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Evaluating the effectiveness of financial coaching:

Evidence from a randomized controlled trial with Catholic Charities Dallas

Abstract

Financial coaching represents a promising but relatively understudied method for developing individual financial literacy and financial capability. We conducted a pre-registered, large-scale randomized controlled trial of a year-long financial coaching program. Leveraging a quarterly panel of administrative credit data, we find that financial coaching did not have a significant impact on clients' levels of debt held by collections agencies or on credit scores. Heterogeneity analysis suggests effects on collections debt tended to be larger among less educated clients, the young, Black clients, and clients with relatively worse credit at baseline. Coaching affected clients' behavior through budgeting and their financial literacy as measured by a 12-month follow-up survey.

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1. Introduction

Financial capability and instability remain pressing personal and public challenges (Lusardi and Mitchell 2023, Fetzer et al. 2020, Sherraden et al. 2017). For example, a large majority of households live paycheck to paycheck (Forsyth 2012), half lack sufficient emergency savings (Foster 2021, FINRA 2012), and most are unprepared for retirement (Tavares et al. 2024, Greig et al. 2023, Rhee 2013). These challenges are even more significant for low-to-moderate-income (LMI) individuals and households (Roll et al. 2021, Brown and Braga 2019, Shah, Mullaintathan and Shafir 2012).

Despite significant research on programs and interventions, there is little consensus on how best to improve financial capability (Miller et al. 2015). Common challenges include proper scope (i.e., covering a set of topics neither too narrow nor too broad), personalization (i.e., covering the specific challenges someone faces), and impact (i.e., affecting actual financial behaviors and outcomes). Financial education is appealing in its potential to generate human capital and while evidence of its effectiveness is growing (Kaiser and Lusardi 2024, Kaiser et al. 2022), support is not universal (Willis 2021, Miller et al. 2015, Fernandes et al. 2014, Hastings et al. 2013). That said, developing knowledge sufficient to generalize across topics is a challenging task, and as a result, many financial education programs address a small subset of topics (e.g., retirement saving, debt management). Financial advice provides more personalized and actionable information (MacDonald et al. 2023), but it typically covers a much narrower set of financial topics (e.g., investing or employment benefits), and it requires informed demand (Stolper & Walter 2017).[1]

In this paper, we experimentally evaluate the effectiveness of financial coaching, a relatively less-studied method that leverages a combination of education, advice, and encouragement to help clients improve their financial condition. By design financial coaching is more personalized and it places greater emphasis on goal setting and accountability to overcome gaps between knowledge, intentions, and actions in order to generate impact (Collins et al. 2013, Collins and O'Rourke 2012). To the extent that developing generalizable and actionable human financial capital via education is difficult and/or that financial advice is less trusted or accessible, financial coaching might serve as a promising policy tool for improving financial well-being. We evaluate the effects of a large, year-long financial coaching and support program using a pre-registered randomized field experiment and a combination of linked credit bureau, labor market, and survey data.

Existing research provides suggestive evidence of meaningful benefits, though many knowledge gaps remain. In the first experimental analysis of financial coaching, Theodos et al. (2018) find positive effects that varied across domains (e.g., increasing savings vs. reducing debt) and by location but not by subpopulation. Modestino et al. (2019) document improvements in access to credit and credit scores among youth, as well as potential heterogeneity by groups (i.e., for the youngest participants and those who are African-American).[2,3]

Our research expands the scope and validity of the financial coaching literature in several ways. First, our study provides large-scale experimental evidence on the causal effects of financial coaching as specified in a published pre-analysis plan (Skimmyhorn and Turner 2022), increasing our confidence in the results (Olken 2015). Our unique combination of data, which cover individual financial (i.e., credit bureau), labor market (i.e., employment and earnings), and behavioral characteristics (i.e., surveys), supports other contributions. Specifically, these data enable us to complete a broader analysis of the potential effects of financial coaching in terms of direct effects on individual financial conditions, as well as downstream effects (e.g., employment). We construct a panel data set that yields insights into the longitudinal dynamics of these programs. Finally, our detailed survey measures enable us to investigate the potential mechanisms (e.g., financial knowledge vs. capability) that differentiate financial coaching from other leading interventions like financial education or financial advice.

In our study, financial coaching did not lead to meaningful improvements in client debt that was held by collections agencies or on their overall credit score. We link study participants to a quarterly panel of administrative credit bureau records that spans the year before program application through the year after and compare changes in average outcomes between our experimental treatment

1 Financial advice may also suffer from mistrust in the profession (MacDonald et al. 2023), confirmation bias in the selection of advisors (Zaleskiewicz & Gasiorowska 2023) and overconfidence in clients' rejection of advice (Reiter-Gavish et al. 2021).

2 In related work, Theodos et al. (2023) leverage a quasi-experimental design to analyze the effects of the $Stand By Me financial coaching program and find varied effects on clients' debt levels (e.g., decreases in credit card debt and increases in student loan debt) with minor overall improvements in credit scores (approximately 4 points) and delinquent debt. Despard et al. (2021) provide observational evidence on workplace financial counseling programs, noting similar patterns to the evidence noted above. Rogers et al. (2022) provide evidence that concurrent financial coaching and smoking cessation may reduce financial distress.

3 For summaries and qualitative analyses of the implementation of financial coaching, see Collins et. al (2021), Loomis (2018) and Collins et al. (2012).

and control groups adjusting for imperfect take-up of financial coaching. We find that financial coaching reduced collections debt by $441, an 11 percent decrease relative to the control group mean of $2,934. However, this effect is not statistically significant. Effects on collections debt tend to be larger among less educated clients, younger clients, Black clients, and clients who entered the program with either relatively low credit scores or relatively high debt balances. Additionally, we find no impacts on credit scores during the first year following program application. These null effects are precisely measured and close to zero, and we can rule out credit score increases larger than 21.7 points. Exploratory analysis of additional credit outcomes suggests financial coaching reduced total debt somewhat, in particular student loan debt, though these effects are imprecisely measured.

We find no large improvements in financial well-being or overall mental/physical well-being, as measured by a 12-month follow-up survey. We solicit information about banking, savings, usage of small-dollar loans, and a measure of the client's financial capability (Collins and O'Rourke 2013). We find no evidence of improvements on a standardized index of these financial well-being measures, as effects on underlying outcomes are mixed. For example, coaching clients were 43 percent more likely to report having any savings (p-value < 0.10), but also 21 percent more likely to have taken out a costly small-dollar loan in the past year, though this latter effect is not statistically significant. However, consistent with the program's goal of improving financial behaviors and knowledge, we do find evidence that coaching increased the likelihood of using a budget by 36 percent and increased a standardized index of financial knowledge—measured both through objective questions and through self-assessment—by 0.17 SD.

The paper proceeds as follows. Section 2 provides information about the financial coaching intervention. Section 3 details the experimental evaluation, data used, and empirical specifications. Section 4 reports results from administrative credit data, a 12-month follow-up survey, and preliminary findings from administrative state earnings and employment data. Section 5 reports on treatment effect heterogeneity.

2. The intervention

Catholic Charities Dallas (CCD)—a large urban service provider serving more than 180,000 clients annually—operates the Next Gen Wealth Academy, a free year-long financial coaching program designed to improve participant's long-term financial well-being.[4] Potential clients are recruited from other service programs operated by CCD (e.g., immigration and refugee services, pregnancy and parenting programs, and hunger services), as well as from other local community partners and through word-of-mouth and direct advertising. Clients engage in one-on-one financial coaching and education and have access to additional supports like employment services, HUD counseling, rent and utility assistance, and targeted financial assistance to incentivize behaviors. CCD bundles these services under one roof to help clients address their immediate and make progress toward their long-term goals.

The primary component of the Next Gen Wealth Academy is personalized, one-on-one financial coaching. Before beginning the program, clients commit to engaging with their financial coach over 12 months by signing a coaching agreement that outlines the roles and responsibilities of the coach, the client, and their work together. Clients agree to meet face-to-face once a month, communicating at least twice a month to update their coach on progress toward goals, being on time for meetings, maintaining open and honest communication, and following their action plan. During their first coaching session, clients complete a financial assessment and discuss their financial and personal goals with their coach. The coach walks the client through worksheets that collect information on income (e.g., employment, public benefits, pension), savings, and information from their credit report (e.g., credit scores, outstanding debt). Clients then develop a personalized spending plan with their coach. This budget is designed to help clients think about how they spend their income and create habits that help them work toward their financial goals, which often include increasing their savings, reducing their debt, or managing their credit score.

Clients continue to work with their coach monthly either virtually or in-person. During each appointment, the client updates the coach on their progress toward their financial goals and revisits their spending plan. In between coaching sessions, coaches either text, call, or email their clients to provide encouragement and accountability and to address clients' questions and concerns. During the program, the client may gain access to additional financial assistance. CCD provides rental and utility assistance to clients experiencing economic hardship. Clients may also qualify for strategic financial assistance. For example, coaches may incentivize positive savings behavior through a savings match.

The Next Gen Wealth Academy also supports clients through employment services designed to increase their earnings potential and housing counseling designed to improve

4 When CCD and the research team launched this study in November 2020, CCD was starting a new program called Financial Stability and Career Services (FSCS). CCD re-branded this program to the Next Gen Wealth Academy during the evaluation. While the name changed, the program's offering of financial coaching supported by employment services and housing counseling remained the same.

their housing stability, although these services are taken up on an as-needed basis. Because income is an important component of the client's budget, CCD connects unemployed and underemployed participants with an employment coach. Clients work with their employment coach on drafting a resume, preparing for interviews, building their professional wardrobe, and connecting with local employers. For individuals looking to increase their earnings potential, the employment coach connects clients with local job training programs in the area that allow them to work toward industry-recognized certifications. Through HUD-approved housing counselors, clients can also receive pre- and post-purchase counseling, get connected with down payment assistance, or receive counseling on dealing with mortgage delinquency or landlord issues. This program model, which places financial coaching, employment services, and housing counseling under one roof, is becoming an increasingly popular service delivery model for supporting the economic well-being of LMI individuals and households (Annie E. Casey Foundation, 2020).

3. Experimental evaluation

We partnered with CCD to design and implement a randomized controlled trial (RCT) evaluation of the Next Gen Wealth Academy's impact on financial well-being, financial decision-making, and labor market success using administrative and survey data. We pre-registered our experiment with the American Economic Association RCT registry and followed the registered analysis plan below.[5] From November 2020 through March 2024, individuals applied to the program on a rolling basis, completed an in-take application, and CCD randomly assigned them to either a treatment or control group.[6] We track individual outcomes throughout the year following program application using administrative credit and earnings data, as well as through a follow-up survey administered approximately 12 months after application.

3.1. Study enrollment and balance of characteristics at baseline

The study design relies on random assignment to program access and takes advantage of excess demand for the Next Gen Wealth Academy; more individuals are interested in the program than CCD can serve. CCD recruited clients to the program and screened potential clients on their interest in engaging in a year-long financial coaching program. To be eligible for the program, individuals must have had stable housing, been 18 years of age or older, had household earnings under $58,000 annually, and committed to one year of service interactions. Eligible applicants who consented to research completed a baseline survey that collected information on sociodemographic characteristics (e.g., gender, race/ethnicity, education), identifiers to be used to connect to administrative data (e.g., name, address, date of birth, and social security number), and pre-randomization measurements of outcomes (e.g., financial literacy, financial capability). We then randomized participants at a 1:1 ratio into either the treatment group who gained access to financial coaching or a control group who continued receiving other business-as-usual services from CCD but did not have access to financial coaching.

CCD recruited 634 study participants between November 2020 and March 2024 and assigned 317 to the experimental treatment group. In Table 1, we summarize the sociodemographic and financial characteristics of the treatment (Columns 1 and 2) and control (Columns 3 and 4) measured before randomization. These statistics reveal that the population served by CCD is economically disadvantaged and composed primarily of women from racial and ethnic minority groups. Roughly 4 in 5 study participants are women, and the average age of the sample is 40. Half of the participants identify as Hispanic and another third identify as Black, non-Hispanic. About 40 percent of the sample have a high school diploma or less and three-fifths are employed full-time. While most participants are banked (about 80 percent have a checking account), savings rates are low (less than 30 percent report having any savings), and the average household income is below $25,000 per year.

Our baseline survey also measured individuals' financial literacy and financial well-being, which we analyze as outcomes and potential mechanisms for program effects. Specifically, we asked applicants three financial literacy questions related to compound interest, inflation, and the stock market (i.e., the "Big 3" designed by Lusardi and Mitchell, 2007), and they answered about 1.5 correctly on average.[7] We also measured financial capability (Collins and

5 Our research study is registered with the AEA RCT Registry under study ID: AEARCTR-0008842. We registered the RCT evaluation and posted the study's pre-analysis plan on January 19, 2022, after the start of randomization but prior to the receipt of any post-randomization outcome data. When discussing outcome data below, we document the timing of initial data receipt relative to study registration. Our analysis plan specified that we would explore the program's impact on the receipt of government benefits (i.e., SNAP receipt), but we were unable to access that data.

6 Specifically, CCD staff completed the intake application with the prospective client using SurveyCTO. Upon application submission, the survey generated a random number between 0 and 1, and applicants with a value less than 0.5 were assigned to the treatment group and the remaining applicants were assigned to the control group.

