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The Scarring Effects of Bankruptcy:
Cumulative Disadvantage across Credit and Labor Markets

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Abstract

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Although the labor market functions as the primary mechanism for the distribution of resources in the United States, credit markets can also enhance, maintain, or reduce inequality. My project uses the event of bankruptcy to investigate how credit and labor markets jointly affect inequality. I apply fixed effects and multilevel models to two longitudinal datasets, the National Longitudinal Survey of Youth (NLSY) and the Panel Study of Income Dynamics (PSID), which I have combined with state-level bankruptcy data. My findings support a general model of cumulative disadvantage across spheres in which bankruptcy tends to be sparked by adverse events combined with a high debt burden. After declaring bankruptcy, bankrupters earn less and spend more time out of work than non-bankrupters, net of their prior labor market statuses. Interestingly, bankruptcy has similar causes and consequences for respondents in this sample regardless of their race, ethnicity, or sex.

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DEDICATION

To Caffeine.

CHAPTER 1: INTRODUCTION

Although the labor market functions as the primary mechanism for the distribution of income in the United States, credit markets can also enhance, maintain, or reduce economic inequality. Weber originally identified property ownership as one of the basic categories of “class situations,” which also influences a person’s market situation (Weber [1922]1946, 1978:927-28). Today credit markets continue to maintain advantage for the wealthy and disadvantage for the poor. Their effect has drawn public attention to corporate growth, the stock market, subprime lending institutions, home foreclosures, and bankruptcy. According to Weber, the propertied extend their advantage into the labor market when others must rent or borrow from them. Thus, although labor and debtor struggles have historically been segmented, the creditor-debtor relationship can create multiple class struggles (Wiley 1967). In recent years these class struggles have been acted out within Congress as both creditor and debtor advocates have sought to control consumer credit and bankruptcy legislation (Warren and Westbrook 2009). In this project I address the constant conflict between creditor and debtors by using the event of bankruptcy to investigate how credit and labor markets jointly affect inequality within this specific legal context.

Credit and labor markets jointly shape inequality when resources gained in one market are required to obtain resources in the other, such as when mortgage lenders require proof of income. Markets can also intersect when a status attained in one sphere limits or expands opportunities in the other. For example, a college degree opens up opportunities in the labor market, but a criminal record tends to restrict access to jobs. The second situation mirrors a process of ascription in which resources are allocated based upon categorical group membership (Parsons 1964; Mayhew 1968; Kemper 1974). Although bankruptcy is not a typical ascriptive status, because it serves as a key indicator of people’s credit market standing, it has the potential to limit the accumulation of resources in multiple areas.

Bankruptcy’s potential role in a process of cumulative disadvantage occurs within a legal context primarily determined by federal bankruptcy laws, and these have fluctuated over time with the public’s changing views of debt insolvency and bankruptcy (Tabb 1995; Skeel 2001; Mann 2002; Warren and Westbrook 2009). Prior to the enactment of bankruptcy laws that allowed for the voluntary discharge of debt in the late 19th century, insolvent debtors in the

United States were treated harshly and often imprisoned for what was seen as their moral failures (Mann 2002). When legislators began to reformulate bankruptcy laws in response to increasingly commercial markets, creditors and debtors started to struggle to control the content of these laws, and the conflict continues today (Warren and Westbrook 2009). The 1978 Bankruptcy Reform Act, which includes provisions for a “fresh start” for debtors, still dictates much of the current U.S. Bankruptcy Code. The recent passage of the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) in 2005 (P.L. 109-8), however, increased penalties for debtors, making it more expensive to file for bankruptcy (White 2007a, 2007b). Thus, while the United States has some of the most generous bankruptcy laws in the world, they have fluctuated in terms of whether creditors or debtors benefit more from bankruptcy (Skeel 2001).

Despite an initial drop in bankruptcy filing after the enactment of BAPCPA, bankruptcy rates have risen steadily since 2006.¹ People continue to file for bankruptcy in part because many debtors still “need” it. Large amounts of debt lead to bankruptcy primarily when they coincide with additional adverse life events, such as job loss, illness, and divorce (Sullivan, Warren, and Westbrook 1989, 2000). These adverse events make it hard for individuals to balance current debt burden and often lead them to acquire additional debt. When an individual’s debt-to-earnings ratio becomes too large, regardless of whether or not this person experienced an adverse event, he or she may resort to bankruptcy.

Although the offer of debt forgiveness under U.S. bankruptcy law should attenuate the link between people’s credit and labor market statuses, stipulations within the 1996 Fair Credit Reporting Act (FCRA) do not always permit a fresh start for bankrupters. In many cases bankruptcy improves a person’s position in the credit market by relieving debt. However, bankruptcy also creates a stigmatized, and formalized, status distinction that is imprinted on a person’s credit history. The FCRA extends this ambiguous legal framework because it allows employers to obtain credit reports. Lenders’, landlords’, and employers’ ability to access this information through credit reports contributes to a system that can exacerbate disadvantage for delinquent debtors, leading to further hardships instead of a new beginning.

Within the context of an ambiguous legal framework, this dissertation aims to examine the intersection of credit and labor markets, while applying theories of stigma and cumulative disadvantage. Cumulative disadvantage theory predicts that people’s economic situations will

¹ I illustrate this trend in Chapter 2.

diverge in relation to different status characteristics (DiPrete and Eirich 2006). This process can occur both across and within credit and labor markets. In this project, I seek to determine bankruptcy's role in this process by investigating its causes and consequences.

The Causes and Consequences of Bankruptcy

Creditor and debtor advocates' arguments for controlling bankruptcy and protecting consumers rest on their views of the causes and consequences of bankruptcy. Creditor advocates argue for tighter restrictions on bankruptcy and cite rising bankruptcy rates as evidence for a decreasing stigma for bankruptcy (Skeel 2001; Warren and Westbrook 2009). Debtor advocates describe bankrupters as responsible individuals faced with hardship and blame the credit industry for rising bankruptcy rates. In these debates both parties often refer to stigma, personal responsibility, credit morality, and, occasionally, social science research when presenting arguments.

To examine the causes and consequences of bankruptcy researchers have relied primarily on data from Sullivan, Warren, and Westbrook's (1989, 2000) Consumer Bankruptcy Project (CBP). These data consist of bankrupter petitions and questionnaires collected in eight federal judicial districts in 1981, 1991, and 2001, along with a fourth wave that was collected in 2007 and based on a national random sample of bankrupters (Lawless et al. 2008). Together, these studies span three decades, covering almost all periods since the Bankruptcy Reform Act of 1978 (P.L. 95-598).

Findings from the CBP show that bankruptcy tends to be a middle class phenomenon, and it has been one since the 1980s (Sullivan et al. 1989, 2000; Warren and Tyagi 2004; Lawless et al. 2008). Most bankrupters fall solidly within the middle class in terms of their education levels and occupational prestige scores (Warren and Thorne 2012). However, bankrupters' incomes tended to be below the median income for the population, indicating that they do not always have middle class incomes even though most have been to college and work in higher prestige occupations (Sullivan, Warren, and Westbrook 2006:220; Lawless et al. 2008:362-363). Overall bankrupters tend to be lower- to middle-income, middle-aged, college-educated individuals, which makes sense because it takes income and time to gain access to credit to file for bankruptcy.

Although the incomes of bankrupters have not changed much since the first wave of the CBP, bankrupters in the most recent wave carried considerably more debt than those in prior waves (Lawless et al. 2008). Between 2001 and 2007, the median secured debt of bankrupters increased by 28 percent and the median unsecured debt increased by 44 percent (Lawless et al. 2008:367-8).² With these debt changes bankrupters' total net worth has been declining over time. The median *negative* net worth of bankrupters in 1981 was \$11,200, but in 2007 it had almost doubled to \$24,400 (Lawless et al. 2008:369). Thus, bankrupters today are down a much deeper hole than those in 1981 were.

The causes of bankruptcy have been fairly consistent over the past three decades. Sullivan, Warren, and Westbrook (1989, 2000) found that bankruptcy is brought on by certain hardships, including unemployment, medical bills, and divorce. These hardships—or adverse events—interfere with household debt payments and often lead to increased debt burden and delinquency. Supplementing the CBP findings on job loss, Caputo (2008) found that being laid off from work was the most frequent predictor of bankruptcy filing in the NLSY. However, this relationship did not hold in all situations. In an analysis of a random sample of bankruptcies obtained from the U.S. General Accounting Office (GAO), Domowitz and Sartain (1999) showed that a loss of income increased the probability of filing for bankruptcy only when it was combined with homeownership.

Health limitations also lead many debtors into bankruptcy. Seven percent of CBP bankrupters cited medical debt as the cause of their bankruptcy, while others listed medical problems in conjunction with job and earnings losses (Sullivan et al. 2000:155, 240). Further studies using CBP data linked bankruptcy filing to a lack of insurance, medical bills, prescription drug costs, and a loss of time from work to care for an ill family member (Jacoby, Sullivan, Westbrook 2000; Himmelstein, et al. 2005). Furthermore, half of the respondents who declared bankruptcy due to a medical problem indicated that they suffered from a chronic illness (Himmelstein et al. 2005:69).

In addition to job loss and illness, divorce can lead to bankruptcy, especially for women. Fifteen percent of the earlier CBP sample listed marital dissolution as the cause of their bankruptcy (Sullivan et al. 2000:181). These bankrupters were less likely than the rest of the

² Unsecured debt includes tax obligation, student loan, alimony, child support, credit card, and most revolving debt. Secured debt includes mortgages, car loans, and most non-revolving debt.

population to be married; 63 percent of filers were divorced, separated, or unmarried (Sullivan et al. 2000:181-82). In other studies, divorce within the past year was associated with an increase in personal bankruptcy filings (Fay, Hurst, and White 2002; Han and Li 2007), and further research has shown a relationship connecting divorce with outstanding credit card balances (Kim and DeVaney 2001) and late payments (Canner and Lockett 1990).

Adverse events related job loss, illness, and divorce often lead debtors into bankruptcy, but additional CBP research shows that bankruptcy does not always offer a “fresh start” for debtors later on. Porter and Thorne (2006) investigated the likelihood of a fresh start using telephone interviews of 359 bankrupters who were part of the Consumer Bankruptcy Project. While bankruptcy improved the financial situations for most bankrupters, approximately one-third of the sample reported that their financial situations had stayed the same (27 percent) or worsened (8 percent) within a year of declaring bankruptcy (Porter and Thorne 2006:87). One-quarter of all respondents reported post-bankruptcy financial distress, especially in relation to new bills and income instability (Porter and Thorne 2006:84).

In addition to continuing financial stress, bankruptcy’s stigma can impede an individual’s ability to start over in credit and labor markets (Porter and Thorne 2006). As Thorne (2007) noted, bankruptcy acted as a “red flag” for denials and inflated fees in the credit market. Bankrupters reported being denied credit cards and checking accounts, along with mortgage, auto, and personal loans (Thorne 2007:30-31). Those bankrupters who were granted loans faced more paperwork and higher fees due to their credit history (Thorne 2007:33-34). A small proportion of Thorne’s sample (6 percent) also reported that they were fired from or had trouble finding a job due to the bankruptcy on their credit report. Denial of employment was highest in “high-trust” lines of work, particularly those related to banking and accounting (Thorne 2007:36).

In summary, much of the existing bankruptcy research shows that large debt burdens, when combined with certain adverse events, lead people into bankruptcy. Although many of these bankrupters may have been irresponsible with their finances and taken on too much debt, most faced certain hardships that significantly altered their ability to manage debt and eventually brought them to the bankruptcy courts. Moreover, many bankrupters found that their financial troubles continued after bankruptcy. Bankrupters may have their debt forgiven, but findings from

the Consumer Bankruptcy Project suggest that the stigma of bankruptcy remains with them, potentially affecting their standing in both the credit and labor markets.

Research Questions

While researchers in the Consumer Bankruptcy Project have shown that debtors turn to bankruptcy when faced with certain adverse events, their data permit only speculation about the consequences of bankruptcy (Sullivan et al. 1989, 2000; Porter and Thorne 2006; Thorne 2007). My current research tests these speculations by investigating both the causes and consequences of bankruptcy. My research builds on theories of cumulative disadvantage by examining whether, how, and for whom disadvantage is transmitted across markets. Because theories of cumulative advantage and disadvantage predict increasing inequality *over time*, testing them necessitates a longitudinal analysis. I apply fixed effects models to National Longitudinal Survey of Youth (1979 Cohort; NLSY) and Panel Survey of Income Dynamics (PSID) data to estimate the causes and consequences of bankruptcy. Because I am interested in how credit and labor markets jointly affect inequality I test a model that depicts a cycle of job loss, increased debt, and bankruptcy over time as part of a process of cumulative disadvantage. I divide this model into two main sections in order to address the predictors and outcomes of bankruptcy separately.

The first part of my dissertation focuses on the predictors of bankruptcy. In it I address the following questions: What leads people into bankruptcy? Do adverse events of job and income loss, illness, and divorce predict bankruptcy, as findings from the Consumer Bankruptcy Project suggest? How do levels of debt affect the timing of bankruptcy? Do local bankruptcy laws and bankruptcy filing rates foster additional bankruptcy filings by reducing its stigma?

The second part of my dissertation focuses on what happens after bankruptcy. I analyze post-bankruptcy employment and earnings, addressing the following research questions: Does bankruptcy negatively affect people's labor market outcomes, as measured by earnings and hours of work? Do these outcomes vary by the person's education, employment situation, previous earnings, or occupation? Are these outcomes affected by a bankrupter's previous experience of adverse events, such as job loss, divorce, or illness? Finally, do these effects diminish over time as federal bankruptcy policy implies?

Bankruptcy affects individuals and families of all backgrounds, but not always in the same way. Those individuals who face a greater economic disadvantage prior to bankruptcy

could face harsher outcomes later on due to the resources they lack from the beginning. Thus, my model of cumulative disadvantage highlights the continuing disadvantage that particular groups face. I combine cumulative disadvantage with the concept of stigma to explain why certain stigmatized statuses, such as bankruptcy, can exacerbate inequality. I then use status characteristics theory to demonstrate how the assignment of worth to a particular characteristic—bankruptcy—leads to the unequal distribution of resources within the labor market (Ridgeway 1991). Finally, I frame this analysis within the context of increasing debt and bankruptcy and changing bankruptcy law in the United States in order to link this research with public policy.

Structure

My dissertation is organized in the following manner. Chapter 2 outlines the practical, theoretical, and legal foundations for my research. I describe the situation of growing debt and bankruptcy in the United States, and I discuss the role of stigma, cumulative disadvantage, conflict, and status characteristics theories, while placing my project in a legal context. Chapter 3 explains the analytical framework for my project. I describe the two longitudinal datasets that I analyzed, along with the methods that I used to investigate the causes and consequences of bankruptcy. Chapter 4 focuses on variation among bankrupters within and across samples. In this chapter I summarize the situations of bankrupters in my data and compare their circumstances to those described by the Consumer Bankruptcy Project. I focus on bankrupters' past experiences of adverse events, their earnings, and their debt burdens. I also look at variation among bankrupters by estimating predictors of bankruptcy chapter because federal law allows bankrupters to file for Chapter 13 or Chapter 7 bankruptcy, and these options have different implications for bankrupters. Chapter 5 investigates the causes of bankruptcy in the NLSY and PSID, and Chapter 6 investigates the outcomes in my datasets. Both of these chapters contain descriptions of the measures, hypotheses, and results for my analyses. Chapter 7 then summarizes my findings and discusses some of the limitations of this study. In this chapter, I also provide a more critical examination of some of the mechanisms behind the causes and consequences of bankruptcy, and I explore the policy implications of my findings.

CHAPTER 2: RESEARCH FOUNDATIONS

Chapter 2 tackles the practical, theoretical, and legal foundations for this project. I begin this chapter by discussing the trends in consumer debt and bankruptcy filing in the United States. After establishing my research in this context, I discuss the theoretical framework that guides my analysis of the causes and consequences of bankruptcy. Finally, I review the legal history of bankruptcy in the United States and the conflicting views of debt insolvency that have dictated these changing laws.

Practical Motivations

Current levels of debt and bankruptcy in the U.S. population demonstrate the increasing importance of credit markets in people's lives. Figure 2.1 depicts these trends in consumer debt and in non-business bankruptcy filings from 1980 to 2010.

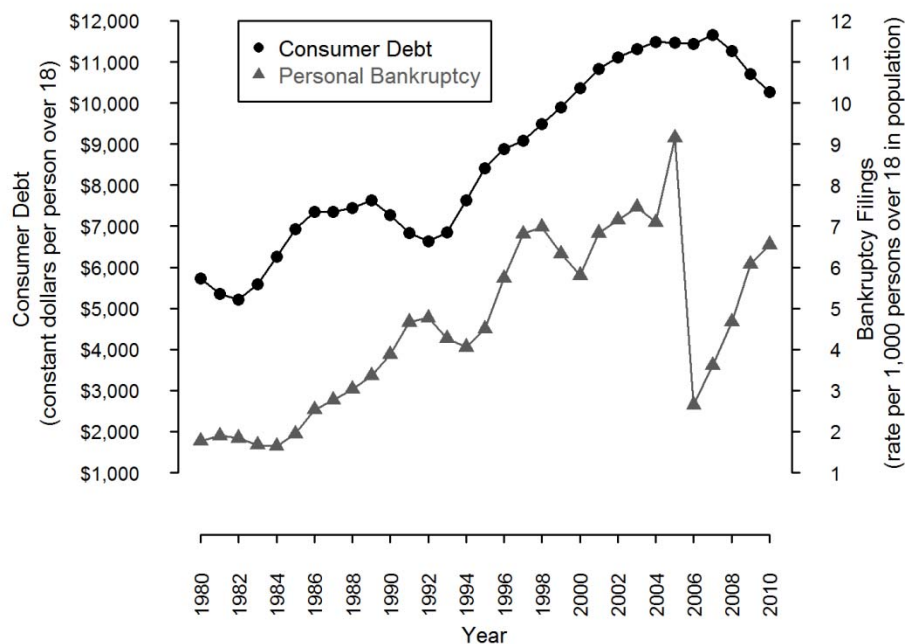


Figure 2.1 U.S. Consumer Debt and Bankruptcy Filings, 1980-2010

Sources: U.S. Census Bureau; U.S. Federal Reserve Board; American Bankruptcy Institute (ABI)

Notes: Consumer debt is recorded as constant 2010 U.S. dollars per person over 18 (adults) in the U.S. population. Bankruptcy filings are recorded as the rate per 1,000 adults in the population.

Over the past three decades, consumer debt has risen so that the majority of Americans owe some money for something. According to data from the Survey of Consumer Finances, consumer debt has increased by 161 percent since the 1980s. In 2007, almost 80 percent of all families held some form of debt (Bucks et al. 2009). Mortgage debt counted for the majority of this debt, but 46 percent of families reported outstanding balances on credit cards (Bucks et al. 2009). In 2007 the median family owed \$67,300 of total debt and \$3,000 of credit card debt (Bucks et al. 2009). Debt levels were similar for families in 2009, but declines in the value of assets led to an increase in the leverage ratio for families (Bricker et al. 2011). As seen in Figure 2.1, aggregate consumer debt levels began to fall in 2007 with the onset of the recession and the tightening of credit markets, but if the past is any guide it is likely that they will climb again when the economy improves and banks start lending once more.

While the rate of bankruptcy filing has not increased as consistently as consumer debt, there is evidence of a general upward trend in the United States, as depicted by the triangles in Figure 2.1.³ A record two million bankruptcies were filed in 2005.⁴ After a decline in 2006 due to changes in bankruptcy law, the number of non-business bankruptcy filings in the United States has risen every year since to a total of approximately 1.5 million filings in 2010, which is a rate of 6.5 per 1,000 persons in the adult population. Although only a minority of individuals currently files for bankruptcy, the current recession, housing crisis, and unemployment rate will likely lead to continued increases in the bankruptcy filing rate.

Increasing consumer debt over the past three decades has strongly benefited creditors. After suffering losses at the beginning of the Great Recession and receiving large government loans through the TARP bailout, financial corporations experienced increased profits in recent years (*see* Chapter 7). In 2010, the finance, insurance, real estate, rental, and leasing industry accounted for one-fifth of the country's GDP (Economic Report of the President 2012). In that year, profits for these corporations exceeded \$490 billion, which was an increase of \$90 billion from 2009 (BEA 2012).

The increasing debt and bankruptcy rates, along with the dominance of financial corporations in the economy, underscore the relevance of credit markets for people's wellbeing. For some individuals the credit market can increase wealth and its associated advantages, but for

³ The bankruptcy filing rate and consumer debt rate are also highly correlated with a Pearson correlation of 0.7447.

⁴ The record number of filings that occurred in 2005 is connected to the anticipation of the passing of new bankruptcy law. Many individuals sought to file before exemption levels changed (White 2007a).

others the credit market can increase indebtedness, leading to delinquency and even bankruptcy. In such situations, credit markets act to exacerbate inequality, creating advantage for some and relative disadvantage for others.

Theoretical Framework

Four theoretical frames—stigma, conflict, cumulative disadvantage, and status characteristics theory—illustrate the relationship between credit and labor markets. The concept of stigma demonstrates bankruptcy's enduring negative connotation, contingent on the larger power structure and legal framework (Link and Phelan 2001). Status characteristics theory helps to explain how nominal characteristics, such as bankruptcy, become stigmatized and relevant for the distribution of resources (Ridgeway 1991). Cumulative disadvantage theory then predicts growing inequality in relation to status characteristics and the resources associated with them (DiPrete and Eirich 2006). Finally, conflict theory highlights the class struggles that exist within and across markets

These theories are helpful for understanding bankruptcy because, although bankruptcy is a status that is achieved in the credit market, it can stem from a person's earlier labor market status. Poor labor market situations, particularly unemployment or irregular employment, can lead to poor credit market outcomes, such as high debt, elevated interest rates, missed payments, and eventually bankruptcy (Sullivan et al. 1989, 2000). The negative status concomitant of these poor credit market outcomes can then affect a person's future labor market situation.

The Stigma of Bankruptcy

The stigma of bankruptcy has been evident in America since the 18th century when insolvency was associated with moral failure and debtors were often imprisoned (Mann 2002). Although some researchers have argued that this stigma has declined over time (Fay, Hurst, and White 1998, 2002; Gross and Souleles 2002), others describe a continuous, but changing, stigma (Mann 2002; Athreya 2004; Sullivan, Warren, and Westbrook 2006; Lawless et al. 2008). For example, in a review of newspaper articles from 1864 through 2002, Efrat (2006) showed that prior to the 1960s the public viewed bankrupters as deceitful and immoral. During the 1960s, however, newspapers described bankrupters as unethical and irresponsible, but no longer as immoral. Most recently they have depicted bankrupters as struggling individuals who declared

bankruptcy due to circumstances beyond their control. Bankrupters are now stigmatized for their financial, but not always their moral, failures (Efrat 2006).

As a stigma, or in Goffman's (1963:3) terminology, "an attribute that is deeply discrediting," bankruptcy holds a particular negative status value that is reflected in general perceptions of bankrupters and in their financial troubles. While bankruptcy improved the financial situations for most bankrupters in the Consumer Bankruptcy Project, many reported post-bankruptcy financial distress (Porter and Thorne 2006). In addition to continuing financial stress, bankruptcy's stigma impeded their ability to start over in credit and labor markets (Porter and Thorne 2006; Thorne 2007). Bankrupters reported a lack of access to borrowing; many were denied loans, credit cards, bank accounts, and cell phones (Thorne 2007). Some also reported that having declared bankruptcy reduced their employment opportunities (Thorne 2007). These continuing financial problems indicate that declaring bankruptcy does not always allow individuals to purge debt without being stigmatized. Additional research demonstrating the increasing debt burdens of bankrupters, also suggests that debtors may be trying to avoid the stigma of bankruptcy (Warren and Westbrook 2006; Lawless et al. 2008).

Status characteristics theory links bankruptcy's stigma, or negative status value, with the unequal distribution of resources seen in these continuing financial problems (Ridgeway 1991; Webster and Hysom 1998). According to Ridgeway (1991:368), status value or worth is conferred when "consensual cultural beliefs indicate that persons who have one state of the [status] characteristics (e.g., whites or males) are more worthy in society than those with another state of the characteristics (blacks or females)." Bankruptcy's stigma stems from broader perceptions of debt delinquency and financial irresponsibility, and chances are this stigma will affect the distribution of resources in relation to that status.

Bankruptcy is more than just a stigmatized status, though. Bankruptcy acts as a formal status or credential that is imprinted on a person's credit and legal history. In her work on incarceration and employment, Pager (2007:32-37) conceptualized the status of a former prisoner as a "negative criminal credential" that limits access to opportunity. According to Pager (2007:36), unlike typical ascriptive markers, credentials represent formalized status distinctions that can be used to define legal rights or barriers which legitimize their use for the distribution of resources. Like a previous incarceration, bankruptcy can act as a negative credential that justifies

the unequal distribution of resources associated with this status. By affecting the accumulation of additional resources, bankruptcy can then spark a pattern of cumulative disadvantage.

Cumulative Advantage and Disadvantage across Markets

Theories of cumulative advantage originate with Merton's (1968, 1988) analysis of recognition in the scientific community, in which highly cited researchers were more likely than less cited researchers to receive subsequent recognition.⁵ Sociologists have since used this concept to explain growing disparities between groups in various arenas, including education, health, and employment (National Research Council 2004; DiPrete and Eirich 2006). Although sociologists typically use the term "cumulative advantage" for processes of increasing inequality, I apply the term "cumulative *disadvantage*" to signify a *relative* loss of assets, resources, or opportunities.

Cumulative advantage/disadvantage can occur through the accumulation of resources related to ascribed characteristics that an individual is born with and achieved characteristics that an individual acquires based on a particular event or accomplishment (Blau and Duncan 1967; DiPrete and Eirich 2006). Both achieved and ascribed characteristics affect returns to resources in many spheres, leading to divergence over time between members of groups with different statuses. Although the most common ascriptive statuses of race and gender are assigned at birth, statuses attained throughout people's lives can also have enduring effects. Bankruptcy's stigma, legal status, and its adverse effects illustrate its negative status value and potential to further disadvantage bankrupters in multiple markets.

Credit markets exemplify patterns of cumulative advantage. Interest rates, fees, and the widespread use of credit scores create a system where advantage and disadvantage accumulate exponentially. For example, compound interest means that investments net further profit for individuals over time, while the interest on unpaid debt increases indebtedness. At the negative end of the assets spectrum, subprime credit markets charge very high interest rates and fees to low-income borrowers. These increase debt, thereby widening the gap between payday borrowers and people who can borrow from their credit union, for example (Hudson 1996;

⁵ Merton termed this process the "Matthew Effect," referring to Matthew 13:12 and 25:29 of the New Testament, which says, "For unto everyone that hath shall be given, and he shall have abundance; but from him that hath not shall be taken away even that which he hath."

Rivlin 2010). Thus, “the rich get richer” and “the poor get poorer,” a pattern reflected in wealth inequality in the United States (Keister and Moller 2000; Spilerman 2000; Wolff 2011).

Credit market disadvantage can affect a person’s standing in multiple spheres. Disadvantage accumulates across markets when a person’s situation in one market influences outcomes in the other and, in some cases, stigma travels between markets. For example, Pager (2007) has shown how a criminal record acts as a negative credential disadvantaging former prisoners in the labor market. Correll, Benard, and Paik (2007) have also shown how motherhood can restrict access to jobs for women. Other research demonstrates how historical labor market discrimination contributed to wealth accumulation in the black community, and how the current racial wealth gap exacerbates employment and education inequality (Oliver and Shapiro 1997; Conley 1999; National Research Council 2004; Reskin 2012). Although advantage and disadvantage accumulate exponentially at times within markets, they can also multiply across markets. As I discuss within the legal framework for this project, federal bankruptcy law has the potential to limit the transmission of disadvantage across markets, but its effectiveness is restricted by opposing interest groups and ideologies, as well as the class conflict that exists between creditors and debtors.

Class Conflict within and across Markets

Conflict theory, embodied in the work of Karl Marx and Max Weber, concerns the constant conflict that arises from the divergent economic interests of classes. In general, the more dominant class succeeds in imposing its will over the less dominant class. Although it is more common to hear of the bourgeoisie and proletariat’s struggle over the price of labor, as highlighted by Marx, class conflict extends into credit and commodity markets as well. Across markets classes are based on the ownership of property, which dictates class interests, as well as individual “life chances” (Weber 1978). Marx, the largest proponent for the location of class struggles in the labor market, also acknowledged credit markets in his later work. When Marx began to add more categories to his class divisions, “rentier capitalists,” who made their income through fixed interest from bonds and real estate, were the first to be included (Marx [1894]1978:441). Marx and Engels also included centralizing credit under the state as a key demand of the Communist Party in *The Communist Manifesto* (Marx [1848]1978).

In Weber's (1978) typology, the propertied classes consist of employers in the labor market, creditors in the credit market, and sellers in the commodity market. The non-propertied classes comprise employees, debtors, and buyers. Within their respective markets the propertied and non-propertied classes struggle to control wage values, interest rates, and product prices. As Wiley (1967:532) noted, "All three conflicts are deeply imbedded in capitalism and the historical problems of economic ethics—those of usury, the just price and the living wage—are manifested squarely in the three markets."

Class conflict does not always bridge different markets; yet a person's wellbeing often depends on his or her standing in multiple markets. In my overview of cumulative disadvantage theory, I discussed how labor and credit markets can become connected. Resources gained in one market are often required to gain resources in the other, and stigmatized statuses can affect outcomes in both markets. However, these class struggles have historically been segmented in the political arena (Wiley 1967). Bankruptcy's legislative history, in particular, demonstrates the conflict that creditors and debtors engage in to control various aspects related to lending, borrowing, and debt insolvency.

Legal Framework

Cumulative disadvantage for bankrupters occurs within a specific legal framework that creates and transmits bankruptcy's stigmatized status. Laws limit to whom bankruptcy is available and laws determine whether or not bankruptcy will have continuing negative effects for bankrupters. More generally, bankruptcy is governed by specific public policies that can either punish debtors or provide them the opportunity to start over by purging previous debt. This legal framework, however, has fluctuated throughout American history due to the continuing class struggle between creditors and debtors.

Changing Bankruptcy Laws

A market economy that promotes entrepreneurship, the free availability of credit, and extensive consumer spending, as the United States does, requires procedures to deal with debt insolvency for the sake of commerce and stability (Warren 1935; Balleisen 2001; Mann 2002). Today, debtors in the United States have the choice of Chapter 7 bankruptcy, which discharges all unsecured debts and liquidates assets with certain exemptions, or Chapter 13, which creates a

debt repayment plan over 3 to 5 years.⁶ Voluntary debt discharge, however, was not an option until the Bankruptcy Act of 1898 (Tabb 1995). Prior to this, American bankruptcy law originated in 18th century English bankruptcy law and favored creditors, treating defaulting debtors harshly (Tabb 1995; Mann 2002; White 2008).

The Bankruptcy Reform Code (11 U.S.C.), enacted as part of the Bankruptcy Reform Act of 1978 (P.L. 95-598), dictates much of bankruptcy regulation today. The 1978 Bankruptcy Reform Act expanded the liberal treatment proposed by the Bankruptcy Act of 1898. Unlike previous reforms, the Bankruptcy Reform Act was authorized after a study conducted by Congress, not as a response to an economic crisis (Tabb 1995; Warren and Westbrook 2009). The Act established more generous standards for asset exemptions and enabled consumers to pledge personal property as collateral for loans, exempting this property from seizure (Tabb 1995).

The enactment of the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA; P.L. 109-8) in 2005 marked a movement away from this pro-debtor legal framework (Warren and Westbrook 2009). A stated purpose of BAPCPA was “to improve bankruptcy law and practice by restoring personal responsibility and integrity in the bankruptcy system” (U.S. Congress 2005:2). As a result, BAPCPA increased penalties for debtors and shifted the law to benefit creditors (White 2007a, 2007b). The Act reduced bankruptcy’s accessibility to debtors by increasing the costs of filing and forcing some debtors to repay creditors from post-bankruptcy earnings. It also required a means test of monthly family income to qualify for Chapter 7 bankruptcy and prohibited debtors from imposing their own Chapter 13 repayment plan. Finally, this law added new obligations for debtors and their lawyers by requiring credit counseling and detailed financial information.

