The NFCC's
Sharpen Your Financial Focus® Initiative
Impact Evaluation

Final Report

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This report has been prepared as part of an evaluation of the Sharpen Your Financial Focus® program, which is being conducted by researchers at The Ohio State University for the National Foundation for Credit Counseling®.

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Executive Summary

This report presents the results of an evaluation of the National Foundation for Credit Counseling's (NFCC) Sharpen Your Financial Focus® initiative, launched by the NFCC in 2013. It develops a profile of clients participating in the Sharpen initiative, presents findings from a client survey, and explores credit outcomes for Sharpen clients over the first eighteen months of the program. This research is guided primarily by six questions:

(1) What are the demographic and financial characteristics of Sharpen Your Financial Focus® clients?
(2) Why do Sharpen clients report seeking counseling services?
(3) What financial behaviors do Sharpen clients display at the time of counseling?
(4) What changes do Sharpen clients report after counseling?
(5) How does the credit profile of Sharpen clients change after counseling?
(6) What is the impact of the Sharpen program on client credit outcomes?

To address these questions, the evaluation leverages a number of data sources including administrative data from credit counseling agencies participating in the Sharpen program, data from an online financial self-assessment, survey data measuring client behaviors three months after counseling, and quarterly credit data for both a subset of Sharpen clients and a matched comparison group of non-counseled individuals.

Background

Founded in 1951, the NFCC is an umbrella membership organization representing more than 70 affiliate nonprofit financial and credit counseling agencies nationwide. Since 2008, NFCC members have provided quality financial counseling and education services to over 15 million clients. Member agencies employ trained and certified professional counselors who provide financial counseling and education, and money management skills training in order to help clients make sound financial decisions.

Sharpen Your Financial Focus® is a nationwide financial education initiative aimed at assisting American consumers in stabilizing their personal financial situations. The Sharpen initiative builds upon and enhances the standard counseling model implemented by NFCC affiliate agencies. Specifically, credit counseling offered by affiliate agencies via the Sharpen initiative incorporates three major steps: (1) MyMoneyCheckUp®: An online financial stress test aimed at increasing clients' awareness of their own financial activities and overall financial health in the areas of budgeting, borrowing, saving, housing, and retirement; (2) a financial review with an NFCC-certified financial counselor to assess clients' individual financial situations, and to help clients establish goals and action plans; and (3) a targeted education or "Deep Dive" intervention that provides additional information on a financial area of interest to the client and can include in-person workshops, one-on-one education sessions, or financial coaching.

In addition to the core Sharpen services, agencies may also recommend that clients enroll in a debt management plan. Under a debt management plan, the credit counseling agency attempts to negotiate a payment arrangement with the client's creditors to get their debt payments, interest rates, and fees down to a level manageable by the household and also consolidates multiple debt payments into one payment made by the client to the counseling agency. Figure A1 below presents a logic model for Sharpen Your Financial Focus®, outlining the relationship between the program's services and client outcomes.

Figure A1: Sharpen Your Financial Focus® Logic Model

Inputs

- **National Foundation for Credit Counseling**
  - Member agency support
  - Program funding
  - Marketing and communications
  - Funder coordination
  - Program infrastructure
- **Member Agencies**
  - Implement Sharpen program
  - Market to clients
  - Provide additional program support

Sharpen Your Financial Focus® Program Outputs

- **MyMoneyCheckUp® assessment**
  - Shows areas of financial strength and weakness for clients
  - Offers guidance on improving financial well-being
- **Targeted financial education and counseling**
  - Provides information on financial areas of interest to the client, such as the home buying process
  - Provides individualized assistance with financial decisions, such as avoiding foreclosure or manging student loan debt
  - Teaches general financial skills and concepts
- **Budget counseling session**
  - Reviews household income and expenses
  - Develops action plan to strengthen client financial circumstances
- **DMP enrollment**
  - Provides intermediary between clients and creditors
  - Consolidates payments
  - Improves interest rates

Client Short-Term Outcomes (Knowledge and Ability)

- Increased financial knowledge including costs/benefits of financial choices
- Ability to develop a budget
- Increased awareness of healthy and unhealthy financial behaviors, and of the client's financial state
- Improved awareness of financial products and options
- Increased financial confidence, including confidence in interactions with financial institutions
- Improved ability to afford debt payments
- Development of financial goals

Client Intermediate Outcomes (Behavioral Changes)

- Selecting lower cost lenders
- Paying down debt more quickly
- Taking on less debt
- Making payments on time
- Contributing to savings account
- Making progress toward financial goals

Client Long-Term Outcomes (Financial Wellness and Creditworthiness)

- Access to more financial products
- Access to financial products at improved terms
- Increased liquidity/access to borrowing when needed
- Lower debt levels
- Less financial stress
- Increased resilience to financial shocks
- Improved relationship with financial institutions
- Improved credit score

Moderating influences: Levels of funding, mode of service delivery (phone/online/in-person), DMP enrollment rates, availability of targeted education sessions

Moderating influences: Propensity for clients to face income/expense shocks, income levels, demographics, motivation, financial characteristics (income, debt, etc.)

Key Findings

What are the demographic and financial characteristics of Sharpen Your Financial Focus® clients?

- *Gender, age, and race:* Sixty-three percent of Sharpen clients are female, with an average age of 43. Two-thirds of participants are white, while about one-fifth are black.

- *Education:* Sharpen clients tend to be relatively well-educated, with almost two-thirds of clients reporting some education beyond high school (20 percent have a two-year degree or technical degree, 30 percent have a bachelor’s degree and an additional 11 percent have some sort of graduate degree). Only two percent of clients report not completing high school.

- *Household characteristics:* Thirty-five percent of clients are single, while 42 percent are married or living with a partner, and 20 percent are either separated or divorced. The median Sharpen household size is two, and the majority of Sharpen clients (58 percent) report having no children under the age of 18. Forty-one percent of households either own their home or are in the process of buying one, while 46 percent rent. An additional 13 percent have “other” homeownership status, which may include situations like clients living at home with their parents or other relatives.

- *Military background:* Seven percent of Sharpen clients have some sort of military background (excluding military dependents), a number likely driven in part by specific efforts on the part of NFCC member agencies to reach out to military populations.

- *Financial Characteristics:* Table A1 outlines the financial characteristics of Sharpen clients. The median Sharpen client reports having around $2,800 in monthly income, $10,000 in non-liquid assets such as housing equity, and zero dollars in savings, while the median level of monthly housing and debt-related expenses are around $910 and $1,000, respectively. The savings levels of Sharpen clients are of particular concern, as almost three-fourths of Sharpen clients report having no savings whatsoever.

Table A1: Client Financials

	Average	Median
Average monthly income	$3,406	$2,820
Monthly housing expenses	$1,080	$909
Monthly debt-related expenses	$1,345	$1,031
Tangible assets	$76,551	$10,000
Savings	$1,189	$0

n=43,072

Approximately five percent of clients did not have data available for certain indicators, because either they refused to answer or the indicator was missing. This number varies slightly depending on the indicator in question.
Source: NFCC Administrative Data

Why do Sharpen clients report seeking counseling services?

As shown in Table A2, a strong majority of clients (63 percent) report seeking counseling because they faced a reduction in income, much of which is driven by a change in a client's employment situation. Almost 30 percent report seeking counseling because they face increased expenses due largely to medical expense increases or an increase in debt payments via increased interest rates. Thirty-one percent of clients report seeking counseling for some other reason, with the most prominent reason being that they had poor credit standing.

Table A2: Reason for Seeking Counseling†

	#	%
Reduced income	**27,258**	**63%**
Un/underemployment	14,548	34%
Domestic conflict	3,823	9%
Other	8,887	21%
Increased expenses	**12,332**	**29%**
Medical/Disability expenses	4,094	10%
Creditors increased interest rates	1,869	4%
Costs of death in family	315	1%
Paying off gambling debt	88	0.2%
Addiction/substance abuse	176	0.4%
Increased family size	1,350	3%
Other	4,440	10%
Other reasons	**13,318**	**31%**
Bad credit	3,090	7%
Previous bad experience	646	1%
Haven't established a credit history	299	1%
Credit problems of ex-spouse	250	1%
Identity theft/fraud	126	0.3%
Error in credit report	89	0.2%
Discrimination	12	0.0%
Other	8,806	20%

n=43,072

†Respondents could select multiple reasons for seeking counseling. Approximately five percent of clients did not have data available for certain indicators, because either they refused to answer or the indicator was missing. This number varies slightly depending on the indicator in question.

Source: NFCC Administrative Data

What financial behaviors do Sharpen clients display at the time of counseling?

A review of Sharpen clients' financial behaviors prior to seeking counseling reveals that these clients have many areas of financial concern. Clients' budgeting behavior is relatively inconsistent (only about a third keep a budget and only 60 percent of those keeping a budget report following it "most of the time"), and only a fourth of clients are actively saving money. Two-thirds of clients report owning a credit card and of these clients, 20 percent of clients report *using* no credit cards regularly while 24 percent report using a single credit card regularly. The remaining 56 percent of clients report regularly using more than one credit card, with 21 percent reporting that they regularly use five or more credit cards.

There is some indication that clients are at risk of falling behind on their debt payments, as 30 percent report that they paid less than the minimum amount due on their last credit card (or paid a late fee with the minimum payment), while an additional 41 percent only report paying the minimum amount due. This leaves a minority of clients with credit cards who report that they are paying more than the minimum amount due. Three-fourths of Sharpen clients have credit card debt and majority of clients report receiving calls from bill collectors, which is a concrete indicator of financial distress.

Tables A3 and A4 outline the savings and borrowing behaviors of Sharpen clients.

Table A3: Client Savings Behaviors

Are you currently saving money?	
Yes	25%
No	75%
Over the past year have you saved…†	
Less than usual	35%
About the same as usual	35%
More than usual	30%
Are you currently saving money via automatic deductions?	
Yes	17%
No	83%
Aside from automatic payments, I set money aside for savings…	
Never	48%
Once a year (tax time, bonuses, etc.)	10%
Not often (only if you have extra money)	29%
Frequently	14%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked only for those who are currently saving money.

Table A4: Household Borrowing Behaviors

Do you have a credit card?	
Yes	66%
No	34%
About how many cards do you regularly use?†	
0	20%
1	24%
2	16%
3	11%
4	7%
5+	21%
What did you do the last time you got your credit card bill?†	
Didn't pay anything	19%
Paid less than the minimum amount due	7%
Paid the minimum amount due plus a late fee	4%
Paid the minimum amount due	41%
Paid more than the minimum amount due	23%
Paid the entire balance in full	6%
Have you received a call from a bill collector?	
No	39%
Yes, once	11%
Yes, more than once	50%
Have you recently taken a payday loan?	
Yes	10%
No	90%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked only for those with credit cards.

What changes do counseling clients report after counseling?

The NFCC administered a follow-up survey to clients receiving services through Sharpen three months after their enrollment. Even at this short duration of time since counseling, Table A5 shows that Sharpen clients generally report improvements in their financial behaviors. Notably, almost two-thirds of clients report “better managing their money,” and two-thirds also assert that the program improved their “overall financial confidence” and “helped them set financial goals.” Further, nearly three-fourths of responding clients claim to “pay their debts more consistently,” while over 40 percent have “ordered or viewed their credit report.”[3] Less positively, almost 30 percent of clients still report “paying late fees” on their payments.

[3] This is likely due in part to the fact that participation in the Sharpen program initially included an offering of a free, one-year subscription to freecreditscore.com. In May of 2015 membership in freecreditscore.com converted to membership in Experian Credit Tracker℠. This product was offered through September 11, 2015. Both products allowed participants to view their Experian credit report.

Table A5: Self-Reported Changes in Financial Behaviors

Post-Counseling Behavior	**% Answering Yes**
Better Manage Money	67%
Ordered/Viewed Credit Report	42%
Saving Money	45%
Paid Late Fees	37%
Took Out Payday Loans	5%
Improved Overall Confidence	70%
Set Financial Goals	68%
Pay Debt More Consistently	73%
Respondents	*777*

This table measures the percent of respondents answering "Yes" to a variety of survey questions asked three months after their Sharpen Your Financial Focus® counseling session.

Source: NFCC Post-Counseling Survey

On the survey, clients were also asked about the changes in their financial conditions three months after counseling. A strong majority of survey respondents are in a similar employment position as they were during the Sharpen program, with 20 percent of respondents reporting that their situation has improved three months after the time of counseling and seven percent reporting that it has worsened (73 percent report that their employment situation is unchanged). Given the relative stability of the employment situation for these clients, it is unsurprising that two-thirds report that their available income has stayed the same while a fifth report that it has increased.

Around half of survey respondents report a decrease in credit card debt three months after counseling while only nine percent report an increase. However, most respondents have not really changed their savings behavior (almost as many report a decrease in savings as report an increase). While this may be evidence that the program is better at changing debt behaviors than savings behaviors, it could also capture clients shifting their focus toward paying down debt and away from building savings.

Another intended outcome of the Sharpen initiative is increased confidence in a client's ability to work with financial institutions, and thus increased trust in traditional financial institutions. Clients who are struggling to pay their bills may turn to higher cost sources of liquidity (e.g., payday loans, pawn shops), and may lack confidence or trust in traditional financial institutions. Only three months after counseling, about one in four participants report that the Sharpen initiative has increased their trust in financial institutions, and about one-fifth of participants report that they have higher quality interactions with financial institutions after participation in Sharpen.

<u>How does the credit profile of Sharpen clients change after counseling?</u>

This section traces how select credit indicators evolve for 8,963 credit counseling clients since the time of their participation in the Sharpen initiative. This component of the analysis is descriptive and is not intended to estimate the impact of the Sharpen program on client outcomes; the next section of this summary provides the results of the impact evaluation for the subset of clients who were able to be matched to a non-counseled individual. These results also detail these indicators for clients in the bottom quartile of the credit score distribution at baseline—a group of clients who are presumably most "at risk" at the time of counseling.

Debt levels

Table A6 shows that there is a substantial decline in the amount of debt held by clients post-enrollment. The average decrease in total debt across all clients is around $17,000 while the average decrease in total revolving debt is about $8,000, and the average decrease in open revolving debt is close to $7,600. For clients in the bottom quarter of the credit score distribution at baseline, the reduction in total debt is around $15,000, while the average decrease in total revolving debt is around $7,000 and the decrease in open revolving debt is around $4,600.

Table A6: Change in Debt Levels Over the Evaluation Period

	Pre-Counseling Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fifth Quarter	Sixth Quarter
Total Debt							
25th Credit Percentile	$72,093	$70,733	$68,838	$65,283	$62,390	$59,678	$57,228
All Clients	$107,709	$106,787	$104,667	$99,354	$95,836	$93,199	$90,625
Total Revolving Debt							
25th Credit Percentile	$11,940	$10,778	$8,587	$6,815	$6,078	$5,383	$4,999
All Clients	$20,610	$20,071	$18,482	$16,014	$14,310	$13,274	$12,576
Open Revolving Debt							
25th Credit Percentile	$6,546	$4,284	$3,263	$2,646	$2,392	$2,140	$1,949
All Clients	$13,307	$10,694	$8,271	$7,064	$6,475	$6,012	$5,672

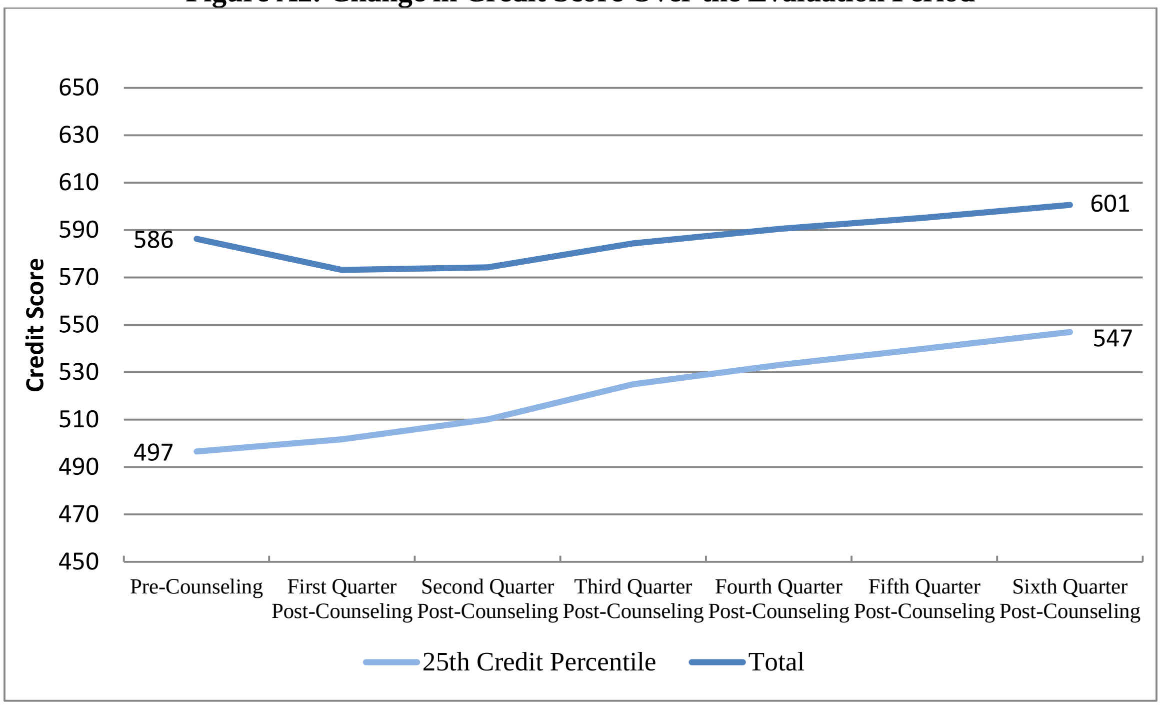
n=8,963

Source: Credit Attributes Data

Change in credit scores

The average credit score for the full sample increases by 14 points one and a half years after their enrollment in Sharpen. The score increases more substantially for clients towards the bottom of the credit score distribution, increasing by 50 points for those in the bottom quartile of credit scores at baseline. The trends in these two groups also differ, as can be seen in Figure A2. For the average Sharpen client, the trend indicates a declining credit score around the time of enrollment, followed by a recovery and eventual increase. This drop in credit score is likely driven by counseling clients' propensity to experience an income or expense shock around the time they enter counseling; a large majority of clients identify these shocks as a motivating factor in their seeking counseling. These shocks potentially inhibit clients' ability to manage their debt payments, leading to a spike in payment delinquencies (as shown in Figure A3 below) and a subsequent decline in credit scores. After these shocks subside, credit scores appear relatively slow to recover, potentially due to the lagged nature of credit scores. For clients in the bottom credit score quartile, the credit score is increasing across all periods, indicating that relatively distressed clients either do not experience such an income or expense shock or experienced their shock further back in time.

Figure A2: Change in Credit Score Over the Evaluation Period

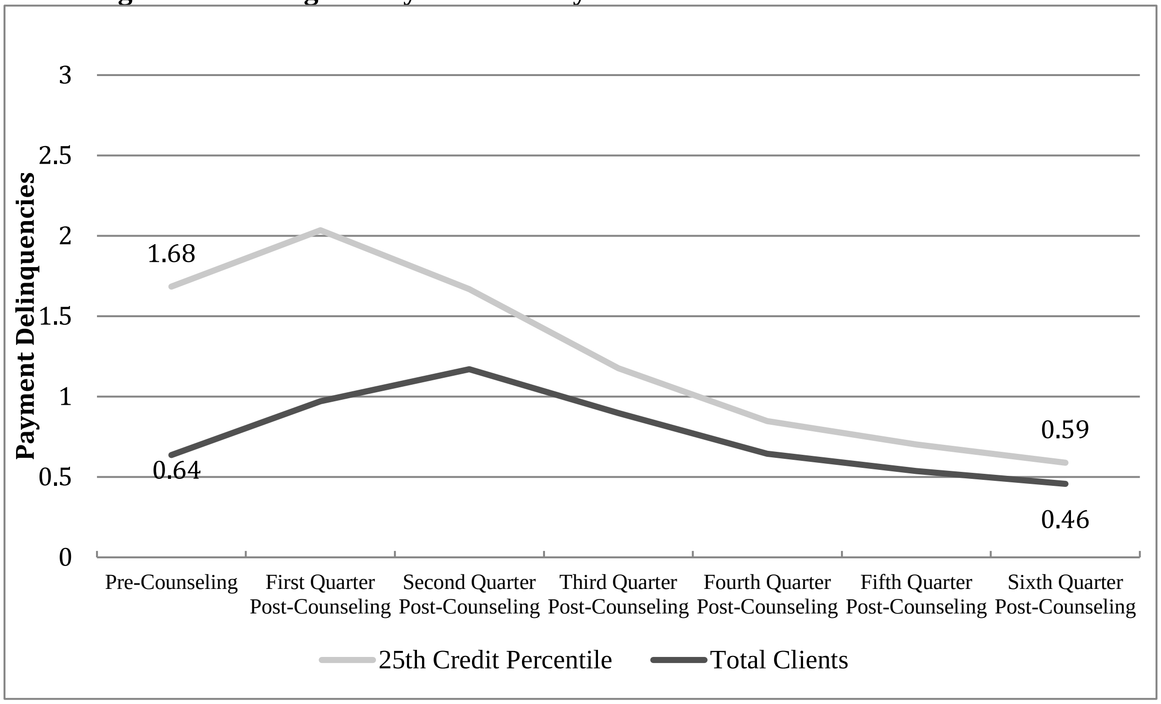


n=8,963
Source: Credit Attributes Data

Delinquent payments

The metric used to measure payment delinquencies here is the number of tradelines on a client's credit file that are 60 days or more past due in the last six months. The average decline in delinquent payments is about 0.18 for all clients and 1.13 for those in the bottom quartile of the credit score distribution at baseline. The trend in payment delinquencies can be seen in Figure A3. On this metric, an inverse pattern to that of the credit score trend develops: The average client experiences a sharp increase in payment delinquencies, followed by a steady decline through the end of the evaluation period.

Figure A3: Change in Payments 60 Days Past Due Over the Evaluation Period



n=8,963
Source: Credit Attributes Data

What is the impact of credit counseling on client credit outcomes?

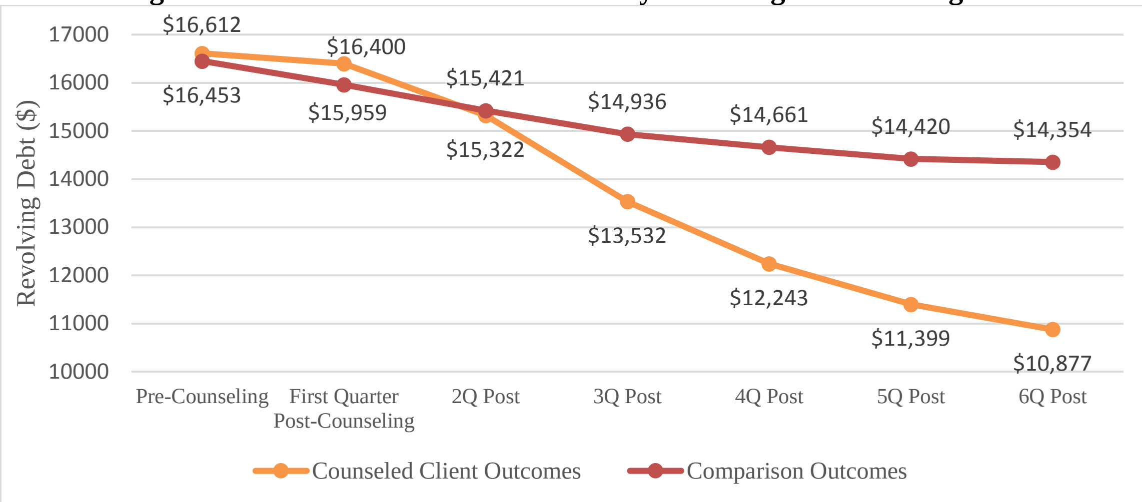
Whereas the prior descriptive analysis provides the absolute change for outcome indicators, this section estimates the impact of the Sharpen initiative by comparing client outcomes to those of a non-counseled comparison group. Using a matching procedure, 6,094 Sharpen clients are matched to a comparison group of 6,005 non-counseled individuals. Outcomes for the two groups are measured on a quarterly basis from the quarter prior to counseling through six quarters post-counseling; this is known as a differences-in-differences approach. The impact of counseling is estimated using a fixed effects panel regression. This section summarizes the impact of counseling on debt levels, available liquidity, and credit scores.

Revolving debt and total debt

Relative to the comparison group, Sharpen clients make significant reductions in their debt balances after counseling. Specifically, Sharpen clients have reductions in both total debt and revolving debt relative to the matched comparison group. Figures A4 and A5 track the trends in revolving and total debt for the two groups. For both total debt and revolving debt, the counseling and comparison groups have similar trajectories through the first post-counseling quarter, but in subsequent quarters the counseling group exhibits substantial declines in their debt levels relative to the comparison group; these declines continue through the end of the evaluation period.

