Moving beyond Medical Debt

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MOVING BEYOND MEDICAL DEBT

BROOK E. GOTBERG* & MICHAEL D. SOUSA**

ABSTRACT

In recent years it has become clear that medical costs are imposing severe financial burdens on American families, sometimes to the point that bankruptcy becomes the only escape from crippling debt. When evaluating the well-established connection between outstanding medical debt and consumer bankruptcy, most existing empirical studies attempt to quantify the percentage of consumer bankruptcies that are "caused" by unmanageable medical indebtedness. This Article addresses what we believe to be a more significant line of empirical inquiry, namely, the connection between health insurance coverage and consumer bankruptcy as a more precise measurement of how national health insurance programs may or may not affect bankruptcy filing rates. Data from a national longitudinal survey of adults from 2004 through 2014 indicate that the principle predictor of consumer bankruptcy is a lapse in medical insurance coverage, while controlling for socioeconomic variables such as race, marital status, household income, and debt-to-income ratios. Individuals who experienced a gap in coverage over a two-year period were roughly twice as likely to file for bankruptcy as those who retained continuous coverage. These findings contribute to the ongoing debate regarding the Affordable Care Act and the provision of health insurance to low-income Americans, and the role consistent health insurance coverage plays in relation to the consumer bankruptcy system.

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INTRODUCTION

What compels individuals and families to file for bankruptcy? Although some academics argue that debtors file for bankruptcy to intentionally shirk their contractual financial obligations,¹ it is largely agreed upon that bankruptcy usually follows paradigmatic life events such as job loss, underemployment, divorce, medical illness, and the death of a spouse.² Scholars also point to the increased reliance upon consumer credit in response to stagnant or declining wages as playing a factor in the

¹ See Todd J. Zywicki, Institutions, Incentives, and Consumer Bankruptcy Reform, 62 WASH. & LEE. L. REV. 1071, 1097 (2005) ("As bankruptcy becomes a less socially stigmatized activity, the reputational harm from filing bankruptcy falls as well, creating a vicious cycle of eroding norms and rising bankruptcy filings.").
² See Michelle Lee Maroto, Pathways into Bankruptcy: Accumulating Disadvantage and the Consequences of Adverse Life Events, 85 SOC. INQUIRY 183, 184 (2015) (noting "that people's experiences of job loss, illness, and marital dissolution, along with their debt burdens, increase the likelihood of declaring bankruptcy in different ways"); see also Laura McCloud & Rachel E. Dwyer, The Fragile American: Hardship and Financial Troubles in the 21st Century, 52 SOC. Q. 13, 15 (2011) ("Studies of vulnerability to bankruptcy identify four types of hardship that appear to contribute most to financial troubles: health problems, family dissolution, job loss, and income disruption.").
decision to file for bankruptcy. Nonetheless, isolating a "cause" of a consumer bankruptcy filing is a complicated, if not impossible, task, because for most families, "a confluence of factors rather than a single decision or event" explains the accumulation of overwhelming debt.

Despite the inherent difficulty in attributing a specific cause to a particular bankruptcy filing, academics have often explored the effect of medical debts upon consumer bankruptcy and have made claims regarding the extent to which medical debts can be considered responsible for bankruptcy filings overall. It is not unreasonable to assume that medical debts have a role to play in many bankruptcy filings. However, the empirical findings, methods employed, and ultimate conclusions of researchers to the extent of and underlying basis for the association between medical debts and bankruptcy have been vociferously debated and challenged, with no clear answer emerging from the melee.

In more recent years, scholars have turned to what we believe to be a more fruitful line of empirical inquiry regarding financial distress and illness, namely, the

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3 See Randy Hodson, Rachel E. Dwyer & Lisa A. Neilson, Credit Card Blues: The Middle Class and the Hidden Costs of Easy Credit, 55 SOC. Q. 315, 315 (2014) ("Many scholars argue that credit and debt has replaced income growth in a time of stagnant or declining incomes for many American families.") (internal citation omitted); see also Joseph N. Cohen, The Myth of America's "Culture of Consumerism": Policy May Help Drive American Household's Fraying Finances, J. CONSUMER CULTURE 1, 19 (2014) ("Whether we blame markets or consumers themselves, consumerism explanations belittle their subjects by pinning these problems on an obsession with frivolities. Spending growth is being fueled by patently nonfrivolous products, and many Americans are being thrust into a situation in which they must choose between maintaining sustainable personal finances and maintaining their access to well-being-essential products."); Jean Braucher, Consumer Bankruptcy as Part of the Social Safety Net: Fresh Start or Treadmill?, 44 SANTA CLARA L. REV. 1065, 1066 (2004) ("In particular, gaps in unemployment and health care insurance benefits in the United States, combined with ready availability of consumer credit, have led to use of credit as a self-financed safety net, contributing to dramatic increases in personal bankruptcy filings.").

4 Katherine Porter, Driven by Debt: Bankruptcy and Financial Failure in American Families, in BROKE: HOW DEBT BANKRUPTS THE MIDDLE CLASS 1, 11 (2012) (describing complex causes of bankruptcy and explaining research has "pointed to three major life events that families frequently experience before bankruptcy: job problems, such as unemployment or a reduction in hours; illness or injury; and a major change in family structure such as divorce or the death of a spouse").

5 See DAVID T. STANLEY & MARJORIE GIRTH, BANKRUPTCY: PROBLEM, PROCESS, REFORM 47 (1971) (discussing family health reasons as an underlying cause of financial difficulty in relation to bankruptcy); see also Daniel A. Austin, Medical Debt as a Cause of Consumer Bankruptcy, 67 MAINE L. REV. 1, 2 (2014) ("The issue of medical bankruptcies continues to be a focal point in the healthcare debate."). See generally David U. Himmelstein, Elizabeth Warren, Deborah Thorne & Steffie Woolhandler, Illness and Injury as Contributors to Bankruptcy, HEALTH AFF. W5-63 (2005), https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.W5.63 [hereinafter Illness and Injury as Contributors to Bankruptcy] (calculating in 2001, "1-2.2 million Americans (filers plus dependents) experienced medical bankruptcy"); David U. Himmelstein, Deborah Thorne & Steffie Woolhandler, Medical Bankruptcy in Massachusetts: Has Health Reform Made a Difference?, 124 AM. J. MED. 224 (2011), https://www.anymed.com/article/S0002-9343(10)00991-5/pdf [hereinafter Medical Bankruptcy in Massachusetts] (analyzing the effect of medical debts upon consumer bankruptcy in Massachusetts and concluding 'Massachusetts' health reform has not decreased the number of medical bankruptcies, although the medical bankruptcy rate in the state was lower than the national rate both before and after the reform"); Carlos Dobkin et al., Myth and Measurement: The Case of Medical Bankruptcies, 378 NEW ENG. J. MED. 1076 (2018), http://economics.mit.edu/files/14892 (noting "it is impossible to infer the role of medical expenses in causing bankruptcy without information on the proportion of the population with large medical expenses that did not go bankrupt") (emphasis in original).

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relationship between health insurance and bankruptcy.\(^6\) To date, few studies on this relationship have been done because of the traditional focus upon medical debts as a driver of consumer bankruptcy, along with the lack of large-scale, nationally-representative data sets that collect information about both health insurance and bankruptcy filings at either the aggregate or individual level.\(^7\) As is well-known, Elizabeth Warren and colleagues have utilized the Consumer Bankruptcy Project ("CBP") for several decades to shed illuminating light on the socio-demographics of bankruptcy filers.\(^8\) However, for purposes of probabilistic generalizability, the CBP data is plagued by a methodological endogeneity problem, namely, sampling on the outcome of interest: individuals who have filed for bankruptcy protection.\(^9\)

The Panel Study of Income Dynamics ("PSID")\(^10\) is another data set relied upon by some scholars that questions respondents about health insurance coverage and bankruptcy filings; however, the PSID has asked respondents about bankruptcy filings in only one year of its fifty-year existence—in 1996.\(^11\) Similarly, the General Social Survey has asked respondents about bankruptcy filings in only two out of

\(^6\) See generally Bhashkar Mazumder & Sarah Miller, *The Effects of the Massachusetts Health Reform on Household Financial Distress*, 8 AM. ECON. J. ECON. POL'Y 284 (2016) (providing empirical inquiry regarding financial distress and illness by "evaluating how the provision of health insurance through major state-level health policy reform affected a variety of financial measures such as . . . personal bankruptcy"); Luoja Hu et al., *The Effect of the Affordable Care Act Medicaid Expansions on Financial Wellbeing*, 163 J. PUB. ECON. 99 (2018) (discussing the relationship between uninsured individuals and bankruptcy filings); Amy K. Yarbrough & Robert J. Landry, III, *Navigating the Social Safety Net: A State-level Analysis of the Relationship Between Medicaid and Consumer Bankruptcy*, 35 POLY STUD. J. 671, 674 (2007) ("Although very little empirical research has been conducted related to medical expenses and consumer bankruptcies, a recent study of medically related consumer bankruptcies revealed that 25 percent of those filing has no insurance at the onset of the illness causing the bankruptcy."); Donald D. Hackney, Daniel Friesner & Erica H. Johnson, *Did the Time Frame Associated with the Implementation of the Patient Protection and Affordable Care Act Noticeably Impact Consumer Bankruptcy Filings?*, 44 INT'L J. SOC. ECON. 1957 (2017) (examining the relationship between health insurance and medical debts accumulated by bankruptcy filers); Tal Gross & Matthew J. Notowidigdo, *Health Insurance and the Consumer Bankruptcy Decision: Evidence from Expansions of Medicaid*, 95 J. PUB. ECON. 767 (2011) (discussing health insurance and "exam[ining] the effect of medical cost on bankruptcy risk").

\(^7\) See Melissa B. Jacoby, *The Debtor-Patient: In Search of Non-Debt Based Alternatives*, 69 BROOK. L. REV. 453, 457 (2004) [hereinafter *The Debtor-Patient*] (noting "data on insurance coverage among bankruptcy filers remain sparse").

\(^8\) See, e.g., TERESA A. SULLIVAN, ELIZABETH WARREN & JAY LAWRENCE WESTBROOK, *The Fragile Middle Class: AMERICANS IN DEBT* 5–6 (2000) (explaining the CBP began in the 1980s and is "an empirical study of the debtors who filed for bankruptcy").

\(^9\) See id. at 263–65 (providing an in-depth analysis of the data used in the CBP).

\(^10\) See *Panel Study of Income Dynamics*, UNIV. OF MICH., INST. FOR SOC. RESEARCH, https://psidonline.isr.umich.edu/ (last visited May 14, 2019). The Panel Study of Income Dynamics, commenced in 1968, is a nationally representative sample of over 18,000 individuals living in 5,000 families in the United States. Information collected on these individuals and their families includes data covering, *inter alia*, employment, income, wealth, expenditures, health, marriage, childbirth, child development, philanthropy, and education. See id.

forty-four years of surveying Americans. This is one reason why (perhaps understandably) many quantitative studies on bankruptcy still rely on data that is approximately two decades old.

For purposes of this study, we have identified a data set that has largely been ignored by bankruptcy scholars, namely, the National Longitudinal Survey of Youth 1979 ("NLSY79"). The NLSY79, collected by the Bureau of Labor Statistics, is a nationally-representative sample of 12,686 young men and women aged 14-22 at the time when they were initially surveyed in 1979. Annual follow-up interviews were conducted through 1994, with interviews occurring biennially since. Questions regarding healthcare coverage and bankruptcy filings became a permanent component of the NLSY79 in 2008. First, as we empirically demonstrate in this Article, experiencing intermittent health insurance coverage significantly increases the likelihood of a consumer bankruptcy filing. Second, the type of health insurance coverage possessed by an individual is related to the likelihood of experiencing intermittent coverage. Although our study cannot conclusively contend that lapses in health insurance coverage "cause" bankruptcy, this strong association, which remains even after controlling for other variables, suggests that policy approaches emphasizing uninterrupted access to health insurance, along with robust coverage,
should be favored in order to reduce the number of individuals who file for personal bankruptcy every year.

This Article proceeds in the following manner. Part I provides the reader with a brief primer on consumer bankruptcy law and its interconnectedness to medical debt. Part II highlights the importance of medical debt to the issue of bankruptcy, as demonstrated by past legislative attempts to amend the Bankruptcy Code in order to explicitly differentiate between debtors whose bankruptcy filings were largely attributable to medical bills from those that were not. Although not ultimately passed by Congress, the Medical Bankruptcy Fairness Act raised the normative policy concern that medically-distressed debtors should be better accommodated by national bankruptcy laws than debtors in general, reflecting the view that debtors whose bankruptcies are provoked by medical costs are more sympathetic than other debtors. Part III of the Article discusses the existing literature on the relationship between medical debt, health insurance, and consumer bankruptcy filings and highlights the gaps that this study has attempted to fill. Part IV is the heart of the Article, which addresses our methodology, describes our data, and discusses our empirical findings. Part V discusses the potential policy ramifications of this study and suggests avenues for future studies.

I. CONSUMER BANKRUPTCY AND THE PREVALENCE OF MEDICAL DEBT

The number of consumer bankruptcy cases filed each year rises and falls, usually in response to national economic trends. Nonetheless, approximately one million individuals and families file for personal bankruptcy each year. Individuals contemplating filing for bankruptcy relief can, in the first instance, choose to file under chapter 7, chapter 13, or chapter 11 of the Bankruptcy Code (the "Code"). However, the decision of which chapter to choose is narrowed by both legal and practical considerations. First, sections 109 and 707 of the Code place restrictions upon a debtor's ability to file under either chapter 7 or chapter 13. For example, to remain in chapter 7, the debtor needs to pass a "means test," whereby the debtor's income in relation to his or her debts cannot exceed certain thresholds. With respect to chapter 13, only individuals who have a "regular income" and whose unsecured and secured debts do not exceed certain amounts are eligible to remain. Although

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9 See, e.g., Medical Bankruptcy Fairness Act: Hearing on H.R. 901 Before the Subcomm. on Commercial and Admin. Law of the H. Comm. on the Judiciary, 111th Cong. 89 (2010) (statement of J. Cecelia G. Morris, Bankr. S.D.N.Y.) ("H.R. 901 moves in the right direction to address the devastating impact of serious medical problems, and more needs to be done to alleviate the burden on debtors experiencing such events.").

20 See Less Stigma, supra note 1, at 253 (attributing the increase of bankruptcy filings in the recent years to economic and social factors, as well as a decline in stigma surrounding bankruptcy).


23 Id. § 707(b).

24 Id. § 109(e).
chapter 11 does not place legal limitations upon a debtor's eligibility, very few consumer debtors file for chapter 11 bankruptcy due to its expense and complexity. Consequently, most individuals file under either chapter 7 or chapter 13.

