Financial Distress and Divorce: Evidence from Bankruptcy Exemptions

Katie Burns and Christiana Stoddard

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Montana State University
Department of Agricultural Economics and Economics
Bozeman, MT 59717
Office Phone: (406) 994-5634
cstoddard@montana.edu

Abstract

Bankruptcy allows families a means to ameliorate financial distress, and provisions that allow higher levels of asset exemptions from liquidation can afford greater protection. How does this affect divorce rates? We propose three potential channels: the direct effect of protected assets, the substitution for informal spousal insurance, and the effects of bankruptcy code on credit markets. Using individual level data from the Panel Study of Income Dynamics, we find that the increase in real property exemptions experienced over the past 30 years is associated with a 25 percent increase in the predicted probability of divorce. Both homeowners and non-homeowners are similarly affected, suggesting that credit market changes have important implications for family dissolution.

I. Introduction

Financial distress is frequently cited in the popular press as one of the leading causes of divorce in the United States. Most of the previous literature on financial distress and divorce has focused on social insurance or levels of income and wealth as contributors to family dissolution. This paper examines changes in bankruptcy law: how do regulations that allow individuals to exempt more property affect divorce decisions? In particular, do these laws affect families through their influence on the relative value of insurance, through higher levels of protected assets, or through credit markets?

As is well known, over the past 20 years, the divorce rate in the United States has fallen steadily. Over the same period, the number of yearly personal bankruptcy filings more than tripled (Figure 1). In 2010, over 1.4 million individuals filed for personal bankruptcy in the United States. Nearly three quarters of these personal bankruptcies were filed under Chapter 7, which liquidates an individual's assets above an exempt amount in order to repay debts to creditors. The level of exempt (or protected) assets in bankruptcy is defined at the state level. In most states, these exemptions include a homestead exemption, which is the largest component of total exemptions.

Exemption levels vary significantly across states and over time. Figure 2 depicts the state level variation. For instance, Florida has an unlimited homestead exemption, allowing individuals to keep all of the equity in the home, while Maryland does not have a homestead exemption at all. Some states allow joint debtors to double the exemptions levels, while others do not. Furthermore, these exemptions have tended to rise over time, as shown in Figure 3. For states with defined exemptions, the average homestead

exemption for an individual more than tripled from $20,534 in 1991 to $62,701 in 2007.[1]
The average personal property exemption increased from $6,898 in 1991 to $9,899 in
2007. This variation in exemptions across states and over time provides an opportunity
to use a natural experiment to determine how financial policies affect the divorce
decision.

Previous work on bankruptcy has primarily studied the effect of exemptions on
the availability of credit, entrepreneurial activity, and the number of bankruptcy filings.
The literature on the effect of exemptions on bankruptcy filings is quite mixed. Agarwal
Chomsisengphet, Liu and Mielnicki (2005) find that a $10,000 increase in the homestead
exemption leads to an 8 percent increase in small business bankruptcy rates, but Lefgren
and McIntyre (2009) and Domowitz and Eovaldi (1999) find no effect at all on personal
bankruptcy rates or filings. If exemptions do not affect bankruptcy filings, it is difficult
to believe that they would influence divorce decisions.

However, bankruptcy provisions do appear to have more sizable effects on credit
markets. Theory suggests that lenders in high exemption states should extend less credit
than lenders in low exemption states (Lin and White 2001). If credit were held constant,
debtors in high exemption states would default more frequently because high exemptions
increase the benefit of bankruptcy. Additionally, assets in high exemption states are less
available in for liquidation to repay creditors. This further suggests that credit will be
more difficult to obtain in high exemption states.

 A number of papers have tested this prediction. Agarwal, Lin and Meilnicki
(2003) find higher credit card delinquency in states with higher property exemptions.

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[1] Calculations include states with defined homestead exemptions only.

Gropp, Scholz, and White (1997) find that exemptions dramatically affect access to credit, although Berkowitz and Hynes (2002) found more modest effects. Chomsisengphet and Elul (2005) argue that this is because exemptions reduce individuals' credit bureau scores in high exemption states, and controlling for credit score obscures the impact of exemptions. They find that exemptions reduce credit scores and the likelihood of having a mortgage application accepted.

A considerable amount of research examines economic determinants of divorce, finding that earnings, debts, tax policy, divorce costs, property ownership, and income shocks all influence the propensity to marry or divorce.[2] However, there is little work examining the effect of bankruptcy law on families. One recent exception is Traczynski (2010) who finds that bankruptcy exemptions have had large effects on the divorce rate. His results, based on state averages, imply that increases in exemptions from 1989 through 2005 caused 200,000 additional divorces. Traczynski interprets this as the effect of bankruptcy provisions acting as a form of insurance that can substitute for spousal contributions when facing economic setbacks. However, this sizable effect seems inconsistent with the literature on bankruptcy, which has found negligible effects of bankruptcy exemptions on bankruptcy filings.

