# In Search of a Fresh Start:
## Can Credit Counseling Help Debtors Recover from Bankruptcy?

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**Abstract**

The 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) includes two educational provisions which require debtors to complete an approved credit counseling course prior to filing for bankruptcy and a financial education course prior to the discharge. Recent debates have raised concerns about the counseling mandate and whether debtors are benefiting from the requirement. A multi-phase research study was launched in 2009 to investigate the impact of BAPCPA's educational mandates. The goal was to track debtors through the entire bankruptcy process and assess the long-term impacts of the requirements on debtors' financial well-being. This study reports the findings from the first phase of the analysis where data were collected from a national sample of debtors who participated in a bankruptcy counseling course offered by Money Management International (MMI), the largest full-service nonprofit consumer credit counseling agency in the U.S. The purpose of the study was to measure the "educational value" of the counseling and to identify specific groups of debtors who were more likely than others to benefit from the experience. The results show that overall debtors were very satisfied with their counseling experience. Moreover, their financial knowledge, attitudes, and behavioral intentions significantly improved as a result of the counseling. The effects of the counseling were primarily dependent on debtors' prior knowledge, behavior, and socioeconomic status, as well as the circumstances that resulted in their current financial problems. There was little, if any, evidence to suggest that the counseling requirement had been a burden or an administrative obstacle.

# INTRODUCTION

In 2005, Congress passed the *Bankruptcy Abuse Prevention and Consumer Protection Act* (BAPCPA). The Act includes two educational provisions.[1] First, debtors are required to complete a credit counseling session prior to filing for bankruptcy. After filing, they are then required to complete a financial education course before they are permitted to discharge their debts. According to the legislative history of the Act, these requirements were included to ensure that consumers were able to make an informed choice about bankruptcy, its alternatives, and consequences (U.S. Government Accountability Office, 2007). They were also included to provide debtors with the financial skills necessary to better manage their money and avoid future financial problems.

Since BAPCPA went into effect, there has been considerable discussion surrounding the educational requirements. Debates have emerged among policymakers, legal professionals, and consumer advocacy groups as to whether the requirements are in fact helping debtors to improve their financial well-being. The counseling requirement in particular has come under scrutiny. Some have raised concerns that the counseling mandate places undue administrative and financial hardship on debtors who are already overwhelmed financially (e.g., Loonin, Rao, and SoRelle 2007). They argue that the requirement is serving more as an administrative obstacle, especially for those who are on the verge of losing their homes and have no other option but to file for bankruptcy. Concerns have also been raised that the counseling requirement has the potential to expose consumers to abusive practices by credit counseling agencies (Loonin, Rao, and SoRelle 2007; U.S. Government Accountability Office 2007).

Proponents of the requirement assert that the counseling has *educational value* (for a discussion, see Lyons, White, and Howard (2008) and U.S. Government Accountability Office (2007)). They argue that repealing the counseling requirement would prevent debtors from getting the assistance they need to develop the knowledge and skills to better manage their finances and build future financial security. They point out that this is the only mechanism currently available at the national level to ensure that financially overwhelmed debtors receive some type of educational assistance. Furthermore, proponents assert that the counseling can provide the financial guidance and support that debtors need to deal with their financial problems and obtain a fresh start. The end result is likely to be a reduction in debtors' overall stress and an improvement in their long-term financial security.

To date, though, much of this debate has been speculative. Very little research has been conducted to empirically test the actual effectiveness of the counseling requirement, and in particular, its educational impact. Research is needed to learn more about the effectiveness of the counseling requirement. Do debtors in fact benefit from the counseling experience? Can the counseling play a role in helping debtors recover financially from bankruptcy? Also, are there specific groups of debtors who are benefiting more than others from the counseling experience?

In 2009, a multi-phase research study was launched to investigate the impact of BAPCPA's educational requirements. The overall goal of the study was to track debtors through the entire bankruptcy process and then follow up with them to assess the long-run impact of the counseling and education requirements on debtors' overall financial well-being. This study focuses on presenting the findings from the first phase of the analysis. In the first phase, data were collected from a national sample of debtors who participated in a bankruptcy counseling course offered by Money Management International, Inc. (MMI), one of the largest providers of bankruptcy counseling and education in the U.S. The purpose of this first phase was to measure the educational impact of the counseling experience and to estimate a series of

[1] For more details on BAPCPA and the education requirements, see the Administrative Office of the United States Courts (2006) and the United States Trustee Program (2010a).

regressions to identify specific groups of debtors who were benefiting more than others from the counseling requirement.

The findings from this study have important implications for researchers, policymakers, legal professionals, financial educators, and consumers. From a policy perspective, the results provide insight into whether the counseling requirement is serving its intended purpose. From an educational perspective, the findings provide valuable insight into how the requirement is helping to improve debtors' personal financial situations.

The remainder of this paper is organized as follows:

- The next section presents the literature review, which is followed by a description of the data.
- The empirical models and regression results are then presented.
- The final section summarizes the findings, the lessons learned, and the implications for consumer policy and education.

## LITERATURE REVIEW

Consumer credit counseling has long been considered the best alternative to filing for bankruptcy (Lown 2005). For over 50 years, credit counseling organizations have been assisting consumers in dealing with their financial problems.[2] When the industry first began in the 1960s, it focused on offering two core services: (1) one-on-one budget/financial counseling with a recommended plan of action and (2) debt management plans (DMPs), where a credit counseling agency negotiates a repayment plan with creditors on behalf of the consumer.[3]

Today, agencies within the industry offer a much wider range of credit counseling and general financial education services at no, or very little, cost to debtors. These services have expanded beyond traditional budget analysis and DMPs to include community-based group education, homeownership counseling and education, as well as bankruptcy counseling and education. Consumers who seek out credit counseling services generally fall into one of three categories: (1) those who are able to help themselves out of financial trouble but are looking for solutions to handle the debt on their own; (2) those who need a debt management plan (DMP) to help them consolidate and repay their debts; and (3) those whose financial situation is so severe that bankruptcy may be their best, and perhaps only, option (Xiao and Wu 2006b). The question is – does credit counseling really help to improve the financial outcomes of consumers?

There is a small but growing body of research that looks at the impact of traditional credit counseling on debtors' financial well-being. Most of this research was conducted prior to the implementation of the bankruptcy counseling requirement and so focuses on the first two groups of consumers – those looking to handle their financial problems on their own or those needing the assistance of a DMP. While these studies are not directly linked to the bankruptcy process per se, they provide insight into the potential impacts that the bankruptcy counseling requirement may have on debtors' financial outcomes.

One line of research uses data collected from individual credit counseling agencies to assess whether credit counseling can improve clients' overall well-being. These studies use more subjective

[2] See Hunt (2005) for a general overview of the history of the consumer credit counseling industry.
[3] Under a DMP, the consumer pays off their unsecured debts by making a single, consolidated payment each month to the credit counseling agency. The agency, in turn, distributes the payment to the consumer's creditors. The benefit of being on a DMP is that creditors often agree to lower a consumer's interest rates or waive certain fees as long as the consumer remains on the DMP. There is typically a cost of being on a DMP that goes toward helping the agency cover its expenses.

socioeconomic measures to determine whether counseling helps to reduce financial stress, increase satisfaction levels, and improve credit management practices and other financial behaviors (e.g., Kim, Garman, and Sorhaindo 2003; Xiao, Sorhaindo, and Garman 2006; Xiao and Wu 2006a). The results of these studies tend to show a positive relationship between the credit counseling experience and clients' financial wellness. For example, Kim, Garman, and Sorhaindo (2003) found evidence that credit counseling and financial behaviors contributed to improvements in clients' health and overall well-being. Xiao, Sorhaindo, and Garman (2006) found that positive financial behaviors reduced financial stress and increased financial satisfaction for those who participated in a credit counseling service. Xiao and Wu (2006a) used data from a sample of credit counseling clients who were on debt management plans (DMPs). They found that debtors' intentions to stay on a DMP and reduce their debts were positively associated with their assessment of the credit counseling service they had received.

A second line of research focuses on the impact of counseling on more economic-based measures such as credit scores and incidence of bankruptcy and delinquency. A study by Elliehausen, Lundquist, and Staten (2007) found evidence to suggest that credit counseling can positively affect clients' credit use and repayment behaviors several years after counseling. The authors tracked credit counseling clients from agencies that were affiliated with the National Foundation for Credit Counseling (NFCC) and found that those who received counseling were able to reduce their debts, improve their credit card management, and lower their delinquency rates by more than those with similar characteristics who had not received counseling.

In another study, Staten and Barron (2009) collected data from ten counseling agencies to examine whether participation on a debt management plan (DMP) helped to improve clients' credit profiles over a four-year period. The findings showed that clients who were recommended for a DMP, and actually started making payments, had higher credit scores and a lower incidence of bankruptcy four years later than clients who were recommended for a DMP but never started making payments. This finding suggests that the DMP counseling and education experience may serve as a catalyst to positive behavior change. In other words, there may be "educational value" in having clients regularly and consistently engage in positive financial practices such as maintaining a budget, making regular payments, and receiving ongoing reinforcement from a counseling agency. In this same study, Staten and Barron (2009) looked at whether the impact of the counseling was affected by the delivery method (i.e., in-person, telephone, or Internet counseling). The results were mixed, yet generally seemed to suggest that the credit profiles of telephone and Internet clients were, for the most part, no worse than the credit profiles of the in-person clients. However, in-person clients seemed to have a higher incidence of bankruptcy following the counseling.

The preceding studies provide some evidence that the counseling experience may have a positive impact on debtors' financial circumstances. However, the results are based on samples of clients who voluntarily chose to seek out and participate in credit counseling. Therefore, the results may be biased in favor of a positive counseling effect since those who actively chose to participate in the counseling may have been more motivated and willing to want to positively change their financial situation. Under BAPCPA, debtors who want to file bankruptcy are *required* to complete credit counseling and do not have a choice about whether they want to participate. For this reason, one might expect the effects of the bankruptcy counseling to be understated.

Canada implemented a bankruptcy counseling requirement in 1992, which is still in effect today. Under the requirement, debtors must complete two mandatory counseling sessions (Ramsay 2002; Schwartz 2003). The first session is completed shortly after debtors file for bankruptcy and focuses on providing general financial education on basic money management principles. The second session takes place shortly before the discharge. Its purpose is to reinforce the principles covered in the first session and assist debtors in conducting an assessment of their own personal financial situation. Both are one-on-one sessions that last approximately one hour each.

