THE EFFECT OF PERSONAL BANKRUPTCY EXEMPTIONS ON DIVORCE

by

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ABSTRACT

This paper estimates the effects of Chapter 7 bankruptcy exemptions on the divorce decision. Using an individual level panel data set, three empirical models are estimated. The results suggest that a rise in the total exemption has a small positive effect on the probability of divorce. The most significant contribution of this paper comes from a difference-in-difference-in-difference estimator that separates the total exemption into the personal property and the homestead exemption. The model estimates the differential effects of the homestead exemption on homeowners and non-homeowners. Results do not suggest that homeowners and non-homeowners react differently to an increase in the homestead exemption. This paper extends on previous research by providing additional theoretical and empirical implications, and through its use of an individual panel data set.

CHAPTER 1

INTRODUCTION

Financial distress is named as one of the top causes of divorce, and divorce has been identified as one of the top causes of bankruptcy. The relationship between the two provides interesting economic implications as the costs and benefits of bankruptcy may have unintended effects on the divorce decision. A single paper has examined the effect of bankruptcy law on divorce and the results suggest that bankruptcy law has contributed significantly to divorce rates. This paper extends that work by offering additional theoretical and empirical implications. Results from this paper suggest that bankruptcy exemptions have increased the probability of divorce although they are not robust under certain specifications.

This paper looks specifically at the effect of Chapter 7 bankruptcy exemptions on the divorce decision. Under Chapter 7 bankruptcy, an individual's assets are liquidated, up to an exempt amount, in order to repay debts to creditors. The exempt (or protected) assets in bankruptcy are defined at the state level. Across states there is significant variation in the magnitude of exemptions. In addition to state variation, states update their exemptions at different times. The variation of exemptions within states and over time provides an opportunity to test for any unintended effects of bankruptcy exemptions on the divorce decision.

There is a considerable amount of research that examines bankruptcy and divorce separately, but little examines the relationship between the two. Previous work in the area

of bankruptcy focuses on the effect of exemptions on the availability of credit, entrepreneurship activity, and the number of bankruptcy filings. Prior research on marriage and divorce examines the divorce decision as a function of individual characteristics, changing social structures, and the implementation of new laws. There are multiple studies that find divorce is causal in the bankruptcy decision but only one paper that estimates the effect of exemptions on divorce.

This paper contributes to the literature on both bankruptcy and divorce by extending previous research from both areas of study. In the bankruptcy literature the social effects of exemptions have generally been ignored. Exemptions affect the divorce decision by altering the relative costs and benefits of marriage and divorce. Theoretical predictions suggest that bankruptcy exemptions have conflicting effects on the divorce decision, leaving the predicted direction of the effect ambiguous.

Previous research on the topic by Traczynski (2010) suggests that bankruptcy exemptions have had large effects on the divorce rate. This paper extends on Traczynski (2010) by employing individual level data and additional empirical and theoretical specifications. Individual level data allows for control of individual level variables that are commonly used in marriage literature to more accurately predict divorce. Information about individual level homeownership provides the opportunity to examine the homestead exemption as it applies to homeowners compared to non-homeowners. By distinguishing between homeowners and non-homeowners, additional theoretical implications not considered by Traczynski (2010) can be empirically tested.

State level and time variation of exemption are used as the independent variable to determine whether bankruptcy exemptions have an effect on the divorce decision. Three empirical models are estimated. The first model uses a similar specification in estimation as Traczynski (2010) to allow for a comparison of results. The second model tests whether types of exemptions has a greater effect on the probability of divorce than the other. The third model tests for differential effects of the homestead exemption on homeowners and non-homeowners. The third model tests theoretical implications about the direct and indirect effects of exemptions on the probability of divorce.

The results imply that higher bankruptcy exemptions have a small positive effect on the probability of divorce for all individuals. The results indicate this positive effect is driven mainly by increases in the homestead exemption. The direction of the effect is the same as Traczynski (2010) although the results from this paper are not robust across specifications. The results suggest that the probability of divorce for both homeowners and non-homeowners increases with a rise in the homestead exemption. The positive effect for homeowners is driven by the financial benefit that bankruptcy exemptions provide. The positive effect for non-homeowners could be driven indirectly through credit markets. The results from this paper suggest that exemptions have multiple effects on marriage and divorce through various channels that have not been explored in previous research.

The organization of the paper will proceed as follows. Chapter 2 provides background information on bankruptcy exemptions. Chapter 3 reviews the literature that aids in making theoretical predictions and also reviews the one paper that has addressed

the same question. Chapter 4 provides theoretical predictions about the effects of bankruptcy exemptions on divorce. Chapter 5 explains the data that are used in estimation. Chapter 6 describes the empirical methodology used. The results from the empirical analysis are presented in Chapter 7. Chapter 8 describes future research opportunities and provides summary of results.

CHAPTER 2

BANKRUPTCY EXEMPTIONS

In 2010, over 1.4 million individuals filed personal bankruptcy in the United States, which was an increase from 2009 of 28 percent. More than 91 percent of filers have experienced a job loss, health problems, or a divorce in the years leading up to filing.[1] The purpose of personal bankruptcy in the United States is to provide individuals who cannot pay their creditors with a "fresh start" by relieving them of a portion of their debts. When filing bankruptcy an individual has the choice between filing under Chapter 7, Chapter 11, or Chapter 13. In 2009, approximately 71 percent of personal bankruptcies were filed under Chapter 7, less than 1 percent were filed under Chapter 11, and the remaining were filed under Chapter 13. This paper focuses on the exemptions under Chapter 7 bankruptcy. [2]

Under Chapter 7 bankruptcy, debtors are relieved from their unsecured debt at the cost of all property valued above the exemption level in their state of residence. The exemptions include a homestead, personal property, pensions, insurance benefits, public benefits, and a wildcard. All assets above and beyond the exemption levels are liquidated and creditors are repaid in some portion with the liquidated assets. Certain debts cannot be discharged through Chapter 7 bankruptcy. For example, student loans, tax obligations, property liens, domestic support obligations, and debts incurred by fraud cannot be

[1] Statistics from http://www.bankruptcyaction.com/USbankstats.htm
[2] Statistics from the 2009 Report of Statistics Required by BAPCPA

discharged under bankruptcy. An individual may file Chapter 7 bankruptcy once every six years. [3]

There is significant variation in exemptions across states and over time. Variation of exemptions over time can be seen in Figure (3). The variation of exemptions within states can be seen in Figure (4). The average homestead exemption increased from $20,534 in 1991 to $62,701 in 2007.[4] The average personal property exemption increased from $6,898 in 1991 to $9,899 in 2007. The exemption laws also vary widely by state; for instance in Florida there is an unlimited homestead exemption while Maryland does not have a homestead exemption. An individual who files bankruptcy in Florida may keep all of the equity in his home while an identical counterpart in Maryland cannot keep any equity in his home. The majority of state exemption levels fall somewhere in between the two extremes.

There are also federal laws pertaining to the exemption levels, although states are not required to abide by them. Currently, 16 states allow the debtor to choose between their state exemption and the federal exemption limits. Joint debtors are also subject to different exemptions based on their state of residence; in 2007, about 75 percent of states allowed joint debtors a double exemptions. Nine states explicitly stated that joint debtors were not allowed to double the exemptions. The remaining states allow joint debtors an exemption above the single level but less than double.

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

[3] The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 changed the length of time between filings from 6 to 8 years.
[4] Calculations include states with defined homestead exemptions only.

done to determine whether or not the exemptions are endogenous. Hynes, Malani, and Posner (2003) find that states with lower exemptions are more likely to opt out of the federal option. 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.[5] There is no research indicating that state level exemptions change in response to the divorce rate.

[5] The BAPCPA of 2005 attempted to resolve forum shopping by placing restrictions on relocating before filing bankruptcy.

CHAPTER 3

LITERATURE REVIEW

There is limited work on the specific topic of bankruptcy exemptions and divorce. However, there are papers that have empirically tested the theoretical implications to be posed in the next section. This chapter is organized as follows: First, literature is reviewed that examines the effects of financial stress on marriage. Second, literature that examines the effects of policies that alter the benefits to marriage is presented. Third, empirical research that studies the effect of the costs of divorce on the divorce rate is reviewed. Fourth, literature that discusses the availability of credit as a function of exemptions is discussed. The final section is a review of the sole paper that examines the effects of bankruptcy exemptions on divorce.

Financial Stress

Becker, Landes, and Michael (1977) suggest that when the realized returns to marriage are lower than the expected returns, a couple will be better off separated. In a world where the unexpected happens, adverse events and income shocks undoubtedly take place. Theory on the divorce decision suggests that unexpected financial stress reduces the realized returns to marriage and in turn may lead to a divorce. Numerous papers have examined the effects of financial stress on marriage.

There have been a significant number of sociological studies that examine the effects of financial instability on the propensity to divorce. Cutright (1971) presents

research that specifically examines the role of income on marital stability. He finds that financially stable marriages are less likely to end. He shows that an increase in husbands' earnings tier is associated with a 3 percent increase in the probability of a stable marriage.[6] Higher earnings increase the benefits from marriage (Becker, 1973; Stevenson & Wolfers, 2007). Liker and Elder (1983) find that heavy income loss leads to emotional instability of husbands as well as a substantially higher number of disputes related to finances.[7] Teachman and Polonka (1990) find evidence to suggest that economic hardship negatively affects marriages, mainly through more disputes and higher tension in the marriage. Negative income shocks and unfortunate circumstances are generally unforeseen by a couple when they make the decision to marry thus the realized and expected gains differ when economic hardship is presented in the marriage. The above research is consistent with the model posed by Becker (1977) with respect to returns to marriage.

