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Debt, Bankruptcy, and the Life Course

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DEBT, BANKRUPTCY, AND THE LIFE COURSE

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This Essay considers the significance of credit markets and bankruptcy for life course mobility. Comparing parallel data from the 2007 Survey of Consumer Finances (SCF) and the 2007 Consumer Bankruptcy Project (CBP), it analyzes use of the bankruptcy process as a function 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, although the financial characteristics of filers vary markedly by age and race, bankrupt households generally come from the bottom quartiles of the population in assets and income and the top quartile in debt. Two, households neither attribute their bankruptcies to the same causes nor use the same strategies to avert bankruptcy. Age- and race-based variations are consistent with disparate racial access to markets and institutions and the increased incidence of financial activity among the elderly.

INTRODUCTION

Consumer bankruptcy is a contentious subject, with literature driven by deep-seated convictions about the morality of debt and the propriety of tolerating or reversing market outcomes. Conservative market champions are deeply suspicious of the motivations of filers who use the bankruptcy process to avoid repaying their debts.1 An empirical literature buttresses that concern, suggesting that increases in filing rates relate to a decline in the “stigma” that previously deterred filing.2 In general, conservative scholars ignore the positive

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1 See Edith H. Jones & Todd J. Zywicki, It’s Time for Means-Testing 1999 BYU L. REV. 177, 208-21 (arguing means-testing is necessary because “[b]ankruptcy is now too frequently a choice fostered by irresponsible spending habits and an unwillingness to live up to commitments”); Todd J. Zywicki, An Economic Analysis of the Consumer Bankruptcy Crisis, 99 NW. U. L REV. 1463, 1540 (2004) (concluding the rise in consumer bankruptcy filing rates results from American households increasingly “respond[ing] to financial problems by filing bankruptcy and discharging their debts, rather than reining in their spending or tapping accumulated wealth”).

spillover effects of debt, the negative externalities of widespread financial distress, and the consequent spillover effects of an effective system for rehabilitating distressed debtors. More fundamentally, they model the borrowing/repayment decision as if the only relevant concern is the moral hazard that motivates a borrower to avoid repayment. Therefore, they overlook the active construction of lending markets to encourage risky lending. The political ascendancy of that movement reached its zenith with the 2005 adoption of the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA), which raised the direct and indirect costs of filings, with a direct intention of stifling recourse to the bankruptcy process.

Conversely, bankruptcy advocates strive to counteract political hostility to the bankruptcy process and those that use it by humanizing filers. For example, Elizabeth Warren and her coauthors have spent decades seeking to prove that bankrupts generally come from the middle class, a point made most emphatically in their masterwork “The Fragile Middle Class.” The chapters of their major books generally begin with a brief and stylized factor rises with the number of people in one’s state who have previously filed for bankruptcy is suggestive of a decline in social stigma or information costs, but is not conclusive”).

3 See Barry Adler et al., Regulating Consumer Bankruptcy: A Theoretical Inquiry, 29 J. LEGAL STUD. 585, 608 (2000) (arguing “a consumer bankruptcy system should have two ex ante goals: to insure consumers, to the extent possible, against bad income realizations and to reduce moral hazard in connection with lending agreements); Samuel A. Rea, Jr., Arm-Breaking, Consumer Credit and Personal Bankruptcy, 22 ECON. INQUIRY 188, 188 (1984) (arguing “the ability of a debtor to protect some of his assets from attachment and to discharge his debt through bankruptcy proceeds may be viewed as implicit insurance” for borrowers, which “like most insurance, carries with it moral hazard”).


6 Ronald J. Mann, Bankruptcy Reform and the “Sweat Box” of Credit Card Debt, 2007 U. ILL. L. REV. 375, 377, 379-84 [hereinafter Mann, Sweat Box].

7 TERESA A. SULLIVAN, ELIZABETH WARREN & JAY LAWRENCE WESTBROOK, THE FRAGILE MIDDLE CLASS: AMERICANS IN DEBT 27-74 (2000) [hereinafter SULLIVAN ET AL., FRAGILE MIDDLE CLASS]; see also TERESA A. SULLIVAN, ELIZABETH WARREN & JAY LAWRENCE WESTBROOK, AS WE FORGIVE OUR DEBTORS: BANKRUPTCY AND CONSUMER CREDIT IN AMERICA 328-31 (1989) [hereinafter SULLIVAN ET AL., AS WE FORGIVE] (analyzing the profile of bankruptcy debtors and concluding most are middle-class); ELIZABETH WARREN & AMELIA WARREN TYAGI, THE TWO-INCOME TRAP: WHY
narrative, drawn from a single bankruptcy file. Those narratives relentlessly press the perspective that the ideal, and typical, bankrupt is a white, middle-class homeowner who fell on hard times or met up with an unscrupulous lender. These efforts culminated in the 2010 creation of the Consumer Financial Protection Bureau, a direct outgrowth of Warren’s perspective on consumer victimization.

What is most interesting about the controversy is that neither group shows any substantial interest in the traditional idea that bankruptcy is an institutional process for mitigating the adversity of financial distress that is a necessary adjunct of a developed capitalist economy. For conservatives, all use is presumptively an act of bad faith; bankruptcy filings are a measure of the community’s steady "slouch toward Gomorrah." For bankruptcy advocates, failure, for the most part, is a function of excessive lending to be remedied by EU-style

MIDDLE-CLASS MOTHERS AND FATHERS ARE GOING BROKE 7 (2003) (“When membership in the middle class is defined by enduring criteria that don’t disappear when a pink slip arrives—criteria such as going to college, owning a home, or having held a good job—more than 90 percent of those in bankruptcy would qualify as middle class.”); Elizabeth Warren, Financial Collapse and Class Status: Who Goes Bankrupt?, 41 OSGOODE HALL L.J. 115, 127-44 (2003) (concluding “the overwhelming majority of individuals filing for bankruptcy could stake a legitimate claim to middle-class status”); Elizabeth Warren, The Growing Threat to Middle Class Families, 69 BROOK. L. REV. 401, 405-08 (2004) (summarizing the middle-class attributes of bankruptcy filers).

SULLIVAN ET AL., AS WE FORGIVE, supra note 7; SULLIVAN ET AL., FRAGILE MIDDLE CLASS, supra note 7; WARREN & TYAGI, supra note 7.

For example, see WARREN & TYAGI, supra note 7, at 1-5, which tells the story of Ruth Ann and James, a married couple with two children from the town of Wylie, Texas. When James lost his job as the manager of a carpet and flooring store, they fell behind on their mortgage and ran out of cash to pay even their basic living expenses; their debt amounted, and they declared bankruptcy in 2001.

The resonance with Grapes of Wrath is unmistakable, and not entirely coincidental, given the years of Warren’s youth spent in Wetumka, Oklahoma. Warren herself has acknowledged this similarity. See WARREN & TYAGI, supra note 7, at 137 (describing Warren’s grandfather’s experiences in rural Oklahoma during the Great Depression and the Dust Bowl, and drawing a comparison to Grapes of Wrath).


See Oren Bar-Gill & Elizabeth Warren, Making Credit Safer, 157 U. PA. L. REV. 1, 3-25, 98-100 (2008) (arguing consumers should be protected from the risks of credit products just as manufactured products are regulated for safety, and advocating for the creation of a single federal regulator).