Reviews of the Canadian model were conducted in the mid-1990s. They were primarily based on self-reported interview data collected from bankruptcy filers, trustees, and private counselors (Ramsay 2002). The findings revealed that debtors and private counselors were “more enthusiastic” than trustees about the usefulness of the counseling and its potential impact on debtors’ future financial stability. Schwartz (2003) used credit report data to study the impact of the Canadian counseling requirement on bankruptcy filers’ future creditworthiness. Specifically, he used a natural experiment to look at the 2002 credit profiles for a sample of uncounseled debtors who filed for bankruptcy in 1992 prior to the counseling mandate. He then compared their 2002 credit profiles to a sample of debtors who filed for bankruptcy in 1996 after the counseling mandate had been established. He found little difference in the average levels of creditworthiness between the two groups. He concluded that bankruptcy counseling was not likely to lead to “any appreciable improvement in future creditworthiness” since few differences were found between the two groups. However, it is important to note that in Canada a bankruptcy filing stays on a consumer’s credit report for six years. Thus, those who filed bankruptcy in 1996 may have still had the bankruptcy flag on their 2002 credit record while those who filed in 1992 did not. Also, there may have been factors other than the the counseling which affected filers’ credit records in 1992 versus 1996 given the four year difference in when the two groups filed for bankruptcy.

The U.S. model that was adopted in 2005 under BAPCPA is similar to the Canadian model. To date though, very few studies have conducted empirical research to investigate the impacts of the U.S. bankruptcy counseling requirement. Existing research has primarily focused on evaluating the operational and legal aspects of the counseling such as defining goals, setting appropriate standards and acceptable metrics for evaluation, and implementating effective delivery strategies (e.g., Clancy and Carroll 2007; Loonin, Rao, and SoRelle 2007; U.S. Government Accountability Office 2007). These studies though provide little insight into the actual educational value of the counseling and its impact on debtors’ financial outcomes.

Thorne and Porter (2007) asked families that filed bankruptcy prior to 2005 whether taking a money or debt management course would have helped them to avoid bankruptcy. Over half of the respondents reported that a financial management course would have helped them to avoid bankruptcy. This finding suggests that debtors seem to perceive value in completing an educational course such as a credit counseling session. However, this is only speculative since it is based on debtors’ perceptions rather than actual measurable outcomes.

In 2006, the National Foundation for Credit Counseling (NFCC) surveyed its member agencies that had been approved to provide bankruptcy counseling and found that some of its members had administered pre- and post-tests to their bankruptcy counseling clients. These agencies reported that their clients had experienced positive gains in knowledge and improvements in satisfaction levels, attitudes, and behavioral intentions as a result of the counseling. Unfortunately, it is unclear as to the number of agencies who administered the surveys, the evaluation methods used, the survey content, and whether the agencies used similar outcome measures to capture gains in knowledge, attitudes, and behaviors. Given this, it is not possible to assess the overall quality of the NFCC’s reported findings. In its report, the NFCC acknowledged the limitations of these findings and called for more evaluative research.

Lyons, White, and Howard (2008) have been among the first to attempt to measure the educational value of the counseling experience by using more formalized program evaluation methods (i.e., pre- and post-tests) and outcome-based measures such as changes in knowledge, attitudes, and behaviors. In 2006, the authors used pre- and post-tests to collect quantitative and qualitative survey data from debtors who participated in bankruptcy counseling and debtor education courses offered by Money Management

International, Inc. (MMI). The results showed that on average debtors who participated in the counseling experienced significant gains in financial knowledge of almost 15.0 percent. Moreover, they found significant and positive changes in debtors' planned (or intended) financial behaviors, such that debtors were ready and willing to take steps to improve their financial situation following the counseling. There was, however, little empirical evidence to suggest appreciable changes in actual behavior. This is not surprising since debtors were unable to put into immediate action several of the behaviors right after the counseling. Nevertheless, the authors found that nearly all of the debtors were satisfied with their overall counseling experience. Over 94.0 percent felt that their overall ability to manage their finances had improved as a result of the counseling, and 99.0 percent indicated that they would seek counseling again if they had financial problems in the future. Qualitative responses further revealed that almost all debtors seemed to appreciate the educational value of the counseling and did not feel that the requirement had been a burden or an administrative obstacle.

Overall, studies such as Lyons, White, and Howard (2008) provide an initial indication that the counseling experience may be beneficial to debtors. However, these findings are far from conclusive. Analysis in this area is still in its infancy and much of the research to date has been descriptive in nature. For this reason, researchers need to be somewhat cautious when interpreting the findings and drawing conclusions since many factors have not yet been controlled for. Even so, previous research provides a useful framework for conducting further investigation. This paper builds upon the existing literature and takes a more rigorous approach, beyond simple descriptive statistics, to quantify the educational impact of the counseling. It also identifies specific groups of debtors who may have been more likely than others to benefit from the counseling experience.

## MMI'S BANKRUPTCY COUNSELING COURSE

Money Management International, Inc. (MMI) is currently the largest nonprofit, full-service credit counseling agency in the U.S. Since 1958, MMI has provided a wide range of services to consumers to assist them in finding the tools and solutions they need to better manage their finances and achieve long-term financial security. Its services include credit counseling, community-wide educational programs, debt management assistance, bankruptcy counseling and education, and housing counseling and education. These services are provided to consumers via telephone, Internet, and in-person.

In October 2005, MMI was approved by the Executive Office for U.S. Trustees (EOUST) to provide bankruptcy counseling.[4] Originally, MMI offered bankruptcy counseling using two different delivery methods – in-person and telephone. In July 2006, it began offering bankruptcy counseling via an online course. To date, MMI continues to offer bankruptcy counseling via all three delivery methods. It is estimated that in 2009 alone MMI provided bankruptcy counseling to 170,921 debtors. Of which, 87,269 debtors completed the counseling online.

To participate in MMI's online course, bankruptcy attorneys either pre-register their clients or the clients go directly to a centralized Web site and create an account.[5] From here, the clients log in and begin the course. The course consists of 10 modules covering a wide range of basic personal finance concepts including: (1) income and expenses, (2) assets, liabilities, and net worth, (3) budgeting and tracking

[4] The mandatory bankruptcy counseling course must be obtained from an approved provider by the U.S. Department of Justice's U.S. Trustee program (United States Trustee Program 2010b). A list of approved providers can be accessed online at http://www.usdoj.gov/ust/eo/bapcpa/ccde/index.htm.
[5] MMI's fee for its online bankruptcy counseling session was $50.00 in 2009. The $50.00 fee was for either a single filer or joint filers if both participated in the course at the same time. MMI waived the fee for debtors whose household income was equal to or less than 150 percent of the estimated poverty threshold for their applicable family size as published in the current Federal Poverty Levels Guidelines.

income and expenses, (4) keeping adequate financial records, (5) financial goal setting, (6) savings and emergency funds, (7) debt management options and strategies, (8) the bankruptcy process, (9) laws that protect debtors, (10) types of credit and the cost of credit, (11) credit reports and credit scores, and (12) establishing or re-establishing credit. The course also has a number of interactive components such as budgeting activities, financial calculators, check lists, and assessment tools. There is also an audio track so that clients can listen along as the text of the course is read aloud.

The Web site for the course is available 24/7, and clients can log in and complete the course in one session or several sessions if that is more convenient. The course takes about 60 to 90 minutes on average to complete. At the end of the course, clients are required to speak with a certified counselor. The counselor reviews key points covered in the course, gathers any additional information that is needed, and responds to clients' questions or concerns. At the end of the call, clients are issued a certificate of course completion. This certificate allows them to proceed with the bankruptcy process, if they elect to do so.

## DATA COLLECTION

To measure the educational impact of the online bankrutpcy counseling course, quantitative and qualitiatve data were collected using pre-and post-tests that were built into the online course. Responses to the pre- and post-tests were entered by the client and downloaded into a central database for future analysis.

### Financial Knowledge and Behavior Measures

The pre- and post-tests collected information on clients' level of financial knowledge, current financial practices, and future intended practices. To measure financial knowledge, clients were asked 10 knowledge-based questions.[6] The questions focused on testing key personal finance concepts covered during the counseling course (see the next section for a list of the specific questions). All of the items were formatted as true/false questions.[7] The same set of knowledge questions was included on both the pre- and post-tests. The questions were randomly re-ordered on the post-test to minimize the potential of learning bias. A knowledge score was calculated for each client pre- and post-counseling based on the percentage of questions they answered correctly.[8] Scores ranged from 0 to 100 percent.

Financial behavior was measured by asking clients about their current and future intentions to engage in 12 financial practices (the list of practices also can be found in the next section). These 12 practices were key behaviors emphasized during the online course. At the beginning of the course, clients were asked to report how often they were currently doing each financial practice. At the end of the course, they were then asked to report how often they planned to do each financial practice. Responses were based on a 5-

[6] Evaluation experts typically recommend using 10 to 25 knowledge questions to establish a reliable baseline level of knowledge for an individual (Jayaratne, Lyons, and Palmer 2007). However, for short educational programs lasting two hours or less it is sufficient to use five to ten knowledge questions. Following these guidelines, the counseling course included 10 knowledge-based questions since the course lasted approximately 60 to 90 minutes.
[7] To capture changes in knowledge, researchers often use multiple choice or true/false questions. Both provide reliable measures of knowledge acquisition. The true/false format, however, can help to keep the evaluation tool brief and save on time needed to administer the survey since participants can respond to true/false questions faster than multiple choice (Jayaratne, Lyons, and Palmer 2007).
[8] Cronbach's Alpha was used to test the internal consistency and reliability of the questions used to construct the financial knowledge score. The test showed that the 10 knowledge questions were correlated (alpha was 0.69 for the post-test) and that the knowledge score was a reliable measure of overall financial knowledge based on the content of the credit counseling course. The 10 questions were also found to have conceptual validity in that they were consistent with those used and tested by previous researchers (e.g., Hilgert, Hogarth, and Beverly 2003; Jayaratne, Lyons, and Palmer 2007; Lyons, White, and Howard 2008).

point Likert scale, ranging from 1=Never to 5=Always. A total behavior score was calculated for each client by summing their responses to the 12 financial practices using the reported values from the 5-point Likert scale.[9] A client's total behavior score could range anywhere from 12 to 60, with higher scores reflecting more positive financial behaviors or more positive behavioral intentions.

### Financial Events and Experiences

Detailed information was also collected on clients' past financial events and experiences, including the reasons for their current financial situation and actions already taken to deal with their financial problems. Clients were also asked about their willingness to take certain actions to improve their financial situation. These actions included whether they were willing to reduce expenses (e.g., stop eating out, eliminate vacations), increase income (e.g., get a second job, work more hours), or make other life-style adjustments (e.g., downsize to a smaller home or move in with family/friends). At the end of the course, clients were asked about specific steps they were planning to take to deal with their financial situation such as handle the debt on their own, borrow against or sell assets, enroll in a debt management plan (DMP), or file for bankruptcy. They were also asked to report their overall satisfaction with the counseling course and how likely they were to seek credit counseling again if they had financial problems in the future.

