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Determinants of Bankruptcy among US Households in the 2013 Survey of Consumer Finances

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DETERMINANTS OF BANKRUPTCY AMONG US HOUSEHOLDS IN
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ABSTRACT

Coker, Schane D. M.S., Purdue University, August 2015. Determinants of Bankruptcy Among US Households in the 2013 Survey of Consumer Finances. Major Professors: Jonathan Bauchet and David A. Evans.

This study investigates behaviors and decisions made by US households and how they correlate with whether or not the household has ever filed for bankruptcy. The various types of financial behaviors and decisions that a household engages in will be utilized as predictors in order to measure previous household bankruptcy filings. Based on a review of the literature on the determinants of bankruptcy, correlates from four domains are tested against a measure of whether a household has ever filed for bankruptcy: demographic characteristics, financial capacity, financial stability, and financial socialization. A logistic regression model is applied to a weighted sample of roughly 6,015 households obtained from the 2013 Survey of Consumer Finances. Each household within the SCF was interviewed on their experience with various financial decisions and practices, as well as the behaviors that they have employed as a result of these decisions. The results indicate that all of the hypotheses considered in this study underscore important findings, most importantly, that of those households that were most likely to have filed for bankruptcy based off either their net income for 2012 or their average bank account balance were households that could be considered a part of the top 1% of US households by economic status.

CHAPTER 1. LITERATURE REVIEW

Bankruptcy has a negative stigma in the American society, creating a sense of shame among bankruptcy filers for asking for help. Historically, the negative perceptions of bankruptcy petitioners developed from punitive measures implemented against them for taking on so much debt irresponsibly. Those individuals that were unable to pay off their debts faced degrading public rituals, imprisonment, or even death, while the primary message conveyed to the general public was to live within ones' means, morally as well as financially (Efrat, 2006). As the American society has evolved, researchers, scholars, and the general public have undergone an analysis of what bankruptcy really means and its perceived connotations, with the end result that the process of declaring bankruptcy— and its stigma – have lost a substantial amount of its power. While this effort has helped to "humanize" bankruptcy and made it more socially acceptable to use bankruptcy filings to deal with crushing financial obligations, filing for bankruptcy remains a sign that a household fails to face its debts on its own. While many households have fallen into financial hardships because of frivolous purchases that they could not afford, a vast majority of households had been living within their financial means until an unforeseen financial emergency sent their budgets into an economic freefall, causing them to be reactive instead of proactive (Sullivan, Warren, and Westbrook, 2000). Factors most consistently associated with a household filing for bankruptcy include a lack/sudden loss of income, medical and credit card debt, home ownership, marital status, asset ownership, small business ownership, and student loan debt work (Domowitz and Sartain, 1999).

Loss of Income

As families typically organize their lifestyles around a consistent income stream from one or more employed individuals, the financial disruption caused by the loss of one's job or other events leads to difficult downward adjustments to living standards. When asking families about maintaining a sustainable lifestyle within their financial means, previous research has shown that only a quarter of Americans consider themselves to be living within their own current financial means (FranklinCovey, 2002). Many households therefore turn to debt to supplement unemployment or disability benefits, or even replace them if/when these stop (Bentolila and Ichino, 2008).

Overconfidence in future income or a potential increase in income could also cause individuals to take on more debt than their current income can support, eventually building into household insolvency and, subsequently, bankruptcy (Christen et al., 2005). Individuals' expectations of their future income or what they envision themselves making in a year may cloud their judgement and financial planning, which could lead to the continued action of living outside ones' means. Even if a household is living within their current financial means, the threat of an economic downturn or a company buyout is sufficient enough to turn a once sustainable salary into insolvency.

Medical Debt

"Medical debt is surprisingly common, affecting about 29 million nonelderly adult Americans, with or without health insurance" (Seifert and Rukavina, 2006, p. 89).

Because of the increasing costs of care, the increasing costs of health insurance, and the decreasing levels of insurance coverage, even households that have health insurance are vulnerable to needing to incur medical debt in some way. The ramifications of experiencing any level of medical debt can subject families to prioritize medical payments over the payment of other debts owed, or max out their life savings in order to pay off medical expenses. Non-payment of these debts could lead to wage garnishments, house liens, even home foreclosure (Seifert et al., 2006).

Credit Card Debt

The primary function of credit cards is to delay the financial impact of a transaction while guaranteeing the immediate gratification of shopping in the moment. Research conducted by Christen and Morgan (2005) summed up credit card use in two behaviors: 1) to participate in the act of immediate gratification of buying expensive amenities to display status and 2) to use borrowed funds to temporarily alleviate household insolvency and provide some type of stability. The type of behavior that credit card use enables is to delay the immediate impact and responsibility associated with purchasing goods, something that consumers do not appreciate in the long run and may lead them to spending more than they can afford (Stephens, 2013, p. 210; O'Donoghue and Rabin, 2000).

Homeownership

Historically, homeownership has been considered as a foundation of middle class stability and fiscal equity. Households who own their own home were seven times less likely than those without a home to declare bankruptcy (Domowitz and Sartain, 1999).

Homeownership, however, may not always be the best protection against bankruptcy. Evans and Lown (2008) found that those households with a past due mortgage were more likely to pursue bankruptcy to avoid losing their home and possibly work out a more favorable repayment plan.

