Debt, Financial Distress, and Bankruptcy Over the Life Course*

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Abstract

This paper examines how the risks of debt, financial distress, and bankruptcy shift over the life course. Comparing parallel data from the 2007 Survey of Consumer Finances and the 2007 Consumer Bankruptcy Project, we analyze use of the bankruptcy process as a product of the distribution of unplanned events, the ability of households to use credit markets to limit the adverse effects of such events, and barriers in access to the bankruptcy system. Our findings suggest two things. One, bankrupt households generally come from the bottom quartiles of the population in assets and income and the top quartile in debt, but the filing patterns vary substantially by age and race. Two, households neither explain their bankruptcies in the same ways nor use the same strategies to avert bankruptcy. The comparative explanations reveal age- and race-based variations that are consistent with disparate access to markets and institutions. The paper relates the findings to the increase in recent decades in the incidence of financial distress and bankruptcy among the elderly.

1   Introduction

In the United States, both aggregate debt levels and household debt burdens have risen rapidly in the last two decades (Mishel, Bernstein and Shierholz 2009; Federal Reserve Statistical Release G.19; Federal Reserve Table 1.54). Scholars of many perspectives have expressed concern about the rise in debt levels. Some attribute the increase to exploitation by lenders who push unneeded, and perhaps even unwanted, credit on consumers (Manning 2000; Ritzer 1995). Others attribute it to a shift that has made debt a part of American culture (Calder 1999). Still others focus on the macroeconomic dependence on consumption-driven growth, which is intertwined with the ready availability of credit (Boyer 2000; Cohen 2003). The rise of debt almost certainly reflects an interaction between technological and institutional developments that lower the cost of supplying credit with cultural developments that increase the demand (Braucher 2006).

Rising debt burdens also have brought changes to the financial positions of Americans. Bankruptcy rates are an order of magnitude higher than they were a generation ago (Administrative Office of U.S. Courts), an increase that is attributed to the overuse of debt (White 2007). Moreover, middle-class wealth is in decline despite the economic prosperity of the late 1990s and early 2000s, and that decline has been attributed (at least in part) to rising debt levels (Wolff 2007).[1]

This paper explores the significance of rising debt burdens for social and economic mobility over the life course. Life course sociology emphasizes the variability of temporal patterning across socio-demographic groups and cohorts and the interdependence of age-related social roles (Mayer 2009; O'Rand 2003). Researchers have investigated mobility through the life course, recognizing the variability in the risks of adverse events such as job loss or illness and the consequences of those risks for household finance (DiPrete 2002; O'Rand 2003). A related literature explores different ways to measure economic vulnerability. Conventionally, income-based poverty measures have been emphasized, but researchers also have explored asset-based, consumption-based and hybrid measures (Haveman and Wolff 2004; Sandoval, Rank, and Hirschl 2009; Heflin, Sandberg and Rafail 2009). However, little attention has been paid to issues related to economic vulnerability as-

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[1]Indeed, Mian and Sufi (2010) attribute the severity of the immediate recession to the buildup of household leverage ratios in the mid-2000s.

sociated with debt. Because of the multifaceted functionality of debt - on the one hand, facilitating both consumption smoothing and investment; on the other hand, burdening income and offsetting wealth - we see debt as an important nexus between adverse events and financial stability.

Accordingly, we introduce a four-stage model of financial distress, by which we mean downward mobility in household living standards associated at least in part with portfolio choices that include debt. Although the patterns are likely to be cumulative (DiPrete and Eirich 2006), the basic framework distinguishes the antecedent household financial position, the incurrence of adverse events and concomitant onset of financial distress, private responses to financial instability and bankruptcy as a public counter-mobility regime, and an emergent financial position. We argue that each stage is characterized by age and racial variation.[2] To illustrate the analytical model, we use the first nationally representative household-level survey of bankruptcy filings, the 2007 Consumer Bankruptcy Project (CBP),[3] which was conducted at about the same time as the most recent data collection of the Survey of Consumer Finances (SCF).[4] Because neither dataset has a longitudinal structure, we cannot observe directly how debt burdens shift over time for particular families.[5] We can, however, discern differences in the debt burdens and other indicators of financial distress for families that

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[2]Although we recognize the heterogeneity among individuals at similar ages (Setterson and Mayer 1997), it is useful to treat chronological age as a meaningful indicator of progression through the life course, because it relates not only to biological development (experience and cognitive ability), but also to biographical characteristics (such as education, employment and occupation, and marital status), and social and institutional trends (e.g., age-based norms about marriage and retirement).

[3]Earlier versions of the CBP sampled from five of the 94 judicial districts. Because the nationwide and restricted samples are not comparable, we do not analyze changes in the characteristics of bankruptcy petitioners over time.

[4]The CBP dataset is based primarily on cases filed in January and February 2007, with the written questionnaire mailed approximately one month after the bankruptcy filing. The SCF interviews were conducted between May and December 2007.

[5]Several researchers have used longitudinal data to predict bankruptcy. Keys (2009) uses data from the National Longitudinal Survey of Youth to predict bankruptcy based on job loss. However, the data structure - a single (young) cohort and the relative rarity of bankruptcy - limited the ability to detect life course shocks. Fay, Hurst and White (2002) use data from the Panel Study of Income Dynamics to predict bankruptcy; they find that controlling for financial benefit, some adverse events have a small (and marginally significant) but positive relation to bankruptcy. However, they report substantial underreporting of bankruptcy by survey respondents.

enter the bankruptcy process at different points in the life course. Our ability to consider parallel indicators of distress events and coping strategies in two different datasets buttresses our confidence in the age- and race-based patterns that we discern. Thus, we argue, the data have a great deal to say about the way in which debt problems and available solutions shift over the life course.

As indicated, the existing literature has shown little interest in unpacking the stages through which households pass as they respond to adverse events. Thus, the bankruptcy literature, largely written by legal scholars, generally treats bankruptcy as arising directly out of an exogenous shock. Within that framework, the literature focuses on medical problems, job loss, and divorce as common factors that bankruptcy petitioners experience (Sullivan, Warren and Westbrook 2000; Himmelstein et al. 2005; Warren and Tyagi 2003). Economists, who have been more sensitive to problems of selection into bankruptcy, largely ignore the trajectories through which households pass as they experience rising debt loads and mobility events, focusing almost exclusively on the financial portfolios that best predict bankruptcy (Domowitz and Sartain 1999; Fay, Hurst and White 2002; Zhu 2010). The literature on material hardship or poverty elucidates the relation among various dimensions of household consumption deprivation, but it does not analyze institutions that control the trajectory into or out of hardship; nor does it generalize beyond the poorest segment of the population (Heflin, Sandberg and Rafail 2009; Mayer and Jencks 1989). The empirical research on stratification and mobility has focused on occupational status and permanent income measures.[6] The joint gap left by those literatures is attention to the structure of and access to social institutions that mitigate or exacerbate the long-term consequences of mobility events.

The importance of understanding how institutions pattern use of countermobility institutions is apparent from the conflicting inferences suggested by existing studies of racial variation in use of the bankruptcy process. David Caplovitz's study of debtors in collection actions in New York, Chicago, Detroit, and Philadelphia in the early 1970s found that, among defaulters, white households were more likely than black or Puerto Rican households to declare

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[6]For a critique, see DiPrete (2002), which argues that "[a] more informative approach lies in directly considering the factors that potentially create major and not always predictable changes in household living standards." His research compares the rates of discrete events and their socio-economic consequences for nations with different countermobility regimes.

bankruptcy (Caplovitz 1974). Similarly, Herbert Jacob's study of delinquent borrowers in four Wisconsin counties suggested that black households that were subjected to garnishment processes were less likely to be represented in bankruptcy than similarly-situated white households (Jacob 1969). Other scholars have noted the fact that black households appear to be overrepresented in bankruptcy filing rates (Sullivan, Warren and Westbrook 2000). None of those data structures permit comparison of bankrupt households to households with similar financial situations who are not enmeshed in the legal system. Our analytic structure and empirical strategy aim to address that gap.

To that end, Section 2 of the paper discusses our model of financial distress, contrasting it with the conventional economic model of consumption and debt over the life cycle. Section 3 briefly discusses the data we analyze. Section 4 presents our results, using parallel data from the SCF and the CBP. In general, the data show how differences between bankrupt households and the general population shift substantially through the life course and also vary by race.

2 An Analytic Frame: The Four Stages of Financial Distress

Despite the growing prominence and problematization of debt in recent years, scholars in the life course literature have not integrated financial distress into their analysis of the trajectory of life chances. Our discussion here conceives of financial distress as a process involving four distinct stages (Figure 1). At the first stage, the household has some antecedent risk exposure associated with its socio-economic status and its previous portfolio and consumption choices related to debt and insurance against future adverse events. In the case of debt, the debt might arise for any of several reasons: as a device to smooth consumption over the lifetime, as a response to some previous adverse shock, or more passively because of a failure to manage consumption to match income. Whatever the reason, the existence of the debt poses a risk to the household because of the possibility the household will be unable to repay the debt as agreed. Generally, risks increase with economic activity; households incur more risks during the prime of life when they are actively engaged in the economy than they do in their youth or elderly stages. Yet

risks can be anticipated, and insurance generally is a function of income and asset levels of the household.