### Demographics

Demographic information was collected on clients' age, gender, education, marital status, race/ethnicity, employment status, homeownership, and financial position (including a detailed accounting of household income, expenses, assets, and liabilities).[10] Geographical information, including state, county, and zip code, was also gathered for each client based on the location of their residence in 2009.

In addition to the above, data from the 2000 Census were merged with the counseling data using each client's geographical information. Specifically, a series of socioeconomic variables were constructed from the Census to capture local neighborhood and community characteristics. The following four Census measures were added to the counseling data: (1) the percentage of the total population residing in an urban area within the client's county; (2) the percentage of the total population in the client's county that was unemployed; (3) the percentage with less than a high school education; and (4) the median house value for the client's county of residence. Note that these variables were constructed at the county level and are reported for the year 2000.[11] Median house values for each county were converted to 2009 dollars using the CPI.

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[9] The reliability of the behavior items was also tested. Cronbach's Alpha showed that the 12 financial practices were strongly correlated (alpha was 0.83 for the pre-test and 0.93 for the post-test) and that the behavior score was a reliable measure of clients' overall financial behavior. The behavior items were conceptually valid as well (e.g., Hilgert, Hogarth, and Beverly 2003; Jayaratne, Lyons, and Palmer 2007; Lyons, White, and Howard 2008; O'Neill and Xiao 2003).

[10] Clients were asked to report their financial holdings for a number of asset and liability categories. Clients could enter "0" or leave a field blank if they did not hold a particular asset or liability. Total assets are defined as the sum of all financial assets (i.e., cash, savings and checking accounts, certificates of deposit, bonds, mutual funds, stocks, retirement accounts, and any other cash or investment equivalents) and all non-financial assets (i.e., real estate, vehicles, and any other personal property). Total liabilities are defined as the sum of all debts owed, including mortgages, home improvement loans, car loans, student loans, credit card debt, federal and state taxes, and any other type of debt or contractual obligation.

[11] These socioeconomic variables were also constructed at the zip code level, but could only be constructed for clients in 2009 who resided in areas that had a 2000 zip code (n=31,216).

## DESCRIPTIVE STATISTICS

Between February and August 2009, data were collected from approximately 42,181 debtors who completed MMI's online bankruptcy counseling course. Of these, 9,627 observations were dropped due to missing or incomplete information.[12] The final sample consisted of 32,554 debtors (77.2 percent of the original sample).

Table 1 presents the descriptive statistics for the sample. The majority of clients were between the ages of 36 and 55 (56.2 percent). A slightly larger percentage was male than female (53.4 percent compared to 46.6 percent). Also, most clients had at least a high school education (95.6 percent), with 67.8 percent reporting that they had some type of college education. Over half of the sample reported that they were married (56.0 percent), while 21.4 percent reported that they were divorced or separated, 20.4 percent reported that they were single or never married, and 2.3 percent reported that they were widowed. In addition, the majority of clients were white (70.1 percent), 11.9 percent were Hispanic/Latino, 10.2 percent were African-American, 4.6 percent were Asian or Pacific Islander, and 3.2 percent were another race/ethnicity. With regards to employment and income, 65.4 percent reported that they were working full-time, 10.7 percent were working part-time, and 23.9 percent were not currently employed. Half of the sample (50.0 percent) reported that their annual household income was $40,000 or less, with 30.9 percent reporting that their income was between $20,001 and $40,000 and 19.1 percent reporting that their income was $20,000 or less. About 60.0 percent indicated that they were homeowners (57.7 percent).

Table 1 also provides some general information on the geographical distribution of the sample based on clients' state of residence in 2009. About 17.0 percent reported that they lived in the Northeast, 22.6 percent in the South, 25.0 percent in the Midwest, and 35.0 percent in the West. It should not be surprising that the sample was weighted towards the West since it included states like Arizona, California, Nevada, and Utah where bankruptcy filing rates in 2009 were particularly high.

These initial statistics reveal that the sample is largely representative of MMI's overall population of counseling clients. Since MMI is the largest nonprofit credit counseling agency in the country and offers bankruptcy counseling and education in all 50 states, the sample is also likely to be fairly representative of the population of U.S. bankruptcy counseling clients as a whole.

### Financial Profile

Table 2 provides a financial profile of the clients, including past actions taken to deal with their financial problems, factors that contributed to their current financial problems, and willingness to take future action to improve their current financial situation. With regards to actions taken to deal with previous financial problems, 27.1 percent of the clients indicated that they had previously filed for bankruptcy, 15.0 percent reported that they had used a credit counseling service, and 13.7 percent indicated that they had participated in a debt management plan (DMP). In the last 12 months alone, clients reported the following events. Almost half (47.8 percent) reported that they had used one credit card to pay off another and 36.8 percent reported delaying house or auto payment to make credit card payments. In addition, 29.7 percent reported that they had used a high interest rate loan (e.g., payday loan, rent-to-own, or title loan) while 24.9 percent indicated that they had property repossessed or their home foreclosed on.

Clients identified a number of factors as contributing to their current financial problems. The most frequently cited factors were unexpected expenses (74.1 percent), loss of employment (52.1 percent),

[12] The majority of observations were removed because clients chose not to respond to one or more of the knowledge or behavior questions on the pre- or post-test.

unnecessary spending (49.8 percent), and health-related problems such as illness or injury (36.4 percent). Other factors included business loss or excessive business expenses (25.9 percent), divorce or separation (21.8 percent), and death of a spouse or other loved one (6.7 percent). These findings are consistent with other research (e.g., Lyons, White, and Howard 2008) that found that debtors financial problems were a combination of factors related to unexpected life events and poor financial management practices.

Prior to the counseling, clients reported taking a number of actions to deal with their current financial problems. A large percentage of clients responded that they had reduced expenses (82.6 percent), borrowed money from family or friends (63.4 percent), and renegotiated terms and conditions of existing loans (47.1 percent). In addition, several clients indicated that they had increased their income by working more hours or taking a second job (38.7 percent). Some also had consolidated debts (37.4 percent), cashed out or borrowed against their retirement funds (37.3 percent), and refinanced their home or applied for another loan (31.1 percent). Over one-quarter of the clients (28.2 percent) responded that they had sold their home, car, or other possessions. Some clients also reported that they had contacted a credit counseling service (25.0 percent) or participated in a debt management plan (9.7 percent). Interestingly, a fairly large percentage (16.8 percent) indicated that they had not taken any action, or felt they had no options, to help them deal with their financial problems.

With regards to taking future action to improve their financial situation, almost all of the clients (98.3 percent) indicated that they would be willing to reduce expenses (e.g., stop eating out, eliminate vacations). In addition, 78.5 percent would be willing to increase income (e.g., get a second job, work more hours) and 60.4 percent would be willing to make lifestyle adjustments (e.g., downsize to a smaller home, move in with family/friends). These findings suggest that most debtors were aware of their behaviors at the counseling stage and were open to taking action to fix their financial problems.

## Financial Knowledge

Table 3 presents clients' responses to the ten knowledge questions. The first column presents the percentage of debtors who answered each question correctly on the pre-test. The second column presents the percentage of debtors who answered the same set of questions correctly on the post-test. The final column reports the difference between the pre- and post-test scores (i.e., net change in knowledge) and whether these differences were statistically significant. In general, the findings show that clients' financial knowledge improved as a result of the bankruptcy counseling. For all ten questions, clients' financial knowledge significantly increased. The greatest gains in knowledge occurred for questions related to debt-to-income ratios (+19.7 percent), credit reports and the bankruptcy process (+16.6 percent), net worth and solvency (+11.1 percent), and fixed and variable expenses (+10.5 percent). The smallest gains were found for questions related to secured versus unsecured loans (+2.4 percent), laws that protect debtors (+2.7 percent), and the cost of credit (+3.9 percent).

Recall that clients' average knowledge score was calculated as the percentage of questions that were answered correctly on the pre-test and the post-test, respectively. These percentages were used to: (1) determine the average net change in knowledge between the pre- and post-tests and (2) identify clients who scored 70 percent or better on the tests. The average knowledge score for all of the clients and the percentage of clients scoring 70.0 percent or better on the pre- and post-tests are reported at the bottom of Table 3. On average, debtors' scored 77.1 percent on the pre-test and 85.9 percent on the post-test, for a net gain in knowledge of +8.8 percent. The overall percentage increase in knowledge was 11.4 percent. In addition, 81.0 percent scored 70.0 percent or better on the pre-test compared to 91.4 percent on the post-test.

## Financial Behavior

Recall that information was also collected on how often clients were engaging in 12 financial practices pre-counseling and how often they planned to engage in those same practices post-counseling. Table 4 presents the mean behavior scores for each financial practice. Scores were based on the 5-point Likert scale where 1=Never and 5=Always. Several findings are worth noting. First, clients were more likely pre-counseling to engage in financial practices that could more easily be implemented because they were less tied to the client's financial portfolio. For example, mean behavior scores pre-counseling were 4.10 for "reviewing income and expenses before making large purchases," 4.08 for "comparing prices before making purchases," 3.79 for "reducing impulse spending and cutting unnecessary expenses," and 3.72 for "reviewing bills each month for accuracy." Clients were less likely to engage in behaviors that were more closely linked to their financial position and thus more difficult to implement. Mean behavior scores pre-counseling were 2.16 for "keeping your debt-to-income ratio below 20 percent," 2.18 for "saving money each month," and 2.56 for "using less than 50 percent of your available credit." These findings should not be surprising since debtors were not yet in a position to be able to discharge their debts and rebuild their credit at the initial counseling stage. At this point, clients' actions were still constrained by their financial situation and by the courts that were supervising them.

Following the counseling, clients overwhelmingly reported that they planned to engage in all 12 financial practices. Mean behavior scores were still lower for those practices that were more closely linked to the client's financial position. However, all of the scores were over 4.0, ranging from 4.44 for "saving money each month" to 4.84 for "reviewing income and expenses before making large purchases." These findings suggest that the counseling experience likely provided "a teachable moment" where it raised clients' awareness about their current financial practices and motivated them to want to change their future practices so as to improve their overall financial situation.

Table 4 also presents an average total behavior score, which was calculated by summing clients' responses to the 12 financial practices using the values from the 5-point Likert scale and then averaging the scores over the entire sample. Out of a total possible score of 60, the average total behavior score for the sample was 39.2 pre-counseling and 56.4 post-counseling. These findings again confirm that the counseling experience likely had a positive impact on clients' attitudes and confidence levels, especially with regards to their willingness to apply what they had learned during the counseling to improve future financial practices.