BAPCPA drastically increased the costs associated with filing for bankruptcy. According to a recent national study of consumer bankruptcy fees, the average cost for a Chapter 13 bankruptcy case was \$2,861 in 2007-2008, the average cost for no-asset Chapter 7 bankruptcy was \$1,309, and the average cost for Chapter 7 bankruptcy when the debtor had assets that could be distributed among creditors was \$1,414 (Lupica 2011). These costs increased substantially after BAPCPA (Lupica 2010, 2011). Compared to bankrupters who filed in 2003 and 2004, the

⁶ Unsecured debt includes credit card and most revolving debt. Other unsecured debt, such as tax obligations, student loans, alimony, and child support are not discharged. Secured debt includes mortgages, car loans, and most non-revolving debt.

average Chapter 13 bankrupter paid 27 percent more, the average Chapter 7 bankrupter without assets paid 51 percent more to file, and the average Chapter 7 bankrupter with assets paid 30 percent more post-BAPCPA (Lupica 2011). These costs include filing fees (\$274 for Chapter 13 and \$299 for Chapter 7), the added expenses of credit counseling and debtor education courses, and attorney expenses that account for the largest percentage of total bankruptcy costs.⁷

Creditors and Debtors in Conflict

In American bankruptcy law's treatment of debtors, these fluctuations reflect an ideological divide over the purpose of bankruptcy, changing views regarding debt insolvency, and the fact that there are two parties in conflict: creditors and debtors. Credit markets inherently entail conflict between these two classes in their struggle to control borrowing and lending practices, including specified interest rates and bankruptcy stipulations (Weber 1978:926-7). According to Weber, "The class struggles of Antiquity—to the extent that they were genuine class struggles and not struggles between status groups—were initially carried on by peasant and perhaps also artisans threatened by debt bondage and struggling against urban creditors" (Weber 1978:930-1). Creditors exert power over debtors through this process of debt bondage. These relationships have historically produced class action, particularly when the property-less debtors banded together (Weber 1978:931).

Today, creditors and debtors argue their opposing views to shape bankruptcy law and advance their interests. These debates often play out within legislative bodies with each side represented by different advocates in Congress. In their attempts to tighten bankruptcy requirements, creditors argue that bankruptcy has lost its stigma and that many people who could repay their debts choose bankruptcy instead (Skeel 2001).⁸ However, debtor advocates contend that the profit-seeking credit industry, not irresponsible debtors, is to blame for rising bankruptcy filings (Skeel 2001). In these debates both parties often refer to stigma, personal responsibility, and credit morality when making arguments.

⁷ Filing fees for Chapter 13 bankruptcy include a \$235 statutory fee and a \$39 miscellaneous administrative fee, and filing fees for Chapter 7 bankruptcy include a \$245 statutory fee, a \$39 miscellaneous administrative fee, and a \$15 miscellaneous for Chapter 7 trustees (28 U.S.C. § 1930(a)(1)(A) (2008)).

⁸ As noted earlier in this chapter, these claims have been bolstered by the corresponding increases in both consumer debt and bankruptcy. However, recent research from the Consumer Bankruptcy Project implies an increasing stigma for bankrupters (Sullivan, Warren, and Westbrook 2006; Lawless et al. 2008). In particular these studies show that the debt burden of filers has substantially increased over the years, indicating that people are waiting longer to file for bankruptcy. A declining stigma for bankruptcy would predict the opposite trend.

BAPCPA's history and the associated Congressional testimony accentuate these opposing viewpoints (Landry 2002-2003). Although BAPCPA was not signed into law until April 15, 2005, the debate over its contents extends back to the early 1990s, when Congress began to take on bankruptcy reform. Representative George Gekas and Senator Chuck Grassley first drafted this piece of legislation in 1997 and introduced it as the Bankruptcy Reform Act of 1998. The House and the Senate both passed this bill, but President Clinton never signed it into law.⁹ It was reintroduced yearly until 2004, when it was taken up again by the Republican controlled Congress. Legislators debated the purpose of bankruptcy law throughout the testimony related to these bills, espousing perspectives that reflected their beliefs about the causes of indebtedness and bankruptcy.

Senators and Representatives in support of bankruptcy reform refer to the declining stigma of bankruptcy and the importance of personal and financial responsibility in their arguments. The two following quotations from Representative Gekas of Pennsylvania, regarding the Bankruptcy Reform Act of 1998, illustrate the perspective of pro-creditor bankruptcy legislators. In this debate he said:

The lack of stigma has become a weed infesting the bankruptcy landscape. And the seed that sprouted this condition was Congress, or more correctly our predecessors in Congress. The Bankruptcy Reform Act of 1978 changed the code dramatically, making the system decidedly pro-debtor. The 1978 reforms were appropriate for the times. But the times have changed. In the twenty years since, filings have gone from 200,000 to 1.3 million. (Gekas 1998:E88)

He also noted:

It wasn't always this way. The so-called "bankruptcy of convenience" is a new phenomenon, borne out of the loss of stigma the word "bankruptcy" once, but no longer, carried. It used to be a sense of responsibility, or perhaps more appropriately, a sense of disgrace and embarrassment that discouraged Americans from declaring bankruptcy. (Gekas 1998:E88)

Similarly, Representative Tom Delay of Texas argued that people use bankruptcy as a "financial planning tool" far too often:

⁹ President Clinton essentially "pocket vetoed" the bill sent to him by the 106th Congress by taking no action on the bill and issuing a memorandum of disapproval on December 19, 2000 after Congress had adjourned (Clinton 2000; Landry 2002-2003).

Today's bankruptcy system has made it too easy for irresponsible people to pass on the burden of their financial debt to responsible people. The greatness of this country is based on freedom. But with this freedom comes responsibility for your actions. Because the stigma that was once associated with bankruptcy has disappeared, we see too many people using bankruptcy as a financial planning tool. (Delay 1999:H2723)

Responsibility was a topic in Senate debates as well. Speaking in support of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2001, which he introduced, Senator Chuck Grassley of Iowa asserted that the bill would restore personal responsibility:

The bill reforms the bankruptcy system to require repayment of debts by individuals who have the ability to pay their bills, by reinstating personal responsibility in a bankruptcy system that is now all too often being used as a financial tool for deadbeats. (Grassley 2001:S7548)

After reintroducing the bill in 2005, Senator Grassley described the increase in bankruptcies as a "moral crisis" and again referred to its use as a financial planning tool:

Personal responsibility has been one of the main themes of the bankruptcy reform bill, going back to my first introduction.... I believe the bankruptcy crisis is, in fact, a moral crisis. People have to stop looking at bankruptcy as a conventional financial planning tool, where honest Americans have to foot the bill for those who do not pay their honest debt. It is clear to me that our lax bankruptcy system must bear some of the blame for the bankruptcy crisis. A system where people are not even asked whether they can pay off their debts obviously contributes to the fraying of the moral fiber of America. Why should people pay their bills when the system allows them to walk away with no questions asked? Why should people honor their obligations when they can take the easy way out through bankruptcy? (Grassley 2005:S1856)

Legislators on the other side of the debate place blame on the credit industry for rising bankruptcy rates, describe bankrupters as responsible individuals faced with hardship, and often refer to bankruptcy as a "safety net." Senator Paul Wellstone of Minnesota, one of the more vocal opponents of BAPCPA, saw the credit industry as the problem:

In other words, those folks who may have come into your office this year or last year talking about how they needed protection from customers who walked away from debts, who thought Congress should mandate credit counseling—to promote responsible money management—as a requirement for seeking bankruptcy protection, who argued that reform of the bankruptcy code is needed because of decline in the stigma of bankruptcy has been pouring gasoline on the flames the whole time. (Wellstone 2000:S11683)

In a later debate he also argued that:

It is ridiculous on its face that this legislation divorces irresponsible behavior of the credit card companies from the high number of bankruptcies. All of the evidence points to the fact that lenders and their poor practices are a big part of the problem. (Wellstone 2001:S7549)

Representative Jerrold Nadler of New York pointed out that bankruptcy provisions were necessary for credit markets. In a 2003 debate he said:

Bankruptcy is a trade-off. The safety net encourages risk-taking in business, allows distressed families to remain in the economy, and maintains demand for products businesses must fill to survive. Bankruptcy does not cause default any more than a hospital causes people to be sick. (Nadler 2003:H1993).

Other legislators focused on the causes of bankruptcy instead of its purpose. In particular, they described bankrupters as responsible people who were led into bankruptcy by certain hardships. Many also referred to academic studies, such as the Consumer Bankruptcy Project, which illustrate bankruptcy's association with adverse events (Sullivan et al. 1989, 2000; Lawless et al. 2008). For example, consider a speech by Senator Russell Feingold of Wisconsin in reference to the proposed 2005 Act. In this debate Senator Feingold said:

We are not talking about people who were reckless with their spending and think they can use or manipulate the bankruptcy laws to get out of it. We are talking about responsible people who have worked toward retirement their whole lives, yet whether because of devastating medical costs, job loss, or some other tragedy, find themselves in a financial emergency and are unable to pay their debts. These people turn to the bankruptcy system only as a last resort. They should not also be forced to give up their homes for doing so. (Feingold 2005:S1830)

Senator Richard Durbin of Illinois also focused on the adverse events that often led people into bankruptcy, while blaming the credit card companies at the same time. In 2005 he said:

The credit card companies want this law so they can squeeze every last dollar out of decent, hard-working, play-by-the-rules people who have already been devastated economically by traumatic events such as job loss, divorce, and, increasingly, medical problems. (Durbin 2005:S1823)

Although this testimony is only a small sample of the arguments in the debate over the purpose and goals of bankruptcy law, it illustrates the rhetoric used by the two sides involved in this discourse. Creditors and debtors also expressed their views through groups, such as the National Association of Federal Credit Unions, the National Retail Federation, the National Association of

Consumer Bankruptcy Attorneys, and the United Auto Workers, who have testified in front of Congress about the reforms (Landry 2002-2003).

The credit industry's influence in the passing of BAPCPA was also evident in their campaign contributions and lobbying support. According to the Center for Responsive Politics, finance and credit companies donated over \$46 million to Congressional members since 1990.¹⁰ Within the Senate, 17 percent of these contributions went to the 13 co-sponsors of BAPCPA.¹¹ The average total contribution to a co-sponsor was \$169,996, almost ten times the average contribution made to a senator by finance and credit companies since 1990.¹² In addition, finance and credit companies spent approximately \$357 million on lobbying from 1998 and 2011, employing an average of 319 lobbyists each year.¹³

These estimates illustrate the credit industry's leverage in the debate over bankruptcy. Debtors have also had advocates that include bankruptcy lawyers, the consumer bankruptcy bar, and bankruptcy academics, such as Henry Sommer, Vern Countryman, Philip Shuchman, and Elizabeth Warren (Skeel 2001). Despite the efforts of these debtor advocates, the credit industry's support of BAPCPA was successful; BAPCPA largely benefitted creditors over consumers as creditors were able to increase credit card late fees and interest rates after BAPCPA (Simkovic 2009; Lupica 2010, 2011). In the years since Congress passed BAPCPA, bankruptcy filings declined, and the costs of consumer credit increased, along with credit card companies' profits (Simkovic 2009).

Over a century ago, Max Weber pointed out the importance of credit markets for class conflict. Credit and debt have existed since ancient times (Graeber 2011). Class conflict between creditors and debtors has been documented in Ancient Greek and Roman civilizations as well (Warren and Westbrook 2009). This conflict is clearly evident in the legal history of U.S. bankruptcy. Both groups have found representation in Congress, and they often rely on rhetoric related to stigma, morality, and personal responsibility to make their cases. Many legislators still

¹⁰ These estimates are based on contributions from PACs and individuals giving \$200 or more, as reported to the Federal Election Commission (FEC). The estimates do not include "soft money," outside money, or donations to presidential candidates. Once these contributions are included, the total contributions from finance and credit companies from 1990-2012 exceed \$69 million. For more information on the sources, visit the Center for Responsive Politics website: www.opensecrets.org.

¹¹ Senator Chuck Grassley [R-IA] sponsored the bill. The additional co-sponsors were Senators Thomas Carper [D-DE], Michael Crapo [R-ID], Jim DeMint [R-SC], Michael Enzi [R-WY], Charles Hagel [R-NE], Orrin Hatch [R-UT], Ben Nelson [D-NE], Jefferson Sessions [R-AL], Richard Shelby [R-AL], John Sununu [R-NH], John Thune [R-SD], and David Vitter [R-LA].

¹² I should note that several of these co-sponsors also represented states, such as South Dakota and Delaware, where many of the larger credit companies are located.

¹³ I calculated these estimates based on data provided by the Center for Responsive Politics (www.opensecrets.org).

advocate debt expulsion, but BAPCPA's reforms have made bankruptcy much less forgiving. The Fair Credit Reporting Act, which I discuss in the following section, also affects the promise of a fresh start because it allows for the transmission of bankruptcy's stigma to multiple markets through credit reports.

Bankruptcy as a Fresh Start

Ever since the Bankruptcy Act of 1841 federal bankruptcy laws have permitted debtors to file for bankruptcy. The current 1978 Bankruptcy Code continues to promote debtor forgiveness after assets are used to repay creditors (Tabb 1995; Skeel 2001; Warren and Westbrook 2009).¹⁴ Although BAPCPA increased penalties and fees for bankrupters in 2005 (White 2007a, 2007b), Congress has retained a policy that provides the opportunity for a fresh start for debtors that includes exemptions and protections against discriminatory treatment (11 U.S.C. §§ 522, 523, 525).

The current Bankruptcy Code prohibits government and private employers from discriminating against bankrupters "with respect to employment" (11 U.S.C. § 525), but the Fair Credit Reporting Act (FCRA; 1996) allows employers to access an applicant's credit report, on which bankruptcy remains for approximately ten years (Musto 1999, 2004).¹⁵ The FCRA lists employment as a "permissible purpose" for the use of credit reports, but requires employers to notify an applicant if a report is obtained and if it is used in an adverse decision (FCRA 15 U.S.C. § 1681-1681t; Furletti 2002; Hunt 2005; Sprague 2007). Because lenders, insurers, and employers currently use credit reports to evaluate "trustworthiness" and "credit worthiness" in their decisions, these reports can contribute to disparities in wealth accumulation between persons with better and worse credit scores (Marron 2007; Moulton 2007).

Credit agencies record an individual's credit history and transmit it to outsiders through credit reports that evaluate credit worthiness in four areas: payment history, consumer indebtedness, length of credit history, and acquisition of new credit. These scores are also based on information from creditors and collection agencies regarding credit accounts, data purchased

¹⁴ Congress is authorized under the U.S. Constitution to establish "uniform laws on the subject of bankruptcies throughout the United States" (U.S. Const. art. I, § 8, cl. 4). The Bankruptcy Reform Act of 1978 is codified under Title 11 of the United States Code and generally referred to as the Bankruptcy Code.

¹⁵ In *Rea v. Federated Investors* (2010), the Court ruled that the Bankruptcy Code did not forbid private employers from discriminating against bankrupters in hiring. Unlike section 525(a) of the code, which applies to government employers, section 525(b), which is specific to private employers, does not include the phrase "deny employment to."

from third parties about monetary-related public records, and details about inquiries from creditors regarding an individual's credit record (Avery, Calem, and Canner 2004). The major credit agencies use this information to calculate credit scores and then provide reports to potential lenders, landlords, insurance companies, and employers for a small fee.¹⁶

Although data on employers' requests of credit scores are rarely available to the public, a few surveys have documented the use of credit scores in employment decisions (Furletti 2002; Hunt 2005; Sprague 2007). A 2006 survey indicated that 11 percent of Fortune 1000 firms used background checks, and a 2010 survey by the Society for Human Resource Management (SHRM) noted that 60 percent of its 343 employer members used credit checks as a hiring tool for some positions (Piotrowski and Armstrong 2006; SHRM 2010). Recent newspaper articles document the rise in the employers' use of credit scores and the controversy surrounding them (Bushnell 2004; Glater 2009; Martin 2010). Legislators and the Equal Employment Opportunity Commission (EEOC) have also begun to express interest about the potential discriminatory outcomes of this practice, which could transmit disadvantage from credit to labor markets (EEOC 2010).

The ambiguities introduced by credit scoring and the FCRA further complicate the ongoing debate about the purpose of bankruptcy. In addition to evaluating the goals of bankruptcy, policymakers must also evaluate the permissible uses for credit reports. In a context of rising consumer debt and bankruptcy, my project speaks to both facets of this moral and legal dialogue. I address the debate between creditors and debtors by using fixed effects models to investigate the predictors of bankruptcy in the first part of my analysis. After exploring the causes of bankruptcy, I concentrate on the current ambiguities in bankruptcy law by estimating the extent to which bankruptcy negatively affects people's later labor market situations.

¹⁶ The three major U.S. credit bureaus or agencies are Equifax, Experian, and TransUnion. They are private companies.

CHAPTER 3: ANALYTICAL FRAMEWORK

Chapter 3 describes the two datasets I use to analyze the causes and consequences of bankruptcy. I discuss my basic analytical models in this chapter, but I wait to describe the measures that I include in my causal models until I outline hypotheses in Chapters 5 and 6 in which I analyze the causes and effects of bankruptcy.

Data

Few datasets contain detailed information on debt and even fewer contain longitudinal debt data. The Survey of Consumer Finances (SCF) collects the most detailed debt and asset information, but it lacks certain variables that are necessary for testing well-specified models. It is also a cross-sectional survey, so the data do not follow respondents over time.¹⁷ Two prominent longitudinal studies, the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth (NLSY 1979 cohort), incorporate questions on bankruptcy and debt. The PSID asked these questions in 1996 and the NLSY asked them in 2004 and 2008. While both datasets provide similar information on bankruptcy, they differ in terms of their unit of analysis. The NLSY collects data for the individual survey respondent; the PSID collects household-level data. Within my data analysis I primarily rely on the NLSY dataset because it contains more recent debt data. I also analyze PSID data to determine if the results hold true for a longitudinal national sample of households.

National Longitudinal Survey of Youth

The NLSY is a nationally representative sample of 6,111 respondents who were between 14 and 22 years old when first surveyed in 1979.¹⁸ By 2008 the cross-sectional sample had declined to 4,723 individuals, then between the ages of 42 and 50. The survey regularly asks respondents about their labor market experience, health conditions, attitudes and aspirations, family background, and marital history. Information on bankruptcy was collected in the 2004 and 2008 surveys which asked respondents if and *when* they had declared bankruptcy. These

¹⁷ The 2009 wave of the SCF, which was just released, did re-interview a subsample of 2007 respondents, however.

¹⁸ The original sample of 12,686 respondents was composed of a cross-sectional sample of 6,111 respondents, as well as a supplemental sample of 5,295 respondents that oversampled civilian Hispanic, black, and economically disadvantaged non-black/non-Hispanic youth, and a military sample of 1,280 respondents (NLSY79 User's Guide).

retrospective data, which I coded back to 1979, permit an analysis of bankruptcy's effects.¹⁹ From 1979 through 2008 the cumulative number of reported bankruptcy filings was 718; 15.2 percent of respondents filed for bankruptcy at least once. As shown by Table 3.1, the percentage of respondents declaring bankruptcy each year tended to increase as the cohort aged. The yearly number of filings ranged from 2 to 56 and the yearly percentage ranged from 0.07 percent in 1979 to 1.15 percent in 2002.

Table 3.1 **Percent of Bankruptcy Filings among NLSY Respondents, 1979-2008**

Year	Yearly Percent		Cumulative Percent	
	U.S. Adult Population	NLSY79	U.S. Adult Population	NLSY79
1979		0.07		0.07
1980	0.18	0.09	0.18	0.16
1981	0.19	0.03	0.36	0.18
1982	0.18	0.05	0.54	0.23
1983	0.17	0.12	0.70	0.35
1984	0.16	0.27	0.86	0.63
1985	0.19	0.21	1.04	0.84
1986	0.25	0.26	1.28	1.10
1987	0.28	0.31	1.55	1.41
1988	0.30	0.31	1.83	1.72
1989	0.34	0.55	2.15	2.27
1990	0.39	0.74	2.51	3.02
1991	0.47	0.42	2.96	3.43
1992	0.48	0.42	3.40	3.85
1993	0.43	0.42	3.80	4.27
1994	0.41	0.73	4.17	5.00
1995	0.45	0.51	4.58	5.51
1996	0.57	0.78	5.11	6.29
1997	0.68	0.76	5.74	7.05
1998	0.70	1.08	6.37	8.13
1999	0.63	0.74	6.94	8.88
2000	0.58	0.86	7.28	9.74
2001	0.68	0.82	7.87	10.56
2002	0.72	1.15	8.48	11.71
2003	0.75	1.03	9.13	12.74
2004	0.71	0.59	9.73	13.33
2005	0.91	1.06	10.53	13.57
2006	0.26	0.70	10.67	14.27
2007	0.36	0.59	10.94	14.86
2008	0.47	0.34	11.29	15.20

Source: U.S. Census; NLSY79

Notes: NLSY79 estimates refer to the full cross-sectional sample present in 2004 or 2008 to answer the bankruptcy questions.

¹⁹ Interviewers asked respondents in 2004 and 2008 about when they declared bankruptcy. I re-coded this variable to each interview year using the year and month when the respondent declared bankruptcy.

Due to the NLSY's inconsistent collection of debt and asset data over time, I use two subsets of the NLSY data in my analyses.²⁰ I seek to cover as much time and as many bankruptcy filings as I can; therefore, for most analyses I use data from 1979 through 2008. Because the survey collected more detailed debt and asset information, such as house values, mortgage payments, and auto loans, from 1985 to 2000, I also analyze a subsample that stretches over only these years.

Panel Study of Income Dynamics

The Panel Study of Income Dynamics (PSID) is a longitudinal panel study of a representative sample of households in the United States. The PSID began collecting data in 1968 with a total sample size of 4,800 households, who were re-interviewed every year until 1997 when the sample was drastically reduced.²¹ The 1996 sample consists of 8,511 households. The PSID follows a complicated sampling structure, which incorporates and removes certain groups over time. In order to narrow the data down to a consistent panel sample, I follow Han and Li (2007) and Fay, Hurst, and White (1998, 2002) in limiting my analyses to 1984 through 1996. I also use sampling weights in most of my analyses in order to account for the PSID's oversampling of certain groups, particularly African American and low-income households.²² Although researchers do not agree on whether sampling weights are necessary when analyzing complex survey data, they are often recommended for studying PSID data (Winship and Radbill 1994).

The core data in the PSID focus on economic and demographic variables with additional information on employment, income, health, family dynamics, and residential location. In 1996, respondents were asked if and *when* they had declared bankruptcy, which is the same question asked of the NLSY respondents. I was again able use these retrospective data to code bankruptcy over time. As shown in Table 3.2, six percent of households in the sample had declared bankruptcy by 1996, with a yearly number of filings ranging from 6 to 50 and a yearly percentage ranging from 0.01 to 0.59.

²⁰ The NLSY collected consistent debt and asset information from 1985 through 2000, but did not collect information in 2002 (NLSY79 User's Guide). In 2004, the survey began to collect debt and asset data again, but it used a different set of questions than in the previous waves.

²¹ These individuals were based in two independent samples, an equal probability cross-sectional national sample of approximately 3,000 interviews and a national sample of approximately 2,000 interviews with low income families.

²² I note within each table based on PSID whether the data are weighted or unweighted. I do not use sampling weights for the NLSY because I analyze only their cross-sectional data.

Table 3.2 Percent of Bankruptcy Filings among PSID Respondents, 1980-1996

Year	Yearly Percent		Cumulative Percent	
	U.S. Households	PSID	U.S. Households	PSID
1980	0.36	0.12	0.36	0.78
1981	0.38	0.08	0.73	0.86
1982	0.37	0.14	1.09	1.00
1983	0.34	0.07	1.43	1.07
1984	0.33	0.14	1.74	1.21
1985	0.39	0.26	2.10	1.47
1986	0.51	0.25	2.57	1.72
1987	0.55	0.21	3.10	1.93
1988	0.60	0.32	3.65	2.24
1989	0.66	0.54	4.24	2.78
1990	0.77	0.48	4.99	3.27
1991	0.93	0.56	5.86	3.83
1992	0.94	0.47	6.72	4.30
1993	0.84	0.49	7.51	4.79
1994	0.80	0.48	8.26	5.28
1995	0.88	0.59	8.99	5.86
1996	1.13	0.14	10.06	6.00

Source: U.S. Census; PSID (Unweighted)

Comparison of NLSY, PSID, and National Data

Over twice as many NLSY respondents as PSID households indicated that one of the adult members had declared bankruptcy at one point. Within the restricted NLSY sample (1985-2002) 12.7 percent of participants declared bankruptcy at one point in time and within the restricted PSID sample (1984-1996) 4.9 percent had filed. Although more NLSY than PSID respondents declared bankruptcy, the percentages for the full and restricted NLSY data resemble those indicated in other debt research using these data (Fay, Hurst, and White 2002; Fisher 2005; Han and Li 2007; Caputo 2008).

Figures 3.1 and 3.2, along with Tables 3.1 and 3.2, show some divergence between the sample rates and national rates of bankruptcy filing. These discrepancies partially reflect the surveys' sampling practices. The NLSY overestimates the number of bankruptcy filings in the U.S. population because the particular cohort of individuals on which it focuses was exposed to certain economic trends, including recessions and employment opportunities, and to specific bankruptcy laws. The PSID underestimates the number, which could occur due to sample attrition and its unit of analysis. The PSID also oversamples low-income households, who are less likely than higher-income households to file for bankruptcy (Sullivan, Warren, and

Westbrook 1989, 2000). In addition, respondent recollection could affect the reporting of bankruptcy by year, particularly in the PSID data that only asked about bankruptcy in 1996. The NLSY asked about bankruptcy in 2004 and in 2008, which helps to limit measurement bias due to respondent recollection error. By analyzing both of these datasets, I seek to overcome these drawbacks and confirm my results with multiple sources.²³

This dual analysis strengthens the validity and reliability of my conclusions. The NLSY data restrict findings to a particular cohort of individuals, while the PSID data are for households. The data also vary in terms of the years covered by the survey and the available measures. Although most of the variables overlap across datasets, they are not identical. The PSID, for example, provides more extensive information on health status than the NLSY. Applying similar statistical models of bankruptcy across these two longitudinal datasets thus leads to more robust findings, relevant to different groups.

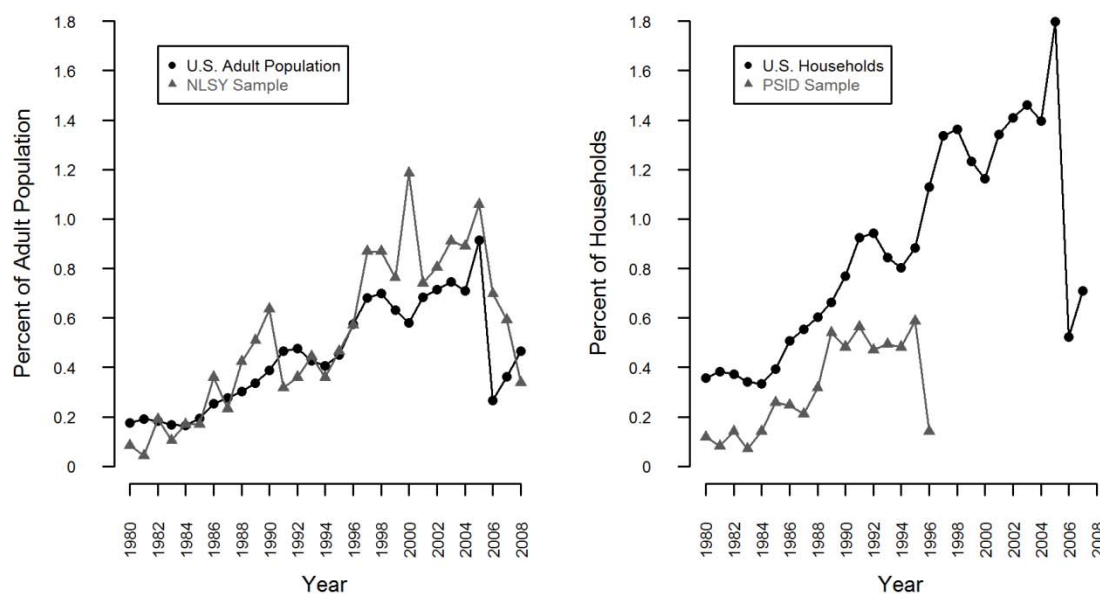


Figure 3.1 Yearly Bankruptcy Filings Comparing U.S. Adults and Households to NLSY and PSID Respondents, 1980-2008

Sources: NLSY; PSID (Unweighted); U.S. Census Bureau; American Bankruptcy Institute (ABI)

Notes: The first panel plots yearly bankruptcy filings as a percent of the adult population. The second panel plots yearly bankruptcy filings as a percent of U.S. households.

²³ I also incorporate sampling weights where appropriate in order to account for the over- and under-sampling of certain groups.

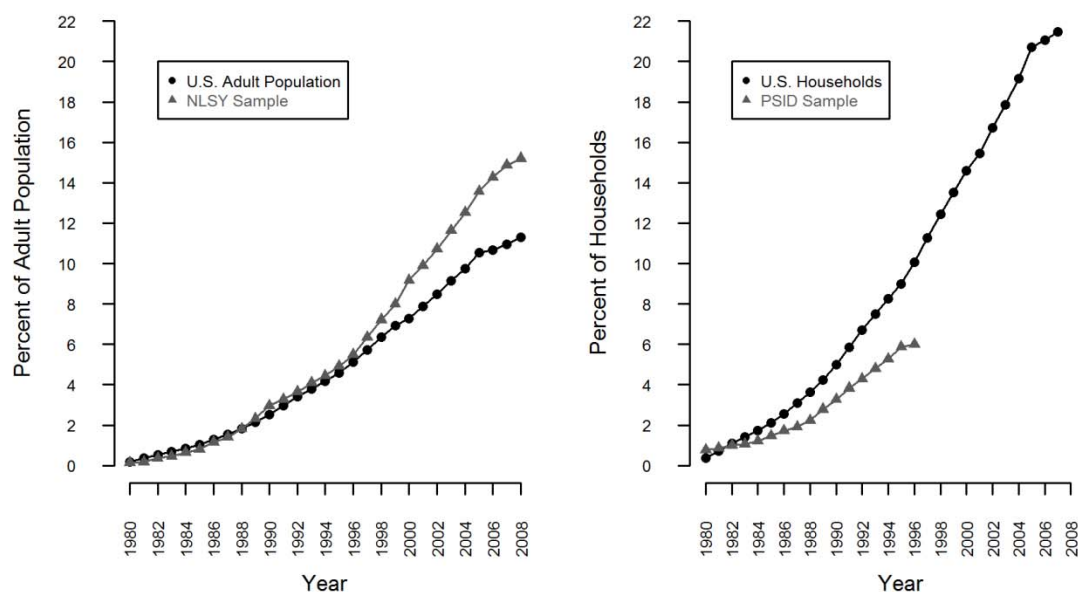


Figure 3.2 Cumulative Bankruptcy Filings Comparing U.S. Adults and Households to NLSY and PSID Respondents 1980-2008

Sources: NLSY; PSID (Unweighted); U.S. Census Bureau; American Bankruptcy Institute (ABI)

Notes: The first panel plots cumulative bankruptcy filings as a percent of the adult population. The second panel plots cumulative bankruptcy filings as a percent of U.S. households.

State and County Contextual Data

To allow for the possibility that states differ in ways that might influence a person's probability of declaring bankruptcy and the effects of bankruptcy on labor market outcomes, I attached state- and county-level data to the NLSY and PSID data, as well as data on regional labor market situations. I include measures of the county-level unemployment rate and the state-level bankruptcy filing rate per 1,000 adults in the population for each respondent and each year. I constructed these variables using location indicators from the county-level data with historical unemployment and bankruptcy filing information. The county-level unemployment rate controls for local labor market conditions that might affect the ability of respondents to find work. The state-level bankruptcy filing rate controls for the legal and economic context in which people consider filing for bankruptcy. Using data from the National Bankruptcy Research Center, the American Bankruptcy Institute (ABI) calculated the number of bankruptcy filings per state. I then calculated a rate for the adult population by dividing these numbers by the state's population aged 18 and older which I obtained from the U.S. Census Bureau.