Different risks, of course, are more or less serious at different ages, or for different racial groups. The general pattern is a U-shaped curve with younger and older households having greater likelihoods of asset and income poverty (Sandoval, Rank and Hirschl 2009). Within that framework, Black and Hispanic households are twice as likely to have inadequate wealth reserves to sustain an income shock that lasts three months or more (Haveman and Wolff 2004; Sandoval, Rank and Hirschl 2009). Black households also are less likely to build home equity and to experience affluence (Rank 2009). Moreover, Rank (2009) shows that the racial divide widens over the life course.
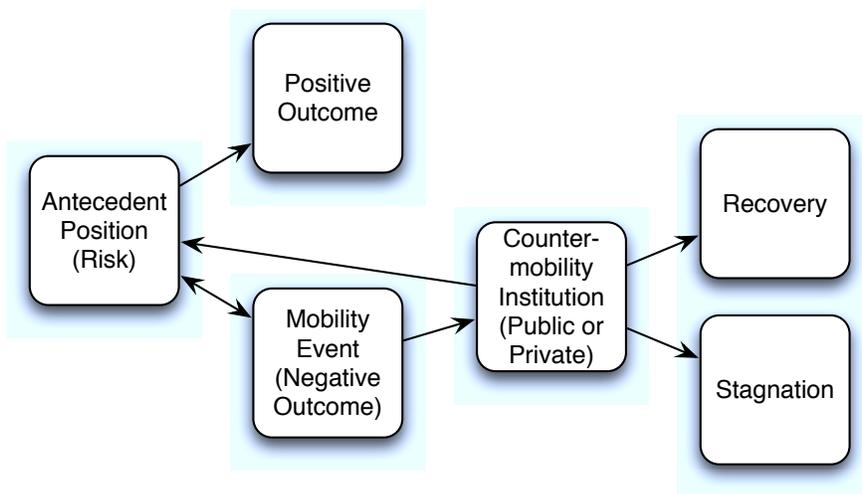
Figure 1: The Stages of Financial Distress

At the second stage, an adverse event (or accumulation of events) occurs that raises the possibility of a shift in the social and financial position of the household. Because households often will have a great deal of information about the likelihood that mobility events will occur and the consequences likely to ensue, anticipation of those events should directly affect the household decision to incur risk in the first instance (reverse arrows in Figure 1).[7]

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[7]The causation problems are intricate. For example, different types of credit markets

At the third stage, the household takes steps to mitigate the adverse consequences, relying on the countermobility institutions available to them. The most prominent of those institutions - at least for dealing with financial distress - are credit markets and the bankruptcy system. Households that can access credit markets can obtain funds to mitigate the adverse effects of the mobility event. Alternatively, they can use the bankruptcy system to modify or discharge excess financial obligations related to the mobility event. After taking advantage of those institutions, in the final stage, the household will either overcome the event and return to financial normalcy or continue to stagnate. As with the occurrence of the event itself, the effectiveness of institutions to cushion the effect of the mobility event should have a substantial effect on the household's willingness to take risks in the first instance.

It is important to contrast the life-course perspective we analyze here with the life-cycle perspective characteristic of economic analysis. The mainstream economic view has treated the rise in consumer indebtedness as a reflection of the elimination of constraints that hindered "rational" borrowing necessary to smooth consumption. As a matter of economic theory, the problem is one of intertemporal consumption: given rational expectations about future income, what is the optimal pattern of consumption? Seminal work in the 1950s by Franco Modigliani and Milton Friedman concluded that a rational actor would smooth consumption over the life cycle by borrowing in the early years (Modigliani 1954; Friedman 1957). Under this conception, there are no truly exogenous shocks to wealth because families will use debt as necessary to provide sufficient resources to insure against unfortunate events. More recently, economists analyzing portfolio decision-making have emphasized the relations among the rate of consumption, the allocation of wealth to risky investments, and the consequent generation of debt (Samuelson 1969; Merton 1971; Campbell 2006; Cocco 2005; Sethi 1996). To many economists, the life cycle and portfolio models explain rising debt loads. Until the 1980s, American households experienced constraints - credit rationing. The easing of liquidity constraints during the last three decades led to the natural expansion of credit markets and permitted households, especially younger households, rapidly to accumulate debt to smooth their pattern of lifetime

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and access to bankruptcy doubtless influence the types of distress, because they affect the incentive to take precautions against distress events. At the same time, the provenance of different types of distress events affects the demand for, and thus the availability of, credit products.

consumption (Barnes and Young 2003).[8]

In recent years, however, that model has come under attack on various grounds. For example, it is difficult to reconcile the empirical data with the model. Studies suggest that middle-aged households have reduced their rate of savings in recent decades (Bosworth 1991; Dynan 2004). And empirical studies find limited evidence that elderly individuals decumulate housing wealth (Chiuri and Jappelli 2008). Others have challenged the economic perspective on consumption smoothing, emphasizing that increased debt levels cannot be sustained except during persistent periods of robust economic growth, and that rising household debt may be a substitute for stagnant wages (Jappelli and Pagano 1994; Leicht and Fitzgerald 2006; Barba and Pivetti 2008).

Although the findings we discuss below are in stark tension with the assumptions of the life-cycle model, our purpose here is not to review or contribute to the literature critiquing that model. Rather, we have an affirmative purpose to extend the analysis of the life-course literature, which has not closely examined the role of debt, to show its greater robustness in explaining household economic activity and stability. Specifically, our objective is to examine the ways in which social institutions exacerbate and mitigate the consequences of the risks that households confront as they pass through the life course.

3   Data and Methods

To assess the age and race variation at the four stages of our model, we compare and contrast data in two existing datasets: the SCF and the CBP. Fortuitously, both of those surveys had data collections in 2007, which allows us to compare substantially contemporaneous data collections. Although scholars previously have analyzed both of those datasets (Bucks et al. 2009; Lawless et al. 2008), they have done relatively little to examine the racial and age patterning related to financial distress.[9]

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[8]Posner emphasizes the efficiency gains that he perceives from this rapid run-up in borrowing (Posner 2008). To be fair, Posner has changed his altered his position somewhat since the crisis. Posner 2009:229-230 (explaining that "excessive borrowing * * * precipitated the current depression").

[9]Other work has been done at the intersection of the SCF and other bankruptcy samples. Domowitz and Sartain (1999) compared data from a subgroup of the 1983 SCF to

We use the 2007 SCF for information about the economic characteristics of households in the general population. The 2007 SCF includes 2915 households from the geographically based random sample and 1507 households from the wealthy list sample. For each household, the SCF administers (usually in person) a detailed questionnaire, with a median interview time of about 80 minutes. SCF protocols include analysis weights that account for the two separate samples and for discernibly different patterns of non-response.

The SCF is widely acknowledged to be the premier dataset for nationally representative data about the income, wealth, and debt of American households (Scholz and Levine 2004).[10] We use the SCF to construct several useful indicators of financial distress, including negative net worth, extraction of home equity, use of payday loans, credit utilization, a high debt-to-income level, credit denials, bankruptcies in the preceding five years, and being 60 or more days late on a debt payment. Table 2 summarizes the characteristics of the relevant measures, by age group.

Second, for information related to bankrupt households, we use the 2007 CBP. The core CBP sample is based on a random selection of 5000 consumer cases during a five-week period beginning the last week of January 2007 (Lawless et al. 2008). An elderly oversample (with age validated through an internet background check) contributed an additional 262 cases. Nearly half of the core sample (2438) returned the eight-page questionnaire mailed to their homes. Non-response bias is a possibility; there are statistically significant differences between respondents and non-respondents in chapter choice, unsecured debt levels, and income levels.[11]

The CBP includes two kinds of data that are relevant to our project.

a bankruptcy sample from five judicial districts. Zhu (2010) compares a subgroup of the 2004 SCF to the Delaware bankruptcy population in 2003. Yet, neither of those papers uses a full SCF sample (with weights) to derive true population estimates, and neither uses a national sample of the bankruptcy population. Moreover, those papers do not explore other measures of financial distress, as we do here.

[10]Zinman (2009) analyzes undercounting problems with earlier versions of the SCF as they relate to credit card debt in particular. We acknowledge the possibility that those problems could affect our findings that relate to credit card use or other SCF data on which we rely.

[11]The CBP does not provide sample weights to account for the elderly oversample, temporal variation in filing patterns, or variation in response rates. We constructed weights to account for the elderly oversample; models using the oversample and weights are qualitatively consistent with the models reported here, which do not use the oversample.

First, it includes administrative data culled from the schedules filed with the bankruptcy court reporting the debts owed at the time of filing. Second, a survey questionnaire solicits socio-demographic information as well as information about the reasons for bankruptcy and the strategies households used in coping with distress before bankruptcy. Those data provide a richer look at how the options available to distressed households vary with the age of the household. Table 3 summarizes the CBP variables, by age group. Table 4 compares parallel variables from both datasets, by race.

As our framework suggests, bankruptcy filings provide at best a weak proxy for financial distress, and thus are not an ideal vehicle for determining how the bankrupt population differs from the financially distressed population. Bankruptcy is the remedy for financial distress, not its cause, a countermobility institution rather than an adverse event in its own right. Because only a small share of those in financial distress use the bankruptcy system, it is difficult to use aggregate data about bankruptcy filings to understand the root sources of distress. Given the difficulty of obtaining detailed information about a representative sample of families in financial distress, our strategy in this paper is to look carefully at data about the balance sheets and experiences of families that have sought refuge in bankruptcy, to compare them to the balance sheets of households in the general population, and to see how those patterns change over the life course. Although this will not directly reveal the prevalence of different kinds of financial distress at different points in the life course, the situation of those for whom distress has become severe enough to warrant refuge in bankruptcy, and the ways in which that situation differs from conditions for the general population, tell us a great deal about how financial distress changes through the life course.