In chapter 13, the debtor retains his or her assets moving forward in exchange for committing a portion of future income to repay creditors through a court-approved plan for a period of three to five years. Of all consumer bankruptcy cases filed annually, approximately 70% are chapter 7 proceedings. In chapter 7, the debtor receives a discharge of his or her debt following the liquidation of all of the debtor's non-exempt assets (if any) for the collective benefit of the creditor body. The debtor is permitted to retain exempt assets and is permitted to keep his or her post-petition income out of the reach of creditors. Accordingly, chapter 7 embodies the view of bankruptcy as a "fresh start."

An individual debtor's opportunity to receive a fresh start in his or her financial life is the normative policy underpinning consumer bankruptcy. The fresh start in bankruptcy is characterized by the discharge of most pre-petition indebtedness, the

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25 See id. § 109(d). Section 109(d) of the Code provides simply that if an individual "may be a debtor under chapter 7" then he or she "may be a debtor" under chapter 11. See id.
26 See Luis Salarz, Too Rich for Bankruptcy: Some Pitfalls of Chapter 11 Filings by Individuals, 91 BANKR. L. & PRAC. 527, 527 (2000) ("But by and large such Chapter 11 cases are still limited to those individuals—such as movie stars, athletes, and business people—who have the financial wherewithal to bear the attendant greater legal costs and have properties and interests that they actually wish to save.").
27 See Andrew P. MacArthur, Pay to Play: The Poor's Problem in the BAPCPA, 25 EMORY BANKR. DEV. J. 407, 413 (2009) (noting "most individuals will file under either chapter 7 or chapter 13").
28 See In re Burgie, 359 B.R. 406, 410 (B.A.P. 9th Cir. 1999) ("In place of liquidating non-exempt assets to pay creditors under chapter 7 of the Bankruptcy Code, Congress gave individuals with regular income the option of adjusting their debts pursuant to a plan under chapter 13. The chapter 13 deal permits a debtor to retain all prepetition property, including earnings, assets, money in the bank and real estate. In exchange for keeping all of these assets, the debtor must commit all postpetition disposable income to the payment of creditors under a chapter 13 plan for a period of three to five years") (internal citations omitted).
29 See Landry, supra note 21, at 8 (noting approximately 70% of consumer bankruptcy filings are chapter 7 proceedings).
32 See id. § 541(a)(6). Section 541(a)(6) of the Code specifically excludes post-petition income from being included in "property of the estate." See id.
34 See Jay L. Zagorsky & Lois R. Lupica, A Study of Consumers' Post-Discharge Finances: Struggle, Stasis, or Fresh Start?, 16 AM. BANKR. INST. L. REV. 283, 283 (2008) ("Bankruptcy's central theoretical objective, from the perspective of the individual debtor, is to afford debtors the opportunity for a 'fresh start.'"). See also Rafael Efrat, The Moral Appeal of Personal Bankruptcy, 20 WHITTIER L. REV. 141, 141 (1999) ("The fresh start principle generally takes the form of forgiving the debtor part or all of the debts she incurred prior to her bankruptcy filing.""); Katherine Porter & Deborah Thorne, The Failure of Bankruptcy's Fresh Start, 92 CORNELL L. REV. 67, 68 (2006) ("The principal theory of consumer bankruptcy in America is that it provides a 'fresh start' to debtors.").
35 See George H. Singer, Section 525 of the Bankruptcy Code: The Fundamentals of Nondischargeability in Consumer Bankruptcy, 71 AM. BANKR. L.J. 325, 325 (1998). The entry of a discharge "operates to release an individual debtor's in personam obligation to pay prepetition indebtedness and serves as a permanent injunction against any act to collect a discharged debt." Id.
ability of the debtor to retain post-petition income (at least in the chapter 7 setting), and the debtor's ability to claim exemptions on some pre-petition personal property. In perhaps the most-cited consumer bankruptcy case, the Supreme Court articulated the "fresh start" principle in the following terms:

One of the primary purposes of the Bankruptcy Act is to "relieve the honest debtor from the weight of oppressive indebtedness, and permit him to start afresh free from the obligations and responsibilities consequent upon business misfortunes." The purpose of the act has been again and again emphasized by the courts as being of public as well as private interest, in that it gives the honest but unfortunate debtor who surrenders for distribution the property which he owns at the time of bankruptcy, a new opportunity in life and a clear field for future effort, unhampered by the pressure and discouragement of pre-existing debt.

The fresh start principle is perhaps more important now than at any other time in our nation's history. Today, nearly half of Americans live paycheck to paycheck, and economic volatility and chronic financial instability are common experiences. Compounding these problems and famously termed "The Great Risk Shift" by political scientist Jacob S. Hacker, intentional structural changes in the national and international economies over the past several decades have caused more Americans

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36 See generally 11 U.S.C. § 522(b), (d). At first blush, federal bankruptcy law affords individual debtors a choice of selecting which assets to exempt from either a prescribed categorization (with monetary thresholds) found in section 522(d) of the Code or under applicable state law. See Lawrence Ponoroff, Constitutional Limitations on State-Enacted Bankruptcy Exemption Legislation and the Long Overdue Case for Uniformity, 88 AM. BANKR. L.J. 353, 357–58 (2014). If a state "opts-out" of this scheme, then debtors are only able to claim exemptions under state law. See id. To date, three fourths of the states have opted out of giving debtors a choice between the federal bankruptcy law exemptions and those provided under state law. See id. Thus, most debtors can only claim personal exemptions under state law. See id. All fifty states have statutes prescribing certain exemptions in categories of personal and real property, together with limitations on amounts. See 11 U.S.C. § 522(d); see also Ponoroff, supra note 36, 357–58.

37 Local Loan Co. v. Hunt, 292 U.S. 234, 244 (1934) (internal citations omitted) (explaining how a debtor's ability to discharge his or her debts benefits both the debtor and his or her creditors).

38 See KAREN GROSS, FAILURE AND FORGIVENESS: REBALANCING THE BANKRUPTCY SYSTEM 97 (1997) (stating "[b]ankruptcy's fresh start is the legal analogue to divine intervention").

39 See JONATHAN MORRILL & RACHEL SCHNEIDER, THE FINANCIAL DIARIES: HOW AMERICAN FAMILIES COPE IN A WORLD OF UNCERTAINTY 168 (2017); see also Mark K. Rank & Thomas A. Hirschl, Economic Security and the American Dream, in WORKING AND LIVING IN THE SHADOW OF ECONOMIC FRAGILITY 147 (2014) ("The typical life-course pattern is one in which individuals move in and out of economic turmoil as conditions change in their lives.").

40 See LISA SERVON, THE UNBANKING OF AMERICA: HOW THE NEW MIDDLE CLASS SURVIVES 59 (2017) (explaining living expenses, such as housing costs and medical expenses, have increased faster than economic growth due to the toll the financial crash took on the job market thus putting a substantial burden on the middle class). See generally JACOB S. HACKER, THE GREAT RISK SHIFT: THE NEW ECONOMIC INSECURITY AND THE DECLINE OF THE AMERICAN DREAM (2008).
to individually shoulder the costs for such vital necessities as housing, retirement, education, and, of course, health care. 41

Regarding health care, even for those fortunate enough to possess insurance, the plans place “a good chunk of medical costs onto our own financial shoulders, in the form of deductibles, co-payments, co-insurance, and employee-paid premiums.”42 In addition, there are many policy limits and exclusions (e.g., physical and occupational therapy), uncovered prescription costs, auxiliary aids, and lost income due to visits to medical care providers. Moreover, “even modest deductibles and copays [can] pose affordability problems, particularly if cost-sharing expenses recur, for as chronic health conditions.”43 Given this dynamic, it should be no surprise that many Americans are inundated with unaffordable medical bills. According to a study conducted by the Kaiser Family Foundation, an estimated 33% of Americans report having difficulties paying their medical bills.44 As summarized by Lisa Servon:

Nearly one in five consumers has medical debt that has gone to a collection agency for nonpayment. That medical debt makes up over half of overdue debt mentioned on credit reports. Although some consumers owe tens of thousands of dollars, the average unpaid medical debt in collections is $579. That may sound manageable, but in fact almost half of Americans have to struggle to pay off a $400 emergency medical expense.45

Even though most Americans possess health insurance, anecdotally among bankruptcy professionals and empirically among bankruptcy law scholars, it is largely unchallenged that medical debt is present in many personal bankruptcy cases.46 Lawmakers have taken note of this fact and have reacted with legislative

41 See HACKER, supra note 40, at 1–9.
42 See id. at 37.
43 See The Henry J. Kaiser Family Foundation, Medical Debt Among People With Health Insurance 7–8 (2014) [hereinafter Kaiser Family Foundation] (discussing families 400% below the federal poverty level).
44 See id. at 1 (regarding both short-term and long-term bill payments).
45 See SERVON, supra note 40, at 59.
46 See Melissa B. Jacoby & Mirya R. Holman, Financial Fragility, Medical Problems, and the Bankruptcy System, in WORKING AND LIVING IN THE SHADOW OF ECONOMIC FRAGILITY 61 (2014); see also ELIZABETH WARREN & AMELIA WARREN TYAGI, THE TWO-INCOME TRAP: WHY MIDDLE-CLASS PARENTS ARE GOING BROKE 81 (2003) (noting “[n]early nine out of ten families with children cite just three reasons for their bankruptcies: job loss, family breakup, and medical problems”); Brian K. Bucks, Out of Balance? Financial Distress in U.S. Households, in BROKE: HOW DEBT BANKRUPTSC THE MIDDLE CLASS 60 (2012) (“Bankrupt households are much more likely to have medical debt than any of the other groups of financially vulnerable households.”); KAISER FAMILY FOUNDATION, supra note 43, at 18 (noting “[m]edical bills are a leading cause of personal bankruptcy in the U.S.”); TERESA A. SULLIVAN, ELIZABETH WARREN AND JAY LAWRENCE WESTBROOK, AS WE FORGIVE OUR DEBTORS: BANKRUPTCY AND CONSUMER CREDIT IN AMERICA 173 (1989) [hereinafter As We Forgive Our Debtors] [explaining while medical debt is not the "typical" cause of bankruptcy, over half of debtors filing for bankruptcy experience some type of medical related debt in addition to their "already over-burdened balance sheets . . . "].
efforts to ease the burden of bankruptcy on filers with significant amounts of medical debt.\textsuperscript{47}

II. THE MEDICAL BANKRUPTCY FAIRNESS ACT

A common perception of medical bills is that they are unavoidable, no matter how prudent the individual.\textsuperscript{48} Accordingly, debtors who file for bankruptcy because of medical debts are believed to be truly "honest but unfortunate."\textsuperscript{49} Current bankruptcy law draws no distinction between debts accrued because of unavoidable and unforeseeable medical costs (e.g., treatments for a child diagnosed with leukemia)\textsuperscript{50} and debts acquired through profligate spending\textsuperscript{51} or reckless business speculation.\textsuperscript{52} Accordingly, debtors who file bankruptcy because of medical debts are subject to the same oversight intended to reign in the potential abuse of filers generally.

Scholars have been largely critical of the law's attempts to reign in debtor abuse, particularly through the means test introduced by the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 ("BAPCPA").\textsuperscript{53} The means test establishes a presumption of abuse in a chapter 7 filing for debtors whose current monthly income, as defined by the Code, is higher than the median income for the same-sized household in their geographic location, unless their monthly expenses, also defined

\textsuperscript{47} See, e.g., H.R. 5138, 110th Cong. (2008).
\textsuperscript{49} See AS WE FORGIVE OUR DEBTORS, supra note 46, at 173 ("Medical debt arouses our sympathy because illness is socially defined as something that is 'not the fault' of the sick or the injured.").
\textsuperscript{50} See Echo L. Warner, Anne C. Kirchhoff, Gina E. Nam & Mark Fluchel, Financial Burden of Pediatric Cancer for Patients and Their Families, 11 J. ONCOLOGY PRAC. 12, 12 (2014) (noting the high financial burden placed on families in need of cancer treatments). The average cost for hospitalization for leukemia patients in 2009 was $55,700. See id.
\textsuperscript{51} See 11 U.S.C. § 523(a)(2) (2012) (noting specific debts cannot be discharged, under the exception, by an individual debtor in certain proceedings). If a creditor can prove that the debtor obtained credit under false pretenses, then the debt may be deemed nondischargeable, although the Supreme Court has recently limited the extent to which this exception to discharge applies. See Lamar, Archer & Cofrin, LLP v. Appling, 138 S. Ct. 1752, 1763–64 (2018) (holding a statement about a single asset can be a "statement respecting the debtor's financial condition" falling outside the category of nondischargeable debts) (internal quotations omitted).
\textsuperscript{52} See 11 U.S.C. § 707(b)(1) (explaining dismissal is based primarily on consumer debts). In fact, business debt is generally afforded greater leeway under the Code, as an individual with primarily business debts is not subject to the means test. See Melissa B. Jacoby, Collecting Debts From the Ill and Injured: The Rhetorical Significance, But Practical Irrelevance, of Culpability and Ability to Pay, 51 AM. UNIV. L. REV. 229, 255–57 (2001) [hereinafter Collecting Debts From the Ill and Injured] (noting the then-proposed means test fails to distinguish or sort debtors based on culpability or the reasons they filed for bankruptcy).
by the Code, reduce their disposable income to an acceptable level. Debtors who do not "pass" the means test cannot file for bankruptcy under chapter 7, but instead must file, if at all, under chapter 13 or possibly under chapter 11. Data gathered since the imposition of the means test has consistently demonstrated that it imposes additional costs on filers; there are no empirical conclusions that the means test is successful at cracking down on abuse.

In recent years, legislators have sought to better accommodate so called "medically-distressed debtors," and to shield them from some of the more stringent provisions of the Code geared to combat alleged abuse, including those introduced by BAPCPA. Introduced separately in both the House and the Senate, the Medical Bankruptcy Fairness Act ("MBFA") has sought to define a category of medically-distressed debtors to provide these debtors with greater protection. The bill was first introduced under that title in 2008 by Representative Carol Shea-Porter of New Hampshire's First Congressional District. It afforded medically-distressed debtors a larger exemption of real or personal property than other debtors, and also did not require this category of debtor to undergo a means test analysis. Under the MBFA a medically-distressed debtor was defined to include those who incurred medical expenses greater than 25% of the debtor's household income or $10,000, whichever was smaller at the time of filing, as well as those living in a household where someone lost substantially all of his or her income for a four-week period within a given year due to a medical problem, whether the income be from employment or alimony. After the bill died in committee, Representative Shea-Porter introduced a

55 See id. § 707(b)(1) (explaining when the court may dismiss or convert a chapter 7 case filed by an individual debtor). Section 707(b)(1) of the Code provides in relevant part as follows:

[after notice and a hearing, the court, on its own motion or on a motion by the United States trustee, or any party in interest, may dismiss a case filed by an individual debtor under this chapter whose debts are primarily consumer debts, or, with the debtor's consent, convert such a case to a case under chapter 11 or 13 of this title, if it finds that the granting of relief would be an abuse of the provisions of this chapter . . . .