Marriage Benefits

Theory suggests that when the benefits from marriage relative to being single are altered, the probability of divorce will change. For instance, if options outside of marriage are more attractive than expected, the probability of divorce will increase (Becker et al., 1977). Economic research that empirically examines alterations to the net

[6] Husband's earnings/year tiers as defined by Cutright (1971): ($0-$999); ($1,000 -$2,999); ($3,000 - $4,999); ($5,000 - $6,999); ($7,000 - $9,999); ($10,000 or more). Dollar amounts are measured in 1959 dollars.

[7] Instability of husbands is defined as tense, explosive, irritable behavior.

benefits of marriage finds that decreased benefits from marriage increases the probability of divorce.

A branch of research looks at the effect of AFDC welfare benefits on divorce. The availability of welfare affects the relative financial benefits from marriage because welfare provides a minimum level of income to a single woman, which acts as insurance against a loss of income. As the availability of welfare increases, theory predicts that the financial benefits provided from marriage relative to being single will be reduced, which suggests a higher probability of divorce. Ellwood and Bane (1982), Moffitt (1994), and Hoffman and Duncan (1995) find that increases in welfare payments are associated with increases in divorce. They find that when welfare is made available to women in higher quantities, women respond to the decrease in relative benefits from marriage by divorcing more often, which supports theoretical predictions.

Wittington and Alm (1997) examine the effects of the marriage tax penalty on divorce. Theoretically, the marriage penalty reduces the benefits from marriage relative to being single because married couples are taxed at a higher rate than two singles. Similar to the implications of welfare, financial benefits provided by marriage are reduced by the marriage tax penalty. The results support theoretical predictions. They find that increases in the marriage penalty, which reduces the relative benefits of marriage, increases the probability of divorce.

Brien, Dickert-Conlin, and Weaver (2004) examine remarriage patterns among individuals who are eligible for social security widow or widower benefits. If a spouse dies before receiving their social security benefits, the living spouse is able to collect a

portion of the deceased spouse's benefits. There is a caveat that states if the living spouse remarries before age 60, they are no longer eligible to receive the deceased spouse's benefits. The caveat imposes a substantial penalty of marriage for those considering remarriage. They examine the benefits from being single relative to being married where the benefits from being single are substantially high. They find that these individuals tend to wait to marry until after age 60. The results indicate that individuals respond to a decrease in the relative benefits provided by marriage by waiting to marry.

Divorce Costs

The cost of divorce has a direct effect on whether marriage will end. Bougheas and Georgellis (1999) and Cornelius (2003) theorize that the costs of divorce will affect both entrance into marriage and divorce. From the standpoint of an already married individual, the cost of divorce will affect their decision to divorce only. They find that small changes in divorce costs do not have significant effects on the marriage decision.

Empirical results support the theoretical predictions. Mnookint and Kornhauser (1979) state that divorces become more costly with each additional asset and child because the costs of negotiation increase when assets need to be divided between divorcing spouses. Weiss and Willis (1997) empirically investigate the costs of divorce and find increased costs of divorce reduce the probability of divorce. They suggest the costs of divorce are not negligible and that couples consider the costs in the decision. They find property ownership, children, marriage specific capital, and legal costs are all positively related to the costs of divorce.

Bankruptcy Exemptions and Access to Credit

Research on the effects of bankruptcy exemptions on credit markets is debated. Basic economic theory suggests that lenders would act differently in high exemption states than they would in low exemption states in response to the risk associated with exemptions. Theory suggests that credit would be inversely related to the exemption level. Three papers have empirically researched this theoretical implication and find results that support theoretical predictions although there is not a consensus about the magnitude of the effects.

Gropp, Scholz, and White (1997) find that exemptions dramatically affect access to credit. They examine the effects of exemptions on credit supply and demand. They describe demand effects by stating that an increase in exemptions reduces the borrower's risk of losing assets purchased with credit, which increases the demand for credit. They describe supply effects as a reduction in the availability of credit in response to an increase in risk to lenders from higher exemptions. Overall, they find the size of the state bankruptcy exemption is positively related to the likelihood of being denied credit. They find low asset holders in high exemption states are affected the greatest. The results indicate that low asset holders are more likely to be denied credit and are also subject to higher interest rates on vehicle loans. They also find that high asset households in high exemption states borrow more than high asset households in low exemption states. They explain the difference by saying that supply effects affect low asset households more and high asset households are more affected by the demand effects of exemptions. Overall,

Gropp et al. (1997) find the effects of exemptions on availability to credit are economically significant.

Berkowitz and Hynes (1999) dispute previous results stating that exemptions have little to no effect on the availability of credit. The study differs from Gropp et al. (1997) in that it looks at the effect of the homestead exemption on the availability of home mortgages. They do find that there is a small effect of higher exemptions on the availability of mortgages but they are much smaller than those that Gropp et al. (1997) find. They suggest the discrepancy between the two studies has to do with the distinction between secured and unsecured credit, which they believe is the reason for the over estimates provided by the previous study. They also find interest rates in high exemption states on home loans are lower, which falls in line with the claims made by Gropp et al. (1997) that demand effects dominate for high asset holders. They suggest that future research needs to be done that examines the effects of personal property exemptions on the availability of unsecured debt to determine the true effects of exemptions on the availability of credit.

Chomsisengphet and Elul (2005) find bankruptcy exemptions affect lending practices inadvertently through an individual's credit score. They suggest that once credit worthiness is controlled for, there is no effect of bankruptcy exemptions on the availability of credit, which explains why when the credit score is not included in empirical specification, positive effects are found. This is because credit scores are partly determined by the performance of unsecured loans in an area. They find that the state exemption level can explain approximately 10 points of variation in an individual's credit

score. They suggest that exemptions do not directly affect mortgage lending but that credit scores do. There is an indirect relationship between the availability of credit and the exemption, through the credit score.

Conclusion: Empirical Analysis of Theoretical Implications

The empirical results generally support theoretical predictions. Theory suggests that when the benefits to marriage are altered, the probability of divorce will be affected. Theoretically, financial stress reduces the benefits to marriage and increases the probability of divorce. Empirically, financial stress has a negative effect on the marriage relationship and is found to be causal in the divorce decision. Similarly, welfare benefits, the marriage penalty, and widow social security benefits alter the benefits to marriage. The predicted theoretical implications are supported empirically, which suggests that individuals respond to changes in the relative benefits from marriage imposed by different policies. With respect to the costs of divorce, theory suggests that divorce rates will decrease as the costs of divorce increase. Empirically, the costs of divorce increase as more assets are attained. Theoretical predictions suggest that as exemptions increase, the availability of credit will decrease. Empirically, the magnitude of the effect is not consistent. The direction of the effect is consistent which supports theoretical implications that higher exemptions are associated with lower levels of available credit.

Bankruptcy Exemptions and Divorce

Traczynksi (2010) examines the effect of bankruptcy exemptions on the divorce rate. The analysis follows previous work in the bankruptcy field, which exploits the variation of bankruptcy exemptions within states and over time. The data used is a state level panel spanning from 1989 to 2005. The dependent variable, state level divorce rates, is obtained from the Vital Statistics of the United States. Additional independent variables include state level demographic and social safety net information.

Theoretical predictions suggest that an increase in bankruptcy exemptions will increase the divorce rate. He finds that increases in exemptions over the time are positively related to the divorce rate. He quantifies the effects stating that increases in exemptions from 1989 through 2005 have caused a conservative estimate of 200,000 additional divorces, all of which he attributes to relative changes in the risk pooling benefits from marriage.

This paper is similar to Traczysnki (2010) in that it utilizes state and time variation of bankruptcy exemptions to estimate the effects on divorce. It is different in that it uses individual level panel data set rather than a panel of states. Demographic information is observed at the individual level and marriage matching variables are included as well. Individual level data is advantageous because the specifications are similar to those used in the marriage literature to predict divorce. Information about homeownership is also available at the individual level which allows for a precise test of theoretical implications.

This paper includes additional theoretical implications not considered by Traczynski (2010). Theory provided by Traczynski (2010) suggests the relative risk reduction gains to marriage are reduced with an increase in exemptions. This paper utilizes the theory proposed by Traczynski (2010) but also includes additional theoretical implications to be posed in Chapter 4. The effects are divided up by examining the effect of the homestead exemption on homeowners and non-homeowners. The specification that distinguishes between homeowners and non-homeowners builds on Traczynski's (2010) work to further show the effect of bankruptcy exemptions on the divorce decision.

CHAPTER 4

THEORY

Economic theory provides insight into the potential effects of bankruptcy exemptions on the divorce decision. Exemptions affect the costs and benefits of marriage and divorce through multiple channels. The following sections discuss the effects of bankruptcy exemptions on marriage and divorce. The first section describes an economic model of marriage and divorce. The next section analyzes the direct and indirect effects of exemptions on marriage benefits and the divorce decision. The final section analyzes the differential effects of the homestead exemption on homeowners compared to non-homeowners. The theoretical analysis provides an ambiguous prediction as to the effect of bankruptcy exemptions on the divorce decision.

Marriage Models

Becker (1973) pioneered economic research on marriage as an institution. He builds from the household production function modeled in Becker and Michael (1973). The model shows that household utility depends on goods produced by each household, rather than inputs purchased in the market place. Goods produced within the home can include meals, children, clean clothes, companionship, recreation, health status, and prestige. The theory implies that there is an incentive to work together as a family unit to generate maximum net utility, due to the assumption that a loss in output affects every family member equally (Becker and Michael; 1973). From the household production

model, Becker (1973) creates a model of the marriage decision. He asserts that a single man and a single woman will marry if and only if they are made better off. To be made better off implies that the potential spouses will have an expected net utility gain from the marriage. In order to remain married, the expected combined utility from being single must be less than the realized combined utility of being married. The couple will choose to divorce if the realized combined utility from marriage is less than the expected combined utility from being single (Becker, Landes, & Michael, 1977).