4 Results

Although the existing life course literature has not emphasized issues related to financial distress or bankruptcy, it is plain that those problems shift substantially through the life course. To use the most objective (and simple) indicator, aggregate data about bankruptcy filings suggest that the same decades that have witnessed the surge of consumer debt have witnessed a parallel upturn in bankruptcy filings by the elderly and a downturn in fil-

ings by those under 35 (Thorne et al. 2009).[12] It is true that the rate of bankruptcy for those over 55 remains lower than the rate of filings for those in middle age (Livshits 2007), but the increase for older Americans is sufficiently provocative to motivate interest in the underlying causes.

Figure 2 displays filing rates by age, extrapolated from two different samples: the age of the households in the 2007 CBP sample,[13] and the age of those reporting a bankruptcy in the last five years in the 2007 SCF sample. Each of those samples presents difficulties: the CBP is likely subject to a sampling bias that overstates the share of middle-aged filers.[14] Similarly, because the public-use SCF data on which we rely extrapolates from the age profile of those who report a filing in the last five years, it is subject to the likelihood that the profile of filers has shifted toward the elderly during that time. In any event, under either metric, bankruptcies are concentrated among people of working age, with the 35-44 age group filing bankruptcy at a rate that is nearly double the average for the entire age distribution.

The filing pattern differs markedly by race. Filings for white households are steady from 25-55, and then decline through the later years. For nonwhite households, filings are much lower in the younger age ranges and there is a strong modal age category in mid life,[15] which represents more than one-

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[12]A contrary view appears in Lefgren and McIntyre (2009), which concludes that filing rates are highest for individuals in the late 20s and lowest for individuals in their peak earnings years. We doubt the validity of their counterintuitive conclusion. They do not analyze the age of filers directly, but rather extrapolate from zip code-level filing rates, assuming that the proportion of residents of a particular zip code within an age group explains the propensity of that same age group to file. In addition to the measurement question, it is apparent that the age coefficients in Lefgren and McIntyre show no regular temporal pattern, contrary to the expectation in the literature that bankruptcy filings over the life cycle follow an inverse U-shaped curve, see Livshits et al. (2007) and Agarwal et al. (2009). In sum, we think that the counterintuitive findings are an artifact of the methodology.

[13]To impute a single age figure to each household, we use the age reported to CBP investigators if only one age is reported; where age is reported for more than one person, we randomly select among the reported ages.

[14]Most obviously, the decision of the CBP to sample exclusively in the early part of the year apparently resulted in an oversampling of chapter 7 bankruptcies; we acknowledge that those and other differences between the CBP sample and the population are likely to correlate with age and race. Weighting for chapter choice will not address other systematic differences in the data, including whether the chapter 7 or 13 filers in the early part of the year are representative of filers in other parts of the year.

[15]The modal age category in the SCF is 45-54; it is 35-44 in the CBP. It is difficult to discern whether the samples differ in some important respect or whether the difference

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third of the total filings by nonwhite households. It should be noted that this pattern varies substantially from life course models of asset and income poverty, which represent a U-shaped curve (with older and younger families more likely to experience financial distress).
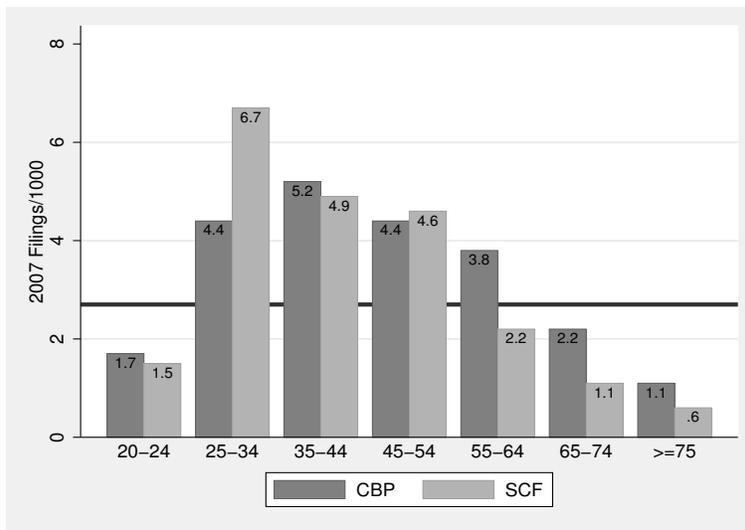

Figure 2: Bankruptcy Filing Rates over Age Groups. *Note:* Reference line shows the mean filing rate for the population. Allocation of filings over age groups is calculated by extrapolating to the total number of 2007 filings reported by the federal judiciary from the age distribution of filings in the SCF sample (for the last 5 years) and the CBP sample. *Sources:* CBP 2007; SCF 2007; Administrative Office of U.S. Courts; Census Bureau, Population Estimates Program.

As discussed above, our framework treats bankruptcy as only a rough indicator of financial distress, as it reflects one of the possible results of a serious adverse event. To assess the age- and race-based patterning of the stages of financial distress, the succeeding sections discuss in turn what the data suggest about the four mobility stages from risk to failure.

relates to the aggregation of filing data in the SCF over the preceding 5 years. In any event, the flat age distribution for white households between 25 and 55 and the inverse-U distribution for nonwhite households are consistent across datasets.

4.1 Economic Activity and Risks over the Life Course

The most noteworthy shift in the patterning of financial activity over the life course has been the rapid increase in late-life economic participation, which has flowed naturally from increased life spans. As illustrated in Figure 3, shifts in net worth, homeownership, and debt obligations exhibit distinct age patterning.
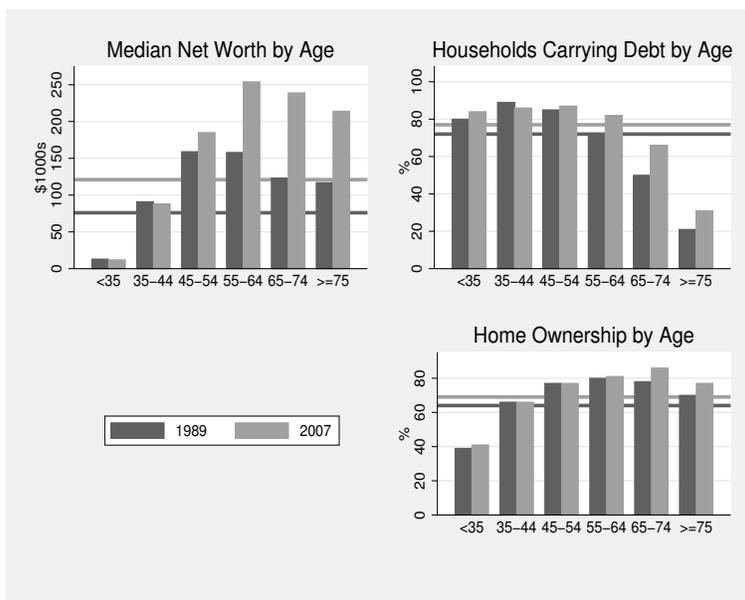

Figure 3: Economic Activity By Age Group, 1989 and 2007. *Source:* SCF 1989, 2007. *Note:* Net worth in $2007. Reference lines show population characteristics for indicated years.

So, for example, net worth over the last two decades has been stagnant for households under 45, but has risen with increasing sharpness for the over-45 age groups. Similarly, although the increases are not as sharp, substantially all of the increase in homeownership rates since 1989 has been in households over the age of 65. Those changes for older households are matched by sharp increases in debt usage for the later age brackets, with a 30% increase in the share of 65-74 year old households carrying debt and a 45% increase in the share of 75-and-older households carrying debt. Regarding race, as of 2007 nonwhite households are slightly more likely than white households to

have debt (Bucks et al. 2009); nonwhite households on average are much more likely than white households to carry debt in the later age brackets (65 and over), suggesting less strict adherence to the life-cycle model of consumption. Because financial risks tend to increase with activity, particularly where that activity departs from life cycle expectations, we assume that the greater activity of older and nonwhite households makes those households more vulnerable to adverse events and worsens the effects of those events.

4.2 Distress Events over the Life Course

The second stage involves events that have the potential to adversely affect the financial position of the household. Although this paper cannot provide a comprehensive analysis of all of the possible distress events, it is useful to explain some basic intuitions and hypotheses about how each of those stages differs over the life course. For example, we might think that serious adverse health events become more probable with advancing age (Sullivan, Warren and Westbrook 2000). At the same time, public support for health costs differs substantially by age, as Medicaid is available only to indigent families under the age of 65, but Medicare and related programs provide broad public support for health-care costs above the age of 65. The interaction of those effects might not produce monotonic increases in health-related financial distress with advancing age.[16] Similarly, given racial stratification in economic activity and wealth, it is likely that the incidence of distress events will differ by race (Conley 1999; Oliver and Shapiro 2006).

Divorce, by contrast, is a problem that is most severe for middle-aged and middle-class households, whose affairs are more likely to be complicated by minor children (Dickerson 2005, 2007).[17] Younger families might be equally

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[16]Studies show a strong correlation between medical problems, increased debt burdens, and bankruptcy (Himmelstein et al. 2005; Drentea and Lavrakas 2000; Reading and Reynolds 2001; Taylor, Pevalin, and Todd 2007). Of course, economic well-being has many dimensions that relate directly or indirectly to health, and reverse causality is likely to underly any correlations.