Marriage/Divorce

"Marriage is an institution with many facets: social, emotional, physical, spiritual, but also just as important, it is a financial institution" (Sullivan, Warren, and Westbrook, 2000, p.173). One of the many indirect benefits of marriage is that it acts as a type of co-insurance since one spouse provides income when another one cannot. But marriage carries its own risk, in that divorce and its legal proceedings are very expensive. Fisher and Lyons (2006) determined that the two main reasons why divorce may be a likely contributor to bankruptcy is that 1) divorce imposes high costs on the family (e.g. lawyer fees) causing bankruptcy to become a financially viable option and 2) lawyers cross market products during their counseling sessions (in this case, inform the divorcees about the benefits of bankruptcy).

Asset Ownership

A household's assets can include any type of savings or bank accounts, investments, automobiles, property and land rights, and any other durable goods. Assets provide protection against bankruptcy by representing value that can be liquidated to meet financial liabilities. On the other hand, assets are typically expensive to acquire, and may stress a household's budget if a last minute incident strikes a household while the recent purchase of an asset is being financed (Sullivan et al., 2000; Lawless, Littwin, Porter, Pottow, Thorne, and Warren, 2008).

Small Business Ownership

Ownership of a small business often implies that the household has made significant personal financial commitments. Previous evidence found that approximately two thirds of the underlying causes of small business failures are related to internal factors such as lack of appropriate management skills and inadequate financial resources (Watson and Everett, 1996; Ji and Hanna, 2012). If or when a small business fails, the household must face some (or all) of the businesses' financial obligations using personal funds. Since business assets and debts are typically much larger than personal ones, the imbalance can lead to bankruptcy. Wang and Hanna (2007) found that households that consist of small business owners are also more risk tolerant, and thus, more likely to take extensive risks when it comes to the allocation and diversification of income and investments.

Student Loan Debt

Although a majority of the outstanding student loan debt in the US is owed by younger households, research conducted in 2010 showed that 70% of the total student debt was owed by households headed by those who were under the age of 45, with 18% owed by those age 45-54 (Pew Research Group, 2014). Student loans are a predictor of bankruptcy because they increase the households' total liability. The particularity of student debt is that it is excluded from debt relief through bankruptcy, out of a fear that student loan debtors would purposely default and declare bankruptcy to evade full repayment. Student loan debt particularly disadvantages students from low-income families and first-generation students, who have had little or no previous exposure to student loans (Burdman, 2005).

After reviewing the literature on the determinants of bankruptcy, this study contributes to the literature by (1) using a recent, nationally-representative dataset (2) categorizing factors that contribute to filing for bankruptcy in four groups, as detailed below, and (3) testing these categories against those households that have previously filed for bankruptcy.

CHAPTER 2. METHODOLOGY

Introduction

The objective of this study is to examine what household characteristics and decisions are related to their filing for bankruptcy. The first part of this section describes the research question addressed and the hypotheses tested in this study. The second part of this section details the dataset used, and defines dependent and independent variables. The empirical model is presented in the third and final part of this section.

Research Question and Hypotheses

The research question driving this study is: What household demographic and financial characteristics are associated with the household ever having filed for bankruptcy? This study hypothesizes that four groups of factors are related to filing for bankruptcy: a household's demographic characteristics, financial capacity, financial stability, and financial socialization. The group hypotheses are listed below while the listing of the SCF variables used in this study and are defined in the independent variables sub-section.

> Hypothesis 1: A household's demographic characteristics are associated with its likelihood of having filed for bankruptcy.

Demographic characteristics considered in this study include age, gender, marital status, race/ethnicity, and educational level.

> Hypothesis 2: A household's financial capacity is associated with the likelihood of having filed for bankruptcy.

The financial capacity of a household is its ability to absorb losses while meeting day to day expenses by either drawing on their own internal funds and resources or by outsourcing and borrowing funds from an outside resource without causing a major disturbance in their current economic status.

> Hypothesis 3: A household's financial stability is associated with the likelihood of having filed for bankruptcy.

Steady employment and regular income flow helps to stabilize a household while allowing them the opportunity to build up wealth and financial resources to whether an unexpected financial emergency, sudden job loss, or temporary lay-off.

> Hypothesis 4: A household's financial socialization is associated with the likelihood of having filed for bankruptcy.

The way in which consumers within a household utilize acquired knowledge and education about financial literacy in addition to their outlook concerning varying financial situations is expected to have a significant association concerning their experience with bankruptcy. Positive and negative financial habits and behaviors that a consumer is exposed to as they grow to adulthood are likely to be modeled in their adult lives as they attempt to establish their own financial independence (Shim, Barber, Card, Xiao, and Serido, 2009).

Dataset

This study utilizes the 2013 Survey of Consumer Finance (SCF) dataset, a triennial survey of U.S. families and households. Supported by the Board of Governors of the Federal Reserve System and the U.S. Department of Treasury, the survey is implemented between May and December of each survey year (Bricker, Dettling, Henriques, Hsu, Moore, Sabelhaus, Thompson, and Windle, 2014). A majority of the interviews are conducted in person by the researchers in the 2013 SCF and recorded by computer-assisted personal interviewing software, while some interviews were held via telephone sessions.