The utility gains to marriage come from a large group of factors that affect each spouse's level of utility. The sources of the gains come from productive complementarities, consumptive complementarities, and risk pooling (Stevenson & Wolfers, 2007). Productive complementarity benefits come from a productive relationship in which the spouses specialize to increase output. The productive relationship can be illustrated by a wife who cooks dinner or does laundry while the husband shovels snow or cuts the grass. Consumption complementarily refers to the "shared consumption of leisure time" and "joint consumption of public goods" (Stevenson & Wolfers, 2007 (41)). An example of this would be a couple who enjoys the same leisure activities and also enjoys consuming household produced goods, such as home cooked meals, together. Risk pooling is the reduction of risk from adverse future events (Spivey, 2010; Stevenson & Wolfers, 2007). For example, if one spouse becomes ill or unemployed, the other spouse is present and able to 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.

A component of the gains to marriage come from financial benefits, which affect utility implicitly through higher levels of household production, increased consumption, and reduced risk from adverse events (risk pooling). Productive benefits of the relationship allow a couple to specialize and increase household output, which contributes to financial gains. An example of a productive financial gain is through shared costs of living, which are reduced by about 25 percent upon marriage (Waite & Gallagher, 2000). This is achieved from the use of public goods. Zagorsky (2005) finds that marriage increases wealth by $11,000 in the first year. Increases in wealth contribute to higher quality joint consumption of leisure time, which leads to higher combined utility. As mentioned previously, risk pooling also leads to financial benefits from adverse events. The benefits of marriage can be partially quantified by the financial gains that affect utility gains.

A couple will divorce if the combined utility of becoming single is greater than that of remaining married. Bankruptcy exemptions will affect the utility gains to marriage exemptions in two ways. The first is through a financial benefit, which higher exemptions directly provide. The financial benefit affects the productive and consumptive benefits as well as the relative risk pooling gains to marriage. The second is through an indirect effect that bankruptcy exemptions have on the availability of credit. The availability of credit will ultimately affect the divorce decision, specifically through the costs of divorce. The direction of the effect, whether exemptions increase or decrease the probability of divorce, remains ambiguous.

Direct Effects: Benefits from Filing Bankruptcy

The literature finds strong evidence to suggest that earnings, debts, and income shocks are important in divorce decisions because they affect the utility level in the marriage.[8] Exemptions change the benefit of filing for bankruptcy and therefore change a couple's ability to discharge their debt. The financial benefit (BB) from bankruptcy can be seen in the following equations:[9]

(1) $BB = max\ [Household\ Unsecured\ Debt - max\ [Household\ Wealth - Exemption, 0], 0]$

(2) $Household\ Wealth = Equity\ in\ Secured\ Assets + All\ Other\ Assets - Secured\ Debt$

where *household unsecured debt* is the amount of unsecured debt that will be discharged if bankruptcy is filed.[10] Examples of unsecured debt include medical and credit card debt. *Household wealth* includes equity in secured assets and all other assets less secured debt such as home or car loans before bankruptcy is filed. *Exemption* is the exemption level dictated by the state. If *household wealth* is greater than the exemption, the difference will be liquidated under bankruptcy. The financial benefit from bankruptcy must be non-negative for a household to file.

Consider two identical couples, each with $20,000 in credit card debt, $100,000 of equity in their homes, $10,000 in other assets, and $40,000 in home loans. Couple A

[8] Cutright, 1971; Moore, 1977; Liker & Elder, 1983
[9] Financial benefit of filing Chapter 7 bankruptcy as defined by Fay, Hurst and White (2002)
[10] 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

lives in a state with a $65,000 exemption and Couple B lives in a state with a $10,000 exemption.

$$\textit{Total Household Wealth}_{\textit{Couple A \& Couple B}} = 100{,}000 + 10{,}000 - 40{,}000 = \$\ 70{,}000$$

$$BB_{\textit{Couple A}} = \max\,[20{,}000 - \max\,[70{,}000 - 65{,}000, 0)], 0] = \$\ 15{,}000$$

$$BB_{\textit{Couple B}} = \max\,[20{,}000 - \max\,[70{,}000 - 10{,}000, 0], 0] = \$\ 0$$

In this example, Couple A benefits from bankruptcy and Couple B does not. The high exemption allows Couple A to reduce its financial burden through declaring bankruptcy. Relating the aspect of stress back to the benefits of marriage, the benefits will most likely be affected through productive and consumptive complementarities. For example, in order to finance the debt burden, Couple B may have to work more hours and may not be able to enjoy as much time with each other as Couple A. The reduced financial burden may reduce the level of stress in the marriage and in turn, may reduce the likelihood of divorce for couple A. From the literature, financial stress has been proven to increase tension and the number of disputes within a marriage.[11] This affects the consumptive complementarity benefits to marriage, in which Couple B will gain less utility from time spent together as the frequency of disputes increases. For Couple A, ceteris paribus, theory predicts that an increase in the benefit from filing bankruptcy, through an increase in exemptions, will reduce the probability of divorce.

Additionally, bankruptcy can be thought of as a type of consumption insurance. Consider two identical married individuals in identical marriages; Person A and Person B who live in State A and State B, respectively. The risk pooling benefits from marriage are identical for Person A and Person B, defined below as X. The risk pooling benefits from

[11] Cutright (1971); Liker and Elder (1983)

marriage do not change with exemptions. The level of exemption is the same in both states; therefore the level of insurance provided by bankruptcy is the same, defined below as Y. The costs of divorce, in terms of the risk pooling benefits lost from marriage, are the same for both individuals, defined as Y-X (Table (1)).

Table 1. Risk Pooling Gains to Marriage and Consumption Insurance from Bankruptcy in Time T.

	Couple A	Couple B
Risk Pooling Gains to Marriage	*X*	*X*
Bankruptcy Consumption Insurance	*Y*	*Y*
If Divorce, Lose	*Y-X*	*Y-X*

Now, consider an increase in State A's exemptions. The increase in exemptions, increases the level of consumption insurance provided by bankruptcy, defined below as Z. Risk pooling gains to marriage do not change, the only effect that exemptions have is on the level of insurance in State A, defined below as Y+**Z** (Table (2)).

Table 2. Risk Pooling Gains to Marriage and Consumption Insurance from Bankruptcy in Time T+1.

	Couple A	Couple B
Risk Pooling Gains to Marriage	*X*	*X*
Bankruptcy Consumption Insurance	*Y+* **Z**	*Y*
If Divorce, Lose	*(Y+***Z***)-X*	*Y-X*

Person A has less to lose if they opt to divorce, in terms of risk pooling, than Person B, by Z, due to the fact that Person A has a higher level of insurance against adverse events without the presence of a marriage than Person B. This is because Person A is able to maintain more of his assets upon filing for bankruptcy because of the higher exemptions. Ultimately, the relative risk pooling gains from marriage are reduced when a state

increases the exemption limits. For Person A, theory predicts that the reduced relative gains to marriage, via an increase in exemptions, will increase the probability of divorce.

The direct effect of bankruptcy exemptions on the probability of divorce is not clear. Exemptions may act as a stress reducer in a marriage that is under financial distress. The increased benefit from filing bankruptcy reduces the stress level of a leveraged family, and in turn, increases the utility levels of the spouses from marriage. These benefits are from productive and consumptive complementarities. Alternatively, the effect of an increase in exemptions could act as consumption insurance, which may reduce the relative risk pooling gains to marriage enough to the point that divorce is a more attractive option; in such a case, an increase in exemptions would increase the probability of divorce. It is not clear which effect will dominate, which leaves the direct effect of exemptions on the probability of divorce ambiguous.

Indirect Effects: Credit Markets

In addition to the direct effects, bankruptcy exemptions also indirectly affect the benefits of marriage and divorce through credit markets. A number of studies have looked at the effect of bankruptcy exemptions on the availability of credit to individuals.[12] Under bankruptcy, debtors in high exemption states are allowed to maintain a higher level of assets than identical counterparts in low exemption states. If credit were held constant, debtors in high exemption states would default more often because high exemptions increase the benefit of bankruptcy. The high exemptions increase the risk to creditors of lending in those states. Exemptions also affect lenders through the liquidation

[12] Berkowitz & Hynes, 2002; Gropp, Scholz, & White, 1997; Chomsisengphet and Elul, 2005

process. In high exemption states, assets are available in lower quantities for liquidation to repay creditors. Creditors in high exemption states will not expect as much repayment as those in low exemption states, which further suggests that credit will be more difficult to attain in high exemption states (Gropp, Scholz, and White, 1997). Economic theory predicts that credit will be more available in states where there is a lower risk of default.

Access to credit is relevant because it will differ between states and will be determined partly by the exemption level. Consider two identical married couples: Couple A resides in a high exemption state and Couple B resides in a low exemption state. Couple B will have access to more credit due to the lower risk of default associated with the lower exemption. Access to credit will affect both couples' ability to jointly purchase assets using credit. Couple B will be more likely to get a home loan and thus will be more likely to own a home than Couple A. Couple B will be able to acquire more joint assets on credit than Couple A. The amount of debt a couple can acquire will change, given their exemption level.

Availability of credit implicitly affects the divorce decision because it affects the costs of divorce. From the previous example, recall that Couple B will have greater access to home loans and thus the level of homeownership will be higher in low exemption states. Homeownership increases the cost of divorce due to the financial costs and increased stress associated with dividing up the home upon divorce. Higher cost divorces reduce the likelihood that a marriage will end in divorce.[13] Extending the example to all assets acquired by means of credit, the costs of dividing all joint assets

[13] Becker, Landes, & Michael, 1977; Furstenberg, 1984

increases the costs of divorce. An increase in exemptions, through a reduction in the availability of credit, increases the probability of divorce.