[17]It is difficult to disentangle the relation between family structure and financial distress. Scholars often associate family dissolution with financial distress because of the financial burden of maintaining two households. Thus, Sullivan, Warren and Westbrook (2000:174) report that "[i]t is the trilogy of marriage, divorce, and no remarriage" that relates to financial distress among women. But the frequent movement into and out of cohabiting relationships might also be problematic (Cherlin 2009; Conley and Glauber 2008). There also remains the persistent problem of understanding the causal links among the concepts

prone to divorce but less likely to have minor children; older families are less prone to divorce (Rindfuss 1991) and less likely to have minor children to complicate untangling of financial affairs. At the same time, as Table 2 illustrates, middle-aged families are more likely than younger families to have wealth resources on which to draw to mitigate the financial complications associated with divorce.

The effects of job loss are particularly complicated.[18] On the one hand, the effects of globalization on job security would seem to fall most heavily on older rather than younger households.[19] Because those households will be closer to retirement, the likelihood of finding a new job is diminished; the risk of permanent departure from the labor market is highest (Buchholz et al. 2006; Warner and Hofmeister 2006; Höfecker et al. 2006). Conversely, young households are those least likely to have acquired the skills and experience necessary to enter the work force successfully in the first instance, and most likely to be laid off in times of employment contraction (Pew Research Center 2009). If so, the effects of globalization also should fall heavily on the young (Mills and Blossfeld 2006; King 2006; Mills, Blossfeld and Klijzing 2006).[20]

Because we expect the incidence of those kinds of distress events to vary with age, we might also expect a distinct set of age-related patterns for the emergence of financial distress - in some cases shifting steadily through life, but in others in a convex or concave pattern in which the middle decades differ from younger and older decades. Although the SCF does not include household-level data that allows us to identify the reasons for financial health or distress, it does include several variables that are useful indicators of fi-

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(Fisher and Lyons 2006).

[18]Keys (2009) addresses the relation between job loss and financial distress. The effects of debt on labor market outcomes are more complex than the text suggests. Debt has been linked to educational and occupational trajectories (McGill 2006; Millett, 2003) and to women's labor force participation (Del Boca and Lusardi 2003). It also relates to labor market rigidity (Caplovitz 1968; Leicht and Fitzgerald 2006).

[19]Rapid run-ups in the costs of education are also part of the story. In recent years, tuition costs have grown faster than the cost of medical care, food, and housing (Lewin 2008). The age-related burden of those costs, however, is difficult to assess, because the costs appear to be borne not only by younger age groups (through increased use of student loans) but also by older groups (who finance their children's education through home equity and other forms of borrowing).

[20]That is not to say that globalization has not affected mid-career employment volatility. On the contrary, it has increased job mobility and in particular downward job mobility, especially in nations where unemployment insurance is constricted (Mills, Johnston, and DiPrete 2006).

nancial distress. For present purposes, we focus on indicators that capture the mismatch of funds to obligations that is characteristic of financial distress: negative net worth, current spending that exceeds income, high debt service burdens, and being 60 days late on a payment.[21] Those variables are likely to reflect financial distress of differing types and severity. For younger households, negative net worth might reflect rational adherence to the life cycle model; for older households, negative net worth could be an indicator of permanent economic disadvantage. High spending and high debt service burdens relative to income could be an indication of consumption smoothing associated with temporary income fluctuation or mismanagement of consumption and income levels. Late payments could be a marker of serious distress or an indication of financial mismanagement without distress.

As summarized in Table 2, the relevant variables exhibit considerable age-related patterning. Although debtors are more likely to be in the younger age brackets, the use of debt does not begin to drop until after age 65. The use of credit cards is not uncommon in the oldest age groups, but young cardholders are much more likely to carry debt on their credit card accounts. High debt levels relative to income are most common in the 35-54 age range, and net worth peaks in the 55-64 age range. The proportion with negative net worth is highest in the lower age groups, and the young are more likely to make late payments.

To assess the relation between those measures and age and race, we use logistic regression to estimate models that predict the logged odds of experiencing those events, using controls for marital status, income, race, and education. We include education as a rough proxy for financial literacy and cognitive ability, both of which are likely to shift through the life course and relate to race (Agarwal et al. 2009; Lusardi and Mitchell 2006; Lusardi and Tufano 2009; Campbell 2006). Reflecting the emphasis on the mid-life decade (45-54) as the focal point of the life course, the reference class for our models is a white married household with no high-school education, aged 45-54. Figure 4 is a graphical coefficient display, showing the age and race coefficients for those models.

The models suggest that age and race have important relationships to financial distress. The likelihood of having negative net worth declines steadily

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[21]For a careful discussion of the difficulties in identifying useful proxies of overindebtedness, see Betti et al. 2007. See also Bucks et al. (2009) for a discussion of the debt burden and late payment variables in the SCF.
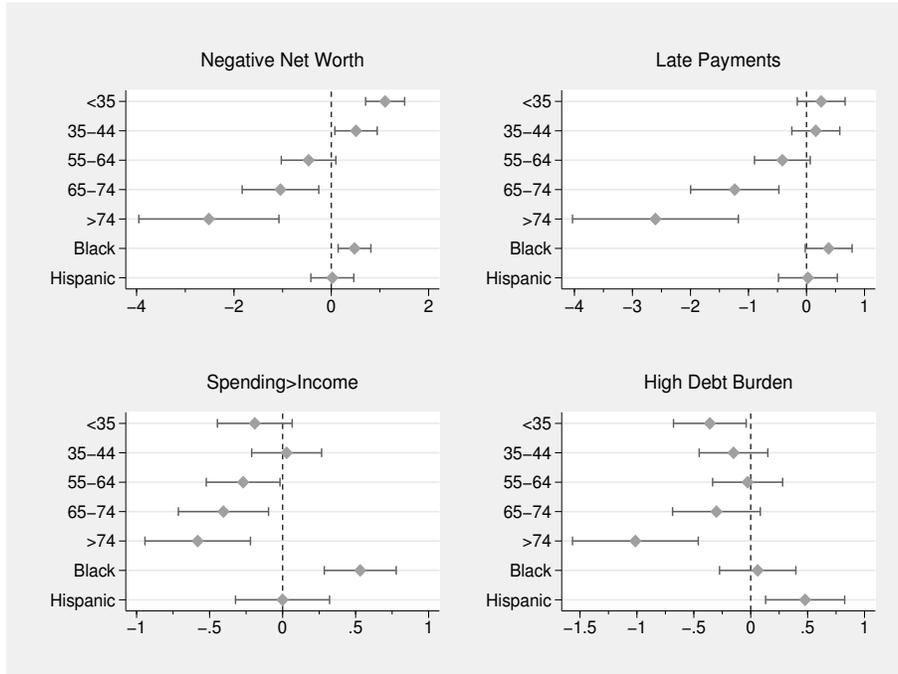
Figure 4: Age, Race, and Financial Distress in the Population. *Source:* SCF 2007. *Note:* N=4418. Graphs display logistic regression coefficients with 95% confidence intervals (a change of x on the logistic scale corresponds to at most $x/4$ on the probability scale). Coefficients and standard errors have been corrected for multiple imputation. Reference class is white, married, age 45-54, no high-school education, with income centered at $35,000; graphs do not display education, marriage and income controls.

for each decade of the advancing life course; the first two decades are significantly more likely to have net worth than the mid-life decade and the last three are less likely. Payment problems, by contrast, are relatively steady in the early decades (through age 55), but fall off rapidly thereafter. And spending problems and debt service payments exceeding 40 percent of income are more likely for the middle-aged, with older and younger age groups being less likely to report excessive spending. For three of the metrics (all but high debt burdens), black households are more likely to experience the problem than white households; Hispanic households are not measurably distinct from whites with the exception that they are more likely to have higher debt burdens. Although not shown in the figure, the education coefficients are not significantly different from zero; the income coefficients generally are consistent with greater distress for those with lower incomes.

4.3 Coping, Race, and the Life Course

The third stage involves the countermobility institutions that households use to limit the adverse effects of the distress events discussed in the preceding section. In the absence of a dataset of financially distressed households that do, and do not, seek relief in bankruptcy, it is difficult to directly observe the strategies that these households use. Our strategy here is to use data from the SCF about high-risk financial behavior (Figure 5), together with parallel CBP data on coping strategies (Figure 6), to explore the differential use of the institutions that are available to mitigate the consequences of distress events. We are aware that there is a selection bias between the event of financial distress and the decision to seek bankruptcy relief; the next section discusses that selection mechanism explicitly.

Although the two datasets are not directly comparable, we were able to examine closely parallel strategies for mitigating adverse circumstances. So, we can examine use of payday loans in both datasets. We compare SCF data on high credit card utilization (balances of 90% or more of credit card lines) to CBP responses to a question asking whether the household used credit cards as a strategy to avert bankruptcy.[22] We compare SCF data on the extraction of home equity to CBP responses about using refinancing to avert bankruptcy. And finally, a nonfinancial strategy, we examine CBP data

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[22]The results are not sensitive to the 90% cutpoint. We also estimated models using a continuous variable and binary variables with cutpoints of 80% and 95%, all of which had substantively similar results.

about the use of "more work" to avert bankruptcy. For each of the variables, we use logistic regression to fit models that predict the logged odds of using the strategy. In addition to age and race, we control for income, education, and marital status.[23]

We start by examining the simplest strategy: working harder, presumably by taking on a second job or having an additional household member enter the workforce. The data here (the second panel of Figure 6) nicely illustrate the life-course effects. Racial effects are inconsequential, but there is a steady decline in the perceived ability or utility of working harder through the life course: households below middle age are most likely to use this strategy and older households are least likely to use this strategy. This finding is easy to understand as an artifact of the declining labor-market flexibility of older households.