7 The "Big Three" consists of: a compound interest question whether $100 put into a savings account paying 2% interest would be more than, exactly, or less than $102 after 5 years; an inflation question whether one's purchasing power would be higher, lower, or the same after a year if their savings account was paying a 1% interest rate and inflation was 2% per year; and a diversification question whether a single company's stock usually provided a safer return than a stock mutual fund.

O'Rourke, 2013), with mean scores of 2.5 out of 7.[8] Finally, the typical applicant rated their own perceived financial knowledge (Algood and Walstad 2015) as 3.6 on a 7-point scale (1–"Very low" through 7–"Very high"). Appendix B includes the survey questions used to collect these measures and specifies how responses are scored.

We leverage a randomized assignment mechanism to create two groups with similar observable and unobservable characteristics. In Table 1 Column 5 we report the unconditional difference in average characteristics between the treatment and control groups, and in Column 6 we report the t-statistics from a test of the null hypothesis that the difference is zero. We also present a measure where the difference is scaled by the standard deviation of the characteristic among the control group. Our results suggest balance across both groups in most characteristics reported in the table. The treatment group is more likely to be married (34.4 percent vs. 28.4 percent), be employed at application (54.3 percent vs. 46.7 percent), have a checking account (84.9 percent vs. 78.5 percent), and have higher financial literacy (score of 1.53 vs. 1.40). The treatment group was also more likely to have a valid social security number (SSN) or individual taxpayer identification number (ITIN) recorded in the pre-randomization application (48.9 percent vs. 40.1 percent).[9] Note also that the scaled magnitudes of these differences (Column 7) are generally very small. To further evaluate balance between the treatment and control groups, we regress an indicator for assignment to treatment on the application characteristics (i.e., the twenty-four characteristics reported from the *Demographics* section through the *Miscellaneous* section of Table 1), and we are unable to reject the null hypothesis that the characteristics are jointly predictive of treatment assignment (F-statistic = 1.16; p = 0.278). We proceed with the assumption that our randomization was successful, and we report results that control for these baseline characteristics to account for any small imbalances and to improve statistical precision.

3.2. Program data

Program participation data come from CCD and record enrollments in financial coaching, employment services, and their homeownership program. For all participants, we can observe enrollment start and end dates for each of these separate program components. Beginning in March 2022, CCD transitioned to a new database that additionally captures dated, individual service records with free-text case notes. We categorize these case notes into whether the service record represented an in-person or virtual interaction with a coach, as opposed to interactions related to record keeping, missed contact with the client, rescheduling, or case closure.

Table 2 documents program take-up during the 12 months following application among the treatment and control groups. Take-up among the treatment group was relatively high (column 1). About two-thirds of the treatment group worked with a financial coach, one-third participated in employment services, and one-fifth participated in the homeownership program. While nearly three-quarters of the treatment group engaged in some form of programming with the Next Gen Wealth Academy, only one-tenth of the control group did so (Column 2). Most of this engagement among the control group was with the homeownership program (7.6 percent), and only a small share of the control group enrolled in financial coaching (1.3 percent).

In contrast to other financial coaching interventions evaluated in the literature, financial coaching clients engaged in relatively longer-term financial coaching. The second panel of Table 2 documents the number of months a client had a service interaction with each program.[10] Among the portion of the treatment group with any program enrollment, the typical client was engaged in financial coaching for 5.3 months. For this group, 80 percent worked with a coach for at least 3 months, 48 percent worked with a coach for at least 6 months, and 16 percent were still engaged with a coach for at least 9 months. In contrast, engagement with employment services and the homeownership program was less intensive. The typical treatment group participant engaged in employment services for 2.2 months and the homeownership program for 0.1 months. Control group participation, however, was substantially less intensive and primarily consisted of interactions with the homeownership program.

3.3. Outcomes of interest

Our pre-registered study specifies four primary outcome domains—credit, financial well-being, mental well-being, and labor market—and we measure these outcomes across multiple administrative datasets and a follow-up survey.

8 The financial capability scale includes six items related to having a budget/spending plan, confidence to reach goals, confidence to come up with money in an emergency, having direct deposit/electronic funds transfer, comparing spending to income (last month), and having been charged a late fee (past two months). Our measure varies from the typical scale on two dimensions and is scored on a 7-point vs. 8-point scale. First, we asked respondents whether they had emergency funds covering 3 months of expenses rather than their confidence in coming up with money in an emergency (changing this 2-point item to a 1-point item). Second, when asking about confidence to reach goals, respondents had a 5-item Likert scale rather than the typical 3-item choice set. Respondents who selected "somewhat confident" or "relatively confident" were given 1 point and those selecting "very confident" were given 2 points.

9 Because this identifier is needed to link to administrative earnings data and helps link to credit data, we explore potential issues of differential selection by the treatment and control groups in Section 3.3.

10 For this analysis, we restrict the sample to individuals who applied in March 2022 or later in order to observe service interactions.

Within each domain, we indicate a primary measure or measures, which will be the focus of our analysis.

The primary focus of the financial coaching program is to improve financial outcomes. We link study participants to quarterly snapshots of credit bureau data.[11] Our credit panel includes quarterly data from Q4 2019 through Q3 2024 and has been collected on a rolling basis with at least a year lag to allow us to observe pre-randomization data for all study participants.[12] We use these data to construct a balanced panel of outcomes for each individual during the four quarters before randomization, during the quarter in which an individual is randomized ($q = 0$), and during the four quarters following random assignment. Our two pre-specified primary outcomes are credit score (i.e., Vantage Score 4.0) and total balance in collections. We also explore the program's impact on secondary outcomes, including whether an individual has a prime credit score (>= 650), a poor credit score (< 580), their total debt excluding mortgages and auto loans/leases, debt across different categories (i.e., student loan, credit card, personal installments loans), whether the individual has an auto loan or lease, whether the individual has a mortgage, and their total balance in derogatory accounts.

We summarize these credit outcomes in Table 1, noting that they are observed during the quarter before random assignment ($q = -1$), which is a different calendar quarter depending on when the individual applied. Roughly 75 to 80 percent of study participants were linked to a credit record in the quarter before application, and this match rate is slightly higher (8.2 percentage points) among the treatment group. Among those who match, the average credit score is about 595, with about 30 percent of program applicants having a prime credit score and more than 50 percent having a poor credit score. Our sample also has relatively high debt balances. The typical applicant has about $15,000 in debt (excluding mortgages and auto loans/leases), which includes nearly $12,000 in student loan debt and about $1,700 of credit card debt. Applicants also have a significant amount of debt held by collections agencies (about $2,300 to $2,800) and have about $800 of debt in accounts with derogatory status. These credit attributes are balanced between the treatment and control groups.

When analyzing program effects on credit outcomes, we restrict our sample to applicants with a credit record for all nine quarters in the panel ($q = -4$ through $q = 4$). Among individuals with observable data across this balanced panel,[13] roughly 70 percent link to a credit record in every quarter.[14] The match rate to a balanced panel of Experian data is 5.5 percentage points higher (p-value = 0.156) in the treatment group (72.7 percent) than in the control group (67.3 percent).

One potential limitation to these data is that not all study participants link to credit records, and our credit sample is selected along several dimensions (Appendix Table A.1). Linked study participants are less likely than non-matched study participants to identify as Hispanic (40.3 percent vs. 73.5 percent) and more likely to identify as Black or White, non-Hispanic. The linked sample is also more educated, more likely to be employed, be more connected with the traditional banking system (i.e., have checking and savings), and have higher household incomes. Despite this selection, we find that the treatment-control balance on observable characteristics among the credit-linked sample is similar to what we document above for our full study sample, and we are unable to reject the null hypothesis that baseline characteristics are jointly balanced between the treatment and control groups (Appendix Table A.2).

We supplement these administrative measures of financial well-being with an online follow-up survey administered roughly 12 to 14 months after application.[15] The survey includes questions about an individual's employment, financial situation, financial literacy, financial capability, and general well-being. We designed the survey questions by drawing on existing surveys in the field, and many of the questions from the baseline survey are included in the follow-up survey.[16] Our pre-analysis plan specifies two primary outcomes related to financial well-being: 1) a standardized index constructed using client responses to questions related to banking, savings, and financial capability and 2) a financial literacy index constructed using client responses to questions related to financial literacy. We also pre-specified

11 The credit bureau data provide information about several credit attributes constructed from information on an individual's credit report at the end of the quarter. We link applicants to these data using identifiers collected during the intake application (i.e., first name, last name, address, date of birth, and social security number).

12 We first received post-randomization credit data (i.e., data from Q4 2020 and later) in May 2022, which was after we posted our pre-analysis plan, and we obtained updated data quarterly.

13 When this version was written, data through the fourth quarter following application ($q = 4$) were available for all study participants who applied and were randomized by September 30, 2023 (N = 567). This subsample represents almost 90 percent of the overall study sample. Panel outcomes will be available for all study participants by Q2 2025.

14 Among those who do not link to the nine quarters of available data, a little more than half link to no credit records and nearly three-quarters link to four or fewer quarters of data.

15 Potential respondents were contacted during four collection periods each year by NORC, who used information collected in the intake survey to contact individuals through email, text, and phone. Respondents could either complete the survey independently online or were offered the opportunity to complete the survey over the phone with NORC staff. Respondents received a $25 gift card upon completing the survey. We received the first round of follow-up survey data in February 2022 (reflecting data collection between January 12, 2022, and January 26, 2022), and we obtained updated data quarterly.

16 We provide the questions used to construct the financial capability scale and measures of financial literacy from the survey instruments in Appendix B.

a primary outcome related to mental health, the PHQ-4, a brief screening scale for anxiety and depression (Kroenke et al. 2009). For both outcome domains, we analyze individual items as secondary measures.

More than 55 percent of study participants responded to the follow-up survey, and response rates were slightly higher among the treatment group (58.7 percent) than the control group (52.1 percent). Survey respondents are more likely to be married, have children in the household, have higher education, and be connected to the formal banking system (Appendix Table A.3). Respondents among the treatment and control groups, however, remain balanced on baseline observable characteristics (Appendix Table A.4).

Finally, we link study participants to administrative unemployment insurance earnings records collected by the Texas Workforce Commission.[17] These state-level data include quarterly records of formal-sector earnings through Q1 2024. Because individuals can only be linked to earnings data through a social security number, we restrict our analysis to individuals who provided a valid SSN in the intake application and who can be observed for at least four quarters following application (i.e., applied by March 31, 2023). We construct two outcomes: an indicator for whether an individual has earnings in a given quarter, and an outcome measuring their reported level of earnings. If an individual with an SSN does not have an earnings record in a given quarter, we impute a 0 value for both outcomes. An individual may not have an earnings record if they did not work, worked in a state other than Texas, or if they worked in a contract job not captured by the UI system. Our earnings sample is less likely to identify as Hispanic and more likely to identify as Black, non-Hispanic (Appendix Table A.5). Among individuals with a valid SSN, the treatment group is more likely to be employed, more likely to have a checking account, and more likely to have any savings relative to the control group (Appendix Table A.6).

3.4. Empirical strategy

We estimate intent-to-treat (ITT) effects of access to financial coaching using the following linear regression specification:

$$Y_i = \delta D_i + X_i \Gamma + \epsilon_i,$$

Where Y_i is an outcome for individual i and D_i is an indicator that takes the value of 1 for study participants assigned to the treatment group and 0 otherwise. We include a set of baseline controls X_i measured prior to random assignment. Our study's pre-analysis plan documented that we would report estimates from three different specifications: 1) a model containing a baseline measure of the outcome (if available); 2) a model additionally including month-of-application fixed effects (and months-since-application fixed effects, for survey outcomes); and 3) a model that selects controls from a large set of baseline characteristics using a post-double selection LASSO procedure (Belloni, Chenozhukov, and Hansen, 2014). When analyzing administrative credit outcomes, we control for credit attributes measured in each of the four quarters preceding application. Similarly, our analysis of administrative earnings data controls for quarterly employment and earnings during the eight quarters preceding application. Because our empirical strategy leverages an RCT, these controls adjust for any imbalances in observable characteristics and improve the precision of our regression estimates.

Given random assignment, individuals assigned to the treatment and control groups should look similar to each other on average, and we can attribute any differences in outcomes between the groups to their access to the financial coaching program. The coefficient estimate $\hat{\delta}$ provides the causal effect of gaining access to CCD's bundled financial coaching and employment services. As discussed above, not everyone who was assigned to the treatment group took up the program (and a small share of the control group also enrolled). To account for this noncompliance, we also construct treatment-on-the-treated (TOT) estimates that use the random assignment to financial coaching access D_i to predict the actual take-up of financial coaching using the following two-stage least squares model:

$$T_i = \alpha D_i + X_i \Phi + \mu_i$$
$$Y_i = \beta \hat{T}_i + X_i \Lambda + v_i,$$

where T_i is an indicator that takes the value of 1 if the individual enrolled in financial coaching and 0 otherwise. The coefficient $\hat{\beta}$ is our coefficient of interest and represents the local average treatment effect of financial coaching (i.e., the effect among "complier" study participants who only take up financial coaching when they are randomly assigned to treatment) under standard IV assumptions (Imbens and Angrist 1994). Because there is a roughly 66 percentage point difference in financial coaching participation rates between the treatment and control groups (Table 2), the TOT estimates will be roughly 50 percent larger than the ITT estimates.