## Perceived Educational Impacts

At the end of the counseling, clients were asked about their overall impressions of the counseling course and whether they thought they had received educational benefit from the counseling experience. Table 5 summarizes clients' responses. With regards to the perceived educational impact of the course, 98.0 percent of clients reported that they felt more knowledgeable about the bankruptcy process as a result of the counseling experience, and 97.4 percent felt more knowledgeable about the options available to deal with their current financial problems. In addition, 91.4 percent of clients indicated that their overall ability to improve their financial behaviors had increased.

With regards to general course satisfaction, 99.4 percent of clients found the counseling course to be at least "somewhat helpful," with 44.3 percent reporting that the course was "very helpful." Similarly, 96.9 percent reported that they would be at least "somewhat likely" to recommend the course to others, with 40.2 percent being "very likely." In addition, over 97.0 percent indicated that they would be at least "somewhat likely" to seek credit counseling again if they had financial problems in the future. Almost half (43.7 percent) indicated that they would be "very likely" to seek credit counseling again.

## EMPIRICAL MODELS

Based on the descriptive data, it appears that clients are likely benefiting educationally from the counseling experience. However, these descriptive findings only provide insight into the impact for the "average" client. Certain client characteristics may be driving these outcomes and a closer look at the data might reveal that some clients are more likely to benefit than others from the counseling. These factors could be related to debtors' prior knowledge, attitudes, behaviors and socioeconomic status. They could also be related to unexpected shocks and environmental factors outside of their control.

The specific relationship between the counseling effect and these various factors is a bit ambiguous. Chang and Lyons (2008) point out that clients' prior knowledge, behaviors, and unique experiences may facilitate learning due to a learning curve effect. In other words, those who start out with a more solid foundation in personal financial management may be able to gain more from the program because *ex ante* they started at a higher level. At the same time, those who start out with a better foundation may also gain less from the counseling because by default they do not have as much room to improve. In this case, if the clients are already knowlegeable about the subject matter and they are already engaging (or intending to engage) in the behaviors, the counseling may be serving more as a reinforcement, or a reminder, of what they already know and what they need to be doing.

For this reason, it is important to assess how various client characteristics effect the counseling outcomes. In particular, research needs to look at the outcomes for those who started out with a more solid financial management foundation. It is also important to consider the impact for those with greater socioeconomic status (i.e., higher income and education levels) since they are in a better position to recover post-counseling. A series of regressions using the pre- and post-test knowledge and behavior data were estimated to determine which clients were more likely to score higher on the financial knowledge test and to engage in more positive financial practices post-counseling.

### Financial Knowledge

With regards to knowledge, the following OLS model was first estimated:

$$FKPost_i = \alpha_0 + \alpha_1{}' FKPre_i + X_i{}'\alpha_2 + \varepsilon_i. \tag{1}$$

In this model, $FKPost_i$ is the dependent continuous variable that represents the $i^{th}$ client's knowledge score on the post-test. The client's post-test score ($FKPost_i$) is expressed as a linear function of the client's pre-test score ($FKPre_i$) and a vector of the client's personal characteristics ($X_i$).[13] The error terms, $\varepsilon_i$, are assumed to be random and normally distributed with mean zero.

There are many factors that could potentially affect a clients' level of financial knowledge. The client's pre-test score ($FKPre_i$) is included to account for the client's baseline level of financial knowledge prior to the course.[14] Other independent variables ($X_i$) are also controlled for in the model, including a standard

[13] Some researchers may be concerned about the potential for heteroskedasticity. This controlled for the client's pre-test score and other personal characteristics, but the distribution of unexplained variation in the client's post-test score may still be dependent on the explanatory variables. Standard errors were adjusted so that they were robust to unknown forms of heteroskedasticity. The results from the unadjusted model were not significantly different from those of the adjusted model so concerns about heteroskedasticity are likely to be unwarranted.

[14] A client's baseline level of financial knowledge prior to counseling ($FKPre_i$) was assumed to be exogenous, because all individuals start out *a priori* with a certain level of financial knowledge. Theoretically, it is possible to test the assumption that $FKPre_i$ is exogenous. However, to run this endogeneity test, we would need to estimate an equation for $FKPre_i$ that includes a variable that does not affect $FKPost_i$. Unfortunately given the limitations of our data, we were unable to conduct this type of test.

set of general demographics (age, gender, marital status, race/ethnicity, education, household income, homeownership, and employment status). $X_i$ also includes a dummy variable for whether clients reported that they were willing to make lifestyle adjustments to improve their personal financial situation.[15] This variable is used to account for clients' aptitudes and preferences for learning and making change. It is hypothesized that those who are more "willing" to change at the outset will also be more likely to learn more from the course.

Also included in $X_i$ is a set of variables to account for previous financial events that could directly or indirectly affect clients' financial knowledge. These variables control for the reasons behind clients' current financial problems such as a negative health shock, loss of employment, or unnecessary spending. The model also controls for whether clients in the last 12 months used a payday loan or other high interest rate loan, delayed house or auto payments to pay credit card bills, and had property repossessed or home foreclosed. A final control is included to account for whether clients previously filed for bankruptcy and are repeat filers. As previously mentioned, the relationship between these factors and the dependent variable is not exactly clear. On the one hand, some of these "negative" events and experiences could negatively affect clients' financial knowledge if these controls are capturing those who have more limited financial knowledge and experience to begin with. On the other hand, some could positively affect clients' financial knowledge if clients learned from these negative events and experiences and, as a result, became more knowledgeable about their finances.

To account for community and environmental factors, the model includes four Census measures: (1) the percentage of the total population residing in an urban area within the client's county; (2) the percentage of the total population in the client's county that was unemployed; (3) the percentage with less than a high school education; and (4) the median house value for the client's county of residence.[16] Controlling for these factors helps to better isolate the "true" effects of the demographics, especially the socioeconomic factors such as education, race/ethnicity, and employment.

In addition to the OLS model, a probit model was estimated to determine which characteristics were more likely to affect the probability that clients had at least a basic or "satisfactory" level of financial competency by the end of the counseling course:

$$FKPost70_i = \beta_0 + \beta_1 FKPre70_i + X_i'\beta_2 + \upsilon_i. \tag{2}$$

In this model, the basic level of competency is defined by $FKPost70_i$, a discrete dependent variable that is equal to 1 if the client scored 70.0 percent of better on the post-test and 0 otherwise. $FKPre70_i$ is also a discrete choice variable that is equal to 1 if the client scored 70.0 percent or better on the pre-test. The score of 70.0 percent was selected as the cutoff point based on standardized grading methods, where 70.0 percent is typically defined as an "average" score in a normal distribution. Note that the same set of covariates ($X_i$) included in the OLS model are also included in the probit.

[15] Recall from Table 2 that information was also collected on clients' willingness to reduce expenses and increase income. The vast majority of clients indicated their willingness to make these changes (98.3 percent and 78.5 percent, respectively). Only 60.4 percent reported that they were willing to make lifestyle adjustments so this measure was included in the model since it allowed for greater variability in the estimates.

[16] Note that all of the models were also estimated using zip code level controls for those clients residing in areas that had a 2000 zip code (n=31,216). The results were similar to those found at the county level and are available upon request.

### Financial Behavior

To identify which clients were more likely to engage in positive financial practices, two OLS models were estimated for financial behavior:

$$FBPre_i = \lambda_0 + X_i'\lambda_1 + e_i \tag{3}$$
$$FBPost_i = \gamma_0 + \gamma_1 FBPre_i + X_i'\gamma_2 + u_i. \tag{4}$$

The first model provides insight into which clients were more likely to already be engaging in positive financial practices prior to taking the counseling course. The second model identifies the factors that were more likely to affect intended behavior and lead to more positive financial practices post-counseling, holding constant prior financial behavior.

In the first model, $FBPre_i$ represents the $i^{th}$ client's total behavior score pre-counseling and is a linear function of the same vector of personal characteristics ($X_i$) that were controlled for in the financial knowledge models. In the second model, $FBPost_i$ represents the $i^{th}$ client's total behavior score post-counseling and is expressed as a linear function of the client's behavior score pre-counseling ($FBPre_i$) and $X_i$.[17] Recall that a client's total behavior score was calcuated based on how often they reported doing (or planning to do) a total of 12 financial practices. $X_i$ is included in the behavior models because the same factors that are likely to affect financial knowledge are also likely to affect behavior. Moreover, many of these factors are likely to affect previous and intended behavior in the same way as knowledge. The error terms for both models, $e_i$ and $u_i$, are assumed to be random and normally distributed with mean zero.

## REGRESSION RESULTS

### Financial Knowledge

Table 6 presents the regression results for knowledge gains for the online bankruptcy counseling clients. The first two columns present the results from the OLS model using clients' post-test knowledge score which is based on the percentage of questions answered correctly. The second two columns present the results from the probit model for the probability clients received a "satisfactory" score on the post-test, answering at least 70 percent of the questions correctly. Coefficients and robust standards errors are presented for each model. Note that for the OLS model the coefficients represent the marginal effects.

With regard to the OLS model, clients' prior financial knowledge, measured by their pre-test score, was positively related to their post-test score. Thus, those who started off with higher knowledge were able to increase their knowledge level by more than those who started with lower knowledge, holding all other factors constant. The demographic characteristics revealed that younger clients scored significantly higher than older clients, with those less than 36 years of age scoring highest. Females though were significantly less likely than males to score higher. Compared to single clients, those who were divorced/separated or widowed scored significantly higher. A somewhat troubling finding was the large negative effects found for minorities. Relative to whites, each racial/ethnic group scored significantly lower on the post-test. The largest negative effect was found for Hispanics.

The findings showed that socioeconomic status was also a key determinant of knowledge. Specifically, clients with higher levels of education attained significantly higher post-test scores. When compared to college graduates, those with less than a high school education scored the lowest. Post-test scores also

[17] As with knowledge, we assume that all individuals start out with a baseline level of financial behavior. For this reason, prior financial behavior ($FBPre_i$) was assumed to be exogenous in the behavior model. Standard errors were also adjusted so that they were robust to unknown forms of heteroskedasticity.

increased with income. Those with incomes over $80,000 experienced the largest gains when compared to those with incomes below $20,000. Homeowners were more likely to score higher as well. Employment status though did not significantly affect clients' knowledge levels.

The effects of clients' attitudes and past financial experiences were mixed. Clients' willingness to make lifestyle adjustments did not significantly affect their post-test score. However, the reasons for clients' current financial problems were found to significantly and positively affect their scores. Those whose financial problems were due to health problems or loss of employment were significantly more likely to score higher than those whose financial problems were unrelated to health or employment issues. Similarly, those whose financial problems were due to unnecessary spending were also more likely to score higher than those whose problems were not due to unnecessary spending. Thus, clients' financial knowledge seems to have increased regardless of whether their indebtedness resulted from unfortunate circumstances beyond their control or from poor financial management practices.