Conclusion: Total Exemptions

The theoretical prediction of the effect of bankruptcy exemptions on the divorce decision is ambiguous. Theory suggests there are multiple effects of exemptions on the divorce decision. Table (3) summarizes these effects. The effect of an increase in exemptions on the benefit of filing for bankruptcy, ceteris paribus, provides the debtor couple a lower level of financial distress upon filing. The reduction in stress allows the couple a higher level of utility, which leads to a lower probability of divorce. In terms of consumption insurance, an increase in exemptions leads to a higher level of insurance against an income shock for a single individual. The higher level of insurance decreases relative gains to marriage, which suggests a higher probability of divorce. A reduction in credit availability in high exemption states reduces asset accumulation. Divorces are less costly when there are fewer assets owned by the couple, which suggests that high exemptions will reduce the probability divorce. The overall effect that bankruptcy exemptions have on the divorce decision remains ambiguous.

Table 3. Breakdown of Potential Effects from Total Exemption on Probability of Divorce.

Increase in Exemption	Predicted Result
Bankruptcy Benefit Effect	*Pr(Divorce): Decrease*
Consumption Insurance Effect	*Pr(Divorce): Increase*
Access to Credit Effect	*Pr(Divorce): Increase*
Overall Effect	*Pr(Divorce): Unknown*

Homeowners and Non-Homeowners

The theoretical predictions above use the total exemption as it applies to all individuals. This paper attempts to separate the effect of the homestead exemption as it applies to homeowners and non-homeowners. The financial benefit, consumption insurance benefit, and access to credit will be different for homeowners than for non-homeowners. This is due to the fact that under bankruptcy, the homestead exemption does not directly apply to non-homeowners.

As previously stated, the financial benefit of bankruptcy is determined partly by the state exemption level (see Equations 1 and 2). The homestead exemption can only be applied to equity in the home thus the homestead exemption applies exclusively to homeowners. The financial benefit of bankruptcy for homeowners and non-homeowners can be seen in the following equations:

(3) $BB_{Homeowner} = max\ [Household\ Unsecured\ Debt - max\ [Household\ Wealth - (\mathbf{Homestead\ Exemption} + Personal\ Property\ Exemptions), 0], 0]$

(4) $BB_{Non\text{-}Homeowner} = max\ [Household\ Unsecured\ Debt - max\ [Household\ Wealth - (Personal\ Property\ Exemptions), 0], 0]$

(2) $Household\ Wealth = Equity\ in\ Secured\ Assets + All\ Other\ Assets - Secured\ Debt$

Consider two couples that live in the same state but Couple A owns a home and Couple B does not. An increase in the homestead exemption would increase the financial benefit of bankruptcy for Couple A but would have no effect on Couple B because the homestead exemption can only be applied to equity in a home. When a state increases its homestead exemptions, the financial benefit of bankruptcy will increase for homeowners

but never increase for non-homeowners. The increase in the exemption allows Couple A to discharge their financial burden by declaring bankruptcy. Relating back to the aspect of marriage benefits, Couple A will be under less financial distress, after an increase in the homestead exemption, than Couple B. A reduction in financial distress increases the consumptive benefits from marriage. Theory predicts that an increase in the benefit of filing bankruptcy, through an increase in the homestead exemption, will reduce the probability of divorce for homeowners only.

Homeowners will also be affected differently by the consumption insurance that bankruptcy provides through the homestead exemption. An increase in the homestead exemption will alter the risk pooling benefits from marriage for homeowners but non-homeowners will not be affected. This is similar to the effect that an increase in total exemptions has on all individuals, except that an increase in the homestead exemption only affects homeowners because consumption insurance can only apply to equity in a home. The previous prediction relies on the assumption that upon divorce, homeowners will continue to own homes and non-homeowners will not. Theory predicts that reduced relative gains to marriage, via an increase in the homestead exemption, will increase the probability of divorce for homeowners.

Access to credit will affect homeowners differently than non-homeowners through the homestead exemption. Homeowners already own the largest and most important non divisible asset in a divorce besides children, which is the home. Divorce costs for those who already own homes will not change considerably with a change in access to credit. According to Gropp, Scholz, and White (1997) higher exemptions

reduce the availability of credit to low asset holders (non-homeowners) the most, which implies an increase in the homestead exemption will reduce the availability of credit to non-homeowners. A reduction in the availability of credit reduces the accumulation of joint assets, which leads to a decrease in divorce costs for non-homeowners. The previous prediction relies on the assumption that exemptions affect access to credit for non-homeowners exclusively. A reduction in divorce costs, through an increase in the homestead exemption, increases the probability of divorce for non-homeowners.

Additionally, a reduction in the availability of credit reduces the productive gains to marriage for non-homeowners. A productive benefit from marriage comes from reduced living costs. The ability to buy a home is included those productive benefits to marriage. If an increase in the homestead exemption restricts a couple's access to credit and reduces their ability to purchase a home, the productive benefits from marriage are reduced. A reduction in the gains to marriage, through an increase in the homestead exemption, increases the probability of divorce for non-homeowners.

Theoretical predictions from an increase in the homestead exemption for homeowners will be different than for non-homeowners. Table (4) summarizes these effects. An increase in the bankruptcy benefit and an increase in consumption insurance will affect homeowners only. While a reduction in credit availability will affect only non-homeowners. An increase in the bankruptcy benefit, through a reduction in stress, will decrease the probability of divorce for homeowners relative to non-homeowners. An increased in consumption insurance, through reduced relative gains to marriage, will increase the probability of divorce for homeowners. A reduction in the availability of

credit will reduce divorce costs and productive benefits from marriage, through lower asset attainment for non-homeowners, which increases the probability of divorce for non-homeowners. Theory predicts that the homestead exemption will have a positive effect on the probability of divorce for non-homeowners. The direction of the effect of the homestead exemption for homeowners remains ambiguous.

Table 4. Breakdown of Potential Effects from the Homestead Exemption on Probability of Divorce for Homeowners and Non-Homeowners,

Increase in Homestead Exemption	Predicted Result	
	Homeowners	Non-Homeowners
Bankruptcy Benefit Effect	*Pr(Divorce): Decrease*	*Pr(Divorce): None*
Consumption Insurance Effect	*Pr(Divorce): Increase*	*Pr(Divorce): None*
Access to Credit Effect	*Pr(Divorce): None*	*Pr(Divorce) :Increase*
Overall Effect	*Pr(Divorce): Unknown*	*Pr(Divorce): Increase*

By differentiating between the effects of the homestead exemption on homeowners and non-homeowners, more precise theoretical implications can be tested. Theory predicts that the probability of divorce will increase for non-homeowners with an increase in the homestead exemption. An increase in the homestead exemption will affect non-homeowners indirectly through credit markets only. This distinction allows for a test of the indirect effects of the homestead exemption on the probability of divorce. Theory does not provide a specific prediction about the direct effect of the homestead exemption on homeowners. This distinction allows for a test of the direct effects of the homestead exemption on the probability of divorce. If the predicted probability of divorce increases for homeowners when the homestead exemption increases, the effect will be driven by

the relative reduced gains to marriage (or the consumption insurance effect). If the opposite holds true, the effect will be driven the reduced financial stress in a marriage that an increase in the homestead exemption provides (or the bankruptcy benefit effect).

CHAPTER 5

DATA DESCRIPTION

The PSID Sample

The data used for this study are from the Panel Study of Income Dynamics (PSID). The PSID follows the same individuals over time and provides detailed information about the demographics of each spouse. This analysis is consistent with previous work done on marriage and divorce because of the inclusion of individual demographic variables in empirical specifications.

The PSID is a survey that began in 1968 with 4,800 individuals and their families. It has continued to follow the original sample and their descendants through 2009. The sample currently consists of over 7,000 individuals and their families. The sample was comprised from two sources, one being a nationally representative group of individuals and their families, selected by the Survey Research Center. The other group, selected by the Survey of Economic Opportunity, contains a sample of low income individuals and their families. In 1997, the PSID underwent a major structural change where it dropped thirty percent of the original sample from 1968. In addition to dropping a portion of the original group, a sample of post-1968 immigrant families was added to the survey. The changes were made in an effort to make the PSID more nationally representative of the US. For funding reasons, the PSID also reduced the frequency of interviews from annual to biennial in 1997.

This study spans from 1991 to 2007.[14] The sample is comprised of married men only.[15] Individuals are selected into the sample if they were married as of 1991 or if they had a marriage begin between 1991 and 2007. The individual does not enter the sample until the year he is married and is no longer included in the sample in the year he divorced. An individual could potentially have two marriages counted if he divorced from his first marriage and remarried within the sample time period. Observations about the family are obtained from the response given by the male head of household in a given year. A household remains in the sample if the head is between the ages of 20 and 62 in a given year. The age restriction is in place because bankruptcy laws affect retired and elderly individuals differently than the working population.[16] Individuals were dropped from the sample if their marriage ended due to the death of a spouse or there was no information about the year they married or about their state of residence. Consistent with previous literature, information about marriage is obtained from the marriage history file.[17] Individuals are considered married in the year the marital history file indicates they married. Information about the number of children living in the household, homeownership, value of the home, head and wife education levels, ages, races, and labor incomes are obtained from the PSID family file. All values are adjusted to 2007 dollars using the Consumer Price Index (CPI).

[14] Years in sample include: 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1999, 2001, 2003, 2005, & 2007
[15] 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.
[16] 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.
[17] Zelder (1993), Wittington and Alm (1997), Charles and Stephens (2004)

The dependent variable indicates whether an individual divorced in the next year of the sample. An individual was considered divorced if he stated that he was either "divorced" or "separated". This information was used from the next time period to create the "Divorced in Next Period" variable. Recall that the sample contains only married individuals therefore divorced individuals are not included in the sample. The "Divorced in Next Period" variable allows for demographic and marital match information to be observed before the divorce takes place. Marital status information was obtained from the PSID individual file. Demographic and match information is applied from time t to examine the divorce decision in time t+1.