This paper utilizes individual level data from the Panel Study of Income Dynamics (PSID) to control for demographic and marriage matching characteristics. These individual level data allow for a triple-difference estimation, separately identifying

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[2] For example, Weiss and Willis (1997) find property ownership, children, marriage specific capital, and legal costs reduce the probability of divorce; Charles, Kofi and Stephens (2004) and Smith (1990) find large effects of husbands' disability or unemployment on divorce; Wittington and Alm (1999), Alm and Wittington (1997) find that the marriage tax penalty increases the probability of divorce; Brien, Dickert-Conlin, and Weaver (2004), Blackburn (2003) and Hoffman (1995) show that Social Security and other welfare policies influence family formation and dissolution.

the effects of bankruptcy provision on individuals who are homeowners and non-homeowners. The panel data are key because they allow for an identification of homeowner status prior to a divorce, as divorce itself may change homeownership.

This separation is key for understanding the specific mechanisms by which financial policy can affect social outcomes, and in particular, for highlighting the role of credit in marital decisions. The theoretical framework outlines three possible mechanisms through which financial laws may affect divorce rates. First, when exemption levels are large, filing debtors have greater assets post-bankruptcy. Higher assets may lead to less financial distress, reducing marital tension stemming from financial shocks and possibly lowering divorce rates. However, insurance from the bankruptcy code is only one mechanism for insuring against financial shocks: financial support from a marriage partner is another mechanism. In this case, greater formal insurance lowers the relative benefit of the informal insurance provided by marriage, potentially raising divorce rates.

Finally, bankruptcy law affects access to credit—couples who are not bankruptcy filers may still be affected by bankruptcy provisions if these provisions limit their ability to borrow. Reduced ability to acquire joint assets may reduce gains from marriage, and the reduction in joint assets may also lower the transactions costs of divorce. As a result, while the theory is ambiguous about whether bankruptcy law is predicted to raise or lower divorce rates on net, the mechanisms are likely different for individuals who have greater protected assets, like homeowners, and individuals with few protected assets, like non-homeowners.

Accordingly, three empirical models are estimated. The first model estimates the effect of an increase in the total bankruptcy exemption for all individuals in a state. The second model separates the exemptions into the homestead exemption and personal property exemptions and estimates the relative magnitudes of their effects. The third model estimates the effect of the homestead exemption for homeowners relative to non-homeowners. By separating homeowners and non-homeowners, these specifications distinguish the direct financial benefits of bankruptcy and the effect of bankruptcy law on access to credit. Because homestead exemptions affect non-homeowners only through the effects on credit markets, the results shed light on whether limited access to credit can contribute to divorce decisions.

II. Theoretical Framework

Bankruptcy exemptions affect the costs and benefits of marriage and divorce through multiple channels. The body of economic literature argues that a couple will choose to divorce if the realized combined utility from marriage is less than the expected combined utility from being single (Becker 1973, Becker, Landes, & Michael, 1977, Stevenson and Wolfers, 2007, Spivey, 2010). The sources of the gains in marriage come from three sources: productive complementarities (specialization to increase household output), consumptive complementarities (joint consumption of public goods or shared consumption raising individual utility), and risk pooling. For an example of the risk pooling benefits, if one spouse becomes ill or unemployed, the other spouse may provide financial, physical, and emotional support, while a single individual may be forced to take on additional debt to finance the spell of unemployment or the illness. Bankruptcy

exemptions will affect the utility gains to marriage exemptions in several ways: through a

direct financial effect on assets, through the relative benefits of risk pooling, and through

access to credit.

Exemptions change the benefit of filing for bankruptcy, thereby changing a

couple's ability to discharge their debt. This direct effect on assets can alter the

productive and consumptive benefits of marriage. The financial benefit (FB) from

bankruptcy is defined as:[3]

FB = Household Unsecured Debt - max [Household Wealth – State Exemption, 0]

Household Wealth = Equity in Secured Assets + All Other Assets – Secured Debt

Household unsecured debt is the amount of unsecured debt (like medical or credit card

debt) that will be discharged if bankruptcy is filed.[4] The financial benefit from

bankruptcy must be non-negative for a household to file.

However, bankruptcy exemptions may also raise the probability of divorce

through altering the relative gains from marriage. Bankruptcy can be thought of as a type

of consumption insurance. Marriage also affords couples a type of consumption

insurance through pooling the risk of negative financial shocks. Suppose an individual

anticipates a potential negative financial shock, which can be mitigated either by relying

on a spouse's earnings or by discharging debt through bankruptcy. In a state with a high

level of protected assets, the individual has less to lose when choosing to a divorce rather

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[3] See Fay, Hurst and White (2002) for more details on the financial benefit of filing Chapter 7 bankruptcy.
[4] Unsecured debts are not tied to any asset, and include most credit card debt, bills for medical care,
signature loans, and debts for other types of services. -
http://www.ftc.gov/bcp/edu/pubs/consumer/credit/cre19.shtm

than to rely on a spouse for consumption smoothing. As a result, the *relative* risk pooling gains from marriage are reduced when a state increases the exemption limits, potentially raising divorce rates.

Finally, bankruptcy exemptions reduce the availability of credit in a state. This may change both the costs of divorce and the consumption and production benefits of the marriage. For example, a couple living in a high exemption state may anticipate not being able to purchase a home due to restricted access to credit. Non-homeownership may alter the current and expected future production and consumption complementarities. Availability of credit may also influence the divorce decision if credit allows couples to purchase more large jointly held assets that are costly to divide in the event of a divorce.