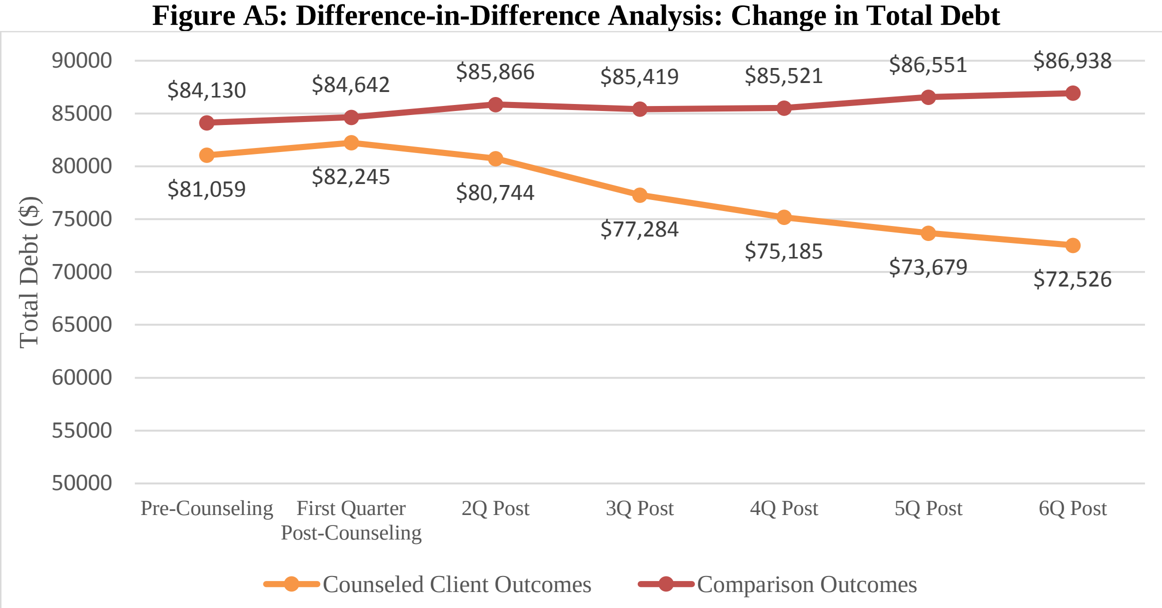
In total, Sharpen clients reduce their revolving debt by $5,735 while the comparison group reduces their debt by $2,098, a relative difference of $3,637 ($p<0.01$). Similarly, Sharpen clients reduce their total debt by $8,532 while the comparison group *increases* their total debt by $2,809, a relative difference of $11,341 ($p<0.01$). These reductions hold even when accounting for client bankruptcies, foreclosures, debt charge-offs, or participation in a debt management plan (DMP). Clients participating in DMPs experience even greater reductions in debt balances relative to the comparison group than those not enrolled in DMPs.

Figure A4: Difference-in-Difference Analysis: Change in Revolving Debt



n=12,099
Source: Credit Attributes Data

Figure A5: Difference-in-Difference Analysis: Change in Total Debt

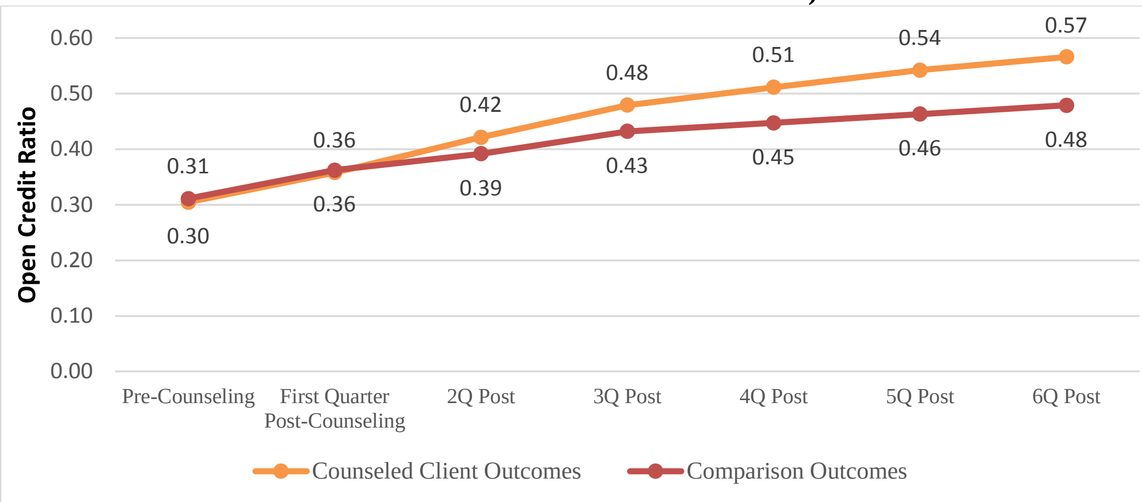


n=12,099
Source: Credit Attributes Data

Available liquidity

Sharpen clients' available credit (as a percent of their revolving credit limit) increases post-counseling at a significantly higher rate than for the comparison group, indicative of improved borrowing capacity. Figure A6 traces the differences in available liquidity for counseling and comparison group individuals who had any credit or debt prior to counseling and shows that the ratio of available credit for counseled clients grows at a higher rate than the comparison group after the first post-counseling quarter. By the end of the evaluation period, counseling clients have an available liquidity ratio of 0.57 compared to 0.48 for the comparison group ($p<0.01$).

Figure A6: Difference-in-Difference Analysis: Change in Available Open Credit Ratio (For Those with Credit or Debt at Baseline)



n=9,008
Source: Credit Attributes Data

Credit Score

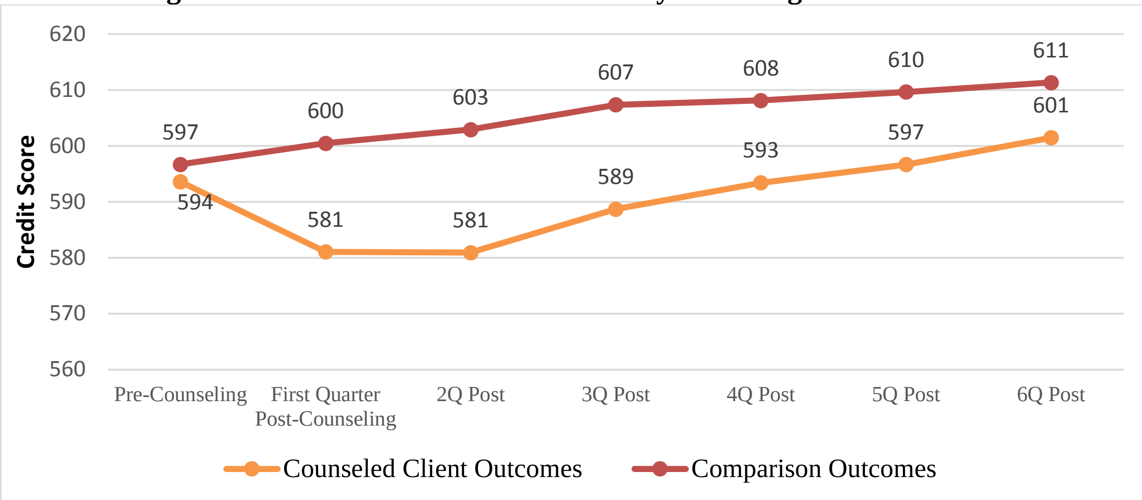
The results indicate that Sharpen clients enter the counseling program at times of substantial financial distress, as demonstrated by higher rates of account delinquencies and declines in credit scores around the time of counseling. This is corroborated by administrative data tracking the reasons clients give for entering counseling, in which they frequently indicate seeking counseling because of job loss or an unexpected increase in expenses (see Table A2). After the initial decline in credit outcomes at the time of counseling, clients' credit scores and debt payment behaviors return to their pre-counseling levels about one year after counseling and begin to exceed their pre-counseling levels by the end of the evaluation period. Though credit scores increase for counseling clients over the study period, due to the initial shock their credit scores are still lower than the comparison group's six quarters after counseling.

Figure A7 traces the credit outcomes for both groups. The counseling group's credit scores increase more rapidly than the comparison group in later quarters, with an average increase of 5 points during the 18 month period following counseling.[4] However, the difference in the change in credit scores is 6.8 points lower for the counseling group than the comparison group ($p<0.01$),

[4] This overall increase is less than the overall increase seen in credit scores for the full sample (a 14-point increase) described in the previous section. This may be due to the fact that the matching procedure excluded some of the most financially-distressed individuals who could not be matched to a non-counseled individual; these extremely distressed clients may demonstrate greater post-counseling improvements in their profile than those who could be matched for this analysis.

primarily because the comparison group does not undergo a decrease in credit score during the observation period. It is important to emphasize that this evaluation only tracks credit data for 18 months after counseling. Credit scores tend to be sticky, and take time to recover after a shock.

Figure A7: Difference-in-Difference Analysis: Change in Credit Score



n=11,837
Source: Credit Attributes Data

Conclusion

Overall, the results presented in this evaluation indicate that Sharpen Your Financial Focus® clients are entering the counseling program at times of substantial financial distress. Clients report entering counseling because they have experienced job losses or unforeseen expenses, and this reality impacts the conclusions drawn about the program's impact on clients. There is evidence from the clients themselves that Sharpen has improved their financial state, as they report having less credit card debt, managing their finances better, paying their debts more consistently, and having more financial confidence three months after participating in the program.

There is also evidence that clients' credit scores are returning to their pre-counseling levels; after an initial drop, their credit scores recover by a year after counseling and their debt payment delinquencies return to baseline levels around this same time period. While the exact cause of the recovery is difficult to isolate, there is evidence to suggest that credit counseling helps clients make significant improvements in their debt situations. Undergoing counseling is associated with closing open revolving debt accounts and reductions in both total debt and revolving debt. These reductions hold even after accounting for client bankruptcies, foreclosures, or charge-offs, and persist regardless of whether clients were recommended for debt management programs.

While this analysis has focused on the credit outcomes for counseling clients going through the core Sharpen Your Financial Focus® program, additional program innovations are currently being developed and administered by NFCC member agencies. These innovations include tailored programs targeting key populations who can benefit from counseling (such as student loan borrowers) and a randomized, control trial of an automated reminder program which uses text- and email-based messages to help clients keep track of their financial obligations and to remind them of the financial goals they set during their counseling sessions. The details and results of these program innovations will be available in future releases from the NFCC.

I. Credit Counseling Background

Consumer credit counseling began in the 1950s, offering services to households experiencing financial distress, desiring to improve their overall credit profiles or in the process of making important financial decisions (e.g., home purchase). Nonprofit credit counseling agencies generally focus their services in three different areas: Education, counseling, and debt management (Loonin & Plunkett, 2003; Samuelson & Stiller, 2012). Educational programming informs consumers about core financial issues such as general money management, credit, or debt, and may also provide customized information about decisions at specific life stages (i.e. teaching high school students about using their first credit card, assisting first-time homebuyers through the purchase process, or informing senior citizens about potential fraudulent schemes or reverse mortgages).

The counseling aspect of these agencies helps consumers better understand their financial situation, in part by looking at the inflows and outflows of money to a household, and helping them make informed decisions (such as reducing expenses, liquidating assets, or closing existing credit accounts) about their spending habits and how it might impact their financial health or short and long-term goals. For example, nonprofit counseling agencies help consumers navigate the complexities of housing finance through housing counseling. Following the financial crisis, housing counselors helped millions of families identify a sustainable solution to stay in their home, while helping others through a graceful exit of their mortgage. Housing counseling can also serve as an important tool for first time homebuyers.

Debt management is the final major element of credit counseling services, including the administration of a debt management plan (DMP), which may be recommended to clients as a result of counseling. Under a DMP, the credit counseling agency works closely with the client to resolve debt issues by negotiating a payment arrangement with the client's creditors to get their debt payments, interest rates, and fees down to a level manageable by the client, allowing them to repay the full principal balance owed. In exchange, consumers agree to stop incurring credit charges, close out unnecessary credit accounts, and make the necessary changes to their budget so they may live within their means.

Nonprofit credit counseling agencies have a substantial client base in the United States, but one that is highly variable and unsurprisingly dependent on the overall state of the economy. While there is consistent need for proactive financial management resources and credit counseling, high unemployment or economic uncertainty leads to increased demand for these services. In terms of overall reach, non-profit credit counseling agencies have provided services to between 1.5 and two million clients in 2013 and 2014, and at the height of the recession these agencies serviced around four million clients in a year (NFCC.org, 2015; Keating, 2012).

II. What We Know About Credit Counseling Initiatives

Generally speaking, there has not been a large amount of research on credit counseling initiatives, and even less research tying credit counseling initiatives to objective indicators of financial health. Despite the relatively limited array of work in this area, there are several existing streams of literature to draw from in order to understand how credit counseling services may impact overall financial behaviors and short- and long-term outcomes. This section will provide a review of credit counseling and related research.

A. The Credit Counseling Research Literature

There are a few studies measuring the outcomes of credit counseling. Kim, Garman, and Sorhaindo (2003) use pre- and post-counseling surveys and find that while enrollment in a credit counseling program has no direct effect on financial behaviors, credit counseling participants do have a lower propensity to experience future financial stressor events like collection calls or foreclosures, and that those who remain active in DMPs have better self-assessed financial outcomes than those who do not. Bagwell (2000) uses a similar research design and finds that credit counseling participants report improved financial behaviors post-counseling relative to their pre-counseling behaviors, and also show improvements in financial stress levels one year after counseling. Barron and Staten (2011) do not test the overall impacts of credit counseling, but rather explore the relative effectiveness of "technology-assisted" counseling (counseling done over the phone or online) versus in-person counseling, and find few differences between the modes of delivery on client outcomes. While these studies can provide descriptive insights, they lack a non-counseled group against which to compare the outcomes of credit counseling clients—which is necessary for evaluating a program's impact.

One exception is a study on credit counseling conducted by Elliehausen, Lundquist, & Staten (2007). Using credit bureau data, Elliehausen, Lundquist and Staten (2007) construct a comparison dataset of consumers who did not receive credit counseling, and match these non-counseled individuals to an otherwise similar sample of consumers receiving credit counseling from NFCC member agencies in 1997. They employ a two-stage least squares model to first predict selection into the credit counseling program, and then use a selection-corrected model to predict the impact of the receipt of counseling on an array of credit indicators. While they find that the impact on credit scores is relatively minimal once selection is taken into account, they do find positive impacts from credit counseling on debt levels, accounts held, and bank card use (as well as more general positive effects for those with the weakest credit profiles prior to counseling). Despite its strengths relative to other existing analyses, the Elliehausen, Lundquist, and Staten (2007) study does not account for debt reductions stemming from charge-offs or bankruptcies (rather than client or program-driven debt reductions), and does not investigate the differences between DMP participants and those not recommended into DMP plans. Further, the study of outcomes is limited to one point in time: three years after the initial counseling session, relative to the baseline pre-counseling period. This does not allow for the investigation of dynamic patterns in credit changes over time.

Outside of analyses of credit counseling outcomes, work has also been done on the nature of individuals who seek credit counseling. In a series of in-depth interviews with counseling clients and counselors themselves, Wang (2010) presents two narratives underpinning the decision to seek credit counseling. The first is that clients find themselves in an ever-worsening cycle of debt from overconsumption. These individuals take on debt to finance luxuries or other items they feel will help maintain their self-image or status, even if they cannot afford them. This leads to high amounts of debt and unsustainable debt payments, sometimes accompanied by less favorable borrowing terms which exacerbate their debt problem. The other narrative for credit counseling clients is that of the person driven into debt by some income or expense shock. Rather than using credit cards to finance conspicuous consumption, these individuals take on credit card debt in response to job losses, divorce, unanticipated health problems and the associated medical bills, or other unforeseen issues.

Aside from research on credit counseling, there is a larger body of literature on targeted education or counseling programs such as pre- or post-purchase homeownership counseling.[5] Results from these targeted programs are mixed, with some studies showing positive and significant improvements on indicators such as mortgage default (Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanoff, 2010; Ding, Quercia, & Ratcliffe, 2008; Hartarska & Gonzalez-Vega, 2005), and other studies showing only limited changes in client outcomes (Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanonff, 2009; Quercia & Spader, 2008;Temkin, Mayer, Calhoun & Tatian, 2014; Mayer, Neil & Temkin, 2013). For example, an evaluation of a national foreclosure mitigation program found that counseled borrowers were more likely to receive a loan modification and were less likely to re-default on their mortgages (Temkin, Mayer, Calhoun & Tatian, 2014). One study of a national pre-purchase counseling program found that counseled homebuyers were one-third less likely to become 90+ days delinquent within two years of receiving their loan (Mayer, Neil & Temkin, 2013). There have also been evaluations of general financial inclusion initiatives that include a counseling component. For example, one study found that providing financial counseling to consumers alongside bank account access was associated with improvements in debt payment behaviors and financial planning behaviors (Wiedrich, et al., 2014).

B. Evidence from Related Programs

While this study is concerned with evaluating the impact of credit counseling, there are other related interventions which provide guidance on how behaviorally-oriented financial interventions may impact individual outcomes. In particular, there has been a relatively large body of research on the impact of financial education interventions, and there is a new and growing literature on the impact of financial coaching programs. Though credit counseling differs from interventions focused purely on education or coaching, counseling services have components which share many commonalities with these types of programs. For example, many agencies offer supplemental targeted education and general financial advice to improve clients' money management; providing guidance, information, and resources on how to handle key financial issues like building emergency savings funds, budget management, and saving for retirement (Wang, 2010). Agencies also typically work with clients to develop detailed action plans and help them stabilize their finances, often following up with clients to address any financial concerns, provide encouragement, and keep clients on track with their financial goals (Wang, 2010), practices in-line with the processes embedded in financial coaching programs. This section will briefly outline the research in the areas of financial education and coaching.

Formal financial education programming aimed at increasing consumer financial literacy has been touted as having a large number of personal and social benefits. Lusardi & Mitchell (2014) notes that only 30 percent of people in the United States can answer three basic questions on personal finance (regarding inflation, investment diversification, and interest) correctly, and ties financial illiteracy to paying higher fees in financial transaction and an increased propensity to use high-cost services like payday lending or rent-to-own schemes. The authors also find that

[5] Homeownership counseling services may also be offered through credit counseling agencies.

sub-optimal borrowing behaviors such as late bill payments, going over credit limits, or paying minimum amounts on credit card debt are associated with lower levels of financial literacy.

However, there is little consensus as to whether or not financial education actually improves client financial outcomes. On a macro-level, early evidence for the efficacy of financial education programs was shown by Bernheim, Garrett, & Maki (2001), which used survey data to determine that there was a link between having received a state-mandated financial education curriculum in high school and savings rates in later years. However, this study was later contradicted by Cole & Shastry (2010), which used analysis of census data to show that states which had high savings and investment rates due to economic growth were more likely to impose a financial education mandate, indicating that the imposition of mandates which the Bernheim, Garrett, & Maki paper assumed were exogenous were actually endogenous to economic factors.

In terms of specific financial education programs, the evidence is similarly mixed. There have recently been two quantitative meta-analyses of financial education research which systematically assess the potential impacts of these programs. Miller et al. (2014) review 188 articles and find that a majority of studies report positive financial outcomes for participants in education programs including increased savings and improved financial skills, but that these positive impacts notably diminish when only looking at programs delivered in a randomized, controlled setting. Similarly, Fernandes, Lynch, and Netemeyer (2014) found that interventions aimed specifically at improving financial literacy had little effect, particularly when controlling for psychological variables like impulsivity and other behavioral variables like the length of planning horizons. They do, however, find evidence that “just-in-time” financial education programs, which target people at specific moments in their life (such as opening a 401(k) or buying a house), have the potential to improve financial literacy and financial outcomes.

Among the “just-in-time” programs identified by Fernandes, Lynch, and Netemeyer (2014) are financial coaching programs. While there exists a relatively large body of research on financial education, financial coaching research is still relatively new, and rigorous evaluations of financial coaching programs are only beginning to emerge. Financial coaching has grown out of the more general field of “coaching” (other examples of which include life coaching and health coaching) and includes a number of features: Monitoring and evaluating progress, providing feedback, being collaborative and client-driven (rather than expert-oriented) in nature, and focusing on the development of a client’s strengths.

There have only been a handful of studies which have evaluated the impact of coaching on financial outcomes. Collins (2013) assessed a randomly-delivered coaching program for low-income individuals on public assistance and found a positive relationship between coaching and self-reported indicators such as paying bills on time, budgeting, and saving. Moulton et al. (2015) investigated the impact of financial coaching on the likelihood of default for new homebuyers within the context of a randomized, controlled study, and found positive and significant treatment effects. Similarly, an experimental evaluation by the Urban Institute (Theodos et al., 2015) on the impact of financial coaching found that coaching was associated with positive impacts on savings amounts, making timely debt payments, debt reduction, and the use of high-cost lenders. The receipt of coaching was also associated with improved budgeting behaviors and coaching clients also reported reduced financial stress and increased confidence. [6]

[6] The NFCC added individualized financial e-coaching as a part of Sharpen 2.0 in early 2016. Upon completion of their financial counseling session and action plan, participants may be assigned to a personal financial coach. In conjunction, individuals can choose to receive up to one year of free text messages and/or email reminders, which are customized based on a review of their specific financial goals and needs.

C. The Relationship between Counseling and Outcomes

Taken together, the existing literature on credit counseling and related interventions, along with an understanding of the structure of credit counseling sessions, allows us to specify the mechanisms by which counseling can drive changes in counseling clients. While most NFCC credit counseling organizations offer specialized counseling and education in areas such as housing, bankruptcy, foreclosure, student loans, and reverse mortgages, all NFCC-certified counseling agencies offer three general services: Financial education, individualized financial counseling, and debt management plans.[7]

Financial Education

In providing financial education, counseling agencies address the overall lack of consumer financial literacy among the general population, which has been tied to paying higher fees on financial transactions, using high-cost financial services like payday lenders, and taking on too much credit card debt (and not paying this debt down quickly) due to unfamiliarity with concepts like compound interest (Bernheim et al., 2001). Financial education has also been tied positive financial behaviors such as increased savings rate (Bernheim et al., 2001; Lusardi & Mitchell, 2006), which can help offset short-term emergencies like job loss or healthcare costs, large goals like home purchases, or long-term necessities like retirement savings (though, as stated above, the empirical evidence on this potential is mixed). Financial education that informs specific decisions, such as the selection of a savings account or the purchase of a home, may enable consumers to make better informed decisions that increase their financial well-being over the longer term.

Individualized Counseling

Clients receiving services from an NFCC-affiliated agency often participate in an individualized counseling session with a certified financial counselor. Counseling sessions provided by NFCC-approved agencies include a budget review, regardless of the initial impetus for the client to seek counseling (e.g., assistance with credit card debt, guidance regarding purchasing a home, or information about the bankruptcy process). In providing budget counseling, counselors sit down with clients for an in-depth review of their household income and expenses, looking for ways to reduce expenses on non-essential purchases. Client behavioral changes from budget counseling sessions may be driven in part by increased client awareness of their expenses. This increased awareness may help them shift their behaviors to be more in-line with their financial goals.

Additionally, each individualized counseling session concludes with the development of an action plan with specific goals and objectives to help strengthen a client's financial circumstances. The action plan developed for clients may reduce some of the stress of making hard financial decisions on what expenses to cut. Research has shown that people operating under stress or financial scarcity often face high degrees of drain on their cognitive resources which limits their willpower and prevents them from thinking about longer-term goals (Baumeister, 2002; Mullainathan & Shafir, 2013). Given that clients in credit counseling agencies are likely operating under relatively high levels of stress from debt burdens or other financial circumstances (burdens which likely drove them to seek counseling services), having a concrete plan to make specific changes may reduce some of the cognitive stress and increase the likelihood that they change their financial behaviors.

[7] Over one-third of NFCC member agencies are also multi-service agencies specializing in community-based social services.

Individualized financial counseling may also drive changes in behaviors through the relationship developed between the client and counselor. Counseling clients, who commit to following their action plans to reduce expenses (and make explicit commitments in the case of DMP enrollment), may feel accountable to the counselor and this sense of accountability may lead to better adherence to the plan (Lerner & Tetlock, 1999). Additionally, counselors often follow up with clients at set intervals to check in on their progress and overall financial condition, which provides an additional source of external monitoring and may contribute to this sense of accountability on the part of the client. As a trusted resource, clients may also reach back out to their counselors in times of stress, allowing for early intervention that may prevent the accumulation of additional debt and delinquencies.

Debt Management Plans

Debt management plans (DMPs) offer an additional intervention that may directly and indirectly influence client outcomes. Directly, DMPs may lower a client's debt payment burden. Through a DMP, counseling agencies negotiate with creditors to lower interest rates or waive fees for clients (contingent on the client successfully making payments under the DMP), which makes an individual's overall debt situation more sustainable and increases the likelihood of successful debt repayment (Bagwell, 2000). Indirectly, DMPs may also reduce client stress. By acting as an intermediary between creditors and their clients, DMPs may eliminate the overall burden on clients by allowing them to only engage with one organization (the counseling agency) instead of multiple creditors, and also reduces debt collection calls (Elliehausen et al., 2007). Finally, by consolidating multiple debt streams into one, DMPs eliminate the need for clients to manage multiple payments; they no longer have to track multiple due dates and differing payment requirements for each debt stream. This reduction in complexity may enhance the propensity for clients to successfully pay off their debts.

Anticipated Outcomes

Through education, counseling, and DMPs, credit counseling services may improve targeted financial behaviors. These behaviors include being better able to make debt payments on time, managing expenses to avoid unsustainable debt burdens, paying down debts in a way that avoids high interest payments, and avoiding high-cost financial products like payday loans and check cashing services. In the long-term, these changes should result in stronger credit profiles which allow clients to access mortgages and other loan products at reasonable rates. Other longer-term changes in client conditions may stem from this as well, such as an improved sense of financial well-being and more confidence in managing financial issues.

Though this evaluation does not explore credit counseling's relationship to all potential changes in client outcomes, it does explore client outcomes along several key indicators of financial health: (1) revolving debt and total debt levels; (2) credit scores and payment delinquencies; (3) available liquidity and balance-to-credit ratios; and (4) self-reported measures of financial behaviors and well-being. In addition, it will explore how several of these outcomes are shaped by debt management plan enrollment; the presence of bankruptcies, charge-offs, and foreclosures; and an individual's credit risk profile prior to counseling.

III. The Sharpen Your Financial Focus (Sharpen) Program®

Sharpen Your Financial Focus® is a nationwide financial education initiative, launched by the National Foundation for Credit Counseling (NFCC®) in September, 2013. Founded in 1951, the NFCC is an umbrella membership organization representing more than 70 affiliate nonprofit financial and credit counseling agencies nationwide. Since 2008, NFCC members have provided quality financial counseling and education services to over 15 million clients. Member agencies employ trained and certified professional counselors who provide financial education and money management skills training in order to help clients make sound financial decisions.