17 We access data through a contract with the Ray Marshall Center at the University of Texas at Austin (RMC). RMC staff link study participants to UI earnings records, execute statistical code written by the authors, and return analytical results that are verified to not include confidential information. We received the first analytical results on labor market outcomes in April 2022, and we obtained updated results data annually. Our pre-analysis plan specifies earnings during the second year after application (i.e., four to seven quarters after application) as our primary outcome. At this time, we report effects from the year immediately following application because longer-term outcomes are not yet observable for our sample.

To limit the number of hypotheses we test, our pre-analysis plan specified a limited number of primary outcomes in each domain (credit, financial well-being, financial literacy, labor market, mental well-being). For the financial well-being and financial literacy domains, we specified the primary outcome to be a single standardized index of survey questions related to the domain.[18] We follow Finkelstein et al. (2012) and estimate a domain-specific average standardized treatment effect. For each outcome domain with K outcomes, we estimate:

$$\hat{\tau}^{ITT} = \frac{1}{K}\sum_{k=1}^{K}\frac{\hat{\delta}_k}{\hat{\sigma}_k},$$

where $\hat{\delta}_k$ is the ITT effect of the k-th outcome in the domain and $\hat{\sigma}_k$ is the standard deviation of the outcome measured in the control group. For example, the financial well-being outcome domain includes indicators for having a checking account, having overdraft at least once, having any savings, having taken out at least one small dollar loan, having rolled over a small dollar loan, and having a self-reported poor credit score, as well as the financial capability score.[19] We estimate the ITT effect on each of these outcomes and divide the effect estimate by the standard deviation of the outcome measured in the control group so that the effect is measured as a standard deviation change. Some outcomes included in the index are undesirable (i.e., those related to overdraft, small dollar loan usage, and self-reported credit). We re-sign the effect on these outcomes so that positive effects represent an improvement. We then average these standardized treatment effects and report the average standardized treatment effect. In practice, we stack the data for all outcomes in the domain to jointly estimate all ITT estimates in a single regression, clustering standard errors at the individual level (Finkelstein et al. 2012).[20] Inference comes from testing the null hypothesis that the linear combination of the underlying ITT effects is equal to zero. We analogously construct $\hat{\tau}^{TOT}$ using estimates of $\hat{\beta}_k$.

4. Experimental impacts of financial coaching

We first provide an analysis of outcomes from administrative credit data, before exploring effects on financial well-being, financial literacy, and mental well-being as measured in the follow-up survey. We conclude the section by reporting preliminary results from administrative earnings data from Texas. Our pre-analysis plan specified exploring these labor market outcomes in the year after program participation (quarters 4 through 7), and at this time we have results for a subset of our sample through the 4th quarter following random assignment.

We present results in graphical and tabular format. Figures depict trends in average outcomes by treatment assignment. The horizontal axes show quarters relative to an individual's application quarter. For each figure, we report a balanced panel of outcomes measured four quarters before random assignment through four quarters after random assignment (for employment outcomes we include eight quarters of pre-randomization data). Our tables depict regression results from each outcome domain. We report control group means (Column 1), ITT estimates from specifications with baseline outcomes (Column 2), ITT estimates with additional application quarter (and months since application to survey completion, if follow-up survey) fixed effects (Column 3), and ITT estimates that select controls using the post-double selection LASSO procedure of Belloni et al. (2014) (Column 4).[21] In Column 5 we report TOT estimates from a specification with LASSO-selected controls. All specifications include heteroskedasticity robust standard errors in parentheses.

4.1. Outcomes from credit data

Figure 1 reports trends in our two primary credit outcomes: credit score (Panel a) and balance in collections (Panel b). Across both groups, there are only slight improvements in credit scores across the two-year analysis window. Both the treatment group (navy solid line with circles) and the control group (gold dashed line with diamonds) have an average credit score of roughly 590 points at the start of the period, and this average score only increases by about 10 points by the 4th quarter following random assignment. Similarly, average balance in collections remains relatively stable for both groups across this period. In the quarter before random assignment, the control group had a slightly higher average collections balance of $2,804 compared to the $2,424 average balance among the treatment group (Table A.2). Throughout the post-application period, quarterly average balances range from $2,700 to $2,900 in the control group and $2,400 to $2,500 in the treatment group.

18 For the financial well-being index, we specified that we would include measures related to banking, savings, and financial capability. For the financial literacy index, we said we would include questions related to financial literacy.

19 The financial literacy index includes two outcomes: the total correct score from the 6-item financial literacy test and the self-assessed financial knowledge rating.

20 This method allows the coefficients on baseline covariates to vary across outcomes and estimates a single covariance matrix that allows for correlation in the error terms across outcomes.

21 For this specification and the TOT specification reported in Column 5, we partial out the baseline outcome controls and fixed effects (i.e., the set of controls included in Column 3) and then select additional controls.

Table 3 reports ITT and TOT effects on credit outcomes measured in the 4th quarter following random assignment. We estimate small and relatively precise null effects (ITT estimate = 3.8; TOT estimate = 5.7) on credit scores consistent with the graphical evidence. The 95-percent confidence interval on the TOT estimate rules out improvements bigger than 21.7 points, or a 3.7 percent increase relative to the control group mean of 594.5. Similarly, we do not find evidence that financial coaching reduced the amount of debt in collections. We find that four quarters after random assignment, access to financial coaching reduced the amount of this debt in collections by $295 ($p$-value = 0.318). The TOT estimate suggests that financial coaching reduced collections debt by $441 ($p$-value = 0.317), a 15 percent decline relative to the control group mean of $2,934. However, neither difference is statistically significant.

The remainder of the table explores additional credit outcomes. Consistent with the lack of effects on average credit scores, we do not find evidence that individuals were more likely to have a prime credit score (>= 650) or a poor credit score (<580). Panel a of Figure 2 reports effects on the likelihood of having a credit score across various thresholds, which further confirms that the distribution of credit scores remained relatively unchanged. Panel b of Figure 2 plots similar effects across various thresholds of collections debt. The treatment group is no less likely to have any collections debt (i.e., the left-most plotted point estimate).

Study participants carry significant levels of debt, and we do not find evidence that financial coaching helped reduce these high debt levels. The typical control group member had $17,142 in total debt, excluding auto loans/leases and mortgages. Most of this debt is from student loans ($13,778), but other significant portions come from credit cards ($1,934) and personal installment loans ($1,041). Coaching clients have lower total debt levels (TOT estimate = −$221; se = $2,717). This decline came from reductions in student loan debt (TOT estimate = −$451; se = $2,600). However, these estimates are quite imprecise.

4.2. Outcomes from 12-month follow-up survey

We find suggestive evidence that financial coaching improved financial well-being during the first year following program application (Table 4). Section 3D describes how we estimate the average standardized treatment effect of the seven outcomes reported in the table (i.e., indicators for having a checking account, having overdraft at least once, having any savings, having taken out at least one small dollar loan, having rolled over a small dollar loan, and having a self-reported poor credit score, as well as the financial capability score). We estimate a small and imprecise increase in financial well-being (ITT estimate = 0.049 SD; TOT estimate = 0.065 SD), and the 95-percent confidence interval rules out improvements larger than 0.15 SD for the ITT and 0.20 SD for the TOT.

Treated individuals improved most outcomes in the financial well-being index, although the treatment group is more likely to report taking out or rolling over a small dollar loan. None of these estimates, however, are statistically significant at conventional levels. We find weak evidence that financial coaching increased the client's likelihood of having savings, a 12.1 percentage point increase (p-value = 0.058) over the control group mean of 27.9 percent. Financial coaching also increased the financial capability score by 6.8 percent (TOT estimate = 0.184 points; p-value = 0.376) relative to the control group mean of 2.41. Table 5 provides ITT and TOT estimates on the financial capability scale components. Notably, the program increased the likelihood that clients used a budget by 36 percent (TOT estimate = 0.160; p-value = 0.020).

Beyond improving financial well-being, the program sought to increase a client's financial knowledge. We measure financial knowledge directly through a 6-item financial literacy test, as well as eliciting an individual's assessment of their overall financial knowledge (on a scale of 1 to 7).[22] On average, the control group rated their own financial knowledge at 3.7, and they got 3.2 answers correct on the financial literacy test. We find that financial coaching improved these measures on average by 0.165 SD (p-value = 0.093). While neither of the underlying items are statistically significant, the pattern of results is similar. Financial coaching increased self-reported financial knowledge by 8.6 percent (TOT estimate = 0.321) and financial literacy by 5.4 percent (TOT estimate = 0.173). Table 7 documents the program's effects on the individual questions from the financial literacy test and shows that financial coaching primarily increased clients' understanding of compound interest, credit score determinants, and understanding of high interest-bearing accounts.

Table 8 explores outcomes related to mental and physical well-being. Our primary outcome of interest is the PHQ-4 scale, which is a quick screen for anxiety and depression. On average, the control group scores 3.2 out of 12 on this scale, and 25 percent score a 6 or higher, which could indicate moderate to severe anxiety and depression. We find no evidence that financial coaching and the additional support of CCD's program meaningfully improved mental well-being. Similarly, we find no significant improvements in a client's self-reported health.

22 We asked different financial literacy questions in the baseline and follow-up surveys. Appendix B documents the questions used in each survey instrument and how we score correct answers.

4.3. Outcomes from Texas administrative earnings data

The final outcome domain explores trends and program effects on earnings and employment measured by state unemployment insurance earnings records. For this analysis, we restrict our sample to the 207 study participants who provided a valid SSN at the point of application and for whom we can currently observe at least four quarters of post-randomization outcomes. Figure 3 plots trends in quarterly employment rates (Panel a) and average quarterly earnings (Panel b). During the two years prior to application, roughly half of study participants worked in a given quarter. This steady trend continues during the four quarters following randomization, and the figure does not show any large differences between the treatment and control groups. Conversely, there are some post-randomization differences in earnings between the treatment and control groups. During the 8th through 3rd quarter before randomization, earnings are relatively similar for both group (roughly $3,500 per quarter). Beginning two quarters before randomization, the treatment group earnings begin to exceed those of the control group. This difference in earnings increases in magnitude during the four quarters following random assignment. While, the control group earned roughly $3,300 in the 4th quarter following random assignment, the treatment group earned more than $5,300.

Table 9 quantifies the difference in cumulative average earnings and the share of quarters worked from the quarter of random assignment through the 4th post-randomization quarter. Similar to earlier tables, column 1 reports the control group mean. For this analysis, we report treatment-control differences from a specification without any controls (column 2), controlling for the set of demographic controls collected in the intake application (column 3), controlling for eight quarters of pre-randomization earnings and employment data (column 4), and selecting among the controls used in columns 3 and 4 using the post-double selection LASSO procedure (column 5). Importantly, the specifications in columns 4 and 5 control for the pre-randomization differences in earnings visible during the two quarters before application. Using our preferred specification in column 5, we find that access to financial coaching increased earnings by $856 per quarter throughout the first year following random assignment (p-value = 0.032). These effects do not seem to operate via the extensive margin as we find no evidence that quarterly employment rates increased among the treatment group (3.2 percentage points on a base of 52.1 percent). Given the UI data we use, we are unable to disentangle whether individuals are employed for more weeks in a quarter, working more hours per week, or working in higher wage jobs. Future analyses will incorporate more sample members as their earnings records become available.

5. Treatment effect heterogeneity

Clients enter the program with different financial circumstances and different baseline levels of financial knowledge. To understand whether different types of clients benefited more or less from financial coaching, we explore heterogeneity in treatment effects among different subgroups of study participants as specified in our pre-analysis plan. In particular, we explore differences in treatment effects (TOT estimates) across gender (male and female), race/ethnicity (Hispanic and Black, non-Hispanic), age (above and below median age), educational attainment (HS/GED or less and some college or more), and baseline levels of the primary outcomes (above and below median).

Figures 4 and 5 depict estimated TOT effects across these various subgroups for the primary outcomes measured in the credit data and follow-up survey data. On each figure, the navy circle reports the TOT estimate for the subgroup labeled along the vertical axis. Horizontal solid navy lines depict the 95-percent confidence interval. The solid vertical line denotes the TOT estimate for the full sample of study participants. Reported next to the subgroup label and denoted by “cm” is the control group mean of the outcome among the given subgroup.

Panel a of Figure 4 reports the estimated effects of financial coaching on credit scores. Consistent with the full sample results, most subgroups have point estimates close to 0, and only the effect for individuals with a high baseline financial well-being index (i.e., a standardized index of the outcomes measured at baseline and included in the financial well-being domain) has a statistically significant improvement. These financial coaching clients experienced a 26 point increase in their credit score (p-value = 0.030), a 4.1 percent increase over the control group mean of 625.

Panel b similarly reports subgroup effects on balance in collections. Nearly all subgroups included in the analysis experienced a decline in balance in collections (though we estimate quite small but positive effects among men and individuals with relatively low balance in collections in the quarter before application). The subgroups who experienced the largest declines in collection debt—individuals with low baseline credit scores; those with high baseline collections debt; Black, non-Hispanic study participants; applicants with no more than a high school education; and younger applicants—also tended to have the highest control group means. For example, study participants with no more than a high school education in the control group had $4,257 in collections debt during the 4th quarter following randomization compared to $2,934 in the overall sample. Financial coaching reduces their collection debt by $771 ($p$-value = 0.311).