The net effect of bankruptcy exemptions on the probability of divorce is therefore ambiguous. The increased financial benefit of filing for bankruptcy may reduce the stress level of a leveraged family or lead to larger productive and consumptive complementarities because of a greater level of protected assets, thereby lowering the probability of divorce. Alternatively, the effect of an increase in exemptions could act as consumption insurance, reducing the relative risk pooling gains to marriage and increasing the probability of divorce. High exemptions also limit credit, potentially changing costs of divorce and the consumption and productive complementarities. However, it is clear that the relative benefits and costs will be different for individuals who own secured debt like homes (and who experience all three effects) than for individuals without secured debt, like non-homeowners (who only experience the third credit effect). Our empirical strategy (described below) thus utilizs differences in

outcomes for homeowners and non-homeowners to identify the impacts of bankruptcy laws on divorce probabilities.

III. Data

The data used for this study come from the Panel Study of Income Dynamics (PSID). This study uses the years 1991 through 2007. It includes married men ages 20-64.[5] Individuals are selected into the sample if they were married as of 1991 or if the marriage began between 1991 and 2007. Individuals enter the sample the year they are married and exit the sample after divorce. An individual could be included for more than one spell of marriage in the time period. Individuals were dropped from the sample if their marriage ended due to the death of a spouse or if there was no information about the year they married or about their state of residence. All values are adjusted to 2007 dollars using the Consumer Price Index (CPI). Demographic and match information is applied from time t to examine the divorce decision in time $t+1$. Summary statistics for PSID variables are displayed in Table (1).

Bankruptcy law provisions come from Elias, Renauer, and Leondard (2007), with summary statistics reported in Table (2). Consistent with previous literature, all quantifiable exemptions are included (Gropp, Schultz and White 1997; Berkowitz and Hynes, 1999),[6] and states with unlimited homestead exemptions are assigned a value of

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[5] Men were chosen in order to avoid double counting in the sample. In some cases, both spouses remain in the sample after a divorce and in others a spouse will drop out of the sample. The age restriction is used because bankruptcy laws differ for older individuals. Elderly individuals are generally permitted to maintain a high level of assets upon filing for bankruptcy. In some cases, the homestead exemption is double for elderly individuals.

[6] This includes tools of trade, cash and bank deposits, motor vehicle, homestead, and a wild card. Not all exemptions are quantifiable across states. For instance, in some states household goods are specifically listed while in others a specific dollar value is specified.

$500,000 for the homestead exemption.[7,8] Homestead exemptions are doubled for married couples in states with this provision.[9] The personal property exemptions remain at the values specified for the individual level because most state laws do not specifically address personal property exemptions with respect to joint owners. Some states allow individuals to choose either the state or the federal exemption level; the data include the federal exemption when this was a state option and the total federal exemption is higher than the total state exemptions.

States also specify whether or not alimony and child support are exempt in bankruptcy. In exempt states, an individual would continue to receive the payments after filing bankruptcy, while in non-exempt states these alimony and child support payments would be used along with income to repay creditors. The data also include an indicator variable for whether or not child support and alimony are exempt.

This paper and others that use exemptions as an independent variable rely on the assumption that exemptions are exogenously determined. Some recent work has been done to determine whether or not the exemptions are endogenous. Elul and Subramanian (2002) find that migration decisions are partially determined by bankruptcy exemptions. Their results suggest that individuals move to high exemption states before they file so that more of their assets are protected under the exemption limits of the state.[10] There is no research indicating that state level exemptions change in response to the divorce rate.

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[7] Restrictions placed on lot size in states with unlimited homestead exemptions were ignored.
[8] This is for consistency with other literature; Traczynski (2010) and Berkowitz and Hynes (1999) also use a homestead exemption of $500,000 for states with unlimited homestead exemptions.
[9] If a state did not specify that a joint owner could not double their exemption, the exemption was assumed to double. Elias, Renauer, and Leondard (2007) advise individuals using their information to assume that exemptions double unless stated otherwise.
[10] The BAPCPA of 2005 attempted to resolve forum shopping by placing restrictions on relocating before filing bankruptcy.

IV. Empirical Specifications and Results

The analysis exploits the state and year variation of bankruptcy exemptions to identify their causal effect on divorce. During the time period of interest, most states had at least one increase or decrease in all of their statutory exemption limits. Exemption limits also change because they are defined in the statute in nominal terms and the analysis includes the real (2007) value of the exemptions.

The first model estimates the effect of the total exemption on the probability of divorce for all individuals. The second model separates the total exemption into homestead and personal property exemptions to identify the separate effect of the two types of exemptions. The third model separates homeowners from non-homeowners and estimates the relative effect of the homestead exemption on homeowners and non-homeowners. This specification allows for a test of whether the effects are due to changes in direct financial benefits of bankruptcy (affecting only homeowners) or due to changes in credit markets (affecting all married couples).