Households that participate in the survey are collected via a multistage area-probability sample, or a geographically based random sample, to provide good coverage of characteristics that are broadly distributed in the U.S. population (Bricker et al., 2014). Tax return information is also obtained, but only after receiving permission from the households participating in the interview process. By design, some households are oversampled in order to provide a representative picture of various financial profiles of households in the US. This includes oversampling wealthy households (who are more likely to hold bank accounts, investments, and own other assets), as well as low income households (who typically own very few or no assets). This type of sampling technique has given the SCF a reputation for producing quality data that presents the reader a broad financial profile of a majority of US households and their characteristics. To take into account the oversampling, all analyses in this project use sampling weights provided as part of the survey data so that results are representative of the broad US population. This study utilizes the first set of the five implicates created to deal with missing values in the data; as a result, analyses include 6,015 respondents.

Dependent Variable

The dependent variable, filing for bankruptcy, is measured by the following question in the Survey of Consumer Finances:

> Have you (or your {husband/wife/partner}) ever filed for bankruptcy?

Valid answers are yes or no. While successfully declaring bankruptcy can be a learning experience that allows a household to regain and maintain a solid financial footing, the act of filing is a clear sign of large financial hardship, and therefore, a reliable signal of a poor financial situation.

Independent Variables

The four groups of independent variables used in this analysis are household demographics, financial capacity, financial stability, and financial socialization. Each group was chosen for how closely it relates to various dimensions of financial hardships. A conceptual model displaying each of the groups' predicted associations with those households who have filed for bankruptcy is depicted in Appendix A1 on page 43. Additionally, Appendix A2 on page 44 displays the list of variables used from the SCF under their respective categories. Some of the independent variables included in the analysis and their respective groups contain an omitted variable that serves as a reference group. The following paragraphs provide the group and its independent variables descriptions as listed in the SCF.

Demographics

In the SCF public dataset, race includes eight total responses: white (including Middle Eastern or Arab descent), Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, other, or no response. The answer other is very diverse, combining any one of the aforementioned races known as bi-racial or mixed. Considering the diversity of groups being categorized as other by the SCF, it is impossible to determine the cultural backgrounds of such households (Yao, Gutter, & Hanna, 2005). In this study, race is identified as Black/African American non-Hispanic, Hispanic/Latino, White (non-Hispanic), and other. White non-Hispanic is used as a reference group.

Following the same type of segmentation conducted in the SCF, age is measured with the following categorical variables: under 35, 36 to 44, 45 to 54, 55 to 64, 65-74, and over 75. This will help to establish a non-linear relationship between age and the probability of falling prey to bankruptcy. Individuals that fall within these age groups of 65-74 and over 75 tend to either be retired or heading towards retirement, therefore, their probability to declaring bankruptcy or home foreclosure is considered to be lower than the other age groups. The age range 45 to 54 constitutes the reference group and omitted variable. In this study, the gender of the head of the household is measured by either male or female genders, with male serving as the omitted variable and reference group.

Marital status is also important to note when measuring bankruptcy. The SCF lists varying marital statuses as married, living with a partner, separated, divorced or widowed, never married, and do not know/refused to answer. In this study, married, no longer married, and unmarried/single will be used, with married households as the omitted variable and reference group.

Finally, the educational background of the head of the household is measured in the following categories: less than an 8th grade education, some high school/high school graduate, some college/college graduate, and advanced/graduate degree, with the omitted variable and reference group being some high school/high school graduate.

Financial Capacity

Financial capacity is defined as a household's ability to absorb losses while meeting day to day expenses with its own or borrowed funds without major disruption while investing and saving for the future. Additionally, research findings conducted by Lusardi in the area of household financial planning also highlights how the type of financial preparation a household undertakes will determine its overall outcome when tested by a particular life event or situation "…[financial] planning has effects on both savings behavior and portfolio choice" (Lusardi, 1999, 2000, and 2003). In order to measure a household's economic standing, this study utilizes responses from SCF questions concerning if a household holds or has ever held a bank account, the average amount of money that a household maintains in their checking account, how often a household pays off any outstanding debts on a monthly basis, if a household holds Private Mortgage Insurance (PMI), if a household has applied for some type of consumer credit within the last year, whether a household has been turned down for credit within the past five (5) years, and if a household would ever think they would be turned down for any type of consumer credit. Concerning the average amount of money that a household maintains in their bank account, the possible responses have been bracketed into six different ranges: not applicable, $0-$100, $100-$500, $500-$1,000, $1,000-$10,000, $10,000-$50,000, and above $50,000. The omitted variable and reference category will be accounts with funds between $500 and $1,000.

Financial Stability

The financial stability of a household is defined as the relationship between income and expenses within a household. Previous research done in their area by Grable (2000) and Grable and Joo (2004) also notes that the financial stability of a household is also intertwine with how the household perceives itself regarding their financial economic situation and the presence of financial stressors. Financial stressors primarily focus on income loss experienced within a household and may vary but overall effect a household's economic status. The variables groups under this category are whether a household has taken out any pay day loans within the last year, whether a household would be able to borrow up to $3,000 from either friends or relatives for an emergency, whether a household carries some type of personal insurance including life, whole life, and/or health, whether a household's spending has exceeded, was at the same level, or was less than their income over the past year, whether anyone in the household over the age of 18 is currently employed and/or working, the household's 2012 net income reported to the IRS from wages and salary before deductions, and whether the head of household has been unemployed and/or looking for work within the past twelve months. Concerning the 2012 net income of the households, six separate income brackets are used, mirroring the 2013 tax brackets. The categories include: less than $12,750 annually,

$12,751 to $48,600, $48,601 to $125,450 $125,451 to $203,150, 203,151 to 398,350 and at least $398,351. The income bracket of $48,600 to $125,450 will serve as the omitted variable and reference group.