There is also evidence to suggest that other financial events may have affected knowledge levels. Clients who used a payday or other high-interest rate loan scored significantly lower, as did those who delayed house or auto payments to pay off credit card balances. Having property repossessed or home foreclosed or having previously filed for bankruptcy were factors that were also associated with lower scores, but these effects were statistically insignificant. Thus, some of these "negative" events and experiences may be signaling that some clients were in particularly dire financial straits. They may also have had extremely low levels of financial competency. In any case, these events may have put them in a position financially where they were unable to gain as much from the counseling experience as others.

The controls for county-level socioeconomic factors also yielded some interesting results. Clients living in counties with a larger urban population scored lower, as did those living in counties with a higher percentage of residents who had less than a high school education. Those living in counties with higher median housing values also scored lower, which is somewhat counterintuitive. However, median housing values may be controlling for financial conditions in the marketplace rather than socioeconomic effects. In particular, these values may be capturing the effect of the housing bubble. Areas with higher housing values in 2000 were likely to have been hit harder by the collapse of the housing market and the subsequent financial crisis in 2008. Debtors living in these areas may have been living in a more economically-challenged community in 2009 when the data were collected.

In any case, the socioeconomic controls are not only of interest in their own right; their inclusion in the regression strengthens the interpretation of other key variables, particularly race and ethnicity. Without these controls, there would be concern that the race/ethnicity variables may be picking up the effect of environmental, or neighborhood, effects associated with poor financial outcomes, such as living in urban "financial deserts," where there is limited access to financial services and products. By controlling for county-level factors that might broadly influence a clients' financial knowledge, there is greater confidence that these environmental effects are not confounding the effects that were found for race and ethnicity.

Table 6 investigates the factors affecting the probability that clients achieved a "satisfactory" level of financial knowledge following the counseling. Having a satisfactory level of financial knowledge prior to the counseling significantly increased the probability of having a satisfactory level of financial knowledge after the counseling. With regard to the effects of the other covariates, the following was revealed. First, the effects for age, gender, and homeownership in the probit model were significantly weaker when compared to those in the OLS model. The other effects tended to be similar. Marital status still showed that single clients were significantly less likely to score satisfactorily on the post-test when compared to the other marital groups. Race and ethnicity were again highly significant and negative, with Hispanics being least likely to achieve a satisfactory post-test score. The effects for education and income were also the same in sign and pattern. Further, the reasons for clients' financial problems (i.e., health problems, loss of employment, and unnecessary spending) were positive and significant. County-level socioeconomic variables were again negative. Other financial events such as using a payday or other high-interest rate loan, delaying house or auto payments to pay credit cards, and having property repossessed or home foreclosure were still negatively associated with knowledge but insignificant.

Overall, the findings from both of the knowledge models presented in Table 6 suggest that several factors were likely to affect the amount of knowledge clients were able to gain from the counseling. It is important to note though, that while several factors were significant, the magnitudes of the actual effects were fairly small. The effects that tended to be largest in magnitude were for education, income, and race/ethnicity. Also, in the OLS model, the effect of prior knowledge was smaller than that of other covariates, whereas in the probit model, the magnitude of the effect for prior knowledge was larger overall. This result suggests that for a given level of pre-counseling knowledge it may be easier to achieve incremental gains in financial knowledge than it is to achieve a more substantial improvement from unsatisfactory to satisfactory.

## Financial Behavior

Table 7 displays the OLS regression results for clients' financial behavior. The first two columns present the results for current behavior pre-counseling, and the second two columns present the results for planned (or intended) behavior post-counseling. Coefficients and robust standards errors are again presented for each model. Recall that a higher score reflects more positive financial behavior and scores ranged from 12 to 60.

With regard to the first model for current behavior pre-counseling, the following points are worth noting. Younger respondents entered counseling with poorer financial behaviors. In fact, younger age groups reported significantly lower behavior scores than the reference category of clients over 55 years of age. Despite relatively poorer post-counseling financial knowledge, females reported significantly better pre-counseling financial behaviors than males. In addition, married clients reported significantly better behaviors than singles. African-Americans and Asians reported significantly lower behavior scores relative to whites. Interestingly, however, Hispanics, who were found to have significantly lower financial knowledge scores, did not report significantly poorer financial behaviors than whites.

The results obtained for the socioeconomic factors were somewhat mixed. Less educated clients reported significantly poorer financial behaviors pre-counseling. Homeowners reported significantly better financial behaviors. Yet, higher-income clients and those working full-time were significantly less likely to engage in positive financial practices pre-counseling. Among the county-level variables, the only statistically significant effect was found for the log of median house values, where clients who lived in counties with higher median house values were more likely to report engaging in more positive financial practices pre-counseling.

With respect to clients' attitudes and previous financial experiences, the results show that clients who were more willing to make lifestyle adjustments had significantly better financial behaviors pre-counseling. Negative events and financial experiences in the past tended to result in significantly lower behavior scores pre-counseling. Those who had engaged in unnecessary spending had the lowest scores. These results should not be surprising since these negative events and experiences contributed to clients' financial problems in the first place. These events are likely signaling that there were circumstances that made it difficult for them to implement many of the desirable financial practices.

Table 7 presents the more interesting results related to clients' planned (or intended) behaviors post-counseling. These findings provide insight into the potential impacts of the counseling on future financial behavior. The results from Table 7 show that clients' pre-counseling behavior scores were found to have a significant and positive effect on clients' post-counseling behavior scores, where the post scores reflect degree of behavioral intention. In looking at the covariates, the coefficients for each age category switched from negative to positive in this model, but none of the effects were statistically significant. Nevertheless, the improvement suggests that younger clients were more willing to change their behaviors following the counseling. Female and married clients were also more willing to positively change their behaviors. However, relative to whites, each racial/ethnic group reported significantly lower behavior scores. Interestingly, Asians had the lowest scores. Other racial/ethnic groups may have reported more negative behavioral intentions due to attitudinal and cultural effects not captured by the model. For example, they may have had a more pessimistic attitude and outlook and were less confident in their ability to change their behaviors following the counseling.

The findings for the socioeconomic factors were as expected. Clients with higher levels of education had significantly higher behavior scores, as did homeowners. Post-behavior scores also increased with income. However, recall that higher-income clients were less likely to report postive financial practices prior to counseling. Yet, they were more likely to report positive (intended) practices after counseling. This may be because additional data analysis revealed that indebtedness among high-income clients was primarily the result of poor financial management practices rather than unfortunate circumstances such as health problems and unemployment. Poor financial management practices can more easily be changed, especially if the client is able to maintain high-income levels post-counseling.

With regard to financial attitudes and events, the results show that clients who were more willing to make lifestyle adjustments were also significantly more likley to report their intention to engage in more positive financial behaviors post-counseling. The reasons for clients' current financial problems were found to significantly and positively affect their post-behavior scores as well. Those whose financial problems were due to health problems or loss of employment were significantly more likely to report better behavioral intentions than those whose financial problems were unrelated to health or employment issues. Similarly, those whose financial problems were due to unnecessary spending were also more likely to have better behavioral intentions than those whose problems were not due to unnecessary spending. Thus, clients' ability to implement successful behavior change post-counseling seems to increase regardless of whether their indebtedness was due to unfortunate circumstances beyond their control or from prior financial mismanagement. This finding is similar to that found for financial knowledge.

Other financial events may be affecting behavioral intentions as well. Clients who used a payday or other high-interest rate loan had significantly higher post-scores. These findings suggest that some "negative" experiences may help clients become more aware of their financial behaviors and learn from these "negative" experiences. On the other hand, some experiences may negatively affect behavioral intentions. For example, those who previously filed for bankruptcy reported significantly lower behavior scores post-counseling. It may be that clients who previously went through the bankruptcy process, and who once again found themselves on the brink of bankruptcy, were more pessimistic about their ability to successfully implement positive behavior change after the counseling.

The controls for county-level socioeconomic factors revealed that clients living in counties with higher median house values were significantly more likely to report lower behavior scores post-counseling. Those living in counties with larger urban populations and with higher percentages of residents with less than a high school education also reported lower behavior scores. However, these effects were statistically insignificant. In any case, these findings could be an indication that those living in economically-challenged communities may have greater obstacles they need to overcome before they can successfully implement change.

As with financial knowledge, the findings from the behavior models suggest that several factors likely affected clients' previous behaviors and future behavioral intentions. However, the magnitudes of these effects were again small. The largest effects were similar to those found for financial knowledge and included socioeconomic factors such as education, income and race/ethnicity. The fact that the effects were small in magnitude is not surprising since the models are looking at previous and intended behavior. Most clients were not yet in a position to implement actual behavior change because they had not yet filed for bankruptcy and discharged their debts.

## DISCUSSION

### What Have We Learned?

Overall, this study used data collected from a national sample of bankruptcy counseling clients to measure the educational value of the counseling and to identify specific groups of debtors who were more likely than others to benefit from the experience. The initial descriptive analysis revealed that debtors' financial knowledge, attitudes, and behavioral intentions improved as a result of the counseling. Pre- and post-tests showed that most debtors were fairly knowledgeable prior to the counseling. Yet, they still showed significant improvement in overall financial literacy after the counseling. On average, debtors scored 77.1 percent correct on the pre-test and 85.9 percent correct on the post-test for an increase in knowledge of 11.4 percent. In addition, over 97.0 percent reported after the counseling that they felt more knowledgeable about the bankruptcy process and the options available to deal with their current financial problems. Over 91.0 percent felt that their overall ability to manage their finances had improved.

The results also showed that post-counseling debtors appeared to be at a "teachable moment" where they were more aware of their current financial practices and were motivated to want to take action and improve their financial situation. In addition, debtors were more likely prior to the counseling to engage in behaviors that were less tied to their financial position and could more easily be implemented. By the end of the counseling, debtors overwhelmingly reported that they planned to engage in all of the financial behaviors regardless of the degree to which the behaviors were linked to their personal financial portfolio.

In general, debtors were also very satisfied with their counseling experience. Over 99.0 percent found the counseling course helpful and about 97.0 percent indicated they would be likely to seek counseling again if they had financial problems in the future. Almost all debtors seemed to appreciate the educational value of the counseling and did not feel that the requirement had been a burden or an administrative obstacle. These findings are particularly noteworthy since debtors who want to file bankruptcy are *required* to complete the credit counseling and do not have a choice about whether they want to participate. For this reason, one might have expected a more negative response to the counseling.