The most rudimentary empirical specification is

(1) $Divorced_{ist+1} = \beta_0 + \beta_1 Total\ Exemption_{st} + \beta_2\ Total\ Exemption_{st}^2 + \beta_2 X + u_{ist}$

In some specifications, the error term is estimated using state and year fixed effects

(2) $\qquad\qquad\qquad u_{ist} = v_s + w_t + e_{ist}.$

However, divorce rates and exemptions have strongly trended. As a result, some of the estimated effect may be picked up by the trend. Because of this, some specifications also include state specific quadratic trends:

(3) $\qquad\qquad\qquad u_{ist} = v_s + \gamma_{1s}t + + \gamma_{2s}t^2 + e_{ist}.$

The dependent variable is whether or not an individual is divorced in the next time period. *Total Exemption* is a sum of the homestead, motor vehicle, tools of trade, cash and bank deposits, and wild card exemptions, all measured in hundreds of thousands of dollars. The *X* matrix contains individual demographic variables: husband age, years of education, dummy variables that indicate race and homeownership, real wages for the husband and wife, number of children under 18, and length of marriage. Additionally, the regressions include marital match variables including the relative educational attainment by husband and wife, age at marriage for husband and wife, second (or later) marriage, and whether or not the couple is of the same race. The exemption changes are at the state level; accordingly, in all specifications the standard errors are clustered by state.

The second set of estimations modifies this approach in two ways. First, total exemptions are disaggregated into homestead and personal property exemptions. Variation in homestead exemptions is considerably larger than the variation of personal property exemptions, which suggests that the homestead exemption may have a more pronounced effect on the probability of divorce. Furthermore, the costs of dividing housing property in a divorce and the benefits of shared home ownership may be different than those of personal property. These regressions also contain dummy variables indicating whether or not child support and alimony are exempt in the state of residence.

The final model examines the effect of the homestead exemption on homeowners and non-homeowners. A difference-in-difference-in-difference estimator is used to

separate the two groups. In this specification, non-homeowners will only be affected by

the homestead exemption through its effect on their access to credit. This specification is

(4) $Divorced_{ist+1} = \alpha_0 + \alpha_1 Homestead\ Exemption_{st} + \alpha_2 Own\ Home +$

$\alpha_3 Own\ Home_{st}*Homestead\ Exemption_{st} + \alpha_4\ Homestead\ Exemption_{st}^2 +$

$\alpha_5 Own\ Home_{st}*Homestead\ Exemption_{st}^2 + \alpha_6 Personal\ Property\ Exemption_{st} +$

$\alpha_7 Personal\ Property\ Exemption_{st}^2 + \alpha_8 X_{ist} + u_{ist}$

The error term again includes state and year fixed effects or state fixed effects and state

specific time trends as in equations (2) and (3).

The combination of the coefficients represented by α_1 and α_4 estimate the

predicted probability of divorce for non-homeowner men living in states with an increase

in the homestead exemption. Theory predicts that non-homeowners will have a positive

effect of exemptions on divorce probabilities if reduced access to credit raises divorce

rates. The coefficients on the interaction terms represented by α_3 and α_5 will show the

estimated effect of an increase in the homestead exemption on the probability of divorce

for homeowners relative to non-homeowners.

V. Results

Table 3 presents the baseline specification. The dependent variable in Table 3 is a

dummy variable indicating whether a man is divorced in the next time period.

The primary coefficients of interest are on *Total Exemption* and *Total

Exemption*[11] While the estimates are significant with no additional covariates,

[11] All results include the full sample where an unlimited homestead exemption is defined at $500,000, but the results are similar if states with unlimited exemptions are either dropped or are redefined to $1,000,000.

reflecting the concurrent decline in divorce and rise in exemptions, neither is statistically significant once state and year fixed effects or time trends are included.

Table 4 displays estimates of the effect of the homestead and personal property exemptions separately on the probability of divorce. Estimates with time fixed effects are displayed in Columns (1) and (2) and estimates with state specific time trends are reported in Columns (3) and (4).

Results are sensitive to whether time fixed effects or state specific time trends are used. The state specific time trends allow for divorce to trend differently by state. The fixed effects allow for a different intercept in every year. Results with the fixed effects may not accurately measure the treatment effect if the divorce rates trend differently by state. In this case, the estimator with fixed effects would underestimate the treatment effect. This appears to be the case in the results.

Focusing on Column (4), the model predicts that an increase in the homestead exemption increases the probability of divorce at a decreasing marginal rate. The estimated coefficients imply that an increase in the average man's homestead exemption over this period from $103,339 to $129,978 dollars increased the predicted probability of divorce by .78 percentage points or 25 percent. In contrast, the coefficients on the personal property exemptions are not statistically different from zero.

Table 5 presents estimates of the effect of the homestead exemption on homeowners and non-homeowners. Columns (1) and (2) display results with state and time fixed effects. Columns (3) and (4) display results with state specific time trends in place of time fixed effects. Again, the estimates suggest that the relationship between the homestead exemption and the predicted probability of divorce is positive with decreasing

marginal effects. The coefficients on the interaction terms show the difference in the estimated effect of the homestead exemption on homeowners and non-homeowners. Surprisingly, this is never significant: households respond similarly to the homestead exemption regardless of whether or not they are homeowners.