Marriage Match

The literature indicates that certain factors predict the quality of a match or the likelihood that the marriage will end in divorce, the following variables are included in analysis. A binary variable is assigned to each head indicating if his race is the same as his wife's. Age at marriage and length of marriage variables are created from the age of head, age of wife, year, and year married variables from the PSID individual file, family file, and marital history file. Subtracting the year married from the current year creates a length of marriage variable. Utilizing the years of education variable for husband and wife from the PSID family file four levels of education were created. The levels are high school dropout, high school graduate, some college, and college graduate or greater. A binary variable is created to measure the head's education level relative to his wife's. If the head has the same level of education as wife, he is assigned a one for the dummy variable "Head Education = Wife Education". A binary variable indicating if an

individual is in his first marriage is created from the marriage history file, which provides dates about the most recent (not first) marriage. Summary statistics for PSID variables are displayed in Table (5).

Bankruptcy Data Description

Bankruptcy exemption information was obtained for every state in each year from 1991 through 2007. Summary statistics for bankruptcy data are available in Table (2). Consistent with previous literature, information was obtained about quantifiable exemptions (Gropp et al, 1997; Berkowitz & Hynes, 1999) including tools of trade, cash and bank deposits, motor vehicle, homestead, and a wildcard.[18] States with unlimited homestead exemptions were assigned a value of $500,000 for the homestead exemption.[19] [20] Homestead exemptions were adjusted accordingly for married couples in states where the exemption was higher for joint owners.[21] 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. The exemption levels were adjusted for men in states where the federal exemption is an option and the total federal exemption is higher than the total state exemptions. Exemptions are adjusted for inflation using the CPI to 2007 dollars. For all bankruptcy

[18] Not all exemptions are quantifiable across states. For instance, in some states household goods are specifically stated while in others a specific dollar value is specified.
[19] Restrictions placed on lot size in unlimited states were ignored.
[20] Traczynski (2010) & Berkowitz and Hynes (1999) define the homestead exemption at $500,000 for unlimited states.
[21] 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.

variables including child support, alimony, and the exemptions, a future variable was generated that indicates the values in the next time period.

Alimony & Child Support

In addition to dollar value exemptions, states specify whether or not alimony and child support are exempt in bankruptcy. This can be illustrated with a divorced woman who files for bankruptcy; her alimony and child support payments may or may not be used to repay debtors depending on the bankruptcy laws in her state of residence. In the case where the payments are exempt, the woman would continue to receive the payments after she filed bankruptcy. To control for possible variation in divorce rates caused by the child support and alimony exemptions each individual was assigned a binary variable for child support and alimony. If the state allowed for child support to be exempt, every individual in that state in that year would be assigned a one for the binary. The same applies for alimony.

CHAPTER 6

EMPIRICAL SPECIFICATION

This analysis exploits the state and year variation of bankruptcy exemptions. During the time period of interest, most states had at least one increase or decrease in all of their exemption limits. In a given year, individuals in the treatment group experience a change in their state exemption level. In that same year, the control group contains individuals who did not experience a change in their state exemption level.

The section is organized as follows. The first model estimates the effect of the total exemption on the probability of divorce for all individuals. The first model replicates results from Traczynski (2010). The second model separates the total exemption into homestead and personal property exemptions. It estimates the effects of the homestead and personal property exemptions on all men separately. The third model separates homeowners from non-homeowners and separates the homestead exemption from the personal property exemptions. It estimates the effect of the homestead exemption on homeowners and non-homeowners.

Total Exemption

Equation (5) shows the model used by Traczynski (2010). It estimates the effect of an increase in the total bankruptcy exemption on the probability of divorce.

(5) $$\text{Divorce Rate}_{st} = \beta_0 + \beta_1 * \text{Total Exemption}_{st} + \beta_2 * \text{Total Exemption}_{st}^2 + \chi * \text{Demographics}_{st} + \eta_s + \zeta_s * \text{Trend} + \xi_s * \text{Trend}^2 + \varepsilon_{st}$$

The dependent variable is measured as the number of divorces per 1000 people in time *t* and state *s*.[22] The Total Exemption vector contains the sum of the homestead and personal property exemptions. The Demographics vector contains the following at the state level: real average personal income, state unemployment rate, real median house price, state homeownership rate, percent Black, percent Hispanic, percent population between ages 15 and 64, a dummy variable describing state child custody guidelines, a dummy indicating whether judges are permitted to consider marital fault when determining property division or maintenance payments, a dummy indicating whether the state allows covenant marriage, the maximum state level AFDC/TANF payment, and the maximum available earned income tax credit. "η_s" denotes state fixed effects. The "Trend" and "Trend^2" variables are state-specific linear and quadratic time trends. The paper uses the Vital Statistics of the United States to measure the number of divorces in each state in a given year. State level demographic and social safety net information was obtained from various sources.[23] The equation is estimated by using a weighted least squares procedure. Observations are weighted by the married population in the state to ensure that the most weight is attached to the highest population states.

The current study differs from Traczynski (2010) because it utilizes an individual level panel data set. The individual level data allows for observation of individual characteristics that are correlated with divorce. The time periods are also slightly different; Traczynski (2010) utilizes all years between 1989 and 2005. The current study contains data from 1991 and 2007.

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[22] In the original paper, an "*i*" was used as the subscript to indicate state level variation. To keep the subscripts consistent throughout this paper, an "*s*" will be used to indicate state level variation.
[23] See Traczynski (Forthcoming) for a thorough description of data sources.

Equation (6) presents the model used to replicate Traczynski's (2010) results.

(6) $$Divorced_{ist} = \beta_0 + \beta_1 * Total\ Exemption_{st} + \beta_2 * Total\ Exemption_{st}^2 + \pi * Demographics_{it} + \eta_s + \zeta_s * Trend + \xi_s * Trend^2 + \varepsilon_{ist}$$

The dependent variable in Equation (6) is whether or not an individual is divorced in the next time period. The coefficients of interest are β_1 and β_2. The combination of the coefficients will show the effect of a 100,000 dollar increase in exemptions on the predicted probability of divorce. The Total Exemption and Total Exemption^2 vectors are comprised of a sum of the homestead, motor vehicle, tools of trade, cash and bank deposits, and wildcard exemptions. The Demographics matrix contains the following information: real individual income, state unemployment rate, real house value, husband age, and dummy variables that indicate if the husband is white, black, or owns a home. Additional information about social safety nets, property division, and child support is not included in the replication specification because Traczynski's (2010) estimates did not change upon the inclusion of these variables and the coefficients were statistically insignificant. "η_s" denotes state specific fixed effects. The "ζ_s * Trend" and "ξ_s * Trend^2" variables are state-specific linear and quadratic time trends.

The dependent variables are different in Equations (5) and (6). Traczynski's (2010) dependent variable is measured as the state divorce rate per 1000 married population. The dependent variable in this study is a binary indicating whether or not a married individual got divorced in the next time period. Average total income, median house price, homeownership rate, race, and age information are measured at the state level in Traczynski (2010). This paper measures similar information at the individual

level. The unemployment rate is measured at the state level in both specifications. Exemptions are measured at the state level in both specifications although Traczynski (2010) measures exemptions in 10,000's of dollars and this paper measures exemptions in 100,000's of dollars.

Theory does not provide specific predictions about the effect of an increase in the total exemption on all individuals in treatment states. If the coefficients imply that an increase in exemptions increases the probability of divorce, the consumption insurance effect and/or the credit effect will dominate the financial benefit effect. The opposite will hold true if the coefficients imply that an increase in exemptions decreases the probability of divorce.

Homestead and Personal Property Exemptions

Equation (7) represents the model estimated to determine if the homestead exemption affects individuals differently than personal property exemptions. Variation of the homestead exemption 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. Theoretical predictions and treatment and control groups are the same as in the previous model.

Equation (7) presents the basic estimated model:

(7) $$Divorced_{ist+1} = \gamma_0 + \gamma_1 * \text{Homestead Exemption}_{st} + \gamma_2 * \text{Personal Property Exemptions}_{st} + \gamma_3 * \text{Homestead Exemption}_{st}^2 + \gamma_4 * \text{Personal Property}$$

$Exemptions_{st}^2 + \nu * \text{Domestic Support Exemptions}_{st} + \tau * Demographics_{it} + \delta *$

$\text{Marriage Match}_{it} + \eta_s + \mu_t + \varepsilon_{ist}$

The primary coefficients of interest will be on Homestead Exemption, Homestead Exemption^2, Personal Property Exemptions, and Personal Property Exemptions^2. The combination of the linear and quadratic terms on the relative independent variables will demonstrate if there are any non linear effects associated with either exemption.

The subscripts indicate variation within the data for each vector. The subscript "i" indicates that there is variation within the data at the individual level. The same holds for "s" and "t" for state and time respectively. The dependent variable, $Divorced_{ist+1}$, is a dummy variable that indicates if a man got divorced in the next time period. Homestead and personal property exemptions are based on the state exemption levels.[24] The Personal Property Exemption matrix is the sum of the motor vehicle, cash and bank deposits, wild card, and tools of trade exemptions. The domestic support matrix contains two dummy variables per person indicating whether or not child support and alimony are exempt in their state of residence. The demographics matrix includes information about husband race, husband age, homeownership, husband education, and husband and wife yearly earnings. The marriage match matrix contains relative educational attainment by husband and wife, age at marriage for husband and wife, second (or later) marriage, number of children under eighteen years of age, length of marriage, and whether or not the couple is of the same race.

[24] The homestead and personal property exemptions may be replaced with the federal limits if the state allows for the debtor to choose and the federal levels are higher. See data section for a full description.