Figure 5 reports similar analyses among the outcomes measured in the follow-up survey. Because not all follow-up survey respondents linked to a credit record in the quarter before random assignment, we do not report subgroups based on baseline credit measures. We find no evidence of heterogeneous treatment effects for the financial well-being index, financial knowledge index, or the PHQ-4 scale.

6. Discussion

A large majority of low-to-moderate incomes individuals and households leading precarious financial lives, living paycheck-to-paycheck without sufficient emergency savings. In response to this community need, a large urban social service provider, Catholic Charities Dallas, designed a financial coaching program to support the financial well-being of their clients. We evaluate the short-term impacts of this program through a pre-registered RCT leveraging administrative and survey data.

We find that financial coaching did not lead to meaningful improvements in clients' balance sheets or in underlying creditworthiness in the short term. Financial coaching clients somewhat reduced the amount of debt they had held by collections agencies relative to their control group peers, and we find suggestive but imprecise reductions in overall debt, in particular student loan debt. While we find mixed results on overall financial well-being—measuring imprecise increases in the likelihood of having any savings, but also the use of costly small-dollar loans—we do find that coaching led clients to implement budgeting and improved financial knowledge.

The analysis is limited by the amount of data following financial coaching. Future work will examine longer-term impacts and ideally administrative data for more study participants.

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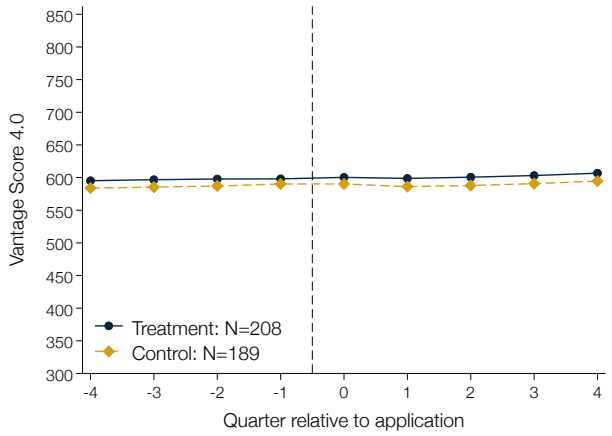
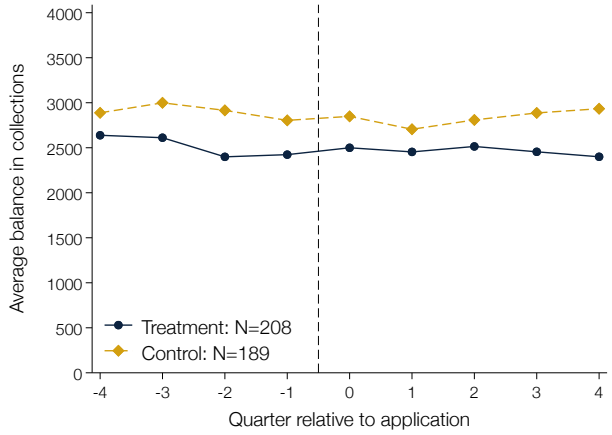
FIGURE 1. TRENDS IN PRIMARY CREDIT OUTCOMES OVER TIME RELATIVE TO APPLICATION, BY TREATMENT STATUS

(a) Vantage Score 4.0



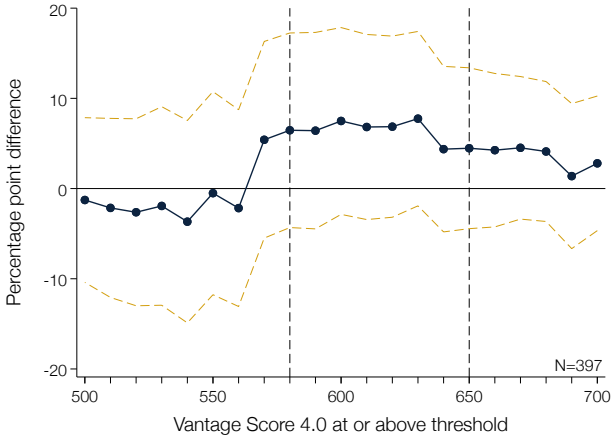
(b) Balance in collections



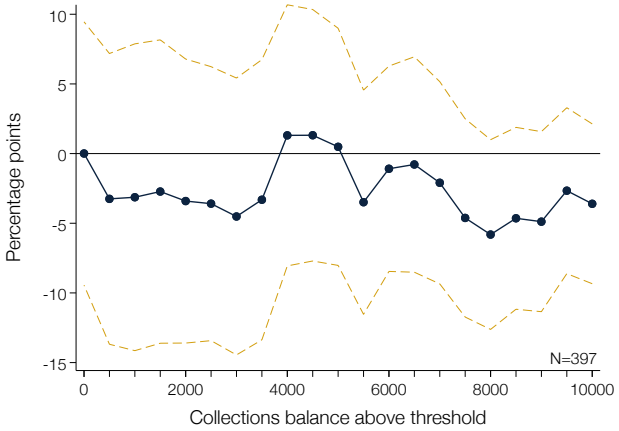
Notes: Data source is administrative credit attributes from a large credit bureau. The sample includes 397 study participants with a balanced panel of credit records from the 4th quarter before application through the 4th quarter following application. Panel (a) plots average credit scores over time relative to randomization. Quarter 0 represents the quarter in which a study participant completed the baseline survey and was randomized, and is thus a different calendar quarter for each person. Panels (b) plots the average debt balance in collections over time relative to randomization. Treatment (solid line, navy circles) and control (dashed line, gold diamonds) groups are based on an individual's randomly assigned treatment status.

FIGURE 2. EFFECT OF FINANCIAL COACHING ON THE LIKELIHOOD THAT OUTCOME EXCEEDS THRESHOLD

(a) Vantage Score 4.0 (Q4)



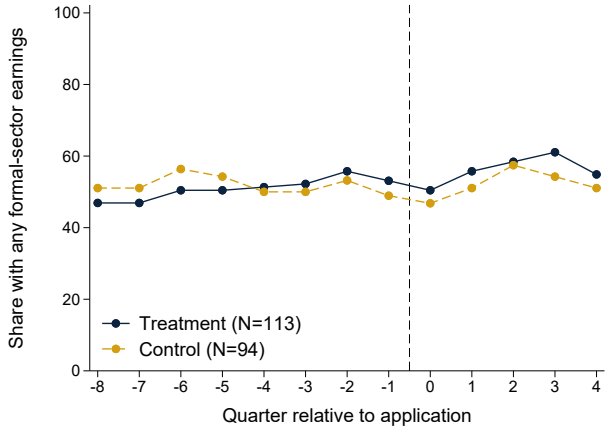
(b) Balance in collections (Q4)



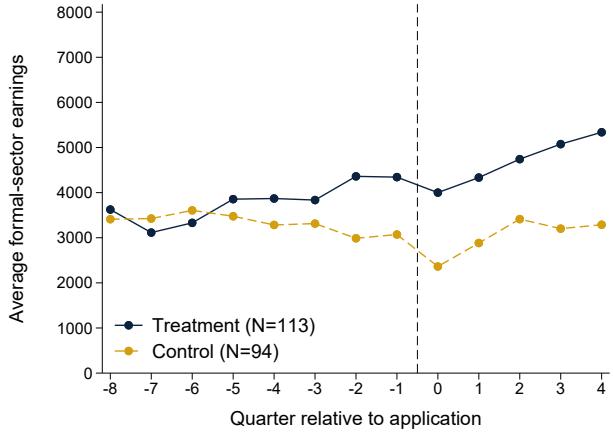
Notes: Data source is administrative credit attributes from a large credit bureau. The sample includes 397 study participants with a balanced panel of credit records from the 4th quarter before application through the 4th quarter following application. The figure plots the coefficients from regressions where the outcome is an indicator that an individual's outcome exceeded a given threshold. Panel (a) considers whether the credit score is at or above the given threshold. Panel (b) considers whether the collection balances strictly exceed the given threshold. The horizontal axis depicts the threshold. The vertical axis depicts the magnitude of the point estimate in percentage points from our primary TOT specification. Connected navy circles represent each of the estimated ITT effects and the dashed gold lines above and below represent the 95 percent confidence intervals constructed using heteroskedasticity-robust standard errors.

FIGURE 3. TRENDS IN EMPLOYMENT AND EARNINGS, BY TREATMENT ASSIGNMENT

(a) Employment trends



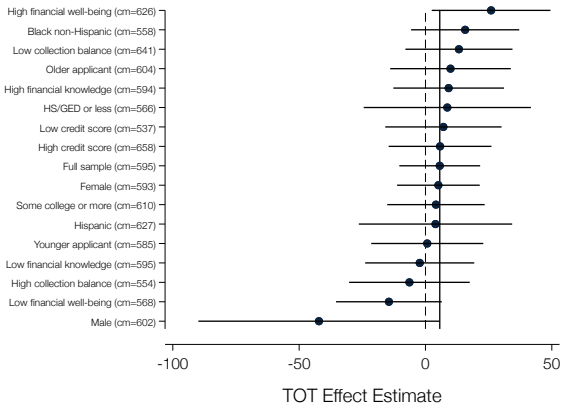
(b) Earnings trends



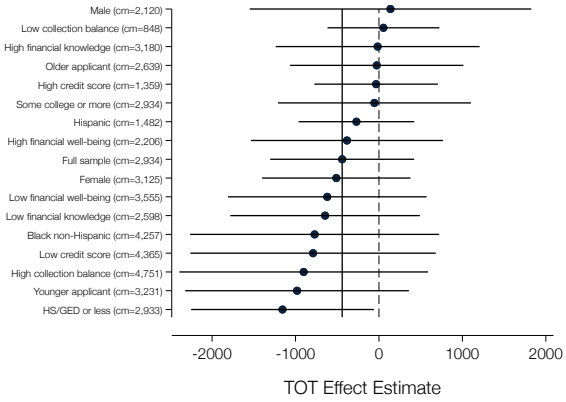
Notes: Data source is administrative UI earnings data from the Texas Workforce Commission. The sample includes 207 study participants who were linked to UI records. Quarter 0 represents the quarter in which a study participant completed the baseline survey and was randomized, and is thus a different calendar quarter for each person. Panel (a) plots quarterly employment rates, which is defined as having UI-covered earnings in Texas greater than \$0. Panel (b) plots average quarterly earnings. Treatment (navy circles) and control (gold diamonds) groups are based on an individual's randomly assigned treatment status.

FIGURE 4. TREATMENT EFFECT HETEROGENEITY, PRIMARY CREDIT OUTCOMES

(a) Vantage Score 4.0



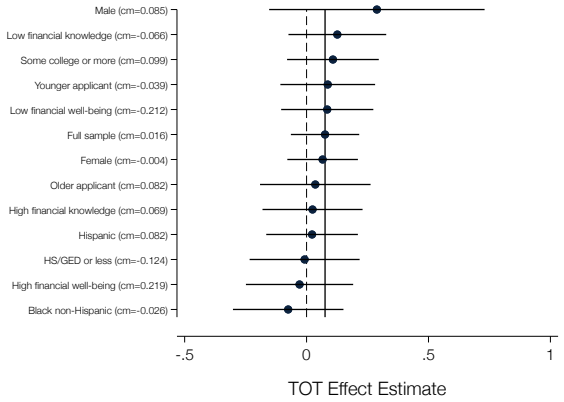
(b) Balance in collections



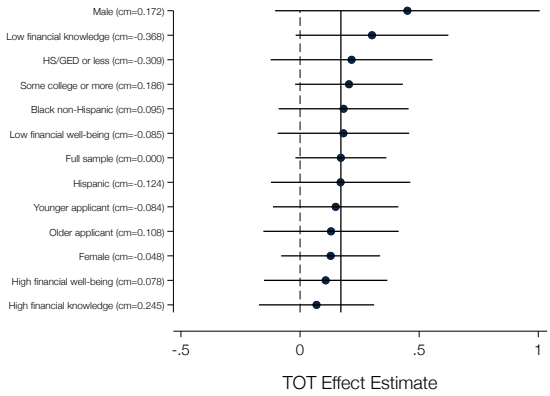
Notes: Data source is administrative credit attributes from a large credit bureau. The sample includes 397 study participants with a balanced panel of credit records from the 4th quarter before application through the 4th quarter following application. Each point depicts the estimated TOT effects on 4th quarter credit score (Panel a) and balance in collections (Panel b) for the subgroup listed on the vertical axis. Subgroups are determined from responses to the baseline survey or credit attributes measured in the quarter before random assignment. The horizontal bars represent the 95 percent confidence interval for the estimate using heteroskedasticity-robust standard errors. Control group means ("cm") for the subgroup are listed in parentheses next to the subgroup label.