Id. See Lois R. Lupica, The Consumer Bankruptcy Fee Study: Final Report, 20 AM. BANKR. INST. L. REV. 17, 68 (2012) (discussing the increase in filing fees for chapter 7 cases filed pre-BAPCPA and post-BAPCPA); see also Carlson, supra note 53, at 318 (noting the means test is counter-productive or meaningless); Stephen J. Spurr & Kevin M. Ball, The Effects of a Statute (BAPCPA) Designed to Make it More Difficult for People to File for Bankruptcy, 87 AM. BANKR. L.J. 27, 31 (2013) (explaining BAPCPA increased paperwork and fees involved in filing).
56 See id. supra note 53, at 318.
58 See H.R. 5138 (first introduction of MBFA) ("To amend title 11 of the United States Code to provide protection for medical debt homeowners, to restore bankruptcy protections for individuals experiencing economic distress as caregivers to ill or disabled family members, and to exempt from means testing debtors whose financial problems were caused by serious medical problems.").
59 See id. (enumerating a new set of exemptions for those who qualify as medically-distressed debtors).
60 See id. (explaining the qualifying debts must have been incurred during "any consecutive 12-month period" within three years of the petition date).
substantially similar bill in the next Congress. A few months later, Senator Sheldon Whitehouse of Rhode Island introduced a bill under the same name (i.e., MBFA) that largely incorporated the earlier bill's proposed amendments to the Code and included an additional provision that would exempt medically-distressed debtors from BAPCPA's credit counseling requirement. The Senate Bill took a slightly different approach in defining a medically-distressed debtor, first defining "medical debt" as debt "incurred directly or indirectly as a result of the diagnosis, cure, mitigation, treatment, or prevention of injury, deformity, or disease, or for the purpose of affecting any structure or function of the body." Medically-distressed debtors were then defined as those who incurred medical debts in excess of 10% of the debtor's adjusted gross income, as defined by the Internal Revenue Service, or $10,000, whichever was smaller. In addition, debtors who had lost domestic support obligation income for four or more weeks within a given year, or experienced a downgrade in employment status for at least thirty days in a twelve-month period in order to care for an immediate family member, would also be considered a medically-distressed debtor. The bill would also make attorneys' fees generated by a chapter 7 filing nondischargeable, which would enable debtors who were unable to pay attorneys' fees at the time of filing to retain legal counsel on the promise that the fees would be paid following the bankruptcy discharge.

In presenting his bill on the Senate floor, Senator Whitehouse described the legislation as intended to "help families struggling with medical debts overcome hurdles that under current law make it difficult for them to find relief in the bankruptcy system." He cited a "recent Harvard University study," which determined that "health care-related costs" had contributed "to over 62 percent of filings in 2007." In addition, Senator Whitehouse described the cases of two

62 See H.R. 901, 111th Cong. (2009) (detailing exemptions were substantially the same as those in the initial bill).
63 See generally S. 1624, 111th Cong. (2009) (citing 11 U.S.C. § 109(h)(4) (2012)) (altering 11 U.S.C. § 109(h), which provides as a condition precedent for bankruptcy eligibility a consumer "may not be a debtor" under the Code, unless the individual has received credit counseling from an approved agency within the six-month period prior to the filing of the bankruptcy petition).
64 Id. § 2.
65 Compare id. (defining medically-distressed debtors as incurring medical debts in excess of 10% of the debtor's adjusted gross income), with H.R. 901 § 2 (defining medically-distressed debtors as incurring medical debts in excess of 25% of the debtor's household income).
66 See S. 1624 § 2.
67 See id. § 6 (stating attorney's fees incurred by a debtor as a result of filing a petition under chapter 7 are nondischargeable). Under current law, there is no special treatment for attorneys' fees in chapter 7, meaning that any legal fees not paid prior to filing the bankruptcy petition will become dischargeable, unsecured debt. See 11 U.S.C. § 523(a). This naturally discourages attorneys from representing a debtor in a chapter 7 case where they are not paid in advance, and has the secondary effect of directing many debtors to file chapter 13, where attorneys' fees can be paid over time through a court-approved plan. See id. § 330 (giving the court discretion to grant reasonable compensation to the debtor's attorney for representing the interests of the debtor in a chapter 13 bankruptcy case).
69 Id. (finding 62.1% of all bankruptcies in 2007 were medical).
constituents with staggering medical debt, accrued despite the fact that they had health insurance. In one case, the health insurance policy hit a maximum limit, and in the other, medical debt arose from the deductibles and co-pays associated with the medical insurance.

This bill also died in committee. The hearings on the bill featured testimony from experts who testified to the influential presence of medical debt in bankruptcy cases, citing studies (described in further depth below) that suggested over 60% of all bankruptcies are associated with medical indebtedness. However, the committee also heard from Aparna Mathur, who presented testimony contradicting this assertion.

In 2014, Senator Whitehouse reintroduced the MBFA, this time with the support of Senator Elizabeth Warren of Massachusetts. This version of the bill allowed the court to confirm a chapter 13 plan over the objection of an unsecured creditor for medically-distressed debtors. By so doing, the bill permitted the confirmation of a plan if: (1) the debtor failed to repay the objecting creditor's claim in full; and (2) failed to dedicate all of the debtor's "projected disposable income" to unsecured creditors. In addition, the bill permitted medically-distressed debtors to discharge their student loans. Under current law, student loans are nondischargeable for all debtors unless they can demonstrate that repayment of the loans "would impose an undue hardship on the debtor and the debtor's dependents." This standard has been informed by judicial interpretation, which sets an exceptionally high bar for establishing "undue hardship," such as a "certainty of hopelessness" in terms of repayment. Not surprisingly, relatively few student loans are successfully discharged.

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70 See id. (telling the story of a 23-year-old who had $20,000 in medical debt and a veteran and retiree who had to sell his home due to medical costs).
71 See id. (noting one individual's insurance policy had maxed out and the other individual was responsible for paying a $2,000 deductible plus 20% of the costs of his medical care).
72 See, e.g., Medical Bankruptcy Fairness Act: Hearing on H.R. 901 Before the Subcomm. on Commercial and Admin. Law of the H. Comm. on the Judiciary, 111th Cong. 88, 88 (2010) (statement of J. Cecelia G. Morris, Bankr. S.D.N.Y.) ("It is well documented that around half of all bankruptcies are the result of a serious medical problem.").
73 See id. at 96 (statement of Aparna Mathur) ("The statistics are simply not borne out by household surveys carried out by institutions like the Federal Reserve as well as other datasets widely used by academics.").
74 See generally S. 2471, 113th Cong. (2014) (proposing to amend the Code on June 12, 2014).
75 See 11 U.S.C. § 1325(b)(1) (2012) (detailing the court may approve the plan over an objection if the value to be distributed under the plan is less than the amount of the claim or if all of the debtor's projected disposable income will be applied to payments under the plan).
76 See id. ([T]he plan provides that all of the debtor's projected disposable income to be received in the applicable commitment period beginning on the date that the first payment is due under the plan will be applied to make payments to unsecured creditors under the plan.).
77 See S. 2471 § 6.
79 See In re Murphy, 305 B.R. 780, 792 (Bankr. E.D. Va. 2004) ("Each undue hardship discharge must rest on its own facts, but dischargeability of student loans should be based on a 'certainty of hopelessness.' In order to discharge a student loan, a debtor must show that unique or extraordinary circumstances which created the hardship render it unlikely that the debtor will ever be able to honor her obligations.").
discharged in bankruptcy. Nonetheless, permitting the discharge of student loans outright, without requiring debtors to prove undue hardship, would be an enormous benefit to many debtors, especially for those also plagued by medical debts. Within the same week, Representative Shea-Porter introduced a substantially identical bill in the House. Again, both bills died in committee.

In 2016, Senators Whitehouse and Warren were joined by Senator Dick Durbin of Illinois in introducing the MBFA to the 114th Congress. There were no substantive amendments from the 2014 version. In a statement on the bill, Senator Whitehouse noted that "the current bankruptcy process offers no acknowledgement that, unlike other debts, medical bills often cannot be avoided." Senator Durbin expressed the hope that the bill would "provide important safeguards for those bankrupted by medical issues outside of their control." Clearly, the goal was to provide relief for individuals whose health issues had become overwhelming financial issues, with the underlying notion that such individuals could not have anticipated or prevented their predicaments. It was implied in the discussion that medical debts are a significant problem for a large proportion of bankruptcy filers. However, this view is not as well established as some have argued, as evidenced by the conflicting testimony on the topic to Congress.

Although there are multiple studies linking bankruptcy to medical costs, scholars do not agree to the extent medical issues lead to bankruptcy or the number of bankruptcies that are linked to medical debt. As discussed in greater depth below, this lack of consensus stems in part from significant disagreement between studies on how to measure and even how to define medical debt. From the perspective of those seeking to pass legislation protecting medical debtors, the stakes are high: if debtors do not file as a consequence of medical bills, it becomes much harder to justify offering them special treatment not afforded to those that do not file for bankruptcy protection. On the other hand, if a significant percentage of all debtors do file because of overwhelming medical debts, perhaps the protections afforded by

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80 See Jason Iuliano, An Empirical Assessment of Student Loan Discharges and the Undue Hardship Standard, 86 AM. BANKR. L.J. 495, 505, 523 (2012) (suggesting student loans may be infrequently discharged in part because of the widespread conception that the undue hardship standard is difficult to meet).
85 Id. (emphasizing "[n]obody should ever have to choose between their physical health and their financial health, yet far too many Americans are driven into bankruptcy when they or their loved ones are ill").
86 Id. (highlighting Sen. Durbin's statement: "I'm pleased to join my colleagues in introducing this [MBFA] bill, which would provide important safeguards for those bankrupted by medical issues outside of their control");
87 See Amy Y. Landry & Robert J. Landry, III, Medical Bankruptcy Reform: A Fallacy of Composition, 19 AM. BANKR. INST. L. REV. 151, 151–52 (2011) ("The debates over links between bankruptcy and medical costs often turn into bipolar debates that pit consumer-oriented advocates and business-oriented groups against each other, with each casting blame on the other.").
MBFA should be extended to all filers, bypassing the need for additional proof of eligibility or the need to pass a means test.

Rather than jumping into the fray over the specific problem of the prevalence of medical debt in bankruptcy court, this Article adopts a different perspective by examining the predictive relationship between possessing health insurance and subsequently filing for bankruptcy. While the MBFA would benefit medically-distressed debtors (however defined) once they declare bankruptcy, it does not address one of the possible root causes for the accrual of overwhelming medical debt in the first place, namely, the lack of adequate health insurance coverage. That is, the MBFA, should it ever be passed by Congress, would only provide assistance to individuals after they have already been forced into bankruptcy; for many, this may prove to be too little, too late to be truly meaningful. Recent empirical evidence demonstrates that most debtors struggle with their debts for more than two years before filing for bankruptcy, during which time they frequently drain retirement accounts, encumber real and personal property to pay for otherwise unsecured debts, and undermine their financial position in other ways that cannot be undone in bankruptcy proceedings.

Past congressional efforts focusing on debtors once they file for bankruptcy is laudable, but we believe the better inquiry should be on ways to prevent the accumulation of medically-related debt in the first instance. Almost by default, such an inquiry must concentrate upon the possession of health insurance, perhaps the single best way to prevent the accrual of overwhelming medical debt. Consequently, we contend that instead of concentrating on whether (and in what percentages) medical bills cause bankruptcy or how to smooth the bankruptcy process for those with primarily medical debt, greater attention should be placed on the relationship between health insurance and consumer bankruptcy filings. This Article adds to the developing literature teasing out the connection between health insurance and consumer bankruptcy. More specifically, this Article attempts to address the predictive effect of a bankruptcy filing based upon the possession of health insurance. The following section addresses the existing scholarly literature in the field before reporting on our methodology and findings in Part IV.

III. MEDICAL DEBT, HEALTH INSURANCE, AND CONSUMER BANKRUPTCY

A. Studies Focusing on the Prevalence of Medical Debt in Bankruptcy

Although not the approach we take in this Article, the inquiry of whether and to what extent medical debt results in bankruptcy is valuable to an understanding of the

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88 See generally S. 3385, 114th Cong. (2016).
89 See id.
social problem. Solutions attempting to mitigate the harmful effects of medical expenses are only rational if medical expenses are in fact causing harm. For this reason, the focus on the amount of a debtor's medical debt, as in the MBFA, has been at the center of the bankruptcy law literature beginning in the 1960s. Scholars have looked not only at how much medical debt individuals bring into bankruptcy, but also whether it can be determined that medical debt had influenced the decision to file for bankruptcy.91

David T. Stanley and Marjorie Girth first examined the relationship between bankruptcy and medical debt by conducting an empirical study that randomly sampled bankruptcy cases filed in 1964 from eight federal judicial districts across the country "to reflect variations in geography, population, the economy of the area, type and volume of bankruptcy caseload, relative costs of bankruptcy proceedings, and extent to which rehabilitative proceedings were used."92 Stanley and Girth interviewed 400 consumer debtors approximately two years after their bankruptcy cases closed to ask debtors about the underlying financial problems leading to their bankruptcy filings.93 Although the leading reported cause of financial problems articulated by the participants (31%) was "poor debt management—too many debts, unwise re-financing, [and] overspending,"94 28% of individuals reported "family health reasons" (i.e., sickness, injuries, babies, and death) as the second most significant underlying cause for their need to file for bankruptcy protection.95

In the early 1980s, Teresa A. Sullivan, Elizabeth Warren, and Jay Lawrence Westbrook established the CBP, which in 1981 involved a random sampling of 1,529 consumer bankruptcy cases drawn across judicial districts in three states: Illinois, Pennsylvania, and Texas.96 Among other foci of study, Sullivan, Warren, and Westbrook examined the relationship between medical debt and bankruptcy. On this topic, the authors concluded that "crushing medical debt is not the widespread bankruptcy phenomenon that many have supposed."97 Only a few debtors had what could be described as "insurmountable medical debts," with the more typical scenario being that debtors would "add medical debt to their already overburdened balance sheets, and, at some point, they finally tumble over into bankruptcy."98 In sum, the authors argued that "[a]lthough these medical debts are not the obvious cause of the debtors' bankruptcies, they are part of their financial troubles."99 Sullivan, Warren,
and Westbrook also found that about half of all debtors carried some medical debt, a finding consistent with Philip Shuchman's 1983 sampling of 753 chapter 7 bankruptcy cases from nine judicial districts across the country for the years 1979, 1980, and 1981.100 Examining debtors' bankruptcy schedules, Shuchman concluded that 56% of the debtors sampled had some form of medical debt, with the average amount being $1,878 ($5,364 in 2018 dollars).101 Shuchman further found that medical debt represented approximately 12% of all unsecured debt.102 In 1991, Susan Kovacs conducted her own study using a sampling of 247 chapter 7 bankruptcy cases filed in the United States Bankruptcy Court for the Eastern District of Tennessee from July 1, 1985 through June 1, 1986.103 Kovacs found that 80% of debtors in her study owed some medical debt, with a mean total of $7,827, and that medical debt represented 42% of total unsecured debt.104 Based on these numbers, Kovacs concluded that the "driving force" behind the bankruptcy filings was medical debt.105