I also include two state-level legal framework measures that relate to creditors and debtors: the legal interest rate and the homestead and property exemptions, which permit debtors to protect certain assets from creditors (National Association of Credit Management 2007). State-level interest rates set the maximum rate permitted by state law absent any outside contract (National Association of Credit Management 2007). I coded yearly state homestead and property levels into dollar amounts from 1979 through 2008 using state statutes and historical compilations of bankruptcy laws (*see* Appendices A and B). Because homestead and property exemption levels vary greatly across states and many state statutes do not list specific monetary amounts for exemptions, I classified state exemption levels in relation to the federal exemption level given for each year. My final classification scheme consisted of five categories: minimal (which included states, such as Pennsylvania and Maryland, with levels less than 50 percent of the federal level); below average (which included states with levels 50 to 99 percent of the federal level); average (which included states with levels 100 to 199 percent of the federal level); above average (which included states with levels 200 percent of the federal level or higher); and unlimited (which included states, such as Iowa and Texas, with unlimited exemption levels).

Methods

In my project I use fixed effects regression models, a statistical procedure commonly applied to longitudinal data, to estimate bankruptcy's predictors and outcomes. Generally, fixed effects models are preferable for longitudinal data analysis because they remove bias that can result through selection based on stable individual characteristics, and they account for any unobserved heterogeneity that may affect the outcomes. As noted, bankruptcy may affect future employment outcomes due to its correlation with other stable individual characteristics, such as personality and propensity for risk-taking. By focusing on within-individual variation, fixed effects models account for these characteristics. Fixed effects models control for all unobserved individual characteristics, but because they focus on only within-person variation, they preclude estimating the coefficients for time-invariant factors, such as sex and race (Allison 1994, 2004, 2009).

I considered other methods, particularly random effects models, for analyzing these data as well. Random effects models—also known as multilevel varying-intercept, mixed, and hierarchical models—account for correlated disturbance terms for the same person over time by

assigning each person a separate intercept. But they do not control for all unobserved individual characteristics (Gelman and Hill 2005; Allison 2009). Random effects models also assume that the individual intercept is uncorrelated with other predictors in the model (Allison 2009).

Because of these limitations, I rely on fixed effects models in Chapters 5 and 6, but I also test the robustness of some of my models using random effects methods. I describe my methods and their associated limitations in more detail in Chapters 5 and 6 as well.

CHAPTER 4: WHO ARE THE BANKRUPTERS?

Before analyzing the causes and consequences of bankruptcy, it is important to understand just who the bankrupters actually are. If bankruptcy affects members of certain groups more than others, its consequences for different groups could vary as well. Therefore, Chapter 4 focuses on variation among bankrupters within and across datasets. Following the Consumer Bankruptcy Project (CBP), this chapter begins with a description of bankrupters in the NLSY and PSID. In the first part of the chapter, I summarize characteristics of bankrupters in terms of their earnings and debt burden, experience of adverse events, and general demographics. I show that bankrupters in my samples closely resemble those of the CBP. In addition to this comparison, I investigate differences among bankrupters by examining variation by the type of bankruptcy: Chapter 7 or Chapter 13. For this second part of the chapter I compare the demographic characteristics of Chapter 7 and Chapter 13 bankrupters, and I use logistic regression to conduct a multivariate analysis of bankruptcy by chapter type.

Characteristics of Bankrupters

Within my two datasets the average bankrupter looks a lot like the one described by the CBP, but with some exceptions. According to the CBP, bankrupters tend to be lower- to middle-income individuals with large debt burdens (Sullivan, Warren, and Westbrook 1989, 2000; Warren and Tyagi 2004; Lawless et al. 2008). These bankrupters have likely experienced certain hardships, such as job loss, illness, or marital dissolution. They tend to be middle-aged individuals, even though the rate of bankruptcy has risen among older cohorts in recent years (Thorne, Warren, and Sullivan 2009). Bankrupters can be of either sex and of any race and ethnic background; however, blacks and Hispanics were overrepresented in samples of bankrupters (Sullivan et al. 2000; Warren 2004).

To first address bankrupters' financial states, Table 4.1 compares the situation of bankrupters one year prior to their declaring bankruptcy in the 1985-2000 NLSY sample along with bankrupters' reported situations at the time of bankruptcy in the 1984-1996 PSID sample to the 1981 and 1991 CBP samples. As this table shows, bankrupters reported median earnings of approximately \$27,000 at the time of bankruptcy across the NLSY, PSID, and 1991 CBP samples, but bankrupters in the 1981 CBP sample reported slightly higher earnings. The median

earnings of bankrupters in the NLSY and PSID samples are somewhat lower than those of non-bankrupters in those samples, but generally similar.²⁴

Table 4.1 Bankrupters' Situations Immediately Prior to Declaring Bankruptcy

	NLSY	PSID	CBP 1981	CBP 1991
Median Total Earnings	\$26,520	\$27,130	\$33,871	\$27,216
Median Debt	\$31,690	\$29,040	\$47,402	\$44,588
Median Debt to Earnings Ratio	1.57	1.22	1.41	1.68
Sample Size	N = 271	N = 273	N = 1496	N = 683

Sources: 1985-2000 NLSY sample bankrupters; 1984-1996 PSID sample bankrupters who provided information on total debt; CBP 1981 and 1991 samples (*see* Lawless et al. 2008:401-405; Sullivan et al. 2000:69-73, 1989:64-75)
Note: Amounts are in 2008 dollars.

In terms of debt burden, bankrupters in the NLSY carried about twice as much debt as non-bankrupters, with more than double the debt-to-income ratio.²⁵ PSID bankrupters had slightly less debt than those in the NLSY; the median bankrupter held \$31,690 at the time of bankruptcy in the NLSY and \$29,040 in the PSID. Bankrupters in my data carried less overall debt into bankruptcy than CBP bankrupters (\$12,898 to \$18,362 less depending on the sample). However, I restricted these samples to individuals with debt levels less than three standard deviations above the mean debt in order to account for the top-coding of values, thus removing potential outliers from my analyses. CBP researchers did not restrict their data.

Although NLSY and PSID bankrupters reported lower debt-levels than CBP bankrupters in the 1980s and 90s, the median debt-to-earnings ratios for bankrupters across the samples were much closer. The median debt-to-earnings ratio for bankrupters in the NLSY was 1.57, meaning that the median bankrupt debtor owed about one year and nine months worth of earnings prior to bankruptcy. Bankrupters in the PSID owed slightly less in relation to their incomes; the median bankrupt debtor in the PSID owed about one year and six months worth of earnings. Overall, these debt-to-earnings ratios closely resemble those of the CBP bankrupters that ranged from 1.41 to 1.68.

While Table 4.1 presents characteristics for bankrupters immediately prior to bankruptcy, Table 4.2 compares bankrupters and non-bankrupters in the most recent year of data in the

²⁴ Non-bankrupters in 1995 in this PSID sample earned approximately \$34,300 at the median.

²⁵ Non-bankrupters in the NLSY reported a median debt level of \$12,000 and a debt-to-income ratio of 0.55. I was not able to calculate debt levels for non-bankrupters in the PSID because interviewers asked only bankrupt respondents how much debt they held.

NLSY and PSID samples.²⁶ The bankrupter category in this table includes respondents who just declared bankruptcy as well as those who went bankrupt many years ago.

Table 4.2 Demographic Characteristics by Bankruptcy Status, NLSY and PSID

	NLSY, 2006		PSID, ¹ 1995		PSID, ² 1995			
	Ever Bankrupt	Never Bankrupt	Ever Bankrupt	Never Bankrupt	Ever Bankrupt		Never Bankrupt	
					Estimates	SE	Estimate	SE
Any Recent Adverse Event (%)	17.2	10.1	12.8	10.2	12.2	(2.1)	10.3	(0.5)
Any Prior Adverse Event (%)	82.4	68.8	71.4	60.9	75.7	(2.7)	61.9	(0.8)
Female (%)	55.6	51.5	29.9	30.0	27.2	(2.9)	30.3	(0.8)
White (%)	83.0	82.1	62.6	62.0	83.5	(2.1)	84.7	(0.6)
Black (%)	12.7	11.5	35.9	35.5	14.6	(2.0)	13.1	(0.5)
Hispanic Origin ³ (%)	4.5	6.3	*	*	*	*	*	*
Median Age	44.0	45.0	40	42	41.0	(1.0)	46.0	(0.3)
Median Earnings ⁴	\$36,301	\$42,707	\$32,481	\$36,187	\$30,202	(\$1,494)	\$40,954	(\$720)
Sample Size (N)	448	2,875	398	6,454	6,450	414.8	119,600	1873.5

Sources: 1985-2008 NLSY Sample; 1984-1996 PSID Sample

Notes: ¹Unweighted PSID data.

²PSID data are weighted by sampling weights, so I provide both estimates and standard errors.

³I include estimates for Hispanic Origin for only the NLSY sample because I do not include the Latino/Immigrant subsample of the PSID in my analyses.

⁴Earnings are in 2008 dollars.

Most CBP bankrupters reported experiencing an adverse event of job loss, illness, or divorce prior to bankruptcy (Sullivan et al. 1989, 2000; Warren and Tyagi 2004; Lawless et al. 2008). In my data more bankrupters experienced adverse events than non-bankrupters. Across the NLSY, unweighted PSID, and weighted PSID samples approximately 12 to 17 percent of bankrupters experienced a recent adverse event compared to 10 percent of non-bankrupters. Additionally 71 to 82 percent of bankrupters experienced an adverse event at some point in their lives, compared to 61 to 69 percent of non-bankrupters. Bankrupters in both of my datasets also earned less than non-bankrupters, but this difference ranged from \$5,000 to \$10,000 depending on the sample.

Although they differed in their experience of adverse events and income levels, bankrupters tended to resemble non-bankrupters in terms of sex, race, and age in these datasets. These similarities imply that bankruptcy affects multiple groups. Across datasets the median age for bankrupters ranged from 40 to 44 years. In the NLSY, 56 percent of bankrupters were female, 83 percent were white, 13 percent were black, and 5 percent were Hispanic. In the unweighted PSID sample, 30 percent of bankrupters were female, 63 percent were white, and 36

²⁶ I include estimates for the unweighted and weighted PSID samples in this table in order to show how estimates can vary across these samples.

percent were black. In the weighted PSID sample, however, 27 percent of bankrupters were female, 84 percent were white, and 15 percent were black. These estimates differ across the NLSY, unweighted PSID, and weighted PSID samples due to the different sampling structures of these datasets. Respondents in the NLSY in 2006 are slightly older because this survey is based on a cohort sample. The PSID comprises a smaller percentage of females because these estimates are based on the head of the household, who was often assumed to be male. Finally, the race dynamics of the PSID differ greatly between the unweighted and weighted data because the PSID oversamples African American and low-income households.

Stated Causes of Bankruptcy

Interviewers also asked PSID respondents to indicate the causes for their bankruptcy. Table 4.3 lists the various reasons that PSID respondents provided. PSID bankrupters reported far fewer adverse events than CBP bankrupters. Of the 1991 CBP bankrupters, 67.5 percent reported that job loss led to their bankruptcy, 19.3 reported that illness or medical bills were the cause, and 22.1 listed family problems (Sullivan et al. 2000:16). Of the total 526 bankruptcy filers in the PSID, 14.6 percent listed job loss as a reason behind their bankruptcy; 11.6 percent listed divorce, separation, or widowhood; and 13.1 percent listed illness, injury, or medical bills.²⁷ In total 39.3 percent of bankrupters in the PSID reported that one or more adverse events led them to declare bankruptcy, even though only 19.1 percent experienced an adverse event in the year immediately prior to declaring bankruptcy (Table 4.1).

Table 4.3 Respondents' Stated Reasons for Declaring Bankruptcy, PSID

	N	Percent ¹
Loss of job or business failure	77	14.6
Divorce, separation, or widowhood	61	11.6
Illness, injury, or medical bills	69	13.1
Debts too high or credit card misuse	204	38.8
Lawsuit or creditor harassment	23	4.4
Other	84	16.0

Source: PSID (Unweighted)

Notes: With this question, filers were allowed to choose multiple reasons; therefore, these categories are not mutually exclusive.

¹Out of a total of 526 heads of households who declared bankruptcy in the PSID 1996 sample.

²⁷ With this question, filers were allowed to choose multiple reasons; therefore, these categories are not mutually exclusive.

In addition to adverse events, PSID bankrupters reported other causes for their bankruptcies more often than CBP bankrupters did. Of the PSID bankrupters, 38.8 percent listed unmanageable debt and credit card misuse compared to 13.6 percent of CBP bankrupters; and 16 percent indicated that an event other than options given led to their bankruptcy compared to 13.6 percent of CBP bankrupters (Sullivan et al. 2000:16).

Summary of Characteristics

This overview of a life of a bankrupter is consistent with the descriptions of bankrupters provided in research from the Consumer Bankruptcy Project. In the NLSY and PSID more bankrupters than non-bankrupters experienced adverse events in the year prior to bankruptcy and throughout their life course (Tables 4.1 and 4.2). Although bankrupters had similar earnings to non-bankrupters at the time of bankruptcy, they tended to have lower earnings later on (Tables 4.1 and 4.2). Bankrupters also had much higher debt levels and debt-to-earnings ratios than non-bankrupters (Table 4.1).

As these examples show, the individual lives of bankrupters tend to be tumultuous with multiple adverse events. Many go into and out of employment, experience family dissolution, and have different health limitations. It is important to note that these adverse events continue after bankruptcy as well. We also see apparent earnings declines for some bankrupters after bankruptcy, which hint at some of the potential negative consequences for bankrupters.

Variation by Bankruptcy Type

The consequences of bankruptcy also vary by the chapter of bankruptcy that an individual files for. As I noted earlier, debtors have the choice of filing for Chapter 7 or Chapter 13 bankruptcy under federal law. Chapter 7, or liquidation bankruptcy, discharges most debts, after the debtor's assets are distributed to creditors. Chapter 13 requires that debtors repay a portion of their debt over a period of three to five years. Of these two types of bankruptcy, Chapter 7 tends to be the most desirable because it allows debtors to discharge more debt, it does not require a repayment plan, and it costs less in attorney fees (Warren and Westbrook 2009;

Lupica 2011; Cohen and Lawless 2012). Creditors, of course, tend to prefer Chapter 13 because they believe it leads to larger payouts.²⁸

The distribution of bankrupters across Chapter 7 and Chapter 13 in my data reflects the distribution in the Consumer Bankruptcy Project. Table 4.4 describes bankrupters by bankruptcy chapter in the NLSY and PSID data. Chapter 7 bankrupters comprise the majority of bankruptcies in both datasets; 65 percent of bankrupters in the NLSY and 53 percent of bankrupters in the PSID filed for Chapter 7 bankruptcy. A smaller proportion of bankrupters—32 percent in the NLSY and 27 percent in the PSID—chose to file for Chapter 13, perhaps due to the daunting repayment plans that Chapter 13 bankruptcy requires.

Table 4.4 Bankrupters by Bankruptcy Chapter, NLSY and PSID

	NLSY, 2006		PSID, ¹ 1995			
	N	Percent	N	SE	Percent	SE
Chapter 7	291	65.0	3393	(300.6)	52.6	(3.2)
Chapter 13	141	31.5	1741	(207.7)	27.0	(2.8)
Other ²	16	3.6	1317	(197.4)	20.4	(2.7)
Total Bankrupters	448	100	6451	(414.8)	100	*

Sources: 1985-2008 NLSY Sample; 1984-1996 PSID Sample

Notes: ¹PSID data are weighted by sampling weights, so I provide both estimates and standard errors.
²The "Other" category includes respondents who converted Chapter 13 into Chapter 7 and those who did not know what type of bankruptcy they filed for.

The distribution of bankrupters into these different chapters is not random; bankruptcy chapter varies by bankrupters' demographic characteristics. Table 4.5 displays their characteristics by type of bankruptcy for both datasets.

Table 4.5 Demographic Characteristics by Bankruptcy Chapter, NLSY and PSID

	NLSY, 2006		PSID, ¹ 1995			
	Chapter 7	Chapter 13	Chapter 7		Chapter 13	
			Estimates	SE	Estimate	SE
Any Recent Adverse Event (%)	17.7	16.9	8.8	(2.4)	13.0	(4.1)
Any Prior Adverse Event (%)	82.7	83.8	74.5	(3.8)	71.7	(5.3)
Female (%)	56.4	58.5	21.2	(3.6)	32.5	(5.8)
White (%)	85.3	78.5	87.9	(2.4)	69.8	(5.4)
Black (%)	11.3	17.7	9.6	(2.0)	29.1	(5.4)
Hispanic Origin (%)	3.4	3.8	*	*	*	*
Median Age	44.0	44.0	41.0	(1.0)	41.0	(2.3)
Median Earnings	\$37,262	\$33,188	\$32,296	(\$1,945)	\$25,475	(\$2,522)

Sources: 1985-2008 NLSY Sample; 1984-1996 PSID Sample

Notes: ¹PSID data are weighted by sampling weights, so I provide both estimates and standard errors.

²⁸ It is debatable as to which chapter leads to higher payouts for creditors. Chapter 7 often leads to some repayment because creditors will reaffirm their debts, and Chapter 13 repayment plans are often unfulfilled (Warren and Westbrook 2009:345-6).

This table shows that blacks, Hispanics, and women are overrepresented in the category of Chapter 13 bankrupters. Chapter 13 bankrupters also tend to have lower earnings at the time of bankruptcy than Chapter 7 bankrupters.

These discrepancies in the race, sex, and income distributions of bankruptcy by chapter require further analysis. As a supplement to these findings I also investigated predictors of bankruptcy chapter among the sample of bankruptcy filers. Recent findings from the 2007 wave of the CBP indicated that black bankrupters were more likely than white bankrupters to file for Chapter 13 bankruptcy, net of other demographic, employment, and debt variables (Cohen and Lawless 2012). Blacks, Hispanics, and women were also overrepresented in the category of Chapter 13 bankrupters in both of my datasets (Table 4.5).

In view of these disparities, I use subsets of the NLSY and PSID to analyze bankruptcy by chapter type. Each subsample comes from the samples I analyze in Chapters 5 and 6, but consists of only bankrupters: 271 bankrupters were in the 1985-2002 NLSY sample; 441 were in the 1979-2008 NLSY sample; and 224 were in the 1984-1996 PSID sample.²⁹

Methods and Measures

I use logistic regression to predict whether bankrupters file for Chapter 13 or Chapter 7 bankruptcy. My outcome variable across all models is *Chapter 13 bankruptcy* (0=Chapter 7; 1=Chapter 13). I am primarily interested in whether the respondent's sex, race, ethnicity, and income-level dictate the type of bankruptcy that they file for. In the NLSY samples, I include measures of *sex* (0=male; 1=female), *race* (0=not black; 1=black), and *ethnicity* (0=not Hispanic; 1=Hispanic origin), but in the PSID sample I include only sex and race measures because I do not analyze the PSID Hispanic/Latino oversample. For the NLSY data, I use a respondent's *total earnings* from wages and salary as my income measure. For the PSID data, I use the respondent's *total household income*, which includes wages and salaries of the head of the household and his or her spouse. All earnings variables are in 2008 dollars.

The control variables for this analysis incorporate demographic, employment, health, and family differences (Kenworthy 2007; Leicht 2008). I control for the respondent's *age* measured at each year and I include *age squared* in order to account for any non-linear relationship

²⁹ These subsamples include fewer bankrupters than the samples I used to provide descriptive statistics in Tables 4.1-4.5 because I also removed cases with missing data related to other predictor variables in the model.

between age and my outcome variables.³⁰ In the NLSY data, I measure *education* as the number of completed years of schooling because this is how the NLSY measures education level. In the PSID data, I use a categorical education variable to indicate whether the respondent did not complete high school, obtained a high school degree, attended some college, or completed a college degree or higher. I also control for *presence of children*. Because few respondents have more than four children, I use an indicator variable for whether any children were present in the home, instead of measuring it as a continuous variable.

In addition I control for whether the respondent experienced an adverse event in the year prior to bankruptcy. The three adverse event variables that I test are *loss of employment*, *loss of a partner (marital dissolution)*, and *new health limitations*. I created these variables based on employment, marital status, and health measures available in the NLSY and PSID. A respondent experiences an adverse event if he or she was employed, married, or without health limitations at the previous data point, but unemployed or out of the labor force, divorced, separated, or widowed, or with a health limitation at this data point. Thus, each of these variables describes a change in one of these statuses at that time point and picks up on the timing of the adverse event.

In the 1985-2002 NLSY sample I am also able to include indicators for the respondent's total debt burden at the time of bankruptcy, as measured by the *debt-to-earnings ratio*--a ratio of total debt to total earnings, measured in 2008 dollars. I also control for *home ownership* in both datasets because it can deter bankruptcy filing (Domowitz and Sartain 1999).

Because local conditions, such as the availability of bankruptcy lawyers and information, can affect a bankrupter's chapter choice, I incorporate additional controls for regional variation in *bankruptcy filing rates*, *exemption levels*, and *unemployment rates*. I include variables for the county-level unemployment rate and the state-level bankruptcy filing rate per 1,000 adults in the population for each respondent and each year. I also control for two state-level legal framework measures that relate to creditors and debtors: the legal interest rate and homestead and property exemptions, which permit debtors to protect certain assets from creditors (National Association of Credit Management 2007).³¹

³⁰ I only include this variable in models based on PSID data. In the NLSY restricted sample from 1985-2002 the age range of respondents is truncated between 20 and 43 years. Due to the small age range the quadratic age term was not statistically significant, and I do not include it.

³¹ I include a detailed description of these data in Chapter 3 and in Appendices A and B.

Findings for Bankruptcy Chapter

My analyses of the full samples showed few significant race and sex differences in the probability of filing for bankruptcy, once I controlled for debt burden.³² Among bankrupters, however, race and sex were significant predictors of bankruptcy chapter. Tables 4.6, 4.7, and 4.8 depict the results from multivariate logistic regressions predicting Chapter 13 bankruptcy in the NLSY and PSID. Within each table, Model 1 includes only the race and sex predictor variables, Model 2 adds adverse events and time-varying control variables, Model 3 adds labor market and debt burden variables, and Model 4, the full model, also includes state-level variables.

Table 4.6 Logistic Regression Predicting Chapter 13 Bankruptcy at Time t Using NLSY Data, 1985-2002

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Intercept	-1.026***	(.143)	-.965***	(.188)	-.950***	(.192)	-.963***	(.204)
<i>Time-invariant Variables</i>								
Female	-.506†	(.283)	-.589*	(.296)	-.587†	(.303)	-.705*	(.314)
Black	1.440***	(.416)	1.417***	(.424)	1.329**	(.442)	1.315**	(.465)
Hispanic	.380	(.566)	.350	(.570)	.461	(.585)	.582	(.604)
<i>Adverse Events</i>								
Loss of Employment					-.417	(.829)	-.521	(.851)
Divorce, Separation, Widowhood					.808	(.508)	.762	(.521)
Recent Health Limitation					.106	(.610)	.107	(.625)
<i>Labor Market and Debt Burden</i>								
Any Time Looking for Work					-.105	(.407)	-.085	(.419)
Debt to Earnings Ratio, Logged					-.006	(.055)	-.014	(.056)
Home Owner					.740*	(.356)	.820*	(.372)
<i>Time-varying Control Variables</i>								
Age ¹			.004	(.029)	-.016	(.031)	-.031	(.037)
Cumulative Number of Jobs			-.012	(.027)	-.004	(.028)	-.007	(.029)
Any Children			.183	(.309)	.042	(.324)	.065	(.335)
Years of Schooling Completed			.105	(.087)	.106	(.089)	.106	(.090)
<i>Time and Region Variables</i>								
Unemployment Rate (Percent)							-.024	(.057)
Personal Bankruptcy Filing Rate/1,000							.025	(.083)
Interest Rate (Percent)							.017	(.057)
Exemption-level (Ref: Federal Exemption-level)								
Minimal Exemption							-.202	(.539)
Below Federal Exemption							-1.223*	(.620)
Above Federal Exemption							-.441	(.560)
Unlimited Exemption							-.671	(.576)
AIC	310		316		320		328	
BIC	324		345		370		403	

Source: NLSY 1979 Cohort, 1985-2002. N = 271 bankrupters

Notes: All continuous and categorical variables are mean centered.

*** p<.001, ** p<.01, * p<.05, † p<.1

³² See Chapter 5 for more details.

Table 4.7 Logistic Regression Predicting Chapter 13 Bankruptcy at Time t Using NLSY Data, 1979-2008

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Intercept	-.944***	(.108)	-.985***	(.161)	-.904***	(.164)	-.987***	(.181)
<i>Time-invariant Variables</i>								
Female	-.098	(.217)	-.120	(.225)	-.185	(.242)	-.201	(.246)
Black	1.218***	(.292)	1.209***	(.295)	1.130***	(.302)	1.041***	(.311)
Hispanic	.184	(.499)	.189	(.500)	.265	(.511)	.239	(.522)
<i>Adverse Events</i>								
Loss of Employment					-.061	(.697)	-.074	(.701)
Divorce, Separation, Widowhood					.329	(.432)	.406	(.436)
Recent Health Limitation					.439	(.487)	.337	(.491)
<i>Labor Market and Debt Burden</i>								
Any Time Looking for Work					.043	(.297)	.026	(.301)
Earnings					-.004	(.005)	-.005	(.005)
Home Owner					.647*	(.261)	.599*	(.266)
<i>Time-varying Control Variables</i>								
Age			.005	(.027)	-.009	(.029)	-.023	(.032)
Age Squared			.000	(.002)	.000	(.002)	.001	(.002)
Cumulative Number of Jobs			.001	(.017)	-.001	(.018)	-.004	(.018)
Any Children			.110	(.236)	-.005	(.245)	-.019	(.249)
Years of Schooling Completed			-.005	(.060)	.009	(.061)	-.001	(.061)
<i>Time and Region Variables</i>								
Unemployment Rate (Percent)							-.007	(.050)
Personal Bankruptcy Filing Rate/1,000							.062	(.047)
Interest Rate (Percent)							.011	(.043)
Exemption-level (Ref: Federal Exemption-level)								
Minimal Exemption							-.099	(.381)
Below Federal Exemption							-.316	(.427)
Above Federal Exemption							-.145	(.416)
Unlimited Exemption							.347	(.418)
AIC	518		528		532		542	
BIC	535		565		594		632	

Source: NLSY 1979 Cohort, 1979-2008. N = 441 bankrupters

Notes: All continuous and categorical variables are mean centered.

*** p<.001, ** p<.01, * p<.05, † p<.1

Table 4.8 Logistic Regression Predicting Chapter 13 Bankruptcy at Time t Using PSID Data, 1984-1996

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Intercept	-.958***	(.193)	-1.157***	(.236)	-1.341***	(.263)	-1.432***	(.281)
<i>Time-invariant Variables</i>								
Female	.377	(.482)	.416	(.519)	1.000	(.700)	1.551*	(.718)
Black	1.427**	(.476)	1.406**	(.487)	1.222*	(.510)	1.332**	(.501)
<i>Adverse Events</i>								
Loss of Employment					-2.966*	(1.211)	-3.238*	(1.302)
Divorce, Separation, Widowhood					-.259	(.815)	-.441	(.856)
Recent Health Limitation					-.864	(1.105)	-.781	(1.193)
<i>Labor Market and Debt Burden</i>								
Total Household Earnings ¹					.001	(.007)	.007	(.008)
Home Owner					.941†	(.484)	.893†	(.505)
<i>Time-varying Control Variables</i>								
Age			.026	(.026)	.019	(.028)	.022	(.029)
Age Squared			-.001	(.001)	-.001	(.001)	.000	(.001)
Any Children			.784	(.484)	.888†	(.465)	1.128*	(.497)
<i>Education (Ref: HS Diploma)</i>								
Less than High School			-.170	(.515)	-.111	(.555)	.273	(.582)
Some College			.003	(.801)	.093	(.827)	.048	(.725)
BA or Higher			-15.90***	(.667)	-16.20***	(.953)	-16.85***	(1.408)
<i>Time and Region Variables</i>								
Unemployment Rate (Percent)							-.068	(.068)
Personal Bankruptcy Filing Rate/1,000							-.277*	(.128)
Interest Rate (Percent)							-.064	(.089)
<i>Exemption-level (Ref: Federal Exemption-level)</i>								
Minimal Exemption							-.511	(.839)
Below Federal Exemption							.084	(.804)
Above Federal Exemption							-.325	(.806)
Unlimited Exemption							-1.081	(.913)
<i>Source:</i> PSID 1984-1996. N = 224 bankrupters								
<i>Notes:</i> All models incorporate PSID sampling weights. Due to the use of sampling weights, models were estimated using a quasibinomial distribution, not full maximum likelihood estimation.								
<i>Notes:</i> All continuous and categorical variables are mean centered.								
*** p<.001, ** p<.01, * p<.05, † p<.1								

Comparing the intercept coefficients for the full models in Tables 4.6 and 4.7 to Table 4.8 shows a different representation of Chapter 13 bankrupters in the NLSY and PSID samples. When I held all predictor variables at their means, the predicted probability of the average bankrupter choosing Chapter 13 in the NLSY was about 27 percent, but in the PSID it was about 19 percent.³³ However, descriptive statistics (Table 4.4) and models without any predictor variables (not shown) indicated closer percentages of bankrupters filing for Chapter 13 across samples; 27 percent in the NLSY samples and 23 percent in the PSID sample.

³³ Predicted probabilities can be obtained using intercept and coefficients within the inverse logit formula: $(1/(1+\exp(-x)))$. In my models all variables, including categorical ones, are mean centered. Therefore, the intercept coefficient represents the probability of Chapter 13 bankruptcy for the average bankrupter in each sample.

Across these models the effects of one variable truly stand out. In all three samples, black bankrupters were far more likely than white bankrupters to file for Chapter 13 bankruptcy, net of multiple labor market, demographic, and state-level control variables. The inclusion of additional covariates across models decreased the magnitude of this coefficient, but not by much. As seen in Model 4 in Tables 4.6-4.8, the predicted probability of the average black bankrupter declaring Chapter 13 bankruptcy was 25 to 30 percentage points higher than the average white bankrupter, net of multiple control variables. This finding suggests that black bankrupters face additional disadvantages and receive less favorable bankruptcy terms.

My findings for sex differences in bankruptcy chapter were inconsistent. In the 1985-2002 NLSY sample (Table 4.6), female bankrupters were less likely than male bankrupters to file for Chapter 13 bankruptcy. The average probability was about 17 percentage points lower for females in this sample. Regression results from my larger NLSY sample (Table 4.7), showed no statistically significant differences between males and females. Females in the PSID sample (Table 4.8), however, were *more likely* than males to file for Chapter 13 bankruptcy once other covariates were controlled for. These different findings for the NLSY and PSID samples could relate to the unit of analysis in the samples. As also described in Table 4.2, female householders are underrepresented in the PSID because these data are collected at the household level and interviewers often take the male to be the head of the household.

As expected, homeowners were more likely to choose Chapter 13 bankruptcy over Chapter 7 in order to keep their homes in all samples. Surprisingly, however, income was not a statistically significant predictor of bankruptcy chapter. If the bankruptcy system works as Congress intended it to, Chapter 13 bankrupters should earn more than Chapter 7 bankrupters (Warren and Westbrook 2009). Although income did not influence bankruptcy choice in my samples, employment was important in the PSID sample. PSID bankrupters who experienced a loss of income in the previous year were more likely than bankrupters without employment interruptions to file for Chapter 13 bankruptcy (Table 4.8). This finding supports the notion that Chapter 13 bankruptcy is intended for bankrupters with continuous employment, regardless of their income (Warren and Westbrook 2009).

My analysis of the PSID data presented in Table 4.8 also showed several additional significant relationships. The presence of children in the household and the attainment of a college education or higher were positively associated with Chapter 13 bankruptcy. In fact, the

coefficient for obtaining a BA or higher was so large that the predicted probability of filing for Chapter 13 was close to zero for highly educated bankrupters. Finally, the state-level bankruptcy filing rate was negatively associated with this outcome in the PSID. In states where more people are filing for bankruptcy, individuals could potentially have more access to information about bankruptcy, leading them to choose the chapter with more favorable discharge terms.

Discussion

My intent in this chapter was to address variation among bankrupters and to provide an overview of “the life of a bankrupter” by describing bankrupters’ demographics, earnings, debt burden, and experience of adverse events within my data. I also compared bankrupters in the NLSY and PSID to those in the Consumer Bankruptcy Project in order to assess the reliability of my samples. I found many similarities for bankrupters in these datasets. Across samples, bankrupters earned slightly less, had higher debt burdens, and were more likely than non-bankrupters to have experienced adverse events. However, bankrupters generally resembled non-bankrupters demographically.