Sharpen Your Financial Focus® is aimed at assisting American consumers in stabilizing their personal financial situations and encouraging them to take action to improve their personal finances. The Sharpen initiative builds upon and enhances the standard counseling model implemented by NFCC affiliate agencies. Specifically, credit counseling offered by affiliate agencies via the Sharpen initiative incorporates three major steps: (1) MyMoneyCheckUp®: An online financial stress test aimed at increasing clients' awareness of their own financial activities and overall financial health in the areas of budgeting, borrowing, saving, housing, and retirement; (2) a financial review with an NFCC-certified financial professional to assess clients' individual financial situation, and to help clients establish goals and action plans; and (3) a targeted education or "Deep Dive" intervention that provides additional information on a financial area of interest to the client and can include in-person workshops, one-on-one education sessions, or financial coaching. Each of these services is available at no cost to any client in need, and these services are also uniquely tailored to each client's individual financial situation. Clients are able to participate in as many services as they desire.

The Sharpen initiative was coupled with a national awareness campaign. In the first two years of this campaign there were nearly 24 billion audience impressions. The effort included digital media advertising, television and radio advertisements, social media outreach, and appeals to specific audiences including female heads of households, members of the military, and student loan borrowers.

As of September 2015, almost 50,000 individuals had completed a counseling session through the Sharpen program, and almost 17,000 of these individuals completed a targeted education ("Deep Dive") session.[8] In addition, the Sharpen initiative includes an evaluation component, designed to assess the impact of credit counseling services on consumer financial behaviors and well-being.

[8] This evaluation includes clients who enrolled through March 2015.

IV. Evaluation Overview

Clients who enrolled in the Sharpen initiative from September 2013 through March 2015 are considered the base population for this evaluation. Data for the evaluation is drawn from four sources. First, administrative data on all clients counseled under the initiative is collected by individual member agencies through a centralized database maintained by the NFCC (the "Sharpen portal"). Second, self-assessment data is obtained from clients participating in the online financial stress test (known as the MyMoneyCheckUp® program, or MMCU®). Third, qualitative data on client perceptions is collected through a follow-up survey of Sharpen participants, which was conducted on a rolling basis by the NFCC three months after a client completed the program. The final source of data is quarterly credit attribute data obtained for a select subset of Sharpen clients who were counseled by a subsample of member agencies (described below). As of the end of March, 2015 there were 43,072 clients in the administrative data pulled from the Sharpen portal, comprising the full population of Sharpen clients enrolled during the evaluation period.[9]

Table 1 shows quarterly enrollment rates in the Sharpen program over the evaluation period. The majority of enrollments (54 percent) occurred in the first two quarters after the inception of the program (from September 2013 to February 2014), with the remainder of participants enrolling over the final four quarters of the evaluation period. Agencies were able to request reimbursement from the NFCC for a portion of the counseling services provided under the Sharpen initiative. Most agencies exhausted their reimbursement limits by the end of the second quarter—hence, the drop off in volume after the end of the second quarter. If clients sought counseling at an agency that had exhausted its Sharpen funding, they could still receive the standard non-Sharpen counseling services.[10]

Table 1: Sharpen Enrollment Over the Evaluation Period

Quarter	9/2013-11/2013	12/2013-2/2014	3/2014-5/2014	6/2014-8/2014	9/2014-11/2014	12/2014-3/2015*	Total
Number of Clients	16,246	7,088	5,483	3,612	6,821	3,822	43,072
Percent of Total	38%	16%	13%	8%	16%	9%	100%

*Includes one extra month in this quarter to reflect the full period for which data are available
Source: NFCC Administrative Data

Of these 43,072 clients, 16,227 have complete MyMoneyCheckUp® data available, and 777 clients completed the follow-up survey. Credit data is obtained on clients from 13 member agencies who enrolled in the first quarter of the initiative; these agencies have a combined client base of 10,925 over this period (and enrolled a total of 18,829 clients over the full evaluation period). A subset of these clients was included in a matching analysis, the details of which are discussed in Section IX.

This report is organized as follows. Sections V through VIII present the results from descriptive analyses of Sharpen clients, including their demographic and financial characteristics, their self-reported post-counseling outcomes, and the evolution of their credit outcomes. To better isolate

[9] Some observations are missing in these data either because clients declined to provide the information or because the information was missing. These cases account for around five percent of observations for every indicator under study except the racial indicator, for which fifteen percent of clients have no available data.
[10] Only Sharpen clients are the focus of this report. However, agencies could still offer their traditional financial education and counseling services to clients who were not funded through the Sharpen initiative.

the impact of counseling, Section IX presents the findings from an empirical analysis of credit outcomes using a matched comparison group to assess counterfactual outcomes for Sharpen clients. Section X provides a brief conclusion and discussion of future research. Finally, an Appendix exhibits additional study information and supplemental analyses used to enhance the validity of the evaluation findings.

V. Sharpen Client Characteristics

Administrative data are collected by member agencies when clients begin the counseling process and are subsequently shared with the NFCC. The administrative data collected on Sharpen clients include basic demographic and client information, financial characteristics, and broad details of the types of interventions each client received.

Demographic Characteristics

- *Gender, age, race, and ethnicity:* Sixty-four percent of Sharpen clients are female, with an average age of 43. Two-thirds of participants are white, while about one-fifth are black. Thirteen percent of clients identify as Hispanic.
- *Education:* Sharpen clients tend to be relatively well-educated, with almost two-thirds of clients reporting some education beyond high school (20 percent have a two-year degree or technical degree, 30 percent have a bachelor's degree and an additional 11 percent have some sort of graduate degree). Only two percent of clients report not completing high school.
- *Household characteristic*s*:* Thirty-five percent of clients are single, while 42 percent are married or living with a partner, and 20 percent are either separated or divorced. The median Sharpen household size is two, and the majority of Sharpen clients (58 percent) report having no children under the age of 18. Forty-one percent of households either own their home or are in the process of buying one, while 46 percent rent. An additional 13 percent have "other" homeownership status, which may include situations like clients living at home with their parents or other relatives.
- *Military background:* Seven percent of Sharpen clients have some sort of military background (excluding military dependents), a number likely driven in part by specific efforts on the part of NFCC member agencies to reach out to military populations.

Table 2 compares the Sharpen client base to the general U.S. population as reported in the Census' American Community Survey (with results averaged over the five-year period from 2010-2014).[11] This comparison shows that Sharpen clients tend to be older than the general population, as well as more educated. Sharpen clients are also more likely to be female and to be from a minority group than the general population. The marital status and ethnicity of Sharpen clients do not differ notably from the average American.

[11] The client characteristics in Table 2 were chosen for their comparability with Census data.

Table 2: Sharpen Client Demographics Compared to the U.S. Population

	Sharpen Clients	U.S. Population (Census)
Median Age	42.0	37.4
Race		
Asian	2%	5%
Black	21%	13%
White	66%	74%
Other	11%	9%
Ethnicity		
Hispanic	13%	17%
Non-Hispanic	87%	83%
Gender		
Male	36%	49%
Female	64%	51%
Marital Status		
Single	35%	33%
Married/Living with a Partner	42%	48%
Separated/Divorced	20%	13%
Widowed	3%	6%
Education		
Less than High School	2%	14%
High School Degree	34%	28%
Some College	3%	29%
College Degree or Higher	61%	29%

n=43,072 Sharpen Clients

Sources: NFCC Administrative Data; 2010-2014 American Community Survey

†Approximately five percent of clients did not have data available for certain indicators, because they either declined to answer or the indicator was missing. This number varies slightly depending on the indicator in question, though it is much higher for the racial indicator (around 15 percent).

‡The Census estimates do not include "Living with a Partner" in this metric.

Financial Characteristics[12]

The median Sharpen client reports having around $2,800 in monthly income, $10,000 in non-liquid assets such as housing equity, and zero dollars in savings , while the median level of monthly housing and debt-related expenses are around $910 and $1,000, respectively. The savings levels of Sharpen clients are of particular concern, as almost three-fourths of Sharpen clients report having no savings whatsoever. See Table 3 for details. Additionally, these results demonstrate the constraints in Sharpen clients' disposable incomes. When monthly housing and debt-related expenses are subtracted from clients' monthly incomes, clients only have a median of $720 left over (and a mean of $978) to use for all remaining essential and non-essential expenses.

Table 3: Client Financials

	Average	Median
Average monthly income	$3,406	$2,820
Monthly housing expenses	$1,080	$909
Monthly debt-related expenses	$1,345	$1,031
Tangible assets	$76,551	$10,000
Savings	$1,189	$0

n=43,072

Source: NFCC Administrative Data

Approximately five percent of clients did not have data available for certain indicators, because they either declined to answer or the indicator was missing. This number varies slightly depending on the indicator in question.

Counseling Details

As shown in Table 4, a strong majority of clients (63 percent) report seeking counseling because they faced a reduction in income, much of which is driven by a change in a client's employment situation. Almost 30 percent report seeking counseling because they face increased expenses due largely to medical expense increases or an increase in debt payments via increased interest rates. Thirty-one percent of clients report seeking counseling for some other reason, with the most prominent reason being that they had poor credit standing.

Of all the clients completing the Sharpen program almost half (41 percent) were recommended to enter into a debt management plan, nine percent were referred to legal assistance, two percent were referred to social services, and 44 percent received counseling only. Four percent of Sharpen clients received "other" services.

[12] This section does not include discussion of Sharpen clients' total and unsecured debt levels, as this data is reported differently by agency. For a precise read on these metrics, see the credit report data summarized in Table 15 in Section VIII.

Table 4: Reason for Seeking Counseling[†]

	#	%
Reduced income	**27,258**	**63%**
Un/underemployment	14,548	34%
Domestic conflict	3,823	9%
Other	8,887	21%
Increased expenses	**12,332**	**29%**
Medical/Disability expenses	4,094	10%
Creditors increased interest rates	1,869	4%
Costs of death in family	315	1%
Paying off gambling debt	88	0.2%
Addiction/substance abuse	176	0.4%
Increased family size	1,350	3%
Other	4,440	10%
Other reasons	**13,318**	**31%**
Bad credit	3,090	7%
Previous bad experience	646	1%
Haven't established a credit history	299	1%
Credit problems of ex-spouse	250	1%
Identity theft/fraud	126	0.3%
Error in credit report	89	0.2%
Discrimination	12	0.0%
Other	8,806	20%

n=43,072

[†]Respondents could select multiple reasons for seeking counseling. Approximately five percent of clients did not have data available for certain indicators, because they either declined to answer or the indicator was missing. This number varies slightly depending on the indicator in question.

Source: NFCC Administrative Data

VI. MyMoneyCheckUp® Results

The MyMoneyCheckUp® (MMCU®) instrument can be conceived of as a type of survey which provides rapid feedback to the participant so they can see their financial strengths and weaknesses. Data from the MMCU® can also serve as a baseline indicator of clients' financial health prior to counseling, as most complete the MMCU® instrument prior to, during, or shortly after their initial counseling session (defined here as "baseline"). While most clients completed the MMCU®, due to data limitations we can only link a subset of these (around 40 percent) to the administrative data to confirm they are Sharpen clients.[13] In this section, summary statistics for clients with MMCU® data linked to administrative data are presented, representing a total of 16,227 clients.

Broadly speaking, the MMCU® instrument can be separated into six categories capturing the financial experiences of clients: Budgeting, saving, borrowing, housing, retirement, and financial confidence. Responses to questions for each of these core areas are summarized below.

Budgeting & Account Use
As shown in Table 6, budgeting behavior among Sharpen clients is relatively inconsistent prior to counseling, with only 37 percent reporting that they maintain a budget. Of those that have a budget, seven percent report never being able to stick to their budget, while 93 percent report being able to stick to their budget "at least some of the time." Conversely, only 28 percent of respondents report being "rarely" or "never" short of money, with the other 72 percent reporting being short of money at least "often." Clients reporting that they keep a budget appear to have fewer issues managing their money, as 40 percent these clients report being "rarely" or "never" short of money compared to 20 percent for respondents who do not keep a budget.

[13] Non-Sharpen clients could also use the MyMoneyCheckUp® tool. To confirm that clients from the MMCU® data were Sharpen clients, participants were linked from the MMCU® data to the Sharpen portal via email address. As clients could give different email addresses in these two sources (or fail to provide an email address altogether), only a subset of Sharpen clients participating in the MMCU® could be linked. Appendix B provides a comparison of Sharpen clients with and without linked MMCU® data. In general, the MMCU® linked sample of clients is similar to the overall population of Sharpen clients, reducing concerns of selection bias.

Table 6: Budgeting Behaviors at Baseline

	Keep a Budget	Do Not Keep a Budget
Budgeting Behavior	**37%**	**63%**
How frequently do you stick to your budget?		
Most of the Time	60%	n/a
Some of the Time	33%	n/a
Never/I Don't Know	7%	n/a
How frequently are you short of money at the end of the month?		
Never	12%	5%
Rarely	28%	15%
Often	38%	42%
Always	21%	37%

n=16,227

Source: NFCC MyMoneyCheckUp® Data

Maintaining accounts with a financial institution and regularly making direct deposits is also a key factor in budgeting behaviors. As can be seen in Table 7, almost all clients participating in the MMCU® portion of Sharpen Your Financial Focus® are banked in some way, with only seven percent of respondents reporting that they have neither a checking nor a savings account. The vast majority (89 percent) have at least a checking account, while 53 percent have both a checking and a savings account. Only seven percent of clients have neither checking nor savings accounts and are likely unbanked. Further, over three-fourths of clients in the MMCU® (77 percent) report having money from their paycheck directly deposited in a bank account.

Table 7: Client Account Use at Baseline

Have checking account	89%
Have savings account	57%
Have both checking and savings	53%
Have neither checking nor savings	7%

n=16,227
Source: NFCC MyMoneyCheckUp® Data

Savings

A small proportion of clients reports saving money regularly at the time that they seek counseling services. Seventeen percent of respondents report having funds automatically deposited from their paycheck into a savings account. Of those not making direct deposits (Table 8), almost half report never saving any money, while only 14 percent of clients save money frequently. An additional 39 percent of clients save occasionally (e.g., with additional income in the form of a tax refund or wage bonus). A quarter of respondents report currently saving money, and of these respondents 35 percent report saving less than they normally do over the past year while 30 percent report saving more than they normally do over the same period. In terms of the reasons clients have for savings, around two-thirds of clients report saving for both specific goals (such as a vacation or large purchase) and to develop an emergency fund.

Table 8: Client Savings Behaviors at Baseline

Are you currently saving money?	
Yes	25%
No	75%
Over the past year have you saved…†	
Less than usual	35%
About the same as usual	35%
More than usual	30%
Are you currently saving money via automatic deductions?	
Yes	17%
No	83%
Aside from automatic payments, I set money aside for savings…	
Never	48%
Once a year (tax time, bonuses, etc.)	10%
Not often (only if you have extra money)	29%
Frequently	14%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked only for those who are currently saving money.

Borrowing

Sharpen clients report holding both installment and revolving debt. Thirty-seven percent of clients have mortgage debt, 74 percent have credit card debt, 49 percent have a car loan, and 38 percent have a student loan.

The largest source of client debt by far is mortgage debt. Of those with mortgage debt, the median outstanding balance is $114,000, with a median mortgage payment of almost $1,000. For credit card debt, the median balance is $12,000 while the median minimum monthly payment is $425. The median car loan balance is $12,000 while the median monthly payment is around $350, and the median student balance is $20,000 with a median monthly payment of around $150. Debt levels and payments are calculated only for those who hold a specific type of debt, and the results can be seen in Table 9.

Table 9: Sources of Client Debt at Baseline

	% with Debt	Median Debt Level†	Median Debt Payment†
Mortgage Debt	37%	$114,000	$960
Credit Card Debt	74%	$12,000	$425
Car Debt	49%	$12,000	$354
Student Debt	38%	$20,000	$152

n=16,227

Source: NFCC MyMoneyCheckUp® Data

†Calculated only for those who hold a given type of debt

Table 10 summarizes client responses to a variety of questions related to credit use. Two-thirds of clients report owning a credit card and of these clients, 20 percent of clients report *using* no credit cards regularly while 24 percent report using a single credit card regularly. The remaining 56 percent of clients report regularly using more than one credit card, with 21 percent reporting that they regularly use five or more credit cards.

There is some indication that clients are at risk of falling behind on their debt payments, as 30 percent report that they paid less than the minimum amount due on their last credit card (or paid a late fee with the minimum payment), while an additional 41 percent only report paying the minimum amount due. This leaves a minority of clients with credit cards who report that they are paying more than the minimum amount due.

Table 10: Household Borrowing Behaviors at Baseline

Do you have a credit card?	
Yes	66%
No	34%
About how many cards do you regularly use?†	
0	20%
1	24%
2	16%
3	11%
4	7%
5+	21%
What did you do the last time you got your credit card bill?†	
Didn't pay anything	19%
Paid less than the minimum amount due	7%
Paid the minimum amount due plus a late fee	4%
Paid the minimum amount due	41%
Paid more than the minimum amount due	23%
Paid the entire balance in full	6%
Have you received a call from a bill collector?	
No	39%
Yes, once	11%
Yes, more than once	50%
Have you recently taken a payday loan?	
Yes	10%
No	90%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked only for those with credit cards.

Sixty-one percent of MMCU® respondents report receiving a call from a bill collector in the last three months, with half of respondents receiving multiple calls. Further, ten percent of clients report recently relying on payday loans recently. When this fact is taken in conjunction with the fact that a strong majority of clients have a tendency to pay the minimum amount (or less) on their credit card debt, this may be an indication that a small but significant portion of Sharpen clients are exposed to substantial financial risk stemming from high interest rates on debt (particularly in the case of payday lenders) and long repayment periods.

Housing

Table 11 summarizes the responses to a variety of housing-related questions. A minority (42 percent) of respondents own their home and a substantial portion (28 percent) of people who do not own their home are considering the purchase of a home at some point in the next year. These potential homebuyers on average report being cautiously confident in their ability to make a down payment, qualifying for a mortgage, knowing how much they can afford on a mortgage, selecting the best mortgage, and saving for home repairs. Within these areas, they are most cautious regarding their potential to qualify for a mortgage.

Table 11: Housing Characteristics at Baseline

Do you own your own home?	
Yes	42%
No	58%
Are you planning to purchase a home in the next year?†	
No	72%
Maybe	13%
Yes	15%
How do you pay your monthly mortgage payment?‡	
Automatically	30%
Manually	70%
Over the past three months, in order to meet my mortgage payment…‡	
"I can't afford my payment, no plans to resume"	2%
"I struggle a lot and am behind on my payments"	17%
"I struggle a lot but am still on time"	24%
"I struggle a bit but am still on time"	31%
"I don't struggle at all. Paying in full is easy"	26%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked of those who do not own a home.

‡Asked of those who do own a home.

Of the clients who have a mortgage, only 30 percent of respondents report that they pay their mortgage automatically out of their bank account. Most home-owning respondents also seem to feel fairly secure in their ability to pay their mortgage as only two percent report that they cannot afford their mortgage and an additional 17 percent report being behind on their payments, while 26 percent do not struggle at all with their mortgage payment.

Retirement

Fewer than half (43 percent) of respondents report having a retirement savings account, while 38 percent report actively saving for retirement, as shown in Table 12. Of the clients with retirement accounts, the median amount of retirement savings they have accumulated is $10,000. By way of contrast, the median amount these clients believe they will need to have saved for retirement is around $205,000, indicating that there may a substantial deficit between current retirement savings and expected needs in retirement.

Table 12: Retirement Savings Behaviors at Baseline

	% Yes
Have a retirement account	43%
Currently saving for retirement	38%
Employer offers a retirement plan	51%
Currently participating in the plan†	65%
Making automatic retirement contributions	31%

n=16,227

Source: MyMoneyCheckUp® Data

†Asked of those offered a retirement plan through an employer

Fifty-one percent of respondents have employers offering some form of retirement plan. Of respondents who have employers offering plans, sixty-five percent are participating in the plan. Only about a third are making automated contributions to their retirement accounts (though this jumps to nearly 60 percent for those with retirement plans offered through their employer). This low rate of automatic retirement contributions is potentially troubling, as shifting to a plan of automatic deductions into retirement accounts can often take advantage of an employer's matching contributions (where available), but can also serve as a method of building long-term assets which is more reliable than ad hoc retirement contributions.

Financial Confidence

On the MMCU®, Sharpen clients were asked how confident they were in their ability to manage five different areas of their financial lives, with 1 being "Not at all Confident" and 4 being "Confident." At the time of seeking counseling, Sharpen clients are somewhat confident in their day-to-day finances (a 2.9 average) and fairly confident in making mortgage payments (a 3.4 average). See Table 5 for details.

By contrast, Sharpen clients appear to be relatively less confident in the areas of managing future expenses, retirement planning, and paying off loans, where the average confidence score reported ranges from 2.4 to 2.7.

The low level of confidence in these areas is not surprising in light of the results discussed above. Sharpen clients report struggling to pay more than the minimum on their credit card bills (if they can even pay the minimum), having extremely low levels of retirement assets and liquid savings, and that they are often facing income and expense shocks; these issues appear to be reflected in their financial confidence levels.

Table 5: Financial Confidence at Baseline

How confident are you about…	**Day to Day Finances**	**Managing Future Expenses**	**Retirement Planning**	**Making Mortgage Payments**	**Paying Off Loans**
Not at all confident	10%	16%	27%	7%	20%
Not confident	18%	25%	27%	10%	23%
Somewhat confident	42%	35%	28%	23%	27%
Confident	30%	23%	18%	60%	29%
Mean Confidence	*2.9*	*2.6*	*2.4*	*3.4*	*2.7*

n=16,227

Source: NFCC MyMoneyCheckUp® Data

VII. Post-Counseling Survey Results

A follow-up survey was administered by the NFCC three months after a client completed the Sharpen program. The brief email survey includes questions about changes in a client's financial situation and financial behaviors, as well their relationships with financial institutions. The purpose of this survey is descriptive only, providing additional context to the quantitative analysis. At the time of this report, 777 Sharpen participants had responded to the survey.[14] Tables 13 and 14 of this section summarize the survey results, with Table 13 covering self-reported behavioral changes and actions, and Table 14 covering changes in clients' financial conditions and their relationship with financial institutions.

Perceptions of improved financial behaviors

Table 13 shows that Sharpen clients generally report improvements in their financial behaviors three months after counseling. Notably, almost two-thirds of clients report "better managing their money," and two-thirds also assert that the program improved their "overall financial confidence" and "helped them set financial goals." Further, nearly three-fourths of responding clients claim to "pay their debts more consistently," while over 40 percent have "ordered or viewed their credit report."[15] Less positively, almost 30 percent of clients still report "paying late fees" on their payments.

[14] The survey was administered electronically, and clients with email addresses were provided with an invitation from the NFCC to complete the survey. The response rate was slightly under two percent for this survey. Differences between survey respondents and non-respondents were tested to assess if respondents were similar to the general Sharpen client base. Survey respondents are more likely to be white, less likely to be male, slightly older, more educated, and have more savings and assets than non-completers, though the overall differences on these metrics are not large. The full results for this comparison are in Appendix B.

[15] This is likely due in part to the fact that participation in the Sharpen program initially included an offering of a free, one-year subscription to freecreditscore.com. In May of 2015 membership in freecreditscore.com converted to membership in Experian Credit Tracker℠. This product was offered through September 11, 2015. Both products allowed participants to view their Experian credit report.

Table 13: Self-Reported Changes in Financial Behaviors

		% Answering Yes			
Group	**All Respondents**	**Below Median Income**	**Female**	**Minority**	**DMP Clients**
Better Manage Money	67%	61%***	67%	66%	68%
Ordered/Viewed Credit Report	42%	43%	39%**	41%	35%**
Saving Money	45%	41%	43%	48%	42%
Paid Late Fees	37%	34%*	37%	44%**	37%
Took Out Payday Loans	5%	4%	5%	8%**	7%**
Improved Overall Confidence	70%	65%**	69%	69%	71%
Set Financial Goals	68%	64%	67%	70%	64%
Pay Debt More Consistently	73%	64%***	73%	76%	77%***
Respondents	*777*	*335*	*509*	*163*	*342*

This table measures the percent of respondents answering "Yes" to a variety of survey questions asked three months after their Sharpen Your Financial Focus® counseling session. Significant differences among subgroups were measured using logistic regression to assess the relationship between belonging to a given sub-group and answering "Yes" to each survey question.

Source: NFCC Post-Counseling Survey

* p<0.1; ** p<0.05; *** p<0.01

Table 13 also explores these survey responses for a variety of subgroups: Respondents with monthly incomes below the median for Sharpen clients ($2,820), female clients, minority clients, and clients recommended into debt management plans (DMPs). Generally speaking, these subgroups have similar response profiles to the general Sharpen client base and overall report positive behavioral changes after their counseling sessions. There are some significant differences between these subgroups and the total group of survey respondents, however. Significantly fewer respondents with below-median incomes report better managing their money, having improved financial confidence, and paying their debt more consistently; though fewer of these clients report paying late fees ($p<0.1$). Female clients are very similar to male clients in terms of their survey responses, though they do report ordering their credit report at significantly lower rates than male clients ($p<0.05$). Minority clients report paying late fees and taking out payday loans significantly more than non-minority clients do; though only eight percent of minority clients report taking out payday loans, this represents a sixty percent increase relative to the general client base. Finally, while clients recommended into a DMP report ordering their credit report less frequently and taking out payday loans more frequently than non-DMP clients, they also report paying their debt more consistently at a significantly higher rate.

Changes in financial conditions

Table 14 outlines client responses to several questions about the changes in their financial conditions since counseling. A majority of survey respondents are in a similar employment position as they were during the Sharpen program, with 20 percent of respondents reporting that their situation has improved three months after the time of counseling and seven percent reporting that it has worsened (73 percent report that their employment situation is unchanged). Given the relative stability of the employment situation for these clients, it is unsurprising that two-thirds report that their available income has stayed the same while a fifth report that it has increased.