Financial Socialization

Financial socialization is defined as the environment in which a consumer orientates and develops themselves into financial responsibility and awareness of financial affairs, or the household's ability to exploit its social network to obtain information on how to manage its finances. The types of behaviors and habits that those in a household develop are based on what they have been exposed to through life experience as well as the life-long development of their own risk tolerance (Yao, Gutter, and Hanna, 2005). Studies conducted on a household's orientation into personal finance regarding their understanding of value, self-esteem, and financial beliefs has been growing over the past few years due in part to the expansion of family theory. Previously, there have only been a few studies that have focused on the financial beliefs learned in the household; however, new theories and conceptual models developed by economists and social scientists have begun to expand this field of study (Mugenda, Hira, and Fanslow, 1990; Hira and Mugenda, 1999). The Survey of Consumer Finances questions used to measure this concept include whether a household utilizes computer software to manage its money, the number of individuals living within a household, whether the household owns individual or joint bank accounts, whether a spouse/partner or someone else living within the household above the age of 18 is financially dependent upon the head of household, whether the household currently holds or has any type of experience with IRA/Keogh accounts, whether the household currently has or has had any type of experience with a savings and/or money market account, whether anyone in the household currently has or has held any type of mutual or hedge funds, whether a household currently has or has held any type of bond mutual funds, whether the household holds currently or has had any type of experience with a brokerage account, the confidence level of a household in its searching strategies for savings and investment information, and the type of financial risk profile that a household most closely relates.

Empirical Model

The empirical model is specified as

$$B = \beta_o + \beta_1 {*} D + \beta_2 {*} FC + \beta_3 {*} FSa + \beta_4 {*} FSo + \varepsilon,$$

where:

- B is a binary variable equal to 1 if anyone in the household has ever filed for bankruptcy and equal to 0 if not,
- D is a vector of variables measuring the household head’s demographic characteristics,
- FC is a vector of variables measuring the household’s financial capacity, as defined above,
- FSa is a vector of variables measuring the household’s financial stability, as defined above,
- FSo is a vector of variables measuring the household’s financial socialization, as defined above, and
- ε is the error term.

Since the dependent variable is dichotomous, the analysis uses logistic regressions.

Study Limitations

This study suffers from two main limitations: (1) the use of only one dependent variable and (2) the limited scope of the SCF on aspects of the household. While bankruptcy is a broad topic that covers many different financial behaviors and decisions that can lead a household down the wrong path, this one variable does not reflect all financial hardships that a household can experience. In particular, it does not identify those households that are prime candidates for filing for bankruptcy.

Concerning SCF limitations, certain topics are not specifically mentioned or measured. As the US population grows and experiences developments in technology and society, the SCF grows and changes as well. Given this, the more changes that occur, the more time and effort it takes researchers and interviewers of the SCF to create new questions as well as creating the necessary coding to be able to report the responses to these questions. While there still remain some specific aspects of the home that would provide an enhanced understanding of the household and its relationship with the outside world, the current questions and variables of the SCF are enough to provide scholars and researchers enough data to create dialogue and produce articles aimed at bettering the functionality of the US household.

CHAPTER 3. RESULTS

This section of the study lists the findings generated from the logistic regression analysis. Appendix A3 on page 43 lists the descriptive analysis of the SCF variables selected for the analysis while and Appendix A4 on page 48 displays the results of the regression, including the variable name, p-value, and coefficient.

Demographics

The analysis shows that several demographic characteristics are significantly associated with households that have filed for bankruptcy. First, all of the racial backgrounds included in the study were more likely than white/non-Hispanic to declare bankruptcy. In particular Latino households were more likely to declare bankruptcy than any of the other racial backgrounds surveyed.

Second, households whose head is between 45 and 54 years old, the omitted age category, were the least likely to have filed for bankruptcy. Households whose head is in the youngest age group, i.e. 35 years and younger, were the most likely to have filed for bankruptcy.

Third, those who were no longer married were less likely than married households to file for bankruptcy, while households whose head is single or unmarried were not statistically significantly more or less to have filed for bankruptcy than married-headed households.

Fourth, the educational background of the household head also matters. Households whose head completed some college or a higher level of education were more likely to have ever filed for bankruptcy than households whose heads had a high-school or lower level of education. Finally, the gender of the head of the household is not statistically significantly related to the household having ever filed for bankruptcy.

Financial Capacity

A household's financial capacity is associated with the likelihood that it has ever filed for bankruptcy. Variables with statistically significant coefficients include the household's bank account balance, the debt payoff frequency, whether the household holds private mortgage insurance, and whether the household had been denied a loan in the previous five years.

The average bank balance variables show that households with bank account balances higher than $1,000 were more likely to have filed for bankruptcy than households with lower bank account balances. Concerning the debt payoff frequency variable, those households that hardly ever paid off their debt balances were less likely than those that almost always paid off their debts to file for bankruptcy. Households that held private mortgage insurance were more likely to declare bankruptcy than those who did not have this type of house insurance. Lastly, those households that were denied for loans were less likely than those who were approved for loans to have filed for bankruptcy.