Regression analysis further showed that specific groups of clients were more likely than others to benefit from the counseling experience.[18] The first key finding was that knowledge and behaviors prior to the counseling significantly affected whether clients' showed improvement in knowledge and behavior following the counseling. This result suggests that clients' prior foundation in personal financial management is likely to affect the degree to which the counseling is able to help them recover financially post-bankruptcy.

Second, debtors' socioeconomic status also seemed to play a key role. Those with higher incomes and education were significantly more likely to experience improvements in knowledge and behavioral

[18] Note that these results were statistically significant. However, the magnitudes of the effects were relatively small. This should not be surprising given the duration of the counseling session and that debtors did not yet have an opportunity to put into practice what they had learned.

intentions. Interestingly, higher-income clients were less likely to report positive financial practices prior the counseling, but more likely to report positive (intended) practices after the counseling. A closer look at the data reveals that this is most likely because indebtedness among high-income clients was primarily the result of poor financial management practices rather than unfortunate events. Regardless, having more education and income (human capital and resources) puts individuals in a better position to recover financially post-counseling.

The reasons for debtors' financial problems were also key determinants of knowledge and behavior. Half of all debtors reported that their financial situation was due to unnecessary spending. When compared to those whose financial situation was not due to financial mismanagement, these debtors were more likely to become financially knowledgeable and to indicate that they would be more likely to engage in positive financial behaviors post-counseling. Those whose financial problems were due to unfortunate circumstances such as illness and unemployment were also more likely to experience improvements in financial knowledge and behavioral intentions. These findings suggest that on average debtors benefited from the counseling regardless of whether their indebtedness resulted from unfortunate circumstances beyond their control or from poor financial decisions.

Finally, the regression results found negative effects associated with race and ethnicity. Compared to whites, minorities tended to fair worse in terms of financial knowledge and behavior. These negative effects persisted even after controlling for individual and community-based socioeconomic factors. One plausible explanation for the Hispanic finding is that there may have been a language barrier. MMI's online bankruptcy counseling course is offered in both English and Spanish. However, clients must select which version of the course they would prefer when they register. If they do not select Spanish, they are automatically registered for the English version of the course.

It seems unlikely though that a language barrier can entirely explain differences in race and ethnicity, especially for African Americans. Another explanation might be that the Census measures used to control for neighborhood and community effects were unable to adequately control for some socioeconomic factors such as differences in access to financial services and products. The effects for race and ethnicity could also be picking up attitudinal and cultural differences. For example, some groups of debtors may have felt discouraged by their current financial situation and felt that their situation was hopeless and out of control. These debtors may have had a more pessimistic attitude going into the counseling, which could have affected their performance and responses during the counseling course. Thus, some of the effects associated with race and ethnicity may not have anything to do with the counseling itself.

## Challenges and Limitations

Measuring the educational value of any financial education program, including bankruptcy counseling, is a challenging task (e.g., Lyons 2005; Lyons and Neelakantan 2008; Lyons, White, and Howard 2008). For this reason, readers need to be aware of the limitations of this type of evaluative research and be somewhat cautious when interpreting the findings.

First, it is important to acknowledge that the behavioral findings presented in this particular study reflect behavioral *intentions* and not *actual* behavior change. It is yet to be determined whether debtors will be able to successfully change their behaviors post-counseling and post-bankruptcy. Debtors appear to have good intentions following the counseling. However, external constraints may still prevent them from actually being able to implement certain behaviors - no matter how much educational assistance they receive. The next phase of this study will use follow-up data to determine whether debtors are in fact able to change their behaviors. Preliminary results point to marked improvement in debtors' financial management practices post-bankruptcy. These initial findings suggest that credit counseling could be a viable mechanism to help debtors deal with their financial situation and obtain a fresh start.

Second, financial education research spans several academic fields and disciplines, including, but not limited to, economics, finance, psychology, sociology, health, and even neuroscience. It should not be surprising then that evaluative methods vary widely, making it difficult to present a single, unified approach for measuring and documenting program impact. It is especially difficult to design objective measures of success or failure that are acceptable to the entire field of financial education.

The methods and measures used in this study were selected by taking into consideration the content of the counseling course, the bankruptcy process, administrative constraints, financial and non-financial resources, and debtors' personal characteristics and abilities. In the end, the challenge was to design an effective evaluation process that could be administered in an efficient and cost-effective manner to a very heterogeneous population. For this reason, the metrics used to measure the "educational value" of the counseling may be limited in some respects. For example, the measures used to define changes in knowledge and behavior may have overlooked key pieces of information or behaviors that were acquired during the counseling course but not adequately captured in the evaluation. Similarly, the regression models may not have adequately captured cultural and psychological factors that may have affected clients' knowledge and behavioral responses. Thus, the results could be subject to omitted variable bias. There may also be concern about potential endogeneity with some of the independent variables.

Finally, it is important to remind readers that the data for this study were collected from a single credit counseling agency. For this reason, it may be difficult to generalize the findings to the larger population of approved providers of bankruptcy counseling, as well as to the larger population of U.S. debtors and bankruptcy filers. It may be even more difficult to generalize the findings since the data were also collected from debtors who participated in an *online* bankruptcy counseling course, and bankruptcy counseling can be administered via telephone, in-person, and online. With this said, MMI is the largest nonprofit credit counseling agency in the country and offers bankruptcy counseling and education in all 50 states. Moreover, MMI has previously conducted research on the impact of its telephone and in-person bankruptcy counseling services (e.g., Lyons, White, and Howard 2008). The results from previous research are consistent with those found for the online counseling. Moreover, online counseling now represents the primary delivery method for bankruptcy counseling in the U.S. and currently represents over 50.0 percent of MMI's bankruptcy counseling sessions. For all of these reasons, the results from this study are likely to be fairly representative.

## Implications for Policy and Education

This study is among the first to evaluate the educational value of the bankruptcy counseling. The findings have important implications for public policy and education. From a policy perspective, this study provides valuable insight into whether the counseling requirement is serving its intended purpose. Recall that the educational requirements were included in the 2005 bankruptcy reform legislation to assist debtors in making an informed choice about bankruptcy and to provide them with the financial skills necessary to better manage their money and avoid future financial problems. Opponents of the counseling requirement have argued that the counseling is serving as an administrative obstacle to those who are already overwhelmed financially and have no other option but to file for bankruptcy. They further argue that debtors financial problems are primarily the result of unexpected life events that put them in a precarious financial position that has little to do with their financial management skills (e.g., Block-Lieb, Gross, and Wiener 2002; Sullivan, Warren, and Westbrook 2000). So why should these debtors be required to complete a counseling requirement when they may be highly knowledgeable about their finances and when the reasons for their financial problems may be through no fault of their own?

Recent empirical evidence, including the results presented in this study, paint a different picture. The results from this study show that over 97.0 percent of debtors feel more knowledgeable about the bankruptcy process and the options available to deal with their financial problems as a result of the counseling. The results further show that an individual's financial problems are due to a combination of factors that can attributed to both unanticipated circumstances and poor financial management practices. Also, as Lyons, White, and Howard (2008, p. 28) point out, unexpected shocks can lead individuals "to make bad, or even desperate, financial decisions that may only make a bad situation worse. Similarly, bad decisions can be made worse with unexpected, additional financial shocks." Overall, the evidence suggests that debtors seem to benefit and find value in the counseling regardless of whether their financial problems are due to unanticipated circumstances outside of their control or poor financial management practices. Thus, the counseling experience likely provides a teachable moment to assist debtors in helping them acquire the financial knowledge and skills needed to obtain a fresh start and establish long-run financial security.

Yet, while the results suggest that all debtors likely have the potential to benefit from the counseling, this study has shown that specific groups of debtors (depending on their demographics, individual circumstances, and reasons for filing) may be more likely than others to benefit from the experience. Thus, a "one-size-fits-all" approach to bankruptcy counseling may not be ideal for all debtors (e.g., Lyons, White, Howard 2008). How might the counseling experience be improved to better assist debtors with their personal financial situations?

Recall that a large proportion of debtors already knew many of the key concepts covered in the counseling course. This is perhaps not surprising since the topics covered were very basic financial management concepts. Interestingly though, while many debtors already knew these basic concepts, their knowledge was still found to improve as a result of the counseling. Thus, the counseling may have the potential to generate larger educational gains if the course was better tailored to debtors' specific financial needs. For example, those clients who are already knowledgeable about the subject matter and are in a better position socioeconomically to improve their behaviors post-bankruptcy, may benefit from more of a "fresh start" counseling session that focuses on using credit more wisely, rebuilding credit, checking and monitoring credit reports and credit scores, avoiding predatory lending practices, and being financially prepared for the unexpected.

Those with more severe knowledge and behavioral deficiencies may require more intensive educational support and training to help them get back on track financially. Depending on the reasons for, and severity of, their current financial problems, a 60-to-90 minute counseling session may not be enough to have a lasting impact on debtors' long-term financial security. Realistically, some debtors may require a series of financial counseling or "financial coaching" sessions that help them lay out a financial action plan where they set personalized financial goals and are provided regular motivation and support for achieving those goals.

Finally, when BAPCPA went into effect in 2005, the primary forms of delivery for the counseling session were in-person and telephone. However, consumer demand and issues related to delivery costs and efficiency quickly resulted in the development of Internet-based courses. Some have questioned whether online counseling is as effective as in-person and telephone counseling. This study provides evidence that online counseling has had a positive impact on the financial knowledge, attitudes and behavioral intentions of debtors. Moreover, the impact is comparable to the impacts found for phone and in-person counseling (e.g., Lyons, White, Howard 2008). From an educational perspective, online counseling appears to be an effective means of delivery.

## SUMMARY

To date, very little research has been conducted to empirically investigate the effectiveness of the bankruptcy counseling mandate. Yet, it provides a mechanism at the national level to ensure that financially overwhelmed debtors receive some type of educational assistance. Can counseling help debtors recover financially from bankruptcy? Do debtors benefit educationally from the experience? Are there specific groups of debtors who are more likely than others to benefit from the counseling? These were the key questions this study attempted to address. Overall, the results showed that debtors appear to be benefiting from the counseling and are satisfied with the services they are receiving. However, there is more research to be done on this general topic. For example, it remains to be seen what happens to these debtors after they file for bankruptcy. Additional research is needed to find out whether debtors really get a “fresh start” financially, and if not, what can be done to see that they do. Research is currently underway to address this issue. Preliminary evidence suggests that credit counseling may in fact be a viable mechanism to help debtors deal with their financial situation and obtain the fresh start that they need. The results from the next phase of the analysis are scheduled for release later this year.