Around half of survey respondents report a decrease in credit card debt three months after counseling while only nine percent report an increase. However, most respondents have not really changed their savings behavior (almost as many report a decrease in savings as report an increase). While this may be evidence that the program is better at changing debt behaviors than savings behaviors, it could also capture clients shifting their focus toward paying down debt and away from building savings.

Seventeen percent of clients also reported using new financial products that they had not used prior to counseling. New product use was about evenly split between checking accounts, savings accounts, and credit/debit cards (five percent each), with an additional two percent reporting use of some "other" financial product.

Table 14: Self-Reported Changes in Financial Conditions and Relationships with Financial Institutions, 3 Months After Counseling

Question	**%**
Has your employment situation in your household…	
Improved	20%
Stayed the Same	73%
Worsened	7%
Has the available income…	
Increased	21%
Stayed the Same	66%
Decreased	13%
Would you say that the total amount of credit card debt that your household carries has…†	
Increased	9%
Decreased	49%
Stayed the Same	39%
Would you say that the total amount of money you are able to save on a regular basis has…†	
Increased	26%
Decreased	16%
Stayed the Same	55%
Do you feel that your level of trust in [financial institutions'] ability to serve you well has increased over the past six months?†	
Yes	23%
No/Stayed the Same	70%
Do you feel that the quality of [financial institutions'] customer service and responsiveness in general have increased over the past six months?†	
Yes	17%
No/Stayed the Same	76%

Source: NFCC Post-Counseling Survey

†Responses do not add to 100% because a small subset of respondents answered "Don't know".

Relationship with financial institutions

Table 14 also includes client responses concerning their relationship with financial institutions. It is possible that Sharpen's goals of improving clients' financial well-being and capability may lead to general improvements in clients' attitudes towards their financial institutions.

About one in four participants report that the Sharpen initiative has increased their trust in financial institutions, and about one-fifth of participants report that they have higher quality interactions with financial institutions after participation in Sharpen.

VIII. Descriptive Credit Data Analysis

Credit attributes data for Sharpen clients are collected by the NFCC in partnership with Experian. Archival credit data is obtained quarterly, beginning in the month before the start of the Sharpen initiative (August 2013), and is updated at three month intervals thereafter, through February of 2015.

Credit attribute data is not obtained for all clients participating in the Sharpen initiative. First, credit attribute data is only obtained for clients from a subset of NFCC member agencies. NFCC member agencies applied to the NFCC to be included in this portion of the analysis. Thirteen agencies were selected based on successful implementation of the Sharpen initiative, as well as their capacity to submit additional data including documented permission from clients to obtain credit data.[16] During the entire evaluation period, clients from the 13 member agencies comprised 44% of the total 43,072 clients enrolled.[17]

Second, credit attributes data is only included in the evaluation for clients enrolling in the Sharpen initiative during the first quarter of the initiative, from September 1, 2013 through November 30, 2013.[18] This allows the evaluation to include at six quarters of credit data after the baseline quarter. Over this period, a total of 10,925 clients enrolled from participating agencies. Complete credit data could be linked to administrative data for 8,963 clients; the remaining 1,962 were unable to be located in Experian's credit database with the client information provided by the agencies or did not have full data across all quarters of the evaluation. See Appendix C for a chart summarizing the base sizes at different points in this analysis.

This section of the report traces credit outcomes for the 8,963 Sharpen clients from baseline to six quarters post-Sharpen. This is descriptive, and is not intended to estimate the impact of the Sharpen program on client outcomes. (Section IX of this report provides the results of the impact evaluation).

A. Baseline Credit Characteristics

Table 15 describes the average credit characteristics of Sharpen clients before the program began. Clients had an average credit score of about 590,[19] and had almost 10 accounts open with positive balances. Including mortgages, the average Sharpen client held a little over $100,000 in debt. When only looking at revolving debt, however, clients hold around $13,300 for *open* revolving

[16] To qualify for the evaluation, agencies had to show that they had successfully launched the Sharpen counseling program and also describe any innovative programmatic interventions that they undertake that go above and beyond the base level of counseling done through the Sharpen initiative. All clients submitted by agencies consented to have their data used for research purposes.

[17] Appendix E compares the administrative characteristics of clients from agencies participating in the credit analysis to clients from non-participating agencies. While demographics, average monthly income, and monthly housing expenses are similar between these client groups clients in participating agencies had fewer debt-related expenses, more tangible assets, less in liquid savings, and more liabilities.

[18] Credit data were also available for the baseline period of December, 2013 through February, 2014, which included an additional 1,662 clients. This baseline period, however, only had five quarters of post-counseling data available. Analyses conducted on this expanded baseline revealed no substantial changes in baseline credit characteristics or long-term credit outcomes, so only the sample for whom full data were available is included here.

[19] The credit score used in this analysis is Experian's Vantage 3.0 credit score which is a similar metric to the FICO credit score and spans an identical range (scores are between 300 and 850).

accounts and $20,600 for *any* revolving account (including revolving accounts that have been subsequently closed by clients or their creditors). Thirty-five percent of Sharpen clients have a mortgage, and those with mortgages have an average balance of about $180,000.[20] Seven percent of clients have ever declared bankruptcy, and clients on average had 1.4 payments at least 30 days delinquent in the prior year, with 0.8 payments at least 60 days delinquent.

Table 15: Baseline Credit Characteristics†

	Mean	Median	Std. Dev
Credit Score	586.4	588.0	73.1
# of Accounts with Balance > 0	9.8	9.0	6.0
# of Revolving Accounts with Balance > 0	4.9	4.0	3.9
Total Debt	$107,709	$47,498	$146,304
Revolving Debt on Accounts Updated in Last 12 Months	$20,610	$10,111	$36,857
Aggregate Balance For Open Revolving Trades	$13,307	$7,264	$16,944
Own a Mortgage	35%	n/a	n/a
Total Mortgage Debt‡	$179,562	$147,142	$140,476
Ever Bankrupt	7%	n/a	n/a
Number of Payments 30 Days Delinquent in Prior 12 Months	1.44	0	2.37
Number of Payments 60 Days Delinquent in Prior 12 Months	0.80	0	1.84

n=8,963
Source: Credit Attributes Data
†Baseline data pulled for the period immediately prior to entry into Sharpen
‡Mortgage-related data only includes those who own a mortgage

B. Credit Trends after Sharpen

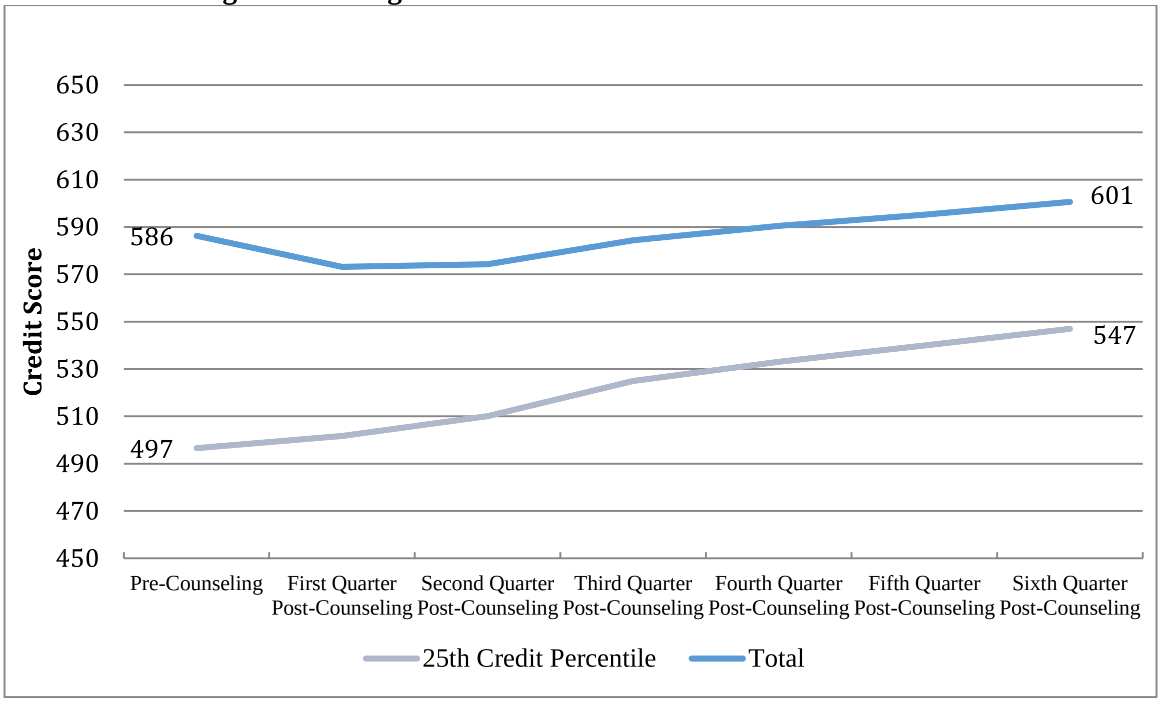
The next several sections of this report trace how select credit indicators evolve for clients since the time of their participation in the Sharpen initiative. The figures also detail these indicators for clients in the bottom quartile of the credit score distribution at baseline—a group of clients who are presumably most "at risk" at the time of counseling.[21]

Change in credit scores
The average credit score for the full sample increases by 14 points one and a half years after their enrollment in Sharpen. The score increases more substantially for clients towards the bottom of the credit score distribution, increasing by 50 points for those in the bottom quartile of credit scores at baseline. The trends in these two groups also differ, as can be seen in Figure 1. For the

[20] The mortgage debt level reported here is higher than that reported by clients in the MyMoneyCheckUp® survey. It is possible that this gap stems from the fact that the MMCU® relies on self-reports while the credit data is more objective. Another explanation is that those for whom MMCU® data were available had higher levels of mortgage debt than the general Sharpen client base. However, financial differences were compared between clients based on MMCU® data availability, and generally speaking those for whom MMCU® data were available had a similar financial profile to other Sharpen clients.
[21] Appendix D investigates differences in credit outcomes based on client participation in supplemental "deep dive" financial education.

average Sharpen client, the trend indicates a declining credit score around the time of enrollment, followed by a recovery and eventual increase. This drop in credit score is likely driven by counseling clients' propensity to experience an income or expense shock around the time they enter counseling; a large majority of clients identify these shocks as a motivating factor in their seeking counseling. These shocks potentially inhibit clients' ability to manage their debt payments, leading to a spike in payment delinquencies (as shown in Figure 5 below) and a subsequent decline in credit scores. After these shocks subside, credit scores appear relatively slow to recover, potentially due to the lagged nature of credit scores. For clients in the bottom credit score quartile the credit score is increasing across all periods, indicating that relatively distressed clients either do not experience such an income or expense shock or experienced their shock further back in time.[22]

Figure 1: Change in Credit Score Over the Evaluation Period

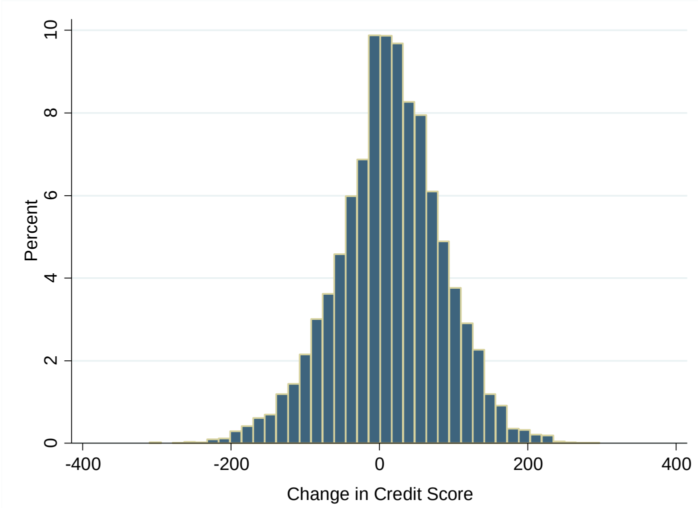


n=8,963
Source: Credit Attributes Data

The distribution in credit score change is also of interest. While the average change in credit scores is 14 points, Figure 2 shows that the range of changes is wide. While credit score changes tend to cluster between 50 and -50 points, there are a substantial number of clients who experience extreme shifts in credit scores over the study period (+/- 100 points). These wide swings in credit scores over the evaluation period illustrate the degree of the financial volatility faced by many counseling clients in the Sharpen program.

[22] The trend in credit scores was also examined based on the reasons clients gave for seeking counseling. Regardless of the reason given for entering counseling, the trend was the same and was very similar to the overall trend for Sharpen clients in this analysis.

Figure 2: Distribution of Credit Score Changes Over the Evaluation Period



n=8,963
Source: Credit Attributes Data

Debt levels
For this evaluation, three different indicators of debt are measured: (1) total debt, which includes the combined balance of revolving and installment debt, including both open and closed accounts with a remaining balance; (2) total revolving debt, which includes outstanding balances on credit cards and revolving home equity lines of credit (HELOCs); and (3) open revolving debt, which includes balances on open credit card accounts only, excluding accounts that have been closed by a consumer or creditor, as well as HELOCs.

Table 16 shows that there is a substantial decline in the amount of debt held by clients post-enrollment. The average decrease in total debt across all clients is around $17,000 while the average decrease in total revolving debt is about $8,000, and the average decrease in open revolving debt is close to $7,600. For clients in the bottom quarter of the credit score distribution at baseline, the reduction in total debt is around $15,000, while the average decrease in total revolving debt is around $7,000 and the decrease in open revolving debt is around $4,600.

Table 16: Change in Debt Levels Over the Evaluation Period

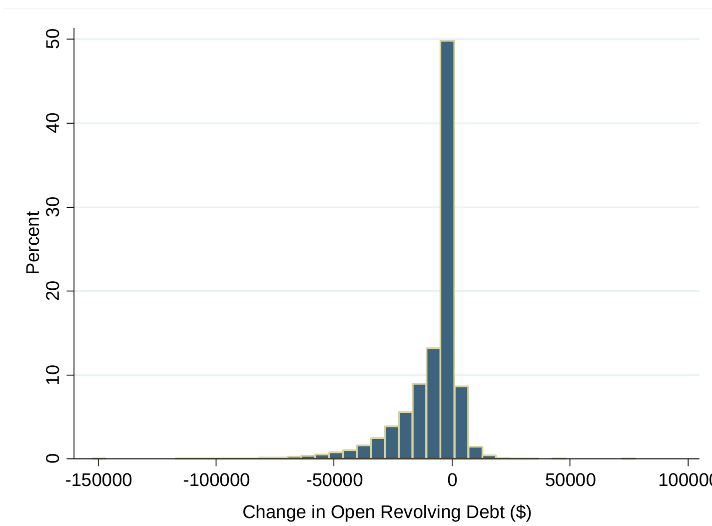
	Pre-Counseling Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fifth Quarter	Sixth Quarter
Total Debt							
25th Credit Percentile	$72,093	$70,733	$68,838	$65,283	$62,390	$59,678	$57,228
All Clients	$107,709	$106,787	$104,667	$99,354	$95,836	$93,199	$90,625
Total Revolving Debt							
25th Credit Percentile	$11,940	$10,778	$8,587	$6,815	$6,078	$5,383	$4,999
All Clients	$20,610	$20,071	$18,482	$16,014	$14,310	$13,274	$12,576
Open Revolving Debt							
25th Credit Percentile	$6,546	$4,284	$3,263	$2,646	$2,392	$2,140	$1,949
All Clients	$13,307	$10,694	$8,271	$7,064	$6,475	$6,012	$5,672

n=8,963

Source: Credit Attributes Data

The distribution in debt changes is also wide. Figure 3 demonstrates the distribution of change for open revolving debt. [23] While the majority of Sharpen clients have modest changes in open revolving debt, there are a number of clients with more extreme debt reductions. Only 21 percent of Sharpen clients had an open revolving debt increase over this period.

Figure 4: Distribution of the Change in Open Revolving Debt Over the Evaluation Period



n=8,963
Source: Credit Attributes Data

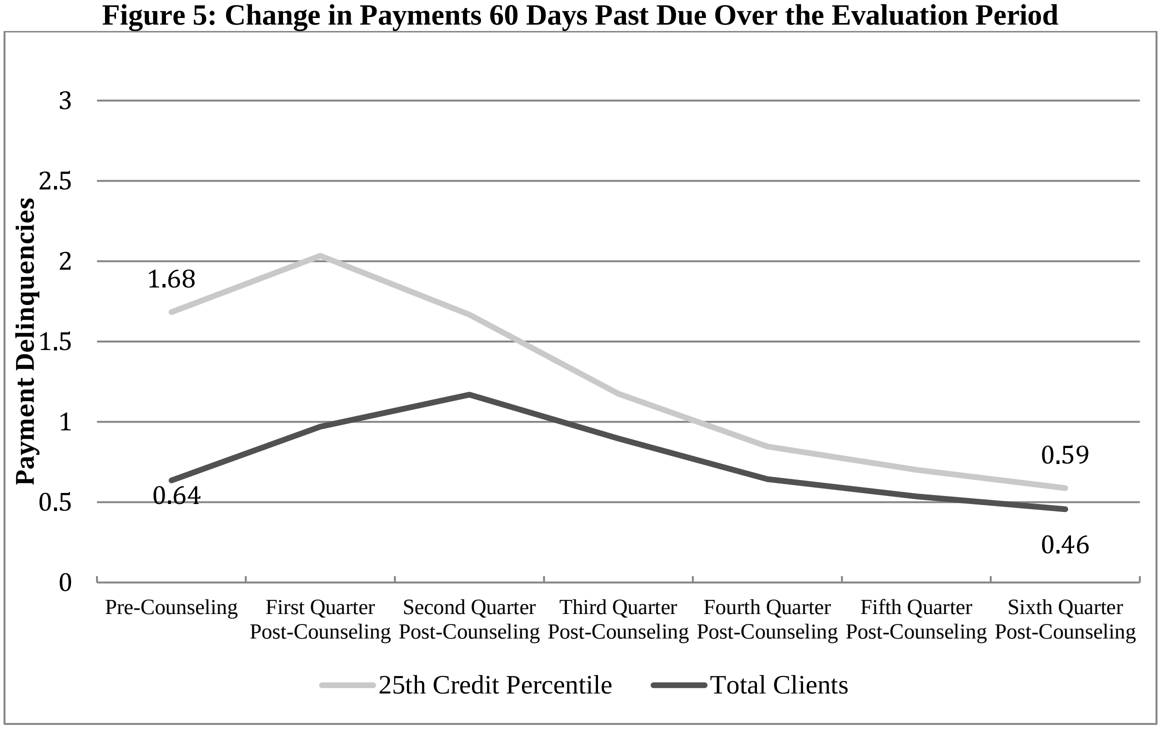
[23] Open revolving debt was chosen as the debt measure of interest here because of the absence of HELOC debt in this metric. Taking on (or eliminating) HELOC debt can cause large swings in debt levels that make the interpretation of histograms difficult. In this case, the open revolving debt histogram is similar to the total revolving debt histogram excluding any clients with HELOCs.

Overall, the median change for both revolving debt measures is about -$2,000 for counseling clients and the median change in total debt is -$5,089. While this analysis demonstrates that Sharpen clients are reducing their debt levels, there remains a question of how much of this debt reduction stems from behavioral changes such as paying off more debt or reducing expenses, and how much stems from the declaration of bankruptcy or debt charge-offs. Sub-section G of Section IX explores this question in detail, while sub-section I of Section IX addresses the potential impact that extreme values have on the debt metrics.

Delinquent payments

The metric used to measure payment delinquencies here is the number of tradelines on a client's credit file that are 60 days or more past due in the last six months. The average decline in delinquent payments is about 0.18 for all clients and 1.13 for those in the bottom quartile of the credit score distribution at baseline. The trend in payment delinquencies can be seen in Figure 5. On this metric, an inverse pattern to that of the credit score trend develops: The average client experiences a sharp increase in payment delinquencies, followed by a steady decline through the end of the evaluation period.

Figure 5: Change in Payments 60 Days Past Due Over the Evaluation Period



n=8,963

Source: Credit Attributes Data

IX. Sharpen Your Financial Focus® Matching Analysis

A. Introduction

While the above analysis illustrates how credit indicators change from pre-counseling to post-counseling for Sharpen clients, it does not account for the counterfactual outcome--the evolution of credit outcomes for non-counseled individuals. To provide a better estimate of Sharpen's impact, a comparison group of similar non-counseled individuals was generated through a matching technique known as Coarsened Exact Matching, which is discussed further in Appendix G. This technique is similar to more traditional propensity score matching, but has been found to improve the balance, error, and efficiency of traditional propensity score matching methods (Iacus, King, & Porro, 2012). The process of creating this comparison group was as follows:

(1) Baseline credit indicators were first specified and measured for Sharpen clients. These included: revolving debt levels,[24] bankruptcy history, the age of the oldest trade, mortgage debt levels, the presence of any payment delinquencies 60 days or greater in the past 12 months, the presence of any *mortgage* payment delinquencies 90 days or greater in the past 24 months, the balance-to-credit ratio, the credit score, and the state of residence.[25]

(2) Using Experian's credit database which contains credit information for all households in the United States, a five percent random sample of U.S. individuals was generated and comparison group members were selected based on their similarity to counseled individuals. Of the 8,963 clients from participating agencies who enrolled during the first quarter of the initiative, matches were found for 6,297 (70 percent).[26] After excluding observations with data issues, 6,094 Sharpen clients were matched with 6,005 non-counseled individuals. [27]

(3) Once the matched comparison group was specified, quarterly credit indicators were generated for both groups for the period spanning August of 2013 to February of 2015, allowing for six quarters of data post counseling.

[24] Specifically, individuals in the comparison and counseled groups were matched on *open* revolving debt, which does not include balances on accounts voluntarily closed by consumers. This debt measure is a very good proxy for total revolving debt, and comparison and counseled groups are still extremely well matched on total revolving debt.

[25] Matching was also attempted on the first three digits of the zip code rather than the state of residence, but this resulted in too few matches so the geographical scope was broadened to the state level.

[26] Appendix F of this evaluation compares the credit characteristics of matched counseling clients to clients for whom no match was found.

[27] 137 clients were dropped from the analysis because they appeared in both the counseling and comparison groups, and 66 were dropped because of missing data in one or more periods This number exceeds the number dropped for missing data referenced in Section V because a small number of counseling observations also had to be dropped as their matched comparison individual was missing data. Specifically, of the counseling clients in the matched analysis, 31 had to be dropped due to missing data for the client, and 35 had to be dropped due to missing data for the comparison individual. Additionally, a very small portion of the sample (120 from the comparison group, 35 from the counseled group) did not have credit scores available in certain periods, and those individuals have been omitted from any analyses of credit scores in this evaluation.

Table 17: Pre-Counseling Summary Statistics for Treatment and Comparison Groups in Coarsened Exact Matching Analysis

Matching Variable	Counseled Baseline Mean (St. Dev)	Comparison Baseline Mean (St. Dev)	% Difference (Treatment/ Comparison)	Balance†
Credit Score (Vantage 3.0)	594	597	-1%	0.04
	(77.1)	(80.3)		
Open Revolving Debt ($)	10,582	10,248	3%	0.02
	(15,327)	(14,947)		
Total Revolving Debt ($)‡	16,612	16,453	1%	0.00
	(35,612)	(38,893)		
Total Installment Debt ($)	20,425	21,113	-3%	0.02
	(34,890)	(44,461)		
Mortgage Debt ($)	44,021	46,565	-5%	0.02
	(104,449)	(131,740)		
Total Debt ($)‡	81,059	84,130	-4%	0.02
	(129,829)	(159,032)		
Number of Bankruptcies	0.30	0.29	3%	0.01
	(1.6)	(1.6)		
Age of Oldest Account (Months)	182	183	-1%	0.01
	(105.4)	(109.5)		
Payments 60 Days Delinquent (Last 12 Months)	0.58	0.59	-1%	0.01
	(1.6)	(1.7)		
Payments 60 Days Delinquent (Last 6 Months) ‡	0.46	0.45	1%	0.00
	(1.4)	(1.5)		
Mortgage Payments 90 Days Delinquent (Last 24 Months)	0.11	0.12	-8%	0.01
	(1.2)	(1.4)		
Available Open Credit Ratio‡	0.48	0.49	-1%	0.01
	(0.40)	(0.42)		
Balance to Credit Ratio on Revolving Debt	0.52	0.52	1%	0.01
	(0.40)	(0.42)		
Observations	*6,094*	*6,005*		

Source: Credit Attributes Data

†Balance is calculated as a function of the absolute difference between the counseled and comparison means, divided by the standard deviation for the full sample.

‡These variables were not used in the matching procedure, but are dependent variables used in the differences-in-differences analysis.

In order to assess the accuracy of the matching process, differences in the means of each matching variable between the counseled and comparison groups at baseline were calculated.

Ideally, the resulting samples will be completely balanced, with little to no difference in baseline characteristics between groups. These results can be seen in Table 17.

At baseline, consumers from both the counseled group and the matched comparison group have credit scores just under 600, open revolving debt levels of around $10,000, installment debt levels around $21,000, mortgage debt around $45,000, around 0.3 bankruptcies on average, an oldest account around 15 years old, 0.6 payments 60 days delinquent or more in the last year, 0.1 delinquent mortgage payments in the last two years, and a balance to credit ratio of 0.5.

Additionally, several variables are included in Table 17 which were not matching variables but are dependent variables used in the analysis: The total revolving debt (including closed accounts), the total overall debt (including installment, revolving, and mortgage debt), the number of payment 60 days delinquent or more in the last six months, and the available open credit ratio (the amount of available credit across all open accounts divided by the amount of total potential credit across those accounts). Even though these metrics were not used in matching, counseling clients and the comparison group are still very similar across these variables, having around $16,500 in total revolving debt, over $80,000 in total debt, around 0.45 sixty-day payment delinquencies in the last six months, and an available open credit ratio of 0.5.