Financial Stability

Three of the variables included in the financial stability group had statistically significant coefficients. First, households that had taken out any pay day loans in the previous year were less likely to have filed for bankruptcy than those who did not. Second, households that carried life insurance were more likely to have filed for bankruptcy than those that did not. Third, household income was associated with the likelihood of having filed for bankruptcy; similar to the results on the average bank account balance, households with higher net incomes were more likely to have filed than households with lower income, and the likelihood of having filed was higher for households with higher incomes. Finally, those households that had been unemployed within the last twelve months were less likely to have filed for bankruptcy than those that were employed throughout that period.

Financial Socialization

Fewer of the variables in the financial socialization group had statistically significant coefficients than variables in the other groups, suggesting that this domain may be less indicative of having filed for bankruptcy. As shown in Appendix A4, variables in this group associated with having filed for bankruptcy include whether the household utilizes computer software to manage its finances (negative association with having filed for bankruptcy), whether the household had any type of retirement account, like an IRA or a Keogh, as well as whether the household held a savings or money market account. Those who had either of these accounts were more likely to have filed for bankruptcy.

CHAPTER 4. CONCLUSION

The objective of this study is to understand what types of behaviors and decisions made by a household are correlated with whether they have ever filed for bankruptcy. All of the hypotheses considered in this study underscore important findings. Some specific findings worth noting is that of those households that were most likely to have filed for bankruptcy based off either their net income for 2012 or their average bank account balance were households that could be considered a part of the top 1% of US households by economic status. Those heads of household with either a high paying job or a large bank account may be able to use filing for bankruptcy as a tool in ways that lower-income households do not.

Demographic characteristics of households who file for bankruptcy also highlight issues surrounding race and bankruptcy filing in the US. Compared to white-non Hispanic households, African American and Latino families were more likely to have ever filed for bankruptcy. The passing of the 2005 bankruptcy law legislation could be attributed to the long lasting results of historic discriminatory lending practices that forced these households to depend on the support of families, friends, and neighborhoods during financial hardships.

The debt payoff frequency of a household located in financial capacity highlighted that those households that hardly ever paid off their debt balance completely were less likely to have filed for bankruptcy than those who paid off their debts in full.

Dependent upon the type of household debt, an argument could be made that those households that put all of their available income towards paying off monthly debts could leave themselves financially strapped if they were to experience an unforeseen financial emergency. Inversely, those households that maintain revolving balances on their debt accounts may be accruing interest and additional fees, but it allows them the opportunity to handle an unforeseen financial emergency without much concern.

The employment status of the household within financial stability also yielded a noteworthy finding. Those households that were unemployed were less likely to have filed for bankruptcy than those that were employed. Logical thinking would dictate that a lack of income with mounting expenses accrued by an active household would imply that the need to file for bankruptcy protection would be the next step. However, maybe the presence of lurking variables, like a head of household receiving unemployment benefits from a termination or workman's compensation from an injury on the job, might be why these households are able to maintain some type of economic sustainability. Additionally, the response to this variable was focused on the head of household, which means that another individual in the home, like a spouse or partner, may be providing supplemental income.

The ownership of either a retirement or savings/money market account found in financial socialization revealed that those households that owned any one of these savings instruments were more likely to have filed for bankruptcy. The purpose of procuring one of these types of accounts is to serve as a safeguard against financial hardships and any future lack of income. Similar to those households that have either high average bank account balances or had high net incomes for 2012, perhaps households with savings or retirement accounts might also fall under the same rationale for filing bankruptcy.

Overall, the analysis found that those individuals that appear to be benefiting from the safety net that bankruptcy provides are those households that either have high income, a high average bank account balance, or both. Although the parameters of the dependent variable used in this study weren't specifically set to measure any particular type of bankruptcy (i.e. personal, business, farm, etc.). Any findings produced by this study are attributed to the effect of the household's decisions on the likelihood that the head of household has ever filed for any kind of bankruptcy. Regardless of whether the bankruptcy was personal or business-related, it is expected to have had a direct effect on the overall finances of the household.

Future Directions

The next direction of this research aims to explore the possible disparities in the safety net system. As a result of governmental legislation passed well before the start of this research, the path to bankruptcy was significantly blocked to those households who would benefit the most from this type of federal protection. Changes to the bankruptcy law of 2005 caused widespread confusion across the United States and may still be present in current times. This legislation was intended to decrease the amount of times a single household could file multiple bankruptcies while discouraging those who could successfully fulfill the difficulties of structured repayments (Chapter 13) from filing under Chapter 7 liquidation. While the aims of the legislation may have successfully reduced the improper use of the safety net, future research based on the results of this study will focus on those households that may have valid claims to the rights and protections afforded through bankruptcy but may be prevented from pursuing this avenue due to confusion or inability to afford the bankruptcy process and its complexities.

It is also the intention of future research to explore the value of US racial minorities and their networks as they pertain to household financial affairs. Questions regarding the overall effectiveness and relevance of these networks will guide the investigation. Qualitative research such as focus groups and other forms of observation will be required to begin the process of understanding the power of these networks to provide or fail to provide the help that is generally expected from debtor households.

