA	6	7	0	5	0	2		71%	71%
YearUp	27	28	1	20	7	7		75%	71%
Near-Eligible Organizations									
Boston Day & Evening Academy	1	1	0	1	0	0		100%	100%
CityYear	9	9	0	7	0	2		78%	78%
LISC Americorps	3	3	0	3	0	0		100%	100%
Hyde Park YCD	2	1	0	1	0	0		100%	100%
Madison Park	10	9	2	3	2	4		56%	33%
Not-Eligible Organizations									
Boston Cares	2	1	0	1	0	0		100%	100%
DSNI	1	1	0	1	0	0		100%	100%
OFE	28	27	0	18	4	9		67%	67%
Roxbury Community College	27	27	0	10	1	17		37%	37%
Roxbury YouthWorks	1	1	0	1	0	0		100%	100%
Youth Employment & Engagement	14	14	0	11	4	3		79%	79%
TOTAL									
Total Across All Organizations	150	150	4	97	19	49		67%	65%
Eligible Organizations	52	56	2	40	8	14		75%	71%
Near-Eligible Organizations	25	23	2	15	2	6		74%	65%
Not-Eligible Organizations	73	71	0	42	9	29		59%	59%

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes:
Partial compliance rate = number in treatment group that participated in at least the workshop or the one-on-one coaching.

Appendix Table 2
Comparison of Treatment and Control Groups by Demographic Characteristics

	Total Applicants	Control Group	Treatment Group			Percentage Point Differences	
			All	Study Compliers	Study Non-Compliers	All - Control	Study Compliers - Study Non Compliers
Number	315	150	150	101	49		
Percent in Each Group							
Age							
18-24	60.3%	58.7%	60.0%	54.5%	71.4%	1.3	-17.0 **
25-29	38.4%	40.7%	38.0%	42.6%	28.6%	-2.7	14.0 *
30+	1.3%	0.7%	2.0%	3.0%	0.0%	1.3	3.0
Gender							
Female	60.6%	63.3%	58.7%	59.4%	57.1%	-4.7	2.3
Male	39.4%	36.7%	41.3%	40.6%	42.9%	4.7	-2.3
Transgender	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Race							
African American/Black	47.4%	49.3%	44.0%	45.5%	40.8%	-5.3	4.7
American Indian / Native Alaskan	0.9%	1.3%	0.7%	1.0%	0.0%	-0.7	1.0
Asian/Hawaiin/Pacific Islander	9.9%	4.7%	14.0%	12.9%	16.3%	9.3 **	-3.5
Caucasian / White	16.3%	19.3%	14.7%	16.8%	10.2%	-4.7	6.6
Two or more races	5.5%	4.7%	6.0%	6.9%	4.1%	1.3	2.9
Other	12.9%	12.7%	13.3%	10.9%	18.4%	0.7	-7.5
NA	7.1%	8.0%	7.3%	5.9%	10.2%	-0.7	-4.3
Ethnicity							
Not Hispanic	72.6%	73.3%	70.7%	73.3%	65.3%	-2.7	8.0
Cuban	1.9%	0.7%	3.3%	2.0%	6.1%	2.7	-4.1
Puerto Rican	7.4%	6.7%	8.0%	6.9%	10.2%	1.3	-3.3
Mexican	2.2%	0.7%	3.3%	4.0%	2.0%	2.7	1.9
Other Hispanic origin	11.7%	14.7%	10.0%	8.9%	12.2%	-4.7	-3.3
NA	4.3%	4.0%	4.7%	5.0%	4.1%	0.7	0.9
Education							
Less than a high school diploma	9.0%	9.4%	8.0%	5.9%	12.2%	-1.4	-6.3
High school diploma or GED	24.7%	22.2%	27.3%	22.8%	36.7%	5.2	-14.0 *
Some college	28.1%	32.2%	22.7%	20.8%	26.5%	-9.5 *	-5.7
Associate's degree	2.5%	2.0%	3.3%	3.0%	4.1%	1.3	-1.1
Bachelor's degree	25.6%	25.5%	30.0%	38.6%	12.2%	4.5	26.4 **
Graduate/professional degree	4.6%	4.7%	4.0%	5.9%	0.0%	-0.7	5.9 *
NA	5.6%	4.0%	4.7%	3.0%	8.2%	0.6	-5.2
Veteran status							
Yes	0.6%	0.7%	0.0%	0.0%	0.0%	-0.7	0.0
No	97.8%	97.3%	98.7%	98.0%	100.0%	1.4	-2.0
NA	1.6%	2.0%	1.3%	2.0%	0.0%	-0.7	2.0
Employment tenure							
Less than one month	12.3%	9.3%	13.3%	12.9%	14.3%	4.0	-1.4
Between one and six months	36.0%	38.0%	36.7%	40.6%	28.6%	-1.3	12.0
Between six months and one year	13.9%	13.3%	14.7%	16.8%	10.2%	1.3	6.6
One to two years	15.7%	17.3%	16.7%	16.8%	16.3%	-0.7	0.5
Two to five years	12.6%	14.0%	12.7%	9.9%	18.4%	-1.3	-8.5
More than five years	2.2%	2.7%	2.0%	1.0%	4.1%	-0.7	-3.1
NA	7.4%	5.3%	4.0%	2.0%	8.2%	-1.3	-6.2 *
Marital status							
Not married, single	92.0%	90.7%	93.3%	92.1%	95.9%	2.7	-3.8
Divorced	0.6%	0.7%	0.7%	1.0%	0.0%	0.0	1.0
Married	4.6%	5.3%	3.3%	5.0%	0.0%	-2.0	5.0
Widowed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
NA	2.8%	3.3%	2.7%	2.0%	4.1%	-0.7	-2.1
Household size							
One, live alone	14.2%	14.0%	16.0%	16.8%	14.3%	2.0	2.5
Two	26.2%	25.3%	26.7%	29.7%	20.4%	1.3	9.3
Three	24.9%	26.0%	24.0%	14.9%	42.9%	-2.0	-28.0 **
Four	18.8%	18.7%	18.0%	18.8%	16.3%	-0.7	2.5
Five or more	13.9%	14.0%	14.0%	17.8%	6.1%	0.0	11.7 *
NA	2.2%	2.0%	1.3%	2.0%	0.0%	-0.7	2.0

