



THE OHIO STATE UNIVERSITY

JOHN GLENN COLLEGE OF PUBLIC AFFAIRS

**The Impact of Credit Counseling on
Consumer Outcomes: Evidence from a
National Demonstration Program**

Stephen Roll

Stephanie Moulton, PhD



Credit Counseling Overview

- Reaches two million clients a year
- Provides three core services
 - Financial Education
 - Individualized Budget Counseling
 - Reviews household income and expenses
 - Develops goals and action plans
 - Debt Management Plans (DMPs)
 - Consolidates payments, improves interest rates, waives fees
- Supplemental programs contingent on agency
 - Can include financial coaching, additional education, automated reminders, credit builder loans, etc.



Who is served by credit counseling agencies?

- Distressed target populations
 - Low levels of financial literacy (Disney, Gathergood, & Weber, 2015)
 - Often undergoing shocks (Collins, 2010)
 - Low-income, low savings, problematic borrowing behaviors



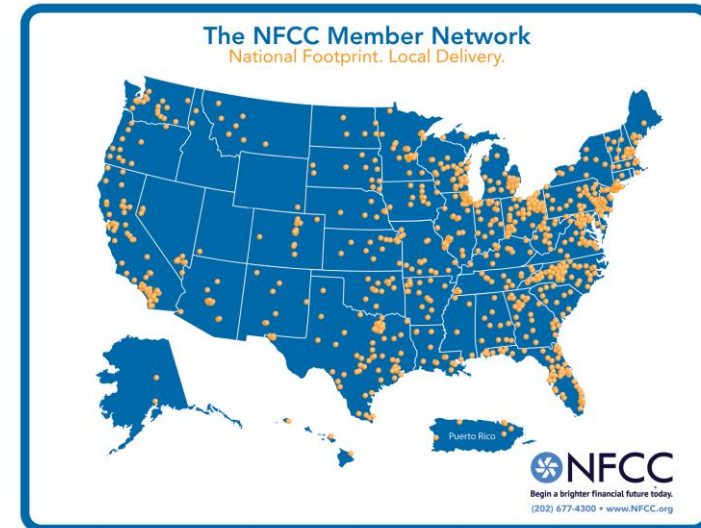
What do we know about credit counseling initiatives?

- Very little empirical work on credit counseling impacts
 - Industry analyses (e.g. Loonin & Plunkett, 2003)
 - Descriptive analyses (Kim, Garman, & Sorhaindo, 2003; Bagwell, 2000)
 - Work on supplemental aspects of credit counseling (e.g. Barron & Staten, 2011) and examining client characteristics (e.g. Disney & Gathergood, 2009)
 - Limited systematic evaluations of credit counseling programs (Ellehausen, Lundquist, & Staten, 2007)



Program Setting

- Sharpen Your Financial Focus nationwide credit counseling initiative
 - “Three-Step Personal Financial Stabilization Program” similar to traditional credit counseling programs
 - Targeted and general education
 - Budget counseling
 - Online self-assessment
 - Debt Management Plan enrollment (if qualified)
 - Program began in September 2013. Evaluation runs through February 2015
 - Reached over 40,000 clients by the end of the evaluation





Data

- Clients from 13 NFCC agencies (n=8,963)
- Matched comparison group generated through Coarsened Exact Matching
 - Imbalance bounded prior to matching
 - 10 matching variables
 - 70% match rate
 - Unmatched clients are extremely distressed
- Credit data for 6,094 counseling clients and 6,005 matched comparison individuals
 - Credit data collected quarterly from August 2013 to February 2015



Matching Results

Summary Statistics for Treatment and Comparison Groups in Coarsened Exact Matching Analysis

Matching Variable	Counseled Mean (St. Dev)	Comparison Mean (St. Dev)	% Difference (Treatment/Control)	Balance*
Credit Score (Vantage 3.0)	594 (77.1)	597 (80.3)	-1%	0.04
Open Revolving Debt (\$)	10,582 (15,346)	10,248 (14,947)	3%	0.02
Total Installment Debt (\$)	20,425 (34,647)	21,113 (44,461)	-3%	0.02
Mortgage Debt (\$)	44,021 (104,449)	46,565 (131,740)	-5%	0.02
Number of Bankruptcies	0.30 (1.6)	0.29 (1.6)	3%	0.01
Age of Oldest Account (Months)	182 (105.4)	183 (109.5)	-1%	0.01
Payments 60 Days Delinquent (Last 12 Months)	0.58 (1.6)	0.59 (1.7)	-1%	0.01
Mortgage Payments 90 Days Delinquent (Last 24 Months)	0.11 (1.2)	0.12 (1.4)	-8%	0.01
Balance to Credit Ratio on Revolving Debt	0.52 (0.4)	0.52 (0.4)	1%	0.01
Observations	6,094	6,005		

Best practices:
 <0.05 =Strongly balanced sample

*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.