ROBERT H. BORK, SLOUCHING TOWARDS GOMORRAH: MODERN LIBERALISM AND AMERICAN DECLINE (1996), for a conservative perspective that modern liberalism has corrupted American culture.
initiatives that would wholly ban unfair contract terms\textsuperscript{14} and generally obligate lenders to police the “suitability” of the loans that they offer their borrowers.\textsuperscript{15}

The juxtaposition of the Great Recession with the rise of the Tea Party\textsuperscript{16} and the consequent polarization of the political landscape has brought these issues to the forefront of political debate. The challenges of allocating the costs and benefits of social regulation have never been more salient than they are now.\textsuperscript{17} More broadly, the intractability of the financial downturn has made economic mobility a crucial problem.\textsuperscript{18} Those pressing concerns about

\textsuperscript{14} Compare Council Directive 93/13/EEC of 5 April 1993 on Unfair Terms in Consumer Contracts, arts. 3, 6, 1993 O.J. (L 95) 29 (invalidating a wide variety of terms in agreements with consumers on the premise that they are unfair), with Dodd-Frank § 1028 (a rare and recent example from this country, authorizing prohibition of pre-dispute arbitration clauses).


\textsuperscript{17} Examining the identity of the primary beneficiaries of the government safety net, the New York Times reported that that the common perception that the poor are the primary recipients of such benefits is “badly outdated.” Binyamin Appelbaum & Robert Gebeloff, Who Benefits from the Safety Net, N.Y. TIMES ECONOMIX BLOG (Feb. 13, 2012), http://economix.blogs.nytimes.com/2012/02/13/who-benefits-from-the-safety-net/?ref=robertgebeloff. For a thorough historical analysis, see generally ROBERT C. LIEBERMAN, SHAPING RACE POLICY: THE UNITED STATES IN COMPARATIVE PERSPECTIVE (2005) (comparing the political forces that shaped the rise of welfare systems in the United States, Great Britain, and France).

rehabilitation clash jarringly with the relative irrelevance of the bankruptcy system as a response to consumer distress in the recession. An empirical assessment of the patterning of bankruptcy as a response to long-term indebtedness could not be more timely.

To explore these issues, this Essay relates the legal institutions of the bankruptcy system to the rapidly developing social science literature on life course mobility. Mobility research has recognized the variability in the risks of adverse events such as job loss or illness and the consequences of those risks for household finance. That variability is, in part, a product of economic vulnerability, which can be measured in different ways. Researchers traditionally have emphasized income-based poverty measures, but they also have explored asset-based, consumption-based, and hybrid measures. They have paid less attention to issues related to economic vulnerability associated with debt. Because of the multifaceted functionality of debt—on the one hand, facilitating consumption smoothing and investment; on the other

19 See Ronald Mann, Op-Ed, A New Chapter for Bankruptcy, N.Y. TIMES, Mar. 12, 2010, at A27 [hereinafter Mann, A New Chapter] (documenting the inability of the bankruptcy system to meet the needs of households in the continuing financial crisis).


21 See, e.g., Daniel Sandoval et al., The Increasing Risk of Poverty Across the American Life Course, 46 DEMOGRAPHY 4, 717 (2009) (measuring poverty rates in different stages of the American life course by determining whether family income falls below the poverty line).

hand, burdening income and offsetting wealth—debt is an important yet understudied nexus between adverse events and financial stability.

Responding to that analytical gap, this Essay presents a four-stage model of financial distress, meaning 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, the basic framework distinguishes first, the antecedent household financial position, second, the incurrence of adverse events and concomitant onset of financial distress, third, the private responses to financial instability and bankruptcy as a public counter-mobility regime, and finally, an emergent financial position. Given the obvious relation of age and race to most of the inputs to the model, we should expect notable variation by age and race at each stage. To illustrate the analytical model, we compare data from a nationally representative household-level survey of individual bankruptcy filings under Chapter 7 and 13, the 2007 Consumer Bankruptcy Project (CBP), to the most recent data collection of the Survey of Consumer Finances (SCF), which were coincidentally conducted at about the same time. Because neither dataset has a longitudinal structure, we cannot observe directly how debt burdens shift

24 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. The CBP excludes filings in Puerto Rico or Guam, filings that do not list an individual as the petitioner, and filings that do not include a valid address. The latter restriction necessarily eliminates what might be the most unstable segment of the bankruptcy population. See infra notes 48-51 and accompanying text, for further discussion of limitations in the CBP’s methodology. For details on the methodology of the CBP from the perspective of its principal investigators, see Robert M. Lawless et al., Did Bankruptcy Reform Fail? An Empirical Study of Debtors, 82 AM. BANKR. L.J. 349, 387 app. 1 (2008).
25 The CBP is based primarily on cases filed in January and February 2007, with the questionnaire mailed approximately one month after the filing date. The SCF interviews were conducted between May and December 2007. For more background on the SCF, see infra notes 45-47 and accompanying text. For a detailed discussion of the methodology, see Brian K. Bucks et al., Changes in U.S. Family Finances from 2007 to 2007: Evidence from the Survey of Consumer Finances, FED. RES. BULL., Feb. 2009, at A1, A52 app.
over time for particular families. We can, however, discern differences in the debt burdens and other indicators of financial distress for families that 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 comparative data provide an entry-point for understanding how both debt problems and the available solutions shift over the life course.

The existing literature has contributed a great deal to understanding different aspects of financial hardship, but it has done little to unpack the stages through which households pass as they respond to adverse events. Instead, the bankruptcy literature treats bankruptcy as arising directly and naturally out of an exogenous shock. This literature focuses on medical problems, job loss, and divorce as unexpected events that lead to bankruptcy. Economists have been more interested in selection into bankruptcy, primarily the concept of strategic bankruptcy by those who could afford to pay their debts; they are much less concerned about the possibility that the bankruptcy process itself deters filings from particular groups that would benefit from relief. Poverty research emphasizes the relations among various

\[26\] See, e.g., SULLIVAN ET AL., FRAGILE MIDDLE CLASS, see supra note 7, at 80-88, 141-87 (discussing unemployment, divorce, medical costs and medically related loss of income as factors in bankruptcy); David U. Himmelstein et al., Illness and Injury as Contributors to Bankruptcy, HEALTH AFFAIRS W5-63, W5-70 (2005) (finding illness and medical debt to contribute to about 50% of bankruptcies).

\[27\] See, e.g., Ian Domowitz & Robert L. Sartain, Determinants of the Consumer Bankruptcy Decision, 54 J. FIN. 403, 403-04 (1999) (examining the likelihood of filing for bankruptcy and the impact of factors such as debt levels and sources, health problems, homeownership, credit card debt, marital status, exemption levels, and other household characteristics); Scott Fay et al., The Household Bankruptcy Decision, 92 AM. ECON. REV. 706, 716 (2002) (testing “whether households are more likely to file for bankruptcy when their financial benefit from filing . . . rises”); Ning Zhu, Household Consumption and Personal Bankruptcy, 40 J. LEGAL STUD. 1, 4 (2011) (examining the impact of consumption on the likelihood of filing for bankruptcy and finding that households strategically “choose to file for bankruptcy after overextending their credit to cover their consumption”).
dimensions of household consumption deprivation, and the prevalence of chronic and temporary hardship in different national welfare regimes, but this work has not looked closely at the extent to which bankruptcy and credit markets influence the trajectory into or out of hardship at the individual level.\textsuperscript{28} Stratification and mobility researchers have been most attentive to the factors that affect the rates and consequences of events, but primarily use measures such as occupational status and permanent income to measure status.\textsuperscript{29} A joint gap left by those literatures is the relation among credit markets, household wealth mobility, and bankruptcy access. In light of the current recession, the questions of how households respond to financial distress and who has access to bankruptcy relief are more timely than ever. This Essay attempts to fill this important void in the existing scholarship.