In addition to this overview, I investigated differences among bankrupters by bankruptcy chapter in the NLSY and PSID. Although there were few race, sex, and age differences between bankrupters and people who have not declared bankruptcy, there were consistent race gaps by bankruptcy type among bankrupters (Tables 4.5-4.8). Cohen and Lawless (2012) have suggested that such discrepancies could be influenced by attorneys who might steer African Americans toward Chapter 13 more than whites, as well as by the market segmentation of attorneys, where those who specialize in Chapter 13 bankruptcy market their services in African American communities more often than in white communities. African Americans could also simply be choosing Chapter 13 bankruptcy more often because they prefer debt repayment. Whether these race discrepancies stem from discrimination or individual choice, my findings show that African Americans face additional costs in bankruptcy.

Despite the small sample sizes, this race finding has strong implications for the relationship between bankruptcy and cumulative disadvantage. In their analysis of bankrupters by chapter choice, Cohen and Lawless (2012:188-89) described Chapter 13 bankruptcy as “less forgiving.” Chapter 13 bankruptcy costs more in court and attorney fees than Chapter 7 (Lupica 2011). Chapter 13 bankrupters also do not receive any debt discharge until 3 to 5 years later once

they have repaid a certain amount of their debt (Warren and Westbrook 2009). When certain disadvantaged groups, in particular African Americans, continually face extra burdens in bankruptcy, their situations are likely to diverge from those of more advantaged groups, leading to the accumulation of disadvantage.

My findings in this chapter describe some of the commonalities in bankruptcy, but they also indicate that bankruptcy outcomes vary across groups. Most bankrupters appear to be individuals with large debt burdens who face certain adverse events. Once bankrupters are disaggregated by chapter choice, however, differences emerge by race. In the following chapters I apply various fixed effects regression techniques to the NLSY and PSID data to explore these differences and isolate the causes and consequences of bankruptcy.

CHAPTER 5: WHAT LEADS PEOPLE INTO BANKRUPTCY?

Are bankrupters “deadbeats” trying to “game the system,” as Senator Grassley (2001:S7548) argued, or are they “hard-working, play-by-the-rules” people who have faced adverse events, as Senator Durbin (2005:S1823) asserted? This question illustrates the continuing Congressional debate over whether bankruptcy filings result more from irresponsibility or from misfortune (Warren and Westbrook 2009). Research from the Consumer Bankruptcy Project (CBP) indicates that bankruptcy is a result of the latter, but creditor advocates still argue for the former. In this chapter, I seek to replicate the CBP findings using two longitudinal datasets. I first discuss how this project extends previous research related to the predictors of bankruptcy. I then describe the data and methods that I use in these analyses and outline my hypotheses and measures. Finally, I discuss the results from this part of my analysis, which addresses the causes of bankruptcy.

Predictors of Bankruptcy

I focus on determinants of bankruptcy in this chapter in order to assess the generalizability of previous studies that concluded that certain hardships increase the risk of bankruptcy (Sullivan, Warren, and Westbrook 1989, 2000). Among three waves of bankrupters, Sullivan, Warren, and Westbrook (1989, 2000) found that job and income loss, marital dissolution, and illness were the most consistent predictors of filing. However, their work has limitations. Critics have argued that their earlier studies were not nationally representative, studied only people who have declared bankruptcy, and confounded bankruptcy petitions with bankruptcy petitioners (Girth 1989; Chapman 2002). The most recent wave of the CBP was based on a national random sample, but consisted of a cross-sectional sample of bankrupters, collected in the year of bankruptcy (Lawless et al. 2008). My analysis avoids some of these problems because I analyze two nationally representative samples that include non-bankrupters as well as bankrupters who were surveyed both before and after they declared bankruptcy.

Caputo (2008) also analyzed predictors of bankruptcy using NLSY data. My analysis extends his findings by using stricter models and including debt and asset variables. Caputo used single year information to predict whether or not a respondent declared bankruptcy in each year from 1986 to 2004. I use fixed effects models to create a combined longitudinal model across

years and to control for unobserved individual effects. My analyses incorporate temporal order by observing predictor variables one year before outcome variables, which Caputo's did not. I also focus on an individual's debt-to-earnings relationship, not just his or her earnings.

As part of a quantitative replication of the CBP and an extension of Caputo's (2008) analysis, I address several related research questions: What leads people into bankruptcy? Do adverse events of job and income loss, illness, and divorce predict bankruptcy, as findings from the Consumer Bankruptcy Project suggest? How do levels of debt affect the timing of bankruptcy? Do local bankruptcy laws and bankruptcy filing rates foster additional bankruptcy filings by reducing its stigma? In general, I focus on how adverse events, earnings, debt, and debt burden affect an individual's probability of declaring bankruptcy. I also place these measures in context by investigating how state-level filing rates and exemption levels affect bankruptcy.

Data and Methods

I include both the NLSY and PSID datasets in this analysis, but I rely primarily on the NLSY sample from 1985-2002 because these data allow me to control for an individual's debt burden, but the full NLSY sample and the PSID data do not. After dropping respondents not interviewed in 2004 or 2008, observations with missing data, and individuals with fewer than two observations, I obtained a longitudinal sample of 4,332 cases (i.e., individuals) and 37,133 observations (i.e., person years) spanning from 1985-2002 for the NLSY data.³⁴ After dropping respondents who were not heads of their household, observations with missing data, and individuals with fewer than two observations, I obtained a sample of 6,818 cases (i.e., household heads) and 57,523 observations (i.e., person years) spanning from 1985-1996 for the PSID data.

I use fixed effects conditional logit models to determine the probability of declaring bankruptcy in conjunction with a set of covariates (Allison 2005; Box-Steffensmeier and Jones 2004). In the case of dichotomous outcomes, fixed effects models are referred to as discrete-time event history models because the data are observed yearly (or bi-yearly in certain cases) and grouped into discrete intervals. These are the same as conditional logit models because the data are grouped within the individual and the likelihood is estimated conditional on that grouping

³⁴ Because fixed effects estimates require within-individual variation, I dropped respondents who were interviewed only once after dropping cases with missing data. I therefore have an unbalanced panel dataset with two to twenty-three observations for each individual.

(Box-Steffensmeier and Jones 2004). This model is represented by Equation 5.1, written in terms of probability:

$$\log\left(\frac{\Pr(y_{it} = 1)}{1 - \Pr(y_{it} = 1)}\right) = \alpha_i + \beta x_{i(t-1)} + \varepsilon_{it} \quad (5.1)$$

where i indexes the individual respondent and t indexes yearly observations per individual (person year). And where α_i controls for the average differences across individuals in any unobservable time-invariant characteristics, $\beta x_{i(t-1)}$ represents the coefficients and predictor variables, and ε_{it} is the error term. In all analyses I also apply robust standard errors to account for clustering around the individual in the data.

In order to ensure that adverse events precede bankruptcy and to control for a person's earlier labor market situation, I estimate models that incorporate a time lag between my predictor and outcome variables. Thus, I use debt burden and adverse events at time $t-1$ to predict whether the respondent declared bankruptcy at time t . All predictor variables are separated from the outcome variables by one to two years. In analyses with NLSY data, the time lag becomes two years because after 1994, NLSY data were collected biennially.³⁵

Controlling for fixed effects removes bias that can result through selection into bankruptcy based on stable, individual characteristics (Allison 1994). Because these models rely on within-person variation, I am able to control for time-invariant individual-level characteristics that affect a respondent's propensity for declaring bankruptcy. However, fixed effects models require variation within the individual across the outcome variable; therefore, individuals who were never bankrupt are dropped from the analysis because there is no within-person variation (Allison 2009). Omitting never-bankrupt respondents leads to larger standard errors because I am not using the between-person variation in the data. Nevertheless, I rely on fixed effects conditional logit models because other methods cannot control for unmeasured, time-invariant explanatory variables like these models do.

³⁵ I estimated models including a dichotomous variable indicating whether there was a one-year or two-year time lag. Because year is strongly correlated with the one- or two-year lag variable, this lag indicator variable was statistically significant only when I did not include an age or time variable as well.

Hypotheses and Measures

I test a set of hypotheses related to labor market predictors of bankruptcy and additional control variables. I describe these hypotheses and measures below. Tables 5.1 and 5.2 also present descriptive statistics by bankruptcy status for the predictor and outcome variables for the most recent year of data in each dataset: 2000 for predictor variables in the NLSY and 1995 for predictor variables in the PSID.

Table 5.1 Descriptive Statistics of NLSY Variables for 2000/2002 by Bankruptcy Status

	Total Respondents	Never Bankrupt	Ever Bankrupt
N individuals	2,707	2,412	295
Outcome Variable (2002)			
Bankruptcy in that Year	1.7	*	15.3
Predictor Variables (2000)			
<i>Adverse Events</i>			
Any Adverse Event	17.8	17.0	24.4
Loss of Employment	1.8	1.7	2.7
Divorce, Separation, Widowhood	5.4	5.3	6.1
Recent Health Limitation	7.1	6.7	9.8
<i>Labor Market and Debt Burden</i>			
Total Individual Earnings (mean dollars)	\$35,319	\$35,812	\$31,292
Total Household Earnings (mean dollars)	\$58,701	\$59,735	\$50,252
Total Debt (mean dollars)	\$61,942	\$62,613	\$56,454
Net worth (mean dollars)	\$113,932	\$124,857	\$57,431
Home Owner	64.9	65.8	57.3
<i>Time-varying Control Variables</i>			
Age	38.8	38.8	38.8
Cumulative Number of Jobs (mean number)	10.7	10.5	12.5
Any Children	65.4	65.0	68.5
Years of Schooling Completed	13.3	13.3	12.7
Time and Region Variables			
Unemployment Rate (mean percent)	4.3	4.3	4.5
Personal Bankruptcy Filing Rate (mean rate per 1,000)	5.8	5.7	6.0
State Interest Rate (mean percent)	7.7	7.7	8.0
State Bankruptcy Exemption Level			
Minimal (Below 50% Federal Level)	42.1	42.6	38.6
Below (50-100% Federal Level)	15.3	15.6	12.5
Average (100-200% Federal Level)	10.5	10.3	12.2
Above Average (Above 200% Federal Level)	17.7	17.2	21.4
Unlimited Exemptions	14.3	14.2	15.3
<i>Source: NLSY 1979 Cohort, 1985-2002</i>			
<i>Notes: All values are given as percentages unless otherwise specified.</i>			
<i>Bankrupter category includes all respondents who declared bankruptcy by 2002.</i>			

Table 5.2 Descriptive Statistics of PSID Variables for 1995/1996 by Bankruptcy Status

	Total Respondents	Never Bankrupt	Ever Bankrupt
N individuals	6,383	6,018	365
Outcome Variable (1996)			
Bankruptcy in that Year	0.1	*	1.4
Predictor Variables (1995)			
<i>Adverse Events</i>			
Any Adverse Event	10.4	10.2	12.9
Loss of Employment	2.0	1.9	3.6
Divorce, Separation, Widowhood	1.8	1.7	2.7
Recent Health Limitation	5.0	5.0	4.4
<i>Labor Market and Debt Burden</i>			
Total Individual Earnings (mean dollars)	\$32,869	\$32,966	\$31,272
Total Household Earnings (mean dollars)	\$44,170	\$44,320	\$41,692
Home Ownership	59.7	60.3	50.1
<i>Time-varying Control Variables</i>			
Age	45.7	45.9	42.1
Any Children	47.1	46.4	58.9
Educational Attainment			
Less than High School	26.2	26.4	22.7
High School Diploma	54.2	53.4	67.9
Some College	11.7	12.0	5.8
BA or Higher	7.9	8.2	3.6
Health Limitations	19.8	19.7	21.4
Health Limitations Wife	7.3	7.0	11.5
Miss Work for Other Family Member's Illness	11.6	11.3	16.7
Time and Region Variables			
Unemployment Rate (mean percent)	5.8	5.8	5.9
Personal Bankruptcy Filing Rate (mean rate per 1,000)	4.4	4.4	4.2
State Interest Rate (mean percent)	7.9	7.9	8.0
State Bankruptcy Exemption Level			
Minimal (Below 50% Federal Level)	44.5	44.6	42.2
Below (50-100% Federal Level)	13.7	13.6	15.9
Average (100-200% Federal Level)	4.5	4.5	5.8
Above Average (Above 200% Federal Level)	18.3	18.4	16.7
Unlimited Exemptions	19.0	19.0	19.5

Source: PSID, 1984-1996.

Notes: All values are given as percentages unless otherwise specified.

Bankrupter category includes all respondents who declared bankruptcy by 1996.

Outcome Variable

I use whether or not the respondent or the respondent's spouse declared bankruptcy in a particular interview year (0=did not declare bankruptcy; 1=did declare bankruptcy) as my primary outcome variable.³⁶ As reviewed in Chapter 3, 15.2 percent of respondents in the NLSY and 6 percent of respondents in the PSID declared bankruptcy at some point, but the number of bankruptcies in these datasets varied across years and samples. Within the edited and restricted

³⁶ Since interviewers only asked respondents about when they declared bankruptcy in the 2004 and 2008 waves of the NLSY and in 1996 wave of the PSID, I recoded this variable to each interview year using the year and month when the respondent declared bankruptcy. If he or she declared bankruptcy in the same year as the interview, but after the month that the interview occurred, I recorded that bankruptcy in the next interview year.

NLSY sample that I use in this analysis, 295 or 10.8 percent of respondents declared bankruptcy by 2002 (Table 5.1). Within the edited PSID sample, 365 or 5.7 percent of respondents declared bankruptcy by 1996 (Table 5.2). Due to missing data in different years these estimates are slightly larger than the yearly observed bankruptcies in the datasets. I was able to observe 271 bankruptcies between 1985 and 2002 in the NLSY data, and between 1984 and 1996 in the PSID data, I observed 224 bankruptcies within the year that they occurred.

Adverse Events

My primary predictor variables describe adverse events that took place in a particular year. Although I generally measure predictor variables in the period prior to bankruptcy (time $t-1$), I also test for whether the experience of adverse events was associated with bankruptcy in the same time period (time t). The three adverse event variables that I test are *loss of employment*, *loss of a partner (marital dissolution)*, and *new health limitations*. A respondent experiences an adverse event if he or she was employed, married, or without health limitations at the previous data point, but unemployed, no longer married, or with a health limitation at this data point. Thus, each of these variables describes a change in one of these statuses at that time point and picks up on the timing of the adverse event. More NLSY than PSID respondents experienced a recent adverse event (Tables 5.1 and 5.2).

I created these variables based on employment, marital status, and health measures available in the NLSY and PSID. I calculated job loss based on the respondent's employment status. Employment status is defined as employed, unemployed, or out of the labor force in both datasets. Marital status indicates whether the respondent was married, formerly married (separated, divorced, or widowed), or never married prior to bankruptcy. I use the category of "formerly married" because marital dissolution through separation, divorce, or widowhood often has similar economic consequences for women (Smock, Manning, and Gupta 1999).

In the NLSY data, health limitations are self reported and described by two binary variables: whether a respondent's health limited the amount of work or limited the kind of work he or she could engage in. I combine these two variables into one summary variable called health limitations (Table 5.1). The PSID offers several additional measurements of health status (Table 5.2). These measurements include binary variables indicating whether or not the head of the household had health limitations or a disability, and whether or not he or she missed work due to

personal illness or due to the illness of others. The survey also included the same measures for the wife of the head of the household. Corresponding to findings from the CBP, I expect that (1) *adverse events of job loss, medical problems, and marriage dissolution will increase an individual's probability of filing for bankruptcy.*

Sullivan, Warren, and Westbrook (1989, 2000), Fay, Hurst, and White (2002), and Han and Li (2007) confirm the relationship between divorce and bankruptcy, but some studies question the predictive strength of marital dissolution. In his longitudinal study of bankruptcy from 1986 through 2000, Caputo (2008) found that marital status was not a strong predictor for bankruptcy across the 14 years. His findings showed associations for only 8 of the 14 years of interest; however, within years that exhibited significant relationships, formerly married individuals had the highest likelihood of declaring bankruptcy, followed by married, and then never-married individuals (Caputo 2008:26). Additionally, Fisher and Lyons (2006) found that once they controlled for endogeneity in their data, the relationship between divorce and bankruptcy disappeared. Aggregate trends in divorce and bankruptcy filings are also not highly correlated (White 2007a).³⁷ In this case the effect of a change in marital status on bankruptcy may be mediated by the accompaniment of a loss of income.

Labor Market and Debt Burden Predictors of Bankruptcy

Findings from the Consumer Bankruptcy Project demonstrate that bankruptcy is often linked to changes in a person's labor market situation (Sullivan et al. 1989, 2000). In my data, bankrupters also tend to earn less than non-bankrupters (Tables 5.1 and 5.2). Therefore, I test for a relationship between labor market status indicators and bankruptcy filing. I expect that (2) *labor market status indicators will be associated with bankruptcy filing, where job loss, underemployment, and low-income work lead to bankruptcy for individuals.* If the data support these hypotheses and a process of cumulative disadvantage operates across markets, employment variables will be significant predictors of bankruptcy net of other control variables.

I use measures of the respondent's *earnings* to test this relationship, net of any effect of the adverse event of job loss. For the NLSY data, I use a respondent's total earnings from wages and salary. Because the PSID data are collected at the household level, I use the respondent's

³⁷ These trends, however, may not match up due to omitted variables, in particular the labor market and adverse event variables important to the research of Sullivan, Warren, and Westbrook (1989, 2001).

total earnings from wages and salary combined with the respondent's spouse's total earnings from wages and salary in order to account for additional household income that may affect the household's bankruptcy decision. All earnings variables are in 2008 dollars.

In addition to earnings, debt levels can predict bankruptcy filing. Bankrupters in the Consumer Bankruptcy Project accumulated large debt burdens (Sullivan et al. 1989, 2000; Lawless et al. 2008). In my samples, bankrupters immediately prior to bankruptcy have debt levels about twice that of non-bankrupters (Table 4.1). In addition, using data from the Survey of Consumer Finances (SCF), Dynan and Kohn (2007) showed that the likelihood of missing payments strongly correlated with the amount of debt held.

Although bankrupters tend to accumulate large debt burdens, debt and bankruptcy are not always connected. Characteristics of bankrupters in the population do not mirror characteristics of debtors. Overall debt usage increases with age, education, and home ownership (Dynan and Kohn 2007; Fay, Hurst, and White 1998); however, previous analyses describe debt constrained households as younger, less well educated, and less likely to own their home (Crook 2001). When looking at bankrupters, these individuals are more often than not middle class individuals because the ability to accumulate debt depends on access to credit, which depends on income (Sullivan et al. 2000). For these reasons, I expect that *(3) debt will interact with income when predicting bankruptcy filing*. Individuals with high levels of debt and low levels of income should be more likely to file for bankruptcy than individuals with high levels of debt and high levels of income or individuals with low levels of debt and low levels of income.

For analyses on the 1985-2002 NLSY data, I test models that include measures of *total debt burden* based on mortgage debt, automobile debt, property debt, and "other debt." Mortgage debt refers to money owed on a home mortgage, while property debt refers to any money owed for additional property loans. Automobile debt refers to money owed on automobile loans. The survey defines "other debt" as any additional debts over five hundred dollars. The "other debt" variable could potentially refer to credit card and medical debt, both of which can lead individuals to file for bankruptcy (Domowitz and Sartain 1999; White 2007a).

Additionally, I test a summary variable for the respondent's *total net worth* in certain NLSY models. The survey calculates net worth by subtracting the respondent's total debts from the total value of all assets. All debt and asset variables are measured in 2008 dollars. I also control for *home ownership* as a binary variable in both datasets because it apparently deters

bankruptcy filing, since bankrupters were less likely to be home owners in the NLSY and PSID data (Tables 5.1 and 5.2).

Bankruptcy Laws and Context

As a final step for certain models, I incorporate additional controls for regional variation in *bankruptcy filing rates, legal interest rates, exemption levels, and unemployment rates*. I include variables for the county-level unemployment rate and the state-level bankruptcy filing rate per 1,000 adults in the population for each respondent and each year. I also control for the legal interest rate and homestead and property exemptions, which permit debtors to protect certain assets from creditors (National Association of Credit Management 2007).³⁸ Across samples, the average bankruptcy, interest, and unemployment rates in states of residence were similar for bankrupters and non-bankrupters (Tables 5.1 and 5.2).

Many standard economic bankruptcy models argue that debtors respond to financial incentives of bankruptcy, but research on this topic has produced inconsistent findings. Models of bankruptcy filings using PSID data predicted that families would be more likely to file for bankruptcy when their financial benefit from filing was higher and when the stigma related to bankruptcy filing decreased (Fay, Hurst, and White 1998, 2002; Han and Li 2007).³⁹ Other studies comparing filers across states showed similar proportions of Chapter 13 bankruptcies across high- and low-exemption level states, which contradict the finding in PSID data (Sullivan, Warren, and Westbrook 1994). In light of these discrepancies, I expect that *(4) counties with high unemployment rates will have a higher rate of bankruptcy filing, and living in one of these counties will increase an individual's risk and probability of filing for bankruptcy*. I also expect that *(5) states with a higher bankruptcy filing rates and more generous exemption-levels will foster additional bankruptcy filings by decreasing the stigma*.

Time-Varying Control Variables

The control variables for this analysis incorporate demographic, employment, health, and family differences, variables researchers commonly control for in studies of employment and

³⁸ I include a detailed description of these data in Chapter 3 and in Appendices A and B.

³⁹ Fay, Hurst, and White (1998, 2002) calculated financial benefit through the comparison of state exemption levels and individual assets and based stigma in the aggregate bankruptcy filing rates. In analyses that include asset data, I use similar measures of financial benefit, but in analyses without these data, I rely on state exemption levels.

earnings inequality (*see, e.g., Kenworthy 2007; Leicht 2008*). According to previous research, increases in age, income, and education reduce the probability of filing for bankruptcy (Fay, Hurst, and White 1998; Dynan and Kohn 2007; Han and Li 2007). Therefore, I control for the respondent's *age* measured at each year and I include *age squared* in order to account for any non-linear relationship between age and my outcome variables.⁴⁰ In the NLSY data, I measure *education* as the number of completed years of schooling because this is how the NLSY measures education level. In the PSID data, I use a categorical education variable to indicate whether the respondent did not complete high school, obtained a high school degree, attended some college, or completed a college degree or higher. Having children in the household also increases the probability of becoming debt constrained (Crook 2001), making late payments (Sun and Xiao 2007), and filing for bankruptcy (Warren 2002). Because few respondents have more than four children, I use an indicator variable for whether *children were present in the home*, instead of measuring it as a continuous variable. In my datasets bankrupters tended to earn less and obtained less education than non-bankrupters; however, they were more likely to have children (Tables 5.1 and 5.2).

Overall, theories of cumulative disadvantage predict that individuals who lack income and experience adverse events will be more likely to face disadvantage later on compared to individuals who start off in better situations. Therefore, I expect to find that labor market status indicators will be associated with bankruptcy filing, where unemployment, job loss, and low-income work lead to bankruptcy for individuals. Additionally, adverse events of job loss, medical problems, and marriage dissolution should increase an individual's probability of filing for bankruptcy, as shown by Sullivan, Warren, and Westbrook (1989, 2000). Finally, an individual's debt burden should also predict bankruptcy filing. Individuals with high levels of debt and low levels of income will be more likely to file for bankruptcy than individuals with high levels of debt and high levels of income or individuals with low levels of debt and low levels of income. As important indicators of bankruptcy, the relationship between debt and earnings strongly influences a person's risk of bankruptcy.

⁴⁰ I only include this variable in models based on PSID data. In the NLSY restricted sample from 1985-2002 the age range of respondents is truncated between 20 and 43 years. Due to the small age range the quadratic age term was not statistically significant, and I do not include it.

Results

As with most social phenomena, there are multiple predictors of bankruptcy. My analysis shows that a person's probability of bankruptcy primarily depends on his or her debt burden, along with past experiences of adverse events. But these results were not consistent across the PSID and NLSY samples.

In the following sections, I present and interpret the within-person (fixed effects) coefficients for time-varying covariates for in the NLSY and PSID analyses. Table 5.3 describes the results from regressing bankruptcy on predictor variables in the 1985-2002 NLSY data, and Table 5.4 describes the results in the 1985-1996 PSID data.

Table 5.3 Fixed Effects Regression Models Predicting Bankruptcy at Time t Using NLSY Data

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
<i>Adverse Events Time t-1</i>												
Loss of Employment	.514	(.317)	.530†	(.320)	.581†	(.320)	.549†	(.324)			.579†	(.321)
Divorce, Separation, Widowhood	.515†	(.264)	.457†	(.268)	.528*	(.266)	.525†	(.270)				
Recent Health Limitation	.171	(.309)	.211	(.313)	.125	(.318)	.128	(.320)				
<i>Adverse Events Time t</i>												
Loss of Employment									.285	(.361)		
Divorce, Separation, Widowhood									.664*	(.296)	.668*	(.296)
Recent Health Limitation									.666*	(.272)	.664*	(.272)
<i>Labor Market and Debt Burden Time t-1</i>												
Total Earnings (Thousands) ¹			.012*	(.006)	.013*	(.006)	.013*	(.006)	.015*	(.006)	.015*	(.006)
Total Debt (Thousands) ¹					.007**	(.002)	.007**	(.002)	.007**	(.002)	.007**	(.002)
Interaction: Debt and Earnings					-.0002**	(.000)	-.0002**	(.000)	-.0002**	(.000)	-.0002**	(.000)
Net worth (Thousands) ¹			-.005**	(.002)								
Home Owner			.329†	(.195)	-.301	(.267)	-.349	(.268)	-.368	(.269)	-.371	(.269)
<i>Time-varying Control Variables Time t-1</i>												
Age ¹	.167***	(.022)	.165***	(.024)	.150***	(.023)	.097**	(.032)	.098**	(.032)	.097**	(.032)
Cumulative Number of Jobs ¹	-.047	(.040)	-.049	(.040)	-.042	(.040)	-.042	(.042)	-.049	(.042)	-.046	(.042)
Any Children	.134	(.219)	.179	(.224)	.124	(.226)	.135	(.230)	.107	(.229)	.085	(.230)
Years of Schooling Completed ¹	-.035	(.158)	-.021	(.159)	-.093	(.160)	-.091	(.163)	-.067	(.161)	-.071	(.162)
<i>Time and Region Variables Time t-1</i>												
Unemployment Rate (Percent) ¹							.021	(.038)	.021	(.038)	.021	(.038)
Personal Bankruptcy Filing Rate/1,000 ¹							.213**	(.068)	.212**	(.068)	.210**	(.068)
Interest Rate (Percent) ¹							.009	(.059)	.003	(.058)	.006	(.058)
Exemption-level (Ref: Federal Exemption-level)												
Minimal Exemption							-.184	(.385)	-.211	(.386)	-.216	(.387)
Below Federal Exemption							-.101	(.338)	-.137	(.336)	-.119	(.337)
Above Federal Exemption							.107	(.330)	.085	(.332)	.082	(.332)
Unlimited Exemption							.446	(.527)	.439	(.530)	.421	(.529)
AIC	1077		1068		1065		1067		1063		1061	
BIC	1137		1153		1159		1221		1217		1214	

Source: NLSY 1979 Cohort, 1985-2002. Total N = 4,332 individuals and 37,133 observations; Model N = 271 individuals and 2,526 observations

Note: ¹Continuous variables are mean centered.

*** p<.001, ** p<.01, * p<.05, † p<.1

Table 5.4 Fixed Effects Regression Models Predicting Bankruptcy at Time t Using PSID Data

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
<i>Adverse Events Time t-1</i>								
Loss of Employment	-0.187	(.451)	-.245	(.468)	-.322	(.470)		
Divorce, Separation, Widowhood	.215	(.464)	.206	(.439)	.161	(.444)		
Recent Health Limitation	-.119	(.369)	-.177	(.365)	-.184	(.371)		
<i>Adverse Events Time t</i>								
Loss of Employment							.663	(.465)
Divorce, Separation, Widowhood							-.051	(.489)
Recent Health Limitation							.352	(.323)
<i>Labor Market and Debt Burden Time t-1</i>								
Total Earnings (Thousands) ¹			.008 [†]	(.004)	.008 [†]	(.004)	.008 [†]	(.004)
Home Owner			1.015**	(.334)	1.041**	(.338)	1.018**	(.344)
<i>Time-varying Control Variables Time t-1</i>								
Age ¹	-.006	(.030)	.000	(.030)	-.019	(.032)	-.020	(.033)
Age Squared ¹	.001	(.001)	.003*	(.001)	.003 [†]	(.001)	.003 [†]	(.001)
Any Children	.266	(.334)	.176	(.324)	.155	(.315)	.133	(.339)
Education (Ref: HS Diploma)								
Less than High School	-2.578**	(.800)	-2.531***	(.748)	-2.569***	(.702)	-2.663***	(.746)
Some College	1.280 [†]	(.769)	1.337	(.823)	1.419	(.893)	1.367	(.846)
BA or Higher	1.247	(1.387)	1.220	(1.376)	1.271	(1.402)	1.162	(1.367)
<i>Time and Region Variables Time t-1</i>								
Unemployment Rate (Percent) ¹					.034	(.034)	.032	(.033)
Personal Bankruptcy Filing Rate/1,000 ¹					.046	(.056)	.045	(.057)
Interest Rate (Percent) ¹					.052	(.039)	.054	(.038)
Exemption-level (Ref: Federal Exemption-level)								
Minimal Exemption					.064	(.390)	.052	(.384)
Below Federal Exemption					-.401	(.366)	-.438	(.364)
Above Federal Exemption					-.487	(.373)	-.458	(.372)
Unlimited Exemption					-.253	(.450)	-.255	(.442)
AIC	36193		35827		35633		35565	
BIC	36273		35926		35795		35726	
Source: PSID 1984-1996. Total N = 6,818 individuals and 57,523 observations; Model N = 222 individuals and 2,073 observations								
Notes: All models include PSID sampling weights and robust standard errors.								
¹ Continuous variables are mean centered.								
*** p<.001, ** p<.01, * p<.05, † p<.1								

Adverse Events

Surprisingly, my analyses provided only some support for my first hypothesis that predicted a relationship between adverse events and bankruptcy. In my analysis of the NLSY data (Table 5.3), the effects of adverse events varied by the type of event and the time period that it occurred in. Job loss in the previous time period ($t-1$) was generally positively associated with a respondent's probability of filing for bankruptcy. This relationship held within all models that controlled for a respondent's debt burden (Models 2-4 and Model 6).

The effects of marital dissolution and illness in the NLSY data were more varied. Divorce, separation, or widowhood in the previous time period generally increased a person's

likelihood of bankruptcy, regardless of the control variables included in the model (Models 1-4); however, the relationship between marital dissolution and bankruptcy was much stronger for a separation that occurred within the same year as bankruptcy (Models 5-6). Health limitations in the previous time period ($t-1$) were not significantly associated with bankruptcy, but when measured in the same time period (t) experiencing a new health limitation increased a respondent's probability of bankruptcy.

Although experiencing adverse events increased the probability of bankruptcy for NLSY respondents (Table 5.3), these variables did not affect bankruptcy for PSID respondents (Table 5.4). Across all models job loss, marital dissolution, and illness did not increase a PSID respondent's probability of declaring bankruptcy. Comparing Models 3 and 4 also shows that these variables were not significantly associated with bankruptcy when measured in the previous or current time period. Thus, I did not find support for hypothesis 1 in the PSID sample.

Labor Market and Debt Burden

Contradicting the expectations of my second hypothesis, earnings were positively associated with declaring bankruptcy in both samples when I did not include an interaction term with debt burden (Model 2 in Table 5.3 and Models 2-4 in Table 5.4). However, this finding does make sense since bankrupters are often middle-class individuals (Sullivan et al. 1989, 2000). Even though bankrupters may be underemployed, they are not usually the most impoverished people. Low-income individuals are not as likely to declare bankruptcy because they do not have the resources and credit necessary to accumulate large amounts of debt. Filing for bankruptcy is also an expensive process that low-income debtors are less likely to afford (Lupica 2011).

In the NLSY models total net worth decreased an individual's likelihood of filing for bankruptcy in a particular year (Model 2 in Table 5.3), but the effects of debt on bankruptcy depended on the respondent's level of earnings, as indicated by the statistically significant interaction term between these two variables (Models 3-6 in Table 5.3).⁴¹ Debt levels had a stronger association with bankruptcy for low-income respondents than for high-earners. This finding fits with CBP research that described the large debt burdens of bankrupters (Lawless et

⁴¹ This finding also indicates that the effects of earnings on bankruptcy depended on the respondent's debt levels, where the effects of earnings were less positive for people with higher debt levels and more positive for people with lower debt levels.

al. 2008). Although net worth was negatively associated with bankruptcy (Model 2 in Table 5.3), I chose to incorporate the separate debt and earnings variables along with their interaction term into my full model in order to better illustrate the relationship between both of these variables and bankruptcy.