Motivations for Seeking Counseling

Reason For Seeking Counseling[†]	#	%
Reduced Income	4,804	79%
Domestic Conflict	390	6%
Un/underemployment	1,762	29%
Other	2,652	44%
Increased Expenses	1,321	22%
Costs of death in family	35	1%
Creditors increased interest rates	148	2%
Increased family size	128	2%
Medical/Disability expenses	404	7%
Other	606	10%
Other Reasons	1,350	22%
Bad credit	149	2%
Previous bad experience	45	1%
Other	1,156	19%

n=6,094 credit counseling clients

Source: NFCC Administrative Data

[†]Respondents could select multiple reasons for seeking counseling



Method

- **Difference-in-differences approach**
 - Outcome variables: Debt metrics, credit scores, payment delinquencies
 - Treatment effect estimated using fixed effects panel regression
 - Standard errors clustered on the individual
- **Model:**
 - $y_{it} = \alpha_i + \pi \text{Counseling}_{it} + \lambda \text{Quarter}_t + \delta(\text{Counseling}_{it} * \text{Quarter}_t) + \beta_j x_{it} + \varepsilon_{it}$
 - x_{it} : Post-counseling time-varying controls
 - Bankruptcy, debt charge-offs, foreclosures



Selected Regression Results

Sharpen Evaluation Summary Results

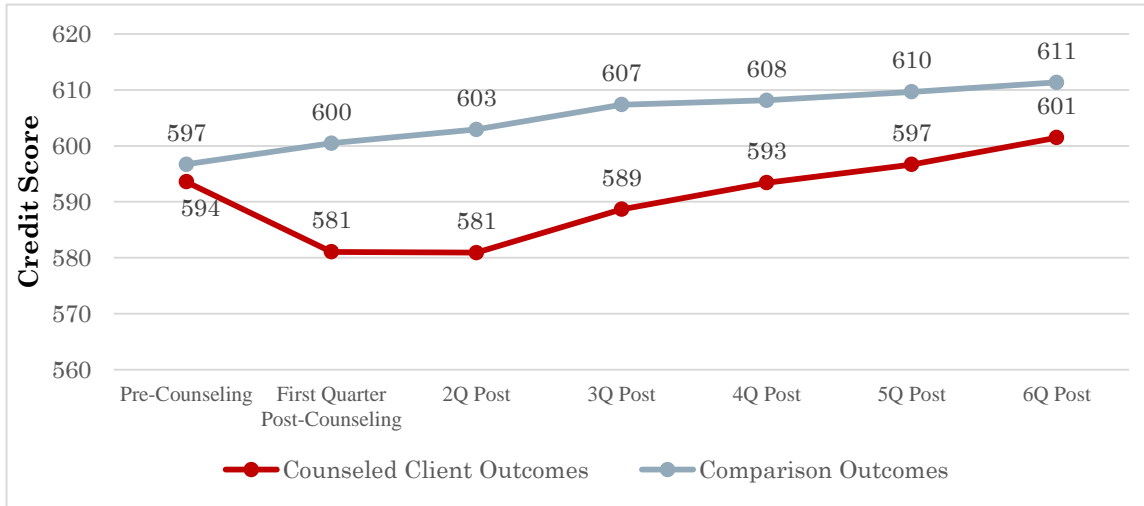
Sample and Model	Key Client Outcomes			
	Revolving Debt (\$)		Credit Score	
	Counseling Group Change	Regression-Adjusted Counseling Impact	Counseling Group Change	Regression-Adjusted Counseling Impact
<i>Full Sample</i>				
No Controls	-5,735	-3,637***	7.9	-6.8***
Controlling for Debt Write-Offs	-2,654	-1,989***	10.1	-6.4***
<i>DMP Clients</i>				
No Controls	-5,486	-3,340***	10.8	-5.1***
Controlling for Debt Write-Offs	-2,918	-2,095***	13.4	-4.4***
<i>Non-DMP Clients</i>				
No Controls	-6,148	-4,130***	3	-9.5***
Controlling for Debt Write-Offs	-2,228	-1,766***	4.3	-10.1***
<i>Credit Risk Profiles</i>				
50th Credit Score Percentile at Baseline	-3,929	-1,973***	28.2	0.9
25th Credit Score Percentile at Baseline	-1,722	-526	48	7.5***