To that end, Part I of this Essay discusses our model of financial distress, contrasting it with the economic model of consumption and debt over the life cycle. Part II briefly discusses the data we analyze. Part III presents our findings, using parallel data from the SCF and the CBP. The data quantify the differences between bankrupt households and the general population, helping to define the types of households for which bankruptcy relief is most readily available. More importantly, the data document marked but hitherto unknown variations by age and race. The Conclusion summarizes the implications of our findings for social and legal policy. We argue that a full understanding of the role that bankruptcy does

\textsuperscript{28} See, e.g., Heflin et al., \textit{supra} note 22, at 746 (noting “[a] growing consensus has emerged to move beyond income-based poverty measures alone and to identify and incorporate more proximal aspects of the material conditions in which households live”); Susan E. Mayer & Christopher Jencks, \textit{Poverty and the Distribution of Material Hardship}, 24 J. HUM. RESOURCES 88, 89 (1989) (using “data on the distribution of . . . material hardships in Chicago during the early 1980s . . . to assess the effects of income and need on hardship and to compare the distribution of hardship to the distribution of poverty).

\textsuperscript{29} See DiPrete, \textit{Life Course Risks}, \textit{supra} note 20, at 268-73 (describing the use of indicators such as occupation and income to approximate life conditions).
and does not play must acknowledge these disparities. Moving forward, any prospect of a bankruptcy system that would play a positive role in responding to events like those of the last several years, must take account of the institutional factors that have driven such deeply-seated patterning of bankruptcy relief.

I. 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. This Essay conceives of financial distress as a process involving four distinct stages. 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 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. 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.

Different risks, of course, are more severe at different ages and for different racial groups. The general pattern is a U-shaped curve with younger and older households more likely to experience asset and income poverty. Within that framework, black and Hispanic households

30 See infra Figure 1.
31 See Sandoval et al., supra note 22, at 721 (“[T]hose in the early and later stages of life have historically been at greater risk of experiencing poverty and near poverty.”); see also id. at 726, 727
are twice as likely to have inadequate wealth reserves to sustain an income shock that lasts three months or more. Black households also are less likely to build home equity and to experience affluence. Moreover, the racial divide widens over the life course.

[Figure 1 about here]

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 (a “mobility event” in the euphemistic terminology of the life-course literature). Because households often 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. The causation problems are intricate, because different types of credit markets and bankruptcy institutions influence the types of distress, by affecting the incentives to take precautions against distress events. At the same time, the provenance of different types of distress events affects the demand for, and the availability of, credit products.

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

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32 See Haveman & Wolff, supra note 22, at 153 (“[A]bout 30 percent of white households are in asset poverty while about 62 percent of Black/Hispanic households have inadequate liquid financial reserves to tide them over a 3-month period at a level of living equal to the poverty line.”); see also Sandoval et al., supra note 22, at 721 (noting that “although 1 out of 2 whites aged 20-75 would experience a year below the poverty line, the corresponding figure for blacks was 9 out of 10”).
33 Mark R. Rank, Measuring the Economic Racial Divide Across the Course of American Lives, 1 RACE & SOC. PROBS. 57, 64 (2009) (“Whites are many times more likely than blacks to experience affluence and to avoid poverty during their adulthood, more likely to purchase a home at an earlier age and build up significant levels of home equity compared to nonwhites, and less likely to experience asset poverty than blacks across the stages of the life course.”).
34 Id. at 65 (noting there is a “cumulative disadvantage of being black in America . . . that begins at childhood, and widens across the adulthood years”).
35 The reverse arrows in Figure 1 illustrate the relationship between mobility events and risk.
institutions—at least for dealing with financial distress—are credit markets and the bankruptcy system. Households can use credit markets to 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 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 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. Economic models of wealth accumulation assume that decisions to borrow are efficient when households match consumption with expected income streams or use leverage to make appropriate investments over time.36 From a macro perspective, a rise in aggregate debt levels is consistent with the easing of credit constraints;37 robust credit markets allow individuals to smooth consumption, increase investments, and hedge wealth shocks in the most efficient manner.38 The conventional expectation has been that debt use will be highest in the early years, where earnings and

38 See Peter Tufano, Consumer Finance, 1 ANN. REV. FIN. ECON. 227, 229 (2009) (discussing the functions of consumer finance).
savings are lower and there is a greater ability to diversify investments across time. But the life-cycle model does not easily explain empirical facts observed by researchers, such as the failure of middle-aged households to reduce their rate of savings, the limited evidence that elderly individuals in fact decumulate housing wealth, and the use of increased debt levels as a substitute for wages except during persistent periods of robust economic growth. The inability of the life-cycle model to explain the existing patterns of income and savings suggests that caution is warranted before readily accepting its broad application.

Although the findings discussed in this Essay are in stark tension with the assumptions of the life-cycle model, the purpose of this Essay is not to review or contribute to the literature critiquing that model. Rather, we wish 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

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39 See IAN AYRES & BARRY NALEBUFF, LIFECYCLE INVESTING: A NEW, SAFE, AND AUDACIOUS WAY TO IMPROVE THE PERFORMANCE OF YOUR RETIREMENT PORTFOLIO 3-6, 100-05 (2010) (encouraging investors to diversify over time by using leverage to buy stock at a young age).
40 Barry Bosworth et al., The Decline in Saving: Evidence from Household Survey, BROOKINGS PAPERS ON ECON. ACTIVITY, no. 1, 1991 at 195-204 (explaining that “[v]irtually all the fluctuations in saving has occurred because middle-aged and older consumers have sharply reduced their savings,” and the changes in the saving rate have occurred within age groups); Karen E. Dynan et al., Do the Rich Save More?, 112 J. POL. ECON. 397, 435 (2004) (“[O]ur results are inconsistent with life cycle explanations . . . Our data sets show no evidence of the “switching” pattern at later ages implied by these explanations: Households with higher savings rates when young do not exhibit higher dissaving rates when old.”).
41 Maria Concetta Chiuri & Tullio Jappelli, Do the Elderly Reduce Housing Equity? An International Comparison, 23 J. POPULATION ECON 643, 644, 662 (2008) (noting “[e]mpirical studies, mostly based on US data, find limited evidence that the elderly decumulate housing wealth” and presenting data indicating that home ownership “declines after age 70 in almost all countries).
42 See Aldo Barba & Pivetti Massimo, Rising Household Debt: Its Causes and Macroeconomic Implications—A Long-Period Analysis, 33 CAMBRIDGE J. ECON. 113, 121-22 (2009) (describing “rising household debt . . . as the response to falling or stagnant real wages and salaries—and even as the response to rising wages that were, however, persistently not keeping pace with productivity growth”); Tullio Jappelli & Marco Pagano, Saving, Growth and Liquidity Constraints, 109 Q. J. ECON. 83, 85-91 (1994) (describing model illustrating relationship between liquidity constraints, savings and growth).
in which social institutions exacerbate and mitigate the consequences of the risks that households confront as they pass through the life course.