State and time fixed effects are included in the regressions to control for unobserved state and time characteristics. η_s and μ_t denote state and time fixed effects respectively. A dummy variable for every year in the sample is included in the regressions in order to control for any unobserved variable in the error term that does not change by state but changes over time. The time fixed effect allows for a different intercept in every year. Time fixed effects are used to avoid complications with the Bankruptcy Reform Act of 1994 and Bankruptcy Abuse Prevention and Consumer Protection Act of 2005. Both Acts revised national bankruptcy laws, which affected residents of every state in the years that they were passed. State fixed effects allow for unobserved variation in the error term between states. The state fixed effects allow every state its own intercept in estimation.

Homestead Exemption for Homeowners and Non-Homeowners

The following 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 effect of the homestead exemption on homeowners and non-homeowners. The homestead exemption is thought to be the most pertinent because it is by far the largest of the exemptions, although it is not directly relevant to non-homeowners.[25] This specification provides insight about the effect of the homestead exemption, on homeowners and non-homeowners.

Equation (8) presents a triple difference model:

[25] The homestead exemption may impact the availability of credit for individuals who do not own a home.

(8) $Divorced_{ist+1} = \alpha_0 + \alpha_1 * Homestead\ Exemption_{st} + \alpha_2 * Own\ Home + \alpha_3 * Own\ Home_{st} * Homestead\ Exemption_{st} + \alpha_4 * Homestead\ Exemption_{st}^2 + \alpha_5 * Own\ Home_{st} * Homestead\ Exemption_{st}^2 + \alpha_6 * Personal\ Property\ Exemption_{st} + \alpha_7 * Personal\ Property\ Exemption_{st}^2 + \nu * Domestic\ Support\ Exemptions_{st} + \tau * Demographics_{it} + \delta * Marriage\ Match_{it} + \eta_s + \mu_t + \varepsilon_{ist}$

The dependent variable is whether or not the individual is divorced in the next time period. The $Homestead\ Exemption_{st}$ vector contains the dollar value of the homestead exemption for each man in the sample. $Own\ Home_{ist} * Homestead\ Exemption_{st}$ is a vector of interaction terms created by multiplying the $Own\ Home_{ist}$ vector of binary variables and the $Homestead\ Exemption_{st}$ vector. The same holds for $Homestead\ Exemption_{st}^2$ and the interaction term $Own\ Home * Homestead\ Exemption_{st}^2$. The interaction terms will be zero for non-homeowners and as a result it will show the effect of a change in the homestead exemption on homeowners only. The domestic support exemptions, demographic, and marriage match matrices are the same as in previous specifications. η_s and μ_t denote state and time fixed effects respectively.

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. Theory does not provide predictions about the direction of the effect of the homestead exemption on the probability of divorce for homeowners. The results will aid in determining which direct theoretical effect, the financial benefit effect or the consumption insurance effect, dominates when an exemption increases.

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 the sign on the coefficient α_1 will be positive. This suggests that the homestead exemption is positively related to the probability of divorce for non-homeowners through the credit effect.

The treatment and control groups change slightly from the previous regressions. The treatment group includes homeowner men who live in a state where the homestead exemption limit changed. The control group includes all men in control states where the homestead exemption did not change and non-homeowner men in treatment states. The coefficient on the own home variable will estimate the predicted divorce probability for men who own homes in any state. The combination of the coefficients represented by α_3 and α_5 will show the predicted effect that the homestead exemption has on homeowner men who live in states where the homestead exemption changed compared to non-homeowner men living in the same states. The quadratic terms test for non-linear effects that exemptions may have on the probability of divorce.

The exemption changes are at the state level and the correlation will vary across states. To control for this the standard errors are clustered by state. Regressions were run under linear specifications as well. Additional specification and robustness checks to the model will be presented in the results section.

CHAPTER 7

RESULTS

Total Exemption

Table (7) presents a replication of Trazcynski's (2010) regression analysis. For comparison, Traczynski's (2010) results are displayed in Appendix (B); note that the Total Exemption is measured in $10,000's. Columns (1) - (4) display results that exclude states with an unlimited homestead exemption. Columns (5) – (8) display results that include states with an unlimited homestead exemption, where the homestead exemption is defined at $500,000. The dependent variable in Appendix (C) is number of divorces per 1000 people. The dependent variable in Table (7) is a dummy variable indicating if a man is divorced in the next time period. Columns (1) – (3) display the full sample where an unlimited homestead exemption is defined at $500,000.[26] Columns (4) – (6) display a subsample where individuals with unlimited homestead exemptions are excluded.

The primary coefficients of interest are on Total Exemption and Total Exemption^2. Estimates are 0.0086 and -0.0011 respectively. The full estimated model is displayed in Column (3). Note that the units are measured in $100,000's. None of the coefficients of interest are statistically significant.

Focusing on Column (8) of Appendix (C) (results from Traczynski (2010)), the coefficients on Total Exemption and Total Exemption^2 are 0.0433 and -0.000565 respectively. The coefficients imply that an increase in the total exemption from

[26] Traczynski defines the unlimited homestead exemption at $500,000.

$113,824 to $139,877 (the real increase from 1991 to 2007 including unlimited homestead exemptions defined at $500,000) increases the predicted divorce rate by .0076 percentage points or 2 percent.

Table (8) displays a quasi-replication of Trazcynski (2010). The model is estimated to determine if marriage matching and individual demographic characteristics affect results under the previous specification. The primary coefficients of interest are on Total Exemption and Total Exemption^2. Column (1) displays the simplest cross sectional results without state or time fixed effects. The estimated coefficients are 0.0033 and -0.0005 respectively; both are statistically significant. The coefficients imply that an increase from $113,824 to $139,877 in total exemptions increases the predicted probability of divorce by 0.08 percentage points or 2.6 percent. The quadratic term implies that there are decreasing marginal effects. Once state and time fixed effects are introduced into the model, there is no statistical significance on coefficients of interest. Once marriage matching and individual demographic characteristics are included, the magnitude of the point estimates shrinks by about half. Specification checks that estimate the model with state-linear and quadratic time trends, rather than state and time fixed effects, do not yield significantly different results.

The results presented in Traczynski (2010) are statistically significant. He finds robust results to suggest that increases in total exemptions have a positive effect on the divorce rate with decreasing marginal effects. The directions of the point estimates displayed in Tables (7) and (8) are the same as those in Trazcynski (2010) but are not

statistically significant. The results presented in Tables (7) and (8) do not suggest that increases in the total exemption have any effect on the probability of divorce.

The point estimates above and results that Traczynski (2010) finds are in line with theoretical predictions. In the case where an increase in exemptions leads to an increase in the probability of divorce, theory indicates that the credit effect and/or the consumption insurance effect dominate the bankruptcy benefit effect. If credit is affected, theory supports that an increase in exemptions leads to a reduction in the availability of credit, which reduces the costs of divorce via lower levels of asset ownership. The reduction in divorce costs leads to an increase in the probability of divorce. An increase in exemptions also increases the consumption insurance provided by bankruptcy, which decreases the relative risk pooling benefits from marriage. A decrease in relative benefits from marriage increases the probability of divorce. Either or both of the effects could be driving the predicted positive effect on the probability of divorce.

Homestead and Personal Property Exemptions

Table (9) 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) through (4) and estimates with state specific time trends are reported in Columns (5) through (8). Results are dependent on whether time fixed effects or state specific time trends are used. Focusing on Column (8), the full estimated model predicts that an increase in the homestead exemption increases the probability of divorce at a decreasing marginal rate. The coefficients on homestead exemption and homestead

exemption^2 are 0.0366 and -0.0032, respectively. The estimated coefficients imply that an increase in the homestead exemption from $103,339 to $129,978 dollars increases the predicted probability of divorce by 0.78 percentage points or 25 percent. The coefficients on the personal property exemptions are not statistically different from zero. The magnitude and variation in personal property exemptions is small which suggests that personal property exemptions are less important in the divorce decision. Results from Columns (1) - (4) present estimates with time fixed effects rather than state specific time trends. The point estimates are in the same direction as those in Columns (5) through (8) but the magnitudes are considerably smaller. The only statistically significant coefficient of interest is on Homestead Exemption^2, which implies that the homestead exemption affects the predicted probability of divorce with decreasing marginal effects. Coefficients on personal property exemptions are insignificant. The results estimated from the fixed effects model are similar to those presented in the replication specification. Again, results suggest that the credit effect and/or consumption insurance effect explain an increase in the predicted probability of divorce with exemptions.

Homestead Exemption for Homeowners and Non-Homeowners

Table (10) presents results that estimate the effect of the homestead exemption on homeowners and non-homeowners. Columns (1) through (4) display results with state and time fixed effects. Column (5) displays results with state, time, and state-time fixed effects. Columns (6) through (9) 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, represented with α_3 and α_5, show the difference in the estimated effect of the homestead exemption on homeowners and non-homeowners. The magnitudes of the effects are considerably different between specifications. Focusing on Column (9), the combination of the coefficients on homestead exemption and homestead exemption^2 shows the effect of a $100,000 increase in the homestead exemption on non-homeowners. The coefficients on homestead exemption and homestead exemption^2 are 0.0305 and -0.0030 respectively, which implies that an increase in the average homestead exemption from $103,339 to $129,978 dollars increases the predicted probability of divorce for non-homeowners by 0.63 percentage points or 15 percent.

The coefficients on the interaction terms of 0.0022 and -0.0001from Column (9) imply that an increase from 103,339 to 129,978 in the homestead exemption increases the predicted probability of divorce by .68 percentage points or about 30 percent for homeowners. Under both specifications, the interaction terms are not statistically different from zero. F-Tests were completed to test if the interaction terms were jointly statistically significant. The empirical evidence does not suggest that homeowners react differently to the homestead exemption than non-homeowners.