FIGURE 5. TREATMENT EFFECT HETEROGENEITY, PRIMARY CREDIT OUTCOMES

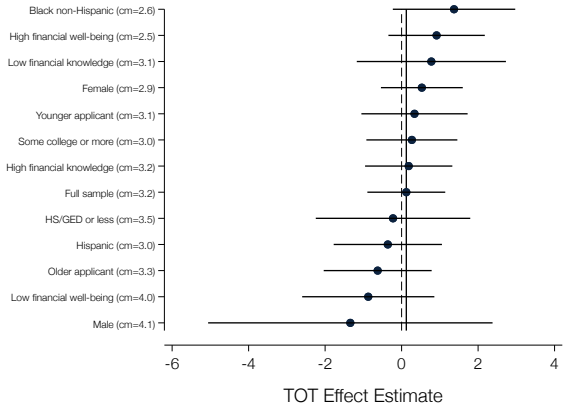
(a) Financial well-being index



(b) Financial knowledge index



(c) PHQ-4 scale



Notes: Data source is a 12-month online follow-up survey. The sample includes 351 study participants who responded to the follow-up survey. Each point depicts the estimated TOT effects on the financial well-being index (Panel a), financial knowledge index (Panel b), and PHQ-4 scale (Panel c) for the subgroup listed on the vertical axis. Subgroups are determined from responses to the baseline survey. The horizontal bars represent the 95 percent confidence interval for the estimate using heteroskedasticity-robust standard errors. Control group means ("cm") for the subgroup are listed in parentheses next to the subgroup label.

TABLE 1. APPLICANT CHARACTERISTICS AND BASELINE BALANCE

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	39.7	(11.7)	39.9	(11.0)	0.3	0.29	0.02	634
Female	0.795	(0.404)	0.808	(0.395)	0.013	0.40	0.03	634
Hispanic	0.502	(0.501)	0.514	(0.501)	0.013	0.32	0.03	634
Black, non-Hispanic	0.325	(0.469)	0.338	(0.474)	0.013	0.34	0.03	634
White, non-Hispanic	0.101	(0.302)	0.073	(0.260)	-0.028	-1.27	-0.10	634
Asian	0.019	(0.136)	0.025	(0.157)	0.006	0.54	0.04	634
Other race or multi racial	0.054	(0.226)	0.050	(0.219)	-0.003	-0.18	-0.01	634
Married	0.284	(0.452)	0.344	(0.476)	0.060	1.63	0.13	634
Any children in household	0.593	(0.492)	0.634	(0.482)	0.041	1.06	0.08	634
Single Mother	0.104	(0.306)	0.073	(0.260)	-0.032	-1.40	-0.11	634
Education								
No HS diploma/GED	0.117	(0.322)	0.129	(0.336)	0.013	0.48	0.04	634
HS diploma/GED	0.338	(0.474)	0.325	(0.469)	-0.013	-0.34	-0.03	634
Some college	0.334	(0.473)	0.328	(0.470)	-0.006	-0.17	-0.01	634
College degree	0.211	(0.409)	0.218	(0.413)	0.006	0.19	0.02	634
Employment status								
Employed	0.467	(0.500)	0.543	(0.499)	0.076	1.91	0.15	634
Full-time employment	0.300	(0.459)	0.360	(0.481)	0.060	1.61	0.13	634
Financial status								
Any checking account	0.785	(0.411)	0.849	(0.359)	0.063	2.06	0.16	634
Any savings	0.274	(0.447)	0.303	(0.460)	0.028	0.79	0.06	634
Household income (in last 12 months)	$19,491	(17,599)	$20,327	(17,656)	$836	0.60	0.05	634
Financial Literacy score (out of 3)	1.40	(0.99)	1.53	(0.94)	0.13	1.73	0.14	634
Financial Capability score (out of 7)	2.55	(1.35)	2.55	(1.43)	0.00	0.00	0.00	634
Overall financial knowledge (out of 7)	3.73	(1.63)	3.68	(1.63)	-0.05	-0.37	-0.03	634
Health								
Very good/excellent health	0.464	(0.499)	0.461	(0.499)	-0.003	-0.08	-0.01	634
Miscellaneous								
Has SSN/ITIN	0.401	(0.491)	0.489	(0.501)	0.088	2.24	0.18	634

TABLE 1. APPLICANT CHARACTERISTICS AND BASELINE BALANCE (CONTINUED)

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	594.5	(91.3)	597.8	(93.7)	3.4	0.40	0.04	634
Credit score	$2,756	(5,542)	$2,320	(3,809)	-$435	-1.02	-0.09	490
Balance in collections	0.306	(0.462)	0.298	(0.458)	-0.008	-0.18	-0.02	490
Has prime credit score (>=650)	0.517	(0.501)	0.516	(0.501)	-0.002	-0.04	0.00	490
Has poor credit score (<580)	$15,503	(30,386)	$14,984	(28,387)	-$518	-0.20	-0.02	490
Total debt excluding mortgage/auto loans	$11,911	(29,164)	$11,693	(27,573)	-$218	-0.09	-0.01	490
Student loan balance	$1,878	(4,040)	$1,560	(4,015)	-$318	-0.87	-0.08	490
Credit card balance	$1,165	(4,480)	$1,261	(4,660)	$97	0.23	0.02	490
Personal installment loan balance	0.353	(0.479)	0.372	(0.484)	0.019	0.43	0.04	490
Has a car loan/lease	0.06	(0.239)	0.093	(0.291)	0.033	1.35	0.12	490
Has a mortgage	$889	(2,540)	$735	(1,749)	-$154	-0.79	-0.07	490
Balance in derogatory accounts	594.5	(91.3)	597.8	(93.7)	3.4	0.40	0.04	490
Joint test of balance (excl. credit attributes)								
F-statistic					1.16			
Pr(> F)					0.278			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample with credit attributes is restricted to individuals who could be linked to a credit record in the quarter before application.

TABLE 2. SERVICES PROVIDED BY CATHOLIC CHARITIES DALLAS WITHIN 12 MONTHS OF APPLICATION

	Treatment (1)	Control (2)
All study participants		
Percent enrolled in financial coaching	68.1%	1.3%
Percent enrolled in employment services	33.1%	2.5%
Percent enrolled in homeownership program	22.1%	7.6%
Percent enrolled in any program	74.1%	10.7%
Among clients with any program enrollment		
Number of months engaged in financial coaching	5.3	0.0
Number of months engaged in employment services	2.2	0.3
Number of months engaged in homeownership program	0.1	0.4
Number of months engaged in any program	6.2	0.6
Percent with >= 3 months of financial coaching	79.7%	0.0%
Percent with >= 6 months of financial coaching	48.3%	0.0%
Percent with >= 9 months of financial coaching	16.1%	0.0%
Number of coaching interactions	6.1	0.4

Notes: Data are from program records from Catholic Charities Dallas (CCD). The top panel reports services received by the treatment and control groups. The bottom panel reports summary statistics of program participation among individuals who enrolled in the program. Because of data availability due to a database migration, we restrict the sample used to construct these statistics to individuals who applied in March 2022 or later.

TABLE 3. EFFECTS OF FINANCIAL COACHING ON ADMINISTRATIVE CREDIT OUTCOMES FOUR QUARTERS AFTER RANDOM ASSIGNMENT

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Primary outcomes					
Credit score	594.5	4.1	3.8	3.8	5.7
	(91.4)	(5.5)	(5.6)	(5.5)	(8.2)
Balance in collections	$2,934	-$252	-$295	-$295	-$441
	(4,805)	(303)	(302)	(295)	(440)
Secondary outcomes					
Has prime credit score (>=650)	0.275	0.034	0.033	0.030	0.045
	(0.448)	(0.032)	(0.032)	(0.030)	(0.045)
Has poor credit score (<580)	0.497	-0.045	-0.043	-0.043	-0.065
	(0.501)	(0.037)	(0.038)	(0.037)	(0.055)
Total debt excluding mortgage/auto loans	$17,142	-$404	-$148	-$148	-$221
	(33,244)	(1,892)	(1,861)	(1,820)	(2,717)
Student loan balance	$13,778	-$562	-$302	-$302	-$451
	(32,462)	(1,817)	(1,781)	(1,743)	(2,600)
Credit card balance	$1,934	$23	-$26	-$83	-$124
	(4,615)	(283)	(289)	(277)	(414)
Personal installment loan balance	$1,041	$150	$194	$194	$288
	(4,403)	(331)	(328)	(321)	(478)
Has a car loan/lease	0.280	0.050	0.054	0.054	0.081
	(0.450)	(0.037)	(0.037)	(0.037)	(0.055)
Has a mortgage	0.063	-0.008	-0.009	-0.009	-0.013
	(0.244)	(0.013)	(0.014)	(0.013)	(0.020)
Balance in derogatory accounts	$1,309	-$82	-$128	-$128	-$191
	(4,619)	(416)	(420)	(410)	(612)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	189	397	397	397	397

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample includes 397 study participants with a balanced panel of credit records from the 4th quarter before application through the 4th quarter following application. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). Heteroskedasticity-robust standard errors in parentheses.

TABLE 4. EFFECTS OF FINANCIAL COACHING ON FINANCIAL WELL-BEING, 12-MONTH FOLLOW-UP SURVEY

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Primary outcomes					
Standardized treatment effect	0.000	0.045	0.037	0.049	0.065
		(0.055)	(0.058)	(0.053)	(0.071)
Secondary outcomes					
Has a checking account	0.745	0.032	0.028	0.028	0.037
	(0.437)	(0.042)	(0.043)	(0.042)	(0.055)
Overdrafted at least once in last year	0.388	-0.032	-0.039	-0.039	-0.051
	(0.489)	(0.047)	(0.049)	(0.048)	(0.064)
Has any savings	0.279	0.105*	0.091+	0.091+	0.121+
	(0.450)	(0.048)	(0.050)	(0.048)	(0.064)
One or more small dollar loan in last year	0.353	0.082	0.084	0.055	0.073
	(0.479)	(0.054)	(0.056)	(0.051)	(0.067)
Rolled over small dollar loan in last year	0.167	0.022	0.027	0.008	0.011
	(0.374)	(0.042)	(0.044)	(0.041)	(0.054)
Poor self-reported credit score (<580)	0.370	-0.031	-0.036	-0.021	-0.027
	(0.484)	(0.051)	(0.052)	(0.049)	(0.065)
Financial Capability Score (out of 7)	2.412	0.168	0.139	0.139	0.184
	(1.569)	(0.156)	(0.161)	(0.157)	(0.208)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	165	351	351	351	351

Notes: Data come from a baseline survey collected at application and a 12-month follow-up survey. The sample includes 351 study participants who completed the follow-up survey. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). The standardized treatment effect summarizes the effects on all outcomes listed below in the table. Heteroskedasticity-robust standard errors in parentheses.

*0.05, +0.10 significance levels

TABLE 5. EFFECTS OF FINANCIAL COACHING ON FINANCIAL CAPABILITY SCALE COMPONENTS

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Budget in last 3 months	0.442	0.136**	0.121*	0.121*	0.160*
	(0.498)	(0.052)	(0.054)	(0.052)	(0.069)
Confident in reaching financial goals	0.588	-0.004	-0.040	-0.040	-0.053
	(0.494)	(0.053)	(0.054)	(0.053)	(0.071)
Very confident in reaching financial goals	0.127	0.014	0.028	0.028	0.037
	(0.334)	(0.036)	(0.038)	(0.036)	(0.049)
Emergency fund for 3 months' expenses	0.097	0.047	0.043	0.043	0.057
	(0.297)	(0.033)	(0.035)	(0.034)	(0.045)
Auto deposit in last 3 months	0.224	0.020	0.009	0.018	0.023
	(0.418)	(0.044)	(0.046)	(0.043)	(0.058)
Income exceeds expenses	0.248	-0.030	-0.029	-0.029	-0.039
	(0.433)	(0.045)	(0.046)	(0.045)	(0.059)
Late fee in last 3 months	0.442	0.000	0.002	0.002	0.003
	(0.498)	(0.050)	(0.053)	(0.051)	(0.068)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	165	351	351	351	351

Notes: Data source is baseline survey collected at application and a 12-month follow-up survey. The sample includes 351 study participants who completed the follow-up survey. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). Heteroskedasticity-robust standard errors in parentheses.

**0.01, *0.05 significance levels

TABLE 6. EFFECTS OF FINANCIAL COACHING ON FINANCIAL LITERACY

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Primary outcomes					
Standardized treatment effect	0.000	0.097	0.119	0.124+	0.165+
		(0.074)	(0.077)	(0.074)	(0.098)
Secondary outcomes					
Overall financial knowledge (1 to 7)	3.697	0.199	0.242	0.242	0.321
	(1.512)	(0.155)	(0.161)	(0.157)	(0.209)
Financial literacy score (out of 6)	3.176	0.091	0.115	0.131	0.173
	(1.477)	(0.139)	(0.141)	(0.134)	(0.178)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	165	351	351	351	351

Notes: Data come from a baseline survey collected at application and a 12-month follow-up survey. The sample includes 351 study participants who completed the follow-up survey. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). The standardized treatment effect summarizes the effects on all outcomes listed below in the table. Heteroskedasticity-robust standard errors in parentheses.

+0.10 significance levels

TABLE 7. EFFECTS OF FINANCIAL COACHING ON COMPONENTS OF FINANCIAL LITERACY SCORE

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Compounding interest	0.697	0.077	0.077	0.081+	0.108+
	(0.461)	(0.047)	(0.049)	(0.047)	(0.062)
Inflation	0.648	-0.011	-0.013	-0.021	-0.028
	(0.479)	(0.050)	(0.051)	(0.048)	(0.064)
Main credit score determinant	0.570	0.043	0.056	0.056	0.075
	(0.497)	(0.053)	(0.055)	(0.054)	(0.071)
Reducing interest costs	0.600	0.018	0.001	0.006	0.008
	(0.491)	(0.052)	(0.053)	(0.048)	(0.064)
High interest-bearing accounts	0.533	0.042	0.040	0.047	0.062
	(0.500)	(0.053)	(0.055)	(0.051)	(0.067)
Most costly credit	0.127	-0.057+	-0.062+	-0.062+	-0.083+
	(0.334)	(0.032)	(0.033)	(0.033)	(0.043)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	165	351	351	351	351

Notes: Data come from a baseline survey collected at application and a 12-month follow-up survey. The sample includes 351 study participants who completed the follow-up survey. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). Heteroskedasticity-robust standard errors in parentheses.