II. DATA AND METHODS

To understand the patterns of behavior 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 separately, relatively little has been done to examine racial and age patterning related to financial distress, and none of the existing work examines the dynamic relationships our model postulates.

For information about the population as a whole, we rely on the SCF, widely acknowledged to be the premier dataset for nationally representative data about the income, wealth, and debt of American households. We use the 2007 SCF for information about the economic characteristics of households in the general population. The 2007 SCF includes 2915 households from a geographically based random sample and 1507 households from a

43 See Bucks et al., supra note 25 (analyzing the SCF data); Lawless et al., supra note 24 (analyzing the CBP data).
44 Other work has analyzed the intersection of the SCF and bankruptcy samples. Ian Domowitz and Robert L. Sartain compared data from a subgroup of the 1983 SCF to a bankruptcy sample from five judicial districts. See Domowitz & Sartain, supra note 27, at 406-07. Ning Zhu compared a subgroup of the 2004 SCF to the Delaware bankruptcy population in 2003. See Zhu, supra note 27, at 9-12. Neither used the full SCF sample and weights to derive estimates, and neither used a national sample of the bankruptcy population (Delaware racial demographics are atypical of national demographics). Moreover, those papers did not explore other measures of financial distress, as this Essay does.
45 See, e.g., John Karl Scholz & Kara Levine, U.S. Black-White Wealth Inequality, in SOCIAL INEQUALITY 895, 895-96 (Kathryn M. Neckerman ed., 2004) (explaining that the SCF’s oversampling of high-income taxpayers makes it a far more accurate representation of wealth distribution in the United States than other surveys).
wealthy over-sample. For each household, SCF personnel administer (usually in person) a detailed questionnaire, with a median interview time of about 80 minutes. The dataset includes sophisticated weights to account for the two separate samples and discernibly different patterns of non-response. Our analysis emphasizes several SCF 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 (in the Appendix) summarizes the characteristics of the relevant measures of financial distress by age group.

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. An elderly oversample (with age validated through an internet background check) contributed an additional 262 cases. Nearly half of the core sample (2438, or 46%) returned the eight-page questionnaire mailed to their homes, with 2314 attempting to complete the questionnaire. Non-response bias is difficult to evaluate fully with the available information, but we do know that there are statistically significant

46 The very high concentration of wealth in the United States makes oversampling of wealthy households necessary for representative data. Id. at 895; cf. NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE 32-33 (2007) (providing a light-hearted anecdote about the effect of the inclusion, or exclusion, of Bill Gates, from calculations of average income of the population).

47 Jonathan Zinman analyzes undercounting problems with earlier versions of the SCF as they relate to credit card debt. See Jonathan Zinman, Where Is the Missing Credit Card Debt? Clues and Implications, 55 REV. INCOME & WEALTH 249 (2009). A similar survey response bias likewise could affect our estimates of credit card use and bankruptcy.

48 For further description of the CBP by its principal investigators, see Lawless et al., supra note 24.

49 A replacement sample of approximately 250 cases was collected in April 2007 for those in the initial sample without valid addresses.

50 We do not use the elderly oversample in our analysis because of concerns about its representativeness based on the method of its collection.
differences between respondents and non-respondents in chapter choice, unsecured debt levels, and income levels. The CBP includes two kinds of data that are relevant to our project. First, it contains administrative data culled from the schedules filed with the bankruptcy court reporting debts owed at the time of filing as well as other attributes of the filer. 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 and race of the household. Table 3 (in the Appendix) summarizes the principal CBP variables by age group. Table 4 (in the Appendix) compares parallel variables from both datasets, by race.

It is one of the principal contributions of our framework to emphasize the weakness of bankruptcy filings provide as a proxy for financial distress. Thus, those filings are most assuredly 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

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51 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. The administrative data for a random selection of 100 nonrespondents suggested the differences noted in the text as well as differences in the proportions with a joint filing status and prior bankruptcies. With a comparison of only 100 cases, though, it is difficult to be sure whether other differences might be significant. Finally, with respect to chapter choice, 34% of those who returned the questionnaire filed under chapter 13 (compared to 37.7% of the population); although we do not have the breakdown for the random sample as a whole, we assume the sample as a whole more closely tracks the population data.

52 This has remained surprisingly true throughout the Great Recession, notwithstanding the ubiquity of hardship and the historically unprecedented levels of foreclosures outside of bankruptcy. See Mann, A New Chapter, supra note 19.
the difficulty of obtaining detailed information about a representative sample of families in financial distress, our strategy in this Essay is to examine 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 (with special attention to those households that might be in financial distress), and to see how those patterns vary with race and age.

III. AN EMPIRICAL LOOK AT THE STAGES OF FINANCIAL DISTRESS

Although the existing life course literature has not emphasized issues related to financial distress or bankruptcy, the almost inevitable age-based patterning of those problems makes them a natural fit for that framework. To use the most objective 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 filings by those under 35.53 It is true that the rate of bankruptcy for those over 55 remains lower than the rate of filings for those in middle age,54 but the apparent increase for older Americans is sufficiently provocative to motivate interest in the underlying causes.

53 Deborah Thorne et al, The Increasing Vulnerability of Older Americans: Evidence from the Bankruptcy Court, 3 HARV. L. & POL’Y REV. 87, 93-97 (2009). But see Lars Lefgren & Frank McIntyre, Explaining the Puzzle of Cross-State Differences in Bankruptcy Rates, 52 J.L & ECON. 36, 391 (2009), which concludes that filing rates are highest for individuals in the late 20s and lowest for individuals in their peak earnings years. 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 pattern, contrary to the expectation in the literature that bankruptcy filings over the life cycle follow an inverse U-shaped curve, see Sumit Agarwal et al., The Age of Reason: Financial Decisions over the Life-Cycle and Implications for Regulation, BROOKINGS PAPERS ON ECON. ACTIVITY, Fall 2009, at 51, 63-78 [hereinafter Agarwal et al., Age of Reason] and Igor Livshits et al., Consumer Bankruptcy: A Fresh Start, 97 AM. ECON. REV. 402, 404 fig. 1 (2009).

54 See Livshits et al, supra note 53, at 404.
Figure 2 displays filing rates by age, extrapolated from the two samples: households in the 2007 CBP sample, and households that reported a bankruptcy in the last five years in the 2007 SCF sample. Each of those samples presents difficulties. 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 shifted still further toward the elderly during that time. Similarly, because of the various sampling problems that plague the CBP’s methodology, it is entirely possible that the CBP misstates the share of filers in a particular age group. 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, with a strong modal age category in mid-life, which represents more than one-third of the total filings by nonwhite households. It should be noted that the overall pattern is the inverse of life course models of asset and income poverty, which

55 We treat the petition as the unit of analysis, relying on household-level data or, where household-level data are not applicable, on the characteristics of a randomly selected member of the household. Thus, to impute a single age figure to each household, we use the age reported by either household respondent if only one age is reported; where age is reported for more than one person, we randomly select among the reported ages. The random selection of petitioners minimizes the potential for upward or downward bias in age effects. Similarly, for the 122 mixed-race couples, we randomly select among the races reported for petitioners 1 and 2.