Column (5) shows estimates with state, time, and state-time fixed effects. The homestead and personal property exemptions are not included in the specification because they are perfectly collinear with state-time fixed effects. The variation of exemptions is at the state level but the interaction terms between the own home binary

variable and the linear and quadratic terms of the homestead exemption vary at the individual level. The coefficients on the interaction terms show the effect of the homestead exemption on homeowners. The coefficients on the interactions terms are 0.0297 and -0.0025 which implies that an increase in the homestead exemption leads to an increase in the predicted probability of divorce for homeowners compared to individuals in control states and non-homeowners in treatment states. The coefficients imply that an increase in the homestead exemption from $103,339 to $129,978 leads to an increase in the predicted probability of divorce by 0.64 percentage points or 30 percent.

Results presented in Table (10) suggest that upon an increase in the homestead exemption, the predicted probability of divorce increases for both non-homeowners and homeowners. The positive effect of the homestead exemption on non-homeowners is in line with theoretical predictions. This result suggests that an increase in the homestead exemption reduces access to credit for non-homeowners, which decreases their costs of divorce through less asset attainment. The reduced availability of credit also decreases the gains to marriage for non-homeowners. A portion of the productive gains to marriage comes from attaining joint assets, and when credit is restricted the productive gains are reduced. The reduced costs of divorce and reduced benefits from marriage suggest that the probability of divorce for non-homeowners will increase with an increase in the homestead exemption. The theoretical prediction is supported empirically for non-homeowners.

The positive effect of the homestead exemption on homeowners provides insight into theoretical implications. The theoretical prediction of the effect of the homestead exemption on homeowners is ambiguous. Empirically, the direction of the effect is positive which suggests that an increase in the homestead exemption increases the probability of divorce for homeowners. The empirical evidence suggests that the positive direct effect of the homestead exemption on divorce is driven by the reduced relative gains to marriage (or the consumption insurance effect). The relative benefits from marriage are reduced by an increase in the homestead exemption which leads to a higher predicted probability of divorce.

From the difference-in-difference-in-difference estimator, it is demonstrated that the positive effect for homeowners is driven by an increase in consumption insurance and the positive effect for non-homeowners is driven by a reduction in the availability of credit. In a given year, the size of the average homestead exemption is about five times that of the personal property exemption. The homestead exemption protects a large portion of a homeowner's assets in bankruptcy which suggests that homeowners would be sensitive to the size of the homestead exemption. The size and variation of the personal property exemption is relatively small. This suggests that non-homeowners may not be as sensitive to the personal property exemption as homeowners are to the homestead exemption and that the credit effects may be more pronounced for non-homeowners. The results explain which theoretical effects drive the positive result of an increase in the total exemption found in earlier specifications from this paper and Traczynski (2010).

Robustness of Estimates and Specification

All specifications were estimated with individual fixed effects as a specification check. The individual fixed effect controls for any time invariant characteristics of an individual. Additionally, the individual fixed effects control for any unobserved characteristics about the individual that may be correlated with their propensity to divorce. Results estimated with individual fixed effects do not produce statistically significant results, regardless of the inclusion of time fixed effects or state specific time trends. The directions of the coefficients are not different from earlier specifications.

The results from this paper are not robust under certain specifications.[27] Results are particularly sensitive to the definition of the unlimited homestead exemption and the inclusion of time controls. If the unlimited homestead exemption is defined at 500,000 dollars, the magnitude of the coefficients is the largest of any specification. When states with unlimited homestead exemptions are excluded from regressions, the magnitude and level of significance on coefficients of interest shrinks. If the unlimited homestead exemption is defined at zero, and a dummy variable is included to allow unlimited states a unique intercept, estimates are again affected. The inclusion of an unlimited dummy variable reduces the magnitude and statistical significance of coefficients.

Results are also sensitive to the inclusion of time fixed effects versus state specific time trends. Coefficients estimated with state specific time trends are larger in magnitude and have greater statistical significance. The most notable discrepancies

[27] In addition to specifications discussed above. The effects of exemptions were testing without including quadratic terms; the direction of coefficients is not consistent with findings using the quadratic specification. Results available from author upon request.

between the two are displayed in Tables (5) and (6). 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. There are not a large number of observations per state per year, which suggests that inclusion of the state specific time trends may cause data to be over fitted, which may produce unreliable results. If time fixed effects provide more accurate estimates, no conclusions can be made about the effect of bankruptcy exemptions on the probability of divorce. If state specific time trends provide more accurate estimates, exemptions can be concluded to have relatively large effects on the probability of divorce, specifically the homestead exemption.

CHAPTER 8

CONCLUSION

This paper contributes to the literature on the effects of bankruptcy exemptions on divorce by its use of an individual panel data set. The panel data contains individual information which allows the empirical specifications to more closely resemble those in the marriage and divorce literature. Information about homeownership at the individual level also provides an opportunity to test the direct and indirect effects of bankruptcy exemptions posed by theoretical predictions. A test of the homestead exemption as it applies to homeowners compared to non-homeowners provides insight as to the effects of bankruptcy exemptions on the different groups. Non-homeowners are only affected indirectly through credit markets while homeowners are affected directly from an increase in the homestead exemption.

The results from this paper suggest that bankruptcy exemptions have a small positive effect on the probability of divorce, although results are sensitive to specification. The positive effect is found to be driven mainly by the homestead exemption. The predicted probability of divorce for both homeowners and non-homeowners increases with an increase in the homestead exemption. This suggests that the groups are affected by exemptions differently. The non-homeowner group is affected indirectly by the homestead exemption through credit markets. The homeowner group is affected directly by the homestead exemption because the exemption can only be used towards equity in a home. Further exploration of theoretical implications suggests that

non-homeowners respond to the homestead exemption because of its effect on credit markets. Homeowners respond to the homestead exemption through increases in consumption insurance.

Future research that examines the social effects of bankruptcy exemptions should continue to be addressed. The PSID bankruptcy rate is about half the national filing rate which suggests that individuals in the PSID may be less sensitive to bankruptcy exemptions than the rest of the population. Future research should utilize other data sets with an average filing rate more close to that of the US. In addition to bankruptcy exemptions, research has looked at the effects of informal default laws on filing for bankruptcy (Lefgren and McIntyre, 2010). They suggest that wage garnishments strongly impact an individual's decision to file, more so than exemptions. Using wage garnishments in place of bankruptcy exemptions, under a similar specification, may produce interesting results. The results from this paper suggest that the availability of credit affects non-homeowners decisions to divorce. Additional research that examines the effects of credit availability on marriage and divorce may further explain the result of the non-homeowner response to an increase in the homestead exemption.

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APPENDICES

APPENDIX A

FIGURES

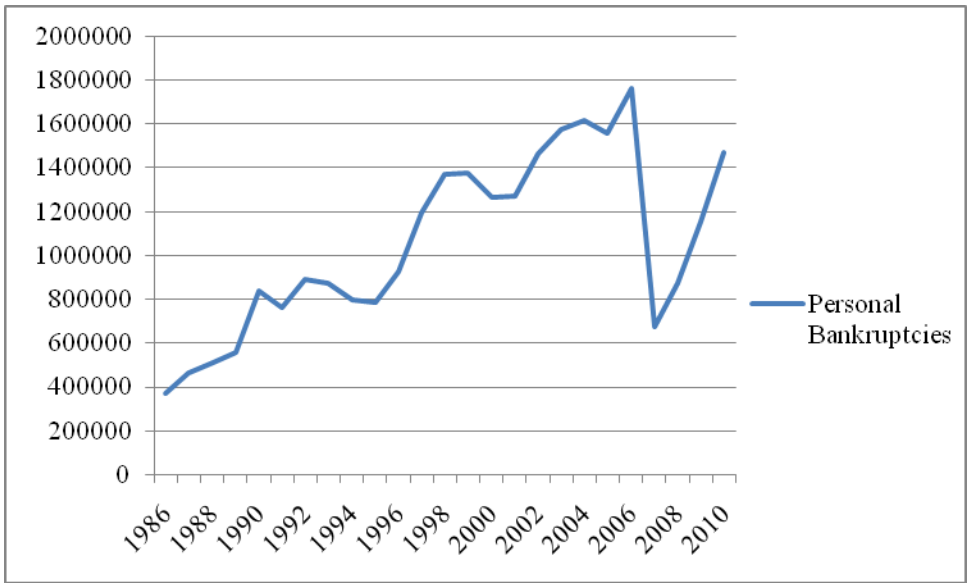

Figure 1. Number of Personal Bankruptcy Filings 1986 - 2010.

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.

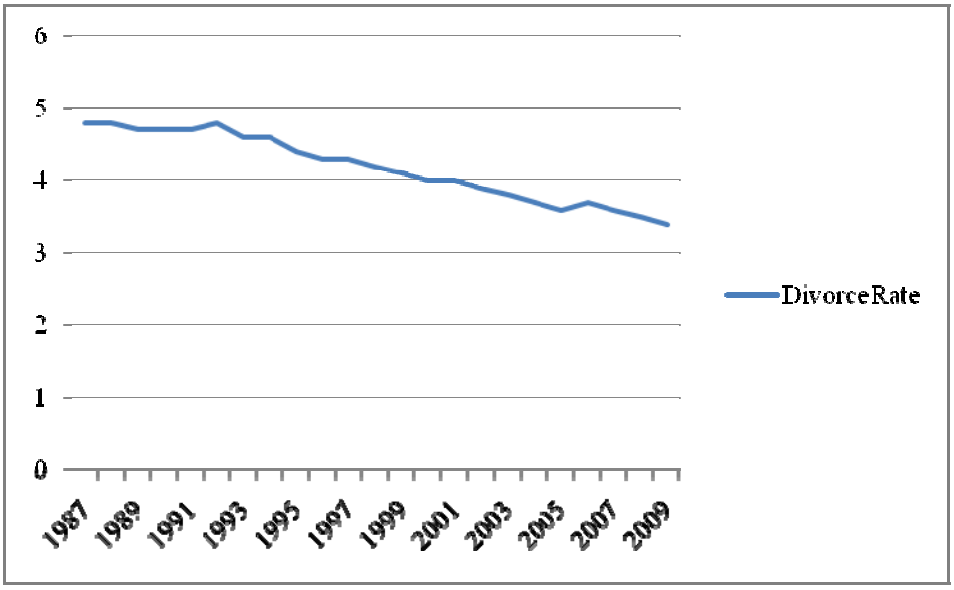

Figure 2. Divorce Rate per 1000 people 1987-2009.