As in Table 4, the magnitude of the effects is sensitive to the specification of the error term. Specifications with state specific time trends have larger and more precisely estimated coefficients. Focusing on Column (4), coefficients on homestead exemption and homestead exemption^2 imply that the increase in the average homestead exemption from $103,339 to $129,978 dollars increased the predicted probability of divorce for non-homeowners by 0.63 percentage points or 15 percent. For homeowners, the predicted probability of divorce increased by .68 percentage points or about 30 percent. The difference between the two groups is not statistically significant.

Theoretically, the only mechanism by which non-homeowners could be affected by the homestead exemption is through its affect on access to credit. Both non-homeowners and homeowners may experience restricted access to credit in high exemption states. The fact that the effect for homeowners is similar suggests that families are less affected by other mechanisms such as greater levels of protected assets or substitutes for spousal insurance.

VI. Conclusion

It is well established that a number of financial policies affect family formation, but the effect of bankruptcy law has been less studied. Most financial variables studied have related to policies that affect levels of income and wealth or that are forms of social

insurance. This paper examines the effects of bankruptcy exemptions on divorce using an individual panel data to explore the relative effects of credit markets and other financial mechanisms that may affect family dissolution. Data that contain information about homeownership and other individual and marital characteristics provide an opportunity to separately test the mechanisms suggested by economic theory. Non-homeowners are only affected by homestead exemptions indirectly through credit markets while homeowners are also affected by greater levels assets in the event of filing and greater levels of insurance.

The results from this paper suggest that bankruptcy exemptions have a small positive effect on the probability of divorce, although results are sensitive to the specification of the error term. The positive effect is driven entirely by the homestead exemption. Furthermore, the predicted probability of divorce for *both* homeowners and non-homeowners increases by about a 25 percent with the average increase in the homestead exemption experienced over the past 25 years. This surprising result suggests that families are affected by homestead exemptions because of the impact on credit markets, as non-homeowners would not be directly protected by homestead exemptions in bankruptcy filings. These credit effects appear to dominate any effects of bankruptcy exemptions on the relative value of spousal insurance or on levels of household assets.

These results also are consistent with previous work on the financial effects of bankruptcy exemptions. The literature finds larger effects of homestead exemptions on credit scores and credit markets, with generally small or non-existent effects on actual bankruptcy filings. Perhaps because of this, homestead exemptions appear to be less relevant as a substitute for spousal insurance or as a mechanism to reduce distress in

financially stressed households, but play a more subtle role through their effects on credit. The results from this paper suggest that the availability of credit can influence the decision to divorce, presumably because of the effects on productive and consumptive complementarities in marriage. Given recent concerns about credit markets in the United States, this paper suggests another important social dimension to consider when advocating for changes in the abilities of households to borrow.

References Cited

Agarwal, Sumit, Chunlin Liu, and Lawrence Mielnicki; (2003) "Exemption laws and consumer delinquency and bankruptcy behavior: an empirical analysis of credit card data" *The Quarterly Review of Economics and Finance* 43(2), pp. 273-289.

Agarwal, Sumit, Souphala Chomsisengphet, Chunlin Liu, and Lawrence Mielnicki; (2005) "Impact of State Exemption Laws on Small Business Bankruptcy Decision," *Southern Economic Journal* 71(3), pp. 620-635.

Alm, James and Leslie A. Wittington; (1997) "For Love or Money? The Impact of Income Taxes on Marriage," *Economica,* 66(263) (August): 297-316

Becker, Gary S.; (1973) "A Theory of Marriage: Part 1," *Journal of Political Economy,* 81(4) (July – August): 813-846

Becker, Gary S., Landes, Elisabeth M. and Robert T. Michael; (1977) "An Economic Analysis of Marital Instability," *Journal of Political Economy,* 85(6) (December): 1141 -1187

Berkowitz, Jeremy and Richard Hynes; (1999) "Bankruptcy Exemptions and the Market for Mortgage Loans," *Journal of Law and Economics,* 42(2) (October): 809-830

Blackburn, McKinley L.; (2003) "The Effects of the Welfare System on Marital Dissolution," *Journal of Population Economics,* 16(3) (August): 477-500

Brien, Michel J., Stacy Dickert-Conlin and David A. Weaver; (2004) " Widows Waiting to Wed? (Re)Marriage and Economic Incentives in Social Security Widow Benefits," *The Journal of Human Resources,* 39(3) (Summer): 585-623

Charles, Kerwin Kofi and Melvin Stephens Jr.; (2004) "Job Displacement, Disability, and Divorce," *Journal of Law and Economics,* 22(2) (April): 489-522

Chomsisenghpet, Souphala and Ronel Elul; (2006) "Bankruptcy Exemptions, Credit History, and the Mortgage Market," *Journal of Urban Economics,* 59(1) (January): 171-188

Domowitz, Ian and Thomas L. Eovaldi (1993) "The Impact of the Bankruptcy Reform Act of 1978 on Consumer Bankruptcy" *Journal of Law and* Economics 36(2), pp 803-835.