56 Most obviously, because the sample was drawn in the early part of the year, an oversampling of chapter 7 bankruptcies resulted; differences between the CBP sample and the population just as well might correlate with age and race.

57 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 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.
reflect a U-shaped curve, with older and younger families more likely to experience financial distress.\textsuperscript{58} 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.

A. 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. This is not at all surprising, but rather seems to flow naturally from demographic changes, including better elder health and increased life spans. As illustrated in Figure 3, shifts in net worth, homeownership, and debt obligations exhibit distinct age patterning.

[Figure 3 about here]

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. Nonwhite households are slightly more likely than white households to have debt\textsuperscript{59} and much more likely to carry debt in the later age brackets (65 and over), suggesting a lesser adherence to the life-cycle model of consumption. Because financial risks

\textsuperscript{58} See infra Part III.B.

\textsuperscript{59} Bucks et al., supra note 25, at 42.
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.

B. Distress Events over the Life Course

The second stage of our model involves mobility events—matters that have the potential to adversely affect the financial position of the household. Although this Essay cannot provide a comprehensive analysis of all of the possible distress events, it is useful to explain some basic intuitions from the existing literature about how each of those events differs by race and over the life course. For example, we might think that serious adverse health events become more probable with advancing age.60 At the same time, public support for health costs differs 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 is not likely to produce monotonic increases in health-related

60 Cf. SULLIVAN ET AL., FRAGILE MIDDLE CLASS, supra note 7, at 164-66 (noting older debtors are more likely to cite medical reasons for filing for bankruptcy).
financial distress with advancing age.\textsuperscript{61} Similarly, given racial stratification in economic activity and wealth, it is likely that the incidence of distress events will differ by race.\textsuperscript{62}

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.\textsuperscript{63} Younger families might be equally prone to divorce but less likely to have minor children; older families are less prone to divorce\textsuperscript{64} 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 they can draw on to mitigate the financial complications associated with divorce.

\textsuperscript{61} Studies show a correlation between medical problems, increased debt, and bankruptcy. See Himmelstein et al., supra note 26, at W5-70 (concluding “medical problems contribute to about half of all bankruptcies”); Patricia Drentea, & Paul J. Lavrakas, Over the Limit: The Association Among Health, Race and Debt, 50 SOC. SCI. & MED. 517, 527 (2000) (finding “the debt/income ratio is significantly associated with worse physical health and self-reported health); Richard Reading & Shirley Reynolds, Debt, Social Disadvantage and Maternal Depression. 53 SOC. SCI. & MED. 441, 449-50 (2001) (“We have confirmed a close relationship between financial hardship and depressed mood in mothers of infants.”); Mark P. Taylor et al., The Psychological Costs of Unsustainable Housing Commitments, 37 PSYCHOL. MED. 1027, 1034 (2007) (discussing correlation of unsustainable housing commitments and adverse effects on the mental health of the head of the household). Yet economic well-being has many dimensions that relate to health, and reverse causality is likely to underlie any correlations.

\textsuperscript{62} See DALTON CONLEY, BEING BLACK, LIVING IN THE RED (1999); MELVIN OLIVER & THOMAS SHAPIRO, BLACK WEALTH/WHITE WEALTH: A NEW PERSPECTIVE ON RACIAL INEQUALITY (2d ed. 2006).

\textsuperscript{63} See WARREN & TYAGI, supra note 7, at 84-87 (discussing the increased likelihood of divorce in two-income households and the economic burden it places on parents). 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. See SULLIVAN ET AL., FRAGILE MIDDLE CLASS, supra note 7, at 174-75 (describing the financial consequences of divorce). But the frequent movement into and out of cohabiting relationships might also be problematic. See ANDREW J. CHERLIN, THE MARRIAGE-GO-ROUND: THE STATE OF MARRIAGE AND THE FAMILY IN AMERICA TODAY (2009); DALTON CONLEY & REBECCA GLAUBER, CENTER FOR AM. PROGRESS, WEALTH MOBILITY AND VOLATILITY IN BLACK AND WHITE 25 (2008). There remains the persistent problem of understanding the causal links among the concepts. Jonathan D. Fisher & Angela C. Lyons, Till Debt Do Us Part: A Model of Divorce and Personal Bankruptcy, 4 REV. ECON. HOUSEHOLD 35 (2006) (examining the causal relationship between marital instability and financial distress).

\textsuperscript{64} See Ronald R. Rindfuss, The Young Adult Years: Diversity, Structural Change, and Fertility, 28 DEMOGRAPHY 493, 497-98 (1991) (“Divorces are . . . concentrated disproportionately in the young adult years . . . .”).
The effects of job loss are particularly complex. On the one hand, the effects of globalization on job security would seem to fall most heavily on older rather than younger households. 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. 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

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65 Benjamin Keys uses the National Longitudinal Survey of Youth (NLSY) to address the relation between job loss and financial distress in Benjamin J. Keys, The Credit Market Consequences of Job Displacement (Nat’l Poverty Ctr. Working Paper Series, No. 09-08, 2009). Yet the effects of debt on labor market outcomes are even more complex than Keys suggests. Debt has been linked to educational and occupational trajectories, see Christa McGill, Educational Debt and Law Student Failure to Enter Public Service Careers: Bringing Empirical Data to Bear, 31 LAW & SOC. INQUIRY 677, 704-706 (2006); Catherine M. Millett, How Undergraduate Loan Debt Affects Application and Enrollment in Graduate or First Professional School, 74 J. HIGHER EDUC. 386, 415-18 (2003) and to women’s labor force participation, see Daniela Del Boca & Annamaria Lusardi, Credit Market Constraints and Labor Market Decisions, 10 LAB. ECON. 681, 699 (2003). It also relates to labor market rigidity, see David Caplovitz, Consumer Credit in the Affluent Society, 33 LAW & CONTEMP. PROBS. 641, 645 (1968) (asking whether “consumer debt make[s] workers less willing to change jobs as well as less willing to strike out on their own”); Kevin T. Leicht & Scott T. Fitzgerald, Postindustrial Peasants: The Illusion of Middle-Class Prosperity 29 (2006) (In agrarian systems, peasants were indebted to specific landlords; in contemporary America, post industrial peasants are indebted to an economic system. In both cases, workers are locked into arrangements that force them to struggle continuously to make a living with little hope of breaking free from their subordinate positions.”).

66 Increases in the costs of education are also relevant. In recent years, tuition costs have grown much more rapidly than family income. Tamar Lewin, College May Become Unaffordable for Most in U.S., N.Y. TIMES, Dec. 3, 2008, at A19. 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.