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



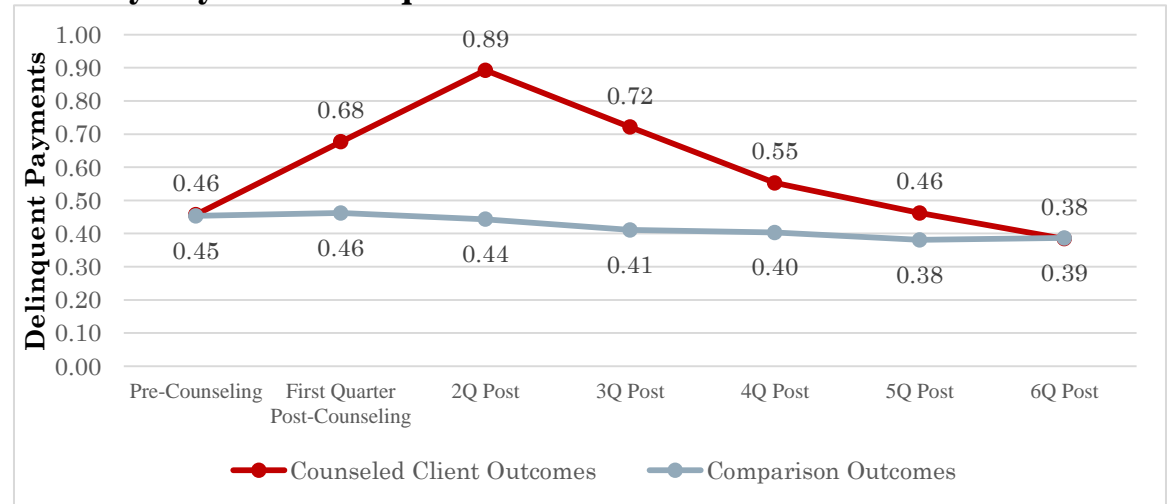
Credit Scores and Payment Delinquencies Influenced by Shocks