If working harder is not adequate to solve the financial problem, the household is likely to try to access the credit markets to mitigate the adverse consequences of distress events. To understand the patterning of that activity, we start with payday loans. Generally speaking, the high interest rates charged by payday lenders make them unattractive for households that have access to mainstream financial products. Thus, they provide a useful indicator for households experiencing substantial credit constraints. At the same time, use of payday loans is not in itself a risky strategy because by the nature of the product it will not lead to large debt burdens that will significantly influence long-term financial stability of the household. (Mann and Hawkins 2007). In the population, the use of payday loans declines steadily through the life course; the controls in our regression model dampen that trend considerably, though they do not eliminate it entirely (the first panel of Figure 5). They do, however, eliminate any cognizable racial effect: racial variations in payday loan use appear to be explained largely by nonracial characteristics of the household. The pattern in bankruptcy (the first panel of Figure 6) is quite different. Here, using similar controls, the variations by race and age are much more pronounced. Specifically, households under the age of 45 are significantly more likely than the reference class to use payday loans to avert bankruptcy; households in the older groups use payday loans much less frequently. Similarly, although Hispanic households do not differ

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[23]In addition to the models we summarize in Figures 5 and 6, we estimated separate models with interactions, but none of them were substantively different from what we report here. Complete results from all of the models are available on request.

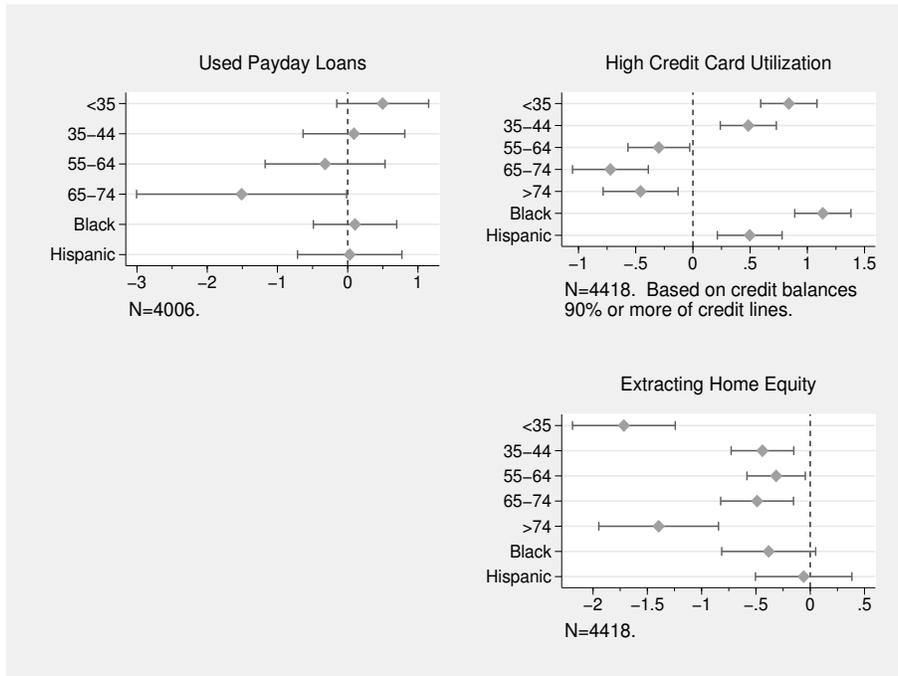Figure 5: Age, Race, and Coping Strategies in the Population. *Source:* SCF 2007. *Note:* Graphs display unexponentiated logistic coefficients with 95% confidence intervals. Coefficients and standard errors have been corrected for multiple imputation. Reference class is white, married, age 45-54, no high-school education, with income centered at $35,000; graphs do not display education, marriage and income controls.
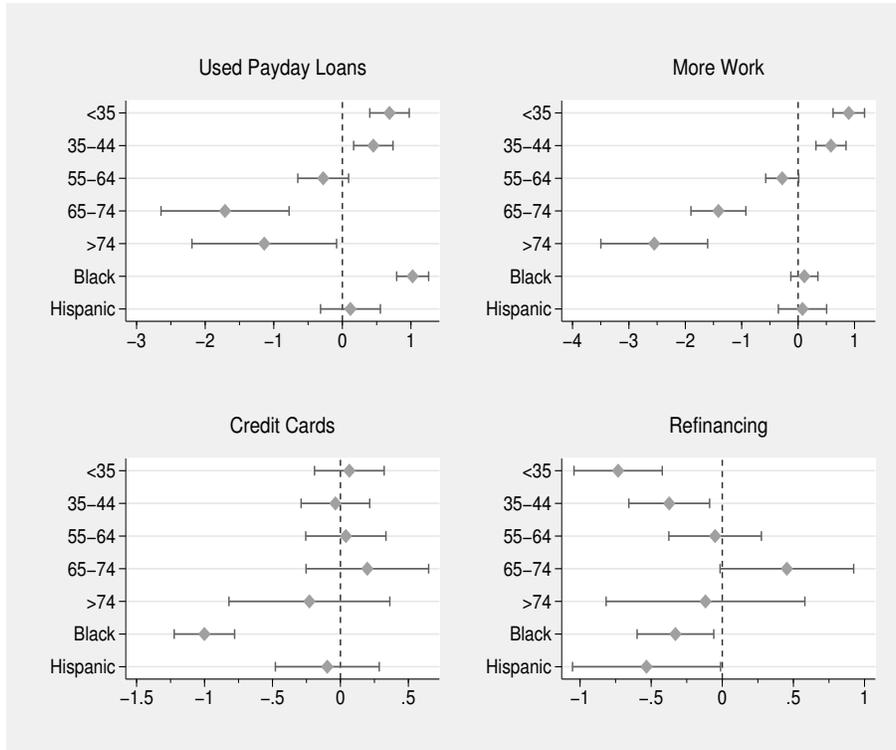
Figure 6: Age, Race and Pre-Bankruptcy Coping Strategies. *Source:* CBP 2007 (N=2096). Graphs display unexponentiated logistic coefficients with 95% confidence intervals. Reference class is white, married, age 45-54, no high-school education, with income centered at $35,000; graphs do not display education, marriage and income controls.

significantly from white households in their use of payday loans in either model, black households in the bankruptcy population are much more likely (about 25 percentage points more likely) to report that they used payday loans in an effort to avert bankruptcy. Especially taken in light of the parallel data in Figure 5, this suggests that the black households in bankruptcy are more likely plagued by credit market constraints than white households.

We turn next to the use of credit cards. On the one hand, use of credit cards suggests continuing access to mainstream credit markets. On the other hand, use of credit cards as a response to financial distress can exacerbate rather than mitigate a distress event, because it easily can lead to the buildup

of large debt levels that will strain the household for years into the future (Mann 2007). In our model, the use of credit cards is thus a new risk that can compound the adverse effects of the distress event that the household already has confronted. As with payday loans, the data in the population (second panel of Figure 5) suggests that "maxing out" your credit cards is a behavior that correlates inversely with age: there is a steady decline in exhaustion of credit card lines with age, even more marked than the decline in the use of payday loans. There also is a pronounced racial pattern, with Hispanic households somewhat more likely to report high utilization and black households much more likely. Again, the pattern in the bankrupt population (third panel of Figure 6) is quite different. Here, age is largely irrelevant, but black households are significantly less likely than white or Hispanic households to report using credit cards to avert bankruptcy. Collectively, those data suggests that high credit card utilization is a useful proxy for credit market constraints: households that are younger or nonwhite are likely to have high rates of credit card utilization because of difficulties they face in obtaining large credit card lines.

The last major strategy we consider here is accessing wealth in the form of home equity. Although only relatively well-off households will have home equity available as a resource, this is arguably a risky strategy for managing distress because it directly destroys the household's wealth holdings. Evidence that wealth differentials persist from generation to generation suggest the grave long-term costs this strategy can pose (Conley 1999). Again, the data suggest that the use of this strategy is patterned by its availability. In both datasets, this strategy is far more common for the reference class (middle-aged white households than it is for households of other ages and races. For example, SCF data about extracting home equity (last panel of Figure 5) suggest that households adjoining middle age (35-44 and 55-74) will have extracted home equity less frequently than middle-aged households; households at more extreme ages (under 35 or over 74) use this strategy even more rarely (about 35 percentage points less often than the reference class). Similarly, although the difference is only marginally significant, black households appear to extract home equity slightly less frequently than white households. The parallel CBP data on use of refinancing to avoid bankruptcy (last panel of Figure 6) is substantively similar.[24] Younger households are

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[24]A separate model on coping through refinancing limited to those reporting that they owned a home showed similar age effects.

less likely than middle-aged groups to have used refinancing as a strategy; interestingly, though, the 65-74 age group is somewhat more likely to have refinanced their homes as a coping strategy. Finally, black and Hispanic households are significantly less likely than white households to have used refinancing.

4.4   Bankruptcy over the Life Course

Finally, we consider the mechanisms that sort those in financial distress into the bankruptcy system. The majority of those who suffer serious financial distress do not use the bankruptcy system (White 1998); we know relatively little about what differentiates those who respond to distress by seeking bankruptcy relief from those that do not. The SCF includes measures of prior bankruptcy filings and the year of filings. Those variables provide useful information about the incidence of bankruptcies in the population over time. In the 2007 SCF, 12 percent reported having filed bankruptcy at some point, with nearly 4 percent filing in the past 5 years.