Number of children							
None	83.4%	84.0%	84.0%	87.1%	77.6%	0.0	9.6
One	11.1%	8.0%	12.7%	9.9%	18.4%	4.7	-8.5
Two	2.8%	3.3%	2.0%	1.0%	4.1%	-1.3	-3.1
Three	0.6%	1.3%	0.0%	0.0%	0.0%	-1.3	0.0
Four	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Five or more	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
NA	2.2%	3.3%	1.3%	2.0%	0.0%	-2.0	2.0
Health insurance							
No health insurance	4.6%	4.0%	4.7%	3.0%	8.2%	0.7	-5.2
Private plan, through employer	28.3%	28.7%	29.3%	36.6%	14.3%	0.7	22.3 **
Private plan, directly purchased	6.5%	7.3%	6.0%	5.0%	8.2%	-1.3	-3.2
Medicaid (MassHealth)	41.5%	36.7%	44.0%	41.6%	49.0%	7.3	-7.4
Military (TRICARE, CHAMPVA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0
Other	16.0%	20.0%	13.3%	10.9%	18.4%	-6.7	-7.5
NA	3.1%	3.3%	2.7%	3.0%	2.0%	-0.7	0.9
Homeowner status							
Own	6.5%	7.3%	6.0%	6.9%	4.1%	-1.3	2.9
Rent	67.4%	64.7%	70.0%	73.3%	63.3%	5.3	10.0
Unsure	12.3%	13.3%	10.7%	7.9%	16.3%	-2.7	-8.4
NA	13.9%	14.7%	13.3%	11.9%	16.3%	-1.3	-4.5
Household income							
Above $71,991	10.2%	10.7%	10.0%	10.9%	8.2%	-0.7	2.7
Below $71,991	66.8%	60.7%	75.3%	75.3%	75.5%	14.7 **	-0.3
Unsure	22.5%	28.0%	14.7%	13.9%	16.3%	-13.3 **	-2.5
NA	0.6%	0.7%	0.0%	0.0%	0.0%	-0.7	0.0
Can save $26 per month							
Yes	94.8%	95.3%	94.7%	97.0%	89.8%	-0.7	7.2 *
No	0.6%	1.3%	0.0%	3.0%	0.0%	-1.3	3.0
Unsure	4.3%	3.3%	4.7%	0.0%	8.2%	1.3	-8.2
NA	0.3%	0.0%	0.7%	0.0%	2.0%	0.7	-2.0
Type of Organization							
Eligible	36.2%	34.7%	37.3%	41.6%	28.6%	2.7	13.0
Near-Eligible	15.6%	16.7%	15.3%	16.8%	12.2%	-1.3	4.6
Not-Eligible	48.3%	48.7%	47.3%	41.6%	59.2%	-1.3	-17.6 **
NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0

Source: Authors' calculations based on data supplied by the Office of Financial Empowerment during OFE's recruitment efforts which occurred prior to the start of Working Credit's credit building program.