Elias, Stephen, Leonard Renauer and Robin Leonard; (2009) *How to File for Chapter 7 Bankruptcy.* 15th ed. Berkeley, CA: Nolo Press.

Elul, Ronel and Narayanan Subramanian; (2002) "Forum-Shopping and Personal Bankruptcy," *Journal of Financial Services Research,* 21(3): 233-255

Fay, Scott, Erik Hurst and Michelle White; (2002) "The Household Bankruptcy Decision," *The American Economic Review,* 93(2) (June): 706-718

Gropp, Reint, John Karl Scholz and Michelle J. White; (1997) "Personal Bankruptcy and Credit Supply and Demand," *The Quarterly Journal of Economics,* 112(1) (February): 217-251

Hoffman, Saul D. and Greg J. Duncan; (1995), "The Effect of Incomes, Wages, and AFDC Benefits on Marital Disruption," *The Journal of Human Resources,* 30(1) (Winter): 19-41

Hynes, R.M, A. Malani, and E.A. Posner; (2003) "The political economy of property exemption laws," *Journal of Law and Economics* 47 (1): 19-43.

Lefgren, Lars and Frank McIntyre; (2009) "Explaining the Puzzle of Cross-State Differences in Bankruptcy Rates," *Journal of Law and Economics*, 52 (May): 367-393

Panel Study of Income Dynamics, ("PSID-individual level and PSID-family level") public use dataset. Produced and distributed by the University of Michigan with primary funding from the National Science Foundation, the National Institute of Aging, and the National Institute of Child Health and Human Development. Ann Arbor, MI, (2010).

Spivey, Christy; (2010) "Desperation and Desire: The Role of Risk Aversion in Marriage," *Economic Inquiry,* 48(2) (April): 499-516

Stevenson, Betsey and Justin Wolfers; (2007) "Marriage and Divorce: Changes and Their Driving Forces," *The Journal of Economic Perspectives,* 21(2) (Spring): 27-52

Traczynski, Jeffrey R.; (2010) "Divorce Rates and Bankruptcy Exemption Levels in the U.S.," *Journal of Law and Economics,* forthcoming

Weiss, Yoram and Robert J. Willis; (1997) "Match Quality, New Information, and Marital Dissolution," *Journal of Labor Economics,* 15(1) (January): S293-S329

Wittington, Leslie A. and James Alm; (1997) "Til Death or Taxes do us Part: The Effect of Income Taxation on Divorce," *Journal of Human Resources,* 32(2) (Spring): 388-412

Figure 1. Number of Personal Bankruptcy Filings 1986 - 2010.
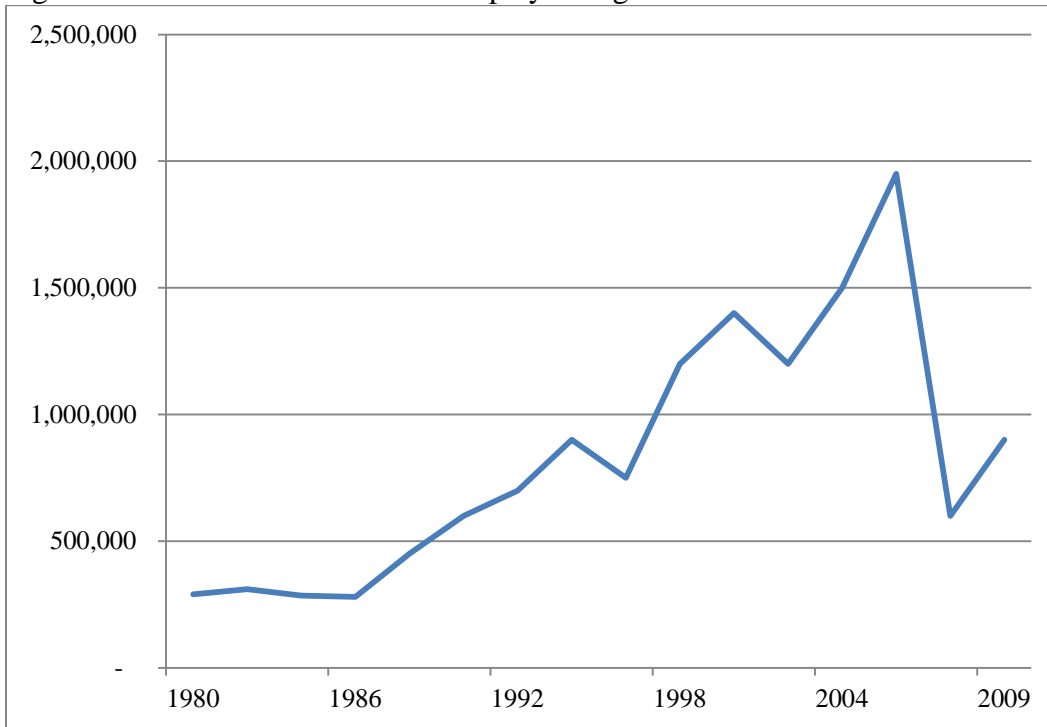
Source: Authors' calculations based on total non-business filings during period ending March 31st, 1986-2010 from Bankruptcy Statistics provided by the United States Courts. Data include Chapter 7, 11, and 13 filings.
The drop in number of filings in 2006 is attributed to the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005. The Act increased restrictions on bankruptcy eligibility.