+0.10 significance levels

TABLE 8. EFFECTS OF FINANCIAL COACHING ON MENTAL WELL-BEING

	Control Mean (SD) (1)	ITT Effect Baseline Y (2)	ITT Effect Add FEs (3)	ITT Effect All Controls (4)	TOT Effect All Controls (5)
Primary outcomes					
PHQ-4 Scale (0–12)	3.182	0.032	0.192	0.115	0.123
	(3.448)	(0.406)	(0.424)	(0.399)	(0.519)
Secondary outcomes					
Anxious score (0–3)	0.795	0.016	0.050	0.050	0.047
	(1.017)	(0.118)	(0.123)	(0.119)	(0.154)
Unable to control worrying score (0–3)	0.924	0.009	0.036	0.011	0.001
	(1.060)	(0.125)	(0.132)	(0.123)	(0.159)
Little interest or pleasure score (0–3)	0.758	-0.032	0.045	0.045	0.056
	(1.042)	(0.120)	(0.121)	(0.118)	(0.154)
Down, depressed, hopeless score (0–3)	0.705	0.039	0.061	0.045	0.061
	(0.939)	(0.112)	(0.120)	(0.112)	(0.148)
Moderate to severe anxiety and depression (>= 6)	0.250	-0.018	-0.010	-0.017	-0.023
	(0.435)	(0.050)	(0.052)	(0.049)	(0.064)
Very good or excellent health	0.467	-0.032	-0.018	-0.018	-0.023
	(0.500)	(0.049)	(0.050)	(0.049)	(0.065)
Baseline Y		X	X	X	X
Time FEs			X	X	X
Individual Baseline Controls				X	X
Observations	165	351	351	351	351

Notes: Data come from a baseline survey collected at application and a 12-month follow-up survey. The sample includes 351 study participants who completed the follow-up survey. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator, controlling for the value of the outcome measured at baseline. Column (3) further includes quarter of application fixed effects. Column (4) reports the coefficient on a treatment indicator, selecting controls from a high-dimensional set of baseline characteristics using the post-double selection LASSO procedure from Belloni et al. (2014). Under this specification, the controls included in column (3) are partialled out prior to control selection. Column (5) reports the TOT effect estimate where enrollment in the financial coaching program is instrumented by treatment assignment using the same specification as in column (4). Heteroskedasticity-robust standard errors in parentheses.

TABLE 9. EFFECTS OF FINANCIAL COACHING ON ADMINISTRATIVE LABOR MARKET OUTCOMES, CUMULATIVE AVERAGE (Q0 THROUGH Q4)

	Control Mean (1)	ITT Effect No Controls (2)	ITT Effect Application Controls (3)	ITT Effect UI Controls (4)	ITT Effect All Controls (5)
Average quarterly earnings	$3,030	$1,668*	$1,232+	$871*	$856*
		(684)	(685)	(427)	(400)
Share of quarters worked	0.521	0.040	0.002	0.029	0.032
		(0.059)	(0.054)	(0.037)	(0.036)
Baseline Y				X	X
Time FEs			X		X
Individual Baseline Controls			X		X
Observations	94	207	207	207	207

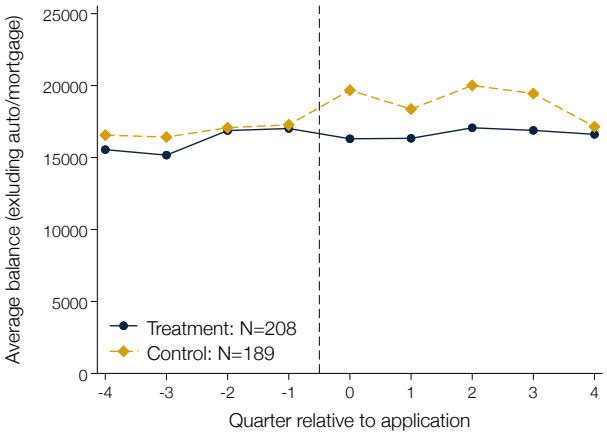
Notes: Data come from a baseline survey collected at application and quarterly earnings records from the Texas Workforce Commission. The sample includes 207 study participants who provided a valid social security number at program intake and who had at least four quarters of post-randomization data available at the time of analysis. Column (1) reports the mean for control group respondents. Column (2) reports the coefficient on a treatment indicator from a regression without any additional controls. Column (3) further includes quarter of application fixed effects and demographic variables measured at application. Column (4) reports the coefficient on a treatment indicator, controlling for eight quarters of pre-randomization earnings and employment. Column (5) comes from a specification that selects controls from the set included in columns (3) and (4) using the post-double selection LASSO procedure from Belloni et al. (2014). Heteroskedasticity-robust standard errors in parentheses.

*0.05, +0.10 significance levels

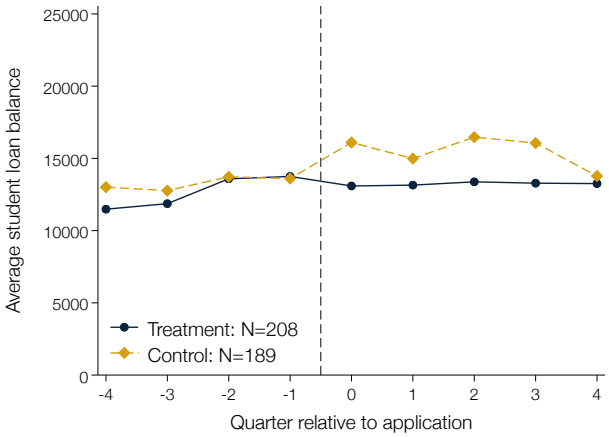
Appendix A. Appendix tables and figures

FIGURE A.1: TRENDS IN DEBT BALANCES OVER TIME RELATIVE TO APPLICATION, BY TREATMENT STATUS

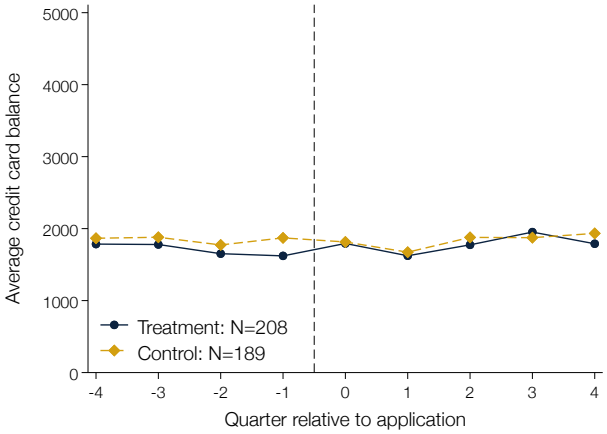
(a) All Debt, (excl. Mortgages and Auto)



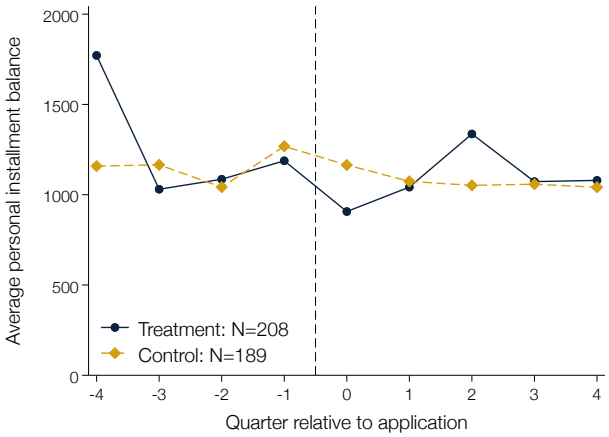
(b) Student Loans



(c) Credit Cards



(d) Personal Installment Loans



Notes: Data source is administrative credit attributes from a large credit bureau. The sample includes 397 study participants with a balanced panel of credit records from the 4th quarter before application through the 4th quarter following application. Quarter 0 represents the quarter in which a study participant completed the baseline survey and was randomized, and is thus a different calendar quarter for each person. Panels (a) through (d) plot average balance in all debt (excluding auto/mortgage), student loans, credit cards, and personal installment loans, respectively. Treatment (solid line, navy circles) and control (dashed line, gold diamonds) groups are based on an individual's randomly assigned treatment status.

TABLE A.1. ADMINISTRATIVE CREDIT MATCH SELECTION

	Non-match		Match		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	39.6	(10.6)	40.1	(11.8)	0.5	0.48	0.04	567
Female	0.776	(0.418)	0.809	(0.394)	0.032	0.87	0.08	567
Hispanic	0.735	(0.442)	0.403	(0.491)	-0.332	-7.60	-0.70	567
Black, non-Hispanic	0.159	(0.367)	0.418	(0.494)	0.259	6.16	0.56	567
White, non-Hispanic	0.059	(0.236)	0.098	(0.298)	0.039	1.53	0.14	567
Asian	0.000	0.000	0.028	(0.164)	0.028	2.20	0.20	567
Other race or multi racial	0.047	(0.212)	0.053	(0.224)	0.006	0.29	0.03	567
Married	0.382	(0.487)	0.287	(0.453)	-0.095	-2.24	-0.21	567
Any children in household	0.600	(0.491)	0.617	(0.487)	0.017	0.38	0.04	567
Single Mother	0.076	(0.267)	0.088	(0.284)	0.012	0.46	0.04	567
Education								
No HS diploma/GED	0.206	(0.406)	0.083	(0.276)	-0.123	-4.18	-0.38	567
HS diploma/GED	0.376	(0.486)	0.312	(0.464)	-0.064	-1.49	-0.14	567
Some college	0.206	(0.406)	0.393	(0.489)	0.187	4.38	0.40	567
College degree	0.212	(0.410)	0.212	(0.409)	0.000	0.00	0.00	567
Employment status								
Employed	0.400	(0.491)	0.559	(0.497)	0.159	3.51	0.32	567
Full-time employment	0.218	(0.414)	0.375	(0.485)	0.158	3.70	0.34	567
Financial status								
Any checking account	0.706	(0.457)	0.854	(0.354)	0.148	4.17	0.38	567
Any savings	0.300	(0.460)	0.300	(0.459)	0.000	-0.01	0.00	567
Household income (in last 12 months)	$19,625	(16,621)	$22,873	(17,778)	$3,247	2.03	0.19	567
Financial Literacy score (out of 3)	1.40	(1.03)	1.49	(0.94)	0.09	1.06	0.10	567
Financial Capability score (out of 7)	2.74	(1.41)	2.50	(1.39)	-0.24	-1.84	-0.17	567
Overall financial knowledge (out of 7)	3.54	(1.74)	3.73	(1.59)	0.19	1.28	0.12	567
Health								
Very good/excellent health	0.524	(0.501)	0.446	(0.498)	-0.078	-1.70	-0.16	567
Miscellaneous								
Has SSN/ITIN	0.224	(0.418)	0.544	(0.499)	0.321	7.35	0.67	567

TABLE A.1. ADMINISTRATIVE CREDIT MATCH SELECTION (CONTINUED)

	Non-match		Match		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	0.241	(0.429)	1.000	0.000	0.759	35.28	3.23	567
Credit score	602.5	(76.7)	594.3	(93.3)	-8.2	-0.55	-0.09	438
Balance in collections	$3,116	(9,886)	$2,605	(4,030)	-$512	-0.64	-0.11	438
Has prime credit score (>=650)	0.317	(0.471)	0.290	(0.454)	-0.027	-0.37	-0.06	438
Has poor credit score (<580)	0.561	(0.502)	0.516	(0.500)	-0.045	-0.54	-0.09	438
Total debt excluding mortgage/auto loans	$4,596	(18,211)	$17,139	(31,395)	$12,543	2.51	0.41	438
Student loan balance	$3,042	(18,030)	$13,681	(30,312)	$10,639	2.21	0.36	438
Credit card balance	$748	(2,670)	$1,740	(4,114)	$993	1.51	0.25	438
Personal installment loan balance	$213	(784)	$1,226	(4,663)	$1,013	1.39	0.23	438
Has a car loan/lease	0.146	(0.358)	0.380	(0.486)	0.234	3.00	0.49	438
Has a mortgage	0.000	0.000	0.086	(0.280)	0.086	1.96	0.32	438
Balance in derogatory accounts	$551	(1,311)	$855	(2,262)	$304	0.85	0.14	438
Joint test of balance (excl. credit attributes)								
F-statistic					8.15			
Pr(> F)					0.000			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample includes individuals who were included in data to be matched to administrative credit data through the 4th quarter following random assignment. Match denotes individuals who linked to a credit record in every quarter of the balanced panel used in analysis. The sample used to construct summary statistics for credit attributes includes individuals who matched to a credit record the quarter before random assignment.