Credit Scores Over Time



Counseling
Impact:
-6.8***

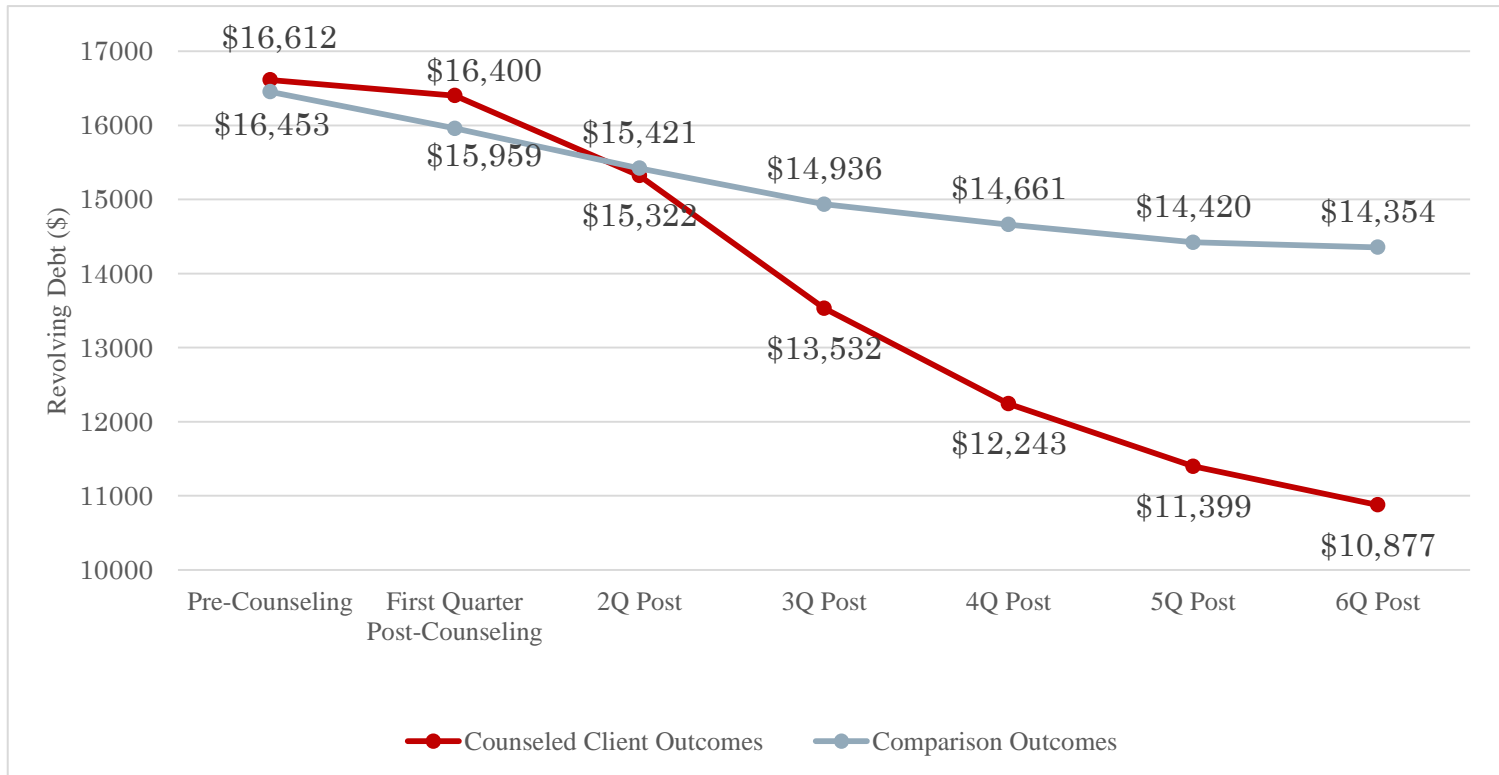
60-Day Payment Delinquencies Over Time



Counseling
Impact:
-0.01



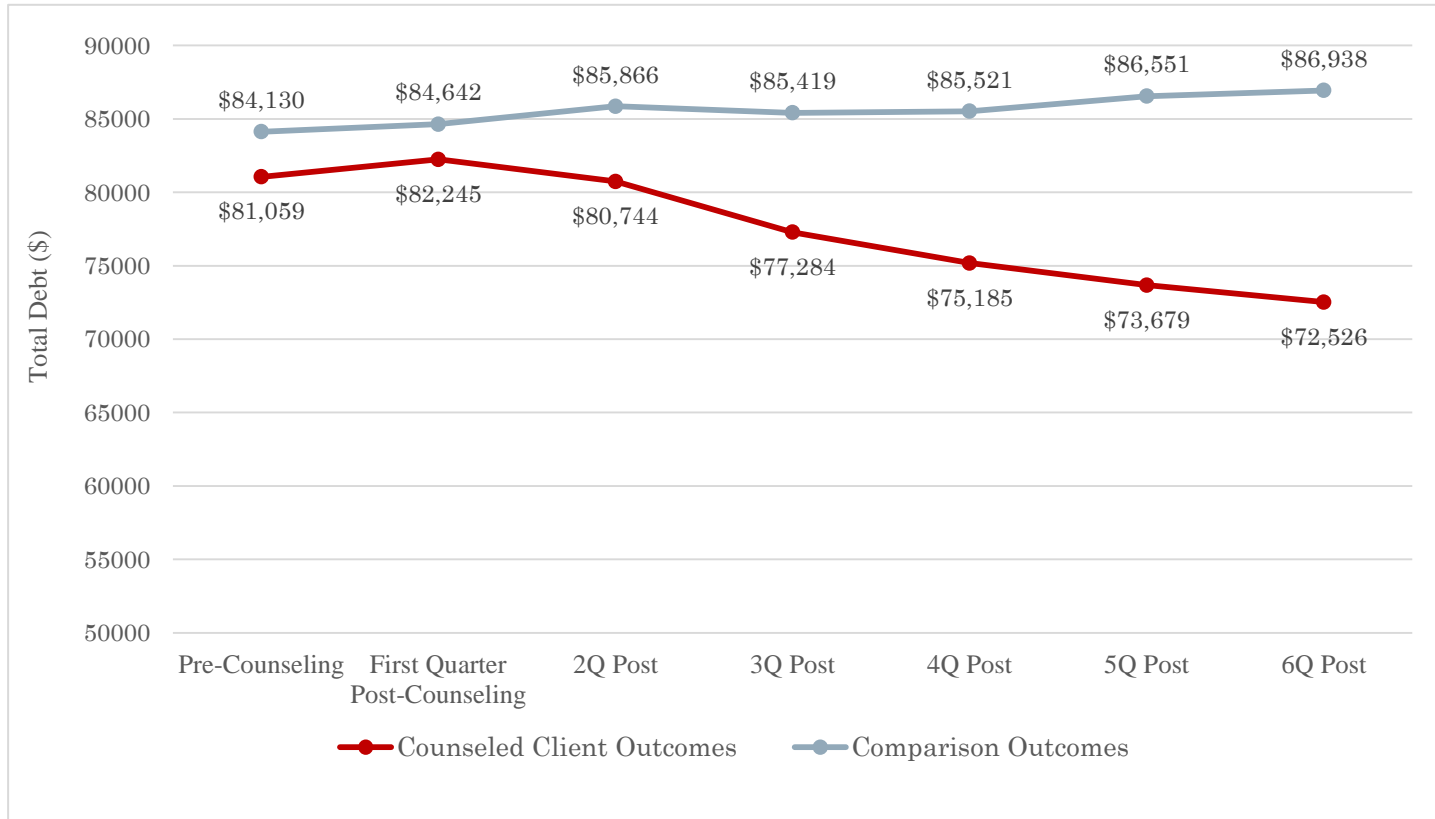
Revolving Debt Over Time



Counseling
Impact:
-\$3,637***



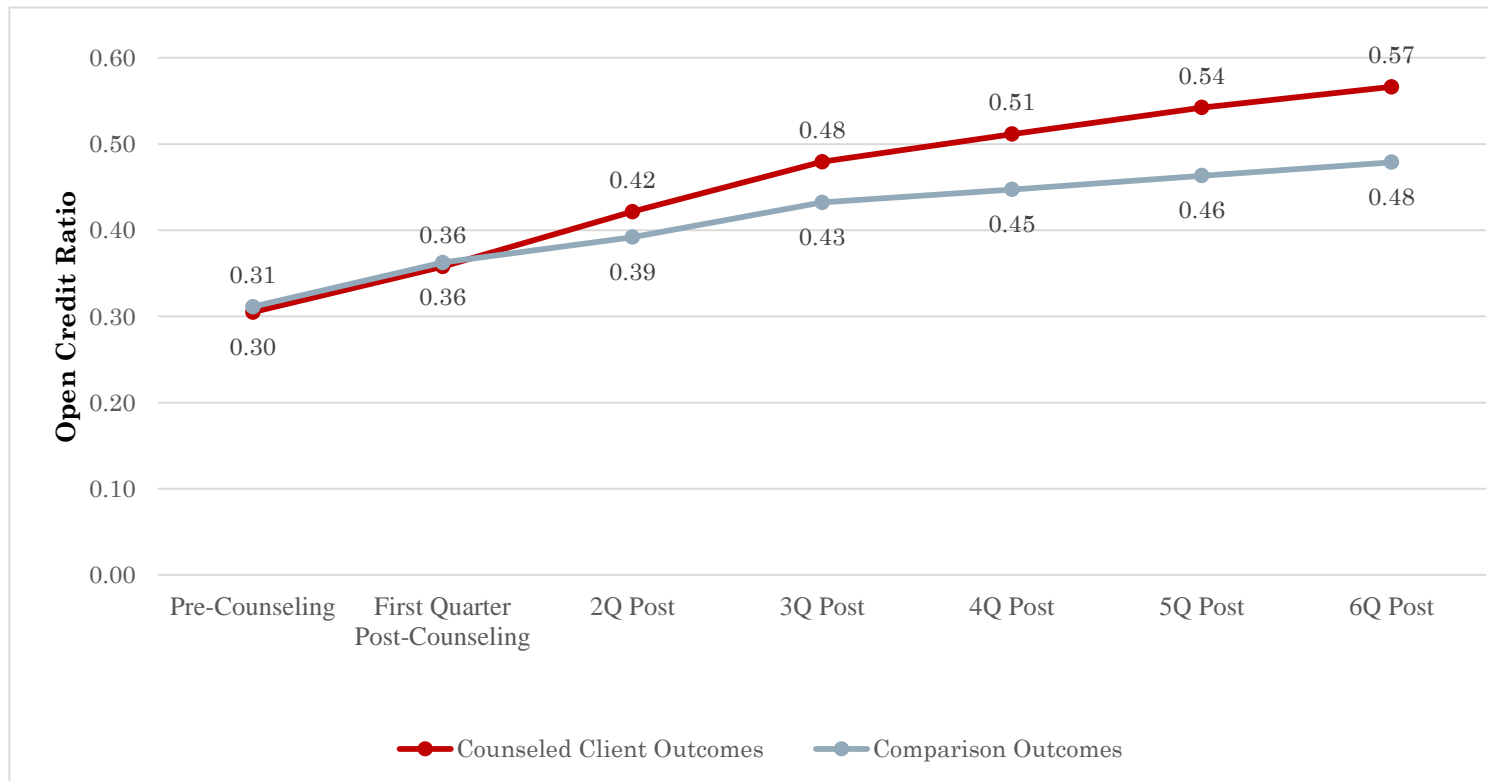
Total Debt Over Time



Counseling
Impact:
-\$11,341***



Liquidity Ratio Over Time (for those with debt at baseline)



Counseling
Impact:
0.09***



Conclusions

- Clients are entering the program at a time of substantial financial distress
 - Prior studies observe outcomes at two points in time—quarterly focus of data provides additional context around clients' financial reality
 - Credit score and delinquency metrics return to normal at the end of the evaluation period, but credit score lags the comparison group
- In the short- and medium-term, evidence is that credit counseling improves client debt outcomes
 - Reductions in debt and improvements in liquidity
 - Results are robust to controls for debt write-offs and DMP enrollment
 - Extends prior work
 - Improvements present for clients with weaker credit profiles



Future Research

- Counseling/education programs aimed at specific target groups
 - Student loan holders, female heads of households
- Using automated reminders to keep clients on track with their goals and obligations
 - Randomized, controlled trial
- Financial coaching integrated into counseling services



Thank you!



Appendix

Client Characteristics

Selected Client Characteristics	Mean