In the PSID, home ownership was one of the few consistent predictors of bankruptcy (Table 5.4). Home ownership, perhaps an indicator of secured debt levels, was associated with a larger increase in the probability of bankruptcy in this sample. These findings, along with those related to debt, earnings, and net worth in the NLSY data, thus provide support for my third hypothesis.

Time and Region Variables

My expectations related to state characteristics were only partially confirmed by my analyses. Although the county-level unemployment rate was not associated with bankruptcy in either sample, the state-level bankruptcy-filing rate was significantly and positively associated with declaring bankruptcy in the NLSY data. Many researchers use bankruptcy filing rates as an indicator of the local stigma applied to bankrupters (Fay, Hurst, and White 1998, 2002; Han and Li 2007). As the filing rate increases, the stigma should decrease because more people are experiencing bankruptcy. These findings show that NLSY respondents were more likely to file for bankruptcy in states where the rate was higher. States with higher filing rates could also have a lower stigma for bankrupters. However, other state-level variables measuring asset exemption levels were not associated with bankruptcy in either sample, even when they were included in models without controls for the bankruptcy filing rate (not shown).

Control Variables

Although they improved the fit of the model as a whole, most control variables were not statistically significant on their own. Beyond specific adverse events and debt burden, an individual's age, which is also a proxy for year in this sample, affected the probability of filing for bankruptcy in the NLSY.⁴² In the NLSY cohort sample the majority of bankrupters (68 percent) declared bankruptcy between the ages of 30 and 40. Additionally, a higher proportion of individuals in the 30 to 40 year age range declared bankruptcy than those individuals in older and

⁴² In these data age and year are highly correlated because the NLSY follows a cohort of individuals over time.

younger age ranges. In a longitudinal cohort sample respondents mature throughout time, which means that age may also be indicative of time trends. In this sample, most respondents were in their thirties in the late 1980s and early 1990s.

Age showed a somewhat different relationship with bankruptcy in the PSID data (Table 5.4). The quadratic age term that was positively related to bankruptcy indicates that the effect of age becomes increasingly positive as the respondent's age increases. Thus, the nonlinear effect of age on the probability of bankruptcy starts out with a negative slope at young ages and becomes increasingly positive as age increases. This finding relates to the age distribution of bankrupters in the PSID. Many of the PSID bankrupters were younger than the NLSY bankrupters. Within the PSID sample 44 percent of bankrupters were in their thirties when they filed for bankruptcy, but 30 percent also filed for bankruptcy in their twenties. Having dropped out of high school decreased a respondent's probability of bankruptcy in the PSID (Table 5.4). This suggests that education, when measured by degree, could affect a respondent's likelihood of bankruptcy. PSID household heads without a formal degree might not have the information necessary to file for bankruptcy. However, this result could be influenced by the fact that respondents' education levels, as described by this categorical variable, might not vary that much over time in this sample.

In order to better summarize my findings related to the predictors of bankruptcy, I plotted the average change in the probability of declaring bankruptcy in relation to certain predictor variables for the NLSY models.⁴³ Figure 5.1 displays the average predicted change in the probability of declaring bankruptcy for NLSY respondents who lost their employment in the time period prior to bankruptcy and those who dissolved a marriage or experienced a new health limitation in the same time period as bankruptcy. It also shows the change in bankruptcy probability associated with an increase in the respondent's age and debt levels by one standard deviation for that variable, along with changes in the state-level bankruptcy filing rate. Because the effects of debt burden on bankruptcy were related to earnings, I also show the changes in the probability of bankruptcy associated with an increase in debt for low earners, average earners, and high earners.

⁴³ I did not include illustrates for the PSID data because most of my key predictor variables were not significantly related to bankruptcy for these respondents.

As Figure 5.1 shows, adverse events of job loss, divorce, and illness increased an NLSY's respondent's average probability of filing for bankruptcy by 14 to 16 percentage points. An increase in age by one standard deviation, a change of approximately 5 years, led to a 12 percentage point increase in a respondent's probability of bankruptcy. An increase in debt burden by one standard deviation, approximately \$50,000, increased the probability of bankruptcy by 15 percentage points for low earners, 9 percentage points for average earners, and 3 percentage points for high earners. Finally, an increase in the state-level bankruptcy filing rate per 1,000 adults in the population by one standard deviation increased the probability of bankruptcy by 10 percentage points for respondents living in that state.

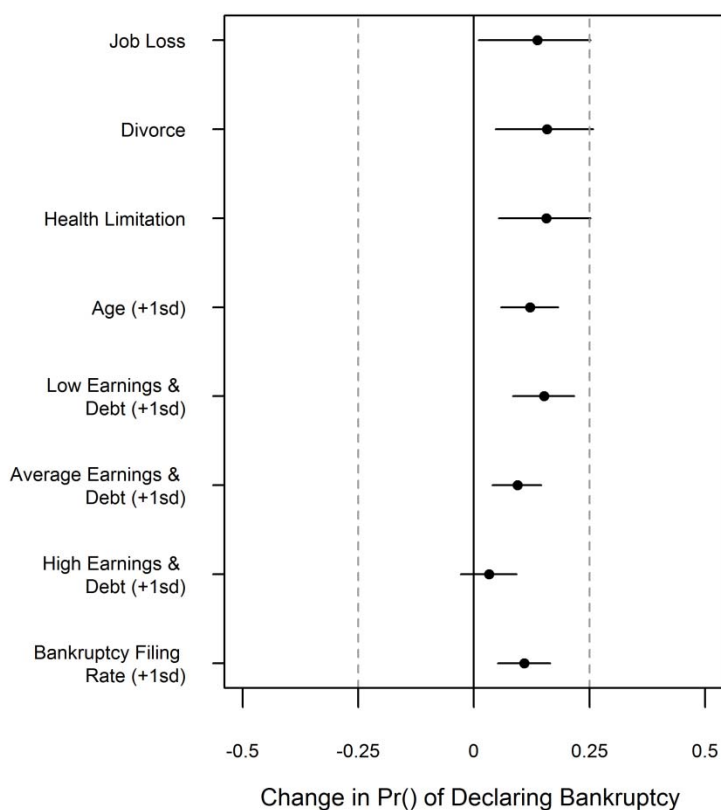


Figure 5.1 Average Predicted Probability of Declaring Bankruptcy in Relation to a Change in Predictor Variables, NLSY

Source: NLSY 1979 Cohort, 1985-2002.

Notes: Plot displays the predicted change in the probability of bankruptcy in conjunction to a change in the predictor variables. Estimates of the change in probability of bankruptcy for individuals are based upon the coefficients from Model 6 in Table 5.3, which includes all control variables. I obtained predicted values and confidence intervals using the coefficients and their covariance matrix with a multivariate normal distribution (Gelman and Hill 2005). Dots represent the average predicted changes, and lines represent 90% confidence intervals.

Figure 5.1 displays the effects of debt, earnings, age, and bankruptcy filing rates on the probability of declaring bankruptcy in a particular year, net of other individual- and state-level control variables. Because the overall probability for an individual declaring bankruptcy in a particular year was small, the effects of a change in the predictor variables were also small. However, certain key predictor variables in the data did significantly increase the probability of filing for bankruptcy.

Discussion

Cumulative disadvantage theories predict that inequality will grow as disadvantage builds for one group and advantage builds for another. This analysis applied cumulative disadvantage theory to bankruptcy, with the expectation that individuals who experience job loss, marital dissolution, or health limitations will be more likely to declare bankruptcy than those who do not. My results in this chapter provide some support for this hypothesis derived from Sullivan, Warren, and Westbrook's (1989, 2000) findings regarding adverse events and bankruptcy. As shown in Tables 5.3 and 5.4, individuals who experienced recent adverse events were not always more likely to declare bankruptcy than individuals who did not face such hardships. Throughout most NLSY models (Table 5.3) experiencing job loss increased an individual's probability of filing for bankruptcy in the following time period. Marital dissolution and recent health limitations in the previous time period generally were not associated with bankruptcy after earnings and debt were controlled for; however, when measured within the same time period as bankruptcy, these variables were more likely to have a significant association. Nonetheless, these variables were not significantly associated with bankruptcy in the PSID data (Table 5.4).

My analysis of NLSY data generally supports Caputo's (2008) findings about marriage and bankruptcy as well. Using NLSY data with different statistical procedures and measures, Caputo (2008) found no relationship between marital status and bankruptcy in most survey years. However, within years that exhibited significant relationships, formerly married individuals had the highest likelihood of declaring bankruptcy, followed by married, and then never-married individuals in his analysis (Caputo 2008:26). When I included these marital status variables in fixed effects models (table not shown), marital status had similar effects as those found by Caputo (2008), where never-married individuals were less likely to declare bankruptcy than married individuals and formerly married individuals were more likely to do so. However,

instead of just investigating marital status, I looked at recent changes in marital status (Table 5.3). These results showed that individuals in the NLSY were more likely to declare bankruptcy during years when they experienced a recent marital dissolution than during time periods when they did not experience this adverse event.

Overall, my findings on debt and earnings illustrate their complex relationship with bankruptcy. Labor market disadvantage may not always extend into credit markets because of this complicated relationship between debt, earnings, assets, and bankruptcy. When added to the model separately, an increase in total earnings and total debt increased the probability of bankruptcy in a particular year. However, the significant and negative interaction term between earnings and debt showed that as one variable increased, the effect of the other on bankruptcy decreased (Models 4-6 in Table 5.3). For NLSY respondents, large debt burdens were more likely to lead to bankruptcy for low earners; debt had a stronger effect on the bankruptcy at lower earnings levels. Additionally, the larger an individual's total net worth was, the less likely he or she was to declare bankruptcy (Model 2 in Table 5.3).

Middle-income individuals often balance a debt burden that can tip toward bankruptcy, which necessitates an analysis of the relationship between debt and income. More individuals with higher debt-to-earnings ratios declared bankruptcy than those with lower ratios. In the year prior to bankruptcy, overall half of all bankrupters in the NLSY held more debt than their yearly earnings, and 37 percent of bankrupters had a debt-to-earnings ratio that exceeded 200 percent of their earnings. Thus, most bankrupters have large debt burdens when they file for bankruptcy, and many have carried these burdens for a while.

Limitations

My findings are limited by my data and the statistical procedures that I used in my analysis. Although the sample size is large compared to many studies, bankruptcy is a rare event. I was able to observe only 271 bankruptcies over the 17-year period in the NLSY and 224 over the 12-year PSID time frame. The adverse events of interest also did not occur very often, particularly when looking at person-years. For example, although 24 percent of respondents had a loss of employment at one time, only seven percent lost employment in a particular year in the NLSY. This percentage is even lower in the PSID; 20 percent of individuals had a loss of

employment at one time, only two percent of person-years lost employment in the PSID. These very small fractions could affect the relationship of these variables with bankruptcy.

In addition, my findings were not consistent across samples. The rate of bankruptcy in the NLSY was over twice the rate in the PSID. The NLSY data overestimates the number of bankruptcy filings compared to the national adult population because it focuses on a particular cohort of individuals who were exposed to certain economic trends, including recessions, employment opportunities, and bankruptcy laws. Most NLSY respondents were born between 1957 and 1965, making them a baby boomer cohort. Baby boomers were also overrepresented in the earlier CBP samples and accounted for a large increase in the national bankruptcy filing rate in the 1990s (Sullivan et al. 2000:38-40; Sullivan et al. 1993). Because the NLSY is based on a cohort sample in a certain time period, the results may not be generalizable to the population, as indicated by the non-significant findings from the PSID data. The PSID's sampling structure, shorter time period, and household-level unit of analysis could have also affected my findings, though.

Despite these sample restrictions and varied findings, the fixed effects models that I use add credence to my results. Because fixed effects models focus on within-person variation, I am able to control for all unobserved stable individual-level characteristics (Allison 2009). This allows me to rule out explanations related to a person's personality or overall lack of work ethic that could affect the probability of bankruptcy. I also include a variety of individual- and state-level control variables that help account for other time-varying factors that may lead a person into bankruptcy. In addition to controlling for these factors, my models apply robust standard errors adjusted for clustering around the individual, and I separate most of my predictor and outcome variables by one time period in order to better ensure the causal ordering of events.

As I noted earlier in this chapter, however, fixed effects models rely on only within-person variation and omit between-person variation. In order to address the limitations created by fixed effects models, I replicated my findings with other statistical methods. In addition to fixed effects models, I estimated random effects or multilevel models that incorporated separate intercepts for each individual. As Chapter 3 described, random effects models offer another option for analyzing longitudinal data. These models account for correlated disturbance terms for the same person over time by assigning each person a separate intercept, but they assume that the individual intercept is independent of all other determinants of the dependent variable and do not

control for all unobserved individual characteristics (Gelman and Hill 2005; Allison 2009). For these reasons, I chose to rely on fixed effects models, but I include the results of random effects models in Tables 5.5 and 5.6. Table 5.5 presents the results from a random effects regression model of bankruptcy in the NLSY data that includes the same predictor variables as Model 6 in Table 5.3. Table 5.6 presents the results from a random effects regression model of bankruptcy in the PSID data that includes the same predictor variables as Models 3 and 4 in Table 5.4.

Table 5.5 Random Effects Regression Models Predicting Bankruptcy at Time t Using NLSY Data

	Model 1	
	b	SE
Intercept	-5.176***	(.234)
<i>Adverse Events Time t-1</i>		
Loss of Employment	.662**	(.274)
<i>Adverse Events Time t</i>		
Divorce, Separation, Widowhood	.691**	(.250)
Recent Health Limitation	.794***	(.217)
<i>Labor Market and Debt Burden Time t-1</i>		
Total Earnings (Thousands) ¹	.004†	(.003)
Total Debt (Thousands) ¹	.005***	(.001)
Interaction: Debt and Earnings	.0001***	(.000)
Home Owner	-.544***	(.186)
<i>Time-varying Control Variables Time t-1</i>		
Age ¹	.085***	(.015)
Cumulative Number of Jobs ¹	.036***	(.010)
Any Children	.145	(.138)
Years of Schooling Completed ¹	-.142***	(.029)
<i>Time and Region Variables Time t-1</i>		
Unemployment Rate (Percent) ¹	.027	(.022)
Personal Bankruptcy Filing Rate/1,000 ¹	.149***	(.029)
Interest Rate (Percent) ¹	.021	(.022)
Exemption-level (Ref: Federal Exemption-level)		
Minimal Exemption	-.162	(.230)
Below Federal Exemption	-.258	(.241)
Above Federal Exemption	.128	(.232)
Unlimited Exemption	.148	(.240)
<i>Time-invariant Variables</i>		
Female	.213	(.136)
Black	-.279	(.204)
Hispanic	-.334	(.263)

Source: NLSY 1979 Cohort, 1985-2002. N = 4,332 individuals and 37,133 observations

Note: ¹Continuous variables are mean centered.

*** p<.001, ** p<.01, * p<.05, † p<.1

Table 5.6 Random Effects Regression Models Predicting Bankruptcy at Time t Using PSID Data

	Model 1		Model 2	
	b	SE	b	SE
Intercept	-5.562***	(.297)	-5.620***	(.297)
<i>Adverse Events Time t-1</i>				
Loss of Employment	.132	(.366)		
Divorce, Separation, Widowhood	.267	(.368)		
Recent Health Limitation	.233	(.290)		
<i>Adverse Events Time t</i>				
Loss of Employment			.713†	(.291)
Divorce, Separation, Widowhood			.381	(.418)
Recent Health Limitation			.587†	(.250)
<i>Labor Market and Debt Burden</i>				
Total Earnings (Thousands) ¹	-.003	(.002)	-.003	(.002)
Home Owner	.046	(.162)	.064	(.161)
<i>Time-varying Control Variables</i>				
Age ¹	-.036***	(.007)	-.037***	(.007)
Age Squared ¹	-.001	(.000)	-.001	(.000)
Any Children	.438**	(.155)	.434**	(.154)
<i>Education (Ref: HS Diploma)</i>				
Less than High School	-.300†	(.175)	-.318†	(.175)
Some College	-.840**	(.277)	-.829**	(.277)
BA or Higher	-1.336**	(.516)	-1.327**	(.515)
<i>Time and Region Variables</i>				
Unemployment Rate (Percent) ¹	.019	(.025)	.019	(.025)
Personal Bankruptcy Filing Rate/1,000 ¹	.033	(.038)	.033	(.038)
Interest Rate (Percent) ¹	.010	(.028)	.010	(.028)
<i>Exemption-level (Ref: Federal Exemption-level)</i>				
Minimal Exemption	.095	(.271)	.097	(.271)
Below Federal Exemption	-.082	(.264)	-.077	(.263)
Above Federal Exemption	-.166	(.276)	-.164	(.276)
Unlimited Exemption	-.138	(.296)	-.142	(.295)
<i>Time-invariant Variables</i>				
Female	.074	(.176)	.096	(.175)
Black	-.220	(.155)	-.229	(.155)

Source: PSID 1984-1996. N = 6,818 individuals and 57,523 observations

Notes: All models include robust standard errors, but do not use PSID sampling weights. PSID sampling weights could not be included in random effects models because they require two levels of weights, which the PSID does not provide.

¹Continuous variables are mean centered.

*** p<.001, ** p<.01, * p<.05, † p<.1

Table 5.5 further confirms my findings related to adverse events, debt burden, and bankruptcy in the NLSY data. In these random effects models that include never bankrupt respondents, but do not control for unobserved individual-level characteristics, a loss of employment at time $t-1$, as well as divorce and health limitations at time t , increased a respondent's probability of declaring bankruptcy at time t . Debt burden also affected bankruptcy; however, the interaction term between debt and earnings in this model was positive, which indicates that debt influenced bankruptcy more for higher earners in this model.

The random effects models using the PSID data (Table 5.6) actually showed a stronger relationship between adverse events and bankruptcy than the fixed effects models predicted in Table 5.4. Although they were not significantly related to bankruptcy when they were measured at time $t-1$ (Model 1), job loss and health limitations increased a respondent's probability of bankruptcy when measured at time t (Model 2). Interestingly, education presented a slightly differently relationship than seen in the fixed effects models. Although respondents who had dropped out of college were still less likely to file for bankruptcy than those without a high school diploma, respondents with education beyond high school were also less likely to file for bankruptcy. This suggests that some education is needed to file for bankruptcy, but those people with higher levels of education may not need bankruptcy if they have enough income as well to take care of their debts.

Returning to my original question from this chapter, although my analysis cannot completely rule out Senator Grassley's "deadbeats" argument, the fixed effects models that I use help to account for a respondent's stable "deadbeat status" because they control for unobserved individual-level characteristics that do not vary over time. These models account for certain individual characteristics that could influence a person's propensity for bankruptcy, as well as his or her debt levels and experience of adverse events. My findings therefore demonstrate that in the NLSY data certain hardships and increasing debt burdens strongly influence a person's probability of declaring bankruptcy. However, if the state-level bankruptcy filing rate is an indicator of a decreasing stigma for bankruptcy, many bankrupters file for bankruptcy in states where the general filing rate is high and perhaps the process is less stigmatized. Overall these findings validate both creditor *and* debtor advocates' arguments in terms of the predictors of bankruptcy, but show more support for hardship explanations of bankruptcy.

Filing for bankruptcy is often a life altering process for individuals, both socially and psychologically. Individuals are led into bankruptcy by a variety of factors including adverse life events, debt burden, and broader social situations. Social stigma and individual choice processes also contribute to a person's propensity for filing bankruptcy. The Consumer Bankruptcy Project presented a picture of bankrupters and their perceptions of what led them into bankruptcy, but left open questions about some of the precursors. This analysis helps to show what factors lead individuals into bankruptcy, while controlling for characteristics that cannot be directly observed

in a sample of bankrupters and non-bankrupters. My findings indicate that, at least for a sample of baby boomers, adverse events, debt burden, and the local bankruptcy filing rate predict bankruptcy. This leads me into the next stage of my analysis--bankruptcy's effects on later labor market outcomes in Chapter 6.

CHAPTER 6: WHAT HAPPENS AFTER BANKRUPTCY?

Should bankrupters be forgiven for their mistakes or punished for their wrongdoing? Although my findings in Chapter 5 and research based on Consumer Bankruptcy Project (CBP) data show that sudden hardship, particularly job and income loss, lead to bankruptcy for many individuals, society still stigmatizes bankrupters for their inability to manage debt (Sullivan, Warren, and Westbrook 1989, 2000; Efrat 2006; Lawless et al. 2008). Bankruptcy's stigma is evident in public perceptions of debt insolvency (Efrat 2006) and consistent with the increase in filers with extremely large debt burdens (Sullivan, Warren, and Westbrook 2006; Lawless et al. 2008). Thus, it appears that debt forgiveness through bankruptcy comes with a stigma that has the potential to lead to the accumulation of disadvantage for bankrupters.

Because credit agencies transmit information about this stigmatized status to lenders and employers through credit reports, bankruptcy can potentially affect multiple areas (Musto 1999, 2004). Bankrupters face disadvantage in the credit market when lenders turn down loans and charge higher rates and in the labor market when this record limits their employment and income prospects (Porter and Thorne 2006; Thorne 2007). Bankrupters may have their debt forgiven, but CBP findings indicate that the stigma bankruptcy remains with them, potentially affecting outcomes in both the credit and labor markets. Bankruptcy therefore acts as a negative credential, which legitimizes the distribution of resources associated with this status, affects the accumulation of additional resources, and can spark a pattern of cumulative disadvantage.

In this chapter, I address the second part of my bankruptcy analysis by investigating labor market outcomes for bankrupters. This part of my dissertation expands the general research on bankruptcy to create a better understanding of how the consequences of bankruptcy extend into the labor market. I first discuss how this project supplements CBP findings related to the consequences of bankruptcy. I then briefly describe the NLSY and PSID samples that I use in these analyses, and I outline my hypotheses and measures. After establishing my goals, I discuss the results from this part of my analysis, which addresses the consequences of bankruptcy.

Bankruptcy and Labor Market Outcomes

In this chapter I investigate what happens after bankruptcy with a focus on labor market outcomes. Although the Consumer Bankruptcy Project indicates that bankrupters may be

stigmatized in the labor market, research from the CBP primarily describes the situations of bankrupters. It does not systematically compare bankrupters' situations with those of people who never declared bankruptcy. For example, most of Thorne's (2007) findings are based on the respondents' *perceptions* of the effects of bankruptcy on their later labor market statuses. I build on these descriptive findings with statistical analyses based on respondents' post-bankruptcy *actual situations*. In addition, my sample includes non-bankrupters and data on bankrupters *before* they declared bankruptcy.

In order to determine if and how bankruptcy affects labor market situations, I analyze both post-bankruptcy employment and earnings, addressing the following research questions: Does bankruptcy negatively affect people's labor market outcomes, as measured by earnings and hours of work? Do these outcomes vary by the person's education, employment situation, previous earnings, and occupation? Are these outcomes affected by a bankrupter's previous experience of adverse events, such as job loss, divorce, or illness? Finally, do these effects diminish over time as federal bankruptcy policy implies?

Bankruptcy should negatively affect people's later labor market situations due to its stigmatized status that credit reports formalize and transmit to perspective employers. The ambiguities in the U.S. Bankruptcy Code and the Fair Credit Reporting Act allow this stigma to move across markets, leading to further disadvantage for bankrupters. It is also likely that these effects will vary based on the bankrupter's previous labor market situation because certain occupations, often those that deal with money, rely on credit reports in hiring more than others.

Data and Methods

For my analyses of NLSY data I rely on a sample of workers with annual earnings between \$1 and \$250,000 and weekly working hours between 5 and 100.⁴⁴ After also dropping respondents not interviewed in 2004 or 2008, observations with missing data, and individuals with fewer than two observations, I obtained a longitudinal sample of 4,291 cases (i.e., individuals) and 55,110 observations (i.e., person years) spanning from 1979-2008.⁴⁵ When I analyze the PSID data I also restrict my sample to workers with annual earnings between \$1 and

⁴⁴ Removing these extreme outliers helped to account for the survey's top-coding of earnings variables and potential errors in the data.

⁴⁵ Because fixed effects estimates require within-individual variation, I dropped respondents who were interviewed only once after dropping cases with missing data. I therefore have an unbalanced panel dataset with 2 to 23 observations for each individual.

\$250,000 and weekly working hours between 5 and 100. After also dropping observations with missing data and individuals with fewer than two observations, I obtained a longitudinal sample of 5,469 cases and 39,737 observations spanning from 1985-1996.

Similar to my methods in Chapter 5, I use fixed effects models to investigate the consequences of bankruptcy because they allow me to control for unobserved individual characteristics while studying the effects of time-varying factors over time (Allison 1994, 2009). When applied to panel data, fixed effects models focus on within-individual differences over time, which means that I am essentially comparing individuals before and after they declare bankruptcy. By focusing on within-individual variation over time, fixed effects models remove bias that can result through selection based on stable, individual characteristics; however, these models cannot estimate coefficients for time-invariant variables, such as race and sex.

In order to ensure that bankruptcy occurs prior to employment outcomes and to control for a person's earlier labor market situation, I estimate models that incorporate a time lag between my predictor and outcome variables. Thus, I use whether the respondent declared bankruptcy at time $t-1$ to predict earnings and employment outcomes at time t . All predictor variables are separated from the outcome variables by one to two years. The time lag changes from one to two years because NLSY data were collected biennially after 1994.⁸

Equation 1 represents the general fixed effects model for continuous data, which I use to estimate an individual's earnings and yearly hours worked at time t ,

$$y_{it} = \mu_t + \beta x_{i(t-1)} + \alpha_i + \varepsilon_{it} \quad (6.1)$$

where i indexes the individual respondent and t indexes yearly observations per individual, μ_t is an intercept that varies with time (age in this model), α_i controls for the average differences across individuals in unobservable predictors, $\beta x_{i(t-1)}$ represents the time-varying coefficients and predictor variables, and ε_{it} is the error term, which has a mean of 0 and constant variance. The model assumes that α_i and ε_{it} are independent, but $x_{i(t-1)}$ and α_i are correlated. I also apply robust standard errors to account for clustering around the individual in the data.

Hypotheses and Measures

In conjunction with my research questions, I test a set of hypotheses related to labor market outcomes of bankruptcy and additional control variables. I describe these hypotheses and

measures below. I also include descriptive statistics by bankruptcy status for the NLSY data in Table 6.1 and for the PSID data in Table 6.2.

Table 6.1 Descriptive Statistics of NLSY Variables for 2006/2008 by Bankruptcy Status

	Total Respondents	Never Bankrupt	Ever Bankrupt
N individuals	2,417	2,183	234
Outcome Variables (2008)			
Individual Earnings (mean dollars)	\$47,657	\$48,581	\$39,039
Total Hours Worked (mean hours)	2151.4	2158.0	2090.1
Predictor Variables (2006)			
Bankruptcy Ever	13.7	*	*
Bankruptcy within Last 10 Years	9.7	*	*
Bankruptcy in that Year	1.7	*	*
Time Since Bankruptcy			
Bankruptcy within the Last Year	1.7	*	*
Bankruptcy 1 to 3 Years Ago	2.1	*	*
Bankruptcy 4 to 6 Years Ago	3.3	*	*
Bankruptcy 7 to 10 Years Ago	2.6	*	*
Bankruptcy More than 10 Years Ago	4.0	*	*
Age (mean years)	44.6	44.7	44.4
Marital Status			
Married	66.5	67.2	59.8
Never Married	12.3	12.9	7.3
Formerly Married	21.2	19.9	32.9
Any Children	64.3	64.9	58.5
Years of Schooling Completed (mean years)	13.7	13.8	13.1
Cumulative Number of Jobs (mean number)	11.4	11.2	13.1
Individual Earnings (mean dollars)	\$46,818	\$47,614	\$39,392
Hours Worked (mean hours)	2143.7	2144.9	2131.7
Any Time Looking for Work	9.3	8.8	13.2
Occupations			
Finance	3.4	3.6	2.1
Accounting	1.7	1.8	0.9
Self-employed	7.3	7.6	4.7
Adverse Events within Last 10 Years			
Divorce	10.8	9.5	23.1
Job Loss	8.7	8.0	15.4
New Health Limitation	13.1	12.5	18.8
Time and Region Variables (2006)			
Unemployment Rate (mean percent)	2.7	2.6	3.0
Personal Bankruptcy Filing Rate (mean rate per 1,000)	5.0	5.0	4.9
State Interest Rate (mean percent)	7.5	7.5	7.9
State Bankruptcy Exemption Level			
Minimal (Below 50% Federal Level)	32.9	32.8	33.3
Below (50-100% Federal Level)	15.1	15.0	15.4
Average (100-200% Federal Level)	19.9	20.2	17.9
Above Average (Above 200% Federal Level)	18.1	17.9	19.7
Unlimited Exemptions	14.0	14.1	13.7

Source: NLSY 1979 Cohort, 1979-2008.

Note: All values are given as percentages unless otherwise specified.

Table 6.2 Descriptive Statistics of PSID Variables for 1995/1996 by Bankruptcy Status

	Total Respondents	Never Bankrupt	Ever Bankrupt
N individuals	4,128	3,853	275
Outcome Variables (1996)			
Individual Earnings (mean dollars)	\$48,803	\$49,626	\$36,724
Total Hours Worked (mean hours)	2064.5	2067.7	2016.8
Predictor Variables (1995)			
Bankruptcy Ever	6.7	*	*
Bankruptcy within Last 10 Years	5.1	*	*
Bankruptcy in that Year	0.1	*	*
Time Since Bankruptcy			
Bankruptcy within the Last Year	0.5	*	*
Bankruptcy 1 to 3 Years Ago	1.4	*	*
Bankruptcy 4 to 6 Years Ago	1.8	*	*
Bankruptcy 7 to 10 Years Ago	1.0	*	*
Bankruptcy More than 10 Years Ago	1.7	*	*
Age (mean years)	41.7	41.8	41.1
Marital Status			
Married	56.9	57.0	54.8
Never Married	19.6	20.2	10.2
Formerly Married	23.5	22.7	35.0
Any Children	44.4	43.8	52.8
Educational Attainment			
Less than High School	58.2	57.5	67.3
High School Diploma	14.1	13.3	24.7
Some College	16.4	17.2	4.9
BA or Higher	11.3	11.9	3.2
Individual Earnings (mean dollars)	\$48,456	\$49,343	\$35,440
Hours Worked (mean hours)	2044.0	2047.9	1986.2
Occupations			
Finance	1.5	1.5	0.7
Accounting	1.5	1.5	1.0
Adverse Events within Last 10 Years			
Divorce	21.8	21.0	33.6
Job Loss	18.2	17.3	31.2
New Health Limitation	30.8	29.8	45.0
Time and Region Variables (1995)			
Unemployment Rate (mean percent)	5.6	5.6	5.6
Personal Bankruptcy Filing Rate (mean rate per 1,000)	4.4	4.4	4.2
State Interest Rate (mean percent)	8.0	8.0	7.9
State Bankruptcy Exemption Level			
Minimal (Below 50% Federal Level)	46.8	47.2	41.6
Below (50-100% Federal Level)	13.5	13.2	17.2
Average (100-200% Federal Level)	4.7	4.7	4.9
Above Average (Above 200% Federal Level)	17.5	17.5	17.9
Unlimited Exemptions	17.6	17.5	18.4

Source: PSID, 1984-1996.

Note: All values are given as percentages unless otherwise specified.

Outcome Variables

For this part of my analysis, my primary outcome variables measure labor market situations. I examine the effect of bankruptcy on the individual's *total earnings from wages and*

salary and *total hours worked per year* in the current time period, which I refer to as time t . All earnings variables in the NLSY and PSID are in 2008 dollars. I did not use a log transformation of my outcome variables because Box-Cox tests rejected the need to transform these variables, log transformations did little to improve the distribution of residuals, and measures of model fit showed no improvement with a transformation. Although the earnings variables were slightly skewed, the hours worked variables were generally normally distributed with a mean of 2,151 hours per year, or slightly more than 40 hours per week, in the NLSY and a mean of 2,064 hours per year in the PSID. I also removed large outliers prior to analyzing my data. For these reasons, I chose the simpler models without any transformations of the outcome variables.