In 2000, Sullivan, Warren, and Westbrook published the results of the second iteration of the CBP that reported a larger role for medical debt in causing bankruptcy.106 According to the researchers, 20% of the debtors in the sample "listed a medically related problem as a reason for their bankruptcy filing, making it the third most common reason listed, after job loss and family problems."107 The explanation for the medical problems broke down into several categories, namely: (1) medical debts; (2) problems with health insurance; (3) income effects of illness; (4) injury or disability; and (5) an unspecified justification.108 Sullivan, Warren, and Westbrook noted that individuals frequently will pay for medical treatment on credit cards, through a home equity line of credit, or through a finance company loan, making it difficult to identify scheduled debt as explicitly medical.109 They further suggested that debtors may neglect to list medical providers as an unsecured debt on their

101 See id. at 295 (analyzing the complete information of chapter 7 filings from nine jurisdictions and finding 421 out of 753 cases had scheduled medical debt).
102 See id. at 295-96 (referring to Table O, the average medical debt of the 421 cases was $1,878).
103 See Susan D. Kovacs, Judgment-Proof Debtors in Bankruptcy, 65 AM. BANKR. L.J. 675, 676 (1991) (examining a sample of 247 chapter 7 filings by "judgement-proof" debtors over the course of one year in a single bankruptcy court in order to determine the extent such debtors are represented in the bankruptcy population, the nature of their debts, and the actual advantages or disadvantages they might receive by filing for bankruptcy relief at a time when their income and assets are already exempt from attachment) (internal quotations omitted).
104 See id. at 712-13 (alluding to Table G, which highlights medical debt was found in the author's sample of judgement-proof debtors to have constituted 42% of total unsecured debt and that 197 of the 247 sampled debtors reported some form of medical debt).
105 Id. at 709 (highlighting 80% of the sampled debtors owed some medical debt, the author concluded medical debt has an overwhelming impact on judgement-proof debtors).
106 See SULLIVAN ET AL., supra note 8, at 141 (basing the economic impact of sickness and injury on the cost of medical care and the loss of income that arises from illness and accidents).
107 Id. at 142 (citing their finding that one household in five in their sample listed a medically related problem as a reason for their bankruptcy filing).
108 See id. at 144.
109 See id. at 153 (enumerating the ways in which paying for medical bills can conceal the fact that such bills can actually constitute "medical debt").
bankruptcy petition out of a moral obligation to not see the debt officially discharged, or so as not to tarnish a personal relationship with the treatment provider.110

In an effort to better pinpoint the nature of the relationship between medical debt and bankruptcy, Melissa B. Jacoby, Teresa A. Sullivan, and Elizabeth Warren used data from Phase III of the CBP in which sampled respondents were asked "to identify the family's reasons for filing bankruptcy."111 Respondents were provided a choice of sixteen possible responses, including "illness or injury of self or family member."112 Jacoby, Sullivan, and Warren also questioned respondents whether they owed any money to certain types of creditors, including "health care providers, services, supplies," and whether they had medical bills not covered by insurance in excess of $1,000 during the past two years.113 Nearly half of the sample identified a medical reason for their bankruptcy, or identified at least $1,000 in health related bills (46.2%, combined).114 The authors pointed out the apparent anomaly of this percentage despite the fact that 80% of the debtors in the study possessed some form of health insurance.115

The conversation, while still focused on medical debt, became increasingly relevant to discussions of health insurance as government bodies contemplated possible legislative approaches to improving access to affordable medical care. Perhaps the most well-known and controversial study regarding medical debt and bankruptcy was issued in 2005 by David U. Himmelstein, Elizabeth Warren, Deborah Thorne, and Steffie Woolhandler.116 In this study, Himmelstein et al. utilized data from the 2001 iteration of the CBP, a cluster sampling of 1,771 households filing for bankruptcy in 2001 across five judicial districts,117 "to estimate how frequently illness and medical bills contributed to bankruptcy."118 Himmelstein and colleagues defined two summary measures of medical bankruptcy, as follows:

110 See id. (suggesting "other debtors may find health care providers to be their most aggressive creditors").
111 Melissa B. Jacoby et al., Rethinking the Debates Over Health Care Financing: Evidence from the Bankruptcy Courts, 76 N.Y.U. L. REV. 375, 386 (2001) [hereinafter Rethinking the Debates] (discussing the need for multiple perspectives "in light of the various results previously reported").
112 Id. at 387 (stating one in four families selected this option as a cause for their bankruptcy).
113 Id. (stating one in three families reported having this type of bill).
114 See id. at 389 (explaining bills included any obligation incurred for medical treatment like another mortgage).
115 See id. (discussing substantial impact of sum because of debtor's low annual income). In a prior study, Jacoby utilized data from the 1999 CBP to focus exclusively on chapter 13 debtors and similarly found 46.2% of the sample identified as "medical-related bankruptcies." See Collecting Debts From the Ill and Injured, supra note 52, at 236 (defining "medical-related bankruptcies" as including illness, injury, or other substantial medical debt).
116 See Rethinking the Debates, supra note 111, at 401 (suggesting more health insurance led to more medical debt); see also Melissa B. Jacoby & Elizabeth Warren, Beyond Hospital Misbehavior: An Alternative Account of Medical-Related Financial Distress, 100 NW. U. L. REV. 535, 548 (2006) (citing Phase III of CBP in reporting that 27% of sampled debtors identified a medical cause for their bankruptcy).
117 See Illness and Injury as Contributors to Bankruptcy, supra note 5, at W5-63 (discussing the need for more comprehensive universal coverage to address medical bankruptcies).
118 See id. at W5-64 (stating the need for study because "[t]he health policy literature is virtually silent on bankruptcy").
119 Id. at W5-65.
Under the rubric "Major Medical Bankruptcy" we included debtors who either (1) cited illness or injury as a specific reason for bankruptcy, or (2) reported uncovered medical bills exceeding $1,000 in the past years, or (3) lost at least two weeks of work-related income because of illness/injury, or (4) mortgaged a home to pay medical bills. Our more inclusive category, "Any Medical Bankruptcy," included debtors who cited any of the above, or addiction, or uncontrolled gambling, or birth, or the death of a family member.

Based on their data, Himmelstein and colleagues found that 46.2% of debtors met at least one of the criteria for a "Major Medical Bankruptcy," and 54.5% met the criteria for "Any Medical Bankruptcy." Clearly, the argument followed, medical issues were a primary driver of bankruptcy, thereby justifying a comprehensive adjustment to the health insurance model.

The 2005 Himmelstein et al. study received swift and sharp criticism, which continues to this day. The thrust of the criticism is two-fold: first, the researchers' methodological decisions to define expansively the contours of a "major medical cause" and "medical cause" of a bankruptcy filing, and second, their reliance upon self-reporting by individuals already in bankruptcy. As to the first point, regarding the definition of "medical causes," Gail Heriot argued that Himmelstein and colleagues structured their definitions intentionally to make these categories "seem as large as possible." Looking at the data more conservatively, Heriot asserted that "only 28.3% of all debtors questioned for the study cited illness or injury as a reason for their own bankruptcies, and even that figure is bloated." Similarly, in reexamining the CBP data, David Dranove and Michael Millenson argued that Himmelstein and colleagues failed to provide "a causal relationship to support the claim that medical spending contributes to 'half of all bankruptcies.'" Instead, Dranove and Millenson argued that at best, Himmelstein and colleagues "show that medical bills are a cause of 17 percent of bankruptcies but are not necessarily the most important cause." In casting doubt on the conclusions of the 2005

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120 Id.
121 See id. at W5-66.
123 Id. at 236.
124 Id. at 236.
125 Dranove & Millenson, supra note 122, at W75 (internal citations omitted).
126 Id.
Himmelstein et al. study, Dranove and Millenson also pointed to other studies that had found little or no correlation between medical debt and bankruptcy.127

Separately, other researchers reached very different conclusions regarding the prevalence of medical bankruptcies. Aparna Mathur, who testified before Congress regarding the MBFA, conducted a study that used PSID data from 1996 to estimate that only 27% of consumer bankruptcy filings are induced by high levels of medical debt.128 In 2014, Daniel Austin gathered data on medical debt by examining bankruptcy schedules and conducting surveys of debtors regarding their reasons for filing bankruptcy.129 Austin counted medical debt as the predominant causal factor for a bankruptcy only if it constituted a majority of a debtor's total unsecured debt, constituted more than half of the debtor's annual income, or was identified by the debtor his- or herself as the primary reason for filing.130 His study concluded that while medical debt is the single largest cause of consumer bankruptcy, it is the predominant causal factor in only 18-26% of all consumer bankruptcies.131

Himmelstein and colleagues strenuously rejected the Dranove and Millenson critiques.132 Furthermore, in 2009, Himmelstein et al. published another study using CBP data with substantially similar criteria as used in their 2005 study.133 This updated study concluded that 62.1% of all bankruptcies have a medical cause.134 Recognizing the need to allow for inflationary pressure on the $1,000 figure used in their previous study for outstanding medical bills or medical debt amounting to at least 10% of household income, the authors reported that using a more conservative $5,000 figure reduced the percentage of medical bankruptcies by about seven percentage points.135

Much of the disagreement among scholars over the extent to which medical debt contributes to bankruptcies comes down to a disagreement regarding what constitutes medical debt. For the reasons noted by Sullivan, Warren, and Westbrook,136 estimating the financial burden of medical debt may be difficult or impossible to do based solely on a debtor's bankruptcy schedules, simply because individuals tend to pay for medical expenses using credit cards or other forms of debt, and thus true medical debt would be masked on the bankruptcy petition and accompanying

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127 See generally id. (internal citations omitted).
128 See Aparna Mathur, Medical Bills and Bankruptcy Filings, AM. ENTERPRISE INST., 1, 19 (2010), https://www.researchgate.net/publication/228336696_Medical_Bills_and_Bankruptcy_Filings (citing a study estimating the percent of bankruptcy filings caused primarily by medical debt).
129 See Daniel A. Austin, Medical Debt as a Cause of Consumer Bankruptcy, 67 ME. L. REV. 1, 15 (2014) (describing the sources of data and methodology used).
130 See id. at 14.
131 See id. at 2.
132 See Discounting The Debtors, supra note 122, at W84 (alleging Dranove and Millenson ignored and misrepresented data to skew statistics on medical debt resulting in bankruptcies).
134 See id. at A10.
135 See id. at 742.
136 See SULLIVAN ET AL., supra note 8, at 153 (emphasizing concealment of medical debt in bankruptcy filings on credit card debts, home equity lines of credit, and finance company loans).
schedules by amounts owed to a credit card, family member, or another lender.\textsuperscript{137} Certainly, researchers have corroborated earlier findings that debtors generally bring relatively small levels of medical debt \textit{per se} into bankruptcy proceedings, and catastrophic medical expenses are relatively rare.\textsuperscript{138} For example, in a 2010 study, Jacoby and Holman confronted the discrepancy between individuals who had reported medical bills as a motivating cause and the modest amount of observable medical debt within their bankruptcy filings.\textsuperscript{139} They acknowledged that "one out of four respondents who explicitly reported medical bills as a reason for filing for bankruptcy has court records with zero identifiable medical debt," and that many others had only small amounts of identifiable medical debt.\textsuperscript{140} However, these respondents also reported significantly higher credit card debt and mortgage use, suggesting that they had essentially exchanged one type of debt for another, namely, paying their medical bills using credit cards or by mortgaging their homes.\textsuperscript{141} Other studies have reinforced these findings, reaching similar conclusions regarding bill management among bankruptcy filers.\textsuperscript{142} This makes it difficult, if not impossible, for researchers to rely simply on the amount of identifiable medical debt on debtors' bankruptcy schedules as an indication of the prevalence of such debt among bankruptcy filers nationwide.

Furthermore, debt associated with illness may spread beyond the costs of doctors, medicine, treatments, or hospitalization, and there is no agreement on where to draw the line on costs that are deemed "medical." Lost work-related income due to an illness or injury, for example, is not a medical bill nor the cause of medical bills, but would undoubtedly have an impact upon a debtor's ability to pay outstanding medical bills, not to mention all other household expenses. Despite this relationship, Heriot argued that the reporting of lost work due to illness or injury may have been systematically overstated by the participants in the Himmelstein et al. study, resulting

\textsuperscript{137} See id. ("In addition to the problem of identification, where medical debt is camouflaged within another category, especially the ubiquitous credit cards category, it is possible that medical debt, like the "last credit card," is often omitted from the debt schedules.").

\textsuperscript{138} See Dranove & Millenson, supra note 122, at W74, W78 (reporting 90% of consumer bankruptcy filers within their study reported medical debt of less than $5,000); see also Melissa B. Jacoby, Individual Health Insurance Mandates and Financial Distress: A Few Notes from the Debtor-Creditor Research and Debates, 55 U. Kan. L. Rev. 1247, 1253 (2007) [hereinafter Individual Health Insurance Mandates and Financial Distress] ("Federal Reserve researchers looking at a nationally representative sample of credit reports from the late 1990s found that 36.5% of the notations for medical bills were for $100 or less and that 70% were for $250 or less.").

\textsuperscript{139} See generally Melissa B. Jacoby & Mirya Holman, Managing Medical Bills on the Brink of Bankruptcy, 10 Yale J. Health Pol'y L. & Ethics 239, 286 (2010) [hereinafter Managing Medical Bills] ("[D]emonstrat[ing] through detailed systematic analysis that the DOJ's court record method, standing alone, is an unreliable measure of the financial burden of illness or injury faced by bankruptcy filers.").

\textsuperscript{140} Id. at 242.

\textsuperscript{141} See id. at 242–43 ("[R]espondents who specifically cited medical bills as a reason for filing for bankruptcy mortgaged their homes to pay medical bills at nearly four times the frequency of other filers. They also were more than a third more likely that other filers to use credit cards for medical bills.").