To assess the balance between the two groups, Table 17 also compares the standardized differences of baseline variables, which are a function of the differences in the means between the groups divided by the total standard deviation of the combined sample (Austin, 2009). Per the Institute of Education Sciences (2014) best practices, any variable with a standardized difference below 0.05 between groups is considered to be well-balanced, as is the case with all the matching variables employed in this study. The standardized differences for the matching variables range between 0.01 and 0.04. Thus it is appropriate use a straightforward difference of means when comparing the evolution of credit indicators between counseling and comparison groups.

Analysis Approach: Difference-in-Difference

With the similarity between the counseled and comparison groups at baseline established, the next step in the evaluation is to trace the differences in credit indicators for these two groups over time. Specifically, the analysis approach allows us to (1) track the change in indicators from quarter to quarter within the counseled group and (2) compare this change to changes within the comparison group of non-counseled individuals. This is called a “difference-in-difference” comparison. The analysis starts in the “pre-counseling” or “baseline” quarter, which is the period prior to a client enrolling in counseling. The baseline quarter for all clients in the analysis is August 2013. The standard difference-in-difference model can be described as:

$$Impact\ of\ Counseling = \left[Y_{t0+q}Counsel - Y_{t0}Counsel\right] - [Y_{t0+q}Control - Y_{t0}Control]$$

where Y_{t0} is the value of a credit report indicator (Y) at baseline (t0), and Y_{t+q} is the value of the same credit report indicator (Y) at some quarter (q) post baseline. For the evaluation, we estimate the above differences using a fixed effects panel regression model, where the credit outcome of interest is measured at baseline and for six subsequent quarters for each individual. Standard errors clustered on each individual.[28]

[28] As a robustness check, the models were also run using bootstrapped standard errors which revealed no notable differences in the standard errors of the estimates when compared to the clustered standard errors employed in this analysis.

It is important to include a word of caution about the limitations of this approach. The purpose of the matching procedure is to generate a sample of consumers who are otherwise similar to the counseled clients, except that they did not receive counseling. The intent is that any change in credit outcomes over time among the counseled group, relative to the comparison group, can be attributed to the impact of counseling, and not something else that is systematically different about consumers who seek counseling. However, we can only match clients based on observable characteristics at baseline. There may be other unobserved factors which drive individuals to seek counseling, and may influence subsequent changes in credit outcomes. For example, individual motivation to improve one's financial state or the loss of a job may drive an individual to seek counseling and may be associated with subsequent credit outcomes, and these factors cannot be captured through matching on observed credit attributes.[29] As will be seen in the following analysis, the issue of an unobserved shock (e.g., job loss or debt and income shocks more generally) may be of particular concern for this population, though steps are taken to address this in Sub-Section F of this analysis.

A final limitation stems from the matching procedure itself, as not all clients in the analysis were able to be matched with a non-counseled individual; these clients are thus excluded from the impact analysis. Appendix F shows that unmatched counseling clients tend to be more distressed than matched clients, as on average they have lower credit scores and higher debt levels. The analysis in Section VIII revealed that clients at the lowest end of the credit score distribution tended to experience the largest post-counseling gains and, inasmuch as the most distressed clients may be excluded from the impact analysis in this section, the measured impact of counseling may not capture those clients with the potential to experience the greatest post-counseling changes.

B. Credit Evaluation Results

The first part of this analysis will present results for the full sample of counseled clients and the matched comparison group. Subsequent comparisons will be made for specific subgroups of the counseled and comparison groups. Appendix G outlines the process for creating these subgroups.

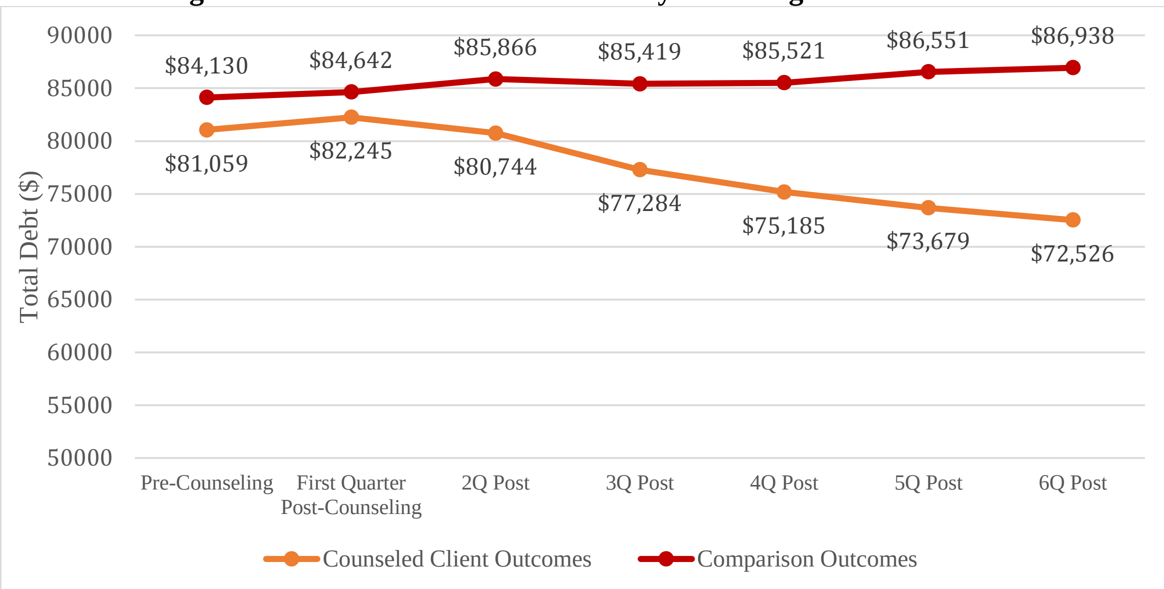
The full analysis sample contains 6,094 counseled clients and 6,005 individuals in the comparison group. For simplicity, each table presented in the main report includes only the overall difference in outcomes between counseling clients and the comparison group over the entire 18 month evaluation period. To this end, each table suppresses the model output for the quarterly coefficients and counseling/quarter interaction coefficients. Appendix H includes the full output as well as a comment on the interpretation of the quarterly coefficients. In the tables presented in the main analysis, the highlighted coefficients should be understood to represent the *change in the counseling group's credit metrics relative to the comparison group over the full evaluation period*. For example, if the comparison group reduced their total debt by $1,000 and the counseling group reduced their debt by $6,000 over the same period, the coefficient on "Counseling Client" in the tables below would be -$5,000.[30]

Overall Outcomes: Consumer Debt

[29] The state of residence was included as a matching variable, which partially addresses concerns about differences in macro-economic factors such as unemployment or house price changes that may contribute to unobserved shocks. Unobserved variables at the individual level remain a concern, however.
[30] Appendix I of this evaluation presents a summary table outlining a number of key results of this evaluation, specifically for debt and credit score variables.

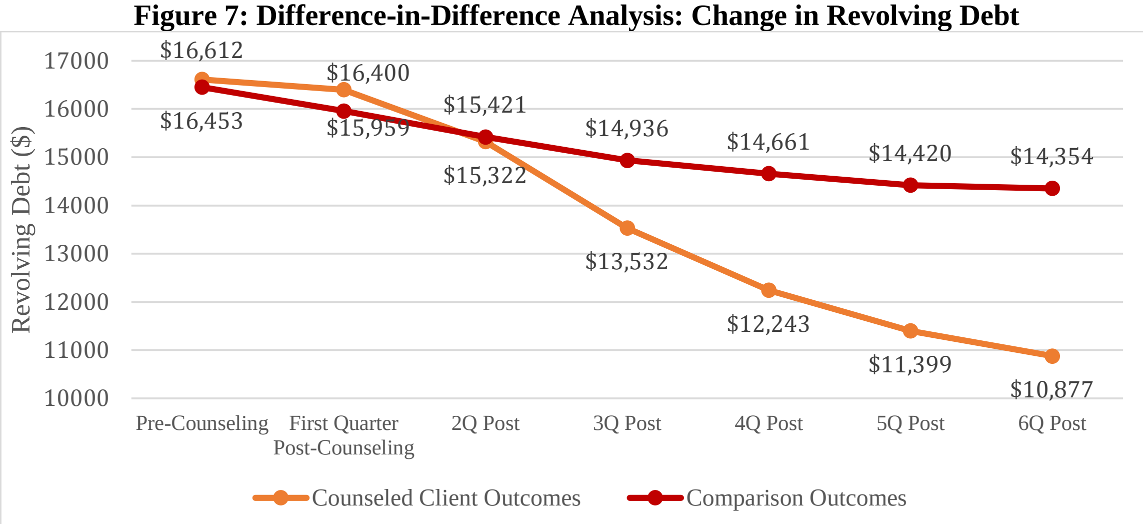
There are a number of different debt indicators that can be used to assess consumer financial health. First, we estimate the impact of counseling on overall debt levels (revolving and total debt). Figures 6 and 7 show the quarterly changes in these debt metrics for both the counseling and comparison groups. For both total debt and revolving debt, the counseling and comparison groups have similar trajectories through the first post-counseling quarter, but in subsequent quarters the counseling group exhibits substantial declines in their debt levels relative to the comparison group; these declines continue through the end of the evaluation period.

Figure 6: Difference-in-Difference Analysis: Change in Total Debt



n=12,099
Source: Credit Attributes Data

Figure 7: Difference-in-Difference Analysis: Change in Revolving Debt



n=12,099
Source: Credit Attributes Data

Table 18 reports the estimated impact of counseling on client debt levels.[31] For both total and revolving debt, Sharpen clients have significantly lower levels of debt by the end of the evaluation period. Compared to their matched non-counseled individuals, the counseled group reduces their revolving debt (Model 1) by an average of around $3,600 and reduces their total debt (Model 2) by around $11,300.[32]

Table 18: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Debt Indicators

Model (Standard Errors in Parentheses)	1	2	3	4
Dependent Variable	Total Revolving Debt	Total Debt	Open Revolving Credit Ratio	Total Revolving Balance-to-Credit Ratio
Counseling Client	**-3,637.18*** **	**-11,341.00*** **	**0.04*** **	**-0.04*** **
	(341.88)	**(1368.07)**	**(0.01)**	**(0.01)**
Constant	16,532.97***	82,582.95***	0.49***	0.52***
	(100.2)	(406.35)	(0.00)	(0.00)
R-squared	0.04	0.01	0.04	0.03
*Observations (Individuals*Quarters)*	*84,693*	*84,693*	*84,693*	*84,693*
Unique Individuals	*12,099*	*12,099*	*12,099*	*12,099*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed. Full results can be seen in the Appendix.

Source: Credit Attributes Data

** p<0.1; ** p<0.05; *** p<0.01*

In addition to debt levels, we consider two debt ratio measures in Table 18: (1) the open revolving credit ratio, which measures available revolving credit as a percent of the credit limit on revolving accounts, and (2) the total revolving balance to credit ratio, which measures the total balance on all revolving accounts (open and closed), as a percent of the high credit limit. The first ratio can be viewed as an indicator of liquidity, where a higher ratio indicates that the consumer has a higher level of available credit from which to borrow. The second ratio includes balances on both open and closed revolving accounts, and is thus an indicator of overall revolving debt burden. In terms of available revolving credit (Model 3), Sharpen clients show a significant improvement relative to the comparison group, with their open credit ratio increasing five percent more than the comparison group by the end of the evaluation period. In addition, Sharpen clients show significant reductions in the balance-to-credit ratio (Model 4) on *any* revolving accounts, including closed accounts.

Though the full analysis is not featured here, there is also evidence that Sharpen clients are closing their open revolving accounts at higher rates. By the end of the evaluation period,

[31] This section of the analysis does not control for the presence of bankruptcies, charge-offs, and foreclosures, which likely impacts the debt levels held by consumers. Sub-Section G excludes these consumers to provide a more detailed examination of the debt metrics.

[32] There is evidence that some of the change in total debt is driven by extreme changes in debt levels from a relatively small group of individuals. See section IX.I for an examination of this metric excluding extreme values.

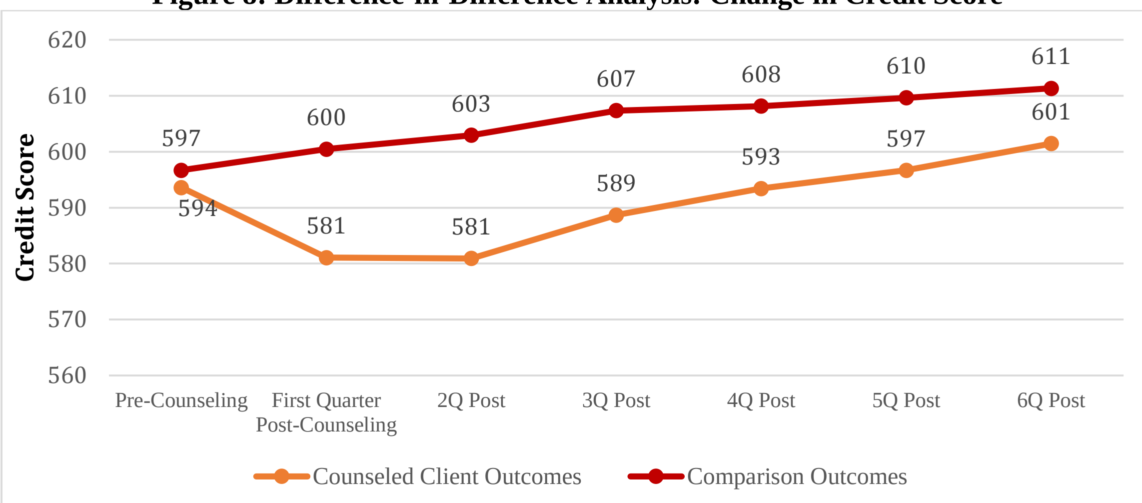
Sharpen clients have on average reduced their number of open revolving accounts by 0.4 relative the comparison group ($p<0.01$).[33]

Overall Outcomes: Credit Score and Debt Payments

In addition to overall debt levels, we estimate the impact of counseling on overall consumer credit scores, as well as debt payment delinquencies. While examining the overall change in outcomes is instructive, the trends in certain metrics can provide additional detail around the dynamics driving these changes. To this end, Figures 8 and 9 explore this by examining the evolution in credit scores and 60 day payment delinquencies over the evaluation period.

Figure 8 reveals a marked difference in the credit score trends between the counseled clients and the comparison group. Though the two groups begin with very similar scores, the counseled group faces a steep drop of about 13 points in their credit score between the pre-counseling quarter and the first post-counseling quarter which persists through the second quarter. The comparison group however has a modest upward trend over this same interval, and this trend continues across all quarters. The counseled group begins to recover in the third quarter after the receipt of counseling. By the sixth post-counseling quarter the counseled group has a slightly higher credit score (601) than they did when they began, but the overall increase in their credit score is still 6.8 points lower than the comparison group's credit score increase.

Figure 8: Difference-in-Difference Analysis: Change in Credit Score



n=11,837

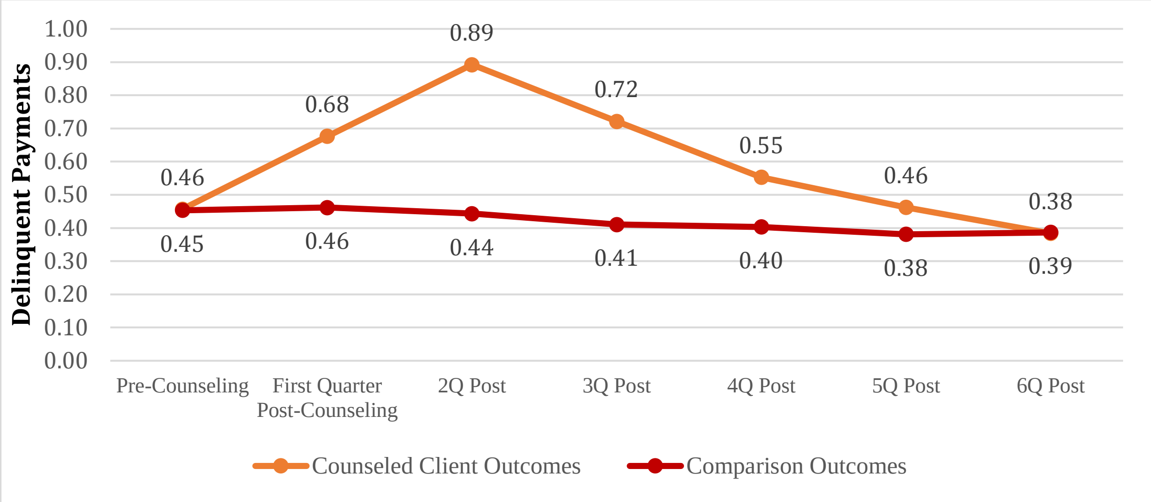
Source: Credit Attributes Data

Similarly, we plot the trends in 60 day delinquencies over time. Figure 9 shows an inverted pattern to the development in credit scores. The baseline delinquencies between the two groups are roughly identical (~0.45 delinquent payments on average for each person in the sample). Post-counseling, there is a spike in payment delinquencies for the counseling group (the delinquencies for the comparison group stay roughly flat over the entire period) which peaks in the second post-counseling quarter before declining substantially over the study period. By the sixth post-

[33] This impact remains significant when controlling for bankruptcies and charge-offs over the evaluation period.

counseling quarter, payment delinquencies fall below their pre-counseling levels and are roughly at parity with the comparison group.[34]

Figure 9: Difference-in-Difference Analysis: Change in 60 Day Payment Delinquencies



n=12,099
Source: Credit Attributes Data

There are two noteworthy points of discussion here. The first is the initial drop in credit score and spike in payment delinquencies for counseled clients. Though the drop in credit score is evident in the first quarter after counseling, this should not be read as evidence that counseling caused drops in credit scores. Rather, the evidence is in-line with a counseled client experiencing a debt- or income-based shock (such as a hospitalization or the loss of a job) around the time of counseling (perhaps motivating them to seek counseling), resulting in a downward trend in their credit score that persists for the first quarter after counseling. There is some evidence of a shock driving participation into counseling, as indicated on Table 4 of this report. The majority of clients (almost two-thirds) reported seeking counseling because of reduced income, while another ~30 percent reported facing increased expenses. When Figures 8 and 9 are paired together, it appears that the drop in credit score appears to be driven by clients' inability to meet their debt payment obligations.

Table 19 investigates the overall impact on client outcomes relative to the comparison group for credit score and debt payment measures. When measured as the total change over the evaluation period, receiving counseling is negatively associated with the change in credit score (Model 1),[35] and there is no significant difference between counseling and comparison groups in terms of having payments 60 days or more delinquent. This is not unexpected, in light of the dynamic time trend analysis that shows an initial shock in both indicators shortly after the baseline period.

[34] The number of payments 60 days delinquent in the last six months can be understood to be a moving average of the number of payment delinquencies over time (since any delinquencies in the past six months are counted). To get a more dynamic read on what is happening with payment delinquencies, the number of payments *currently* 60 days or more delinquent in any quarter was also investigated. Though the analysis is not featured here, the payment delinquency spike for current delinquent payments is over by the third post-counseling quarter and by the fourth post-counseling quarter the level of current delinquencies is actually *lower* than it was at baseline. This decline persists for the rest of the evaluation period.

[35] Throughout this analysis, the base size for credit score models will be slightly lower than for models investigating other credit indicators, as credit scores were not available in all periods for a small subset of clients.

Table 19: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Credit Indicators

Model (Standard Errors in Parentheses)	1	2
Dependent Variable	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-6.76***** **(1.23)**	**-0.01** **(0.03)**
Constant	595.12*** (0.39)	0.46*** (0.01)
R-squared	0.03	0.01
*Observations (Individuals*Quarters)*	*82,859*	*84,693*
Unique Individuals	*11,837*	*12,099*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed. Full results can be seen in the Appendix.

Source: Credit Attributes Data

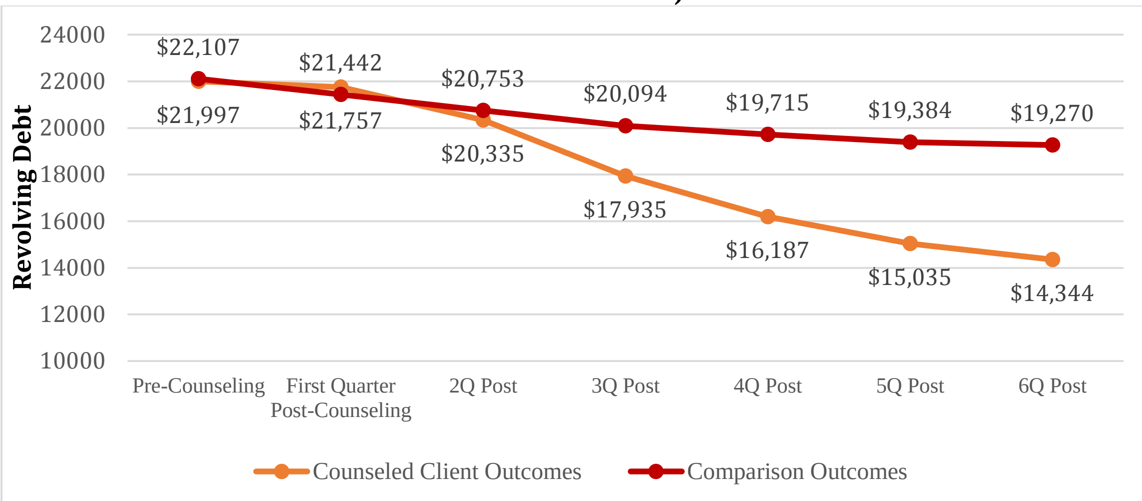
** p<0.1; ** p<0.05; *** p<0.01*

C. Subsample Analysis: Outcomes for Debt-Holding Clients

For this portion of the analysis we examine the evolution of revolving debt indicators only for those individuals who *had debt at the baseline period*. Given the nature of credit counseling, debt-holding clients are likely a more relevant target population than those clients who have no debt in the period prior to receipt of counseling. It is also possible that debt-holding clients seek credit counseling for different reasons than those without debt (for example, those without debt may seek counseling due to low credit scores or an inability to save, while those with debt may seek counseling due to burdensome debt levels or an inability to make debt payments). For reference, approximately one in ten counseling clients does not have debt in the quarter prior to the receipt of counseling, and slightly over one out of five matched clients do not have revolving debt in the baseline period.

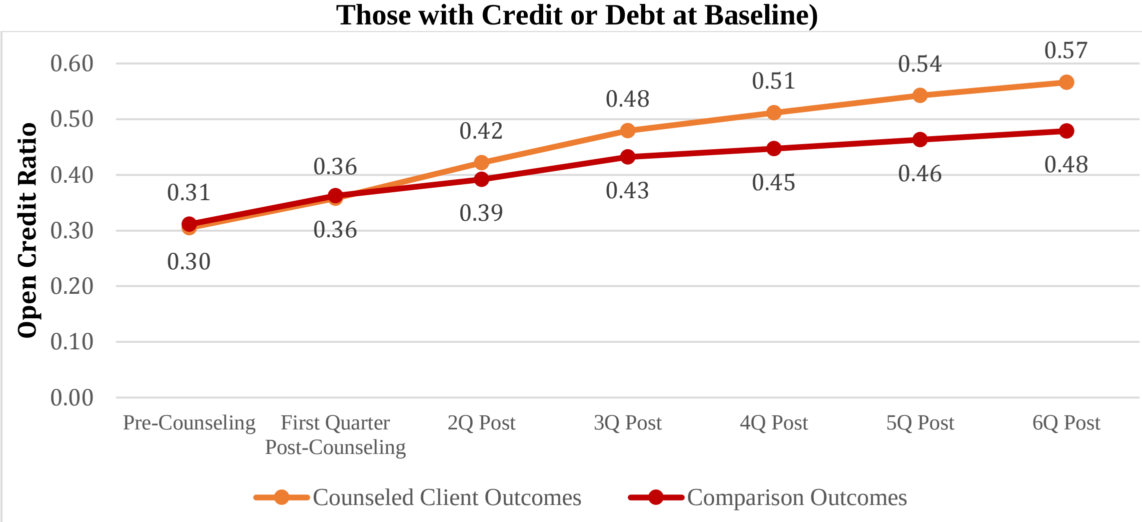
Figures 10 and 11 respectively trace the evolution in total revolving debt and the available open credit ratio for counseling clients and comparison individuals. Both figures show that debt and the available credit ratio track closely with the comparison group through the first post-counseling quarter before diverging slightly in the second. For total revolving debt, the comparison group continues to reduce its revolving debt level by around $200 to $600 a quarter, while the counseling group exhibits a much more rapid and statistically significant decline which peaks in the third post-counseling quarter and continues through the sixth post-counseling quarter. In total, the counseling group reduces their debt by about 35 percent while the comparison group reduces their debt by 13 percent. Similarly, the ratio of available credit for counseled clients grows at a higher rate than the comparison group after the first post-counseling quarter, and is 19 percent higher than the comparison group six quarters after counseling.

Figure 10: Difference-in-Difference Analysis: Change in Revolving Debt (For Those with Debt at Baseline)



n=9,015
Source: Credit Attributes Data

Figure 11: Difference-in-Difference Analysis: Change in Available Open Credit Ratio (For Those with Credit or Debt at Baseline)



n=9,008
Source: Credit Attributes Data

Table 20 presents the difference-in-difference analysis for debt-holding Sharpen clients compared to their debt-holding matched comparison individuals. Models 1 and 4 explore the change in total revolving debt for those with revolving debt at baseline, while Model 2 looks at the change in total debt including only those who had *any* debt at baseline, and Model 3 examines the change in the available credit (as a ratio of total credit) for those who had any open revolving credit *or* debt at baseline.