Bankruptcy as a Predictor Variable

All of my predictor and control variables are measured at the previous time period ($t-1$). My first predictor variable measures whether the respondent or the respondent's spouse declared *bankruptcy within the previous ten years*.⁴⁶ I use this time span because any labor market effects may extend beyond the period immediately following bankruptcy and because bankruptcy specifically appears on a person's credit report for ten years, although it may continue to affect a person's score later on (Musto 1999). By 2006, 9.7 percent of respondents declared bankruptcy within the last ten years in the NLSY (Table 6.1), and 5.1 percent of PSID respondents declared bankruptcy within the last ten years (Table 6.2). The employment ratios of bankrupters resembled those of non-bankrupters, but non-bankrupters out-earned respondents who declared bankruptcy by about \$10,000 in both samples.

Thorne (2007) and Porter and Thorne (2006) indicate that bankruptcy may not offer debtors a fresh start. Instead, bankrupters in their studies describe further disadvantage in the labor market, where they face hardship in finding and keeping jobs. Due to bankruptcy's stigmatized and often discouraging status, combined with the ambiguities within U.S. bankruptcy and credit law, I expect that *(1) individuals who file for bankruptcy will spend less time working than individuals who do not file for bankruptcy, and (2) they will have lower earnings than individuals who do not file for bankruptcy.*

⁴⁶ Including the respondent's spouse in the question did not affect my results. Differences in outcomes between individuals who were single and married in 2004 or 2008 in the NLSY and in 1996 in the PSID data did not indicate problems with this variable. In cases in which married couples jointly file that filing would appear on both of their credit reports.

Time-varying Control Variables

The control variables for this analysis incorporate demographic, employment, health, and family differences, variables researchers commonly control for in studies of employment and earnings inequality (*see, e.g., Kenworthy 2007; Leicht 2008*). I control for the respondent's *age*, *marital status*, and *presence of children* at time $t-1$. I include *age squared* in order to account for any non-linear relationship between age and my outcome variables. Marital status indicates whether the respondent was married, formerly married (separated, divorced, or widowed), or never married. I treat the presence of any children as binary variable.

To take into account measures of the respondent's human capital and previous employment situation, I also control for *education*, *cumulative number of jobs*, *hours worked*, *previous earnings*, *any number of weeks looking for work*, *self-employment*, and *employment in finance or accounting occupations* at time $t-1$. I measure education as the number of completed years of schooling because this is how the NLSY measures education level. Because including a lagged dependent variable in a fixed effects analysis can bias results I do not include lagged measures of earnings and hours worked in models where these variables are the outcomes (Allison 1990, 2009; Angrist and Pischke 2009). However, I control for hours worked at time $t-1$ in models predicting earnings, and I control for earnings at time $t-1$ in models predicting hours worked. Bankrupters in both samples obtained less education, earned less, and worked fewer hours than non-bankrupters (Tables 6.1 and 6.2).

Across NLSY models I control for whether the respondent spent any time looking for work and for whether the respondent was currently self-employed in order to address respondents who might be subjected to stigmatization within the labor market. Because penalties are more likely to occur at the hiring stage, bankrupters might be more stigmatized when they are actively looking for work, but less stigmatized if they are self-employed. I also include dummy variables indicating whether the person worked in finance or accounting occupations during the previous year in both sets of models because they are high-trust occupations in which bankrupters could be more vulnerable to penalties.

I account for whether the respondent experienced an adverse event of *job loss*, *illness*, or *divorce in the past ten years*, the same time frame that I use for bankruptcy, as a control for some of the events that lead people to declare bankruptcy and could continue to affect their earnings and employment (Sullivan, Warren, and Westbrook 1989, 2000). Tables 6.1 and 6.2 show that a

higher proportion of bankrupters experienced all of these adverse events within the past ten years compared to non-bankrupters.

Contextual Variables

To allow for the possibility that states differ in ways that might influence the effects of bankruptcy on labor market outcomes, I control for time period and regional labor market situations. I include variables for the *county-level unemployment rate* and the *state-level bankruptcy filing rate per 1,000 adults in the population* for each respondent and each year. I also control for the *legal interest rate* and *homestead and property exemptions*, which permit debtors to protect certain assets from creditors (National Association of Credit Management 2007).⁴⁷ For this analysis I collapsed average and above average into a single category.

Variation in Bankruptcy's Labor Market Effects

The second and third research questions focus on potential explanations and mechanisms behind bankruptcy's labor market effects. I anticipate that bankruptcy's effects will vary by respondents' previous employment situations, as Thorne's (2007) findings suggest, and therefore expect that (3) *bankruptcy's effects on earnings and hours of work will be greater for individuals employed in high-trust occupations, such as accounting and finance*. I also expect that (4) *bankruptcy's effects on earnings and hours of work will be greater individuals with higher education levels and higher previous earnings, as they are more likely to be employed in occupations that rely on credit checks*.

Although my analysis cannot explicitly observe the mechanisms through which bankruptcy could negatively affect a person's subsequent labor market status, several likely mechanisms exist. First, bankrupters' poor credit and labor market situations could simply stem from a reckless disposition, negligent behavior, or other individual characteristics. This mechanism suggests that bankrupters would have lower earnings than non-bankrupters regardless of their bankruptcy status. Second, bankruptcy's apparent labor market effects could reflect the on-going consequences of adverse events that led people into bankruptcy. Third, the status of bankruptcy could act as a proxy for the status of a delinquent debtor, where it is not

⁴⁷ I discuss these variables in more detail in Chapter 3 and in Appendices A and B.

bankruptcy, but debt delinquency that is stigmatized and, hence, negatively linked to labor market position. In that situation bankrupters would be only a small proportion of people who face negative labor market outcomes due to their poor credit market status. Finally, bankruptcy could affect earnings and employment outcomes due to its stigmatization by employers, who learn of it through interviews, credit reports, and background checks. Even though I cannot fully adjudicate among all mechanisms, my analytic strategies, which include fixed effects models, help me to rule out the first two potential mechanisms, suggesting that any effects of bankruptcy are likely to stem from one or both of the second two.

Time Since Bankruptcy

The final research question specifically addresses cumulative disadvantage theory by focusing on whether the income and employment situations of bankrupters and non-bankrupters diverge over time. A divergence in labor market outcomes for bankrupters and non-bankrupters supports a model of growing disadvantage and challenges the goals of bankruptcy laws that aim to offer debtors a new beginning.

In order to estimate the effects of bankruptcy over time, I created a second variable that measures a respondent's *time since bankruptcy*. This variable has six categories indicating whether the respondent never declared bankruptcy, declared bankruptcy in the past year, one to three years ago, four to six years ago, seven to ten years ago, or more than ten years ago. Within this categorical variable I separated out very recent bankruptcy filings (within the last year) and created three-year categories up to 10 years after bankruptcy. I anticipate that *(5) the effects of bankruptcy on these outcomes will increase over time and should disappear after 10 years, when bankruptcy is removed from an individual's credit report*. If the effects of bankruptcy on labor market outcomes are greater for respondents who declared bankruptcy longer ago, this relationship would support a model of cumulative disadvantage where the situations of bankrupters and non-bankrupters diverge over time.

Results

As expected, bankruptcy negatively affected respondents' later labor market statuses, net of their previous earnings and employment situations. On average, individuals who declared bankruptcy faced earnings penalties and spent less time working than persons who had never

declared bankruptcy in that time period. However, these effects were not consistent across all bankrupters, nor were they uniform across the NLSY and PSID samples.

Bankruptcy's Labor Market Effects

Across most models, bankrupters incurred earnings penalties, net of their previous labor market situations, other controls, and unobserved time-invariant characteristics. Table 6.3 displays the regression results from estimating earnings in the NLSY and Table 6.4 displays the results for the PSID data. Within each table, Model 1 depicts bankruptcy's effects on earnings at time t conditioning only on age, while Models 2 and 3 include additional covariates.

Bankrupters earned approximately \$5,280 less than non-bankrupters in the NLSY and bankrupters earned \$2,887 less than non-bankrupters in the PSID in Model 1. Including additional control variables in Model 2 slightly weakened the relationship between bankruptcy and earnings such that declaring bankruptcy decreased earnings by \$3,635 in the NLSY and \$2,640 in the PSID. The added human capital and employment variables were significantly associated with the respondent's current earnings in the NLSY data, but not in the PSID data. After controlling for age in the PSID, most human capital variables, including education, were no longer significantly associated with earnings. The state-level contextual variables were generally not associated with earnings in either sample.

When I controlled for the respondent's experience of an adverse event of job loss, divorce, or illness within the last 10 years in Model 3, the relationship between bankruptcy and earnings again weakened to a \$3,596 loss for NLSY bankrupters and a \$1,957 loss for PSID bankrupters that was only marginally significant ($p < .10$). In the NLSY data (Table 6.3) job loss within the past ten years was associated with a \$1,211 decrease in earnings and a health limitation was associated with a \$2,586 decrease. Net of control variables, however, divorce within the past decade was not significantly associated with earnings in the NLSY. In the PSID data (Table 6.4) job loss within the past ten years was associated with a \$9,537 decrease in earnings, a health limitation was associated with a \$1,587 decrease, and divorce was associated with a \$2,959 decrease. Because controlling for these adverse events did not explain away bankruptcy's effect on later earnings, we can conclude that bankruptcy affected earnings independent of the adverse events that led up to the respondent's bankruptcy filing, at least for

the baby boomers in the NLSY data. This finding supports the first of my hypotheses related to bankruptcy's labor market effects.

Table 6.3 Fixed Effects Regression Models Predicting Earnings Using NLSY Data

	Model 1		Model 2		Model 3	
	b	SE ²	b	SE ²	b	SE ²
Intercept	36691.59***	(134.65)	36139.53***	(475.12)	36846.96***	(498.04)
Declared Bankruptcy	-5280.37***	(782.60)	-3634.90***	(722.34)	-3595.64***	(717.58)
<i>Time-varying Control Variables</i>						
Age ¹	1645.75***	(27.94)	1026.48***	(42.90)	1021.48***	(43.06)
Age Squared ¹	-55.07***	(2.24)	-13.84***	(2.46)	-15.52***	(2.51)
Marital Status (Ref: Married)						
Never Married			-3866.74***	(417.73)	-3866.04***	(417.14)
Formerly Married			-1089.44*	(438.30)	-1226.22**	(464.65)
Any Children			326.84	(391.24)	370.88	(390.64)
<i>Human Capital and Employment Variables</i>						
Years of Schooling Completed ¹			4837.21***	(196.07)	4838.67***	(195.72)
Cumulative Number of Jobs ¹			-581.14***	(58.75)	-554.25***	(59.26)
Hours Worked ¹			7.14***	(.21)	7.08***	(.21)
Any Time Looking for Work			-1430.78***	(226.41)	-1331.73***	(227.18)
Finance Occupation			4121.81**	(1535.45)	4110.80**	(1543.87)
Accounting Occupation			1461.15	(1057.67)	1445.00	(1053.36)
Self-employed			-1489.93	(785.57)	-1442.37	(784.60)
<i>Adverse Events Within 10 Years</i>						
Divorce					518.76	(612.26)
Job Loss					-1211.48**	(353.94)
New Health Limitation					-2586.29***	(416.69)
<i>Time and Region Variables</i>						
Unemployment Rate (Percent) ¹			-42.91	(45.62)	-46.29	(45.55)
Personal Bankruptcy Filing Rate/1,000 ¹			76.87	(75.61)	59.15	(75.68)
Interest Rate (Percent) ¹			61.28	(97.37)	71.92	(97.38)
Exemption-level (Ref: Federal Exemption-level)						
Minimal Exemption			294.85	(596.55)	307.62	(595.20)
Below Federal Exemption			-339.59	(499.41)	-328.09	(499.00)
Unlimited Exemption			-1032.60	(684.55)	-971.02	(682.21)
Adjusted R-Squared	0.590		0.590		0.652	
AIC	1221207		1212409		1212278	
BIC	1221234		1212578		1212474	

Source: NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations

Notes: Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.

¹Continuous variables are mean centered.

²Standard errors are robust.

*** p < .001, ** p < .01, * p < .05

Table 6.4 Fixed Effects Regression Models Predicting Earnings Using PSID Data

	Model 1		Model 2		Model 3	
	b	SE ²	b	SE ²	b	SE ²
Intercept	53788.64***	(472.49)	52929.42***	(886.95)	54147.62***	(883.96)
Declared Bankruptcy Within 10 Years	-2887.20**	(1114.76)	-2639.77*	(1081.01)	-1956.73	(1075.95)
<i>Time-varying Control Variables</i>						
Age ¹	697.37***	(54.20)	653.63***	(53.91)	851.00***	(57.66)
Age Squared ¹	-47.99***	(3.00)	-43.32***	(2.84)	-44.74***	(2.84)
Marital Status (Ref: Married)						
Never Married			-604.45	(999.71)	-522.25	(996.95)
Formerly Married			-1929.76*	(902.49)	-34.71	(1064.62)
Any Children			1550.07**	(574.16)	1379.59	(575.67)
<i>Human Capital and Employment Variables</i>						
<i>Education (Ref: HS Diploma)</i>						
Less than High School			-1205.58	(1660.88)	-1205.45	(1643.75)
Some College			327.79	(2271.45)	1037.57	(2283.01)
BA or Higher			4122.08	(2632.45)	4514.34	(2616.41)
Hours Worked ¹			4.28***	(.33)	4.04***	(.33)
Finance Occupation			-639.56	(2924.58)	-680.68	(2972.94)
Accounting Occupation			-3068.15	(2030.50)	-3225.84	(2013.51)
<i>Adverse Events Within 10 Years</i>						
Divorce					-2959.44**	(985.89)
Job Loss					-9537.38***	(771.40)
New Health Limitation					-1587.05**	(599.69)
<i>Time and Region Variables</i>						
Unemployment Rate (Percent) ¹			-46.62	(40.98)	-37.34	(40.65)
Personal Bankruptcy Filing Rate/1,000 ¹			-65.95	(67.79)	-53.65	(67.43)
Interest Rate (Percent) ¹			-12.75	(39.18)	-6.97	(38.58)
Exemption-level (Ref: Federal Exemption-level)						
Minimal Exemption			-608.39*	(294.91)	-634.18*	(292.22)
Below Federal Exemption			-207.36	(289.56)	-179.37	(287.62)
Unlimited Exemption			59.85	(360.40)	22.95	(357.92)
Adjusted R-Squared	0.815		0.820		0.822	
AIC	870946		870017		869454	
BIC	870972		870172		869634	
<i>Source:</i> PSID, 1984-1996. N=5,469 cases and 39,737 observations						
<i>Notes:</i> Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.						
¹ Continuous variables are mean centered.						
² Standard errors are robust.						
*** p < .001, ** p < .01, * p < .05						

As a second measure of labor market outcomes that could also affect earnings, I estimated bankruptcy's effects on hours worked per year. Tables 6.5 and 6.6 report the results from fixed effects regressions predicting an individual's hours worked at time t in the NLSY and PSID data. Repeating the analyses for earnings, Model 1 in each table controls only for age, and Models 2 and 3 include additional control variables.

Table 6.5 Fixed Effects Regression Models Predicting Hours Worked Using NLSY Data

	Model 1		Model 2		Model 3	
	b	SE ²	b	SE ²	b	SE ²
Intercept	2081.63***	(4.06)	2049.37***	(13.27)	2068.63***	(13.82)
Declared Bankruptcy Within 10 Years	-93.35***	(25.36)	-67.14**	(24.71)	-64.81**	(24.72)
<i>Time-varying Control Variables</i>						
Age ¹	34.24***	(.68)	2.96*	(1.28)	3.05*	(1.28)
Age Squared ¹	-2.17***	(.07)	-.88***	(.08)	-.93***	(.08)
Marital Status (Ref: Married)						
Never Married			73.36***	(13.16)	72.89***	(13.17)
Formerly Married			34.25*	(13.58)	49.69**	(14.73)
Any Children			-108.26***	(11.43)	-107.58***	(11.40)
<i>Human Capital and Employment Variables</i>						
Years of Schooling Completed ¹			145.41***	(5.91)	145.04***	(5.92)
Cumulative Number of Jobs ¹			23.28***	(1.99)	23.88***	(1.99)
Total Earnings (Thousands) ¹			7.10***	(.26)	7.04***	(.26)
Any Time Looking for Work			-176.84***	(9.12)	-174.12***	(9.15)
Finance Occupation			41.46	(32.58)	40.29	(32.45)
Accounting Occupation			40.77	(27.17)	40.98	(27.02)
Self-employed			26.85	(23.89)	27.99	(23.82)
<i>Adverse Events Within 10 Years</i>						
Divorce					-48.66**	(18.40)
Job Loss					-29.89*	(12.01)
New Health Limitation					-58.28***	(15.47)
<i>Time and Region Variables</i>						
Unemployment Rate (Percent) ¹			-14.45***	(1.46)	-14.56***	(1.46)
Personal Bankruptcy Filing Rate/1,000 ¹			-.90	(2.20)	-1.22	(2.20)
Interest Rate (Percent) ¹			.56	(2.79)	.80	(2.79)
Exemption-level (Ref: Federal Exemption-level)						
Minimal Exemption			-21.60	(15.93)	-21.58	(15.93)
Below Federal Exemption			12.00	(14.47)	12.49	(14.47)
Unlimited Exemption			10.12	(20.11)	12.52	(20.11)
Adjusted R-Squared	0.367		0.447		0.447	
AIC	853010		845632		845568	
BIC	853037		845801		845764	
<i>Source: NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations</i>						
<i>Notes: Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.</i>						
¹ Continuous variables are mean centered.						
² Standard errors are robust.						
*** p < .001, ** p < .01, * p < .05						

Table 6.6 Fixed Effects Regression Models Predicting Hours Worked Using PSID Data

	Model 1		Model 2		Model 3	
	b	SE ²	b	SE ²	b	SE ²
Intercept	2150.21***	(12.79)	2163.44***	(26.69)	2189.71***	(26.79)
Declared Bankruptcy Within 10 Years	-78.16	(47.17)	-67.52	(46.70)	-55.12	(46.78)
<i>Time-varying Control Variables</i>						
Age ¹	1.84	(1.36)	.09	(1.53)	4.26*	(1.65)
Age Squared ¹	-1.03***	(.08)	-.97***	(.08)	-1.00***	(.08)
Marital Status (Ref: Married)						
Never Married			-14.63	(29.94)	-13.51	(29.96)
Formerly Married			-84.50***	(24.17)	-57.30	(31.55)
Any Children			-38.14*	(16.01)	-40.64*	(16.10)
<i>Human Capital and Employment Variables</i>						
Education (Ref: HS Diploma)						
Less than High School			54.85	(53.56)	53.95	(52.55)
Some College			-31.57	(61.67)	-17.81	(61.05)
BA or Higher			-65.34	(62.55)	-56.42	(61.71)
Total Earnings (Thousands)			2.55***	(.36)	2.25***	(.37)
Finance Occupation			128.91*	(53.77)	128.92*	(54.94)
Accounting Occupation			87.18*	(40.44)	83.59*	(40.27)
<i>Adverse Events Within 10 Years</i>						
Divorce					-43.11	(32.51)
Job Loss					-182.16***	(30.04)
New Health Limitation					-41.26*	(20.94)
<i>Time and Region Variables</i>						
Unemployment Rate (Percent) ¹			-4.58***	(1.34)	-4.45**	(1.34)
Personal Bankruptcy Filing Rate/1,000 ¹			-1.84	(2.49)	-1.57	(2.48)
Interest Rate (Percent) ¹			.54	(1.51)	.65	(1.50)
Exemption-level (Ref: Federal Exemption-level)						
Minimal Exemption			7.08	(10.24)	6.61	(10.20)
Below Federal Exemption			10.09	(10.15)	10.76	(10.13)
Unlimited Exemption			11.05	(11.86)	10.27	(11.80)
Adjusted R-Squared	0.510		0.513		0.515	
AIC	602208		601937		601765	
BIC	602234		602091		601945	
<i>Source: PSID, 1984-1996. N=5,469 cases and 39,737 observations</i>						
<i>Notes: Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.</i>						
¹ Continuous variables are mean centered.						
² Standard errors are robust.						
*** p < .001, ** p < .01, * p < .05						

These regression analyses showed consistent negative effects of bankruptcy on working hours in the NLSY data: a decrease of 65 to 93 hours of work in a year, or two to three 40 hour work weeks. In Model 1, which included few controls, bankrupters worked 93 hours less than non-bankrupters, but in Model 2 with more controls, they worked 67 hours less, and in Model 3, which also controlled for the experience of adverse events, they worked 65 hours less. Thus, net of prior adverse events, NLSY bankrupters worked less after they declared bankruptcy.

The effects of bankruptcy on working hours were less stable in the PSID data shown in Table 6.6. When I controlled only for age in Model 1, bankruptcy was marginally associated with working hours indicating a decrease of 78 hours of work in a year. Once I added control

variables to Model 2, this association was still only marginally significant, resulting in a decrease of 68 hours per year. Including adverse event variables in Model 3, however, led to a larger decrease in the bankruptcy coefficient. In this case, additional measures of previous labor market situations and adverse events explain much of bankruptcy's relationship with working hours for PSID respondents.

Some bankrupters surveyed in the Consumer Bankruptcy Project said that filing for bankruptcy hurt their labor market outcomes (Thorne 2007). This analysis, which uses fixed effects models to control for unobserved individual characteristics that could affect an individual's likelihood of declaring bankruptcy and later labor market situation, shows that such perceptions are founded for at least my NLSY sample of baby boomers. For PSID respondents, bankruptcy hurt respondents' later earnings, but not their working hours, once I included control variables in my models. Despite some inconsistencies in my results, bankruptcy's negative labor market effects do provide evidence for its continuing stigma.

Variation in Bankruptcy's Labor Market Effects

Although some models show a negative relationship between declaring bankruptcy and later earnings and working hours, they do not fully establish the mechanisms behind this relationship. To address these mechanisms I estimated models that included interactions terms related to the respondent's human capital and prior labor market situation. I show results from these models for only the NLSY data because bankruptcy was not always a statistically significant predictor of labor market outcomes in the PSID data.⁴⁸ Table 6.7 depicts the variation in bankruptcy's effects on earnings with the addition of interaction terms to Model 3 in Table 6.3. Table 6.8 depicts the variation in bankruptcy's effects on hours worked with the addition of interaction terms to Model 3 in Table 6.5.

⁴⁸ I did test additional interaction models using the PSID data. In all models, the tested interactions with bankruptcy were not statistically significant.

Table 6.7 Interaction Terms from Fixed Effects Regression Models Predicting Earnings Using NLSY Data

	Model 1		Model 2		Model 3		Model 4	
	b	SE ²	b	SE ²	b	SE ²	b	SE ²
Intercept	36843.4***	(498.0)	36830.6***	(498.2)	36841.9***	(498.3)	36822.8***	(498.8)
Declared Bankruptcy	-3661.9***	(786.1)	-3203.8***	(771.5)	-3451.5***	(737.3)	-2714.2**	(890.4)
Years of Schooling Completed ¹	4844.4***	(197.1)						
Any Weeks Looking for Work			-1249.8***	(229.4)				
Self-employed					-1412.7	(795.0)		
Finance					4278.2**	(1588.2)		
Accounting					1587.7	(1071.3)		
Job Loss							-1147.8**	(361.3)
New Health Limitation							-2495.3***	(422.6)
<i>Interactions with Employment Variables</i>								
Bankruptcy*Years of Schooling	-153.8	(448.3)						
Bankruptcy*Any Weeks			-2576.9*	(1152.9)				
Bankruptcy*Self-employed					-712.4	(3345.7)		
Bankruptcy*Finance					-5748.1	(4617.9)		
Bankruptcy*Accounting					-3570.9	(3581.5)		
<i>Interactions with Adverse Event Variables</i>								
Bankruptcy*Job Loss							-2138.7	(1486.3)
Bankruptcy*Health Limitation							-1806.8	(1257.1)
Adjusted R-Squared	0.652		0.652		0.652		0.652	
AIC	1212279		1212274		1212281		1212274	
BIC	1212485		1212479		1212504		1212488	
<i>Source:</i> NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations								
<i>Notes:</i> Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100. Analyses are based on Model 3 in Table 6.3, which includes all control variables. Coefficients for control variables are not shown.								
¹ Continuous variables are mean centered.								
² Standard errors are robust.								
*** p<.001, ** p<.01, * p<.05								

In terms of earnings, the negative and significant interaction term for bankruptcy and any weeks searching for work in Model 2 in Table 6.7 indicates that bankruptcy's costs increased for bankrupters who were also looking for employment. When a bankrupter was looking for work that bankrupter faced an additional earnings loss of about \$2,577. This finding helps to substantiate the mechanism related to the use of credit scoring in hiring. Credit scoring may not be the mechanism behind bankruptcy's negative earnings and employment effects, but the stronger effects for bankrupters looking for work show a situation in which it is a possibility. In addition, Model 4 shows that bankruptcy's costs also increased when bankrupters had health limitations. However, the results from Models 1, 3, and 4 in Table 6.7 showed that bankruptcy's earnings effects did not depend on the respondent's education level, occupation, or experience of job loss within the past decade.

Table 6.8 Interaction Terms from Fixed Effects Regression Models Predicting Hours Worked Using NLSY Data

	Model 1		Model 2		Model 3		Model 4	
	b	SE ²	b	SE ²	b	SE ²	b	SE ²
Intercept	2067.90***	(13.81)	2067.20***	(13.78)	2068.26***	(13.82)	2068.67***	(13.85)
Bankruptcy Within 10 Years	-77.42**	(25.41)	-53.86*	(25.15)	-56.61*	(24.82)	-66.34*	(29.58)
Years of Schooling Completed ¹	146.11***	(5.91)						
Earnings ¹			7.15***	(.26)				
Self-employed					29.33	(24.15)		
Finance					53.71	(31.67)		
Accounting					47.93	(24.76)		
Job Loss							-29.88*	(12.20)
New Health Limitation							-58.62***	(15.68)
<i>Interactions with Employment Variables</i>								
Bankruptcy*Years of Schooling	-29.30*	(12.32)						
Bankruptcy*Earnings			-4.05***	(1.12)				
Bankruptcy*Self-employed					-31.94	(122.23)		
Bankruptcy*Finance					-468.97**	(173.01)		
Bankruptcy*Accounting					-178.72	(174.13)		
<i>Interactions with Adverse Event Variables</i>								
Bankruptcy*Job Loss							-.22	(53.56)
Bankruptcy*New Health Limitation							7.71	(58.62)
Adjusted R-Squared	0.447		0.448		0.447		0.447	
AIC	845557		845540		845564		845572	
BIC	845763		845745		845787		845786	
<i>Source:</i> NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations								
<i>Notes:</i> Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100. Analyses are based on Model 3 in Table 2, which includes all time-varying and time-invariant control variables. Coefficients for control variables are not shown.								
¹ Continuous variables are mean centered.								
² Standard errors are robust.								
*** p<.001, ** p<.01, * p<.05								

In terms of yearly hours worked, the negative and significant interaction term for bankruptcy and education in Model 1 in Table 6.8 and for previous earnings in Model 2 indicates that bankruptcy's costs depended on the respondent's education and earnings. In addition bankrupters in finance occupations worked an extra 469 fewer hours per year than bankrupters in other occupations. However, the results from Model 4 in Table 6.8, which include additional interaction terms with adverse events, show that bankruptcy's negative effects on working hours did not vary with the bankrupter's past job loss or illness.

To illustrate the earnings and employment differences for bankrupters and non-bankrupters, Figure 6.1 displays the average predicted change in earnings for bankrupters by their job search status and age based on the findings in Model 2 in Table 6.7, and Figure 6.2 displays the average predicted change in yearly hours worked for bankrupters by their previous earnings and age based on the findings in Model 2 in Table 6.8. I calculated the trend lines in these figures using the coefficients and their covariance matrix with a multivariate normal

distribution. In the figures, the respondents' earnings, working hours, bankruptcy status, age, job search status, and previous earnings levels were allowed to vary, but all other variables were held at their means.⁴⁹

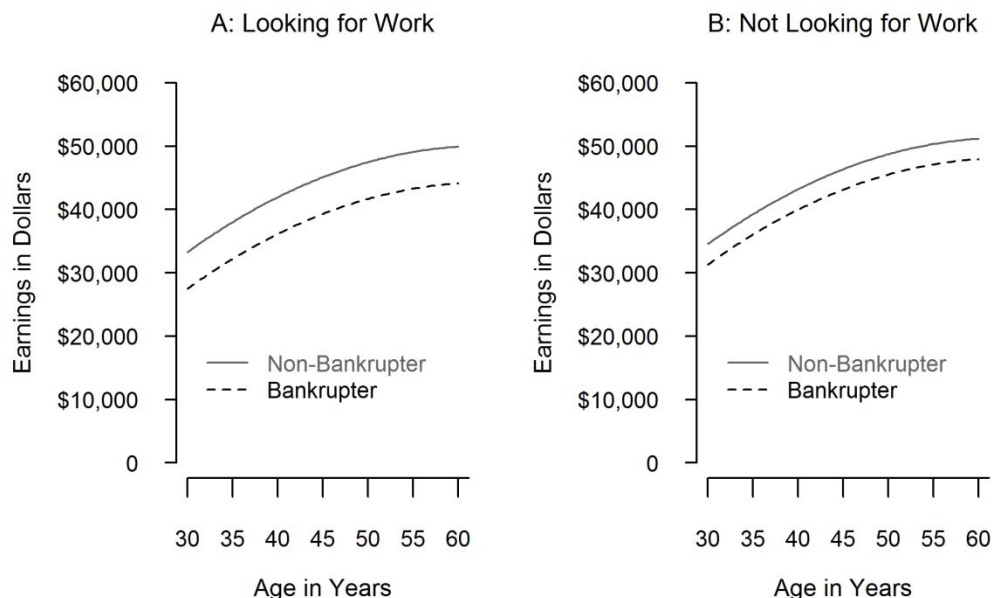


Figure 6.1 Variation in Average Predicted Earnings by Bankruptcy, Age, and Job Search Status Using NLSY Data

Source: NLSY, 1979-2008.

Notes: The average predicted earnings by age for individuals are based upon the coefficients from Model 2 in Table 6.7, which include all control variables and interactions between bankruptcy and education. I obtained predicted values and confidence intervals (not shown) using the coefficients and their covariance matrix with a multivariate normal distribution. In this figure, the respondents' bankruptcy status, age, and job search status were allowed to vary, but all other variables were held at their means.

Because the effect of bankruptcy on future earnings depended on the bankrupter's job search status, the relative difference in earnings was greater between bankrupters and non-bankrupters who were looking for work, as a comparison of Panels A and B in Figure 6.1 shows. For individuals who spent any weeks looking for work in the previous year, declaring bankruptcy decreased current earnings by approximately \$5,772 on average. Among individuals who were not looking for work in Panel B, bankrupters earned \$3,178 less than similar non-bankrupters. Across years, earnings increased with the respondent's age as expected, but a gap remained between bankrupters and non-bankrupters.

⁴⁹ Note that average earnings in this figure seem low because they are for the average individual with average levels of education and working hours.

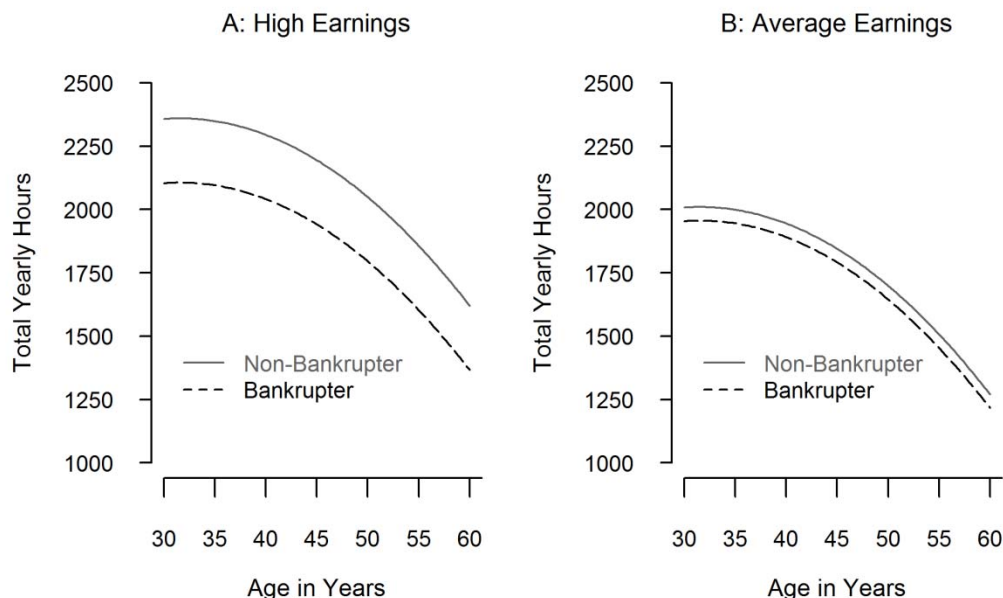


Figure 6.2 Variation in Average Predicted Hours Worked by Bankruptcy, Age, and Earnings Using NLSY Data

Source: NLSY, 1979-2008.