TABLE A.2. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, LINKED CREDIT DATA SAMPLE

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	40.2	(12.3)	40.0	(11.4)	-0.3	-0.22	-0.02	397
Female	0.810	(0.394)	0.808	(0.395)	-0.002	-0.05	0.00	397
Hispanic	0.370	(0.484)	0.433	(0.497)	0.062	1.26	0.13	397
Black, non-Hispanic	0.429	(0.496)	0.409	(0.493)	-0.020	-0.40	-0.04	397
White, non-Hispanic	0.116	(0.322)	0.082	(0.275)	-0.035	-1.16	-0.12	397
Asian	0.032	(0.176)	0.024	(0.154)	-0.008	-0.47	-0.05	397
Other race or multi racial	0.053	(0.224)	0.053	(0.224)	0.000	0.00	0.00	397
Married	0.243	(0.430)	0.327	(0.470)	0.084	1.84	0.18	397
Any children in household	0.603	(0.491)	0.630	(0.484)	0.027	0.54	0.05	397
Single Mother	0.106	(0.308)	0.072	(0.259)	-0.034	-1.18	-0.12	397
Education								
No HS diploma/GED	0.079	(0.271)	0.087	(0.282)	0.007	0.26	0.03	397
HS diploma/GED	0.280	(0.450)	0.341	(0.475)	0.061	1.31	0.13	397
Some college	0.402	(0.492)	0.385	(0.488)	-0.018	-0.36	-0.04	397
College degree	0.238	(0.427)	0.188	(0.391)	-0.051	-1.23	-0.12	397
Employment status								
Employed	0.529	(0.500)	0.587	(0.494)	0.057	1.15	0.12	397
Full-time employment	0.344	(0.476)	0.404	(0.492)	0.060	1.23	0.12	397
Financial status								
Any checking account	0.836	(0.371)	0.870	(0.337)	0.034	0.96	0.10	397
Any savings	0.259	(0.439)	0.337	(0.474)	0.077	1.68	0.17	397
Household income (in last 12 months)	$22,206	(18,021)	$23,478	(17,575)	$1,272	0.71	0.07	397
Financial Literacy score (out of 3)	1.46	(0.99)	1.53	(0.89)	0.07	0.78	0.08	397
Financial Capability score (out of 7)	2.41	(1.36)	2.58	(1.43)	0.17	1.25	0.13	397
Overall financial knowledge (out of 7)	3.84	(1.60)	3.63	(1.58)	-0.21	-1.29	-0.13	397
Health								
Very good/excellent health	0.455	(0.499)	0.438	(0.497)	-0.018	-0.35	-0.04	397
Miscellaneous								
Has SSN/ITIN	0.503	(0.501)	0.582	(0.494)	0.079	1.58	0.16	397

TABLE A.2. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, LINKED CREDIT DATA SAMPLE (CONTINUED)

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	1.000	0.000	1.000	0.000	0.000	.	.	397
Credit score	590.2	(92.1)	598.0	(94.6)	7.8	0.83	0.08	397
Balance in collections	$2,804	(4,105)	$2,424	(3,962)	-$381	-0.94	-0.09	397
Has prime credit score (>=650)	0.280	(0.450)	0.298	(0.459)	0.018	0.39	0.04	397
Has poor credit score (<580)	0.540	(0.500)	0.495	(0.501)	-0.044	-0.88	-0.09	397
Total debt excluding mortgage/auto loans	$17,273	(32,860)	$17,018	(30,081)	-$255	-0.08	-0.01	397
Student loan balance	$13,605	(31,496)	$13,750	(29,270)	$145	0.05	0.00	397
Credit card balance	$1,871	(4,150)	$1,621	(4,088)	-$250	-0.60	-0.06	397
Personal installment loan balance	$1,268	(4,859)	$1,188	(4,489)	-$80	-0.17	-0.02	397
Has a car loan/lease	0.339	(0.474)	0.418	(0.494)	0.080	1.63	0.16	397
Has a mortgage	0.063	(0.244)	0.106	(0.308)	0.042	1.50	0.15	397
Balance in derogatory accounts	$945	(2,645)	$773	(1,849)	-$171	-0.75	-0.08	397
Joint test of balance								
F-statistic					0.94			
Pr(> F)					0.563			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample is restricted to individuals who matched to a credit record in each quarter of the balanced panel.

TABLE A.3. FOLLOW-UP SURVEY RESPONSE SELECTION

	Non-respondent		Respondent		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	40.2	(11.8)	39.5	(11.0)	-0.7	-0.79	-0.06	634
Female	0.788	(0.409)	0.812	(0.391)	0.024	0.75	0.06	634
Hispanic	0.491	(0.501)	0.521	(0.500)	0.030	0.76	0.06	634
Black, non-Hispanic	0.311	(0.464)	0.348	(0.477)	0.037	0.97	0.08	634
White, non-Hispanic	0.099	(0.299)	0.077	(0.267)	-0.022	-0.98	-0.08	634
Asian	0.032	(0.176)	0.014	(0.119)	-0.018	-1.50	-0.12	634
Other race or multi racial	0.067	(0.251)	0.040	(0.196)	-0.027	-1.54	-0.12	634
Married	0.276	(0.448)	0.345	(0.476)	0.069	1.87	0.15	634
Any children in household	0.565	(0.497)	0.652	(0.477)	0.087	2.24	0.18	634
Single Mother	0.071	(0.257)	0.103	(0.304)	0.032	1.41	0.11	634
Education								
No HS diploma/GED	0.152	(0.360)	0.100	(0.300)	-0.052	-1.99	-0.16	634
HS diploma/GED	0.382	(0.487)	0.291	(0.455)	-0.091	-2.43	-0.19	634
Some college	0.258	(0.438)	0.390	(0.489)	0.132	3.55	0.28	634
College degree	0.208	(0.407)	0.219	(0.414)	0.011	0.33	0.03	634
Employment status								
Employed	0.459	(0.499)	0.541	(0.499)	0.082	2.06	0.16	634
Full-time employment	0.283	(0.451)	0.368	(0.483)	0.085	2.26	0.18	634
Financial status								
Any checking account	0.760	(0.428)	0.863	(0.344)	0.104	3.38	0.27	634
Any savings	0.230	(0.421)	0.336	(0.473)	0.107	2.96	0.24	634
Household income (in last 12 months)	$17,598	(16,513)	$21,773	(18,273)	$4,175	2.98	0.24	634
Financial Literacy score (out of 3)	1.36	(0.97)	1.55	(0.95)	0.19	2.42	0.19	634
Financial Capability score (out of 7)	2.56	(1.43)	2.54	(1.36)	-0.02	-0.20	-0.02	634
Overall financial knowledge (out of 7)	3.76	(1.74)	3.66	(1.53)	-0.09	-0.71	-0.06	634
Health								
Very good/excellent health	0.417	(0.494)	0.499	(0.501)	0.082	2.05	0.16	634
Miscellaneous								
Has SSN/ITIN	0.424	(0.495)	0.462	(0.499)	0.038	0.94	0.08	634

TABLE A.3. FOLLOW-UP SURVEY RESPONSE SELECTION (CONTINUED)

	Non-respondent		Respondent		Difference	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(3) - (1) (5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	0.760	(0.428)	0.783	(0.412)	0.024	0.71	0.06	634
Credit score	580.5	(85.7)	608.6	(95.9)	28.1	3.37	0.31	490
Balance in collections	$2,545	(3,924)	$2,512	(5,250)	-$34	-0.08	-0.01	490
Has prime credit score (>=650)	0.247	(0.432)	0.345	(0.476)	0.099	2.38	0.22	490
Has poor credit score (<580)	0.586	(0.494)	0.462	(0.499)	-0.124	-2.75	-0.25	490
Total debt excluding mortgage/auto loans	$11,966	(23,856)	$17,782	(32,787)	$5,816	2.19	0.20	490
Student loan balance	$8,749	(21,983)	$14,178	(32,246)	$5,429	2.11	0.19	490
Credit card balance	$1,376	(3,887)	$1,972	(4,120)	$597	1.63	0.15	490
Personal installment loan balance	$1,249	(5,202)	$1,190	(4,020)	-$59	-0.14	-0.01	490
Has a car loan/lease	0.312	(0.464)	0.404	(0.492)	0.092	2.11	0.19	490
Has a mortgage	0.047	(0.211)	0.102	(0.303)	0.055	2.28	0.21	490
Balance in derogatory accounts	$836	(1,934)	$786	(2,323)	-$51	-0.26	-0.02	490
Joint test of balance (excl. credit attributes)								
F-statistic					2.61			
Pr(> F)					0.000			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample includes individuals all study participants. Respondent denotes individuals who completed the entire follow-up survey. The sample used to construct summary statistics for credit attributes includes individuals who matched to a credit record the quarter before random assignment.

TABLE A.4. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, FOLLOW-UP SURVEY RESPONDENTS

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	38.8	(11.1)	40.1	(10.9)	1.3	1.13	0.12	351
Female	0.782	(0.414)	0.839	(0.369)	0.057	1.36	0.15	351
Hispanic	0.503	(0.502)	0.538	(0.500)	0.035	0.65	0.07	351
Black, non-Hispanic	0.352	(0.479)	0.344	(0.476)	-0.007	-0.15	-0.02	351
White, non-Hispanic	0.079	(0.270)	0.075	(0.265)	-0.004	-0.12	-0.01	351
Asian	0.018	(0.134)	0.011	(0.103)	-0.007	-0.58	-0.06	351
Other race or multi racial	0.048	(0.215)	0.032	(0.177)	-0.016	-0.77	-0.08	351
Married	0.303	(0.461)	0.382	(0.487)	0.079	1.55	0.17	351
Any children in household	0.648	(0.479)	0.656	(0.476)	0.007	0.15	0.02	351
Single Mother	0.127	(0.334)	0.081	(0.273)	-0.047	-1.44	-0.15	351
Education								
No HS diploma/GED	0.097	(0.297)	0.102	(0.304)	0.005	0.16	0.02	351
HS diploma/GED	0.279	(0.450)	0.301	(0.460)	0.022	0.46	0.05	351
Some college	0.406	(0.493)	0.376	(0.486)	-0.030	-0.57	-0.06	351
College degree	0.218	(0.414)	0.220	(0.416)	0.002	0.05	0.01	351
Employment status								
Employed	0.533	(0.500)	0.548	(0.499)	0.015	0.28	0.03	351
Full-time employment	0.333	(0.473)	0.398	(0.491)	0.065	1.25	0.13	351
Financial status								
Any checking account	0.842	(0.365)	0.882	(0.324)	0.039	1.07	0.11	351
Any savings	0.303	(0.461)	0.366	(0.483)	0.063	1.24	0.13	351
Household income (in last 12 months)	$20,817	(17,688)	$22,621	(18,783)	$1,804	0.92	0.10	351
Financial Literacy score (out of 3)	1.51	(0.97)	1.58	(0.94)	0.07	0.70	0.07	351
Financial Capability score (out of 7)	2.47	(1.30)	2.59	(1.41)	0.12	0.81	0.09	351
Overall financial knowledge (out of 7)	3.73	(1.52)	3.61	(1.53)	-0.12	-0.73	-0.08	351
Health								
Very good/excellent health	0.497	(0.502)	0.500	(0.501)	0.003	0.06	0.01	351
Miscellaneous								
Has SSN/ITIN	0.430	(0.497)	0.489	(0.501)	0.059	1.10	0.12	351

TABLE A.4. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, FOLLOW-UP SURVEY RESPONDENTS (CONTINUED)

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	0.764	(0.426)	0.801	(0.400)	0.037	0.85	0.09	351
Credit score	603.4	(93.1)	612.9	(98.2)	9.6	0.82	0.10	275
Balance in collections	$2,989	(6,772)	$2,108	(3,455)	-$881	-1.39	-0.17	275
Has prime credit score (>=650)	0.333	(0.473)	0.356	(0.480)	0.022	0.39	0.05	275
Has poor credit score (<580)	0.476	(0.501)	0.450	(0.499)	-0.027	-0.44	-0.05	275
Total debt excluding mortgage/auto loans	$18,478	(35,910)	$17,193	(30,004)	-$1,285	-0.32	-0.04	275
Student loan balance	$14,749	(35,407)	$13,695	(29,424)	-$1,053	-0.27	-0.03	275
Credit card balance	$2,051	(3,881)	$1,906	(4,324)	-$145	-0.29	-0.04	275
Personal installment loan balance	$1,267	(4,289)	$1,124	(3,791)	-$144	-0.30	-0.04	275
Has a car loan/lease	0.373	(0.486)	0.430	(0.497)	0.057	0.95	0.11	275
Has a mortgage	0.071	(0.259)	0.128	(0.335)	0.056	1.53	0.19	275
Balance in derogatory accounts	$1,073	(3,094)	$543	(1,331)	-$530	-1.89	-0.23	275
Joint test of balance (excl. credit attributes)								
F-statistic					0.81			
Pr(> F)					0.713			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample is restricted to individuals who completed the 12-month follow-up survey.