Table 20: Differences-in-Differences Analysis - Client Outcomes on Key Debt Indicators (For Those with Debt at Baseline)

Model (Standard Errors in Parentheses)	1	2	3	4
Dependent Variable	Total Revolving Debt	Total Debt	Open Revolving Credit Ratio	Total Revolving Balance-to-Credit Ratio
Counseling Client	**-4,814.77*** **	**-12,725.78*** **	**0.09*** **	**-0.09*** **
	(449.98)	**(1,477.65)**	**(0.01)**	**(0.01)**
Constant	22,051.75***	90,989.41***	0.31***	0.70***
	(131.75)	(439.66)	(0.00)	(0.00)
R-squared	0.05	0.01	0.10	0.10
*Observations (Individuals*Quarters)*	*63,105*	*77,217*	*63,056*	*63,105*
Unique Individuals	*9,015*	*11,031*	*9,008*	*9,015*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed.

Source: Credit Attributes Data

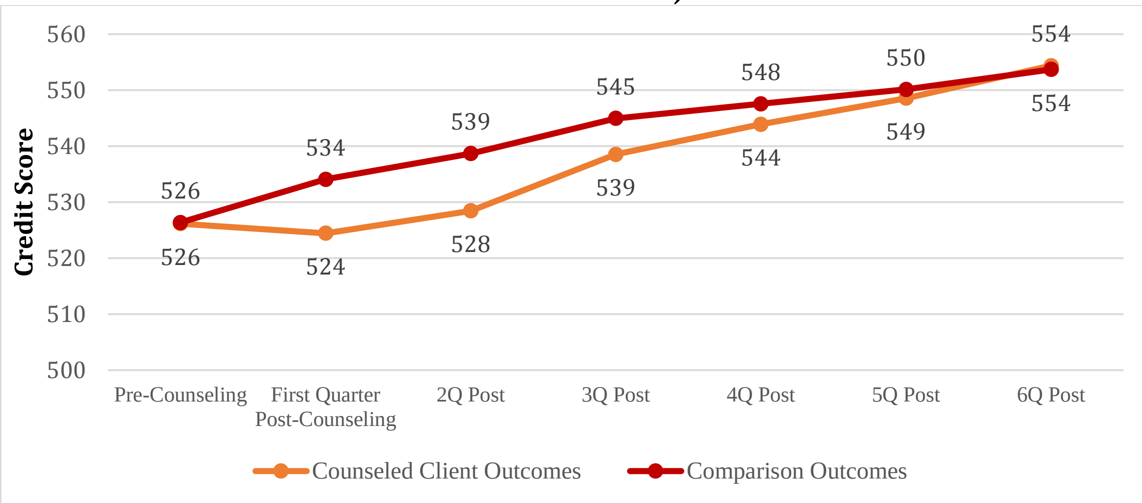
* p<0.1; ** p<0.05; *** p<0.01

By the end of the evaluation period, debt-holding counseling clients experience improvements across all four metrics relative to the comparison group. Indeed, the results here are relatively similar to those in Table 18, although the magnitude of the differences between counseling and comparison groups are greater. This is perhaps most notable in the case of the available credit ratio (Model 3) and the total revolving balance to credit ratio (Model 4). Excluding any individuals who did not have any debt at baseline causes the magnitude of the change between counseling and comparison groups to more than double. Taken together, these results show that credit counseling clients are reducing their total amount of revolving debt faster than the comparison group, while developing access to liquidity on their existing open accounts at higher rates as well.

D. Subgroup Analysis: Bottom 50th Credit Score Percentile

This section and the following will explore key credit indicators for two different sub-groups defined by their baseline credit score. This section covers those in the bottom 50th percentile of initial credit scores (which translates to a credit score at or below 601), and the following section covers those in the bottom 25th percentile of credit scores. The purpose of these analyses is to explore how credit indicators evolve for clients with relatively weak or distressed credit profiles at the time of counseling (even above and beyond the relatively weak profile of counseling clients generally). There are 2,700 counseled clients in the bottom 50th percentile of baseline credit scores, and 2,605 individuals in the comparison group. For those in the bottom 50th credit score percentile at baseline, the pattern in credit scores (shown in Figure 12) looks somewhat different than for the full sample: These clients do not appear to have as much of a shock in their credit scores around the time of counseling as their scores stay roughly flat from baseline to the first post-counseling quarter, and by the end of the evaluation period their scores are equal to those of the comparison group.

Figure 12: Difference-in-Difference Analysis: Change in Credit Score (Bottom 50th Credit Score Percentile)



n=5,242
Source: Credit Attributes Data

Table 21: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Credit Indicators (50th Credit Score Percentile at Baseline)

Model (Standard Errors in Parentheses)	1	2	3
Dependent Variable	Total Revolving Debt	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-1,973.05*** **	**0.86**	**-0.13** **
	(404.15)	**(1.82)**	**(0.06)**
Constant	7,195.09***	526.27***	0.96***
	(115.89)	(0.55)	(0.02)
R-squared	0.03	0.08	0.02
*Observations (Individuals*Quarters)*	*37,135*	*36,694*	*37,135*
Unique Individuals	*5,305*	*5,242*	*5,305*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed. Full results can be seen in the Appendix.

Source: Credit Attributes Data

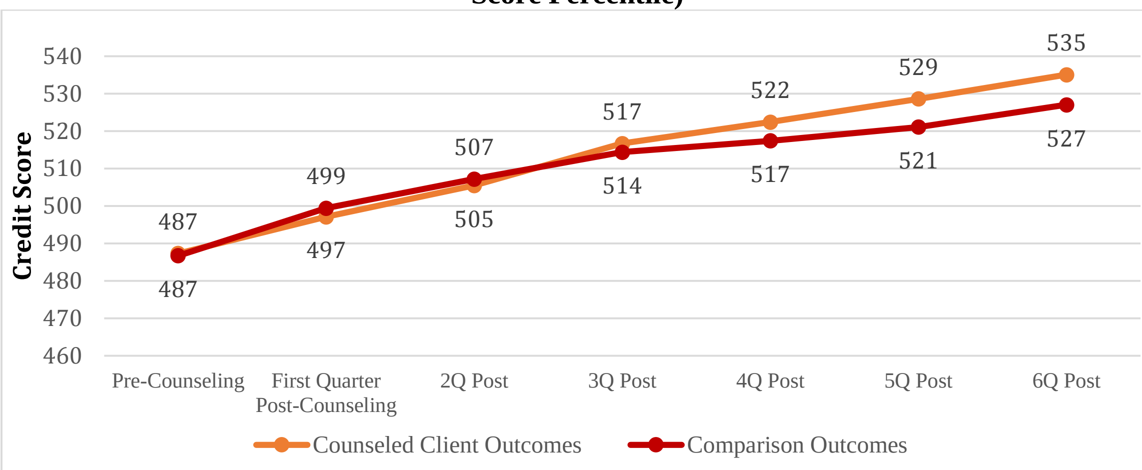
* p<0.1; ** p<0.05; *** p<0.01

Table 21 shows the outcomes for counseling clients in this subgroup relative to the non-counseled comparison group across several key metrics. The amount of total revolving debt for counseling clients declines by almost $2,000 relative to the comparison. In absolute terms, this is less than the reduction seen in the full matched sample, but individuals in the bottom 50th credit score percentile also have less than half the revolving debt of the full sample at baseline.[36] Comparison group individuals reduce their debt by about 30 percent over the evaluation period, while counseling clients reduce their debt by 50 percent. The change in credit score for counseling clients is positive but insignificant for this subgroup, though counseling clients show significant improvements in their number of 60 day payment delinquencies relative to the comparison group.

E. Subgroup Analysis: Clients in the Bottom 25th Credit Score Percentile

This portion of the analysis covers clients and comparison group individuals who fall in the bottom 25th percentile of the baseline credit score distribution (a credit score at or below 540). For this subgroup, there are 1,328 counseled clients and 1,257 individuals in the comparison group. Figure 13 traces the change in credit scores for clients in the bottom 25th credit score percentile at baseline. Interestingly, the credit scores for this high-risk group grow roughly parallel to the comparison group for the first three post-counseling periods before diverging, with the counseling group experiencing more rapid growth in their credit scores in the final quarters of the evaluation period than the comparison group.

Figure 13: Difference-in-Difference Analysis: Change in Credit Score (Bottom 25th Credit Score Percentile)



n=2,558
Source: Credit Attributes Data

Table 22 presents the difference-in-difference results across several metrics for this subgroup. There are two notable differences between this analysis and the analysis of the 50th credit score percentile above. First, while counseling clients do reduce their revolving debt by over 500 dollars relative to the comparison group, this change does not reach statistical significance.[37] This is perhaps driven in part by the fact that individuals with such low credit scores at baseline do not have high levels of revolving debt to begin with (relative to the general counseling population). On a percentage basis both groups reduce their revolving debt by about 45 percent. The other major change is that counseling clients experience positive and statistically significant growth in their credit scores relative to the comparison group over the evaluation period. By the sixth post-counseling quarter, counseling clients' credit scores have grown 7.5 points higher relative to the

[36] This can be seen in comparing the constants for the full sample and 50th credit score percentile subsample.
[37] However, this change does become statistically significant when excluding a small number of extreme values from the sample.

comparison group's scores ($p<0.01$). The delinquency metric directionally improves for this group and the change in delinquent payments is similar to the 50th credit score percentile group, but the difference is not significant for those in the 25th credit score percentile at baseline.

Table 22: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Credit Indicators (25th Credit Score Percentile at Baseline)

Model (Standard Errors in Parentheses)	1	2	3
Dependent Variable	Total Revolving Debt	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-526.09**	**7.49*** **	**-0.17**
	(355.70)	**(2.57)**	**(0.10)**
Constant	3,631.72***	487.04***	1.48***
	(130.24)	(0.74)	(0.04)
R-squared	0.04	0.16	0.05
*Observations (Individuals*Quarters)*	*18,095*	*17,906*	*18,095*
Unique Individuals	*2,585*	*2,558*	*2,585*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed. Full results can be seen in the Appendix.
Source: Credit Attributes Data
* p<0.1; ** p<0.05; *** p<0.01

F. Controlling for the Credit "Shock"

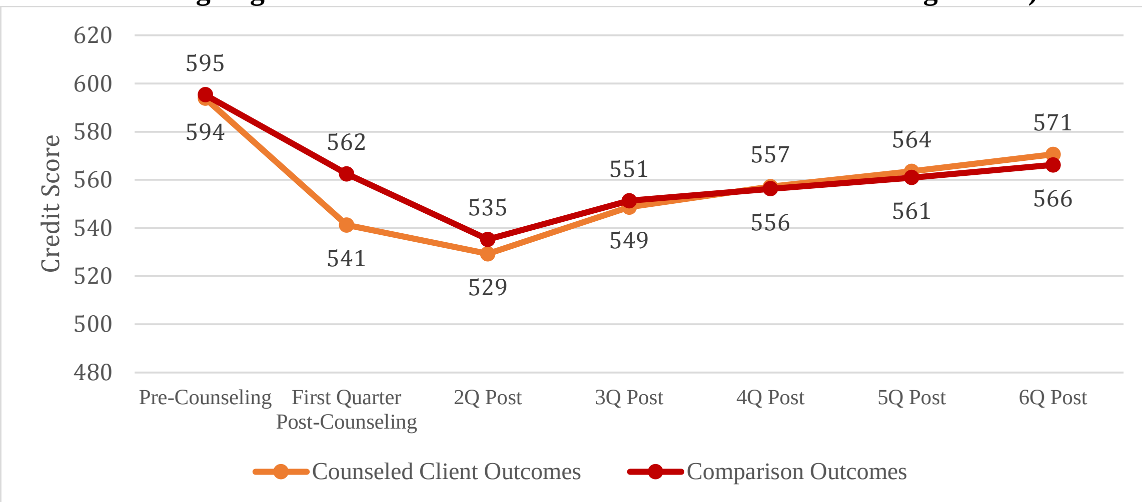
As detailed above, the credit scores and payment delinquencies for both the counseled and comparison groups start off roughly similar in the baseline period before diverging quickly. The most obvious explanation for this is that counseled clients are driven to take up counseling services due to some shock experienced around the time of counseling (or in the periods prior to counseling), and that this is reflected on their credit report data in the first quarter after counseling.[38] Indeed, this explanation tracks with the reasons clients give for seeking out counseling: The majority of clients are facing job losses, income reductions, or sudden expenses which may make it difficult to meet their debt obligations.

To better understand how credit scores evolve for clients who undergo an income or expense shock, a subsample was constructed to compare clients who appear to have experienced a shock directly to comparison group members who also appear to have experienced a shock. To do this, the change in credit scores and payment delinquencies from pre-counseling to the first post-counseling quarter was measured for the counseling group and a shock was defined as having a credit score that decreased by more than one standard deviation from baseline to the first post-counseling period, or having payment delinquencies that increased by more than one standard deviation over the same time period. This isolates the counseling clients who were undergoing

[38]The quarterly nature of the credit data in the study means that the baseline observation of credit data for a household may have occurred anytime in the range of 0-90 days prior to counseling. Thus, the baseline credit data may not pick up on the shock experienced by the household that drove them to counseling. Further, there is likely a lag in the time that it takes a shock experienced by a household to impact the credit report; e.g., a loss of a job in a particular month may not result in delinquent payments until subsequent months.

exceptional credit shocks around the time of counseling and matches them to comparison group individuals going through similarly exceptional shocks.[39] To quantify this, a person was identified as having gone through a shock if their credit score dropped by 48 points, or if their number of payment delinquencies 60 days past due increased by more than 1.2. Clients and comparison group individuals having a credit or payment shock in either the first or second post-counseling period are included in this analysis.[40]

Figure 14: Difference-in-Difference Analysis: Change in Credit Score (For Those Undergoing Credit Shocks in the First or Second Post-Counseling Period)



n=634
Source: Credit Attributes Data

Figure 14 outlines the trends in credit scores between counseling and comparison groups for those undergoing credit shocks. What the relative trends between these two groups show is that even when comparing individuals going through credit shocks (as we have defined them in this analysis), the shocks experienced by the counseling group are still more extreme, as their credit scores drop substantially more than the comparison group in the first two post-counseling quarters. Despite this, their scores recover quicker and end up higher than the comparison by the end of the evaluation period.

The number of observations in this leg of the analysis is relatively small: 321 for the counseling group and 313 for the comparison group. This is due to the low prevalence of comparison group individuals who underwent credit shocks in this time period—the number of counseled clients who went through a shock *and* could be matched with similar comparison individuals who also went through a shock was relatively low. What this evidence points to is that credit scores are slow to recover for both groups if they went through shocks, and while there is some directional

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[39] A number of other methods of creating a "shocked" comparison group were explored, including alternate specifications of the changes in credit score and payment delinquencies, matching on post-counseling attributes, and matching on trends in credit scores. Regardless of the definition of the shock, the results were largely similar to this analysis.
[40] The reason for selecting this time period stems from the fact that a shock could take time to manifest. Most households who underwent a credit shock did so in the period between the baseline and the first post-counseling quarter, while about a third went through a shock between the first and second post-counseling quarters. The delay in the shock could be due to such factors as having existing liquid assets or other financial support to buffer the shock of job loss or increased expenses, and thus delayed any missed payments made by these clients

evidence that counseled clients may recover at a higher rate in later periods, this difference is not significant, as shown in Table 23.

Table 23: Differences-in-Differences Analysis - Credit Score Outcomes for Individuals Matched by Presence of Credit Shock

Model (Standard Errors in Parentheses)	1
Dependent Variable	Credit Score
Counseling Client	**5.85**
	(5.53)
Constant	594.56***
	(1.76)
R-squared	0.18
*Observations (Individuals*Quarters)*	*4,438*
Unique Observations	*634*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

Additionally, an analysis on the credit score trend controlling for variables which might be correlated with a credit shock (charge-offs, bankruptcies, and foreclosures) was conducted, but the inclusion of these controls did not notably alter the credit score outcomes for counseling clients seen in the credit score analysis for the full sample (Table 19). Without controlling for these factors, the credit score for counseling clients drops by 6.8 points relative to the comparison group. Controlling for these factors, the credit score drops by 6.4 points (p<0.01).

G. Exploring the Dynamics of Consumer Debt

Another aspect of consumer outcomes is the evolution of revolving debt for both the counseled and comparison groups. While overall debt is declining among counseled clients, this decline can be attributed to behavioral changes, debt reductions from interventions (such as the debt management plan), creditors charging off severely delinquent debts, or consumer bankruptcy. To explore these debt dynamics, this section will re-estimate the models for revolving and total debt, controlling for the initiation of a bankruptcy, charge-off, or foreclosure over the evaluation period. The next section will explore debt outcomes based on DMP status. Additionally, the amount of HELOC debt is included as a time-varying control variable in an alternative specification, as HELOC debt can cause large fluctuations in an individual's debt profile.

Table 24 presents the results when controlling for any bankruptcies, charge-offs, or foreclosures. Specifically, Models 1 and 2 estimate changes in revolving debt while controlling for new bankruptcies and charge-offs, while Models 3 and 4 estimates changes in total debt, controlling for bankruptcies, charge-offs, and foreclosures (since total debt includes mortgage debt). Even controlling for debt write-offs, the decline in these debt metrics for the counseled group is greater than for the comparison group. Controlling for bankruptcies and charge-offs, revolving debt declines by around $2,000 for the counseling group relative to the comparison, and this increases to around $2,700 when only including individuals with revolving debt at baseline. Controlling for bankruptcies, charge-offs, and foreclosures, the counseling group still decreases their total debt relative to the comparison group by around $6,600 relative to the comparison and this increases to a $7,600 decline when only including those who had any debt at baseline.

Table 24: Differences-in-Differences Analysis - Client Outcomes Controlling for Debt Write-Offs

Model (Standard Errors in Parentheses)	1	2	3	4
Dependent Variable	Total Revolving Debt	Total Revolving Debt (Had Debt at Baseline)	Total Debt	Total Debt (Had Debt at Baseline)
Counseling Client	**-1,988.54*****	**-2,659.47*****	**-6,604.27*****	**-7,614.55*****
	(322.99)	**(424.72)**	**(1,305.71)**	**(1,410.92)**
Bankruptcy Post-Baseline†	-13,972.72***	-16,966.38***	-58,237.28***	-60,858.06***
	(1,002.68)	(1,183.58)	(3,859.80)	(3,998.96)
Charge-Offs Post-Baseline†	-5,778.28***	-6,563.97***	-9,852.71***	-9,801.84***
	(312.75)	(375.06)	(841.14)	(877.36)
Foreclosures Post-Baseline†			-64,529.61***	-64,555.67***
			(11,665.13)	(11,739.10)
Constant	16,532.97***	22,051.75***	82,582.95***	90,989.41***
	(98.36)	(128.86)	(397.55)	(429.51)
R-squared	0.08	0.10	0.04	0.05
*Observations (Individuals*Quarters)*	*84,693*	*63,105*	*84,693*	*77,217*
Unique Individuals	*12,099*	*9,015*	*12,099*	*11,031*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01
†Coded as '0' or '1' in each quarter. Once variable is coded as 1, it remains coded as 1 for all subsequent quarters.

The models in Table 24 were also run controlling for changes in HELOC debt. This additional control made relatively little difference to the overall results, reducing the difference between the counseling and comparison groups by about $200 in each model. However, the inclusion of HELOC debt did affect the overall fit of the revolving debt models substantially, increasing the r-squared from 0.08 in Model 1 and 0.1 in Model 2 to 0.53 and 0.54 respectively.

H. Client Outcomes Based on DMP Status

Finally, Tables 25 and 26 present the results examining the relative changes in debt and credit outcomes based on client DMP status. While this analysis cannot track who entered into a DMP, we do have information on which clients were *recommended* into a DMP. To assess the outcomes for those recommended into DMPs and those not recommended into DMPs, Tables 25 and 26 separate DMP and non-DMP clients into two separate models, with DMP clients only compared to their matched equivalents (as are the non-DMP clients).[41]

Table 25: Differences-in-Differences Analysis - Debt Outcomes for Samples Split by Client DMP Recommendation

Model (Standard Errors in Parentheses)	1	2	3	4
Dependent Variable		Total Revolving Debt		
Counseling Client (DMP Recommendation)	**-3,340.09*** **		**-2,095.31*** **	
	(366.44)		**(350.46)**	
Counseling Client (No DMP Recommendation)		**-4,129.67*** **		**-1,766.30*** **
		(674.14)		**(629.30)**
Bankruptcy Post-Baseline†			-12,061.03***	-16,071.73***
			(1,187.47)	(1,654.86)
Charge-Offs Post-Baseline†			-5,244.10***	-6,598.26***
			(387.07)	(516.31)
Constant	17,563.18***	14,818.66***	17,563.18***	14,818.66***
	(98.46)	(212.04)	(96.95)	(208.00)
R-squared	0.05	0.03	0.09	0.07
*Observations (Individuals*Quarters)*	54,089	33,145	54,089	33,145
Unique Individuals‡	7,727	4,735	7,727	4,735

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01
†Coded as '0' or '1' in each quarter. Once variable is coded as 1, it remains coded as 1 for all subsequent quarters.

As can be seen in Table 25, the non-DMP group actually reduces their debt more than the DMP group in the models with no controls (Models 1 and 2). However, when controlling for bankruptcies and charge-offs (Models 3 and 4) DMP clients exhibit greater debt reductions than non-DMP clients, indicating that non-DMP clients may be more prone to these debt write-offs. DMP clients have around $300 more in debt reduction than non-DMP clients in these models.

Table 26 shows the credit score outcomes for DMP and non-DMP clients relative to their comparison groups. While both groups show declines in their credit scores relative to their

[41] As a note, the DMP client sample models contain 3,801 clients recommended for DMPs (and 3,926 comparison individuals); the non-DMP client sample contains 2,293 clients not recommended for DMPs (and 2,442 comparison individuals). The combined number of comparison individuals between DMP and non-DMP models slightly exceeds the total number of comparison individuals because comparison individuals could be matched to both DMP and non-DMP clients within strata, leading to some slight overlap in comparison individuals between models.

comparison groups, the DMP clients experience less of a relative drop than the non-DMP group; DMP clients see a credit score decline of five points while non-DMP clients see a decline of almost ten points. An alternative set of models which controlled for bankruptcies, charge-offs, and foreclosures reproduced these results very closely.

Table 26: Differences-in-Differences Analysis - Credit Score Outcomes by DMP Status

Model (Standard Errors in Parentheses)	1	2
Dependent Variable	Credit Score	
Counseling Client (DMP Recommendation)	**-5.12***** **(1.54)**	
Counseling Client (No DMP Recommendation)		**-9.51***** **(2.02)**
Constant	595.56*** (0.48)	594.51*** (0.63)
R-squared	0.04	0.02
*Observations (Individuals*Quarters)*	53,039	32,165
Unique Individuals‡	7,577	4,595

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group. Output for the quarter indicators and counseling/quarter interactions is suppressed.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

†Coded as '0' or '1' in each quarter. Once variable is coded as 1, it remains coded as 1 for all subsequent quarters.

I. Alternative Model Specifications

Extreme values

Given the relatively high levels of debt held by individuals in this analysis and large changes in other credit indicators such as credit scores, it is important to check to make sure that extreme values are not the sole drivers of the analysis. To address this, extreme values were identified based on exceedingly large *changes in outcome measures* from baseline to the end of the evaluation period.

Table 27: Results Excluding Extreme Changes in Outcome Measures

	Sample Restriction Criteria		
Dependent Variable	Full Sample	Excluding 1% Highest/Lowest Change	Excluding 5% Highest/Lowest Change
Total Revolving Debt	-3,637***	-2,861***	-1,663***
Total Debt	-11,341***	-5,809***	-2,441***
Available Open Credit Ratio	0.05***	0.06***	0.08***
Balance-to-Credit Ratio	-0.04***	-0.06***	-0.07***
Credit Score	-6.76***	-5.93***	-4.06***
60-Day Payment Delinquencies	-0.01	0.04**	0.04***

This table presents a comparison of client outcomes based on the exclusion of extreme values, defined by the overall change in the outcome measure over the evaluation period. This table includes results for the full sample, the sample excluding the highest and lowest one percent of outcome changes, and the sample excluding the highest and lowest five percent of outcome changes.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

Table 27 presents a comparison of the full sample models (shown in Tables 18 and 19) in this evaluation when excluding those in both the highest and lowest one percent of changes in outcome measures, and the highest and lowest five percent of changes in outcome measures. These results reveal that the total debt measure in particular is influenced by extreme changes, as the reduction in total debt falls by almost 50 percent when excluding the highest and lowest one percent of total debt changes (and by over three-fourths when excluding the highest and lowest five percent). However, total debt is still negative and statistically significant with these sample restrictions. The revolving debt measure also exhibits some sensitivity to large changes, as excluding the highest and lowest one percent of changes results in slightly more than a 20 percent drop in the debt reduction. The balance-to-credit, available open credit, and credit score outcome measures show modest improvements when excluding extreme changes, and the payment delinquency metric becomes slightly positive (and statistically significant).

The sample excluding the highest and lowest one percent of outcome changes was also examined using every model in this evaluation (i.e. controlling for debt write-offs, restricting the sample by baseline credit score percentile, etc.). This analysis found that the removal of the most extreme values affects the coefficients on credit counseling participation for every model in roughly similar ways as those seen in Table 28. In each model, the magnitude of the change for total and revolving debt is reduced to a similar degree, and there are relatively modest fluctuations for all other measures. Notably, the revolving debt reduction for those in the 25th credit score percentile at baseline becomes statistically significant at the five percent level (likely driven by a reduction in the standard error) and the reduction in 60-day payment delinquencies for those in the 50th credit score percentile loses statistical significance.

An alternative way of accounting for extreme values excludes observations based on *their pre-counseling debt measures*, as the variability in debt levels was extremely large at baseline. Table 28 presents the results when excluding individuals based on this criterion. The changes in total and revolving debt are less sensitive to exclusions based on pre-counseling debt levels; while both measures show less reduction in debt in the restricted samples than the full sample, these changes are relatively modest when compared to the changes seen when restricting samples based on the *change* in outcome measures.