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APPENDIX

Table A1

Conceptual Model with Individual Association with Bankruptcy

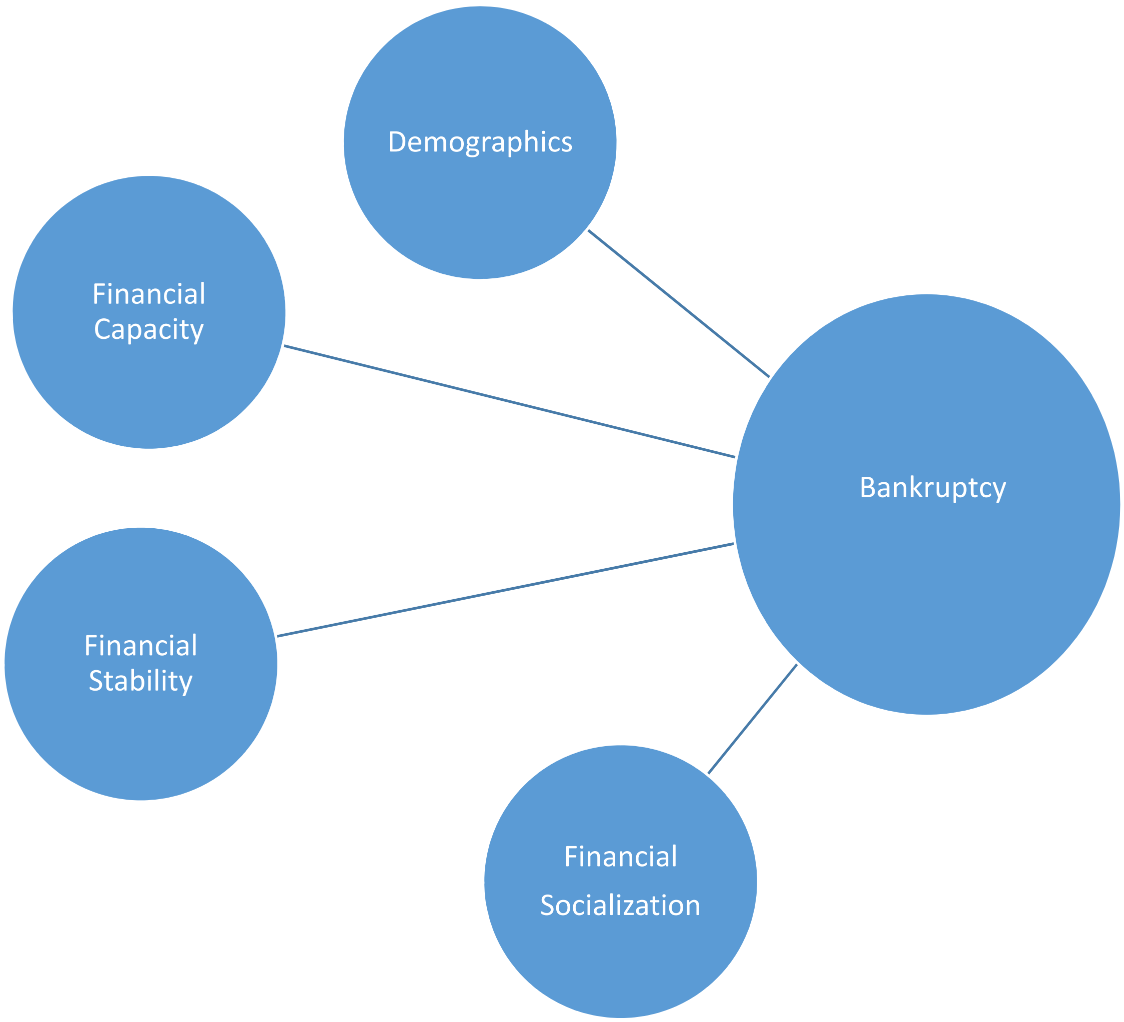

Table A2

Category Breakdown with Variables

Demographics	Financial Capacity	Financial Stability	Financial Socialization	Bankruptcy
• Race	• Bank Acct Ownership	• Anyone in the household over 18 currently Employed/Working	• Use of Computer Softtware to manage money	• Declaration of Household Bankruptcy
• Age	• Average Bank Acct Balance	• 2012 Income from Employment including Salary & Wages	• Number of individuals living in the household	
• Gender	• Monthly Payoff Balance	• Head of Household Unemployed w/in last 12 months	• Everyone in household Financially Dependent	
• Marital Status	• Private Mortgage Insurance	• Able to borrow Emergency Funds from Family and Friends	• IRA/Keogh Accts	
• Education	• Credit Denial w/in 5 yrs	• Payday Loans	• Savings/Money Market Acct	
	• Application for Credit Type	• Life Insurance	• Mutual Bond Funds	
	• Credit Denial Perception	• Whole Life Insurance Policy	• Hedge Fund Bonds	
		• Health Insurance	• Brokerage Acct	
		• Expense/Income Expectations	• Joint/Individual Acct Ownership	
			• Household confidence level in search strategies	
			• Financial Risk Profile employed by household	