67 See Sandra Buchholz et al., Globalization, Accelerating Economic Change and Late Careers: A Theoretical Framework, in GLOBALIZATION, UNCERTAINTY AND LATE CAREERS IN SOCIETY 1 (Hans-Peter Blossfeld et al. eds., 2006); Dirk Hofacker et al., Late Careers in a Globalizing World: A Comparison of Changes in Twelve Modern Societies, in GLOBALIZATION, UNCERTAINTY AND LATE CAREERS IN SOCIETY, supra, at 353; David Warner & Heather Hofmeister, Late Career Transitions Among Men and Women in the United States, in GLOBALIZATION, UNCERTAINTY AND LATE CAREERS IN SOCIETY, supra, at 141.
off in times of employment contraction.\(^68\) This suggests the effects of globalization also should fall heavily on the young.\(^69\)

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 allow us to identify the reasons for financial health or distress, it does include several variables that are useful indicators of financial distress. For present purposes, we focus on indicators that capture the mismatch of funds to obligations that is characteristic of our conception of financial distress: negative net worth, current spending that exceeds income, high debt service burdens, and being 60 days late on a payment.\(^70\)

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

\(^{68}\) Cf. PEW RESEARCH CENTER, OLDEST ARE MOST SHELTERED: DIFFERENT AGE GROUPS, DIFFERENT RECESSIONS 5 tbl. (2009) available at http://pewsocialtrends.org/assets/pdf/recession-and-older-americans.pdf (indicating 29% of respondents ages 18-64 and only 14% of respondents age 65 and over were laid off or lost their job during the ongoing recession).

\(^{69}\) See Melinda Mills & Hans-Peter Blossfeld, Globalization, Uncertainty and the Early Life Course: A Theoretical Framework, in GLOBALIZATION, UNCERTAINTY AND YOUTH IN SOCIETY 1 (Hans-Peter Blossfeld et al. eds., 2006); Rosalind Berkowitz King, The Case of American Women: Globalization and the Transition to Adulthood in an Individualistic Regime, in GLOBALIZATION, UNCERTAINTY AND YOUTH IN SOCIETY, supra, at 314; Melinda Mills et al., Becoming an Adult in Uncertain Times: A 14-Country Comparison of the Losers of Globalization, in GLOBALIZATION, UNCERTAINTY AND YOUTH IN SOCIETY, supra, at 438. 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 (like the United States) in which unemployment insurance is relatively constricted. See Melinda Mills et al., Globalization and Men’s Job Mobility in the United States, in GLOBALIZATION, UNCERTAINTY AND MEN’S CAREERS: AN INTERNATIONAL COMPARISON 328 (Hans-Peter Blossfeld et al. eds., 2006).

\(^{70}\) For a careful discussion of the difficulties in identifying useful proxies of overindebtedness, see Gianni Betti et al., Consumer Over-Indebtedness in the EU: Measurement and Characteristics, J. ECON. STUD. 136, 137-38 (2007). See also Bucks, supra note 25, at A49-A 52, for a discussion of the debt burden and late payment variables in the SCF.
model; for older households, by contrast, negative net worth more likely indicates 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.

As summarized in Table 2 (in the Appendix), 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, with 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.71 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 Figure illustrates the important relationships among age, race and financial distress. The likelihood of having negative net worth declines steadily 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% of income are more likely for the middle-aged, with older and younger age groups being less likely to report excessive spending.

Racial patterning is even more marked. For three of the metrics (all but high debt burden), 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, and the income coefficients generally are consistent with greater distress for those with lower incomes.

C. Coping, Race, and the Life Course

The third stage of our model involves the countermobility institutions that households use to limit the adverse effects of the distress events discussed in the preceding section. This subsection addresses access to credit markets, the next subsection considers bankruptcy access. It has been suggested in a variety of contexts that access to credit markets relates to age and
Although nonwhite households are more likely than white households to have debt, the removal of credit limitations has been accomplished in part through the segmentation of credit markets with higher costs for nonwhite households. Thus, disparate access to traditional credit markets likely persists.

Turning to the data, it is difficult to observe directly the strategies that households use to avert bankruptcy without a dataset of financially distressed households that do, and do not, seek relief in bankruptcy. Our strategy is to use data from the SCF about high-risk financial behavior (Figure 5), together with CBP data on parallel coping strategies (Figure 6), to explore the differential use of the institutions that are available to mitigate the consequences of distress events. We have not forgotten the selection that mediates 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, they do portray 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 about the use of credit cards as a strategy to avert bankruptcy. We also 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

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73 Bucks, supra note 25, at A24.

74 See Oliver & Shapiro, supra note 62, at 147 (describing the practice of charging higher interest and fees to nonwhites). See generally THE GEOGRAPHY OF OPPORTUNITY: RACE AND HOUSING CHOICE IN METROPOLITAN AMERICA (Xavier De Souza Briggs ed., 2005) (collecting papers on the differentiated opportunities available to Americans of different races).

75 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.
CBP data about the use of “more work” to avert bankruptcy. For each of the dependent variables, we use logistic regression to fit models that predict the logged odds of selecting the strategy, controlling for age, race, income, education, and marital status.76

[Figure 5 about here]

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 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.77 We start by assuming that the high interest rates charged by payday lenders make payday loans unattractive for households that have access to mainstream financial products. Thus, payday loan use provides a useful indicator of 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.78 In the population, the use of payday loans declines

76 In addition to the models we summarize in Figures 5 and 6, we estimated separate models with interactions, none of which were substantively different from what we report here. Complete results from all of the models are available on request.
77 The discussion in the text assumes that the costs of bankruptcy relief are sufficiently high to justify recourse to credit markets as a first option for responding to a distress event.
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). In these models, 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 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.

[Figure 6 about here]

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.⁷⁹ 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

⁷⁹ See Mann, Sweat Box, supra note 6, at 384-92 (describing how the business model of credit card issuers relies on financially distressed borrowers).
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 suggest 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. However, because their credit lines are limited (the denominator of credit card utilization), black households are less likely to be able to use credit cards in efforts to avert bankruptcy.

The last 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. 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).

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80 See Conley, supra note 62, at 25 (“Unlike income or education, wealth has the particular attribute of tending to reproduce itself in a multiplicative fashion from generation to generation.”).
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) are substantively similar.\(^81\) Younger households are 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 to avert bankruptcy.