Table 28: Debt Results Excluding Large Baseline Values

	Sample Restriction Criteria		
	Full Sample	Excluding Highest 1% at Baseline	Excluding Highest 5% at Baseline
Total Revolving Debt	-3,637***	-3,444***	-2,768***
Total Debt	-11,341***	-9,954***	-8,516***

This table presents a comparison of client outcomes based on the exclusion of extreme values, defined by the value of revolving debt and total debt measures at baseline. This table includes results for the full sample, the sample excluding the highest one percent of baseline debt, and the sample excluding the highest five percent of baseline debt.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

Agency-Level Effects

An additional set of models was constructed to account for the possibility of any agency-specific effects in the results. Specifically, indicators were created to identify the counseling agency for each client (coded 0 for all individuals pre-counseling, and 1 for every client in a specific agency post-counseling).[42] When controlling for agency-level effects, the results are largely unchanged.

J. Matching Results Discussion

Overall, the results of the matching analysis complement the results found in the descriptive portion of this study. From this analysis, we see that Sharpen clients are uniquely distressed at baseline relative to non-counseled individuals with similar profiles. The presence of expense or income shocks from events like major illnesses or the loss of a job likely leads these Sharpen clients to seek help for their debt obligations. The finding that many Sharpen clients (and likely credit counseling clients in general) appear to seek counseling as their credit profiles have already begun to deteriorate may indicate that future counseling approaches should be oriented toward stemming these short-term declines as a supplement to the longer-term orientation of other credit counseling offerings (such as the DMP).

The central focus of this matching analysis is measuring what happens to these clients after they enroll in Sharpen Your Financial Focus®. By tracing what happens to Sharpen clients' key credit indicators relative to a matched comparison group, this evaluation allows us to approximate a counterfactual outcome for Sharpen clients and compare client outcomes to this counterfactual.

The primary outcome explored here is the change in debt for Sharpen clients relative to the comparison group. In this evaluation, debt is measured in two ways: the total amount of revolving

[42] A separate set of models which clustered standard errors at the agency level was also considered, but this presented two issues. First, the relatively small number of agencies limits the utility of clustering at this level. Second, the individuals in the comparison group did not interact with the agencies in any way, so clustering this group by agency (or clustering the standard errors for all comparison individuals as one group) would be inappropriate.

debt, and the amount of total debt (revolving and installment, including mortgages). Regardless of the type of debt examined, the results are similar. While debt reductions are present and significant for the full sample in this analysis, the results are most stark when considering those who held debt in the baseline period. For total revolving debt (which includes debt on closed accounts and HELOCs), Sharpen clients have about 25 percent less revolving debt than the comparison group at the end of the evaluation period and their balance-to-credit ratio on this debt is about 10 percent lower (and is 15 percent lower when considering only those with revolving debt at baseline). For the total debt level including revolving and installment debt, Sharpen clients reduce their debt by around $13,000 relative to the comparison group over the evaluation period. Some of the decline in total debt is influenced by extreme values; however, even when accounting for these extreme values the reduction in total debt is always statistically significant and greater than the reduction in revolving debt for counseling clients in all models covered in this evaluation. Additionally, counseling clients exhibit comparatively rapid growth in their available credit (as a percentage of total credit), indicating that they are building available liquidity at a significantly faster rate than the comparison group.

While debt unambiguously declines for the counseling group relative to the comparison group, the drivers of this decline are less clear. To explore the answer to this question, this study checked for two potential sources of debt reduction (in addition to the effects of general credit counseling): (1) Debt write-offs from charge-offs, bankruptcies or foreclosures, and (2) program-related debt reductions from DMP enrollment. Overall, the results show that both of these sources contribute significantly to client debt reduction. When controlling for bankruptcies, charge offs and foreclosures over the study period, the relative difference in debt levels is smaller, but is still significant. It is worth noting that client bankruptcies do not exist in isolation from credit counseling. Sharpen clients can, as part of the counseling process, be recommended for bankruptcy and even undergo separate bankruptcy counseling. From the perspective of the client, bankruptcy may be the best option for them to manage their debts, so excluding bankrupt individuals from the analysis may understate the realized benefit to clients from credit counseling.

When looking at the relative debt reduction for DMP and non-DMP Sharpen clients, we see that both groups experience significant revolving debt reductions even when controlling for bankruptcy or charge offs, and there is evidence that clients recommended for DMPs exhibit greater levels of debt reduction relative to their comparison group once bankruptcies and charge-offs are controlled for.

For client credit scores, the results are mixed. For the full sample of counseled individuals, we observe a substantial credit score decline which only begins to recover in the third post-counseling quarter. The comparison group, however, experiences a modest upward trend in credit scores over the evaluation period and has a significantly higher credit score than the counseled group at the end of the evaluation period. In the final quarters of the evaluation, Sharpen clients' credit scores are growing at faster rates than that of the comparison group. However, it is unclear if this is due to Sharpen or from the fact that lower credit scores have more room to grow (a "regression to the mean" effect). Additional credit data for these clients over a longer study period may help resolve this, as credit scores tend to be "sticky" and may not fully reflect changes in financial behaviors (i.e. making payments on time, improving debt ratios, etc.) which may emerge as a result of counseling.

Though credit scores for the counseled group remain consistently lower than credit scores for the comparison group, the story changes slightly when looking at more financially distressed clients. For those who had credit scores in the *bottom half* of the credit score distribution (a credit score at or below 601) at baseline, counseled clients see their credit scores first lag behind the comparison group before exceeding them by the end of the evaluation period (though the difference is not significant). This may be due to the fact that clients in this subset do not experience as much of a credit score decline in response to a debt or income shock, as their credit score was already substantially lower to begin with. An additional possibility is that these clients experienced a debt or income shock further back in their credit history (i.e. six months or a year prior to counseling). This would imply that clients who had lower credit scores due to a shock may be matched with comparison group individuals with chronically low credit scores, and the increased gains relative to the comparison group reflect this difference. Yet given that the comparison group's credit scores are growing persistently over time as well, it is difficult to characterize the comparison group as simply having persistently poor credit profiles.

For those in the *bottom quartile* of the credit score distribution at baseline (a credit score at or below 540), Sharpen clients actually end up with somewhat higher credit scores than comparison individuals, and there is evidence that their growth over the evaluation period is significant. However, it remains unclear if the increased credit score gains relative to the comparison group are due to the counseling program or from factors outside of counseling.

Notably, clients in the bottom credit score quartile do not appear to have a credit shock during the study period, which may indicate that they had a shock prior to the evaluation period. The absence of a shock could also possibly be because clients with relatively low credit scores seek credit counseling due to a desire to improve their persistently poor credit profile rather than due to a credit shock of some sort. Indeed, supplemental analysis reveals that clients in the bottom quarter of the credit score distribution report seeking counseling for "bad credit" at twice the rate of the general Sharpen clientele (though overall their motivations appear largely similar). Summarizing these results, we can say that there is some evidence that Sharpen clients with relatively distressed credit profiles improve their credit scores relative to non-counseled individuals, though the exact mechanisms for this improvement remain unclear.

Finally, there is also evidence that clients recommended for DMPs see stronger improvements in their credit scores than those clients not recommended for DMPs. While credit scores for both groups decline relative to the comparison group, the DMP group experiences a substantially smaller decline in credit scores. While this difference may be attributable to inherent differences between DMP and non-DMP groups, the fact that this difference holds when controlling for bankruptcies and charge-offs post-counseling may indicate that DMPs themselves drive improvements in credit scores.

Turning to credit payments rather than credit score, relatively distressed Sharpen clients exhibit improvements in making on-time payments. Relative to the comparison group, clients in the bottom half of credit scores at baseline similarly exhibit improvements in their propensity to fall 60 days or more behind on payments relative to the comparison group. Generally speaking, Sharpen clients as a whole experience spikes in payment delinquencies around the time of counseling which recover by the end of the evaluation period, though as with the credit score metric it is not clear if counseling specifically plays a role in driving this recovery.

Overall, this evaluation demonstrates that clients receiving credit counseling have statistically significant improvements in debt reduction relative to a comparison group, and it has provided evidence that relatively credit-distressed counseling clients (defined as those in the bottom 50th or 25th percentiles of the credit score distribution prior to counseling) experienced more substantial credit gains post-counseling than the general counseling population. In this, the study has somewhat similar results to a separate analysis of credit counseling conducted by Elliehausen, Lundquist, and Staten (2007). Examining credit outcomes three years after counseling, that analysis found that counseling was associated with very modest credit improvements for consumers in the bottom credit score quartile, and also found substantial reductions in debt for this segment.

A few cautions should be noted when interpreting the results from this analysis. First, there may be unobserved differences between clients who are counseled and the matched comparison group, limiting the ability of the study to estimate causal impact. The gold standard approach to identify causality is a randomized control trial, where a subset of consumers is randomly assigned to the intervention. Given the nature of the counseling industry, it is unlikely that counseling services would be withheld from a random subset of consumers in distress, which would be necessary to establish a randomized control group. While our alternative of creating a matched comparison group allows us to approximate a counterfactual outcome, the only traits of the counseled and comparison groups on which we can match are those traits we can observe for both groups. This means that we cannot match on motivational or behavioral traits. Further, individual demographic characteristics and employment characteristics (including recent job loss) are not provided in credit data. Inasmuch as these characteristics influence the decision to seek credit counseling, our estimate of the counterfactual outcomes is incomplete.

Relatedly, caution should be exercised when interpreting the evolution of credit and payment delinquency indicators. Many counseling clients appear to go through some form of shock impacting their credit indicators around the time of counseling. Ideally, one would construct a comparison group of consumers experiencing a similar shock, who did not receive counseling. Future analyses could address this by using a “dynamic baseline” approach, wherein counseling clients would be matched with comparison group individuals based on multiple pre-counseling periods. This would allow for individuals to be matched based on the *trends* in their credit indicators as well as the indicators themselves, and would potentially allow the analysis to match clients experiencing deteriorating credit scores with non-counseled individuals experiencing a similar credit score decline.

Another limitation arises from the limited sample of credit counseling agencies used in this analysis. A subset of 13 NFCC affiliated credit counseling agencies volunteered and was selected to participate in the credit analysis. As such, the results presented here are specific to the sample examined from these participating agencies and may not reflect outcomes across other credit counseling agencies. To assess potential differences between agencies participating in the credit analysis and those not participating, Appendix E of this evaluation compares client characteristics between these agencies. This analysis shows that clients in participating and non-participating agencies are demographically similar, and while their financial profiles do differ somewhat these differences are not substantial enough to draw any strong conclusions.

Finally, the strength of this analysis is limited by the matching procedure. As this study drew the comparison group from a credit database of millions of individuals, the matching procedure was likely as robust as it possibly could be. Even so, based on our matching criteria we still were unable to find a match for a portion of counseled clients. Almost by definition, clients for whom there was no match likely have more unique credit circumstances, so by excluding these clients for lack of a match it is also possible we are failing to capture Sharpen’s impacts on these relatively idiosyncratic clients. Appendix F shows that unmatched counseling clients are relatively distressed compared to the matched counseling clients, with lower credit scores and higher debt levels; however trends in credit scores and debt levels for the unmatched group are similar to those of the matched counseling clients. This analysis partially addresses Sharpen’s impact on clients in exceptional states of financial distress by looking at outcomes for subsets of clients with relative low credit scores and found positive results, but the possibility that the matching analysis is failing to capture outcomes for uniquely vulnerable clients remains. Indeed, as the descriptive analysis in Section VIII found the largest overall credit gains for the most distressed clients, the impact estimates reported for the matched sample (which excluded many of the most distressed clients) may be considered conservative.

X. Conclusion and Future Directions

Overall, the results presented in this evaluation indicate that Sharpen Your Financial Focus® clients are entering the counseling program at times of substantial financial distress. Clients report entering counseling because they have experienced job losses or unforeseen expenses, and this reality impacts the conclusions drawn about the program's impact on clients. There is evidence from the clients themselves that Sharpen has improved their financial state, as they report having less credit card debt, managing their finances better, paying their debts more consistently, and having more financial confidence three months after participating in the program.

There is also evidence that clients' credit profiles are returning to their pre-counseling levels; after an initial drop, their credit scores recover by a year after counseling, and their debt payment delinquencies return to baseline levels around this same time period. While the exact cause of the recovery is difficult to isolate, the evidence suggests that credit counseling helps clients make significant improvements in their debt situations. Undergoing counseling is associated with closing open revolving debt accounts and reductions in both total debt and revolving debt. These reductions hold even after accounting for client bankruptcies, foreclosures, or charge-offs, and persist regardless of whether clients were recommended for debt management programs.

While this analysis has focused on the credit outcomes for counseling clients going through the core Sharpen Your Financial Focus® program, additional program innovations are currently being developed and administered by NFCC member agencies. These innovations include tailored programs targeting key populations who can benefit from counseling (such as student loan borrowers) and a randomized, control trial of an automated reminder program which uses text- and email-based messages to help clients keep track of their financial obligations and to remind them of the financial goals they set during their counseling sessions. The details and results of these program innovations will be available in future releases from the NFCC.

Appendix A. The Three-Month Post Counseling Survey

The survey was offered to Sharpen clients via email three months after they received counseling. The survey results are analyzed in Section VII, and this appendix includes the full text for the survey:

Since taking advantage of the Sharpen program,

1. Has the employment situation in your household: (Improved/Stayed the same/Worsened)
2. Has the number of household members: (Increased/Stayed the same/Decreased)
3. Has the available income: (Increased/Stayed the same/Decreased)
4. Have large, unexpected expenses: (Increased/Occurred/Not Occurred)
5. Have you moved? (Yes/No)
6. Have you or anyone in your household put in place any changes to better manage your money, such as a establishing a written budget or using financial software? (Yes/No/Don't know)
7. Have you ordered or received a copy of your credit report? (Yes/No/Don't know)
8. Would you say that the total amount of credit card debt that your household carries has: (Increased/Decreased/Stayed the same/Don't know)
9. Are you currently saving money? (Yes/No/Don't know)
10. Would you say that the total amount of money you are able to save on a regular basis has: (Increased/Decreased/Stayed the same/Don't know)
11. Have you opened or acquired any traditional financial products that you did not use before? (check all that apply) (Checking account/Savings account/Debit card/Credit card/Other/N/A?)
12. Have you paid late fees on any of your accounts or used overdraft protection (if applicable)? (Yes/No/Don't know)
13. Have you taken out payday loans in the past 3 months? (Yes/No/Don't know)
14. Would you say that you now pay your debt and monthly obligations more consistently (Yes/No/Don't know)
15. How confident do you feel doing each of the following (please rank from 1-5, with 5 being very confident):
    a. Taking care of my day-to-day finances
    b. Planning for future expenses like vacations, big purchases, and emergencies
    c. Planning for my retirement
    d. Making my monthly mortgage/rent payment
    e. Paying off my loans and credit cards
16. Overall, would you say that your confidence in your ability to manage your finances has improved? (Yes/No/Don't Know)
17. Do you set financial goals for the next one to two months for what you want to achieve with your money? (Yes/No)
18. Thinking of your relationship with financial institutions (such as your bank, car loan company or mortgage lender), do you feel that your level of trust in their ability to serve you well has increased? (Yes/No/Stayed the same/Don't know)
19. Thinking of your relationship with financial institutions (such as your bank, car loan company or mortgage lender), do you feel that the quality of their customer service and responsiveness in general have increased over the past six months? (Yes/No/Stayed the same/Don't know)
20. Which of the following financial institutions do you do the most business? (List of major financial institutions)
    -Barclaycard

-Capital One
-Chase
-Citigroup
-Discover
-Synchrony Financial
-TD Bank
-US Bank
-Wells Fargo
-Credit Union
-Community Bank
-N/A

Appendix B. Sample Comparisons: MMCU® & Client Survey

This appendix compares the characteristics of clients (1) with linked MyMoneyCheckUp® data, and (2) responding to the follow-up survey, to the broader sample population. Only clients with MMCU® data that could be linked to Sharpen administrative data were included in the analysis. MMCU® linking was done via email address (the only unique identifier available in both datasets). In many cases, email addresses were missing or did not match. [43] Using the Sharpen portal data (available for all clients), we can compare the administrative characteristics of clients with and without MMCU® data. The three-month follow-up survey was administered via email and was completely voluntary, and thus it is expected that there may be differences between clients who responded and did not respond to the survey.

Table 29 presents the results of the comparisons. Overall, clients with linked MMCU® data do not differ much from clients without linked MMCU® data. While some characteristics are statistically different, the magnitude of the differences is relatively small.

Clients who completed the post-counseling survey, on the other hand, do have some notable differences from non-completers: They are more likely to be white, less likely to be male, slightly older, more educated, and have more savings and assets than non-completers. However, while these differences are statistically significant, they are not large in magnitude and overall the two groups look reasonably similar (particularly in terms of their income and expenses).

[43] This was partially addressed by using a procedure known as "fuzzy matching" to link similar email addresses which may have had slight discrepancies (such as a missing letter), but this process could not fully overcome the issue of using multiple, substantially different email addresses.

Table 29: Demographic Comparisons by Data Availability

	MyMoneyCheckUp®		Post-Counseling Survey	
	MMCU® Data Linked	MMCU® Data Not Linked	Completed†	Did Not Complete
Mean Age	43.6**	43.3	44.6**	43.4
Race				
Black	18%***	23%	17%***	21%
White	66%	67%	76%***	66%
Male	35%***	33%	30%**	34%
Marital Status				
Married/Living with a Partner	41%	42%	43%	42%
Single	35%	35%	32%*	35%
Education				
High School Diploma	33%***	35%	27%***	34%
Four Year Degree	30%**	29%	38%***	30%
Financials				
Average Monthly Income	$3,384	$3,420	$3,495	$3,405
Monthly Housing Expenses	$1,076	$1,082	$1,110	$1,079
Monthly Debt-Related Expenses	$1,408***	$1,306	$1,384	$1,345
Tangible Assets	$77,054	$76,235	$88,634**	$76,329
Savings	$1,328***	$1,102	$2,076**	$1,173
Liabilities	$71,676***	$74,450	$78,178	$73,294
Observations	*16,227*	*26,845*	*730*	*42,342*

This table compares client characteristics based on clients for whom MMCU® data is linked to portal data compared to those for whom it is not, and for those who completed the post-counseling survey and those who did not. Significant differences are measured through t-tests (for continuous variables) and logistic regression (for binary variables such as race or marital status).

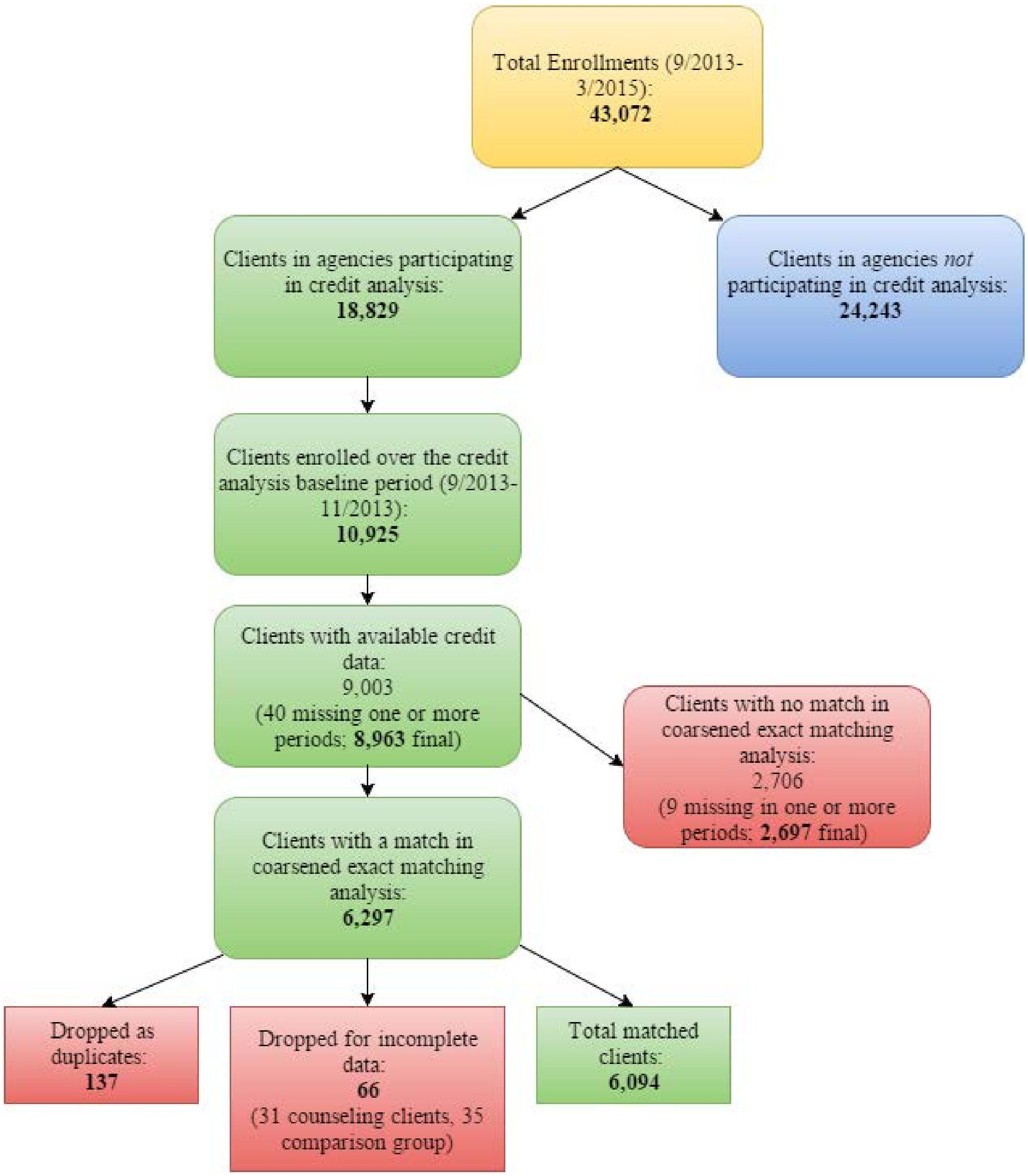
Source: NFCC Administrative, MyMoneyCheckUp®, and Post-Counseling Survey Data

* p<0.1; ** p<0.05; *** p<0.01

†While 777 surveys were completed, only 730 of those were able to be linked to administrative data. This means that 47 of the respondents are contained within the set of 42,342 survey non-completers as the data required to link their surveys with the administrative data are not available. By definition, any individual completing the post-counseling survey was a Sharpen client.

Appendix C. Credit Evaluation Base Size Diagram

Figure 15: Guide to Base Sizes at Different Stages of the Sharpen Evaluation



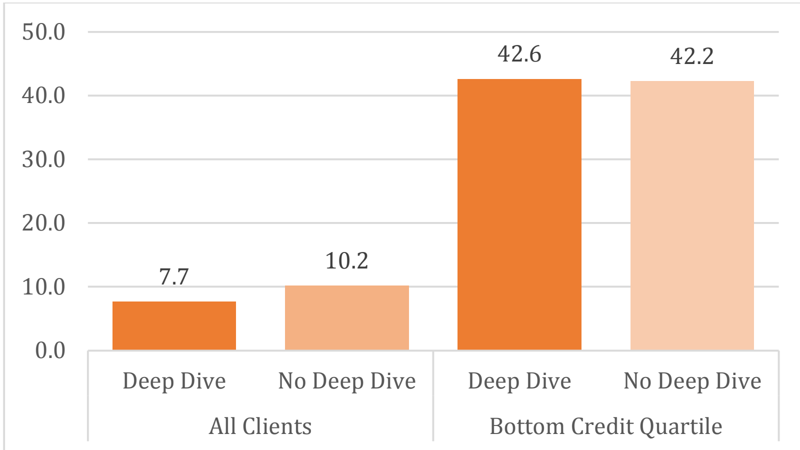
Appendix D. Participation in Sharpen Deep Dive and Credit Outcomes

Sharpen clients had the option of participating in a Deep Dive credit intervention after the initial counseling session. Deep Dive/targeted education sessions typically involve further education about a financial topic that is of particular relevance to the client such as an in-person workshop, online financial management program, or follow-up coaching. These courses may be designed to help strengthen a client's financial skills in an area of need. This sub-analysis only includes clients from agencies that had at least a 10 percent participation rate in Deep Dive sessions. Within the Deep Dive-providing agencies, there are 3,014 clients enrolling in the first two quarters, 63 percent of whom participated in Deep Dives. This extended baseline period (including clients who enrolled over the first two quarters rather than the first quarter, as in the main analysis) is used because of the relatively low number of Deep Dive participants; a larger sample size over a shorter analytical period (five post-counseling quarters) is preferable to a smaller sample over a longer analytical period.

Figures 16 through 18 show the relationships between participation in the Deep Dive component of the Sharpen initiative by comparing the outcomes of those who participated in the Deep Dive to those who did not. Outcomes are measured as the change in credit indicators from the baseline period to the fifth post-counseling quarter.