Although the measures are imperfect, we estimated a model to predict self-reported bankruptcy within the five-year period preceding the survey based on age, race, education, and whether the respondent has ever owned a home (a proxy for pre-bankruptcy assets). We controlled for "normal" income level (again, a proxy for pre-distress income level). The most important finding is that recent bankruptcy filing is most common for middle-aged household heads and the likelihood of bankruptcy falls significantly for both older and younger households (although more so for older households). The results are in Table 1. Black households are more likely to file for bankruptcy, but the finding is only marginally significant. As expected, income is negatively related to the probability of filing; the top 40 percent of the income distribution is significantly less likely to file for bankruptcy.[25]

Turning to the CBP data, we use two distinct approaches to understand what differentiates the households that seek relief in bankruptcy from those that do not. In the first section, we compare the financial characteristics of households in bankruptcy to those in the general population, hoping to understand how bankrupt households differ from the normal population, and of course how those differences are patterned by age and race. In the second

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[25]It is worth noting that about 80 percent of bankruptcy filers in the CBP sample reported income levels below the SCF median income for 2007, and 92 percent had income levels below the 60th percentile of SCF income.

Table 1: Determinants of Bankruptcy, 2007

	Coef.	S.E.
Age (ref 45-54)		
<35	-.46**	.18
35-44	-.22	.19
55-64	-.76***	.22
65>	-2.37***	.37
High school education	.23	.32
Race and ethnicity (ref white)		
Black	.38*	.20
Hispanic	-.21	.31
Ever own home	.24	.17
Normal income bracket (ref low)		
Second	.22	.23
Middle	.25	.19
Fourth	-.71**	.28
Top	-2.14***	.71
Married	.09	.18
Constant	-2.87***	.36

Source: SCF 2007. *Note:* Estimates are weighted with SCF sampling weights. Standard errors are bootstrapped with 250 replicates and are adjusted for imputation uncertainty. ***Statistically significant at the 1 percent level; ** 5 percent level; * 10 percent level.

section, we estimate models using the CBP's survey responses on the reasons for filing, attempting to assess directly age- and race-related patterning of the reasons offered for filing.

4.4.1 Selecting into Bankruptcy

First, we consider how shifts in income, asset, and debt levels through the life course differ for those who are in bankruptcy from those in the general population. Figure 7 presents a series of boxplots that illustrate the range of typical bankrupt households from the CBP against a marker for a potentially distressed general population household from the SCF.[26] For the CBP range, the boxes display the median and the 25th and 75th percentiles, with lines extending to the end of the distribution. The SCF markers show households in the 25th percentile for income and assets, 75th percentile of debt, and 90th percentile of credit card debt.

Several things about those figures are noteworthy. The most obvious is that the asset and income characteristics of the bankruptcy population are more stable across age than those of the general population. Specifically, neither asset nor income levels exhibit the pronounced prime-of-life peak (45-55 for income and 55-65 for assets) that is apparent from the SCF data. The homogeneity of asset and income attributes of filers with respect to age suggests that the typical variations in asset and income levels across age do not explain much about bankruptcy incidence over the life course. To put it another way, the mechanisms for selection into bankruptcy do not appear to relate to age-related variation in the level of income and assets. Instead, bankruptcy provides useful relief for households of a particular financial profile, and the nature of that profile changes relatively little over the life span.

The curves say something much different about debt. The debt curve in the general population peaks earlier than the asset and income curves (in the 35-45 decade), and declines rapidly so that debt levels for the typical household are quite small by the age of 65. For bankrupt households, however, the debt burdens fall much more slowly, and indeed for credit card debt they rise steadily with the age of the bankrupt population. The high debt levels suggest that the "consumption-smoothing" function fails by early middle age when households are unable to repay the debts they incurred in the prime of

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[26]The CBP analysis uses the bankruptcy case as the unit of analysis, relying on household-level data or, where household-level data is not applicable, on the characteristics of a randomly selected member of the household.
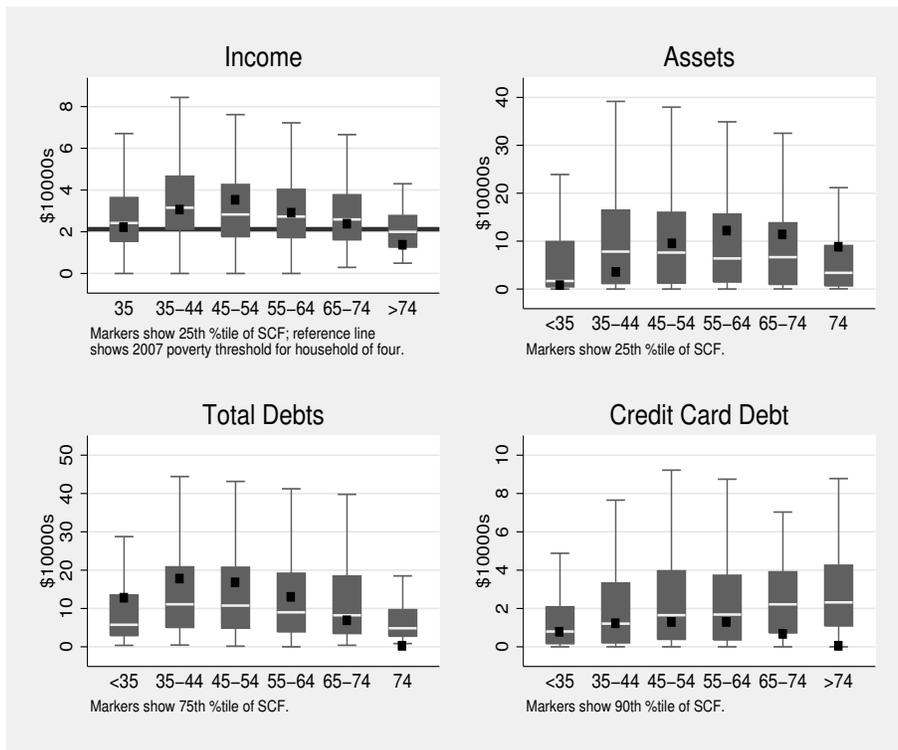
Figure 7: Financial Activity over the Life Course. *Source:* SCF 2007; CBP 2007. *Note:* All figures in $2007. Excludes outside values.

life. Thus, the most striking divergence in the patterns of financial affairs of the bankruptcy population and the general population is in the remarkable amount of credit card debt owed by elderly bankrupt households.

To examine this point more carefully, we estimated Tobit regression models (left censored at 0) to predict the amount of credit card debt held by households in the general population and the bankruptcy population, controlling for age and other demographic variables (marital status, income, race, and education). Figure 8 displays the predicted amount of credit card debt for a married household headed by a respondent with at least a high school education. Income is centered at $35,000.[27] The graph shows the coefficients for black and white household heads in different age groups. The pattern for white households underscores the data in Figure 7: the credit card debt owed by elderly bankrupt households is remarkably high, whether the benchmark for comparison is bankrupt households of younger households or typical households of that age. Although the credit card debt of typical households declines rapidly after they reach 65, the credit card debt for bankrupt households is much higher for the households in the older age brackets, reaching a predicted value of more than $40,000 for the typical bankrupt household over the age of 75.[28]

The comparison to Figure 6 is quite striking. Elderly households are not particularly likely to report that they used credit cards as a strategy to avert bankruptcy, but they do tend to have a substantial amount of credit card debt. This suggests that the incidence of credit card use among distressed households is more likely to reflect a long-term process of mismanaging income and debt levels than a short-term run-up of debt prior to bankruptcy.

The connection between age and credit card burdens of bankrupt households is not, however, universal through the population. Based on the findings related to credit market constraints discussed above, we would expect black households in bankruptcy to display a different pattern of credit card

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[27]Because the distribution of income in the SCF and CBP is so different, it is somewhat arbitrary to select a point against which to center the income for analysis. $35,000 is at approximately the 30th percentile of the SCF distribution and the 55th percentile of the CBP distribution. To test the sensitivity to the $35,000 centering, we estimated separate models centering income on $25,000 (closer to 20% in the SCF distribution and 44% in the CBP distribution).

[28]In part, the data may reflect a cohort effect, in which the predilection of the current cohort of older households to use credit cards rather than debit cards leaves it more exposed to the risk of credit card borrowing than younger households (Schuh and Stavins 2009). Figure 3 reflects a consistent effect.
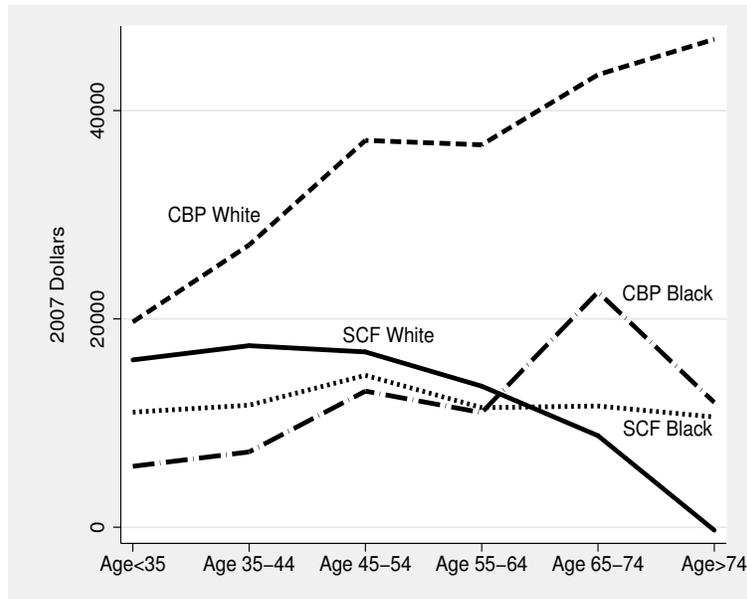
Figure 8: Estimated Race and Credit Card Obligations in Population and Bankruptcy. *Source:* 2007 SCF and CBP. *Note:* Predicted coefficients for married household with high-school education and $35,000 income.

obligations. As Figure 8 illustrates, the pattern for black households is strikingly different from the pattern for white households. Generally, the obligations for black households are much lower. Thus, showing precisely the opposite pattern of white households, the credit card obligations of black bankrupt households are (at least until middle age) significantly lower than those of black households in the population (which in turn are much less than those of white households). Only past the age of 55 do the credit card obligations of bankrupt black households surpass those of black households in the population, and even then they are never half as large as those of white bankrupt households.