D. 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,\(^82\) yet we know relatively little about what differentiates those who respond to distress by seeking bankruptcy relief from those that do not. It is useful to start by summarizing what existing literature suggests about race and bankruptcy. First, black households appear to be overrepresented in bankruptcy filing rates, at least if we ignore economic attributes such as lower wealth and higher levels of financial distress.\(^83\)

If we take account of the racial patterning of financial distress, however, the selection mechanisms into bankruptcy produce a marked underrepresentation of minority racial groups

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81 A separate model on coping through refinancing limited to those reporting that they owned a home showed similar age effects.
82 See Michelle J. White, Why Don’t More Households File for Bankruptcy, 14 J.L. ECON. & ORG. 205, 213-15 (1998) (noting “a minimum of 15% of U.S. households would benefit financially from filing for bankruptcy”); see also Mann, supra note 19 (complaining about the relative unimportance of bankruptcy relief in responding to the Great Recession).
83 See SULLIVAN ET AL., FRAGILE MIDDLE CLASS, supra note 7, at 41-50 (discussing racial composition of bankruptcy filers and noting the overrepresentation of black households).
among those with similar levels of financial distress.\textsuperscript{84} For an example of these selection mechanisms, David Caplovitz’s comparison of collection defendants who filed for bankruptcy with those who did not found higher bankruptcy rates in cities that permitted legal advertising (at a time when the Constitution permitted bans on law-firm advertising).\textsuperscript{85} Similarly, Herbert Jacob’s comparison of garnishment subjects who filed for bankruptcy with those who did not found that subjects who received advice from lawyers, friends, or family about the bankruptcy process were more likely to use the process.\textsuperscript{86}

One obvious explanation for the racial patterning in bankruptcy relies on race-based disparities in information about the bankruptcy process. For example, if information about use of the process spreads through networks rather than general educational mechanisms, direct or indirect relations with lawyers or accountants might increase the likelihood of bankruptcy, and racial disparities in those relations might explain usage gaps. The limited role of minorities in the bankruptcy bench and bar buttresses that idea.\textsuperscript{87} Further, Sumit Agarwal and his coauthors found that outcomes within the bankruptcy system vary by race,

\textsuperscript{84} \textsc{David Caplovitz}, \textit{Consumers in Trouble: A Study of Debtors in Default} 248-50 (1974) (finding whites are more likely to declare bankruptcy than blacks); \textsc{Herbert Jacob}, \textit{Debtors in Court: The Consumption of Government Services} 54-55 (1969) (concluding blacks and older, wealthier whites are less likely to use the bankruptcy process than poorer white debtors).

\textsuperscript{85} \textsc{Caplovitz, supra} note 84, at 274-75.

\textsuperscript{86} \textsc{Jacob, supra} note 84, at 60-62.

perhaps leading to differential incentives to file for bankruptcy. Finally, 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. Viewed as a hybrid of a social program and a response to economic volatility, 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.

Looking at the data, 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% reported having filed bankruptcy at some point, with nearly 4% filing in the past 5 years. Although the measures are imperfect to address endogeneity between bankruptcy and financial condition, we estimated a model to predict


89 Mechele Dickerson, Race Matters in Bankruptcy, 61 WASH. & LEE L. REV. 1725 (2005) (“A critical examination of bankruptcy laws suggests that, in designing the type of relief to make available to potential debtors, Congress either consciously or unconsciously exhibited a bias in favor of a specific demographic profile.”); Mechele Dickerson, Race Matters in Bankruptcy Reform, 71 MO. L. REV. 920 (2006) (describing the “Abusive Debtor” that Congress was targeting with BAPCA, and how BAPCA’s enactment has affected the profile of the “Ideal Debtor”).

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 rough proxy for pre-bankruptcy assets). We controlled for “normal” income level (again, an inexact proxy for pre-distress income level). The most important finding (Table 1) 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). 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% of the income distribution is significantly less likely to file for bankruptcy.91

[Table 1 about here]

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 age and race pattern those differences. In the second 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.

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. For the CBP range, the boxes display the median and the 25th and

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91 Eighty percent of bankruptcy filers in the CBP sample reported income levels below the SCF median income for 2007, and 92% had income levels below the 60th percentile of SCF income.
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 for debt, and 90th percentile for credit card debt.

[Figure 7 about here]

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 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

92 The CBP income data rest on the information reported on Schedule I, which documents take-home pay (gross income reduced by deductions for taxes, health care, and the like). This is of course markedly less than the gross income reflected in the SCF variables, and the difference is patterned strongly by geography (because of state and local income taxes). Although there are other sources of data in the bankruptcy filings that reflect gross income (such as the forms B22A and C required after BAPCPA), those forms are missing in a large share of filings, which makes the Schedule I information the most reliable information. The textual discussion relies on that data largely for the shape of the income distribution; we are much less certain of the relation between its (understated) income levels and the more precise income level data in the SCF.
card debt they rise steadily with the age of the bankrupt population. The high debt levels suggest that any “consumption-smoothing” function fails by early middle age when households are unable to repay the debts they incurred in the prime of 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 used regression models 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 $35,000.93 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 younger bankrupt 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

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93 Because of the large number of households with no credit card debt, we used Tobit models, left-censored at 0. See JEFFREY M. WOOLWIDGE, INTRODUCTORY ECONOMETRICS: A MODERN APPROACH § 17.2 (2006) (providing basic discussion of Tobit models). 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); those models are consistent with those we report here.
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.  

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. 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 obligations. But Figure 8 illustrates that the pattern for black households is even more strikingly different from the pattern for white households than we anticipated. 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. Although

94 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. See Scott Schuh & Joanna Stavins, Why Are (Some) Consumers (Finally) Writing Fewer Checks? The Role of Payment Characteristics 22 (Fed. Reserve Bank of Bos., Working Paper No. 09-1, 2009) (indicating debit card use declines with age, and credit card use rises with age).

95 This finding resonates with the recent analysis of the relatively long-term income stagnation among bankrupts reported in Daniel Sullivan & Frank McIntyre, Long-Term Income Stagnation Among the Bankrupt (May 1, 2010) (unpublished manuscript), available at http://ssrn.com/abstract=1684616. It is directly contrary to the “opportunistic” gaming model reflected in, for example, Zywicki, supra note 1.
causal inferences are necessarily speculative, the data certainly suggest the possibility that the relatively few black households that do file for bankruptcy often could have avoided filing if they had access to mainstream card products as readily as their white counterparts.96

[Figure 8 about here]

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 survey. With respect to age (referring to Table 3 in the Appendix), the traditional exogenous reasons for bankruptcy differ substantially. For example, it is no surprise that 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 (referring to Table 4 in the Appendix), 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 multivariate logistic regression models

96 For analysis of the racial patterning of card products for low- and moderate-income households, see Ronald J. Mann, Racial Patterning of Credit Card Use Among Low- and Moderate-Income Households, in INSUFFICIENT FUNDS: SAVINGS, ASSETS, CREDIT, AND BANKING AMONG LOW-INCOME HOUSEHOLDS 257, 272-79 (Rebecca M. Blank & Michael S. Barr eds. 2009).
summarized below provide more detail, the raw variation in financial characteristics suggests that filing motivations vary by race.

To investigate the robustness of those patterns, we estimated a series of regression models to predict the self-reported reasons for bankruptcy, presented in Figures 9 and 10. As in the analysis above, we use logistic regression to fit models that predict the logged odds of selecting a particular reason, and control for income, assets, marital status, and (for the real estate-related reasons in Figure 10) homeownership.

[Figure 9 about here]

The results suggest that our demographic controls do not explain the differences in reasons for filing that household heads of differing ages and races provide. 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 inadequacy of Medicare to fund end-of-life medical and related costs. The patterns for income 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).