\textsuperscript{142} See Cindy Zeldin & Mark Rukavina, Borrowing to Stay Healthy: How Credit Card Debt is Related to Medical Expenses, DEMOS 1 (2005) (finding 29% of individuals surveyed reported medical expenses contributed to their current level of credit card debt).
Similarly, Heriot noted that the birth of a new family member may introduce financial stress on a family, but it is hard to say conclusively that medical bills caused the financial stress. As Heriot observed, "[b]abies are a financial hardship even when hospitals give them away free."\footnote{Id. at 234 (acknowledging new parents' difficulty adjusting from their previous lifestyles after a child is born when one parent is required to stay home with the child).}

In short, defining the parameters of what constitutes medical debt or indebtedness caused by medical issues can be problematic, and researchers have not agreed upon a precise limitation to guide empirical studies. Consequently, and with the prevalence of health insurance as a matter of national economic policy, some scholars have moved their attention away from medical debt as a cause of consumer bankruptcy to the question over the relationship between health insurance and financial distress.

\section*{B. Studies Examining the Relationship Between Health Insurance and Financial Distress}

Most Americans defray the risk of serious medical issues by obtaining health insurance, paying a monthly premium in exchange for the promise of future assistance with medical bills, such as those associated with doctors' visits, prescription costs, or a hospitalization. Among those with insurance, most receive it through an employer,\footnote{See Health Insurance Coverage of the Total Population, KAISER FAMILY FOUNDATION, https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colId%22:%22%22%22sort%22:%22%22%22asc%22%22%22%22%7D (last visited May 14, 2019).} with a minority obtaining their insurance from public programs such as Medicaid\footnote{See Medicaid, MEDICAID.GOV, https://www.medicaid.gov/medicaid/index.html (last visited Jan. 30, 2019).} or Medicare.\footnote{There are, unfortunately, still a substantial number of Americans without any health insurance.\footnote{See Key Facts about the Uninsured Population, KAISER FAMILY FOUNDATION, https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/ (last visited May 14, 2019) (showing approximately 27.4 million uninsured Americans in 2017).}} There are, unfortunately, still a substantial number of Americans without any health insurance.\footnote{See What is Medicare?, MEDICARE.GOV, https://www.medicare.gov/sign-up-change-plans/decide-how-to-get-medicare/whats-medicare/what-is-medicare.html (last visited Jan. 30, 2019) (explaining Medicare is a federal health insurance program for people who are 65 or older, and certain people with disabilities or extreme medical conditions).}

Research regarding the effect of medical insurance on bankruptcy filing rates gained greater relevance during the Obama Administration with the passage of the Patient Protection and Affordable Care Act (the "ACA").\footnote{See Key Facts about the Uninsured Population, KAISER FAMILY FOUNDATION, https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/ (last visited May 14, 2019) (showing approximately 27.4 million uninsured Americans in 2017).} The ACA was passed in 2010, and its provisions aimed at extending health insurance coverage to more Americans. The law includes a mandate requiring most Americans to have health insurance and established a federal tax credit system to help individuals afford private health insurance. The ACA's impact on consumer bankruptcy has been a subject of study, with some researchers finding that the law reduced the rate of bankruptcy filings due to medical debt. However, others argue that the law did not have a significant impact on bankruptcy rates, and that other factors, such as economic conditions and state-by-state variations in Medicaid expansion, played a larger role in influencing bankruptcy filings.
large part because of the view that universal insurance coverage would reduce the financial strain on individuals and consequently the need for bankruptcy protection. However, studies thus far have proved to be inconclusive and even contradictory on whether having health insurance reduces the need for families to resort to bankruptcy.

In 2011, just prior to the enactment of the ACA, Tal Gross and Matthew Notowidigdo published a study that suggests an expansion of public health insurance could significantly reduce consumer bankruptcy filing rates. The study examined the relationship between Medicaid expansion and rates of consumer bankruptcy using public health insurance data from the 1992-2004 Current Population Survey and the bankruptcy filing rates published by the Administrative Office of U.S. Courts. The authors found that while consumer bankruptcy filings generally increased during the 1990s, the rate of increase was slower in states with larger expansions of Medicaid benefits, with the relative reduction in personal bankruptcies concentrated most strongly in households with children and in zip codes with low-income households. In all, they concluded from their statistical models that "a 10 percentage-point increase in eligibility for Medicaid reduces personal bankruptcies by 8%." Although the study is limited in its predictive value by virtue of the data it uses (now two decades old) and its use of aggregate-level data (because of the ecological fallacy), it supports the argument that expanded public health insurance could reduce bankruptcies related to medical issues.

On the other hand, in the same year as the Gross and Notowidigdo study, Himmelstein, Thorne, and Woolhandler published a study of Massachusetts bankruptcy filing rates following the state's passage of health care reform, which concluded that the number of bankruptcies caused by medical issues had not decreased as a result of the reform. By way of background, in 2006 Massachusetts launched a health reform initiative that "expanded its Medicaid program, created a new subsidized program through a health insurance exchange, instituted insurance market reforms," and required individuals to purchase health insurance if they were

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151 See Gross & Notowidigdo, supra note 6, at 767.

152 See id. at 769 ("Our investigation into bankruptcy and public health insurance requires accurate measures of both variables.").

153 See id. at 768 (finding Medicaid expansions disproportionately reduced bankruptcies in zip codes with a large share of low-income households).

154 Id. at 767.

155 See id. (finding states with larger expansions of Medicaid eligibility experienced lower consumer bankruptcy filing rates).

156 See Medical Bankruptcy in Massachusetts, supra note 5, at 227 ("However, our findings are incompatible with claims that health reform has cut medical bankruptcy filings significantly.").
not otherwise covered.\textsuperscript{157} By 2008, the state had nearly universal insurance coverage.\textsuperscript{158} Despite the success in expanding health insurance coverage, according to the Himmelstein, Thorne, and Woolhandler study, there was no corresponding success in reducing the need for bankruptcy.\textsuperscript{159} Methodologically, Himmelstein and colleagues surveyed random samples of Massachusetts bankruptcy filers in 2009.\textsuperscript{160} They found that roughly half of the surveyed filers reported that illness or medical bills contributed to their decision to file for bankruptcy, but of this group, nearly 99% had health insurance for themselves and all dependents at the time they filed.\textsuperscript{161} Himmelstein and colleagues concluded that their findings were "incompatible with claims that health reform has cut medical bankruptcy filings significantly[.]"\textsuperscript{162} and theorized that this was due to the fact that "[h]igh premium costs and gaps in coverage—copayments, deductibles, and uncovered services—often left insured families liable for substantial out-of-pocket costs."\textsuperscript{163} These findings were particularly disheartening for those who promoted the ACA as a method to reduce bankruptcy filings nationwide, as the ACA reforms were largely modeled after those successfully implemented in Massachusetts.\textsuperscript{164}

Concentrating again on the State of Massachusetts, in a study published in 2016 Bhashkar Mazumder and Sarah Miller analyzed the effect of health insurance coverage on various financial outcomes by mining data from individual-level credit reports both before and after the expansion of public health insurance in the state.\textsuperscript{165} Mazumder and Miller sought to determine whether expanded health insurance

\textsuperscript{158} See Sharon K. Long, Allison Cook & Karen Stockley, Health Insurance Coverage in Massachusetts: Estimates from the 2008 Massachusetts Health Insurance Survey, MASS. DIVISION OF HEALTH CARE Fin. AND POLICY 1 (2009), https://www.urban.org/sites/default/files/publication/32276/411815-Health-Insurance-Coverage-in-Massachusetts.pdf (showing only 2.6% of the state’s population was uninsured in 2008).
\textsuperscript{159} See Medical Bankruptcy in Massachusetts, supra note 5, at 227 (noting the number of medical bankruptcies has increased by one third).
\textsuperscript{160} See id. at 224 (relying on information gathered from questionnaires mailed to debtors immediately after their bankruptcy filing and publicly available court records).
\textsuperscript{161} See id. at 226 (explaining even though the majority of debtors in the sample had health insurance at the time of their filing, "45.6% . . . had high medical bills or specifically cited illness as a cause of their bankruptcy").
\textsuperscript{162} Id. at 227.
\textsuperscript{163} Id. at 227. See Individual Health Insurance Mandates and Financial Distress, supra note 138, at 1251 (holding empirical evidence suggests just being insured does not protect individuals from the financial risk of medical problems).
\textsuperscript{164} See Sharon K. Long & Karen Stockley, Sustaining Health Reform In A Recession: An Update On Massachusetts As Of Fall 2009, 29 HEALTH AFF. 1234, 1234 (2010) (explaining the ACA reforms were modeled on Massachusetts health reforms because of the parallels between both the national and Massachusetts health initiatives). There was some testimony presented to Congress suggesting that the Massachusetts model would continue to leave holes in medical insurance coverage. See Hearing on Medical Debt: Is Our Healthcare System Bankrupting Americans? Before the Subcomm. on Commercial and Administrative Law Comm. of the Judiciary, 111th Cong. 20 (2009) (testimony of Steffie Woolhandler, M.D., M.P.H., Professor of Medicine, Harvard Medical School).
\textsuperscript{165} See Mazumder & Miller, supra note 6, at 296 (stating individual credit reports were observed from 1999 to 2012).
coverage effected individuals along several financial variables, including total amount of past due debt, the amount of third-party debt in collections associated with an account, and the presence of a bankruptcy filing in the past twenty-four months. With respect to personal bankruptcy, Mazumder and Miller found that a one percentage point increase in the potential effect of health insurance reform (i.e., increased overall coverage) "is associated with a significant reduction in the probability of having a bankruptcy of about 0.03 percentage points." In other words, increased insurance coverage across the population in Massachusetts suggested a slight reduction in the probability of future bankruptcy filings. However, a nationwide expansion of this study by Mazumder and Miller seeking to examine the effect of the ACA on financial well-being found that the national expansion of 2014 did not have a significant effect on the probability of filing for bankruptcy.

At present then, the empirical evidence is inconclusive on the relationship between possessing health insurance and filing for bankruptcy. The research question undergirding this relationship, if any, is made all the more difficult based upon the various types of insurance plans available in the United States (including publically-provided health insurance) along with the various coverage limitations, exclusions and other policy-specific provisions. Admittedly, possessing a basic health insurance policy does not necessarily protect an individual or an entire family from the financial consequences of needed and uncovered or unreimbursed medical expenses. Nonetheless, if the presence or absence of health insurance is predictive of a future bankruptcy filing, then perhaps federal legislators and health care policymakers need to re-examine the expanse of health insurance coverage in the United States, if the goal is to reduce the number of individuals and families filing for bankruptcy each year.

Our study adds to the growing literature on health insurance and consumer bankruptcy in two important ways. First, we utilize a randomly sampled, nationally-representative, longitudinal data set to explore the relationship between possessing health insurance and consumer bankruptcy. Second, we examine the impact of the ACA on the presence and distribution of medical debts in consumer bankruptcy. Specifically, the authors found that post-ACA chapter 13 debtors were more likely to report medical debts on their bankruptcy schedules than chapter 7 filers prior to the ACA, suggesting that in the aftermath of the ACA consumers who were plagued by medical debt were choosing to file for chapter 13 as opposed to chapter 7.

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166 See id. (discussing the study also analyzed the effect of the reform on individual "risk scores," which is a credit score that ranges from 280-850).
167 Id. at 305 (highlighting results are from estimates of the effect of the reform on bankruptcy in the last 24 months).
168 See Luojia Hu et al., supra note 6, at 106 (noting the study sought to capture the overall change in financial outcomes among the sample of adults with a credit report living in their target zip codes). In a somewhat related study, Donald D. Hackney, Daniel Friesner, and Erica H. Johnson found that the ACA impacted the presence and distribution of medical debts in bankruptcy. See Hackney et al., supra note 6, at 1969. Specifically, the authors found that post-ACA chapter 13 debtors were more likely to report medical debts on their bankruptcy schedules than chapter 7 filers prior to the ACA, suggesting that in the aftermath of the ACA consumers who were plagued by medical debt were choosing to file for chapter 13 as opposed to chapter 7. See id.
169 See Rethinking the Debates, supra note 111, at 399 ("The data demonstrate that having a basic health insurance policy does not necessarily protect these families from being crushed by the financial consequences of an illness or accident.").
170 See Yarbrough & Landry, supra note 6, at 674 (arguing that a more "aggressive Medicaid program might alleviate some of these burdens from the working poor or low-income citizens in need and result in fewer consumer bankruptcy filings").
health insurance coverage and a future consumer bankruptcy. Second, we strive to
determine whether the type of insurance coverage possessed by an individual makes
a difference regarding a future bankruptcy filing. This second piece has been largely
ignored by previous studies, and our preliminary results suggest that future studies in
this realm would be particularly valuable.

IV. METHODS, DATA AND ANALYSIS

As noted at the outset, studying bankruptcy debtors on either an aggregate or
individual-level basis has historically been a challenge for researchers since so few
large-scale data sets inquire about bankruptcy filings. While bankruptcy petitions
themselves are court documents that are publicly available and have been used by
researchers to study certain elements of the consumer bankruptcy system, the
financial and personal information debtors must disclose on their bankruptcy
petitions are insufficient to study discrete, granular issues such as medical debt and
insurance coverage. Even more problematic, court documents can only be used to
study those who have filed for bankruptcy, and not to identify patterns distinguishing
those who file for bankruptcy from the larger population.

To assess whether health insurance coverage impacts the likelihood of filing for
bankruptcy, we use data from the NLSY79, collected by the Bureau of Labor
Statistics. The NLSY79 consists of a nationally representative sample of 12,686
young men and women aged 14-22 at the time when they were initially surveyed in
1979. Follow up interviews were conducted annually through 1994 and biennially
since then. Questions regarding healthcare coverage and bankruptcy filings were
added to the survey in 2004, scaled back in 2006, and then re-introduced in 2008,
since when they have remained relatively constant.

171 See Scott Fay, Erik Hurst & Michelle J. White, *The Household Bankruptcy Decision*, 92 AM. ECON. REV. 706, 706 (2002) ("Until very recently, studying the household bankruptcy decision was very difficult, because no household-level data set existed that included information on bankruptcy filings."); see also Ian Domowitz & Robert L. Sartain, *Determinants of the Consumer Bankruptcy Decision*, 54 J. FIN. 403, 403 (1999) (noting "Research in the area of consumer bankruptcy is largely based on the analysis of aggregate filing data").
172 See *Managing Medical Bills*, supra note 139, at 239–43 (noting the court record method of collecting data "is incapable of capturing some of the most significant medical obligations incurred before bankruptcy").
175 See id.
176 See National Longitudinal Survey of Youth, U.S. BUREAU OF LABOR STAT., https://www.nlsinfo.org/content/cohorts/nlsy79/other-documentation/questionnaires (follow URL; select "2004" drop down; select "health", navigate to questions regarding bankruptcy); id. (follow URL; select "2006" drop down; select "health", navigate to questions regarding healthcare); id. (follow URL; select "2008" drop down; select "health", navigate to questions regarding bankruptcy); id. (follow URL; select "2009" drop down; select "health", navigate to questions regarding healthcare); id. (follow URL; select "2010" drop down; select "health", navigate to questions regarding bankruptcy); id. (follow URL; select "2010" drop down; select "health", navigate to questions regarding healthcare).
Our analysis focused on responses derived from the four waves of surveys in the years 2008-2014, for two primary reasons. First, major changes to bankruptcy law occurred in 2005 through BAPCPA, which may have caused filing rates to spike in 2004. This made it more difficult to directly compare results in 2004 to those in the following wave. Second, there was greater consistency in the wording of questions related to healthcare coverage, debts, and bankruptcy in the 2008-2014 data. At the time of our analysis, survey data from the 2016 iteration of the NLSY79 was not yet available.