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TABLE 1
*Demographic Profile of Online Bankruptcy Counseling Clients (N=32,554)*

Mean Percentages

| | | | |
|---|---|---|---|
| *Age* | | *Employment Status* | |
| Under 26 | 3.9% | Working full-time | 65.4% |
| 26-35 | 23.9% | Working part-time | 10.7% |
| 36-45 | 31.8% | Not currently working | 23.9% |
| 46-55 | 24.4% | | |
| Over 55 | 16.1% | *Homeownership (%)* | |
| | | Homeowner | 57.7% |
| *Gender* | | Non-homeowner | 42.3% |
| Female | 46.6% | | |
| Male | 53.4% | *Household Income (before taxes)* | |
| | | Less than $20,000 | 19.1% |
| *Education Level* | | $20,001-$40,000 | 30.9% |
| Less than high school | 4.4% | $40,001-$60,000 | 25.3% |
| High school (or GED) | 27.7% | $60,001-$80,000 | 14.2% |
| Some college | 42.2% | Over $80,000 | 10.5% |
| College or graduate degree | 25.6% | | |
| | | *Region of the country where debtors reside*[a] | |
| *Marital Status* | | Northeast: New England Division | 6.3% |
| Married | 56.0% | Northeast: Middle Atlantic Division | 11.0% |
| Divorced/Separated | 21.4% | South: South Atlantic Division | 12.5% |
| Single/Never married | 20.4% | South: East South Central Division | 2.9% |
| Widowed | 2.3% | South: West South Central Division | 7.2% |
| | | Midwest: East North Central Division | 20.7% |
| *Race/Ethnicity* | | Midwest: West North Central Division | 4.3% |
| Caucasian/White | 70.1% | West: Mountain Division | 14.1% |
| African-American/Black | 10.2% | West: Pacific Division | 20.9% |
| Hispanic/Latino | 11.9% | | |
| Asian/Pacific Islander | 4.6% | | |
| Other | 3.2% | | |

Note: Percentages may not sum to exactly 100% due to rounding. All financial values are reported as mean values in 2009 dollars.

[a] Nine regions where clients reside:
Northeast: New England Division (CT, ME, MA, NH, RI, VT)
Northeast: Middle Atlantic Division (NY, NJ, PA)
South: South Atlantic Division (DE, DC, FL, GA, MD, NC, SC, VA, WV)
South: East South Central Division (AL, KY, MS, TN)
South: West South Central Division (AR, LA, OK, TX)
Midwest: East North Central Division (IL, IN, MI, OH, WI)
Midwest: West North Central Division (IA, KS, MN, MO, NE, ND, SD)
West: Mountain Division (AZ, CO, ID, MT, NV, UT, WY, NM)
West: Pacific Division (AK, CA, HI, OR, WA, GUAM)

TABLE 2
*Financial Profile of Online Bankruptcy Counseling Clients (N=32,554)*

| Mean Percentages | |
|---|---|
| *Actions taken to deal with financial problems in the past* | |
| Previously filed for bankruptcy | 27.1% |
| Used a credit counseling service | 15.0% |
| Participated in a debt management plan (DMP) | 13.7% |
| *Financial events in the last 12 months* | |
| Used one credit card to pay off another | 47.8% |
| Delayed housing/auto payments to make credit card payments | 36.8% |
| Used a payday loan, rent-to-own, title loan, or other high interest rate loan | 29.7% |
| Had property repossessed or home foreclosed | 24.9% |
| *Factors contributing to current financial problems* | |
| Unexpected expenses | 74.1% |
| Loss of employment (unemployed, employer reduced hours, or spouse out of a job) | 52.1% |
| Unnecessary spending | 49.8% |
| Health problems / injury / illness | 36.4% |
| Business loss / excessive business expenses | 25.9% |
| Divorce or separation | 21.8% |
| Death of a spouse or other loved one | 6.7% |
| *Actions taken to deal with current financial problems* | |
| Decreased expenses (budgeting, cutting back) | 82.6% |
| Borrowed money from family or friends | 63.4% |
| Renegotiated terms and conditions of existing loan(s) | 47.1% |
| Increased income (worked more hours, took second job) | 38.7% |
| Consolidated debts | 37.4% |
| Cashed out or borrowed against retirement funds | 37.3% |
| Refinanced home or applied for another loan | 31.1% |
| Sold home, car, or other possessions | 28.2% |
| Contacted a credit counseling service | 25.0% |
| Participated in a debt management plan (DMP) | 9.7% |
| Did not take any action / had no options | 16.8% |
| *Willingness to do the following to improve current financial situation* | |
| Reduce expenses (stop eating out, eliminate vacations) | 98.3% |
| Increase income (get a second job, work more hours) | 78.5% |
| Make lifestyle adjustments (downsize to a smaller home, move in with family/friends) | 60.4% |

Note: For these questions, clients were given several options and asked to check all that applied. For this reason, percentages sum to more than 100%.

TABLE 3

*Changes in Financial Knowledge for MMI's Online Bankruptcy Counseling Clients (N=32,554)*

| Knowledge Statement | % Correct Pre-Counseling | % Correct Post-Counseling | Net Change in Knowledge[a] |
|---|---|---|---|
| 1. Goals should only be made for long-term plans such as homeownership, college tuition, or retirement. | 68.4% | 76.8% | + 8.4% *** |
| 2. Fixed expenses are expenses that typically change from month to month such as food, clothing, and utilities. | 74.5% | 85.0% | + 10.5% *** |
| 3. You are considered solvent if your assets are greater than your liabilities. | 74.2% | 85.3% | + 11.1% *** |
| 4. Gross income is defined as the income after taxes and other withholdings have been subtracted from net income. | 81.6% | 87.8% | + 6.2% *** |
| 5. A debt-to-income ratio of more than 20% may indicate that you have borrowed too much relative to your income. | 73.2% | 92.9% | + 19.7% *** |
| 6. The cost of credit is determined by the interest rate, the loan amount, and the amount of times it takes to repay the loan. | 88.8% | 92.7% | + 3.9% *** |
| 7. Unsecured loans are loans that are tied to property or collateral. | 88.2% | 90.6% | + 2.4% *** |
| 8. The best way to improve your credit score is to pay your bills on time and in full every month. | 86.4% | 92.5% | + 6.1% *** |
| 9. Under the Fair Credit Reporting Act (FCRA), you are eligible to receive a free credit report once a year from each of the three credit reporting agencies. | 91.5% | 94.3% | + 2.7% *** |
| 10. All information, including a bankruptcy filing, must be removed from your credit report after 7 years. | 44.5% | 61.1% | + 16.6% *** |
| **Average Knowledge Score[b]** | **77.1%** | **85.9%** | **+ 8.8%*** ** |
| **Knowledge Score > 70%[c]** | **81.0%** | **91.4%** | |

[a] Net change in knowledge is defined as the difference between the pre- and post-test knowledge scores.
[b] Average knowledge score = (Total correct/Number of knowledge statements)
[c] Percentage of clients who scored 70% or better on the pre-test and post-test.
* p<0.10; ** p<0.05; *** p<0.01 (The significance level, *p*, indicates whether differences in pre- and post-test values were statistically significant based on a two-tailed t-test.)

TABLE 4

*Changes in Financial Practices for MMI's Bankruptcy Counseling Clients (N=32,554)*

| How often are you currently doing (planning to do) the following financial practices? | Mean Behavior Score Pre-Counseling[a] | Mean Behavior Score Post-Counseling[b] |
|---|---|---|
| 1. Setting short- and long-term financial goals. | 3.21 | 4.59 |
| 2. Saving money each month. | 2.18 | 4.44 |
| 3. Tracking income and expenses. | 3.59 | 4.76 |
| 4. Reducing impulse spending and cutting unnecessary expenses. | 3.79 | 4.70 |
| 5. Reviewing income and expenses before making large purchases. | 4.10 | 4.84 |
| 6. Using a filing system to store bills and financial records. | 3.75 | 4.73 |
| 7. Paying bills on time each month. | 3.59 | 4.81 |
| 8. Reviewing bills each month for accuracy. | 3.72 | 4.79 |
| 9. Comparing prices before making purchases. | 4.08 | 4.77 |
| 10. Using less than 50% of your available credit. | 2.56 | 4.69 |
| 11. Keeping your debt-to-income ratio below 20%. | 2.16 | 4.66 |
| 12. Checking your credit report and credit score. | 2.48 | 4.57 |
| **Average Total Behavior Score[c]** | **39.18** | **56.35** |

Note: Clients were asked to report how often they were currently doing (or planned to do) each financial practice. Responses were based on a 5-point Likert scale, ranging from 1=Never to 5=Always. To see which clients were more likely to have higher behavior scores, see Appendix A3 for regression analysis related to clients' financial practices.

[a] Clients were asked to report pre-counseling how often they were currently doing each financial practice. The mean behavior score pre-counseling reflects clients' responses on average to the 5-point Likert scale.

[b] Following the counseling, clients were asked to report how often they planned to do each financial practice. The mean behavior score post-counseling again reflects clients' responses on average to the 5-point Likert scale.

[c] A client's total behavior score was calculated by summing all of the behavior scores for the 12 financial behaviors using the reported values based on the 5-point Likert scale. A client's total behavior score could range anywhere from 12 to 60, with higher scores reflecting more positive financial behaviors or more positive behavioral intentions. The average total behavior score is the total behavior score averaged over the entire sample of online counseling clients.

TABLE 5

*Perceived Educational Impact of MMI's Online Bankruptcy Counseling Course (Post-Counseling, N=32,554)*

| *As a result of the online counseling course…..* | |
|---|---|
| *Did clients feel more knowledgeable about the bankruptcy process?* | |
| Yes | 98.0% |
| No | 2.0% |
| *Did clients feel more knowledgeable about the options available to deal with their current financial problems?* | |
| Yes | 97.4% |
| No | 2.6% |
| *Did clients feel their overall ability to improve their financial behaviors changed?* | |
| Increased | 91.4% |
| Decreased | 0.7% |
| Stayed the same | 7.9% |
| *Overall, how helpful did clients find the online counseling course?* | |
| Very helpful | 44.3% |
| Helpful | 43.8% |
| Somewhat helpful | 11.3% |
| Not helpful | 0.6% |
| *How likely were clients to recommend the online counseling course to others?* | |
| Very likely | 40.2% |
| Likely | 41.7% |
| Somewhat likely | 15.1% |
| Not likely | 3.1% |
| *How likely were clients to seek credit counseling in the future if they had financial problems again?* | |
| Very likely | 43.7% |
| Likely | 41.2% |
| Somewhat likely | 12.3% |
| Not likely | 2.9% |

Note: Percentages may not sum to 100% due to rounding.