Notes:
Applicants refers to all individuals who applied before the random assignment was made
Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither.
**Indicates significance at the 5% level and *indicates significance at the 10% level

Appendix Table A3
Credit Use History: Comparison of Treatment and Control Groups at 6 Months

	Control Group	Treatment Group			Differences		
		All	Study Compliers	Study Non-Compliers	All - Control	Study Compliers-Control	Study Non-Compliers-Control
Number	150	150	101	49	0		
Percent in Each Group							
Credit Score							
No Credit: 0	28.7%	25.3%	18.8%	38.8%	-3.3	-9.9 **	10.1 *
Poor Credit: >0, up to and including 600	16.0%	16.7%	12.9%	24.5%	0.7	-3.1	8.5 *
Fair Credit: 601-660	12.0%	15.3%	13.9%	18.4%	3.3	1.9	6.4
Good Credit: 661-780	36.7%	40.0%	51.5%	16.3%	3.3	14.8 ***	-20.3 **
Excellent Credit: Above 780	6.7%	2.7%	3.0%	2.0%	-4.0	-3.7	-4.6
Total number of open lines of credit							
None	30.0%	29.3%	22.8%	42.9%	-0.7	-7.2 *	12.9 *
One	19.3%	24.7%	22.8%	28.6%	5.3	3.4	9.2 *
Two	11.3%	11.3%	12.9%	8.2%	0.0	1.5	-3.2
Three	10.0%	9.3%	11.9%	4.1%	-0.7	1.9	-5.9
Four	4.7%	9.3%	10.9%	6.1%	4.7	6.2 *	1.5
Five to nine	18.0%	8.7%	9.9%	6.1%	-9.3 **	-8.1 *	-11.9 *
Ten or more	6.7%	7.3%	8.9%	4.1%	0.7	2.2	-2.6
Types of credit							
Revolving only	34.7%	28.7%	28.7%	28.6%	-6.0	-6.0 *	-6.1
Installment only	10.7%	12.0%	10.9%	14.3%	1.3	0.2	3.6
Both revolving and installment	24.7%	30.0%	37.6%	14.3%	5.3	13.0 **	-10.4 *
NA	30.0%	29.3%	22.8%	42.9%	-0.7	-7.2	12.9 *
Number of lines of credit that are delinquent (30 days currently past due)							
None	92.7%	94.0%	96.0%	89.8%	1.3	3.4	-2.9
One	4.7%	3.3%	2.0%	6.1%	-1.3	-2.7	1.5
Two	2.7%	2.7%	2.0%	4.1%	0.0	-0.7	1.4
Three	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0
Four	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0
Five or more	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0
Number of outstanding negatives (collections, chargeoffs, judgements)							
None	70.7%	74.0%	80.2%	61.2%	3.3	9.5 **	-9.5 *
One	14.7%	12.7%	9.9%	18.4%	-2.0	-4.8	3.7
Two	6.7%	4.0%	2.0%	8.2%	-2.7	-4.7	1.5
Three	2.7%	2.7%	2.0%	4.1%	0.0	-0.7	1.4
Four	2.7%	2.7%	3.0%	2.0%	0.0	0.3	-0.6
Five or more	2.7%	4.0%	3.0%	6.1%	1.3	0.3	3.5

Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.

Notes:
Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither.
**Indicates significance at the 5% level and *indicates significance at the 10% level.

Appendix Table A4
Loan Payment History: Comparison of Treatment and Control Groups at 6 Months

		Treatment Group			Differences					
	Control Group	All	Study Compliers	Study Non-Compliers	All - Control		Study Compliers-Control		Study Non-Compliers-Control	
Number	150	150	101	49	0					
Percent in Each Group										
Has a car loan										
No	90.7%	92.7%	89.1%	100.0%	2.0		-1.6		9.3	*
Yes	9.3%	7.3%	10.9%	0.0%	-2.0		1.6		-9.3	*
Has a student loan										
No	54.0%	60.0%	56.4%	67.4%	6.0		2.4		13.4	*
Yes	46.0%	40.0%	43.6%	32.7%	-6.0		-2.4		-13.4	*
History of 30 day delinquent										
N/A	30.8%	21.6%	17.8%	32.7%	-9.2	***	-13.0	***	1.8	
No	39.9%	48.0%	55.5%	30.6%	8.1	**	15.6	***	-9.2	*
Yes	29.3%	30.4%	26.7%	36.7%	1.1		-2.6		7.4	
History of sustained on-time payments										
N/A	9.3%	1.3%	0.0%	4.1%	-8.0	***	-9.3	**	-5.3	
No	47.1%	44.6%	38.6%	55.1%	-2.5		-8.5	**	8.0	
Yes - both revolving and installment	17.7%	23.0%	26.7%	14.3%	5.3		9.1	**	-3.4	
Yes - revolving only	30.2%	24.3%	28.7%	14.3%	-5.8		-1.4		-15.9	**
Yes - installment only	5.2%	8.1%	5.9%	12.2%	3.0		0.8		7.1	
History of paying off collection										
N/A	68.7%	73.7%	75.3%	71.4%	5.0		6.5		2.7	
No	26.0%	17.6%	15.8%	20.4%	-8.4	**	-10.1	**	-5.5	
Yes	5.3%	8.8%	8.9%	8.2%	3.4		3.6		2.8	

Source: Authors' calculations based on data supplied by Working Credit to Northeastern University, which acts as Working Credit's agent to study its credit building program.

Notes:
Compliers refer to those that have at least attended a workshop or one-on-one coaching session. Non-compliers have completed neither.
**Indicates significance at the 5% level and *indicates significance at the 10% level.