The data from the NLSY79 survey are unique in that they provide information on bankruptcy and health insurance coverage for a nationally representative sample of middle age adults, the age group most likely to file for bankruptcy. Importantly, the NLSY79 survey directly asks respondents about whether they are covered by health insurance and from where this coverage originates. Because the NLSY79 is a longitudinal survey, we can characterize respondents as either having consistent health care coverage, interrupted coverage, or no coverage at all by examining whether their coverage changed since the previous wave. We can also differentiate between coverage types (e.g., public or employer-based). Since the survey also asks respondents whether they have filed for bankruptcy since the last wave of data collection, we can differentiate between those who have ever filed for bankruptcy and those who filed within each two-year period. Past research has typically relied on proxies for health insurance coverage and has not been able to temporally situate changes in coverage with bankruptcy filings. To our knowledge, the NLSY79 is the only data set available for examining bankruptcy and health care coverage at the individual level before, during, and after the implementation of BAPCPA and the ACA.

\* "health"; navigate to questions regarding bankruptcy); id. (follow URL; select "2012" drop down; select "health"; navigate to questions regarding health care); id. (follow URL; select "2014" drop down; select "health"; navigate to questions regarding bankruptcy)

177 See Eugene R. Wedoff, *Major Consumer Bankruptcy Effects of BAPCPA*, 2007 U. Ill. L. REV. 31, 31 (2007) ("The Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) of 2005 dramatically changed several aspects of individual consumer bankruptcy law."); see also Spurr & Ball, supra note 56, at 28 (noting "BAPCPA is the most significant revision of the Bankruptcy Code since its enactment in 1978").

178 Regardless, we did perform a series of analyses with the 2004 data, which is available upon request. Findings were substantively similar to the findings reported here for the 2008, 2010, and 2012 waves of data.

179 See Leslie E. Linfield, *The Composite Consumer Debtor*, 31 AM. BANKR. INST. J., Aug. 2011, at 26-27 (finding adults aged 45 years and older have increased their rate of filing for bankruptcy by 19% and adults aged 55-64 and 65 and older have combined increased their rate of filing for bankruptcy by 25%).

180 See generally National Longitudinal Survey of Youth, U.S. BUREAU OF LABOR STAT., https://www.nlsinfo.org/investigator/pages/search.jsp?e=NLSY79# (last modified Aug. 24, 2017) (directing participants to answer questions, such as whether an adult lives with their partner, whether he or she is covered by a hospitalization plan, and whether their children have health insurance coverage).

181 See generally id. (emphasizing the longitudinal nature of the study and listing the array of categories from which participants are questioned with regards to their finances, such as employment, income, and assets).
A. Measures

We rely on self-reports of new filings for personal bankruptcy (i.e., debtors choosing to file under either chapter 7 or 13 of the Code) since the last interview for our outcome variable of interest. Respondents are asked at each wave whether they have ever declared bankruptcy, and if so, the month and date of the filing. If the most recent bankruptcy occurred in the time since their last interview date, respondents were coded as having filed. In total, 454 bankruptcies were reported throughout the study period, with 70 in 2008, 103 in 2010, 121 in 2012, and 91 in 2014.

Our primary measure of health insurance coverage comes from respondent reports of whether they were covered by any kind of private or governmental health insurance (including hospitalization plans), and whether they report any time since their last interview in which they were not covered by health insurance. Participants who reported having some form of insurance at both the current interview and their last interview, and who reported that there was no time where they were not covered in between, were coded as having full coverage for the two-year period and serve as the reference group in all of our models. Those who reported having insurance at one point in time but not the other (e.g., at their last interview, but not the current one), or who reported having no coverage at some time in the interim were classified as having had interrupted coverage. We initially coded differently those who lost, gained, or simply failed to maintain coverage between interviews, but found little variation in bankruptcy filing rates and other study variables between these groups, which prompted us to adopt the broader classification of respondents having interrupted coverage. Respondents who reported having no coverage at either the time of the current interview or at the previous interview were coded as having no coverage.

We further differentiated health insurance coverage by type of primary plan to determine whether people covered by certain types of insurance were more or less likely to file for bankruptcy. The NLSY79 survey options include: (1) having insurance provided by their own or a spouse's employer; (2) benefitting from a workers' union plan; (3) purchasing a plan directly from a provider; (4) receiving Medicaid or Medicare; (5) receiving coverage through Medi-GAP (i.e., private insurance to supplement Medicare insurance); (6) experiencing coverage through the military; (7) receiving some other government plan; (8) having only a single service plan; or (9) using a medical savings account.182 The NLSY79 also measures risk and protective factors related to bankruptcy including respondents' household income (in $1,000 increments and top-coded at $500,000), personal debt (i.e., a sum of all reported credit card debt, personal debts, and debts owed to private businesses or medical service providers, in $1,000 increments and top-coded at $500,000, but not including the amount owed on mortgages), employment (i.e., the percentage of weeks

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182 See generally id. (providing a mechanism by which someone can search the NLSY79 study by entering relevant variables and filtering the results according to the particular health-related category).
that the respondent reported working over the past year), and whether a health issue limited the respondent's ability to engage in routine activities (i.e., yes or no, since last interview).  

B. Analysis and Findings

We used a series of cross-sectional logistic regression models to examine the association between health care coverage, debt, sociodemographic and other risk factors, and new bankruptcy filings since the last biennial survey. First, we fit baseline models that predict the odds of filing for bankruptcy between respondents with no coverage and interrupted coverage, compared to those with full coverage (Model 1). Next, we tested whether these differences in filing rates by coverage remain after controlling for basic demographic and economic characteristics including marital status, age, gender, race/ethnicity, parenthood, employment, debt, and income (Model 2). Finally, we examined how the association between health insurance coverage and bankruptcy changes with the addition of a binary indicator that signifies whether the person experienced a health limitation since the last interview (Model 3).

Table 1 provides descriptive statistics by year for the NLSY79 variables that we included in our models. We can see that about 0.9% of the NLSY79 sample filed for bankruptcy in 2008. This frequency increases by about 50% in 2010 (to 1.4%) and 85% in 2012 (to 1.8%) and then decreases in 2014 (to 1.3%) to approximately the 2010 level. These rates are substantially higher than the national rates, likely due to both the NLSY79's oversampling of lower-income individuals and its focus on an age group that is more likely to file for bankruptcy relief (i.e., middle-age individuals), but follow a somewhat similar pattern with higher rates immediately following the economic recession of 2008-2009. During this time period, national bankruptcy filing rates ranged from a high of 0.65% in 2010 to a low of 0.37% in 2014.

Turning to rates of health insurance coverage, we see some, but much less, variation across the waves of the NLSY79 data set. The percentage of the population

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183 See generally id.

184 This strategy allowed us to more clearly determine how the timing of coverage and other factors relate to the odds of filing, while avoiding the need for complex three-way interactions between multiple time-varying factors to examine these associations in a repeated measures analysis. As a sensitivity check, we also ran similar analyses that more fully exploited the panel nature of the NLSY79 using growth curve models predicting bankruptcy during the period 2008 to 2014, which confirmed that the general findings presented here were relatively constant over time and robust to alternate model specification (results available upon request). Further robustness checks involved running all analyses with variables denoting change in respondent characteristics since the last wave (e.g., change in marital status, change in weeks worked, change in health limitations), but these variables were roundly insignificant and indicated that the statuses themselves were more important predictors of bankruptcy than change in these characteristics over time (results available upon request).

185 See SULLIVAN ET AL., supra note 8, at 38–39 ("In 1997, nearly one in ten of the debtors who filed for bankruptcy was fifty-five or older.").

with full coverage rose from 72.5% in 2008 to a high of 76.2% in 2014. This increase was not monotonic: after increasing to 73.5% in 2010 there was a slight dip in 2012 to 72.4%. The biggest increase was between 2012 and 2014. This increase was most likely the result of the ACA, which mandated that all citizens and legal residents in the United States possess some form of health insurance or pay a financial penalty.\footnote{See Hackney et al., supra note 6, at 1958.}

While the proportion of the sample that had full health coverage slowly increased between 2008-2010, this time-period also saw a small increase in the percentage of the population that had no coverage (11.2% to 12.5%) and a decrease of those who had interrupted coverage (16.3% to 14%). Not surprisingly, given the changes in full coverage in 2014, we also observed the lowest level of no coverage (8.4%) in the last wave of the data. While national data make it hard to estimate the percentage of the population that had full, as opposed to interrupted coverage, estimates from the National Health Interview Survey suggest that the percentage of the NLSY79 sample with no insurance is somewhat lower than a national sample of the same age whose rates of coverage rose from 13.6% in 2008, up to 16.1% in 2012, and then down to 14% in 2014.\footnote{See generally CTRS. FOR DISEASE CONTROL AND PREVENTION, HEALTH INSURANCE COVERAGE (2017), https://www.cdc.gov/nchs/fastats/health-insurance.htm.}

We conducted a series of models which demonstrate the relationship between health insurance coverage and the likelihood of filing for bankruptcy before and after controlling for a variety of demographic, economic, and health-related characteristics. Table 2 demonstrates that without controlling for other factors, respondents with no coverage were no more likely to file for bankruptcy, but those with interrupted coverage were more than twice as likely to file for bankruptcy as their counterparts with full coverage (\(p<.01\)), a statistically significant finding.\footnote{See Illness and Injury as Contributors to Bankruptcy, supra note 5, at W5-66.} There is a slight attenuation of the influence of having interrupted coverage on the likelihood of bankruptcy in model 2 after controlling for the sociodemographic variables of age, marital status, gender, race, whether the respondent had dependent children, along with measures of employment, debt and income; nevertheless the relationship is still statistically significant (\(p<.05\)). The same is true in model 3, after controlling for health limitations. In the final model, the only variables other than interrupted health coverage that are associated with bankruptcy using conventional levels of statistical significance are income—those with higher household incomes are less likely to file for bankruptcy (\(p<.001\)), and number of weeks worked—those who worked more weeks were more likely to file for bankruptcy (\(p<.01\)). Never having been married is associated with a lower likelihood of filing for bankruptcy \(p<.01\).
and having a health limitation is associated with a higher likelihood of filing for bankruptcy, if we relax the levels of statistical significance to p<.10.

In Table 3, representing the respondents in 2010, the findings are virtually identical to those obtained from the 2008 data. While slightly attenuated between models 1 and 2, the increased likelihood of filing for bankruptcy associated with having interrupted coverage is statistically significant across all of the models, and even after controlling for all of the other variables, those with interrupted coverage are more than twice as likely to file for bankruptcy (p<.01). Likewise, working more weeks in the previous year and having a lower household income are again both associated with a higher likelihood of filing bankruptcy (p<.01 and p<.001, respectively). At the marginally significant level (p<.10), never being married is again associated with a lower likelihood of filing for bankruptcy, and at this level of statistical significance we also witness a lower likelihood of filing among black respondents.

Our findings from the analysis of the 2012 data, presented in Table 4, follow a very similar, but not identical, pattern. Across the three models, respondents with interrupted health care coverage were 105%, 88%, and 83% more likely to file for bankruptcy relief as compared to those possessing full coverage. Those with no coverage did not exhibit significant differences from those with full coverage. Again, the number of weeks worked was positively, and income negatively, associated with filing for bankruptcy (p<.001). The 2012 models indicate two other statistically significant relationships. Respondents who were never married were less likely, and those with health limitations were more likely to file for bankruptcy (p<.001 and p<.05, respectively).

In 2014 we see a major shift in the data. Controlling for type of health insurance coverage causes intermittent coverage to remain statistically significant (p<.01) in predicting a bankruptcy filing. However, the results presented in Table 5 suggest that the likelihood of filing for bankruptcy for those with interrupted coverage or no coverage at all is not significantly different than the likelihood for those with full coverage when controlling for all demographic variables. It should be noted that this is not just the result of a small shift that changes the level of significance. Between 2008 and 2012, after controlling for all of the other characteristics, those with interrupted coverage were between 83% and 112% more likely to file for bankruptcy protection. In 2014, they are only 10% more likely to do so. The other significant predictors from the 2012 models are also not statistically significant in 2014. In fact, the only significant factors in the 2014 models are household income and number of weeks worked (p<.01), the effects of which are similar to what we demonstrate in previous years. The data from 2014 appear to be an anomaly from the pattern demonstrated in previous years, and when available, the data from 2016 may shed light on whether the experience of intermittent health insurance coverage remains a statistically significant predictor of a future bankruptcy filing.190

190 The data was analyzed and statistical tests were run before the release of the 2016 wave of the NLSY79.
Looking across three of the four waves of data, we see a general pattern that indicates a strong relationship between interrupted health insurance coverage and filing for bankruptcy. This led us to question what made having an interruption in health care coverage so problematic, and also what influences the likelihood of being in this situation. Quantitative data alone does not allow us to answer the first question, however, the data did allow us to further investigate the latter. To do so we ran additional analyses with the 2008, 2010, 2012, and 2014 waves to identify factors associated with interrupted coverage. Table 6 provides a summary of these results.

The strongest patterns, those that are evident across all waves of the data, suggest that the presence of health limitations, lower household incomes, divorce, and being Latino/a are all associated with having interrupted health insurance coverage. In three of the waves we also see that never being married, being separated from a spouse, and working less is associated with a higher likelihood of interrupted coverage. We further tested whether changes in these characteristics (e.g., such as moving from married to divorced since the last wave) additionally influenced the likelihood of experiencing interrupted coverage, but these changes were roundly non-significant. Due to the nature of the data, it is difficult to demonstrate that any of the factors described above cause interrupted coverage. However, given that many insurance plans are connected to an individual's or their spouse's employment, and the degree to which a health limitation can create employment instability, it makes sense that these factors appear to play an important role.

Taken together, the two sets of analyses suggest that marital, employment, and health statuses are significantly related to interrupted coverage, which in turn plays an important role in shaping the likelihood of filing for bankruptcy. We conducted one final round of analyses to determine whether the type of health insurance that a respondent had in the previous wave was associated with an increased likelihood of experiencing intermittent coverage, above and beyond measured socioeconomic and health-related characteristics. Table 7 demonstrates that the type of insurance coverage is, in fact, a significant predictor of intermittent coverage, which itself increases the odds of filing for bankruptcy relief.