[Figure 10 about here]
The race coefficients in Figures 9 and 10 are particularly provocative. Blacks are less likely than whites to report any of the exogenous reasons for bankruptcy that dominate the existing literature\(^\text{97}\) and are summarized in Figure 9. By comparison, blacks are more likely than whites to report each of the real-estate related reasons for 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. 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 in the Appendix), where the respective rates are about 75% for white households and 49% for black households.\(^\text{98}\)

## Conclusion

Our primary goal was to extend existing empirical research about bankruptcy, previously limited primarily to study of those involved in the legal process, by examining the processes by which individuals sort themselves into (or out of) bankruptcy. At first, a longitudinal data structure might seem ideal for this purpose. However, the longitudinal surveys that inquire about bankruptcy filings—the National Longitudinal Survey of Youth and the Panel Study of Income Dynamics—do not have a sufficient number of individuals in the target population and undercount the important financial variables.\(^\text{99}\) Moreover, those data structures obscure the

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\(^\text{97}\) See sources cited supra note 7.

\(^\text{98}\) 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 CBP dataset limits our ability to analyze the effects.

\(^\text{99}\) Keys, *supra* note 65, at 3 (noting small sample size of the National Longitudinal Survey of Youth; Fay et al., *supra* note 27, at 716 (noting problems caused by the small number of bankruptcy filings in the Panel Study of Income Dynamics).
motivations and strategies that individuals associate with their efforts to manage downward mobility. Our study leverages the administrative data regarding the bankruptcy process, along with 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 are 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 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, a considerable amount of debt, unrelated to life course shocks or income smoothing, rests on a failure to manage consumption to match income; Figure 8 is particularly instructive here. The relevant miscalculations might be classified along several dimensions: They are likely to have either an individual or systemic foundation, and they reflect either overoptimism or lack of financial sophistication.
Lest we be taken to worry only about the elderly, we emphasize that 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.\textsuperscript{100}

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.

Extending economic activity later through the life course is a double-edged sword, as it 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

\textsuperscript{100} Gianni Betti and his coworkers explore 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. See Betti et al., \textit{supra} note 70, at 153-54.
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.

While these findings are valuable, 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. 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, notwithstanding the financial and bureaucratic barriers added by BAPCPA, 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. The education differentials display a similar pattern. Black bankruptcy filers were more likely to have attended college than white bankruptcy filers and than other black households. At the same time, white bankruptcy filers were less likely than other white households to be college educated. All of these attributes resonate with the racial data summarized in Figure 10, which suggest that real-estate related causes dominate those few black filers that make it through the obstacles to

101 See Mann, Sweat Box, supra note 6, at 377-84; Jean Braucher, The Challenge to the Bench and Bar Presented by the 2005 Bankruptcy Act: Resistance Need Not be Futile, 2007 U. ILL. L. REV. 93.
102 See infra Table 4.
103 Id.
filing. If we can be sure of anything, it is that black filers are not representative of black households in financial distress. An awareness of these disparities is necessary to understand the role that bankruptcy plays in a household’s response to financial distress, and who has access to that process—a question that the Great Recession has imbued with particular relevance.

The descriptive discussion of these topics shows the way for further research. First, much of the existing research relies too heavily on a postulated 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.104 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 fruitful.

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104 E.g., DiPrete, Life Course Risks, supra note 20 (comparing life course mobility in Sweden, the United States, and Germany).
Appendix

[Table 2 about here]

[Table 3 about here]

[Table 4 about here]
# Tables

Table 1: Determinants of Bankruptcy, 2007

<table>
<thead>
<tr>
<th>Age (ref 45-54)</th>
<th>Coef.</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>-.45**</td>
<td>.18</td>
</tr>
<tr>
<td>35-44</td>
<td>-.22</td>
<td>.19</td>
</tr>
<tr>
<td>55-64</td>
<td>-.76***</td>
<td>.22</td>
</tr>
<tr>
<td>65&gt;</td>
<td>-2.36***</td>
<td>.38</td>
</tr>
<tr>
<td>High school education</td>
<td>.21</td>
<td>.33</td>
</tr>
<tr>
<td>Race and ethnicity (ref white)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>.37*</td>
<td>.20</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-.21</td>
<td>.31</td>
</tr>
<tr>
<td>Ever own home</td>
<td>.25</td>
<td>.17</td>
</tr>
<tr>
<td>Normal income bracket (ref low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>.24</td>
<td>.24</td>
</tr>
<tr>
<td>Middle</td>
<td>.29</td>
<td>.22</td>
</tr>
<tr>
<td>Fourth</td>
<td>-.66**</td>
<td>.27</td>
</tr>
<tr>
<td>Top</td>
<td>-2.08***</td>
<td>.73</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.84***</td>
<td>.36</td>
</tr>
</tbody>
</table>

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

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

Table 3: Bankrupt Household Characteristics by Age, 2007

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

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

<table>
<thead>
<tr>
<th>Financial Characteristics</th>
<th>White SCF</th>
<th>White CBP</th>
<th>Hispanic SCF</th>
<th>Hispanic CBP</th>
<th>African American SCF</th>
<th>African American CBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Income (median $1000)</td>
<td>51</td>
<td>28</td>
<td>36</td>
<td>26</td>
<td>31</td>
<td>27</td>
</tr>
<tr>
<td>Assets (median $1000)</td>
<td>256</td>
<td>60</td>
<td>54</td>
<td>25</td>
<td>49</td>
<td>54</td>
</tr>
<tr>
<td>Total Debt (median $1000)</td>
<td>33</td>
<td>99</td>
<td>14</td>
<td>56</td>
<td>12</td>
<td>74</td>
</tr>
<tr>
<td>Credit Card Debt (%)</td>
<td>46</td>
<td>91</td>
<td>47</td>
<td>87</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Student Loans (%)</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>13</td>
<td>24</td>
<td>23</td>
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<tr>
<td>Medical Debt (%)</td>
<td>n/a</td>
<td>54</td>
<td>n/a</td>
<td>41</td>
<td>n/a</td>
<td>50</td>
</tr>
<tr>
<td>Res. Mort. Debt (%)</td>
<td>49</td>
<td>50</td>
<td>37</td>
<td>40</td>
<td>37</td>
<td>53</td>
</tr>
<tr>
<td>Homeownership (%)</td>
<td>75</td>
<td>51</td>
<td>49</td>
<td>41</td>
<td>49</td>
<td>56</td>
</tr>
</tbody>
</table>

| 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 |

Figures

Figure 1

Four Stages of Financial Distress
Figure 2: Bankruptcy Filing Rates By Age. 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 from the age distribution of filings in each sample. Sources: CBP 2007; SCF 2007; Admin. Office of U.S. Courts; Census Bureau, Pop. Est. Pgm.
Figure 4: Age, Race, and Financial Distress in the Population. Source: SCF 2007. Note: N=4418. Graphs display 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 exclude education, marriage and income controls.
Figure 5: Age, Race, and Coping Strategies in the Population. Source: SCF 2007. Note: Graphs display 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 exclude 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.
Figure 7: Financial Activity over the Life Course. Source: SCF 2007; CBP 2007. Note: All figures in $2007. Excludes outside values.
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.
Figure 9: Age, Race and Reasons for Bankruptcy. Source: CBP 2007. Graphs display coefficients with 95% confidence intervals. Reference class is white, married, age 45-54, no high-school education, with income centered at $35,000; graphs exclude education, marriage and income controls.
Figure 10: Age, Race and Real-Estate Related Reasons for Bankruptcy. *Source:* CBP2007. Graphs display 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 exclude education, marriage, homeownership, and income controls.