4.4.2 Bankruptcy Determinants, Race and the Life Course

A second strategy for understanding the mechanisms by which households in financial distress are sorted into the bankruptcy process is to examine the stated reasons for filing bankruptcy, collected as part of the CBP sur-

vey. With respect to age (summarized in Table 3), the traditional exogenous reasons for bankruptcy differ substantially. Thus, not surprisingly, medical issues become steadily more prominent as families age, reaching a plateau for households over the age of 55. Divorce, by contrast, is a much less common problem for households over 55 than for those under 55. Spending problems are more common for younger households. Housing-related problems are most likely to affect middle-aged households. Income decline holds roughly steady (53%-58%) for all households under the traditional retirement age of 65.

Turning to race (summarized in Table 4), household financial data suggest that non-Hispanic white, African American, and Hispanic or Latino groups in bankruptcy have comparable income levels. African American and white bankrupts have similar asset levels that are higher than those for Hispanics in bankruptcy. White bankrupts have higher debt levels than either of the other groups. Although the racial variation in life course risks is illustrated further in the multivariate logistic regression models below, those financial characteristics suggest that filing motivations are likely to vary by race.

To understand the robustness of those patterns, we estimated a series of logistic regression models to predict the self-reported reasons for bankruptcy, presented in Figures 9 and 10. We use logistic regression to fit models that predict the logged odds of selecting a particular reason. We control for income, assets, homeownership and marital status.

The results suggest that the control variables do not entirely explain the differences in reasons for filing provided by household heads of differing ages and races. Thus, the probability of attributing the reason for the bankruptcy to divorce is significantly lower for households age 55 or older than for middle-aged households; the effects decline steadily through the older age groups. Medical problems, by contrast, are more stable through the bulk of the age distribution, rising somewhat for households in the 55-64 age group. Interestingly, with the controls, medical problems are no more common for households 65-74 than for the reference category (age group 45-54), likely at least in part because of the access to Medicare. Presumably the slightly increased frequency of medical problems as a reason for bankruptcy in households over the age of 75 reflects the limited ability of Medicare to fund medical and related costs at the end of life.[29] The patterns for income

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[29]One thoughtful reader suggested that the over-75 issue relates specifically to the Medicaid rule that makes the availability of nursing-home care contingent on liquidation of
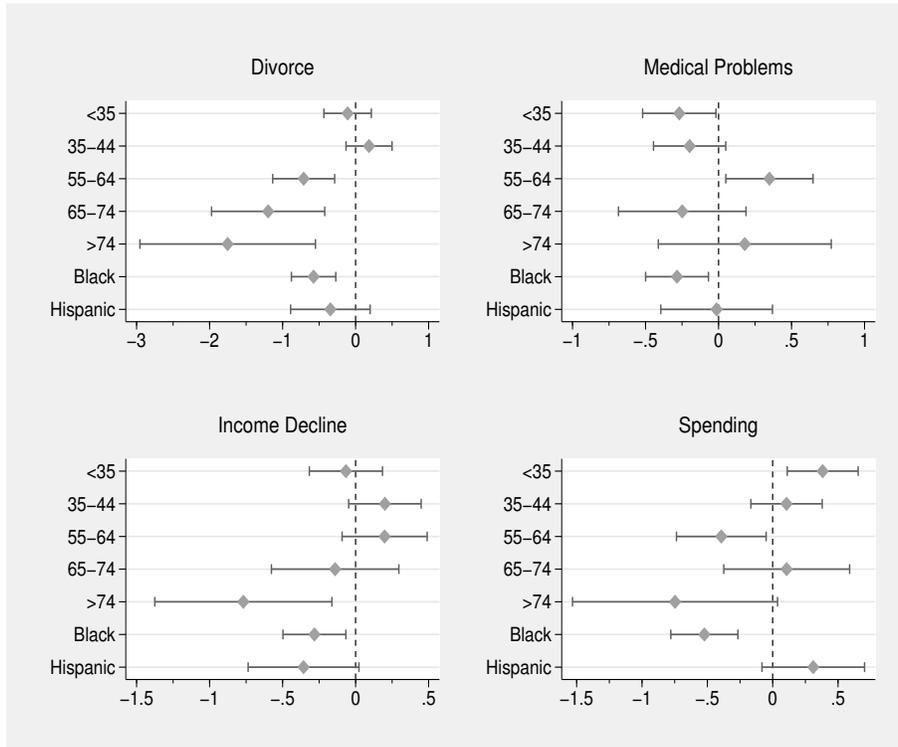
Figure 9: Age, Race and Reasons for Filing for Bankruptcy. *Source:* CBP 2007 (N=2073). Graphs display unexponentiated logistic coefficients with 95% confidence intervals. Reference class is white, married, age 45-54, no high-school education, with income centered at $35,000; graphs do not display education, marriage and income controls.
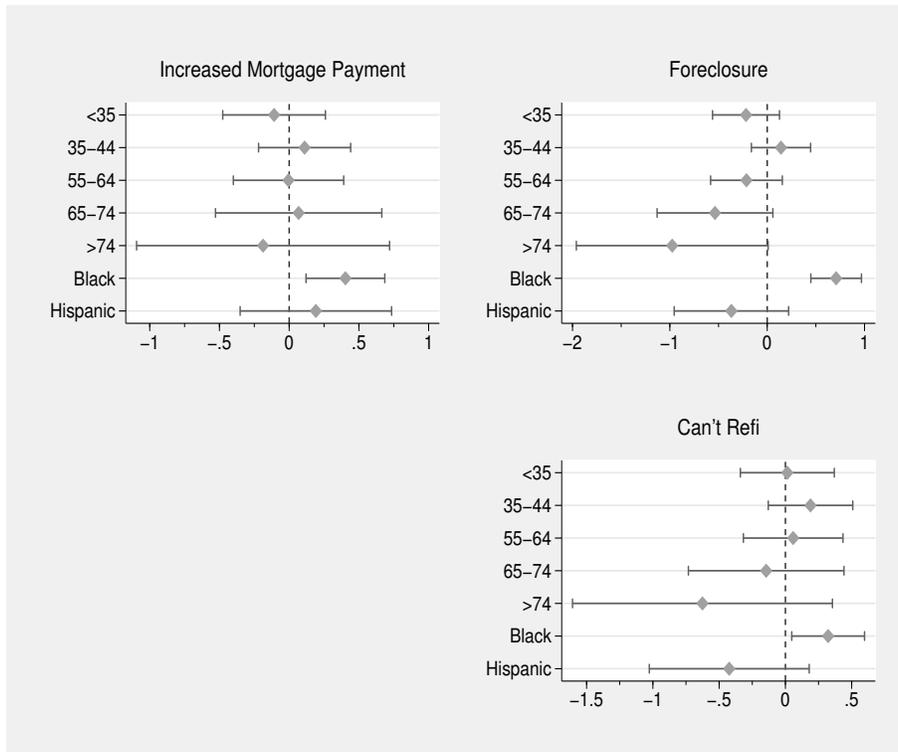
Figure 10: Age, Race and Real-estate Related Reasons for Bankruptcy. *Source:* CBP 2007 (N=2065). Graphs display unexponentiated logistic coefficients with 95% confidence intervals. Reference class is white, married, age 45-54, no high-school education, non-homeowner, with income centered at $35,000; graphs do not display education, marriage and income controls.

declines and spending are only marginally significant for most age groups. A fall in income (presumably a proxy for layoffs) is more of a problem during working years, and problems with spending generally decline with age (except for the decade between 65 and 74).

The race coefficients in Figures 9 and 10 are particularly provocative. Blacks are less likely than whites to report any of the standard exogenous reasons for bankruptcy summarized in Figure 9. By comparison, blacks are more likely than whites to report any of the real-estate related reasons for

assets.

bankruptcy summarized in Figure 10. Collectively, the data suggest that the paradigmatic black bankruptcy arises out of real estate problems exacerbated by limited access to conventional credit markets.[30] This is consistent with the lower debt levels and higher homeownership rates for bankrupt black households summarized in Table 4. The latter is particularly notable, given the converse pattern for homeownership in the population (summarized in Table 4), where the respective rates are about 75 percent for white households and 49 percent for black households.[31]

5 Conclusion

The paper uses a novel research design that allows us to extend existing empirical research about bankruptcy, limited to study of those involved in the legal process, with a focus on the selection processes by which individuals sort themselves into bankruptcy. A longitudinal data structure would be ideal for this purpose. However, the longitudinal surveys that inquire about bankruptcy filings - the National Longitudinal Survey of Youth and the Panel Survey of Income Dynamics - are inadequate because they do not have a sufficient number of individuals in the target population and are likely to undercount the important financial variables (Keys 2009; Fay, Hurst and White 2002). Our study takes advantage of the administrative data regarding the bankruptcy process, survey data about reasons for filing and coping strategies, and population-based data from the SCF for comparison of the household finances of the bankrupt, the financially-distressed, and the general population.