Compared to those with employer-provided health insurance, individuals possessing privately-purchased health insurance face significantly greater odds of experiencing intermittent coverage across all years. This finding makes intuitive sense: individuals who pay for health insurance out of pocket, rather than having the cost deducted automatically from wages, are probably more likely to stop paying for health insurance when finances get tight.

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191 Full tables for each wave are available upon request.
193 Results available upon request.
Individuals possessing public health insurance (e.g., Medicaid or Medicare) also have increased odds of experiencing intermittent coverage across all years, though the evidence is only marginally significant in 2012. This finding was surprising insofar as we initially assumed that possessing publicly-assisted health insurance would shield lower-income individuals from intermittency and, in turn, severe indebtedness. But after speaking with individuals who are engaged in healthcare policy, we learned that oftentimes lower-income individuals "churn" on and off government-provided health insurance for several different reasons, including income volatility due to periods of full employment and unemployment. If indeed a "churning" effect results in intermittent coverage among those on publicly-provided health insurance, which in turn leads to a greater predictive effect for filing bankruptcy, then at least based upon our data from 2008 to 2014, it appears that those who most need protection from overwhelming medical costs (i.e., lower-income Americans) are not receiving adequate health insurance protection even after the advent of the ACA.

As described above, our primary finding is that health insurance coverage has an impact on an individual's odds of filing for bankruptcy. After controlling for other potentially relevant factors, experiencing an interruption in health insurance coverage in the immediate two-year time frame significantly increases the likelihood of filing for bankruptcy. Our secondary finding is that the type of health insurance coverage one possesses leads to greater odds of intermittency, thus putting individuals at a higher risk of experiencing a bankruptcy filing. Perhaps contrary to common expectations, our study did not find that simply being without health insurance coverage leads to filing for bankruptcy. Our data does not provide any indication of why this would be the case, although other research has suggested that some individuals may be too poor to file for bankruptcy. This research suggests that individuals in the lowest income brackets may lack both the resources and the incentives to file for a discharge of debt because they cannot afford the bankruptcy court filing fees and associated attorneys' fees, and have few assets to protect from the reach of creditors. This does not mean that such individuals would not benefit

194 Pamela Farley Short et al., Churn, Churn, Churn: How Instability of Health Insurance Shapes America's Uninsured Problem, THE COMMONWEALTH FUND: TASK FORCE ON THE FUTURE OF HEALTH INSURANCE 5–6 (Nov. 2003), https://pdfs.semanticscholar.org/fc31/4dacbc40a76d79759083e49c56b64b0d1 7a0.pdf ("For low-income families, turnover in Medicaid contributed to instability in health insurance. Over half of people with low income who were repeatedly uninsured left and reentered Medicaid or SCHIP during the four years. This highlights the instability that occurs when factors such as changes in work hours or earnings, becoming pregnant, or moving into a different age group (e.g., turning 19 and thus becoming an adult) can eliminate eligibility for public coverage.").
196 See Stefania Albanesi & Jaromir Nosal, Insolvency After the 2005 Bankruptcy Reform 1, 3 (Nat'l Bureau of Econ. Research, Working Paper No. 24934, 2018), http://www.nber.org/papers/w24934 ("Since the fees for both chapters increased by similar magnitudes post-reform, this suggests that the up-front nature of the filing cost for Chapter 7 bankruptcy plays a crucial role in discouraging potential filers, supporting the interpretation that these individuals are liquidity constrained."). The bankruptcy court does have the ability to waive the
from health insurance coverage, but only that the lack of such coverage does not increase the likelihood of a bankruptcy filing. Unfortunately, given the constraints of our data, we can do no more than speculate as to whether this possibility explains our findings.

However, the strong relationship between an interruption in health insurance coverage and filing for bankruptcy in the NLSY79 data does suggest that losing health insurance or experiencing an interruption in coverage gives rise to serious financial vulnerability, which can necessitate a bankruptcy filing. When health insurance is interrupted, medical bills may arise that impose a financial shock on families, particularly if the interruption in coverage or the resulting uncovered medical bills were not expected.197

Prior to the passage of the ACA, an interruption in health insurance coverage could have also led to issues with future medical bills, as insurance companies frequently refused to cover pre-existing conditions for individuals who were not covered by health insurance during the onset of the condition.198 As a separate concern, individuals tend to avoid seeking medical care during periods in which they are not covered by insurance, often creating medical issues that are more difficult—and expensive—to deal with down the road.199 Particularly for populations already at risk for filing bankruptcy, typically the middle-class and below,200 the additional financial burden of uncovered medical expenses may be the financial shock that necessitates a bankruptcy filing.

That said, demonstrating causation between an interruption of health insurance and a future bankruptcy filing is difficult. It may be the case that an interruption in health insurance coverage simply reflects other life events that are themselves strongly correlated with filing for bankruptcy, such as unemployment, acute health problems, or divorce.201 Interruptions in health insurance coverage are strongly correlated with such common life events, as the bankruptcy law literature has convincingly demonstrated.202 Indeed, the correlation between an interruption in health insurance coverage and the presence of a health limitation may indicate that

197 See Lucie Kalousova & Sarah A. Burgard, Debt and Foregone Medical Care, 54 J. HEALTH & SOC. BEHAV. 204, 207 (2013) (detailing how medical debt is a special type of debt and is typically correlated with foregoing necessary medical care).
198 See James C. Capretta & Tom Miller, How to Cover Pre-existing Conditions, 4 NAT'L AFF. 110, 112 (2010), https://www.researchgate.net/publication/313445191 (noting insurance companies deny coverage for certain pre-existing conditions for a set period of time after a customer enrolls).
199 See Kalousova & Burgard, supra note 197, at 207 (noting medical debt is "correlated with foregoing physician visits, putting off medical care, and not filling prescription medications").
200 See SULLIVAN ET AL., supra note 8, at 27 ("The people who file for bankruptcy are a cross-section of society, and bankruptcy is a middle-class phenomenon.").
201 See Maroto, supra note 2, at 187 ("Research supports a direct connection between employment, family, and health circumstances and bankruptcy.").
202 See SULLIVAN ET AL., supra note 8, at 170 (recognizing circumstances, such as illness or an accident, for which "income drops suddenly, and insurance coverage may be lost").
individuals become too sick to work. As a consequence, these individuals lose both their job and their health insurance, thereby severely undercutting their ability to treat the illness that resulted in the job loss to begin with. When this happens, medical bills can quickly mount, thereby placing tremendous pressure on individuals and families to meet their regular and expected financial obligations. When indebtedness becomes insurmountable, resorting to the bankruptcy process is a common response. While we have included many of these factors as control variables in our models, it is impossible to know whether we have completely captured such dynamic processes. Despite the inherent difficulty in teasing out the causes of a particular bankruptcy filing, the NLSY79 data nevertheless demonstrates that interruptions in health insurance coverage are significant factors in predicting a future bankruptcy filing and, in turn, that type of health care coverage is predictive of an interruption in coverage. Specifically, individuals who experience an interruption in coverage for the time period between 2008 and 2012 were 60% to 110% more likely to file for bankruptcy protection than those who possessed full coverage. The diminished relationship between interruptions in health care coverage and bankruptcy filings in our 2014 results call for additional data collection.

V. DISCUSSION: POLICY IMPLICATIONS AND AVENUES OF FUTURE RESEARCH

This study makes a valuable contribution to our understanding of the association between health insurance coverage and bankruptcy filings, both expanding and improving on earlier efforts to test the associations between medical and financial difficulties. Our findings demonstrate that interruptions in health insurance coverage—whether they reflect a part of a larger constellation of life events that correlate to a bankruptcy filing or by themselves prompt an increase in financial distress—are predictive of a bankruptcy filing on an individual level. As Himmelstein and colleagues asserted, "[e]ven brief lapses in insurance coverage may be ruinous and should not be viewed as benign." Moreover, our data also suggest that the type of health insurance coverage one possesses may play a role in experiencing an interruption in coverage and, in turn, a future bankruptcy filing. These results strongly suggest that additional research is necessary to better identify and explain why interruption in health insurance and, indirectly, type of coverage, has such a strong predictive effect on a future bankruptcy filing. If lapse (and preventing its occurrence) and adequacy of health insurance coverage are indeed keys to preventing financial ruin on the individual level, then federal and state legislatures and healthcare policymakers should reevaluate national social policy regarding the provision of medical care. Bankruptcy can—and does—provide relief

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203 See Sarah O’Brien, For some consumers, bankruptcy is the solution to crushing debt, CNBC (last updated Apr. 11, 2018, 2:16 PM), https://www.cnbc.com/2018/04/05/bankruptcy-is-the-solution-to-crushing-debt-for-some-consumers.html (noting the probability of bankruptcy filings in the upcoming fiscal year as the weight of crushing debt is insufferable).

204 Illness and Injury as Contributors to Bankruptcy, supra note 5, at W5-71.
from prior debts and thereby serves as a type of insurer of last resort for medical
debts. But perhaps social policy should be geared towards a more preventative
function, such that bankruptcy as a consequence of medical debts is largely
unnecessary. The social utility of providing consumers with a fresh financial start
through discharge is of limited value because the bankruptcy process can only erase
pre-petition debt. As Melissa Jacoby has argued,

[1]o the extent that [a] debtor will continue to need expensive medical
care uncovered by insurance, the bills may quickly mount again,
particularly if work capacity is reduced. The Bankruptcy Code does
not permit [a] debtor to receive discharges in rapid succession, so she
cannot readily relieve subsequent medical-related debts.

In light of this, while we recognize the value of revising the Code to provide more
effective relief to those with medical debt (and indeed, many of the proposed
amendments should be expanded to all debtors), when it comes to preventing
financial ruin caused by medical costs the focus should instead be on the scope and
adequacy of health insurance in the United States, both private and public. Moreover,
if Congress remains serious about reducing bankruptcy filing rates in the United
States generally, then the answer might not be punishing individuals and families in
financial distress by making the process more expensive and less hospitable, but
rather by expanding and improving Medicaid and Medicare, and incentivizing
employers to provide much more robust health insurance plans to their employees.
According to statistics compiled by the United States Courts, approximately $52
billion of unsecured debt was discharged nationally during calendar year 2017. For
the sake of argument, even if 25% of the discharged debt was medically-related and
carded the bankruptcy filing, then perhaps $13 billion (one quarter of the overall
amount) could be spent improving health insurance policies or taking steps to reduce
medical costs for all.

We do not advocate for any particular solution to the issue of medical expenses
in the United States. Clearly, there are a myriad of policy and normative issues, the
discussion of which would be well beyond the scope of this Article. For example, as
Stephen J. Ware has aptly argued, deciding to move to universal, government-
sponsored health care for low-income families and the poor raises the normative

205 See Melissa B. Jacoby, Bankruptcy Reform and the Costs of Sickness: Exploring the Intersections, 71
Mo. L. REV. 903, 918 (2006) ("They also now know that bankruptcy is serving more of an ad hoc insurance
function regarding medical-related financial distress than they may have realized.").
206 See In re Manning, 505 B.R. 383, 386 (Bankr. D.N.H. 2014) (stating "a discharge in bankruptcy generally
relieves a debtor from all prepetition debt... ").
207 The Debtor-Patient, supra note 7, at 462-63 (noting concerns associated with chronic health problems
for bankruptcy filers).
208 See ADMIN. OFFICE OF U.S. CT., BAPCPA Table 1A (2017), http://www.uscourts.gov/statistics/table/bap
cpa-1a/bankruptcy-abuse-prevention-and-consumer-protection-act-bapcpa/2017/12/31 (showing assets and
liabilities reported by individual debtors in chapter 7 cases with primarily consumer debts commenced during
the 12-month period ending December 31, 2017, as required by 28 U.S.C. § 159(c) (2012)).
questions of "who is poor enough to receive a subsidy and how much of a subsidy will be provided." Similarly, there are real questions regarding how much health insurance the country can and should provide under such a universal plan without imposing crippling taxation on the population as a whole. Privately purchased insurance is likely to vary widely, as it does currently, on what is covered and the extent to which individuals must share in the costs of health services. The data in this study give no indication as to how much medical insurance coverage is enough to prevent financial ruin, and it is imminently possible that the amount is highly situation specific. Rather than attempt to solve the puzzle here, we present our findings with the hope that future studies can continue to shed light on the macrosocial connection between health insurance and consumer bankruptcy in the United States.

Avenues for future research abound. For example, future researchers can revisit the NLSY79 in subsequent years (e.g., 2016 and 2018 when data become available) to see if the patterns regarding lapse and a future bankruptcy remain statistically significant. Future researchers might also assemble aggregate data from various sources (e.g., United States Courts' records, state and federal health interview surveys) to determine whether the relationship between health insurance lapse and consumer bankruptcy remains statistically significant. In addition, future researchers could develop a nationally representative data set through surveys that specifically includes both bankruptcy filers and non-filers so as to see if patterns between health insurance coverage and personal bankruptcy persist. Finally, future researchers should undertake qualitative research studies in order to obtain rich, in-depth information on how individuals and families with varying socio-demographic characteristics deal with medical debt in light of health insurance coverage, why people lapse or "churn" with respect to their health insurance coverage, and whether uncovered medical expenses are indeed a processual pathway leading to financial indebtedness.

CONCLUSION

Approximately thirty years ago, Teresa Sullivan, Elizabeth Warren and Jay Lawrence Westbrook noted that "[m]edical debt has had a particularly ambiguous and erratic impact on the making of consumer bankruptcy policy." This sentiment

210 See id. at 1261 (discussing whether "financial distress" can be defined to determine who is eligible for subsidized health care).
211 See Managing Medical Bills, supra note 139, at 244 ("For many reasons, today's health care finance system expressly imposes cost-sharing and direct patient liability on patients who are covered by health insurance."); see also Robert J. Landry, III & Amy K. Yarbrough, Global Lessons from Consumer Bankruptcy and Healthcare Reforms in the United States: A Struggling Social Safety Net, 16 MICH. ST. J. INT'L L. 343, 359 (2007) (illustrating who typically pays each portion for employer provided health insurance).
212 AS WE FORGIVE OUR DEBTORS, supra note 46, at 166.
still rings true today. Nonetheless, through the findings of this empirical study, we argue that the more appropriate line of inquiry is the connection between possessing continuous health insurance coverage (or not) and the need to file for consumer bankruptcy. Accordingly, we urge lawmakers and policymakers to explore this connection in greater depth moving forward.