Gender	
Male	31%
Female	69%
Marital Status	
Single	39%
Married or Living with a Partner	39%
Race	
Asian	3%
Black	22%
White	64%
Education	
Less than High School	3%
High School Graduate	30%
College Degree or Higher	67%
Age	42.8
Average Monthly Income	\$3,093
Savings	\$559

n=6,094 credit counseling clients

Source: NFCC Administrative Data

Perceptions of Improved Financial Behaviors

Survey Responses	% 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%
<i>Respondents</i>	<i>777</i>

Source: NFCC Post-Counseling Survey

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

Post-Counseling Debt Levels

Credit Indicator	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

Debt Results Summary

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*** (341.88)	-11,341.00*** (1368.07)	0.04*** (0.01)	-0.04*** (0.01)
Constant	16,532.97*** (100.2)	82,582.95*** (406.35)	0.49*** (0.00)	0.52*** (0.00)
R-squared	0.04	0.01	0.04	0.03
<i>Observations</i>				
<i>(Individuals*Quarters)</i>	84,693	84,693	84,693	84,693
<i>Unique Individuals</i>	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 not shown. Full results can be seen in the Appendix.

Source: *Credit Attributes Data*

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

Debt Results (for those with debt) Summary

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*** (449.98)	-12,725.78*** (1,477.65)	0.09*** (0.01)	-0.09*** (0.01)
Constant	22,051.75*** (131.75)	90,989.41*** (439.66)	0.31*** (0.00)	0.70*** (0.00)
R-squared	0.05	0.01	0.10	0.10