Table A3

Descriptive Analysis of SCF Variables

Variable		**N**	**Percent**
Demographics			
Race			
	White (Non-Hispanic)	4293	71.37
	Black (Non-Hispanic)	729	12.12
	Latino/Hispanic	712	11.84
	Other	281	4.67
Age			
	<35	1116	18.55
	36-44	948	15.76
	45-54	1327	22.06
	55-64	1281	21.30
	65-74	817	13.58
	>75	526	8.74
Sex/Gender			
	Male	4592	76.34
	Female	1423	23.66
Marital Status			
	Married	3286	54.63
	Single	1162	19.32
	Other	1567	26.05
Grade Completed			
	Less than High School	200	3.33
	Some High School/High School Graduate	1945	32.34
	Some College/College Graduate	2698	44.85
	Graduate School	1172	19.48
Financial Capacity			
Do you have a bank account?			
	No	461	7.66
	Yes	5554	92.34

Table A3, continued

Variable		N	Percent
What is the average amount in bank account?			
	Not Applicable	67	1.11
	0-100	901	14.98
	$100-$500	791	13.15
	$500-$1000	730	12.14
	$1000-$10000	2348	39.04
	$10000-$50000	731	12.15
	>$50000	447	7.43
Do you pay the full balance of Credit Card Debt each month?			
	Almost Always	4658	77.44
	Sometimes	628	10.44
	Hardly Ever	729	12.12
Do you have Private Mortgage Insurance (PMI)?			
	No	4331	72
	Yes	310	5.15
	No Mortgage	1374	22.84
Have you/your household applied for any type of Consumer Credit w/in last five (5) years?			
	No	2306	38.34
	Yes	3709	61.66
Have you been turned down for credit within past five (5) years?			
	No	2618	43.52
	Yes	3397	56.48
Have you thought about applying for credit but did not for fear of denial?			
	No	4973	82.68
	Yes	1042	17.32
Financial Stability			
Has your household recently taken out a “Payday Loan”?			
	No	5790	96.26
	Yes	225	3.74
Could you borrow $3000 or more from a friend or relative in an emergency?			
	No	1962	32.62
	Yes	4053	67.38

Table A3, continued

Variable		N	Percent
Do you/your household carry Life Insurance?			
	No	2230	37.07
	Yes	3785	62.93
Do you /your household carry any Whole Life Insurance Policies?			
	No	4638	77.11
	Yes	1377	22.89
Are you/your household covered by Health Insurance?			
	No	549	9.13
	Yes	5466	90.87
Over the past year would you say your household's spending exceeded, stayed the same, or was less than your income?			
	Exceeded Income	947	15.74
	Stayed the Same	2070	34.41
	Less Than Income	2998	49.84
In 2012, did you or anyone in your household receive any income from wages or salaries?			
	No	161	2.68
	Yes	5854	97.32
	Income received in 2012		
	<$12750	2096	34.85
	$12750-$48600	1502	24.97
	$48601-$125450	1432	23.81
	$125451-$203150	410	6.82
	$203151-$398350	293	4.87
	>$398350	282	4.69
Were you or anyone in your household previously unemployed within the past twelve (12) months?			
	No	5246	87.22
	Yes	769	12.78
Financial Socialization			
Do you/anyone in your household use software to manage household finances?			
	No	4605	76.56
	Yes	1410	23.44

Table A3, continued

Variable		N	Percent
How many people are currently living in your household with you?			
	1	1600	26.6
	2	2139	35.56
	3-5	2071	34.43
	6-8	198	3.29
	8>	7	0.12
How is the relationship surrounding your bank account?			
	Individual	3738	62.14
	Joint	361	6
	Other	12	0.2
	Not Applicable	1904	31.65
Do you and your partner share a budget?			
	No	2274	37.81
	Yes	3741	62.19
Do you/anyone in your household have any Keoghs/Individual Retirement Accounts (IRA)?			
	No	3845	63.92
	Yes	2170	36.08
Do you/anyone in your household have any Savings (Traditional, Xmas, Coverdell, 529 Education)/Money Market Accounts?			
	No	2680	44.56
	Yes	3335	55.44
Do you/anyone in your household have any Mutual/Hedge Funds?			
	No	5112	84.99
	Yes	903	15.01
Do you/anyone in your household have any other Bond Mutual Funds?			
	No	714	11.87
	Yes	5301	88.13
Do you/anyone in your household have any Brokerage Accounts used for the purchase/sale of stocks or other securities?			
	No	4570	75.98
	Yes	1445	24.02

Table A3, continued

Variable	**N**	**Percent**
How would you rate yourself/your household concerning your searching strategies when making purchasing decisions?		
Almost No Searching	1697	28.21
Moderate Searching	1855	30.84
A Great Deal of Searching	2463	40.95
Which statement is the closest to you/your household's financial risk tolerance?		
Take substantial risks for substantial return	239	3.97
Take above average risks for above average returns	1058	17.59
Take average risks for average return	2391	39.75
Not willing to take any financial risks	2327	38.69