Table 1: Descriptive Statistics

Variable	Mean	Standard Deviation
Divorced in Next Period	0.03	0.16
Husband Age	40.63	10.030
Husband White	0.72	0.45
Husband Black	0.22	0.42
Husband Years of Education	13.17	2.53
Husband Wages ($ annual)	49,698	74,093
Wife Age	38.65	9.80
Wife White	0.72	0.45
Wife Years of Education	13.18	2.36
Wife Wages ($ annual)	23,807	80,451
Own Home	0.75	0.43
Number of Own Children <18	1.27	1.22
Husband & Wife Combined Income ($ annual)	74,409	114,030
Wife Age at Marriage*	24.73	6.89
Husband Age at Marriage	26.78	7.21
Year Married (First Marriage)	1982.97	11.57
Year Divorced (First Marriage)	1998.23	4.48
Year Married (Second Marriage)	1989.47	9.42
Year Divorced (Second Marriage)	2000.90	4.20
Duration of Marriage	13.80	10.37
Second (or later) Marriage	0.21	0.40
Husband & Wife Same Education	0.50	0.50
Husband More Education than Wife	0.25	0.43
Husband & Wife Same Race	0.95	0.21

N=30,949

Source: Authors calculations based on 1991 - 2007 Panel Study of Income Dynamics. Data include all men aged 20 to 62.

*Wife Age at Marriage can be negative if a married man is cohabitating with a younger female who is not his wife. Applies to less than 1% of calculations. Robustness checks confirm that results were not affected.

Table 2. Summary of Nominal Bankruptcy Exemptions by Year

Exemption	Count	Average	Standard Deviation	Minimum	Maximum
1991					
Homestead Exemption	51	96000	177775	0	500000
Motor Vehicle Exemption	51	3457	14087	0	100000
Wild Card Exemption	51	521	1118	0	5500
Tools of Trade Exemption	51	1832	2482	0	10000
Cash & Bank Deposits Exemption	51	1138	4355	0	30000
1992					
Homestead Exemption	51	98328	176962	0	500000
Motor Vehicle Exemption	51	3431	14087	0	100000
Wild Card Exemption	51	570	1144	0	5500
Tools of Trade Exemption	51	1878	2532	0	10000
Cash & Bank Deposits Exemption	51	1418	6385	0	45000
1993					
Homestead Exemption	51	98010	177091	0	500000
Motor Vehicle Exemption	51	3483	14081	0	100000
Wild Card Exemption	51	628	1257	0	5500
Tools of Trade Exemption	51	1925	2599	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000
1994					
Homestead Exemption	51	98667	176916	0	500000
Motor Vehicle Exemption	51	3782	14163	0	100000
Wild Card Exemption	51	638	1254	0	5500
Tools of Trade Exemption	51	1999	2605	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000
1995					
Homestead Exemption	51	99971	176345	0	500000
Motor Vehicle Exemption	51	3552	14070	0	100000
Wild Card Exemption	51	648	1255	0	5500
Tools of Trade Exemption	51	2057	2650	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000
1996					
Homestead Exemption	51	94824	167498	0	500000
Motor Vehicle Exemption	51	3648	14060	0	100000
Wild Card Exemption	51	656	1254	0	5500
Tools of Trade Exemption	51	2196	2702	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000

1997

Homestead Exemption	51	95946	167184	0	500000
Motor Vehicle Exemption	51	3716	14049	0	100000
Wild Card Exemption	51	666	1251	0	5500
Tools of Trade Exemption	51	2235	2694	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000

1999

Homestead Exemption	51	96265	167093	0	500000
Motor Vehicle Exemption	51	3784	14045	0	100000
Wild Card Exemption	51	646	1201	0	5500
Tools of Trade Exemption	51	2289	2706	0	10000
Cash & Bank Deposits Exemption	51	1697	8464	0	60000

2001

Homestead Exemption	51	102824	167357	0	500000
Motor Vehicle Exemption	51	4125	14009	0	100000
Wild Card Exemption	51	771	1392	0	6000
Tools of Trade Exemption	51	2364	2731	0	10000
Cash & Bank Deposits Exemption	51	1738	8490	0	60000

2003

Homestead Exemption	51	117202	176392	0	500000
Motor Vehicle Exemption	51	4408	14044	0	100000
Wild Card Exemption	51	986	2147	0	12500
Tools of Trade Exemption	51	2384	2731	0	10000
Cash & Bank Deposits Exemption	51	1612	8441	0	60000

2005

Homestead Exemption	51	124382	182614	0	500000
Motor Vehicle Exemption	51	4580	14090	0	100000
Wild Card Exemption	51	947	1711	0	7500
Tools of Trade Exemption	51	2328	2712	0	10000
Cash & Bank Deposits Exemption	51	1614	8441	0	60000

2007

Homestead Exemption	51	132165	184653	0	500000
Motor Vehicle Exemption	51	4754	14067	0	100000
Wild Card Exemption	51	1163	2316	0	11000
Tools of Trade Exemption	51	2533	2799	0	10000
Cash & Bank Deposits Exemption	51	1618	8441	0	60000

Source: Author calculations based bankruptcy exemptions obtained from multiple editions of Elias, Renauer, and Leonard.
Data include all states including the District of Columbia.
States with unlimited homestead exemptions were assigned a value of $500,000 for the homestead exemption.