Notes: The average predicted hours worked by age for individuals is based upon the coefficients from Model 1 in Table 6.8, which include all control variables and interactions between bankruptcy and education. I obtained predicted values and confidence intervals (not shown) using the coefficients and their covariance matrix with a multivariate normal distribution. In this figure, the respondents' bankruptcy status, age, and earnings levels were allowed to vary, but all other variables were held at their means.

In Figure 6.2, the relationship between bankruptcy and hours of work was also contingent on the respondent's level of previous earnings. For individuals with average earnings (the mean level of previous earnings, approximately \$31,000) in Panel B, declaring bankruptcy decreased their time working by 54 hours, or 1.4 weeks. At higher levels of earnings (two standard deviations above the mean level) in Panel A, bankrupters worked 251 fewer hours, or 6.3 weeks, than their counterparts. Thus, this set of interactions shows that bankrupters with higher previous earnings and those who were actively looking for work faced larger labor market penalties.

Some respondents who were denied employment post-bankruptcy in Thorne's (2007) sample worked in high-trust occupations, such as accounting and banking. In order to see if my larger sample replicated this result, I also estimated models with interaction terms for persons employed in finance and accounting occupations, which are white-collar jobs that involve working with money. As shown by Model 3 Table 6.7, employment in finance and accounting

occupations increased earnings for NLSY respondents, but, there were no significant monetary differences for bankrupters and non-bankrupters within these occupations. Thus, among this sample, bankrupters in high-trust occupations did not face earnings penalties. For hours worked, however, the interaction term between bankruptcy and employment in finance was significant and negative, indicating a larger working-hours penalty for bankrupters in this occupation (Model 3 in Table 6.8). In particular, bankrupters in finance worked almost 12 fewer weeks per year than non-bankrupters in that occupation, which lends support to Thorne's (2007) findings and indicates that the stigma of bankruptcy might be affecting bankrupters' ability to find work, perhaps because employers use credit scores within this occupation.

Although job loss and divorce decreased a person's earnings and hours worked, they did not affect bankruptcy's relationship with the outcome variables, as shown by Model 4 in Tables 6.7 and 6.8. Bankruptcy still had consistent negative effects on earnings and employment regardless of whether a bankrupter experienced an adverse event, which indicates that other mechanisms must be behind this relationship.

Bankruptcy's Labor Market Effects over Time

To learn whether bankruptcy's effects changed over time, I also estimated models that included the time since the respondent filed for bankruptcy. Tables 6.9-6.12 summarize the results from fixed effects regressions where I included a categorical bankruptcy variable based on the respondents' time since bankruptcy. Tables 6.9 and 6.11 refer to the results using NLSY data. Tables 6.10 and 6.12 refer to the results with PSID data. I also graphed the NLSY results predicting earnings and hours worked by the respondent's time since bankruptcy in Figures 6.3 and 6.4. I did not represent the PSID findings graphically because most of the associations were not statistically significant.

Table 6.9 Fixed Effects Regression Models Predicting Earnings Using Time Since Bankruptcy and NLSY Data

	Model 1	
	b	SE ²
Intercept	36881.22***	(477.51)
Time Since Bankruptcy (Ref: No Bankruptcy)		
Bankruptcy within the Last Year	-3860.87***	(892.75)
Bankruptcy 1 to 3 Years Ago	-4778.26***	(806.81)
Bankruptcy 4 to 6 Years Ago	-3610.69**	(1183.04)
Bankruptcy 7 to 10 Years Ago	-5223.52***	(1156.36)
Bankruptcy More than 10 Years Ago	-4259.17**	(1624.67)
<i>Time-varying Control Variables</i>		
Age ¹	1027.33***	(41.48)
Age Squared ¹	-15.15***	(2.42)
Marital Status (Ref: Married)		
Never Married	-3851.44***	(400.53)
Formerly Married	-1246.18**	(446.24)
Any Children	339.91	(375.15)
<i>Human Capital and Employment Variables</i>		
Years of Schooling Completed ¹	4830.95***	(187.70)
Cumulative Number of Jobs ¹	-543.58***	(56.82)
Hours Worked ¹	7.08***	(.20)
Any Time Looking for Work	-1345.92***	(218.01)
Finance Occupation	4100.94**	(1480.20)
Accounting Occupation	1454.85	(1010.34)
Self-employed	-1456.58	(754.07)
<i>Adverse Events Within 10 Years</i>		
Divorce	540.02	(588.62)
Job Loss	-1211.07***	(339.85)
New Health Limitation	-2584.80***	(399.75)
<i>Time and Region Variables</i>		
Unemployment Rate (Percent) ¹	-45.96	(43.73)
Personal Bankruptcy Filing Rate/1,000 ¹	56.66	(72.63)
Interest Rate (Percent) ¹	69.95	(93.46)
Exemption-level (Ref: Federal Exemption-level)		
Minimal Exemption	332.23	(572.24)
Below Federal Exemption	-324.51	(479.30)
Unlimited Exemption	-985.65	(655.77)
Adjusted R-Squared	0.652	
AIC	89508	
BIC	89740	
<i>Source: NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations</i>		
<i>Notes: Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.</i>		
¹ Continuous variables are mean centered.		
² Standard errors are robust.		
*** p<.001, ** p<.01, * p<.05		

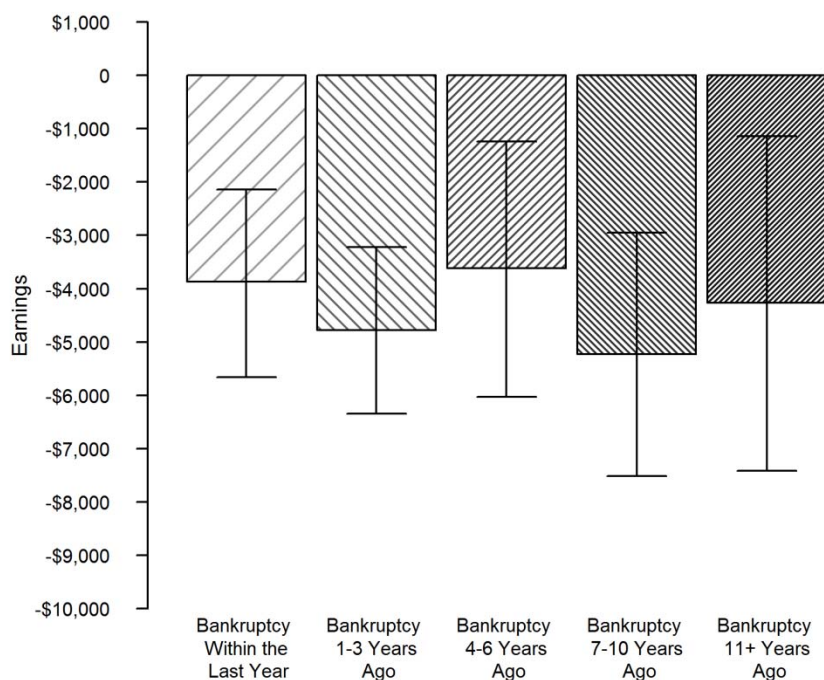


Figure 6.3 Average Predicted Earnings by Time Since Bankruptcy Using NLSY Data

Source: NLSY, 1979-2008.

Notes: The average predicted earnings for individuals are based upon the coefficients from Model 1 in Table 6.9, which includes all control variables. I obtained predicted values (represented by the thick bars) and 95% confidence intervals (represented by the error bars) using the coefficients and their covariance matrix with a multivariate normal distribution.

Table 6.9 and Figure 6.3 show that, when compared to the referent category of no bankruptcy, bankrupters' earnings losses varied over time in the NLSY data. The difference in earnings between non-bankrupters and people who declared bankruptcy within the past year was approximately \$3,861, and the gap increased to \$4,778 for bankrupters who filed 1 to 3 years ago. However, this gap decreased for bankrupters who declared 4 to 6 years ago. This gap then increased again; bankrupters who declared 7 to 10 years ago earned \$5,224 less than their non-bankrupt counterparts. However, the gap began to decrease after 10 years.

Table 6.10 shows a similar pattern in the PSID data. However, bankruptcy's relationship with earnings was not always statistically significant in these data. Although the gap varied over time, only bankrupters who declared 1 to 3 years ago made less than similar non-bankrupters in the PSID.⁵⁰

⁵⁰ However, the time since bankruptcy variables indicating whether the respondent declared bankruptcy in the last year, 7 to 10 years ago, and more than 10 years ago were statistically significant at the $p < .10$ level.

Table 6.10 Fixed Effects Regression Models Predicting Earnings Using Time Since Bankruptcy and PSID Data

	Model 1	
	b	SE ²
Intercept	54213.73***	(883.94)
Time Since Bankruptcy (Ref: No Bankruptcy)		
Bankruptcy within the Last Year	-2366.92	(1317.16)
Bankruptcy 1 to 3 Years Ago	-3108.29*	(1342.80)
Bankruptcy 4 to 6 Years Ago	-2096.09	(1892.97)
Bankruptcy 7 to 10 Years Ago	-3807.72	(2131.35)
Bankruptcy More than 10 Years Ago	-4656.77	(2652.91)
Time-varying Control Variables		
Age ¹	858.42***	(58.43)
Age Squared ¹	-44.83***	(2.84)
Marital Status (Ref: Married)		
Never Married	-504.78	(997.38)
Formerly Married	-59.76	(1064.28)
Any Children	1374.15**	(575.95)
Human Capital and Employment Variables		
Education (Ref: HS Diploma)		
Less than High School	-1197.14	(1644.18)
Some College	1011.20	(2283.13)
BA or Higher	4477.46	(2616.04)
Hours Worked ¹	4.03***	(.33)
Finance Occupation	-681.27	(2973.10)
Accounting Occupation	-3164.77	(2020.13)
Adverse Events Within 10 Years		
Divorce	-2918.92**	(985.84)
Job Loss	-9525.85***	(772.14)
New Health Limitation	-1565.32**	(600.84)
Time and Region Variables		
Unemployment Rate (Percent) ¹	-36.49	(40.65)
Personal Bankruptcy Filing Rate/1,000 ¹	-53.40	(67.43)
Interest Rate (Percent) ¹	-7.32	(38.59)
Exemption-level (Ref: Federal Exemption-level)		
Minimal Exemption	-631.35*	(292.09)
Below Federal Exemption	-174.64	(287.54)
Unlimited Exemption	23.09	(357.80)
Adjusted R-Squared	0.822	
AIC	869460	
BIC	869674	
<i>Source:</i> PSID, 1984-1996. N=5,469 cases and 39,737 observations		
<i>Notes:</i> Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.		
¹ Continuous variables are mean centered.		
² Standard errors are robust.		
*** p < .001, ** p < .01, * p < .05		

Bankruptcy's relationship with yearly hours of work also varied by the respondent's time since bankruptcy in the NLSY data. I summarize these findings in Tables 6.11 and 6.12, along with Figure 6.4.

Table 6.11 Fixed Effects Regression Models Predicting Hours Worked Using Time Since Bankruptcy and NLSY Data

	Model 1	
	b	SE ²
Intercept	2069.41***	(13.81)
Time Since Bankruptcy (Ref: No Bankruptcy)		
Bankruptcy within the Last Year	-41.77	(35.97)
Bankruptcy 1 to 3 Years Ago	-49.80	(34.72)
Bankruptcy 4 to 6 Years Ago	-132.36***	(37.29)
Bankruptcy 7 to 10 Years Ago	-112.06*	(49.52)
Bankruptcy More than 10 Years Ago	-103.23	(55.91)
<i>Time-varying Control Variables</i>		
Age ¹	3.23*	(1.29)
Age Squared ¹	-.92***	(.08)
Marital Status (Ref: Married)		
Never Married	73.11***	(13.17)
Formerly Married	49.08***	(14.72)
Any Children	-108.55***	(11.39)
<i>Human Capital and Employment Variables</i>		
Years of Schooling Completed ¹	144.87***	(5.92)
Cumulative Number of Jobs ¹	24.16***	(2.00)
Total Earnings (Thousands) ¹	7.03***	(.26)
Any Time Looking for Work	-174.45***	(9.15)
Finance Occupation	40.50	(32.42)
Accounting Occupation	41.95	(26.90)
Self-employed	27.15	(23.80)
<i>Adverse Events Within 10 Years</i>		
Divorce	-48.56**	(18.38)
Job Loss	-29.85*	(12.00)
New Health Limitation	-58.09***	(15.45)
<i>Time and Region Variables</i>		
Unemployment Rate (Percent) ¹	-14.53***	(1.46)
Personal Bankruptcy Filing Rate/1,000 ¹	-1.30	(2.20)
Interest Rate (Percent) ¹	.76	(2.79)
Exemption-level (Ref: Federal Exemption-level)		
Minimal Exemption	-20.93	(15.94)
Below Federal Exemption	12.96	(14.47)
Unlimited Exemption	12.33	(20.10)
Adjusted R-Squared	0.447	
AIC	845558	
BIC	845790	
<i>Source: NLSY 1979 Cohort, 1979-2008. N=4,291 cases and 55,110 observations</i>		
<i>Notes: Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.</i>		
¹ Continuous variables are mean centered.		
² Standard errors are robust.		
*** p<.001, ** p<.01, * p<.05		

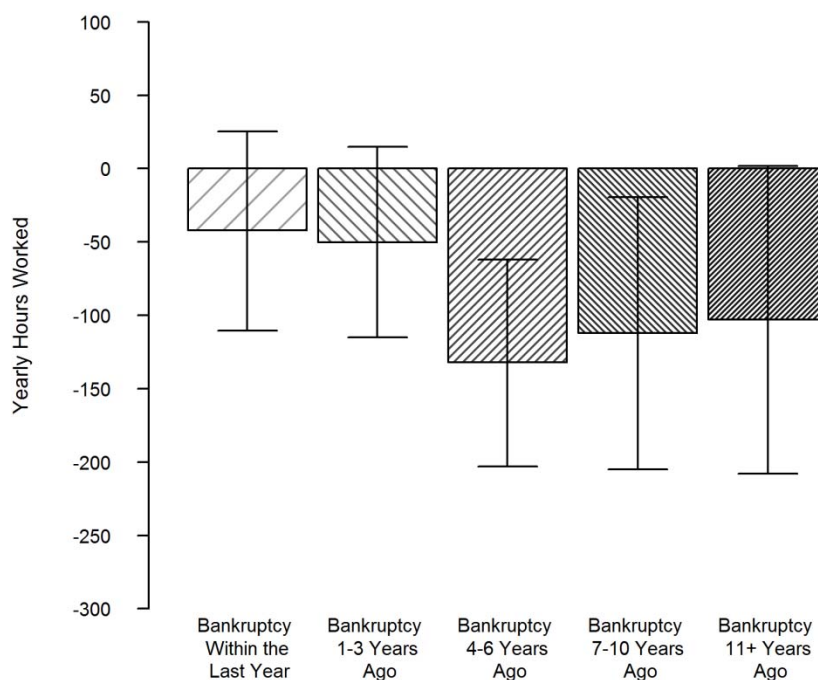


Figure 6.4 Average Predicted Yearly Hours Worked by Time Since Bankruptcy Using NLSY Data

Source: NLSY, 1979-2008.

Notes: The average predicted yearly hours worked for individuals are based upon the coefficients from Model 1 in Table 6.11, which includes all control variables. I obtained predicted values (represented by the thick bars) and 95% confidence intervals (represented by the error bars) using the coefficients and their covariance matrix with a multivariate normal distribution.

Table 6.11 and Figure 6.4 show that NLSY respondents who declared bankruptcy 4 to 6 years ago worked the fewest hours compared to non-bankrupters, approximately 132 fewer hours (4 fewer weeks) per year. However, respondents who declared bankruptcy more recently did not necessarily work fewer hours per year than non-bankrupters, and those who declared bankruptcy 7 to 10 years ago worked 112 fewer hours (3 fewer weeks) per year. Additionally, Table 6.12 shows that in the PSID data, there was no statistically significant variation in bankruptcy's effects over time.⁵¹

⁵¹ The variable indicating whether the respondent declared bankruptcy 1-3 years ago was statistically significant at the $p < .10$ level.

Table 6.12 Fixed Effects Regression Models Predicting Hours Worked Using Time Since Bankruptcy and PSID Data

	Model 1	
	b	SE ²
Intercept	2191.24***	(26.88)
Time Since Bankruptcy (Ref: No Bankruptcy)		
Bankruptcy within the Last Year	-80.54	(65.44)
Bankruptcy 1 to 3 Years Ago	-102.59	(61.71)
Bankruptcy 4 to 6 Years Ago	-22.04	(74.10)
Bankruptcy 7 to 10 Years Ago	-78.64	(107.57)
Bankruptcy More than 10 Years Ago	-121.32	(117.58)
<i>Time-varying Control Variables</i>		
Age ¹	4.43**	(1.66)
Age Squared ¹	-1.00***	(.08)
Marital Status (Ref: Married)		
Never Married	-13.50	(29.93)
Formerly Married	-58.38	(31.55)
Any Children	-40.53*	(16.11)
<i>Human Capital and Employment Variables</i>		
Education (Ref: HS Diploma)		
Less than High School	54.02	(52.50)
Some College	-18.32	(61.06)
BA or Higher	-56.92	(61.75)
Hours Worked	2.25***	(.37)
Finance Occupation	129.13*	(55.04)
Accounting Occupation	85.32*	(40.48)
<i>Adverse Events Within 10 Years</i>		
Divorce	-41.34	(32.49)
Job Loss	-182.45***	(30.04)
New Health Limitation	-41.06*	(21.00)
<i>Time and Region Variables</i>		
Unemployment Rate (Percent) ¹	-4.44***	(1.34)
Personal Bankruptcy Filing Rate/1,000 ¹	-1.55	(2.49)
Interest Rate (Percent) ¹	.64	(1.50)
Exemption-level (Ref: Federal Exemption-level)		
Minimal Exemption	6.64	(10.20)
Below Federal Exemption	10.94	(10.13)
Unlimited Exemption	10.33	(11.80)
Adjusted R-Squared	0.515	
AIC	601764	
BIC	601979	
<i>Source:</i> PSID, 1984-1996. N=5,469 cases and 39,737 observations		
<i>Notes:</i> Analyses are for the sample of respondents with annual earnings between \$1 and \$250,000 and weekly hours between 5 and 100.		
¹ Continuous variables are mean centered.		
² Standard errors are robust.		
*** p < .001, ** p < .01, * p < .05		

These results indicate that bankruptcy's negative labor market effects continue for many years after a person declares bankruptcy and may even become stronger over time. In the NLSY results, the bigger gaps between respondents who went bankrupt longer ago and non-bankrupters in their earnings and hours worked point to a widening gap between individuals as cumulative

disadvantage theory predicts. Importantly, bankruptcy does not appear to attenuate the cycle of cumulative disadvantage as some lawmakers intended.

Discussion

My analysis demonstrates that a person's stigmatized credit market status—operationalized as bankruptcy—can limit his or her ability to obtain resources within the labor market. Net of unobserved individual characteristics, time-varying control variables, and, most importantly, earlier labor market statuses, bankrupt respondents in the NLSY spent less time working and suffered lower earnings. Bankrupt PSID household heads also experienced some earnings penalties, but they did not necessarily work fewer hours than non-bankrupters in that sample.

In its current form bankruptcy is a specific legal status that epitomizes insolvency and extreme debt delinquency. Due to its complicated filing process and later penalties, most individuals declare bankruptcy as a last resort. These individuals usually have high debt-to-income ratios, and many have a history of missed payments, but most also come from middle-class backgrounds.⁵² Although most bankrupters are not impoverished, many experience adverse events that lead them to declare bankruptcy and spark a process of cumulative disadvantage (Sullivan et al. 1989, 2000).

Taken together, my findings suggest a process indicative of cumulative disadvantage, but not necessarily for those at the very bottom of earnings and education distribution. Instead, for more advantaged bankrupters with higher earnings and those who were actively looking for work, the stigmatized status led to greater disadvantage relative to similar non-bankrupters, which could occur because they work in high-trust occupations where employers rely on credit reports. However, bankruptcy could also specifically scar these bankrupters because their advantaged status insulates them from other stigmatized statuses, such as poverty and low education, which normally would outweigh the negative effects of bankruptcy.

While this analysis establishes connections between bankruptcy and negative labor market outcomes, it cannot determine the specific mechanism behind this relationship. Multiple mechanisms can lead to the accumulation of disadvantage across markets. However, my analytic

⁵² Filing for bankruptcy is expensive, which makes it unavailable to many people. The passing of BAPCPA in 2005 (P.L. 109-8) also decreased bankruptcy's appeal to debtors by increasing the costs of filing and forcing some debtors to repay creditors from post-bankruptcy earnings (White 2007a, 2007b; Lupica 2011).

strategies allowed me to rule out certain mechanisms related to unobserved individual-level characteristics and past adverse events. Because fixed effects models focus on within-individual variation, these models indicate that, even though prior to bankruptcy many bankrupters already earn less and work fewer hours than non-bankrupters, once they formally declare bankruptcy, bankrupters face further labor market disadvantage. Additionally, by controlling for the respondent's experience of adverse events within the past decade, I was able to show that bankruptcy affected labor market outcomes regardless of these events.

My research suggests that employers may discriminate against bankrupters when this information is made available to them. In hiring or assigning people to jobs employers often rely on characteristics that are not direct measures of ability to predict the performance of future workers. Employers “statistically discriminate” when they use an individual's race, ethnicity, and marital status as proxy indicators for future productivity and work ethic (Kirschenman and Neckerman 1991; Holzer 1996; Moss and Tilly 2001). As a negative credential, bankruptcy becomes a legitimate, but not necessarily accurate, status distinction that employers can use. Credit scoring may not be behind bankruptcy's negative earnings and employment effects, but my findings show that it is a possibility.

Limitations

The statistical procedures and data used impose certain limitations on this analysis. Fixed effects models are advantageous for longitudinal data analysis because they control for unobserved time-invariant individual characteristics (Gelman and Hill 2005; Allison 2009), but I cannot affirm causality with these models because they do not provide a counterfactual case to compare bankrupters with. Fixed effects models also ignore between-individual variation and weight each individual equally, which may slant results toward individuals with more cases in an unbalanced panel dataset (Gelman and Hill 2005). In addition, although these models control for unmeasured predictors that are constant over time, they cannot control for unmeasured predictors that vary over time, which could influence the results (Allison 2009). In order to account for these limitations, I replicated my findings with other statistical methods that include generalized least squares models with robust standard errors that account for individual clustering, random effects models, and hybrid mixed effects models. Although the significance levels and magnitude

of the coefficients differed, these models yielded similar estimates for the outcome variables of interest.

In addition, I present somewhat conservative estimates of bankruptcy's labor market effects because I restricted my samples to respondents with earnings for this analysis. When I estimated the same models using the full NLSY and PSID samples, I found similar, but overall stronger relationships for bankruptcy's effects on later earnings and hours worked. In the PSID data, I also found more significant relationships between bankruptcy and my outcome variables. In my analyses, I also limited the time frame for bankruptcy's effects to ten years in order to determine bankruptcy's relationship with earnings and employment outcomes during the time that it would appear on a person's credit report.

Similar to my findings related to the causes of bankruptcy, more of the predictor variables in the NLSY were significantly associated with outcomes of earnings and hours worked than in the PSID. These discrepancies potentially stem from the different sample time periods, sizes, and structures and the available covariates in each. The NLSY sample covers a much longer time period than the PSID sample (29 years compared to 12 years). It also includes bankrupters in more recent years and additional employment variables, while the PSID only covers bankrupters until 1996 and lacks certain covariates. The timing difference is particularly important for my findings because the use of credit scoring in hiring has become more common in recent years (Furletti 2002; Hunt 2005; Sprague 2007).

Because the NLSY follows a cohort of individuals, my observed effects of bankruptcy might differ for individuals who were born before 1957 or after 1965 as my analysis of the PSID suggests.⁵³ However, the PSID sample is also of limited generalizability. The PSID collects data at the household level, which means that the PSID findings refer to household heads, not the full population. The lower proportion of females represented in these data, even after including sampling weights, is also troubling. Although the NLSY findings refer to the lives of baby boomers, these flaws within the PSID data lead me to place more trust in the NLSY sample.

⁵³ To further check these findings, I tested models that included sampling weights provided by the NLSY, which account for clustering by sampling unit, and I estimated the same models using the full NLSY sample, which oversamples poor individuals, blacks, and Hispanics. These models also produced similar estimates to those shown in this paper.

Debt and bankruptcy have been economic necessities in the United States since the 1800s, but as Mann (2002:255) has noted, bankruptcy law presents a fundamental dilemma in its intentions. Is bankruptcy about death or rebirth? Should bankrupters be forgiven for their misfortune or punished for their irresponsibility and wrongdoing? A market economy perspective promotes forgiveness because if borrowers who could not repay loans were treated too harshly, no one would borrow money. But a moral responsibility perspective, based on the assumption that personal debt results from self-indulgence, advocates punishment (Graeber 2011). Today, bankruptcy is associated more with financial failure than with moral wrongdoing, but many maintain an ethic of personal responsibility that leads to the stigmatization of bankrupters (Mann 2002; Efrat 2006).

My findings demonstrate that bankruptcy does not offer a true fresh start; its stigma extends beyond the credit market, as evidenced by the negative labor market consequences for bankrupters. Bankruptcy does not offer a fresh start because the ambiguities in U.S. Bankruptcy Code and the 1996 FCRA allow employers to access credit reports, which does not fully protect bankrupters from the transmission of credit market disadvantage into the labor market. This raises an important question for policymakers: what are the permissible uses for credit reports? Currently there is no evidence to indicate that credit scores reliably predict job performance, but employers often rely on these reports in hiring decisions. Thus, credit reports can send distracting signals to employers, potentially affecting their productivity, as well as leading to discriminatory outcomes for workers. In order to address these legal ambiguities and the potential for discrimination, further research is necessary to inform policymakers about when and how employers use bankruptcy, credit history, and background checks to evaluate job applicants and employees. If the government wants to pursue a policy of debt forgiveness, policymakers need to consider the stigma associated with bankruptcy. As it stands, debt may be forgiven, but a person's credit history is not forgotten.

CHAPTER 7: CONCLUSIONS

Although sociologists have often overlooked the role of the credit market in generating inequality, Max Weber recognized the importance of all types of property ownership for people's life chances (Weber 1978, [1922]1946). Weber defined class location and the associated class conflict based on property ownership and position within multiple markets, including the credit market. Today the credit market continues to contribute to inequality in the United States. For purveyors of credit, credit markets increase wealth and the power it confers, but for many borrowers, credit can lead to debt delinquency and even bankruptcy. The legal framework in the U.S. then reinforces these advantages for creditors and respective disadvantages for debtors within credit markets. In such situations, credit markets act to increase overall inequality, advantaging some at the expense of others.

In this dissertation, I focused on bankrupters--one type of extreme debtor--in order to address both the rising importance of credit markets in people's lives and the interconnectedness of credit and labor markets. I used this case to illustrate the continuing inequalities that exist within the credit market, extend into the labor market, and support a process of cumulative disadvantage. In doing so I also addressed the legal framework that dictates the rules of bankruptcy and calls attention to the ongoing class struggles between creditors and debtors.

My three analytical chapters illustrate different aspects of these struggles. I first described the multiple adverse events and continuing financial problems that most bankrupters face, as reflected in my two longitudinal datasets. I also addressed variation by bankruptcy chapter and found consistent race gaps that demonstrate the additional disadvantages for black bankrupters. Black bankrupters in the NLSY and PSID were far more likely to declare Chapter 13 bankruptcy, which tends to be more expensive and "less forgiving" than Chapter 7 bankruptcy. This relationship held even after controlling for employment and demographic characteristics.

After describing bankrupters, I focused on the first part of my model of cumulative disadvantage: explaining what leads people into bankruptcy. In this part of my dissertation, I sought to address the Congressional debate regarding whether bankruptcy results more from individual irresponsibility or from personal misfortune. By using fixed effects to control for stable individual-level characteristics, I showed that bankruptcy resulted more from people's experiences of job loss, illness, and marital dissolution than from any "moral shortcomings"

reflected in personality characteristics. Debt burden was also strongly associated with the probability of bankruptcy, but this variable interacted with income, leading to larger effects for low-earners. These findings were particularly true for my cohort of baby boomers, represented in the NLSY data.

In the second part of this model of cumulative disadvantage, I addressed the labor market consequences of bankruptcy by investigating what happens after a debtor declares bankruptcy. As I expected, respondents faced additional labor market disadvantages after declaring bankruptcy. In the NLSY, bankrupters generally earned less and spent less time working than they did before bankruptcy, net of unobserved individual characteristics and time-varying employment and demographic control variables. Bankruptcy's effects also varied by the respondent's previous earnings, education, and job search status, which indicates that the labor market penalties are not the same for everyone. Because bankruptcy acts a negative credential that is formalized within a person's credit history, employers' reliance on credit reports could be a cause of this continuing disadvantage. Although I was unable to explicitly test this mechanism, my methods and the covariates I included helped me to rule out other competing mechanisms, lending more support to the role of credit reports.

Taken together, my findings illustrate how certain disadvantages can build for different individuals across markets and over time. Bankruptcy, which often results from adverse events, particularly income losses and unmanageable debt burden, confers a stigmatized status that extends to how people fare in labor markets. This finding demonstrates the importance of a person's credit market status for later outcomes outside of the credit market. The causes and consequences of bankruptcy, however, occur in the context of a legal framework determined by creditor and debtor class conflict. Creditor-debtor conflict also supports this system of cumulative advantage/disadvantage, as creditors with increasingly greater power are able to exert more influence over the political system than debtors and manipulate the legal framework.

Limitations

My findings are limited by the NLSY and PSID data and the statistical models that I used to analyze my two datasets (*see* Chapters 5 and 6). In particular, my findings varied by the data used. Several of my hypotheses, especially those related to bankruptcy's consequences, were supported in only the NLSY data, and many relationships were statistically significant in

analyses of only this dataset. This result could suggest that the experiences of baby boomers with bankruptcy diverge from those of the rest of the population. Younger and older cohorts might not be as affected by bankruptcy. However, it is hard to confirm a divergence through a comparison with findings based on the PSID data due to the additional drawbacks of this dataset.

Unlike the NLSY, the PSID data are collected at the household-level. Therefore, my results from these data refer to household heads, not all individuals in the population. I did have some information about the household head's "wife," but it was hard to incorporate into an analysis of individual bankrupters' later wages. The PSID dataset likely misses the bankruptcies of individuals who are not considered household heads. For example, women who represented half of all bankrupters in the NLSY were underrepresented in my PSID sample even when I included sampling weights (*see* Chapter 4).

Furthermore, either the PSID under-sampled bankrupters or PSID respondents underreported bankruptcy filing in the 1984-1996 sample. The small number of bankrupters in the PSID, whether due to underreporting, under-sampling, or sample attrition, likely led to a downward bias in bankruptcy's effects (Fay, Hurst, and White 2002; Fisher 2004). The PSID data also included fewer key covariates, including debt burden, and covered a shorter time period. The shorter time period is particularly important when conducting fixed effects analyses that rely on within-person variation. I observed less variation in the 12 years of PSID data than in the NLSY samples that covered 17 to 29 years.

My statistical procedures also present certain limitations on top of the data shortcomings. I chose to use fixed effects models to analyze my data because I wanted to control for time-invariant individual-level characteristics that could affect a variety of outcomes for respondents.⁵⁴ However, as I have noted, these models rely on within-person variation to estimate the effects of time-varying predictor variables on outcomes, such as bankruptcy, earnings, and hours worked. Between-person variation could also affect my results. In order to see if including between-person variation affected my results, I also analyzed my data using random effects models. These analyses produced similar results. Neither type of statistical model procedure, however, provides a true counterfactual case with which to compare my results. I still

⁵⁴ Please see Chapter 3 and the Methods sections in Chapters 5 and 6 for a more detailed discussion of the costs and benefits of fixed effects models.

do not know what would have happened to the bankrupters if they had not declared bankruptcy, and had instead chosen to stay in debt.⁵⁵

Despite these limitations, I was able to provide an example of cumulative disadvantage based on the formalized and stigmatized status of bankruptcy in a two-part analysis. In the first part, I addressed the causes of bankruptcy using my two longitudinal datasets. My findings provide systematic quantitative evidence for what CBP researchers have been showing since the 1980s and what debtor advocates have been arguing since the 1998 Bankruptcy Reform Act was introduced—adverse events and debt burden are strong predictors of bankruptcy. In the second part, I demonstrated how bankruptcy’s stigma extends across credit and labor markets. This section showed that most bankrupters face additional labor market disadvantages later on; they earn less and work fewer hours than before declaring bankruptcy. I was therefore able to bring into question the transmission of bankruptcy’s stigma across markets through employers’ uses of credit reports.