<table>
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<th></th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
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<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
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<td></td>
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<td>0.735 (0.441)</td>
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<td>0.140 (0.347)</td>
<td>0.150 (0.357)</td>
<td>0.154 (0.361)</td>
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<td></td>
<td></td>
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<td>0.191 (0.393)</td>
<td>0.189 (0.391)</td>
<td>0.116 (0.320)</td>
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<td>0.656 (0.475)</td>
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<td>0.627 (0.484)</td>
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<td>0.035 (0.185)</td>
<td>0.038 (0.191)</td>
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<td>0.018 (0.132)</td>
<td>0.013 (0.114)</td>
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<td>0.521 (0.500)</td>
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<td>0.526 (0.499)</td>
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<td>0.166 (0.373)</td>
<td>0.162 (0.368)</td>
<td>0.158 (0.365)</td>
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<tr>
<td>Separated</td>
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<td>0.053 (0.223)</td>
<td>0.052 (0.222)</td>
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<td>0.221 (0.415)</td>
<td>0.224 (0.417)</td>
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<td>0.023 (0.150)</td>
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<td>0.188 (0.391)</td>
<td>0.191 (0.393)</td>
<td>0.187 (0.390)</td>
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<td>0.309 (0.462)</td>
<td>0.310 (0.462)</td>
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<td>0.864 (0.343)</td>
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<td>Employment/Income</td>
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<td>Odd's Ratio</td>
<td>Standard Error</td>
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<td>-------------</td>
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<td>(0.395)</td>
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<td>(0.316)</td>
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<td>2.303</td>
<td>(0.638)</td>
<td>*</td>
<td>1.951</td>
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<td>(0.196)</td>
<td>0.691</td>
<td>(0.179)</td>
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<td>(1.113)</td>
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<td>(0.179)</td>
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<td>(0.059)</td>
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<td>(0.235)</td>
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<td>(0.240)</td>
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<td>0.724</td>
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<td>(0.225)</td>
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<td>(0.630)</td>
<td>1.329</td>
<td>(0.621)</td>
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<td>Employment/Income</td>
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<td></td>
<td></td>
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<tr>
<td>% of Weeks Worked</td>
<td>2.532</td>
<td>(1.018)</td>
<td>*</td>
<td>3.522</td>
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<tr>
<td>Household Income ($1k)</td>
<td>0.986</td>
<td>(0.004)</td>
<td>***</td>
<td>0.987</td>
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<td>Personal Debt ($1k)</td>
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<td>(0.003)</td>
<td>1.005</td>
<td>(0.003)</td>
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<td>Health Limitations</td>
<td>1.830</td>
<td>(0.649)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
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<td>(0.001)</td>
<td>0.001</td>
<td>(0.004)</td>
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<td>R Squared</td>
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<td>Number of Observations</td>
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* p<0.05, ** p<0.01, *** p<0.001
### Table 3: Logistic Regression Models Predicting Bankruptcy by Respondent Characteristics, 2010

<table>
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<th>NLSY 2010</th>
<th>Model 1</th>
<th>Model 2</th>
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<tr>
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<td>Odds Ratio</td>
<td>Standard Error</td>
<td>Odds Ratio</td>
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<tr>
<td>Health Coverage (vs. Full)</td>
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<td></td>
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<td>None</td>
<td>1.397 (0.434)</td>
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<td>1.077 (0.356)</td>
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<tr>
<td>Intermittent</td>
<td>2.615 (0.621)</td>
<td>*</td>
<td>2.115 (0.537)</td>
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<td>Demographic Characteristics</td>
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<td>0.972 (0.205)</td>
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<td>0.711 (0.321)</td>
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<td></td>
<td>0.877 (0.541)</td>
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<td></td>
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<td>1.531 (0.614)</td>
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<td>Employment/Income</td>
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<td></td>
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</tr>
<tr>
<td>% of Weeks Worked</td>
<td>2.079 (0.605)</td>
<td>**</td>
<td>2.313 (0.744)</td>
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<tr>
<td>Household Income ($1k)</td>
<td>0.986 (0.003)</td>
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<td>0.986 (0.003)</td>
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<td>Personal Debt ($1k)</td>
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<td>1.001 (0.002)</td>
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<td>1.259 (0.366)</td>
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<tr>
<td>Intercept</td>
<td>0.011 (0.001)</td>
<td></td>
<td>0.012 (0.027)</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.015</td>
<td></td>
<td>0.045</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>6896</td>
<td></td>
<td>6896</td>
</tr>
</tbody>
</table>

* *p<0.05, **p<.01, ***p<.001
### Table 4: Logistic Regression Models Predicting Bankruptcy by Respondent Characteristics, 2012

<table>
<thead>
<tr>
<th>NLSY 2012</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
<td>Standard Error</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Health Coverage (vs. Full)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.849 (0.276)</td>
<td></td>
<td>0.728 (0.250)</td>
</tr>
<tr>
<td>Intermittent</td>
<td>2.050 (0.445)</td>
<td>***</td>
<td>1.878 (0.434)</td>
</tr>
<tr>
<td>Demographic Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td>1.321 (0.259)</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.267 (0.110)</td>
<td>***</td>
<td>0.263 (0.108)</td>
</tr>
<tr>
<td>Separated</td>
<td>0.374 (0.199)</td>
<td></td>
<td>0.372 (0.197)</td>
</tr>
<tr>
<td>Divorced</td>
<td>0.816 (0.188)</td>
<td></td>
<td>0.814 (0.188)</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.154 (0.563)</td>
<td></td>
<td>1.144 (0.559)</td>
</tr>
<tr>
<td>Age</td>
<td>0.958 (0.041)</td>
<td></td>
<td>0.954 (0.041)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.167 (0.296)</td>
<td></td>
<td>1.188 (0.302)</td>
</tr>
<tr>
<td>Black</td>
<td>1.358 (0.301)</td>
<td></td>
<td>1.368 (0.304)</td>
</tr>
<tr>
<td>Has Child</td>
<td>1.117 (0.393)</td>
<td></td>
<td>1.105 (0.388)</td>
</tr>
<tr>
<td>Employment/Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Weeks Worked</td>
<td>3.468 (1.023)</td>
<td>***</td>
<td>4.627 (1.493)</td>
</tr>
<tr>
<td>Household Income ($1k)</td>
<td>0.990 (0.003)</td>
<td>***</td>
<td>0.991 (0.003)</td>
</tr>
<tr>
<td>Personal Debt ($1k)</td>
<td>1.004 (0.002)</td>
<td>*</td>
<td>1.004 (0.002)</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>1.761 (0.440)</td>
<td></td>
<td>1.761 (0.440)</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.008 (0.001)</td>
<td></td>
<td>0.078 (0.177)</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.010</td>
<td></td>
<td>0.056</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>6584</td>
<td></td>
<td>6584</td>
</tr>
</tbody>
</table>

* * p<0.05, ** p<.01, *** p<.001
Table 5: Logistic Regression Models Predicting Bankruptcy by Respondent Characteristics, 2014

<table>
<thead>
<tr>
<th>NLSY 2014 Characteristic</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
<td>Standard Error</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Health Coverage (vs. Full)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.595 (0.308)</td>
<td>0.440 (0.233)</td>
<td>0.457 (0.242)</td>
</tr>
<tr>
<td>Intermittent</td>
<td>1.464 (0.396) **</td>
<td>1.105 (0.313)</td>
<td>1.104 (0.313)</td>
</tr>
<tr>
<td>Demographic Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.945 (0.214)</td>
<td>0.952 (0.215)</td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>0.801 (0.328)</td>
<td>0.781 (0.320)</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>0.589 (0.365)</td>
<td>0.574 (0.356)</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>1.382 (0.370)</td>
<td>1.364 (0.366)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>1.092 (0.677)</td>
<td>1.061 (0.659)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.007 (0.051)</td>
<td>1.004 (0.050)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.953 (0.298)</td>
<td>0.974 (0.305)</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.172 (0.306)</td>
<td>1.177 (0.308)</td>
<td></td>
</tr>
<tr>
<td>Has Child</td>
<td>1.992 (0.908)</td>
<td>1.971 (0.897)</td>
<td></td>
</tr>
<tr>
<td>Employment/Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Weeks Worked</td>
<td>2.163 (0.666) *</td>
<td>2.836 (1.027) **</td>
<td></td>
</tr>
<tr>
<td>Household Income ($1k)</td>
<td>0.992 (0.003) **</td>
<td>0.992 (0.003) **</td>
<td></td>
</tr>
<tr>
<td>Personal Debt ($1k)</td>
<td>0.995 (0.007)</td>
<td>0.995 (0.007)</td>
<td></td>
</tr>
<tr>
<td>Health Limitations</td>
<td>1.561 (0.482)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.008 (0.002)</td>
<td>0.004 (0.012)</td>
<td>0.004 (0.010)</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.004</td>
<td>0.033</td>
<td>0.035</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>6280</td>
<td>6280</td>
<td>6280</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<.01, *** p<.001
<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Female</th>
<th>Never Married</th>
<th>Separated</th>
<th>Divorced</th>
<th>Widowed</th>
<th>Age</th>
<th>Hispanic</th>
<th>Black</th>
<th>Has Child</th>
<th>Employment/Income</th>
<th>% of Weeks Worked</th>
<th>Household Income (K$)</th>
<th>Personal Debt (K$)</th>
<th>Health Limitations</th>
<th>Intercept</th>
<th>R Squared</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 Odds Ratio Standard Error</td>
<td>0.728 (0.052)</td>
<td>1.271 (0.142)</td>
<td>1.477 (0.213)</td>
<td>1.423 (0.133)</td>
<td>1.075 (0.260)</td>
<td>0.988 (0.061)</td>
<td>1.545 (0.144)</td>
<td>1.262 (0.107)</td>
<td>1.210 (0.134)</td>
<td>0.708 (0.079)</td>
<td>0.979 (0.001)</td>
<td>1.004 (0.002)</td>
<td>0.688 (0.075)</td>
<td>1.591 (0.822)</td>
<td>0.941</td>
<td>0.935</td>
<td>6230</td>
</tr>
<tr>
<td>2010 Odds Ratio Standard Error</td>
<td>0.776 (0.059)</td>
<td>1.236 (0.148)</td>
<td>1.279 (0.198)</td>
<td>1.259 (0.124)</td>
<td>1.331 (0.301)</td>
<td>0.969 (0.016)</td>
<td>1.439 (0.145)</td>
<td>1.075 (0.098)</td>
<td>1.356 (0.166)</td>
<td>0.542 (0.061)</td>
<td>0.977 (0.001)</td>
<td>1.001 (0.001)</td>
<td>0.382 (0.064)</td>
<td>2.916 (2.433)</td>
<td>0.151</td>
<td>6035</td>
<td>3525</td>
</tr>
<tr>
<td>2012 Odds Ratio Standard Error</td>
<td>0.864 (0.065)</td>
<td>1.488 (0.176)</td>
<td>1.599 (0.247)</td>
<td>1.383 (0.134)</td>
<td>1.265 (0.292)</td>
<td>0.979 (0.016)</td>
<td>1.337 (0.136)</td>
<td>1.157 (0.103)</td>
<td>1.180 (0.139)</td>
<td>0.795 (0.087)</td>
<td>0.981 (0.001)</td>
<td>1.002 (0.001)</td>
<td>0.752 (0.078)</td>
<td>1.293 (1.136)</td>
<td>0.129</td>
<td>3525</td>
<td>5955</td>
</tr>
<tr>
<td>2014 Odds Ratio Standard Error</td>
<td>0.883 (0.068)</td>
<td>1.286 (0.156)</td>
<td>1.874 (0.286)</td>
<td>1.554 (0.148)</td>
<td>1.307 (0.260)</td>
<td>0.960 (0.016)</td>
<td>1.231 (0.125)</td>
<td>1.093 (0.098)</td>
<td>1.140 (0.135)</td>
<td>1.112 (0.126)</td>
<td>0.977 (0.001)</td>
<td>0.998 (0.002)</td>
<td>0.693 (0.074)</td>
<td>3.450 (3.213)</td>
<td>0.141</td>
<td>5955</td>
<td>5955</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01, *** p<0.001
### Table 7: Logistic Regression Models Predicting Intermittent Coverage by Respondent Characteristics and Coverage Type, 2010-2014

<table>
<thead>
<tr>
<th>Coverage Provider (vs. job)</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privately Purchased</td>
<td>2.068 (0.349)</td>
<td>*** 1.811 (0.340)</td>
<td>** 1.897 (0.401)</td>
</tr>
<tr>
<td>Government Assistance</td>
<td>0.700 (0.101)</td>
<td>* 0.777 (0.110)</td>
<td>1.419 (0.246) *</td>
</tr>
</tbody>
</table>

#### Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.801 (0.072)</td>
<td>* 0.969 (0.090)</td>
<td>0.915 (0.103)</td>
</tr>
<tr>
<td>Never Married</td>
<td>1.109 (0.159)</td>
<td>1.695 (0.246)</td>
<td>*** 1.194 (0.215)</td>
</tr>
<tr>
<td>Separated</td>
<td>1.255 (0.225)</td>
<td>1.837 (0.338)</td>
<td>*** 1.849 (0.403) **</td>
</tr>
<tr>
<td>Divorced</td>
<td>1.161 (0.134)</td>
<td>1.498 (0.180)</td>
<td>*** 1.466 (0.208) **</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.117 (0.306)</td>
<td>1.180 (0.328)</td>
<td>1.256 (0.385)</td>
</tr>
<tr>
<td>Age</td>
<td>0.969 (0.019)</td>
<td>0.979 (0.020)</td>
<td>0.959 (0.024)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.524 (0.180)</td>
<td>*** 1.475 (0.184)</td>
<td>** 1.121 (0.173)</td>
</tr>
<tr>
<td>Black</td>
<td>1.128 (0.122)</td>
<td>1.333 (0.146)</td>
<td>** 1.223 (0.161)</td>
</tr>
<tr>
<td>Has Child</td>
<td>1.405 (0.209)</td>
<td>* 1.186 (0.170)</td>
<td>1.004 (0.171)</td>
</tr>
</tbody>
</table>

#### Employment/Income

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Weeks Worked</td>
<td>0.363 (0.048)</td>
<td>*** 0.715 (0.101)</td>
<td>* 1.372 (0.252)</td>
</tr>
<tr>
<td>Household Income ($1k)</td>
<td>0.978 (0.002)</td>
<td>*** 0.983 (0.002)</td>
<td>*** 0.981 (0.002) ***</td>
</tr>
<tr>
<td>Personal Debt ($1k)</td>
<td>1.000 (0.001)</td>
<td>1.001 (0.002)</td>
<td>1.001 (0.002)</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>0.487 (0.067)</td>
<td>*** 0.808 (0.107)</td>
<td>0.762 (0.127)</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.520 (2.503)</td>
<td>0.637 (0.686)</td>
<td>1.080 (1.486)</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.149</td>
<td>0.118</td>
<td>0.107</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<.01, *** p<.001

Note: Coverage provider is based on the coverage reported at the time of the previous interview. Those with no coverage at the time of the previous interview were omitted to focus on differences between types of providers.