<i>Observations</i> (Individuals*Quarters)	63,105	77,217	63,056	63,105
<i>Unique Individuals</i>	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

Debt Results with Controls

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

DMP Debt Outcomes

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

Credit Outcomes

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
<i>Observations (Individuals*Quarters)</i>	82,859	84,693
<i>Unique Individuals</i>	11,837	12,099

Bottom 50th Credit Percentile Outcomes

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*** (404.15)	0.86 (1.82)	-0.13** (0.06)
Constant	7,195.09*** (115.89)	526.27*** (0.55)	0.96*** (0.02)
R-squared	0.03	0.08	0.02
<i>Observations</i> (Individuals*Quarters)	37,135	36,694	37,135
<i>Unique Individuals</i>	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 not shown. Full results can be seen in the Appendix.

Source: Credit Attributes Data

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

Bottom 25th Credit Percentile Outcomes

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 (355.70)	7.49*** (2.57)	-0.17 (0.10)
Constant	3,631.72*** (130.24)	487.04*** (0.74)	1.48*** (0.04)
R-squared	0.04	0.16	0.05
<i>Observations</i> <i>(Individuals*Quarters)</i>	18,095	17,906	18,095
<i>Unique Individuals</i>	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 not shown. Full results can be seen in the Appendix.

Source: *Credit Attributes Data*

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

Credit Scores for Shocked Clients