Table A4

Results-Logistic Regression

Dependent variable:	1 if household filed for bankruptcy		
	Coefficient	Std. Error	P-Value
Demographics			
Race: Black	0.3087	0.1326	0.0199
Race: Latino	0.5365	0.1492	0.0003
Race: Other	0.4784	0.2469	0.0527
Age: <35	1.9486	0.1792	<.0001
Age: 36-44	0.4641	0.1316	0.0004
Age: 55-64	0.2323	0.1260	0.0652
Age: 65-74	0.1846	0.1634	0.2586
Age: >75	1.1018	0.2420	<.0001
Gender: Female	0.1557	0.1491	0.2965
Marital Status: Unmarried/Single	0.1404	0.1894	0.4584
Marital Status: No Longer Married	-0.6149	0.1711	0.0003
Education: Less than 8th Grade	0.4076	0.2565	0.1120
Education: Some College/College Graduate	0.3341	0.0996	0.0008
Education: Advanced Degree/Graduate School	0.6827	0.1779	0.0001
Financial Capacity			
1 if household has a bank account	-0.4284	0.3113	0.1687
Average balance of bank Account(s)			
Not Applicable	0.00928	0.3270	0.9774
Average balance on all bank account: <$100	0.1821	0.1723	0.2904
Average balance on all bank account: $100-$500	0.1165	0.1463	0.4259
Average balance on all bank account: $1000-$10000	0.3624	0.1301	0.0054
Average balance on all bank account: $10000-$50000	1.1387	0.2556	<.0001
Average balance on all bank account: >$50000	3.5526	1.0213	0.0005

Table A4, continued

Dependent variable:	1 if household filed for bankruptcy		
	Coefficient	Std. Error	P-Value
How often does household pay off outstanding debts within monthly basis			
Sometimes	-0.1418	0.1354	0.2947
Hardly Ever	-0.2546	0.1194	0.0330
1 if a household holds Private Mortgage Insurance	0.0728	0.0244	0.0029
1 if a household has applied for some type of consumer credit within the last 5 years	-0.1200	0.1153	0.2982
Has a lender denied the household or granted less than requested amount of credit within past 5 years			
Denied	-0.8193	0.1230	<.0001
Grant less than requested	-0.4276	0.2441	0.0799
1 if a household would ever think they would be turned down for any type of consumer credit	-0.1650	0.1129	0.1438
Financial Stability			
1 if household has taken out any pay day loans within last year	-0.5498	0.1761	0.0018
1 if a household would be able to borrow up to $3000 from either friends or relatives	0.0231	0.0983	0.8143
1 if a household carries some type of personal life insurance	-0.2347	0.1088	0.0309
1 if a household carries some type of personal whole life insurance	0.0349	0.1211	0.7729
1 if a household carries some type of personal health insurance	-0.1001	0.1430	0.4839
The financial expense/income balance of a household	0.0353	0.0660	0.5933
1 if anyone in the household age 18 and up is currently employed	-0.4223	0.2894	0.1445

Table A4, continued

Dependent variable:	1 if household filed for bankruptcy		
	Coefficient	Std. Error	P-Value
2012 Net Income of household (including wages and salaries)			
2012 Net Income Bracket: <$12,750	0.00571	0.1402	0.9675
2012 Net Income Bracket: $12,751-$48,600	-0.1931	0.1244	0.1205
2012 Net Income Bracket: $125,451-$203,150	0.4923	0.2380	0.0386
2012 Net Income Bracket: $203,151-$398,350	1.3623	0.5234	0.0092
2012 Net Income Bracket: >$398,350	0.0384	0.4535	0.9324
1 if anyone in the household was unemployed within last twelve (12) months	-0.2518	0.1228	0.0403
Financial Socialization			
1 if the household utilizes computer software to manage finances	-0.2526	0.1159	0.0294
The number of people living in the household			
1 person	1.2718	0.9941	0.2008
3-5 people	0.9350	0.9361	0.3179
6-8 people	0.9946	0.9349	0.2874
>8 people	0.8133	0.9579	0.3958
Is bank account jointly/individually owned			
Individually owned	0.0473	0.3464	0.8914
Jointly owned	-0.0798	0.3789	0.8332
Other/Not Applicable	0.3742	0.9055	0.6794
1 if anyone in the household is financially dependent upon the head of household	-0.3736	0.2209	0.0908

Table A4, continued

Dependent variable:	1 if household filed for bankruptcy		
	Coefficient	Std. Error	P-Value
1 if anyone in the household currently owns or has had any experience with an Individual Retirement Account (IRA) or a Keogh account	0.4626	0.1241	0.0002
1 if anyone in the household currently owns or has had any experience with a Savings or Money Market account	0.2279	0.0946	0.0159
1 if the household holds currently or has had any type of experience with any type of Mutual or Hedge Funds	13.0858	212.0	0.9508
1 if the household holds currently or has had any type of experience with any type of other types of Bond Mutual Funds?	12.1947	212.0	0.9541
1 if the household holds currently or has had any type of experience with a Brokerage account	0.2053	0.1664	0.2175
A household's confidence in its searching strategies for savings/investment information	-0.0304	0.0274	0.2682
A household's financial risk tolerance	0.077	0.0593	0.0908
Take substantial risks for substantial return	-0.1871	0.2490	0.4524
Take above average risks for above average returns	-0.1954	0.1503	0.1936
Take average risks for average return	-0.0395	0.1072	0.7126

Omitted variables: Race: Race: White; age: 44-54; marital status: married; gender: male; education: some high school/high school graduate; average amount of banking account balance: 500-1000; how often household pays off debts on a monthly basis: always/almost always; how many consumer debts does the household carry: <4 debt accounts; has a lender denied the household or granted less than requested credit within past 5 years: no/not applicable; 2012 Net Income Bracket: \$48,600-\$125,450; the number of people living in the household: 2 people