In general, our analysis alludes to the growing importance of several structural shifts in the economy, three of which seem to be paramount. The first is the increased employment volatility (especially for the old and young) that flows from globalization. The second is the continued expansion of credit markets, which has facilitated the insurance and liquidity functions of credit markets, albeit bringing a substantial increase in the amount of debt and

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[30]As of 2007, nonwhite households became slightly more likely than white households to have debt (Bucks et al. 2009), but the removal of credit limitations has been accomplished in part through the segmentation of credit markets with higher costs for nonwhite households (Briggs 2005; Oliver and Shapiro 2006).

[31]We estimated separate models with interactions between age and the race variables. Although they suggest some possible differences in the age effects by race, the small number of elderly black households in the dataset limits our ability to analyze the effects.

a segmentation of credit products. The third is the extended period of economic activity at the end of life, reflected in increased levels of income, assets, and debt for those past middle age.

The life course patterns discussed in this paper warrant some generalizations. People at all ages are now using credit not only to manage the mismatch of steadily increasing lifetime income with a desire for reasonably stable levels of consumption. They also use credit to respond to increased levels of income and wealth volatility. Insurance does not seem to be a complete, or even adequate, cushion against shocks to health, livelihood, or savings, particularly when those shocks increasingly relate to disturbances at both macro- and micro-levels. Moreover, beyond those explanations, there necessarily is some debt, unrelated to life course shocks or income smoothing, resting solely on a failure to manage consumption to match income. The relevant miscalculations might be classified along several dimensions: they are likely to have either an individual or systemic foundation, and potentially they reflect either overoptimism or lack of financial sophistication.

The relatively limited debt burdens characteristic of younger households suggest not frugality, but a market constraint that lingers even after decades of market and product expansion. When younger households experience financial difficulty, often the main sources of funding to which they can turn are high-cost options that might be as likely to exacerbate financial distress as they are to help the family through hard times.[32]

Middle-aged households represent the paradigmatic case for both the bankruptcy system and the credit markets. Households at this age have the most complete access to the full panoply of strategies for avoiding distress. Still, middle-aged households are much more likely to file for bankruptcy each year than those that are younger or older. One possible explanation might be racial variation by age, which would reflect (especially in 2007) differential access to mortgage markets (both access to different products and differing levels of access to the same products); although the racial distribution is similar across most age brackets, black filers are much more likely to be middle-aged than white filers.

The situation of older households is the most poignant. Extending economic activity later through the life course is a double-edged sword, as it

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[32]Betti et al. (2007) explores the idea that limited credit use can be associated with a greater level of financial distress because it reflects restricted access to credit. They use this framework to explain why there are greater levels of overindebtedness in EU countries that have lower levels of borrowing.

brings increased wealth and income later in life. The difficulty, of course, is that this strategy is much riskier for the elderly than it is for younger households. This is true not only because older households are more exposed to income and health volatility, but also because their responses to those problems become less flexible with advancing age. To be sure, older households have taken full advantage of the increased credit access to cope with adverse events. But borrowing continues for a large share of households far past any point where it can be repaid other than by liquidation of wealth, a speculative gamble in an economy plagued by increasing asset volatility.

To be sure, our analysis has limitations. Although we use the available race data in the SCF and CBP, we do not undertake to examine the multiple precursors for the racial variation those datasets display. Still, our analysis leaves little doubt that the risks of life course mobility differ by race, even for households of the same age. If the availability of bankruptcy as a countermobility institution is stratified by race in addition to age, then it likely exacerbates the existing link between race and wealth in our society.[33] On that point, the analysis in Figure 7 is telling. The figure suggests that the typical bankrupt households are not in the core of the middle class; rather, they are predominantly below the 25th percentile in income and assets and above the 75th percentile in debt. Taking race into account, however, black bankruptcy filers are more likely to come from the middle class than white bankruptcy filers, particularly measured by assets; median assets for black bankruptcy filers are greater than median assets for all black households, but median assets for white bankruptcy filers are only a small fraction of median assets for white households (Table 4). The education differentials display a similar pattern.[34]

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[33]The cultural and institutional frames through which society understands and responds to financial distress likely influence the availability of bankruptcy relief. For example, the emphasis on commonalities of those in bankruptcy (both with each other and with those in the middle class), suggests not only that financial distress indiscriminately affects members of the "middle class," but also that the process has been structured to target those who look like members of the "idealized" middle class. Thus, Mechele Dickerson argues persuasively that the bankruptcy laws exhibit a bias in favor of people with financial attributes that are more likely to be held by white families, and she shows that the 2005 bankruptcy reforms widened the effect (Dickerson 2007, 2005). Viewed as a hybrid of a social program and a capitalist response to economic volatility (Niemi-Kiesilainen 2003), bankruptcy arguably works to achieve the goal of being available to assist working, married, white families that encounter unexpected difficulties, but to weed out other financially distressed households.

[34]Black bankruptcy filers were more likely to have attended college than either white

The descriptive discussion of those topics here shows the way for further research. First, much of the existing research relies too heavily on the strike-like-lightning quality of bankruptcy within the middle class and thus inappropriately masks filing selection processes. The use of panel data to sort out the various mechanisms by which individuals get into or remain in debt would be an important contribution to the literature, as would an understanding of the information-based or other disparities related to the use of the bankruptcy system. Further, the use of comparative and historical nation-level data potentially could elucidate the relevance of structural shifts in the economy for debt levels (e.g., DiPrete 2002). Finally, our analysis does not address whether the filing determinants in 2007 are typical for other periods. Comparative analysis of these questions at a different point in the current economic crisis or in a period of prosperity thus might be quite fruitful.

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bankruptcy filers or black households in the general population; at the same time, white bankruptcy filers are less likely to be college educated than white households in the general population (Table 4.)

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Appendix

Table 2: Population Financial Characteristics and the Prevalence of Distress Events by Age, 2007

	<35	35-44	45-54	55-64	65-74	>=75
Own home (%)	41	66	77	81	85	77
Has debt (%)	84	86	87	82	66	31
Has Credit Card (%)	59	68	74	79	79	66
Has Credit Card Debt (%)	48	52	54	50	37	19
Cardholders w/ Credit Card Debt (%)	73	71	68	61	45	26
Household Debt (median, $1000)	36	106	96	60	40	13
Credit Card Debt (median, $1000)	1.9	3.5	3.6	3.6	3.0	.8
Net Worth (median pos. value, $1000)	24	118	214	281	260	219
Total Debt to Income (median ratio)	90	144	120	98	84	44
Debt Service > 40% of Income (%)	15	12.1	15.5	14.2	14.9	13.9
Negative Net Worth (%)	22	12	6	4	4	3
Credit Denials (% of applicants)	45	38	23	17	14	11
Payday Loans (%)	4.9	2.7	2.2	1.6	0.6	0
Extracted Home Equity (%)	3.1	10.6	17.1	13.1	9.6	2.8
Late Pay, 60+ days (%)	7.9	7.4	6.4	4.0	2.9	0.3
Bankruptcy Filed in Last 5 Years (%)	4.4	4.8	5.6	3.1	1.0	0.5

Source: SCF 2007. *Note:* Weighted calculations.

Table 3: Bankrupt Household Characteristics by Age, 2007

	Total	<35	35-44	45-54	55-64	65-74	>=75
Chapter 13 (%)	34	23	40	40	38	29	19
Monthly Income (median $1000)	2.2	2.0	2.6	2.3	2.3	2.0	1.6
Total Assets (median $1000)	51	17	74	79	66	58	22
Total Debt (median $1000)	87	59	106	108	90	75	48
Credit Card Debt (median $1000)	13	8.3	12	16	17	21	23
Homeownership (%)	51	33	55	58	62	61	42
Medical Debt (%)	51	58	59	51	46	33	24
Student Loans (%)	17	29	23	14	6	1	2
Coping Strategies (%)							
Work Harder	61	79	72	62	54	25	10
Use 401K	35	30	39	41	43	29	25
Using Credit Cards	51	57	53	55	56	53	40
Pawnshop	32	39	38	37	25	15	15
Payday Loans	25	35	30	23	17	8	10
Selling Home	6	4	8	8	5	8	2
Refinancing Home	24	16	25	32	29	36	23
Reasons for Filing (%)							
Income Decline	52	53	57	56	59	46	37
Medical Issue	53	51	54	58	65	53	65
Divorce	18	19	22	22	12	6	8
Spending	26	36	29	26	21	26	13
Increased Mortgage	16	13	19	17	17	15	13
Can't Refinance	18	14	22	22	22	19	12
Foreclosure	20	15	27	25	22	17	12
Possible Observations	2438	570	603	504	338	112	52

Source: CBP 2007.

Table 4: Characteristics of Households by Race and Dataset, 2007

	White		Hispanic		African American	
	SCF	CBP	SCF	CBP	SCF	CBP
Annual Income (median $1000)	51	28	36	26	31	27
Assets (median $1000)	256	60	54	25	49	54
Total Debt (median $1000)	33	99	14	56	12	74
Credit Card Debt (%)	46	91	47	87	50	80
Student Loans (%)	14	16	14	13	24	23
Medical Debt (%)	n/a	54	n/a	41	n/a	50
Res. Mort. Debt (%)	49	50	37	40	37	53
Homeownership (%)	75	51	49	41	49	56
Education (%)						
No HS	7	9	37	20	15	10
HS - GED	25	31	30	24	35	23
Some College	15	35	13	33	23	40
College Degree	52	26	21	24	27	27
Marital Status (%)						
Never Married	15	16	25	22	35	27
Married	53	47	53	46	31	35
Div - Sep - Wid	31	38	22	32	33	38
Observations	3518	1573	313	131	410	488
Percent of Survey Population	80	71	7	6	9	22

Source: CBP 2007; SCF 2007. *Note:* SCF calculations weighted.