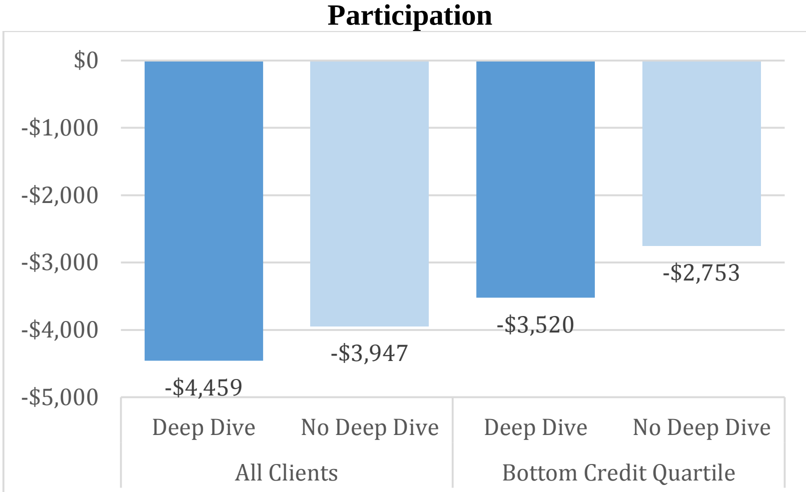
Significant differences between groups are tested using t-tests. This analysis shows that the additional education provided by the Deep Dives does not appear to be associated with any change in credit scores, payment delinquencies, or revolving debt levels, as there is no statistical difference between the Deep Dive clients and the non-Deep Dive clients on these metrics. However, it should be noted that these Deep Dive sessions often focus on areas of personal finance which are not necessarily captured in credit data, such as building up savings for emergencies or longer-term goals like retirement. Given this, analyses of credit outcomes (which do not measure these behaviors) may miss certain behavioral changes which may be driven in-part by financial education programs. Additionally, this evaluation was not designed to test the incremental impact of Deep Dive sessions, so this analysis could also be influenced by selection issues (i.e. relatively more vulnerable clients selecting into Deep Dive sessions) or by variability in the delivery of Deep Dive sessions across the different agencies. Ideally, any analysis of the contribution of Deep Dives to client outcomes would randomly assign the offers of Deep Dives to counseling clients (a treatment group) and then compare outcomes for this treatment group to the outcomes of clients who were not offered Deep Dive sessions.

Figure 16: Change in Credit Score by Sharpen Deep Dive Participation



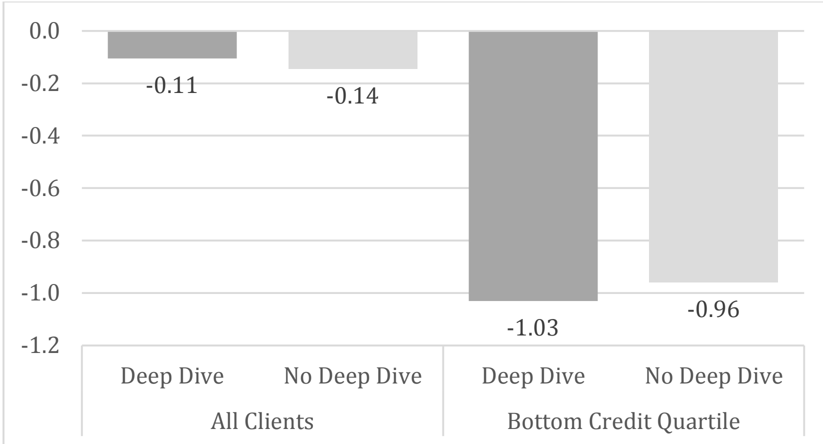
n=3,014 (Total); n=859 (Bottom Credit Score Quartile)
Source: NFCC Administrative Data; Credit Attributes Data

Figure 17: Change in Revolving Debt by Sharpen Deep Dive Participation



n=3,014 (Total); n=859 (Bottom Credit Score Quartile)
Source: NFCC Administrative Data; Credit Attributes Data

Figure 18: Change in Payment Delinquencies by Sharpen Deep Dive Participation



n=3,014 (Total); n=859 (Bottom Credit Score Quartile)
Source: NFCC Administrative Data; Credit Attributes Data

Appendix E. Client Characteristics by Agency Evaluation Participation

This portion of the analysis assesses the degree to which clients from agencies participating in the credit analysis (Sections VIII and IX of this evaluation) are similar to clients participating in Sharpen Your Financial Focus® generally. Here, administrative data is compared for 18,829 individuals[44] in participating agencies and 24,243 in non-participating agencies. Table 30 compares selected client characteristics between these agencies.

All metrics except clients' average monthly income are significantly different between the groups; however, the differences are not substantively large. In terms of the demographic characteristics, clients in both agency groups are roughly similar, though clients in non-participating agencies are more likely to have a high school diploma or four year college degree. There are some notable differences in the financial characteristics between agencies. While the average monthly income and monthly housing expenses are relatively similar, clients in participating agencies had fewer debt-related expenses, more tangible assets, less in liquid savings, and more liabilities.

[44] This base size differs from the base size used in the credit analysis because it captures all the clients who enrolled in the study period, while the long-term credit analysis only includes clients who enrolled in the first quarter of the program; a decision made to facilitate the collection of at least a year of post-counseling data on these clients. See Appendix C for a guide to the base sizes in this analysis.

Table 30: Client Characteristics by Agency Participation in the Long-Term Credit Analysis

	Participating Agencies	Non-Participating Agencies	Significance†
	Mean	Mean	
Age (Years)	42.4	44.3	***
Male (%)	34%	33%	**
Marital Status			
Married or Living with a Partner (%)	43%	40%	***
Single (%)	36%	34%	***
Race			
Black (%)	19%	22%	***
White (%)	69%	65%	***
Education			
Four-Year College Degree (%)	26%	33%	***
High School Graduate or GED (%)	32%	37%	***
Financials			
Average Monthly Income ($)	3,420	3,394	
Monthly Housing Expenses ($)	1,162	1,010	***
Debt-Related Expenses ($)	1,132	1,527	***
Tangible Assets ($)	81,774	72,079	***
Savings ($)	940	1,402	***
Liabilities ($)	79,770	67,953	***
Total Clients	*18,829*	*24,243*	

Source: NFCC Administrative Data

** p<0.1; ** p<0.05; *** p<0.01*

†Significance for continuous variables is measured by t-tests, significance for dichotomous variables is measured by chi-squared tests

Appendix F. Comparing Matched and Unmatched Counseling Clients

This appendix examines the differences between counseling clients for whom there was a matched comparison individual in Experian's credit database with those clients for whom there was no match. Given the size of Experian's database (which contains a five percent random sample of all individuals in the United States), clients for whom no match could be found are likely to have relatively idiosyncratic credit profiles almost by definition, and the analysis in this appendix bears that out. In total, there were 2,703 clients for whom no match was found in Experian's database. Nine were excluded because of incomplete data, leading to a final base size of 2,697.

Table 31 shows the difference in baseline credit outcomes for matched and unmatched counseling clients. Though the matched clients are financially distressed (as demonstrated by the full analysis in this evaluation), clients for whom there was no match appear to be more distressed still. Credit scores for unmatched counseling clients are around 20 points lower than for matched clients, and each debt measure explored is substantially higher for unmatched clients. Additionally, unmatched clients have over twice as many payments 60 days past due in the last year, and over four times as many mortgage payments 90 days past due in the last two years.

Table 31: Credit Characteristics for Matched and Unmatched Counseling Clients

	Matched Counseling Clients	**Unmatched Counseling Clients**	**Significance†**
	Mean‡	Mean	
Credit Score	592.7	572.5	***
Open Revolving Debt ($)	10,582	19,262	***
Total Installment Debt ($)	20,425	33,205	***
Mortgage Debt ($)	44,021	104,790	***
Number of Bankruptcies	0.30	0.36	
Age of Oldest Account (Months)	182	214	***
Payments 60 Days Delinquent (Last 12 Months)	0.58	1.31	***
Mortgage Payments 90 Days Delinquent (Last 24 Months)	0.11	0.47	***
Balance to Credit Ratio on Revolving Debt	0.52	0.75	***
Total Clients	*6,094*	*2,697*	

Source: Credit Attributes Data

** p<0.1; ** p<0.05; *** p<0.01*

†Significance measured by t-tests.

‡Baseline measures for the counseling group differ slightly from earlier analyses in this evaluation because the observations in this supplemental analysis do not need to be weighted.

While this difference does not change the interpretation of the matching analysis, it does indicate that the matching analysis may be excluding clients in relatively extreme states of financial distress. The difference in mortgage debt levels and mortgage payment delinquencies in particular suggest that unmatched clients may be more prone to housing-related financial issues. This exclusion may raise concerns about the measurement of the overall treatment effect of Sharpen participation. However, this evaluation does track outcomes for exceptionally credit-distressed individuals in the matching analysis (defined by being in the 50th or 25th credit score percentiles at baseline), so the question of Sharpen's impact on distressed clients is at least partially addressed.

To assess the patterns in credit outcomes for unmatched clients, Table 31 traces the credit score, total debt, and revolving debt for these clients over the evaluation period. Interestingly, the overall change in credit scores for unmatched clients is similar to those in the matched group (as shown in Section VIII). The debt indicators for these clients also drop over the study period at a similar rate to the matched group as well. The major difference between the matched and unmatched counseling clients on these metrics appears to be the baseline levels of the debt indicators, which are substantially higher for the unmatched group than the matched group. These debt reductions hold even when excluding any clients who had bankruptcies, charge-offs, or foreclosures over the study period: The full sample of unmatched clients reduce their revolving debt by 18 percent and their total debt by seven percent excluding these factors.

Table 31: Change in Credit Indicators Over the Evaluation Period For Unmatched Counseling Clients

	Pre-Counseling Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fifth Quarter	Sixth Quarter
Credit Score							
25th Credit Percentile	503	504	515	536	549	559	567
All Clients	572	557	561	576	585	593	600
Total Debt							
25th Credit Percentile	$151,279	$144,528	$139,041	$130,908	$123,710	$115,486	$108,142
All Clients	$167,504	$162,064	$158,143	$148,603	$142,219	$136,669	$131,111
Total Revolving Debt							
25th Credit Percentile	$26,791	$24,383	$19,552	$15,327	$13,629	$11,869	$11,035
All Clients	$29,763	$28,411	$25,657	$21,650	$19,168	$17,510	$16,395

n=2,697

Source: Credit Attributes Data

Appendix G. Regression Model and Methodological Notes

The construction of the counseling and comparison groups for this analysis was done using a procedure known as Coarsened Exact Matching, in which the data is first "coarsened" for treatment and control groups into categories (i.e. credit score might be coarsened into categories of <520, between 520 and 560, 561 and 620, 621 and 660, 661 and 720, and >720). Then observations between treatment and control groups are matched based on the presence of an exact match between these groups in each coarsened category. Thus clients with similar credit scores, debt levels, debt payment histories, debt types, account ages, bankruptcy history, and states of residence are matched to each other in this analysis. Any individuals from the treatment or control groups who do not have an equivalent match in the other group are excluded from the analysis. This process thus allows for an estimation of counterfactual outcomes by only comparing counseled clients to similar non-counseled individuals. Relying on exact matching also restricts the observations in the analysis to a common support area and lessens the need to rely on parametric approaches to assess the treatment affect.

Once the counseling and comparison groups are identified, this study estimates the difference-in-differences between these two groups using a fixed effects panel regression. This approach allows us to track the differences in counseling individuals over time as compared to non-counseled individuals, while using fixed effects accounts for any unobservable differences between these groups, so long as those unobservable characteristics are constant across the evaluation period. The full difference-in-difference model employed to measure the impact of Sharpen is:

$$y_{it} = a_i + \pi Counseling_{it} + \lambda Quarter_t + \delta(Counseling_{it} * Quarter_t) + \beta_j x_{it} + \varepsilon_{it}$$

where y is the credit outcome of interest, the coefficient π captures the overall impact of receiving counseling (coded 0 for all individuals in the baseline period and 1 for counseling clients after they receive counseling), λ measures the quarterly changes in outcomes for the comparison group, δ measures the quarterly changes for the treatment group, β measures the impact of j time varying control variables (several models in this study control for bankruptcies, charge-offs, foreclosures, and changes in HELOC debt), ε is the error term of the model, and α is a constant which represents the average value of the variable for the full sample. Standard errors are clustered on each individual.[45]

It should also be noted that the number of observations per baseline quarter between treatment and control groups is not quite equal, with 6,094 in the counseling group and 6,005 in the comparison group. In certain cases, one comparison group observation was matched to more than one counseled clients (thus resulting in a slightly lower number of observations in the comparison group). To account for this, weights were applied to the observations to ensure that the results were not biased by virtue of having different numbers of treatment or comparison observations, and the weighting process corrects for any imbalance between counseling and comparison groups within strata, and for the overall difference in sample sizes between two groups.

[45] As a note, the r-squared measures in the full sample models without controls are relatively low, ranging from 0.01 to 0.04. This low r-squared is only concerning if the weak fit of the models is associated with inconsistent estimation of the treatment effect. However, the treatment effects of credit counseling are robust to the inclusion of a number of controls that also substantially improve the fit of the models (the fit of the debt models is improved substantially by the inclusion of controls for bankruptcies, charge-offs, foreclosures, and HELOC debt, and the treatment effect remains largely consistent with the basic models excluding controls), so the low r-squared values are not a major concern.

Additionally, the difference-in-difference analysis is applied to specific subgroups of clients and comparison group individuals. To construct these subgroups within the context of the Coarsened Exact Matching analysis, counseled clients were only compared to comparison group individuals who were matched to them in the full analysis. To illustrate, a subgroup analysis of clients in the bottom 50th credit score percentile at baseline would proceed in the following way:

(1) Exclude any clients and comparison individuals not in the bottom 50th percentile at baseline from the sample.

(2) Exclude any individuals in this sample who no longer had a matched equivalent.

(3) Re-weight the counseling and comparison groups based on the new ratio between counseled clients and comparison group individual

Appendix H. Full Regression Output for Selected Models

Each of the following tables replicate key tables from the main analysis, but provide the full output including quarterly impacts and treatment-quarter interactions. The coefficients on these time variables allow for the calculation of the relative trends in these indicators for the counseling and comparison groups. A note on interpreting the coefficients to calculate the quarterly trends follows the first table.

While interpreting the overall change for counseling clients relative to the comparison group over the full evaluation period is simple (it is the coefficient on the "Counseling Client" indicator), interpreting the period-by-period changes for both groups requires additional interpretation. To do this, the coefficients for each group must be interpreted and added together correctly. For the comparison group, their quarterly change relative to the baseline period is simply the coefficient on the quarter indicators: In the first post-counseling quarter the revolving debt (Model 1) for the comparison group decreases by ~$494 relative to the baseline period and by the sixth post counseling quarter the comparison group has reduced their debt by ~$2,098 relative to the baseline.

To assess the quarterly change for counseling clients relative to the baseline, it is necessary to add the total counseling coefficient to a given quarterly indicator *and* to the treatment quarter interaction for that quarter. So assessing the counseling change in revolving debt (Model 1) for the first quarter relative to the baseline involves adding the coefficients on the counseling client indicator (-3,637), the coefficient on the first post-counseling quarter indicator (-494), and the coefficient on the counseling-quarter interaction (3,919). This indicates that, relative to the baseline, the counseling group saw a decrease in their debt of ~$212 between baseline and the first post-counseling quarter. To assess the relative difference in each quarter between counseling and comparison groups, simply take the coefficient the counseling client indicator and add it to the counseling-quarter interaction term for a given quarter. To illustrate, we know that the counseling group had a decrease in their debt of $212 in the first post-counseling quarter while the comparison group had a decrease of $494, a difference of $282. Similarly, if you add the coefficient on counseling clients (-3,637) to the coefficient on the first post-counseling quarter interaction (3,919) it adds to $282. Table 33 completes this exercise for Model 1 in Table 32 to provide a full illustration. Generally speaking, however, one can get a sense of the relative trends between the two groups by looking at the quarterly indicators over time. For example, in Model 2 the total debt for the comparison group is generally increasing (looking at the quarter indicators) while the total debt for the counseling group is generally decreasing (the treatment-quarter interactions).

Table 32: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Debt Indicators

Model (Standard Errors in Parentheses)	1	2	3	4
Dependent Variable	Total Revolving Debt	Total Debt	Open Credit Ratio	Total Balance-to-Credit Ratio
Counseling Client	**-3,637.18*** **	**-11,341.00*** **	**0.04*** **	**-0.04*** **
	(341.88)	**(1,368.07)**	**(0.01)**	**(0.01)**
Quarter Indicators (Baseline as Reference)				
1Q Post Counseling	-493.93***	512.71	0.03***	-0.03***
	(94.55)	(657.35)	(0.00)	(0.00)
2Q	-1,031.38***	1,735.79**	0.05***	-0.05***
	(198.23)	(694.10)	(0.00)	(0.00)
3Q	-1,516.85***	1,288.81*	0.08***	-0.07***
	(209.31)	(776.91)	(0.00)	(0.00)
4Q	-1,791.68***	1,391.67*	0.09***	-0.08***
	(220.78)	(836.38)	(0.00)	(0.00)
5Q	-2,032.59***	2,420.78***	0.09***	-0.09***
	(227.78)	(868.70)	(0.01)	(0.01)
6Q	-2,098.07***	2,808.70***	0.10***	-0.10***
	(239.86)	(968.64)	(0.01)	(0.01)
Treatment Quarter Interactions (Final Quarter as Reference)				
Treatment*1Q Post-Counseling	3,918.54***	12,014.93***	-0.05***	0.05***
	(329.36)	(1,266.27)	(0.01)	(0.01)
Treatment*2Q	3,378.52***	9,290.58***	-0.03***	0.03***
	(252.74)	(1,167.90)	(0.01)	(0.01)
Treatment*3Q	2,074.04***	6,277.40***	-0.02***	0.02***
	(226.10)	(1,047.73)	(0.01)	(0.01)
Treatment*4Q	1,059.97***	4,075.49***	-0.02***	0.01***
	(177.01)	(864.83)	(0.01)	(0.01)
Treatment*5Q	456.61***	1,540.19**	-0.01*	0.01*
	(122.36)	(700.31)	(0.00)	(0.00)
Constant	16,532.97***	82,582.95***	0.49***	0.52***
	(100.20)	(406.35)	(0.00)	(0.00)
R-squared	0.04	0.01	0.04	0.03
*Observations (Individuals*Quarters)*	*84,693*	*84,693*	*84,693*	*84,693*
Unique Individuals	*12,099*	*12,099*	*12,099*	*12,099*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group.

Source: Credit Attributes Data

** p<0.1; ** p<0.05; *** p<0.01*

Table 33: Differences-in-Differences Analysis - Revolving Debt By Quarter (Relative to Baseline)

	1Q	2Q	3Q	4Q	5Q	6Q (Final)
Counseling Change	-213	-1290	-3080	-4369	-5213	-5735
Comparison Change	-494	-1031	-1517	-1792	-2033	-2098
Differences-in-Differences	**281**	**-259**	**-1563**	**-2577**	**-3181**	**-3637**

This table measures the differences in the change in outcomes for each group in each post-counseling quarter relative to the baseline period. These numbers correspond to Model 1 in Table 30 of this analysis.

n=12,099

Source: Credit Attributes Data

Table 34: Differences-in-Differences Analysis - Client Outcomes on Key Credit Indicators

Model (Standard Errors in Parentheses)	1	2
Dependent Variable	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-6.76*** **	**-0.01**
	(1.23)	**(0.03)**
Quarter Indicators (Baseline as Reference)		
1Q Post Counseling	3.78***	0.01
	(0.49)	(0.01)
2Q	6.24***	-0.01
	(0.61)	(0.02)
3Q	10.67***	-0.04**
	(0.67)	(0.02)
4Q	11.45***	-0.05**
	(0.73)	(0.02)
5Q	12.95***	-0.07***
	(0.79)	(0.02)
6Q	14.64***	-0.07***
	(0.83)	(0.02)
Treatment Quarter Interactions (Final Quarter as Reference)		
Treatment*1Q Post-Counseling	-9.55***	0.22***
	(1.19)	(0.03)
Treatment*2Q	-12.14***	0.45***
	(1.10)	(0.03)
Treatment*3Q	-8.81***	0.31***
	(1.01)	(0.03)
Treatment*4Q	-4.86***	0.15***
	(0.86)	(0.03)
Treatment*5Q	-3.11***	0.08***
	(0.66)	(0.02)
Constant	595.12***	0.46***
	(0.39)	(0.01)
R-squared	0.03	0.01
*Observations (Individuals*Quarters)*	*82,859*	*84,693*
Unique Individuals	*11,837*	*12,099*

Source: Credit Attributes Data

** p<0.1; ** p<0.05; *** p<0.01*

Table 35: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Credit Indicators (50th Credit Score Percentile at Baseline)

Model (Standard Errors in Parentheses)	1	2	3
Dependent Variable	Total Revolving Debt	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-1,973.05*****	**0.86**	**-0.13****
	(404.15)	**(1.82)**	**(0.06)**
Quarter Indicators (Baseline as Reference)			
1Q Post Counseling	-435.36***	7.71***	-0.03
	(85.15)	(0.78)	(0.03)
2Q	-982.30***	12.32***	-0.17***
	(141.99)	(0.96)	(0.04)
3Q	-1,417.12***	18.61***	-0.25***
	(178.20)	(1.04)	(0.04)
4Q	-1,617.40***	21.20***	-0.28***
	(192.24)	(1.13)	(0.05)
5Q	-1,806.51***	23.77***	-0.33***
	(197.68)	(1.20)	(0.05)
6Q	-1,955.54***	27.35***	-0.35***
	(206.76)	(1.28)	(0.05)
Treatment Quarter Interactions (Final Quarter as Reference)			
Treatment*1Q Post-Counseling	2,012.69***	-10.29***	0.34***
	(381.00)	(1.78)	(0.06)
Treatment*2Q	1,552.82***	-10.89***	0.45***
	(285.87)	(1.67)	(0.06)
Treatment*3Q	1,059.17***	-7.09***	0.27***
	(276.14)	(1.55)	(0.05)
Treatment*4Q	519.33***	-4.30***	0.11**
	(194.78)	(1.34)	(0.05)
Treatment*5Q	81.37	-2.22**	0.07**
	(91.93)	(1.03)	(0.03)
Constant	7,195.09***	526.27***	0.96***
	(115.89)	(0.55)	(0.02)
R-squared	0.03	0.08	0.02
*Observations (Individuals*Quarters)*	*37,135*	*36,694*	*37,135*
Unique Individuals	*5,305*	*5,242*	*5,305*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

Table 36: Differences-in-Differences Analysis - Counseling Client Outcomes on Key Credit Indicators (25th Credit Score Percentile at Baseline)

Model (Standard Errors in Parentheses)	1	2	3
Dependent Variable	Total Revolving Debt	Credit Score	Payments 60 Days Delinquent (Past 6 Months)
Counseling Client	**-526.09**	**7.49*** **	**-0.17**
	(355.70)	**(2.57)**	**(0.10)**
Quarter Indicators (Baseline as Reference)			
1Q Post Counseling	-578.28***	12.67***	-0.15***
	(104.97)	(1.08)	(0.05)
2Q	-1,211.23***	20.47***	-0.50***
	(211.26)	(1.37)	(0.07)
3Q	-1,480.31***	27.64***	-0.64***
	(221.06)	(1.42)	(0.08)
4Q	-1,633.85***	30.66***	-0.68***
	(230.59)	(1.65)	(0.08)
5Q	-1,708.34***	34.34***	-0.75***
	(234.95)	(1.69)	(0.08)
6Q	-1,722.11***	40.27***	-0.80***
	(236.28)	(1.87)	(0.08)
Treatment Quarter Interactions (Final Quarter as Reference)			
Treatment*1Q Post-Counseling	490.07*	-10.35***	0.32***
	(265.22)	(2.54)	(0.10)
Treatment*2Q	351.11***	-9.80***	0.29***
	(133.14)	(2.39)	(0.09)
Treatment*3Q	234.72**	-5.74**	0.19**
	(92.17)	(2.29)	(0.08)
Treatment*4Q	148.41***	-3.05	0.06
	(53.43)	(1.94)	(0.07)
Treatment*5Q	83.68***	-0.55	0.05
	(30.15)	(1.54)	(0.05)
Constant	3,631.72***	487.04***	1.48***
	(130.24)	(0.74)	(0.04)
R-squared	0.04	0.16	0.05
*Observations (Individuals*Quarters)*	*18,095*	*17,906*	*18,095*
Unique Individuals	*2,585*	*2,558*	*2,585*

This table presents the results for a fixed effects panel regression with standard errors clustered by observation. The Counseling Client indicator measures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group.

Source: Credit Attributes Data

* p<0.1; ** p<0.05; *** p<0.01

Appendix I. Summary Results for Debt and Credit Score Impacts

Table 37: Summary Results of the Sharpen Evaluation

Sample and Model	Revolving Debt		Total Debt		Credit Score‡	
	Counseling Group Change	**Regression-Adjusted Counseling Impact**	**Counseling Group Change**	**Regression-Adjusted Counseling Impact**	**Counseling Group Change**	**Regression-Adjusted Counseling Impact**
Full Sample						
No Controls	-5,735	-3,637***	-8,532	-11,341***	7.9	-6.8***
Controlling for Debt Write-Offs†	-2,654	-1,989***	192	-6,604***	10.1	-6.4***
Clients with Debt at Baseline						
No Controls	-7,652	-4,815***	-10,113	-12,726***	6.4	-8.2***
Controlling for Debt Write-Offs†	-3,727	-2,659***	-699	-7,615***	8.5	-7.9***
DMP Clients						
No Controls	-5,486	-3,340***	-7,282	-10,417***	10.8	-5.1***
Controlling for Debt Write-Offs†	-2,918	-2,095***	164	-6,975***	13.4	-4.4***
Non-DMP Clients						
No Controls	-6,148	-4,130***	-10,605	-12,872***	3.0	-9.5***
Controlling for Debt Write-Offs†	-2,228	-1,766***	322	-5,849***	4.3	-10.1***
Credit Risk Profiles						
50th Credit Score Percentile at Baseline	-3,929	-1,973***	-2,667	-2,985*	28.2	0.9
25th Credit Score Percentile at Baseline	-1,722	-526	275	1,877	48	7.5***

Key Client Outcomes: Revolving Debt, Total Debt, Credit Score‡

This table presents the summary results for the key outcomes in the Sharpen evaluation. The full evaluation contains additional supplemental models on other related outcomes of interest. The impact of counseling is measured by a fixed effects panel regression with standard errors clustered by observation. Each result in this table captures the difference in outcomes for counseling clients relative to a matched non-counseled comparison group.

** p<0.1; ** p<0.05; *** p<0.01*

†Debt write-offs include bankruptcies, charge-offs, and foreclosures. Foreclosures are only included in total debt and credit models.

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