TABLE 6

*Regressions for Knowledge Gain for Online Bankruptcy Counseling Clients (N=32,554)*

| | OLS Post-Test Knowledge Score | | PROBIT Probability Post-Test Knowledge Score > 70% | |
|---|---|---|---|---|
| Independent Variables | Coeff | SE | Coeff | SE |
| *Prior Financial Knowledge* | | | | |
| Pre-test knowledge score | 0.6482 | (0.0080) *** | -.---- | (-.----) |
| Pre-test knowledge score > 70% | -.---- | (-.----) | 1.4844 | (0.0247) *** |
| *Age (%)* | | | | |
| Under 26 | 1.0736 | (0.4358) ** | 0.1072 | (0.0703) |
| 26-35 | 1.1437 | (0.2577) *** | 0.1445 | (0.0442) *** |
| 36-45 | 0.3828 | (0.2386) | 0.0202 | (0.0388) |
| 46-55 | 0.3006 | (0.2440) | 0.0179 | (0.0395) |
| *Gender (%)* | | | | |
| Female | -0.4868 | (0.1476) *** | -0.0015 | (0.0255) |
| *Marital Status (%)* | | | | |
| Married | 0.2905 | (0.2112) | 0.0578 | (0.0346) * |
| Divorced/Separated | 0.5224 | (0.2294) ** | 0.0840 | (0.0381) ** |
| Widowed | 1.0946 | (0.5405) ** | 0.2032 | (0.0892) ** |
| *Race/Ethnicity (%)* | | | | |
| African-American/Black | -1.7463 | (0.2451) *** | -0.1632 | (0.0426) *** |
| Hispanic/Latino | -3.7513 | (0.2826) *** | -0.4822 | (0.0347) *** |
| Asian | -1.6924 | (0.3674) *** | -0.3405 | (0.0535) *** |
| Other | -0.8182 | (0.4081) ** | -0.2311 | (0.0647) *** |
| *Education Level (%)* | | | | |
| Less than high school | -5.0276 | (0.4641) *** | -0.5522 | (0.0525) *** |
| High school (or GED) | -1.5729 | (0.2025) *** | -0.2820 | (0.0368) *** |
| Some college | -0.6073 | (0.1690) *** | -0.1239 | (0.0352) *** |
| *Household Income (%)* | | | | |
| $20,001 - $40,000 | 1.1610 | (0.2289) *** | 0.1691 | (0.0342) *** |
| $40,001 - $60,000 | 2.0351 | (0.2548) *** | 0.3201 | (0.0403) *** |
| $60,001 - $80,000 | 2.5755 | (0.2921) *** | 0.4167 | (0.0514) *** |
| Over $80,000 | 3.0437 | (0.3233) *** | 0.5241 | (0.0644) *** |
| *Homeownership (%)* | | | | |
| Homeowner | 0.5162 | (0.1663) *** | 0.0350 | (0.0277) |
| *Employment Status (%)* | | | | |
| Working full-time | -0.0561 | (0.1995) | 0.0029 | (0.0340) |
| Working part-time | -0.1060 | (0.2717) | 0.0160 | (0.0432) |
| *Willingness to Make Change (%)* | | | | |
| Make lifestyle adjustments | -0.0707 | (0.1555) | 0.0280 | (0.0270) |

TABLE 6 (continued)

*Regressions for Knowledge Gain for Online Bankruptcy Counseling Clients (N=32,554)*

| | OLS Post-Test Knowledge Score | | PROBIT Probability Post-Test Knowledge Score > 70% | |
|---|---|---|---|---|
| Independent Variables | Coeff | SE | Coeff | SE |
| *Reasons for Financial Problems (%)* | | | | |
| Health problems/injury/illness | 0.5525 | (0.1490) *** | 0.0704 | (0.0265) *** |
| Loss of employment | 0.5421 | (0.1540) *** | 0.1029 | (0.0265) *** |
| Engaged in unnecessary spending | 0.7967 | (0.1458) *** | 0.0667 | (0.0251) *** |
| *Financial Events in Last 12 months (%)* | | | | |
| Used a payday/high interest loan | -0.6816 | (0.1636) *** | -0.0249 | (0.0269) |
| Delayed house/auto payments to pay credit cards | -0.5563 | (0.1516) *** | -0.0408 | (0.0255) |
| Had property repossessed or home foreclosed | -0.1348 | (0.1694) | -0.0222 | (0.0287) |
| *Repeat Bankruptcy Filer* | | | | |
| Previously filed bankruptcy | -0.0701 | (0.1664) | 0.0012 | (0.0291) |
| *Socioeconomic Controls (Census county-level data)* | | | | |
| % urban population | -1.1155 | (0.3964) *** | -0.1478 | (0.0728) ** |
| % less than high school education | -2.1139 | (1.9126) | -0.6508 | (0.3088) ** |
| ln (median house value) | -0.6128 | (0.2795) ** | -0.1354 | (0.0456) *** |
| Intercept | 43.6908 | (3.5862) *** | 2.2572 | (0.5667) |
| Census Regions | YES | | YES | |
| R-squared | 0.4578 | | 0.3172 | |

Note: "Coeff" represents coefficients and "SE" represents standard errors. Robust standard errors are reported for each regression. Omitted categories include: over 55 years of age, male, single/never married, Caucasian/white, college or graduate degree, household income $20,000 or less, and not currently working. Nine census regions were included in the estimation of the models but the results are not reported in the tables. These results are available upon request.

*p < 0.10; **p < 0.05; ***p < 0.01

TABLE 7

*Regressions for Current and Planned Financial Behavior for Online Bankruptcy Counseling Clients (N=32,554)*

| | OLS Regressions | | | |
|---|---|---|---|---|
| | Total Behavior Score for Current Behavior Pre-Counseling | | Total Behavior Score for Planned Behavior Post-Counseling | |
| Independent Variables | Coeff | SE | Coeff | SE |
| *Prior Financial Behavior* | | | | |
| Pre-behavior score | -.--- | (-.---) | 0.1451 | (0.0048) *** |
| *Age (%)* | | | | |
| Under 26 | -1.9394 | (0.2665) *** | 0.0255 | (0.1991) |
| 26-35 | -1.7152 | (0.1421) *** | 0.1091 | (0.1115) |
| 36-45 | -1.3338 | (0.1293) *** | 0.1170 | (0.1022) |
| 46-55 | -0.6937 | (0.1318) *** | 0.1195 | (0.1050) |
| *Gender (%)* | | | | |
| Female | 0.2742 | (0.0862) *** | 0.5446 | (0.0668) *** |
| *Marital Status (%)* | | | | |
| Married | 0.3851 | (0.1256) *** | 0.3075 | (0.0992) *** |
| Divorced/Separated | 0.1498 | (0.1364) | 0.1281 | (0.1067) |
| Widowed | 0.2654 | (0.3038) | 0.1026 | (0.2426) |
| *Race/Ethnicity (%)* | | | | |
| African-American/Black | -1.3912 | (0.1516) *** | -0.4719 | (0.1322) *** |
| Hispanic/Latino | 0.0135 | (0.1498) | -0.4630 | (0.1209) *** |
| Asian | -0.4590 | (0.2217) ** | -1.7599 | (0.2008) *** |
| Other | 0.5042 | (0.2385) ** | -0.7756 | (0.1979) *** |
| *Education Level (%)* | | | | |
| Less than high school | -2.3549 | (0.2529) *** | -1.5408 | (0.2182) *** |
| High school (or GED) | -1.3516 | (0.1159) *** | -0.8721 | (0.0888) *** |
| Some college | -0.6431 | (0.1020) *** | -0.2166 | (0.0720) *** |
| *Household Income (%)* | | | | |
| $20,001 - $40,000 | -0.3533 | (0.1332) *** | 0.4769 | (0.1092) *** |
| $40,001 - $60,000 | -0.6160 | (0.1474) *** | 0.9233 | (0.1193) *** |
| $60,001 - $80,000 | -0.8827 | (0.1714) *** | 1.1405 | (0.1344) *** |
| Over $80,000 | -1.0398 | (0.1896) *** | 1.3080 | (0.1475) *** |
| *Homeownership (%)* | | | | |
| Homeowner | 0.3616 | (0.0961) *** | 0.4494 | (0.0753) *** |
| *Employment Status (%)* | | | | |
| Working full-time | -0.2344 | (0.1164) ** | -0.1006 | (0.0892) |
| Working part-time | -0.0879 | (0.1563) | -0.0154 | (0.1178) |
| *Willingness to Make Change (%)* | | | | |
| Make lifestyle adjustments | 0.7210 | (0.0882) *** | 0.5580 | (0.0703) *** |

TABLE 7 (continued)

*Regressions for Current and Planned Financial Behavior for Online Bankruptcy Counseling Clients (N=32,554)*

| | OLS Regressions | | | |
|---|---|---|---|---|
| | Total Behavior Score for Current Behavior Pre-Counseling | | Total Behavior Score for Planned Behavior Post-Counseling | |
| Independent Variables | Coeff | SE | Coeff | SE |
| *Reasons for Financial Problems (%)* | | | | |
| Health problems/injury/illness | -0.3881 | (0.0870) *** | 0.1438 | (0.0668) ** |
| Loss of employment | 0.1393 | (0.0892) | 0.4065 | (0.0695) *** |
| Engaged in unnecessary spending | -4.6281 | (0.0846) *** | 0.6881 | (0.0710) *** |
| *Financial Events in Last 12 months (%)* | | | | |
| Used a payday/high interest loan | -1.2587 | (0.0949) *** | 0.1614 | (0.0753) ** |
| Delayed house/auto payments to pay credit cards | -1.0377 | (0.0874) *** | 0.0948 | (0.0688) |
| Had property repossessed or home foreclosed | 0.0803 | (0.1015) | -0.0896 | (0.0780) |
| *Repeat Bankruptcy Filer* | | | | |
| Previously filed bankruptcy | -0.6114 | (0.0952) *** | -0.2131 | (0.0779) *** |
| *Socioeconomic Controls (Census county-level data)* | | | | |
| % urban population | -0.1320 | (0.2226) | -0.0829 | (0.1693) |
| % less than high school education | 1.5074 | (1.1002) | -1.3314 | (0.8604) |
| ln (median house value) | 0.4251 | (0.1617) *** | -0.3539 | (0.1255) *** |
| Intercept | 39.1888 | (2.0227) *** | 53.5446 | (1.5783) *** |
| Census Regions | YES | | YES | |
| R-squared | 0.1390 | | 0.0615 | |

Note: "Coeff" represents coefficients and "SE" represents standard errors. Robust standard errors are reported for each regression. Omitted categories include: over 55 years of age, male, single/never married, Caucasian/white, college or graduate degree, household income $20,000 or less, and not currently working. Nine census regions were included in the estimation of the models but the results are not reported in the tables. These results are available upon request.

*p < 0.10; **p < 0.05; ***p < 0.01