Cumulative Disadvantage

My findings on the causes and consequences of bankruptcy provide some support for a model of cumulative disadvantage, but not always as a strict path-dependent model. Cumulative advantage/disadvantage generally occurs through the accumulation of resources and the statuses linked to them, but two general patterns exist (*see* Chapter 2). Both patterns of cumulative advantage predict a widening gap between individuals, dependent on each person’s starting point and rate of returns, but the gap can increase linearly or exponentially depending on the form of cumulative advantage at work.

In the first pattern of cumulative advantage the gap between individuals grows exponentially, similar to a model of compound interest. For example, consumers who obtain a better interest rate at the time of investment will receive exceedingly greater returns on that investment over time when compared with their counterparts who originally received a lower rate. Differing initial investments will then lead to even larger gaps. DiPrete and Eirich (2006) termed this pattern path-dependent, because the growth rate of future resources always depends

⁵⁵ Other statistical procedures, such as propensity score matching, could offer a stronger counterfactual case, but these procedures still do not control for unobserved stable individual characteristics. They also require a balanced panel sample that would entail dramatically reducing my samples sizes.

on levels of current resources, thus a small relative advantage at time one leads to increasing advantages over time.

In the second pattern of cumulative advantage, achieved and ascribed status variables show persisting effects in returns to resources, leading to divergence over time between members of these groups. DiPrete and Eirich (2006) relate this pattern to a status attainment form implicit in Blau and Duncan's (1967) research. Lipset and Bendix (1959) originally posited a vicious cycle where ascriptive statuses, such as race, gender, and family background, build upon each other to produce more or less advantage for certain groups.⁵⁶ Contesting Lipset and Bendix's (1959) description of a vicious cycle of poverty, Blau and Duncan (1967:204) noted, "In this case what is cumulative is the experience of an individual or a cohort of individuals over the life cycle, so that in the latter part of the life cycle achieved status depends heavily on prior achievements, whatever the factors determining those achievements may have been." According to this model, an individual's status and resources at time one influence his or her ability to obtain future resources and move up the status hierarchy.

My findings fit more with the second pattern of cumulative disadvantage than with the first one. Respondents, particularly those in the NLSY, who dealt with job loss, divorce, or medical problems were more likely to end up declaring bankruptcy, even after controlling for debt burden. Bankrupters also experienced more adverse events over than lifetimes than non-bankrupters. Moreover, certain groups, especially African Americans, faced additional disadvantages within bankruptcy due to their use of Chapter 13 bankruptcy above the more forgiving Chapter 7 bankruptcy option. Although bankruptcy removed debt for these individuals, they faced continuing disadvantages later on in terms of employment and earnings. Thus, these experiences and statuses compounded over time and extended across markets.

Despite bankruptcy's negative consequences, it is still likely that bankruptcy offers a better option than staying in debt indefinitely. Insolvent debtors do not have many options to remedy their situations. In my data I did not have a true counterfactual case to indicate what would have happened to bankrupters if their debt was not forgiven, but CBP findings indicate that they would probably continue to struggle. Bankruptcy could become a better option for debtors, but only if legislators limit its negative consequences, particularly those that occur

⁵⁶ Blau and Duncan (1967), however, argued that cumulative advantage must be understood as the accumulation of achievements over the life cycle, not as the combination of ascriptive elements within an individual's background (Blau and Duncan 1967:203-05).

within the labor market. Hopefully, a greater awareness of the uses of credit reports and the negative effects of bankruptcy will lead policymakers to revise some of the current stipulations in bankruptcy and credit laws, but I realize that making such changes will entail a battle from creditors.

Legal and Political Framework

Cumulative disadvantage for bankrupters occurs within a legal framework that reflects the constant class struggle between creditors and debtors. In their struggles to control bankruptcy laws, debtor advocates have generally sought forgiveness for bankrupters, but creditor advocates have supported legislation that includes at least some punitive measures to deter bankruptcy filing. As shown by the aggregate trends in debt and bankruptcy illustrated by Figure 2.1, in BAPCPA's effects on the costs of bankruptcy, and in my findings in Chapters 5 and 6, these struggles have real consequences for debtors and bankrupters. In addition, the ambiguous legal framework surrounding bankruptcy, employment, and credit scoring impedes the potential for a fresh start in bankruptcy.

The federal government plays a role in regulating credit markets and bankruptcy, but federal bankruptcy law does not exist solely to protect insolvent debtors. It aids debtors by promoting debt forgiveness, but it also helps creditors by ensuring an equitable division of the debtor's assets (Mann 2002; Warren and Westbrook 2009). In addition, bankruptcy supports economic growth and entrepreneurship, and perhaps most importantly, it protects the rest of society from having to recoup the losses of others. As the subprime mortgage market collapse has shown, when debtors cannot pay large debts, crises extend beyond the individual, and the concentration of insolvent debtors can affect entire communities (Rugh and Massey 2010).

Bankruptcy's Continuing Stigma

Although debt forgiveness is necessary for a well-functioning economy, bankruptcy still carries a stigma that can affect debtors' lives (Mann 2002; Efrat 2006). In many ways this stigma is built into the legal framework that defines bankruptcy. Legislators used it when crafting bankruptcy laws in the past, and they often referred to bankruptcy's stigma in their debates over the most recent set of bankruptcy reforms, embodied in the 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA). For example, in support of BAPCPA, Senator Bill

Frist of Tennessee argued, “bankruptcy has become so common that it has lost the stigma it had even a short generation ago. Today it is just another method for getting out of debt, a tool just to get out of debt” (Frist 2005:S1813). However, in opposition to the bill, Senator Richard Durbin of Illinois described bankruptcy as “something everyone dreads the thought of, that you would reach a point in life where you have more debts than assets, and finally say: I have to go to court and ask for help” (Durbin 2005:S2420). Although bankruptcy can be a tool for getting out of debt, it still carries a stigma of financial failure.

Bankruptcy’s stigma is not applied evenly to all groups. From its first implementation, bankruptcy resulted in debt forgiveness for some, but not for all debtors (Skeel 2001). Only insolvent debtors who were deemed worthy, for example, traders and other businesspeople, received a fresh start. Today, many lawmakers also point to the unequal bankruptcy laws that dictate business and personal bankruptcy. Comparing bankruptcy laws for individual homeowners and businesses, Representative Blumenauer of Oregon said:

Homeowners under law cannot take bankruptcy and have a judge reset the loan value of their residence to conform to what the current value is and to reduce the interest rates to reflect today’s record low rates.... As a result, we have what I think is truly an insane situation where a speculator could buy six units in a condominium building and have a bankruptcy judge reduce the loan’s amount and interest rate on each one of the speculator’s six units, but the poor soul who bought his unit just to live in it cannot have that same privilege. (Blumenauer 2011:H8969)

Representative Blumenauer’s statement exemplifies the inequalities in this system. Debt is forgivable when it is incurred for entrepreneurial reasons, but not when it is incurred for what are assumed to be self-indulgent and irresponsible motives.

I attempted to gauge some of the potential effects of bankruptcy’s stigma in my analysis by including the state-level bankruptcy filing rate along with the legal interest rate and homestead exemptions. In the NLSY data, respondents living in states where the bankruptcy filing rate was higher were more likely to declare bankruptcy themselves, as estimated by fixed and random effects models (*see* Tables 5.3 and 5.5). Other researchers have interpreted similar findings in relation to bankruptcy’s stigma (Fay, Hurst, and White 1998, 2002; Han and Li 2007). Legislators have also attributed the rising rate of bankruptcy in the U.S. population to its decreasing stigma (*see* Chapter 2). If the state-level filing rate is evidence of the stigma of bankruptcy, my findings support the notion that bankrupters are more likely to file when the

process is less stigmatized. Furthermore, bankruptcy acts as a formalized status, or a negative credential that affects multiple outcomes for bankrupters. My findings regarding bankruptcy's problematic labor market effects also demonstrate negative outcomes associated with its stigma.

Filing for bankruptcy comes with penalties that are codified in bankruptcy law. Today many bankrupters face lower credit scores, restrictions in the credit market, and a stigma related to their debtor status, in addition to the financial costs of bankruptcy. It is not surprising that bankruptcy is stigmatized in the United States and that its stigma can travel across markets. Nor is it surprising that creditor arguments for increased penalties for bankrupters resonate with many Americans. Bankruptcy challenges the assumption that debts must always be repaid. It defies the moral argument that obligations must be fulfilled (Graeber 2011). Yet, when we include the role of creditors and lenders in this process, the moral argument becomes more convoluted. Although people believe that it is their duty to pay back loans, many societies and religions view lending as evil and usury as wrong (Graeber 2011). This moral dilemma complicates credit legislation for lawmakers, who are also affected by the relative strength that creditor and debtor advocates exude over the process.

The Role of Creditors

Lending has become more profitable over time due in part to creditors' dominance over the legislative process that extends beyond bankruptcy, back to the deregulation of credit markets in the 1980s. To illustrate lenders' growing influence, Figure 7.1 describes the increase in consumer credit and the corresponding growth in assets belonging to domestic financial companies from 1945 to 2010.⁵⁷ As depicted in Figure 7.1, domestic finance companies' total assets were relatively stable through the 1970s. Between 1980 and 2005, however, their total assets grew by a factor of seven, from approximately \$3.2 trillion in 1980 to \$23.6 trillion in 2000. Total consumer credit and financial companies' assets declined with the onset of the Great Recession, but they are likely to rebound in the coming years and, as Figure 7.2 shows, the profits of financial companies have already begun to recover from the recession.

⁵⁷ Across this time period financial company assets and consumer credit had a correlation of 0.966.

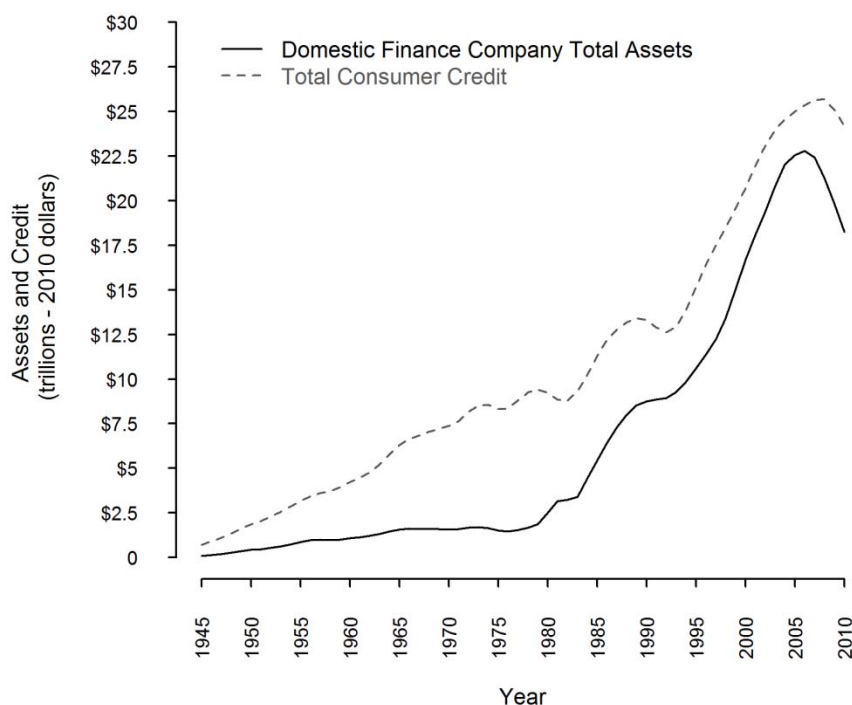


Figure 7.1 Total Consumer Credit and Domestic Finance Companies' Total Assets, 1945-2010

Source: U.S. Federal Reserve Board, Federal Reserve Releases G19 and G20

Notes: Assets and consumer credit are recorded in trillions of U.S. dollars and adjusted for inflation. This plot uses lowess smoothing through locally-weighted polynomial regression to create smooth curves for the data.

Figure 7.2 plots finance companies' profits in billions of dollars, along with average credit card interest and charge-off rates from 1985 through 2011. Despite declines in the 2007-2009 recession, U.S. finance companies have generally increased their profits since the 1980s. The average credit card interest rate has also remained steady at about 13 percent after decreasing in the early 2000s. The credit card charge-off rate refers to the percentage of credit card account balances that creditors write off as uncollectable. This rate rose from an average of 4 percent to a high of 11 percent with the recent recession, but it has since declined and is now approaching pre-recession levels.

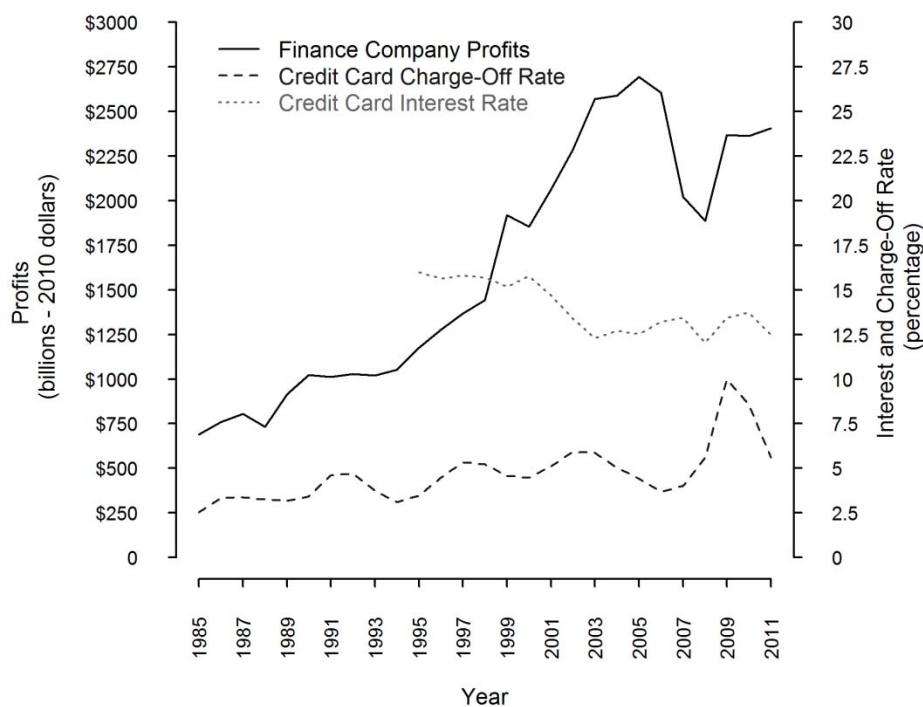


Figure 7.2 Domestic Finance Companies' Profits and Average Credit Card Interest and Charge-Off Rates, 1985-2011

Source: U.S. Federal Reserve Board, Federal Reserve Releases G20 and G19

Notes: Profits include capital, surplus, and undivided profits. Profits are recorded in billions of U.S. dollars and adjusted for inflation. The credit card charge-off rate measures the percentage of credit card account balances that issuers write off as uncollectable. It refers to the amount of charge-offs divided by the average outstanding credit card balances owed to the issuer. The credit card interest rate refers to the average interest rate on all credit card accounts. This plot uses lowess smoothing through locally-weighted polynomial regression to create smooth curves for the data.

Figures 7.1 and 7.2 illustrate the growth and dominance of the finance industry, which includes creditors and lenders. In general, lenders profit from interest on loans and the fees associated with the lending process. Therefore, they have incentives to ensure that debtors pay back what they owe, but slowly over time, so that they can collect as much interest as possible. Payday lending and the subprime mortgage markets exemplify this aspect of the lending and borrowing process (Hudson 1996; Rivlin 2010). Analyses of credit reporting over time also show that credit scores are now based more on the profitability of lending to a certain individual than on the risk of extending credit to that person (Marron 2007). Credit scoring has become an

important part of the lending process, making it hard for consumers and debtor advocates to argue against it, especially when creditors exercise greater influence over the legislative process.

The Increasing Importance of Credit Markets and Credit Scoring

Congressional attention to bankruptcy, finance, and consumer credit issues has varied over time. These issues account for only a small percentage of the topics that Congress addresses each year within Congressional hearings. Figure 7.3 charts Congressional attention toward these topics as a percentage of total hearings from 1946 to 2007. The left-hand panel depicts the number of total hearings with the percentage of hearings focused on bankruptcy, and the right-hand panel shows the number of total hearings with the percentage of hearings focused on banking and finance issues. Bankruptcy in these charts is a subtopic of finance.

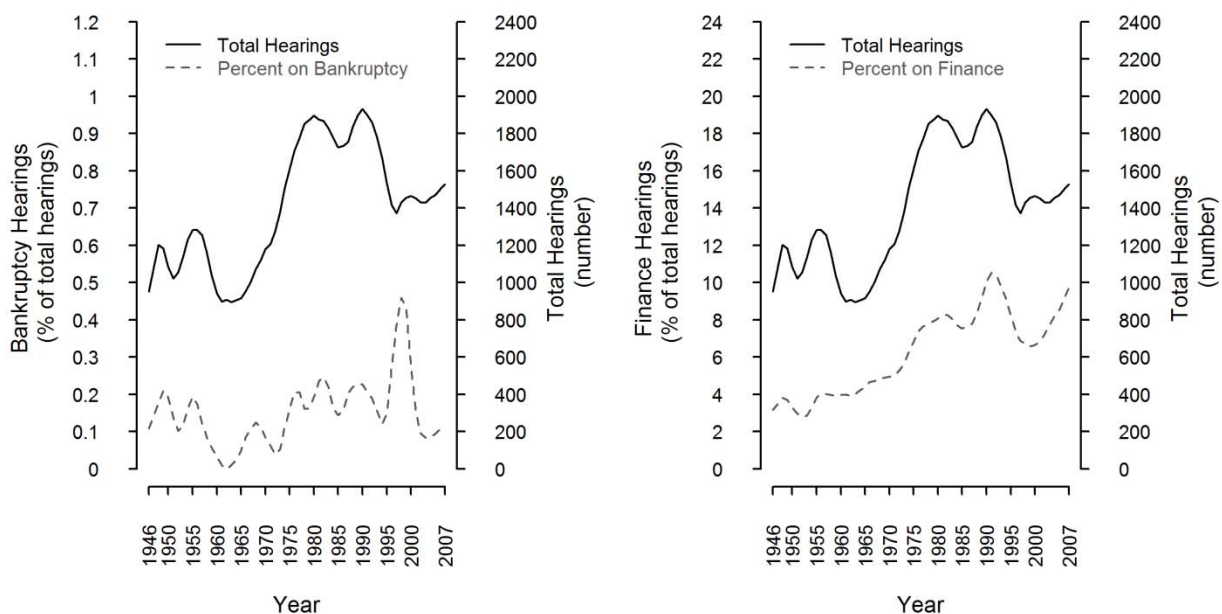


Figure 7.3 Congressional Hearings on Bankruptcy, Banking, and Finance, 1946-2007

Source: Congressional Hearings Data 1946-2007, collected as part of the Policy Agendas Project.

Notes: Bankruptcy hearings are a subset of the major topical area of Banking and Finance hearings as recorded by the Policy Agendas Project. This plot uses lowess smoothing through locally-weighted polynomial regression to create smooth curves for the data. The data used here were originally collected by Frank R. Baumgartner and Bryan D. Jones, with the support of National Science Foundation grant numbers SBR 9320922 and 0111611, and were distributed through the Department of Government at the University of Texas at Austin. Neither NSF nor the original collectors of the data bear any responsibility for the analysis reported here.

According to Figure 7.3, the salience of bankruptcy for Congressional discussion strongly relates to the enactment of various bankruptcy reforms. At the onset of Congress's discussion of

bankruptcy reform in 1997, bankruptcy accounted for 0.67 percent of total hearings in Congress, but debates over bankruptcy died off after BAPCPA was passed in the early 2000s. However, references to financial and consumer credit issues have been regularly increasing as a percentage of total hearings within Congress. In 2007 finance accounted for 11 percent of topics discussed in Congressional hearings, and they accounted for 14 percent of topics discussed in the beginning of 2008. This recent increase in Congressional attention toward finance most likely connects to the 2007-2009 recession.

The recent economic crisis, which is leading to rising rates of bankruptcy, took root in the credit market and spurred the new Consumer Financial Protection Bureau (CFPB) that Congress established through the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act; P.L. 111-203; H.R. 4173). The Dodd-Frank Act and the CFPB addressed some of the roots of the crisis through an increased regulation of financial markets, but more needs to be done to attend to inequalities in the credit market. Not only was the economic crisis driven by credit market deregulation beginning in the 1980s and the more recent rise of subprime lending, but it was also spurred by consumers' overreliance on private borrowing as a way to make up for stagnant wages and the erosion of a social safety net (Massey 2007; Harvey 2010). Credit-fuelled consumerism therefore helped to overcome a declining demand for goods and services related to low wages, but resulted in growing inequality and an unstable economic system at best (Harvey 2010). Unfortunately, the CFPB does not tackle these larger issues, nor does it address the use of credit reports.

My findings demonstrate the need for policymakers to address the permissible uses for credit reports (*see* Chapter 6). The limited research on credit reporting indicates that many employers use this information in hiring, which could lead to negative employment outcomes for delinquent debtors as well as bankrupters (Piotrowski and Armstrong 2006; SHRM 2010). Because financial corporations with their growing profits and troop of lobbyists exert much control over Congress, it is unlikely that the federal government will pursue policies of debt forgiveness and confront this issue (*see* Chapter 2). Debtor advocates persist, though. In 2011, Representative Steve Cohen of Tennessee introduced an amendment to the 1996 Fair Credit Report Act sought to "prohibit the use of consumer credit checks against prospective and current employees for the purposes of making adverse employment decisions" by the proposed Equal

Employment for All Act (H.R. 321).⁵⁸ State governments have also begun to address the permissible uses for credit reports. In the past five years, Connecticut, Hawaii, Illinois, Maryland, Oregon, and Washington instituted legislation that restrict employer uses of credit scores.

Here is where the struggles of debtors and workers overlap. Most American workers are also debtors, although debt levels vary by a person's race, income, age, education, family structure, and multiple other characteristics (Bucks et al. 2009). Increasing delinquency rates, debt burdens, and general financial troubles demonstrate the vulnerability of workers, which is not equally distributed across groups (McCloud and Dwyer 2011; Xiao and Yao 2011). These struggles, along with the practices of certain banks, the use of subprime lending, and additional hardships accompanying the Great Recession have led people to organize around credit markets in recent years. Lately, there has been even more rallying around increasing student loan debt, as well.⁵⁹ Thus, although the employer-worker and creditor-debtor class struggles have historically been segmented, their causes have begun to unite, as many workers have begun to realize that they are now debtors as well. My research helps to contribute to this cause, as I have demonstrated how labor and credit markets intertwine in the event of bankruptcy. Nonetheless, additional research in this area, particularly on the use of credit reports by employers, is needed to further highlight these connections.

⁵⁸ This act is currently in committee. It was referred to the Subcommittee on Financial Institutions and Consumer Credit.

⁵⁹ Representative Clark Hansen of Michigan introduced the Student Loan Forgiveness Act of 2012 (H.R. 4170) on March 8, 2012. This act would cap student loan payments at 10 percent of discretionary income and forgive remaining debt after 10 years. It also includes other hardship provisions and repayment benefits for public service workers.

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APPENDIX A: BANKRUPTCY STATUTES

AL	Ala. Code § 6-10-11; 6-10-2; 6-10-5
AK	Alaska Stat. § 09.38.055; 09.38.010; 09.38.015
AZ	Ariz. Rev. Stat. Ann. § 33-1133; 33-1101; 33-1121.01
AR	Ark. Code Ann. § 16-66-217; 16-66-210; 16-66-218
CA	Cal. Civ. Proc. Code § 703.130; 487.025; 703.110
CO	Colo. Rev. Stat. § 13-54-107; 38-41-201; 13-54-101 to 13-54-103
CT	Conn. Gen. Stat. § 52-352(b)(1); 52-352a
DE	Del. Code Ann. Tit. 10, § 4914; 4902
DC	D.C. Code § 15-501(a)(14); 15-501 to 15-503
FL	Fla. Stat. § 222.20; 222.201; Fla. Const. art. X
GA	Ga. Code Ann. § 44-13-100(b); 44-13-1
HI	Haw. Rev. Stat. §§ 651-91 to 651-93, 651-96; 651-121
ID	Idaho Code Ann. § 11-609; 55-1001 to 1008; 11-603 to 11-607
IL	Ill. Comp. Stat. § 5/12-1201; 5/12-901 to 5/12-907; 45/3A-7
IN	Ind. Code § 34-55-10-1; 34-55-10-2(c)(1); 34-55-10-2
IA	Iowa Code § 627.10; 561.1 to 561.3; 627.6
KS	Kan. Stat. Ann. § 60-2312; 60-2301; 60-2304
KY	Ky. Rev. Stat. Ann. § 427.170; 427.060; 427.010(1)
LA	La. Rev. Stat. Ann. § 13:3881(B)(1); 20:1; 13:3881
ME	Me. Rev. Stat. Ann. Tit § 4426; 4422(1); 4422(2)-(9)
MD	Md. Code Ann. Cts & Jud. Proc. § 11-504; 11-507
MA	Mass. Gen Laws Ch. 188 § 1, 1A; Ch. 235 § 34
MI	Mich. Comp. art. X § 3; Laws § 559.214; 600.6023
MN	Miss. Stat. § 510.01; 550.37
MS	Miss. Code Ann. § 85-3-2; 85-3-21; 85-3-1
MO	Mo. Rev. Stat. § 513.427; 513.430(6); 513.430
MT	Mont. Code Ann. § 31-2-106; 70-32-101 to 70-32-107; 25-13-601
NE	Neb. Rev. Stat. § 25-15,105; 40-101 to 40-103; 25-1552
NV	Nev. Rev. Stat. § 21.090; 21.080
NH	N.H. Rev. Stat. Ann. § 480:1; 511:2
NJ	N.J. Stat. Ann. §§ 2A:17-19, 2A:26-4, 38A:4-8
NM	N.M. Stat. § 42-10-9; 42-10-1
NY	N.Y. Debt. & Cred. Law § 282; N.Y. C.P.L.R. 5206; 5205
NC	N.C. Gen. Stat. § 1C-1601(f); 1C-1601(a)(1); 1C-1601
ND	N.D. Cent. Code § 28-22-17; 28-22-02; 28-22-01
OH	Ohio Rev. Code Ann. § 2329.662; 2329.66(A)(1)(b); 2329.66
OK	Okla. Stat. tit. 31 § 1
OR	Or. Rev. Stat. § 18.300; 18.395; 18.345
PA	42 Pa. Cons. Stat. §§ 8122, 8123, 8124, 8125, 8127
RI	R.I. Gen. Laws § 9-26-4.1; 9-26-1
SC	S.C. Code Ann. § 15-41-35; 15-41-30(1); 15-41-30
SD	S.D. Codified Laws § 43-31-30; 43-31-1; 43-45-2
TN	Tenn. Code Ann. § 26-2-112; 26-2-301; 8-36-111
TX	Tex. Const. art. 16 §§ 50,51; Tex. Prop. Code Ann. §§ 41.001; 42.001 to 42.005

UT Utah Code Ann. § 78-23-15; 78-23-3; 39-1-47
VT Vt. Stat. Ann. Tit. 27 §§ 101, 107, 109; 12 §§ 2740, 3023.
VA Va. Code Ann. § 34-3.1; 34-4
WA Wash. Rev. Code §§ 6.13.010 to 6.13.080; 6.15.010 to 6.15.040
WV W. Va. Code § 38-10-4; 38-9-1 to 38-9-6; 38-8-1
WI Wis. Stat. § 815.20; 425.106
WY Wyo. Stat. Ann. § 1-20-109; 1-20-101; 1-20-105

APPENDIX B: STATE BANKRUPTCY DATA, 2008

State	Bankruptcy Filing Rate	Opt Out of Federal Exemptions	Approximate Exemptions			Relationship to Federal Exemption Levels
			Homestead	Property	Total	
AL	8.20	X	\$5,000	\$3,000	\$8,000	Minimal
AK	1.60	X	\$67,500	\$5,000	\$72,500	Above Average
AZ	3.85	X	\$150,000	\$10,000	\$160,000	Above Average
AR	6.27		\$800	\$2,000	\$2,800	Minimal
CA	4.63	X	\$50,000	\$9,300	\$59,300	Average
CO	5.40	X	\$60,000	\$10,600	\$70,600	Above Average
CT	2.91		\$75,000	\$3,500	\$78,500	Above Average
DE	3.42	X	\$50,000	\$5,000	\$55,000	Average
DC	1.72		U	\$11,200	U	Unlimited
FL	4.45	X	U	\$2,000	U	Unlimited
GA	8.31	X	\$20,000	\$9,000	\$29,000	Below Average
HI	2.00		\$20,000	\$3,575	\$23,575	Below Average
ID	4.58	X	\$100,000	\$9,000	\$109,000	Above Average
IL	5.61	X	\$15,000	\$6,400	\$21,400	Below Average
IN	8.03	X	\$15,000	\$11,000	\$26,000	Below Average
IA	3.40	X	U	\$16,000	U	Unlimited
KS	4.11	X	U	\$21,000	U	Unlimited
KY	6.42		\$5,000	\$5,500	\$10,500	Minimal
LA	4.53	X	\$25,000	\$12,500	\$37,500	Average
ME	2.74	X	\$35,000	\$6,000	\$41,000	Average
MD	4.05	X	\$0	\$6,000	\$6,000	Minimal
MA	3.17		\$500,000	\$3,700	\$503,700	Above Average
MI	7.05		\$3,500	\$1,000	\$4,500	Minimal
MN	3.97		\$300,000	\$15,450	\$315,450	Above Average
MS	5.52	X	\$75,000	\$10,000	\$85,000	Above Average
MO	5.51	X	\$15,000	\$8,000	\$23,000	Below Average
MT	2.52	X	\$250,000	\$7,000	\$257,000	Above Average
NE	4.83	X	\$60,000	\$1,500	\$61,500	Average
NV	9.42	X	\$550,000	\$27,000	\$577,000	Above Average
NH	3.46		\$100,000	\$8,000	\$108,000	Above Average
NJ	3.88		\$0	\$1,000	\$1,000	Minimal
NM	2.95		\$60,000	\$6,500	\$66,500	Above Average
NY	3.00	X	\$50,000	\$7,400	\$57,400	Average
NC	3.13	X	\$18,500	\$8,500	\$27,000	Below Average
ND	2.62	X	\$80,000	\$2,200	\$82,200	Above Average
OH	6.48	X	\$5,000	\$5,000	\$10,000	Minimal
OK	3.93	X	U	\$10,500	U	Unlimited
OR	4.23	X	\$30,000	\$5,150	\$35,150	Average
PA	3.30		\$0	\$300	\$300	Minimal
RI	5.05		\$300,000	\$19,600	\$319,600	Above Average
SC	2.41	X	\$50,000	\$5,200	\$55,200	Average
SD	2.28	X	U	\$6,200	U	Unlimited
TN	9.86	X	\$5,000	\$4,000	\$9,000	Minimal
TX	2.34		U	\$40,000	U	Unlimited
UT	4.78	X	\$20,000	\$3,000	\$23,000	Below Average
VT	2.49		\$75,000	\$5,500	\$80,500	Above Average
VA	4.64	X	\$5,000	\$7,000	\$12,000	Minimal
WA	4.22		\$125,000	\$6,200	\$131,200	Above Average
WV	3.60	X	\$25,000	\$11,400	\$36,400	Average
WI	4.82		\$40,000	\$7,200	\$47,200	Average
WY	1.94	X	\$10,000	\$5,400	\$15,400	Minimal

Notes: U = Unlimited; X = State allows debtor to opt-out of federal exemption levels

VITA

Michelle Lee Maroto is originally from Danbury, CT. She received her Bachelor of Arts degree in Sociology and Women's Studies from Boston College in 2004 and completed her Master of Arts degree in 2007 at the University of Washington.