TABLE A.5. ADMINISTRATIVE EARNINGS MATCH SELECTION

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	39.8	(11.2)	40.7	(12.0)	0.9	0.87	0.08	462
Female	0.824	(0.382)	0.749	(0.435)	-0.075	-1.97	-0.18	462
Hispanic	0.565	(0.497)	0.420	(0.495)	-0.144	-3.11	-0.29	462
Black, non-Hispanic	0.263	(0.441)	0.411	(0.493)	0.148	3.40	0.32	462
White, non-Hispanic	0.090	(0.287)	0.101	(0.303)	0.011	0.41	0.04	462
Asian	0.020	(0.139)	0.024	(0.154)	0.005	0.33	0.03	462
Other race or multi racial	0.063	(0.243)	0.043	(0.204)	-0.019	-0.91	-0.09	462
Married	0.357	(0.480)	0.290	(0.455)	-0.067	-1.53	-0.14	462
Any children in household	0.612	(0.488)	0.556	(0.498)	-0.056	-1.22	-0.11	462
Single Mother	0.098	(0.298)	0.058	(0.234)	-0.040	-1.58	-0.15	462
Education								
No HS diploma/GED	0.149	(0.357)	0.111	(0.315)	-0.038	-1.20	-0.11	462
HS diploma/GED	0.345	(0.476)	0.338	(0.474)	-0.007	-0.16	-0.01	462
Some college	0.259	(0.439)	0.411	(0.493)	0.152	3.50	0.33	462
College degree	0.247	(0.432)	0.140	(0.348)	-0.107	-2.88	-0.27	462
Employment status								
Employed	0.502	(0.501)	0.473	(0.501)	-0.029	-0.61	-0.06	462
Full-time employment	0.298	(0.458)	0.319	(0.467)	0.021	0.48	0.04	462
Financial status								
Any checking account	0.792	(0.407)	0.807	(0.396)	0.015	0.39	0.04	462
Any savings	0.329	(0.471)	0.261	(0.440)	-0.069	-1.60	-0.15	462
Household income (in last 12 months)	$24,752	(17,122)	$23,448	(15,719)	-$1,323	-0.84	-0.08	462
Financial Literacy score (out of 3)	1.46	(1.01)	1.40	(0.89)	-0.06	-0.69	-0.06	462
Financial Capability score (out of 7)	2.64	(1.47)	2.46	(1.32)	-0.18	-1.40	-0.13	462
Overall financial knowledge (out of 7)	3.68	(1.62)	3.59	(1.68)	-0.09	-0.57	-0.05	462
Health								
Very good/excellent health	0.447	(0.498)	0.507	(0.501)	0.060	1.29	0.12	462
Miscellaneous								
Has SSN/ITIN	0.000	0.000	1.000	0.000	1.000	.	.	462

TABLE A.5. ADMINISTRATIVE EARNINGS MATCH SELECTION (CONTINUED)

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	0.663	(0.474)	0.899	(0.303)	0.236	6.21	0.58	462
Credit score	614.6	(90.7)	574.0	(89.3)	-40.6	-4.24	-0.45	355
Balance in collections	$1,696	(3,400)	$3,872	(6,017)	$2,176	4.14	0.44	355
Has prime credit score (>=650)	0.373	(0.485)	0.204	(0.404)	-0.168	-3.57	-0.38	355
Has poor credit score (<580)	0.420	(0.495)	0.624	(0.486)	0.204	3.91	0.42	355
Total debt excluding mortgage/auto loans	$13,758	(27,773)	$15,338	(32,691)	$1,580	0.49	0.05	355
Student loan balance	$10,274	(26,805)	$12,916	(32,143)	$2,642	0.84	0.09	355
Credit card balance	$1,950	(4,168)	$1,113	(3,523)	-$837	-2.05	-0.22	355
Personal installment loan balance	$1,049	(3,613)	$950	(4,415)	-$99	-0.23	-0.02	355
Has a car loan/lease	0.302	(0.460)	0.398	(0.491)	0.096	1.90	0.20	355
Has a mortgage	0.083	(0.276)	0.065	(0.246)	-0.018	-0.66	-0.07	355
Balance in derogatory accounts	$546	(1,474)	$944	(2,121)	$398	2.03	0.22	355
Joint test of balance (excl. credit attributes and SSN indicator)								
F-statistic					2.12			
Pr(> F)					0.003			

Notes: Data come from a baseline survey collected at application and administrative credit attributes from a large credit bureau. The sample includes program applicants with at least four quarters of available post-randomization employment and earnings records. Valid SSN denotes individuals who provided a valid SSN at the time of program application. The sample used to construct summary statistics for credit attributes includes individuals who matched to a credit record the quarter before random assignment.

TABLE A.6. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, ADMINISTRATIVE EARNINGS SAMPLE

	Control		Treatment		Difference (3) - (1)	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(5)	(6)	(7)	(8)
Demographics								
Age	40.7	(12.6)	40.7	(11.5)	0.0	-0.03	0.00	207
Female	0.734	(0.444)	0.761	(0.428)	0.027	0.44	0.06	207
Hispanic	0.426	(0.497)	0.416	(0.495)	-0.010	-0.14	-0.02	207
Black, non-Hispanic	0.426	(0.497)	0.398	(0.492)	-0.027	-0.40	-0.06	207
White, non-Hispanic	0.117	(0.323)	0.088	(0.285)	-0.029	-0.67	-0.09	207
Asian	0.021	(0.145)	0.027	(0.161)	0.005	0.24	0.03	207
Other race or multi racial	0.011	(0.103)	0.071	(0.258)	0.060	2.13	0.30	207
Married	0.298	(0.460)	0.283	(0.453)	-0.015	-0.23	-0.03	207
Any children in household	0.521	(0.502)	0.584	(0.495)	0.063	0.90	0.13	207
Single Mother	0.043	(0.203)	0.071	(0.258)	0.028	0.86	0.12	207
Education								
No HS diploma/GED	0.096	(0.296)	0.124	(0.331)	0.028	0.64	0.09	207
HS diploma/GED	0.362	(0.483)	0.319	(0.468)	-0.043	-0.65	-0.09	207
Some college	0.383	(0.489)	0.434	(0.498)	0.051	0.73	0.10	207
College degree	0.160	(0.368)	0.124	(0.331)	-0.036	-0.73	-0.10	207
Employment status								
Employed	0.383	(0.489)	0.549	(0.500)	0.166	2.40	0.33	207
Full-time employment	0.245	(0.432)	0.381	(0.488)	0.136	2.10	0.29	207
Financial status								
Any checking account	0.734	(0.444)	0.867	(0.341)	0.133	2.44	0.34	207
Any savings	0.213	(0.411)	0.301	(0.461)	0.088	1.44	0.20	207
Household income (in last 12 months)	$21,392	(16,285)	$25,159	(15,092)	$3,766	1.72	0.24	207
Financial Literacy score (out of 3)	1.35	(0.91)	1.44	(0.88)	0.09	0.73	0.10	207
Financial Capability score (out of 7)	2.53	(1.22)	2.40	(1.40)	-0.13	-0.72	-0.10	207
Overall financial knowledge (out of 7)	3.79	(1.68)	3.43	(1.67)	-0.35	-1.51	-0.21	207
Health								
Very good/excellent health	0.500	(0.503)	0.513	(0.502)	0.013	0.19	0.03	207
Miscellaneous								
Has SSN/ITIN	1.000	0.000	1.000	0.000	0.000	.	.	207

TABLE A.6. APPLICANT CHARACTERISTICS AND BASELINE BALANCE, ADMINISTRATIVE EARNINGS SAMPLE (CONTINUED)

	Control		Treatment		Difference	t-stat	Diff./SD	N
	Mean (1)	SD (2)	Mean (3)	SD (4)	(3) - (1) (5)	(6)	(7)	(8)
Credit attributes (1 quarter prior)								
Linked to credit record	0.851	(0.358)	0.938	(0.242)	0.087	2.08	0.29	207
Credit score	560.9	(82.4)	584.0	(93.4)	23.1	1.76	0.26	186
Balance in collections	$4,675	(7,601)	$3,266	(4,411)	-$1,409	-1.59	-0.24	186
Has prime credit score (>=650)	0.175	(0.382)	0.226	(0.420)	0.051	0.86	0.13	186
Has poor credit score (<580)	0.700	(0.461)	0.566	(0.498)	-0.134	-1.87	-0.28	186
Total debt excluding mortgage/auto loans	$17,823	(40,128)	$13,463	(25,751)	-$4,361	-0.90	-0.13	186
Student loan balance	$15,593	(39,917)	$10,896	(24,737)	-$4,697	-0.99	-0.15	186
Credit card balance	$1,090	(3,279)	$1,131	(3,712)	$41	0.08	0.01	186
Personal installment loan balance	$796	(3,331)	$1,067	(5,095)	$270	0.41	0.06	186
Has a car loan/lease	0.325	(0.471)	0.453	(0.500)	0.128	1.77	0.26	186
Has a mortgage	0.050	(0.219)	0.075	(0.265)	0.025	0.70	0.10	186
Balance in derogatory accounts	$1,262	(2,398)	$704	(1,861)	-$558	-1.79	-0.26	186
Joint test of balance (excl. credit attributes)								
F-statistic					1.41			
Pr(> F)					0.117			

Notes: Data come a baseline survey data collected at application and administrative credit attributes from a large credit bureau. The sample is restricted to individuals who provided a valid SSN and have at least four quarters of available post-randomization employment and earnings records. Missing values for the Hispanic indicator and for household income are imputed at the sample mean.

Appendix B. Outcome survey measures included in baseline and follow-up surveys

This appendix section provides additional information about how we measured financial capability and financial literacy in the baseline and follow-up surveys.

Financial capability scale (baseline and follow-up surveys)

These survey questions are drawn from the Financial Capability Scale developed by the Center for Financial Security at the University of Wisconsin (Collins and O'Rourke 2013). We measure an individual's financial capability score using the following questions. Next to each response, we provide the scoring rubric used to construct the scale. Respondents could score a maximum number of 7 points on the scale.

1. **Over the last 3 months, have you followed a personal budget, spending plan, or financial plan?**
   a. Yes (1)
   b. No (0)

2. **How confident are you in your ability to achieve your financial goals?**
   a. Not at all confident (0)
   b. Less than confident (0)
   c. Somewhat confident (1)
   d. Relatively confident (1)
   e. Very confident (2)

3. **Do you have funds set aside that would cover expenses for 3 months if you or someone in your family lost a job, got sick, or had another emergency?**
   a. Yes (1)
   b. No (0)

4. **In the last 3 months, did you use an automatic deposit or electronic transfer to put money away for a future use such as saving for retirement or education?**
   a. Yes (1)
   b. No (0)

5. **Over the past 3 months, was your household's spending on living expenses less than, more than, or about equal to your total income? Please do not include large purchases like a house or car.**
   a. Less than (1)
   b. More than (0)
   c. Equal to (0)

6. **Have you paid a late fee on a loan or bill in the last three months?**
   a. Yes (0)
   b. No (1)

Self-assessed financial knowledge (baseline and follow-up surveys)

This survey question is drawn from the National Financial Capability Study (Algood and Walstad 2015).

1. **On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?**
   a. 1 – Very low
   b. 2
   c. 3
   d. 4
   e. 5
   f. 6
   g. 7 – Very high

Financial literacy (baseline survey)

These questions come from the "Big 3" designed by Lusardi and Mitchell (2007). Beside each response, we denote the correct answer with an asterisk.

1. **Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?**
   a. More than $102*
   b. Exactly $102
   c. Less than $102
   d. Don't know
2. **Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?**
   a. More than today
   b. Exactly the same
   c. Less than today*
   d. Don't know
3. **Do you think the following statement is true or false? Buying a single company's stock usually provides a safer return than a stock mutual fund.**
   a. True
   b. False*
   c. Don't know

Financial literacy (follow-up survey)

We adapted the financial literacy questions for the follow-up survey to measure the type of information coaches worked with clients to learn. The first two questions come from the "Big 3" designed by Lusardi and Mitchell (2007). The remaining questions were created to measure the respondent's understanding of interest-bearing accounts, the cost of different types of credit, how to reduce interest payments, and what mainly determines one's credit score. Beside each response, we denote the correct answer with an asterisk.

1. **Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?**
   a. More than $102*
   b. Exactly $102
   c. Less than $102
   d. Don't know

2. **Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?**
   a. More than today
   b. Exactly the same
   c. Less than today*
   d. Don't know

3. **Suppose you had an extra $100 to put towards paying off debt. Please rank which type of debt you should prioritize (from 1 (most important) to 4 (least important)):**
   a. Payday loans *(1)*
   b. Credit card debt *(2)*
   c. Student loans *(3)*
   d. Home loans *(4)*

4. **What is the most important factor in determining your credit score?**
   a. Past score (your past credit score)
   b. Payment history (paying your full balances on time every month)*
   c. Number of accounts (number of credit card accounts and loans)
   d. Type of accounts (type of credit card accounts and loans)
   e. Family size (number of people in your family)
   f. Utilization rate (percentage of credit used vs. percentage of credit available)

5. **When paying off debt, like credit card debt, which of the following payment strategies results in you paying the least amount of total interest?**
   a. Paying only the minimum payment required
   b. Paying half of the balance
   c. Paying the full balance due*
   d. Don't know

6. Which types of accounts typically pay you the highest interest on your savings? Select all that apply.

a. Overdraft account
b. Checking account
c. Savings account* *(1 point if either was selected)*
d. Money market account* *(1 point if either was selected)*
e. Don't know

About the authors

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He earned a BS degree in Economics from the United States Military Academy at West Point, an MS degree in Management Science and Engineering from Stanford University, an MA degree in International Policy from Stanford, and a PhD in Public Policy from Harvard University. Prior to arriving at William & Mary, Dr. Skimmyhorn was a career military officer in the U.S. Army as an aviator and an economist.

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