Table 3. Effect of Total Exemptions on Probability of Divorce in Next Time Period.

Independent Variables	(1)	(2)	(3)	(4)
Total Exemption	0.0033**	0.0039	0.0045	0.0072
	(0.002)	(0.004)	(0.004)	(0.006)
Total Exemption^2	-0.0005**	-0.0005	-0.0006	-0.0010
	(0.000)	(0.000)	(0.000)	(0.001)
Husband Age			-0.0032	-0.0036
			(0.003)	(0.003)
Husband Education			-0.0011**	-0.0012**
			(0.000)	(0.000)
Husband White			-0.0051	-0.0077
			(0.005)	(0.005)
Own Home			-0.0073***	-0.0071***
			(0.002)	(0.002)
Husband Wages			-0.0001	-0.0001
			(0.000)	(0.000)
Wife Wages			-0.0000	-0.0000
			(0.000)	(0.000)
Number of Children <18			0.0012	0.0012
			(0.001)	(0.001)
Husband Education=Wife Education			-0.0032**	-0.0035**
			(0.001)	(0.001)
Length of Marriage			0.0025	0.0029
			(0.003)	(0.003)
Husband Race = Wife Race			-0.0033	-0.0028
			(0.007)	(0.007)
Wife Age at Marriage			-0.0007***	-0.0007***
			(0.000)	(0.000)
Husband Age at Marriage			0.0033	0.0038
			(0.003)	(0.003)
2nd (or Later) Marriage			-0.0089**	-0.0107***
			(0.004)	(0.004)
State Fixed Effects	No	Yes	Yes	Yes
Time Fixed Effects	No	Yes	Yes	No
State Specific Linear and Quadratic Time Trends	No	No	No	Yes
Observations	30,949	30,949	30,949	30,949
R-squared	0.000	0.009	0.068	0.066

Robust standard errors, clustered at the state level, are displayed in parenthesis.
*, **, *** denotes significance at the 10%, 5%, or 1% level, respectively.

Table 4. Effects of Personal Property and Homestead Exemption on Probability of Divorce

Independent Variables	(2)	(4)
Homestead Exemption	0.0027	0.0336*
	(0.004)	(0.017)
Homestead Exemption^2	-0.0006*	-0.0032**
	(0.000)	(0.001)
Personal Property Exemptions	-0.0006	-0.0183
	(0.034)	(0.067)
Personal Property Exemptions^2	0.0089	0.0241
	(0.014)	(0.030)
Child Support Exempt	0.0357***	0.0677**
	(0.011)	(0.032)
Alimony Exempt	-0.0216	-0.0533
	(0.014)	(0.034)
Demographic and Marital Match Characteristics	Yes	Yes
State Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	No
State Linear & Quadratic Trends	No	Yes
Observations	30,949	30,949
R-squared	0.074	0.081

Robust standard errors, clustered at the state level, are displayed in parenthesis.
*,**,*** denotes significance at the 10%, 5%, or 1% level, respectively.

Table 5: Effects of Exemptions on Probability of Divorce for Homeowners and Non-Homeowners.

Independent Variables	(1)	(2)	(3)	(4)
Homestead Exemption	0.0068	0.0021	0.0442**	0.0305*
	(0.007)	(0.007)	(0.020)	(0.018)
Homestead Exemption*Own Home	-0.0025	0.0014	-0.0017	0.0022
	(0.006)	(0.007)	(0.007)	(0.007)
Homestead Exemption^2	-0.0010*	-0.0006	-0.0041**	-0.0030**
	(0.001)	(0.001)	(0.002)	(0.001)
Homestead Exemption^2*Own Home	0.0002	-0.0001	0.0002	-0.0001
	(0.000)	(0.001)	(0.001)	(0.001)
Own Home	-0.0234***	-0.0095**	-0.0236***	-0.0098**
	(0.005)	(0.004)	(0.005)	(0.004)
Other Exemptions		0.0032		-0.0073
		(0.040)		(0.086)
Other Exemptions^2		0.0065		0.0177
		(0.017)		(0.040)
Alimony Exempt		-0.0145		-0.0078
		(0.013)		(0.026)
Child Support Exempt		0.0208**		0.0139
		(0.009)		(0.021)
Demographics and Marital match characteristics	No	Yes	No	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	No	No
State * Time Fixed Effects	No	No	No	No
State-Linear & Quadratic Trends	No	No	Yes	Yes
Observations	25,026	25,026	25,026	25,026
R-squared	0.018	0.094	0.033	0.102

Robust standard errors, clustered at the state level, are displayed in parenthesis.
*,**,*** denotes significance at the 10%, 5%, or 1% level, respectively.