Source: Authors' calculations based on information provided by The Vital Statistics of the United States.

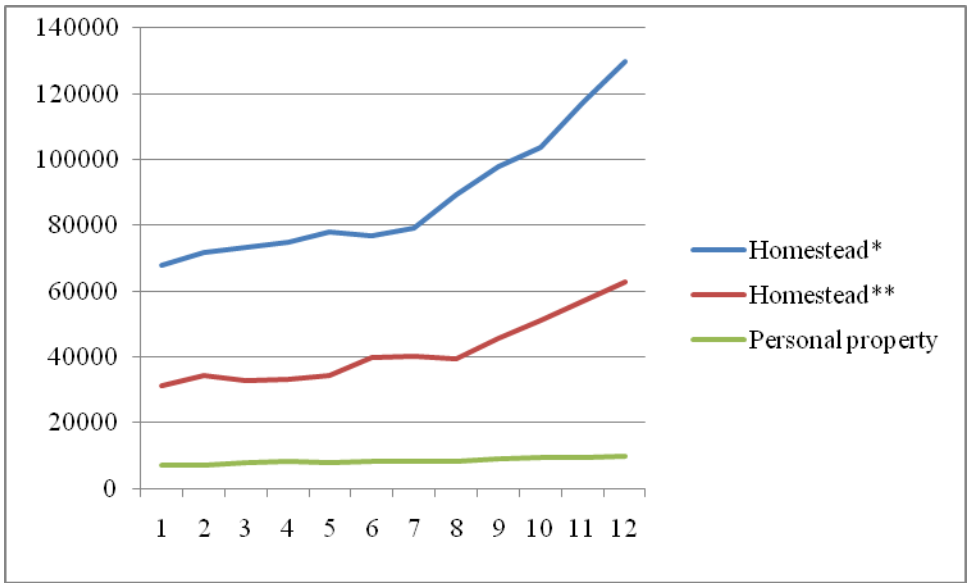

Figure 3. Average Nominal Bankruptcy Exemptions Across States 1991-2007.

Source: Authors' calculations based on Elias, Renauer, and Leonard (various editions).
*Calculation includes states with unlimited homestead exemptions, where the homestead exemption is defined at $500,000.
**Calculation excludes state with unlimited homestead exemptions.

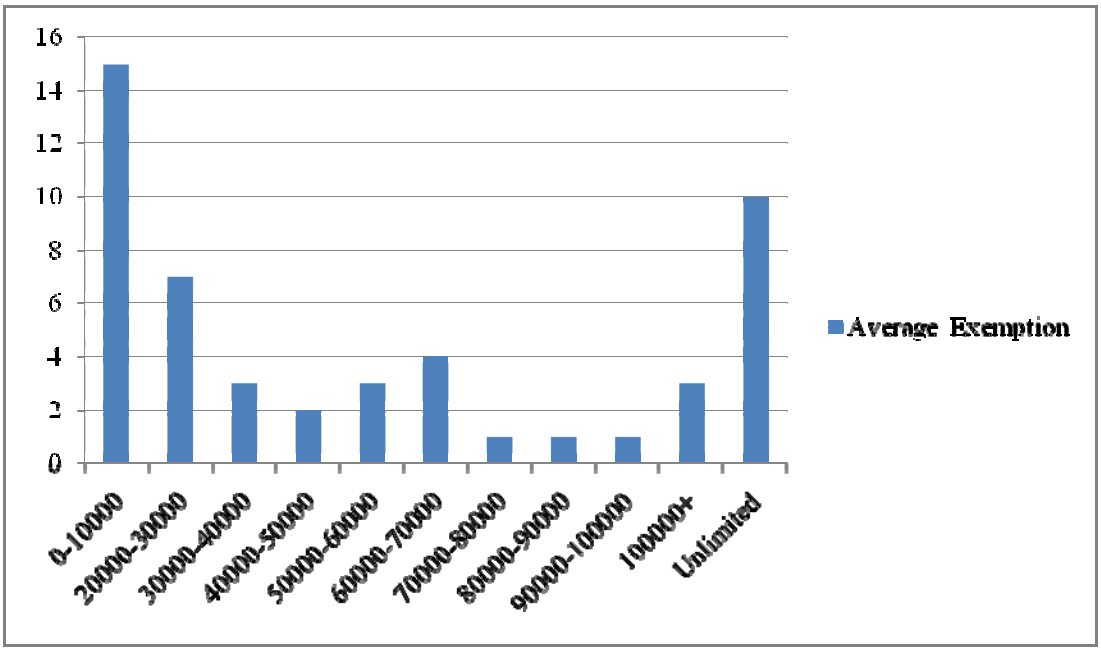

Figure 4. Bar Chart of Average State Level Homestead Exemption by State from 1991-2007.

Source: Authors calculations' based on Elias, Renauar, and Leonard (Various Editions).

Table 5. Summary Statistics for PSID Variables.

Variable	Average	Standard Deviation	Minimum	Maximum
Age Husband	40.63	10.03	20	62.00
Husband White	0.72	0.45	0	1.00
Husband Black	0.22	0.42	0	1.00
Husband Years of Education	13.17	2.53	1	17.00
Husband Wages	49698	74093	0	6844916
Wife Age	38.65	9.80	15	82.00
Wife White	0.72	0.45	0	1.00
Wife Years of Education	13.18	2.36	1	17.00
Wife Wages	23807	80451	0	1399068
Own Home	0.75	0.43	0	1.00
Number of Own Children <18	1.27	1.22	0	10.00
Husband & Wife Combined Income	74409	114030	0	1403825
Wife Age at Marriage*	24.73	6.89	-2	72
Head Age at Marriage	26.78	7.21	14	61
Year Married (First Marriage)	1982.97	11.57	1946	2007
Year Divorced (First Marriage)	1998.23	4.48	1991	2007
Year Married (Second Marriage)	1989.47	9.42	1955	2007
Year Divorced (Second Marriage)	2000.90	4.20	1991	2007
Duration of Marriage	13.80	10.37	0	46
Divorced in Next Period	0.03	0.16	0	1
Second (or Additional) Marriage	0.21	0.40	0	1
Husband & Wife Same Education	0.50	0.50	0	1
Husband Higher Education than Wife	0.25	0.43	0	1
Husband & Wife Same Race	0.95	0.21	0	1

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 6. 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

Table 6. Summary of Nominal Bankruptcy Exemptions by Year (continued).

Exemption	Count	Average	Standard Deviation	Minimum	Maximum
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: Authors 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 7. Total Exemption. Replication of Traczynski (2010). Dependent Variable is Divorced in Next Time Period.

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
Total Exemption	0.0074	0.0077	0.0086	0.0064	0.0065	0.0073
	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
Total Exemption^2	-0.0009	-0.0010	-0.0011	-0.0005	-0.0006	-0.0007
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Total Household Income		-0.0001	-0.0001		-0.0002	-0.0001
		(0.000)	(0.000)		(0.000)	(0.000)
State Unemployment Rate		-0.0026	-0.0026		0.0009	0.0010
		(0.002)	(0.002)		(0.002)	(0.002)
Value of House		-0.0000	0.0000		-0.0000	0.0000
		(0.000)	(0.000)		(0.000)	(0.000)
Own Home		-0.0206***	-0.0124***		-0.0220***	-0.0136***
		(0.003)	(0.002)		(0.003)	(0.003)
Husband is White			0.0045			0.0049
			(0.004)			(0.003)
Husband is Black			0.0274***			0.0280***
			(0.007)			(0.007)
Husband Age			-0.0009***			-0.0010***
			(0.000)			(0.000)
Constant	-0.0376***	-0.0015	0.0217	-0.0371***	-0.0249	-0.0015
	(0.001)	(0.019)	(0.020)	(0.001)	(0.019)	(0.020)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State-Linear and Quadratic Trends	Yes	Yes	Yes	Yes	Yes	Yes
Homestead Defined	Yes	Yes	Yes	No	No	No
Observations	30,949	30,949	30,949	25,592	25,592	25,592
R-squared	0.011	0.018	0.023	0.013	0.017	0.022

Total Exemption and all other independent variables are from time t.
Robust standard errors are clustered by state and displayed in parenthesis.***,**,* signifies statistical significance at the 1%, 5%, and 10% levels, respectively.
Unlimited exemption is defined at $500,000 when the homestead exemption is defined.
When homestead in not defined, the sample includes states without unlimited homestead exemptions.

Table 8. Replication of Traczynski Experiment using Demographic and Matching Independent Variables.
Dependent Variable is Divorced in Next Time Period.

Independent Variables	(1)	(2)	(3)	(4)
Total Exemption	0.0033**	0.0039	0.0045	0.0045
	(0.002)	(0.004)	(0.004)	(0.004)
Total Exemption^2	-0.0005**	-0.0005	-0.0006	-0.0006
	(0.000)	(0.000)	(0.000)	(0.000)
Husband Age			-0.0008***	-0.0032
			(0.000)	(0.003)
Husband Education			-0.0010**	-0.0011**
			(0.000)	(0.000)
Husband White			-0.0065	-0.0051
			(0.004)	(0.005)
Own Home			-0.0075***	-0.0073***
			(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**
				(0.001)
Length of Marriage				0.0025
				(0.003)
Husband Race = Wife Race				-0.0033
				(0.007)
Wife Age at Marriage				-0.0007***
				(0.000)
Husband Age at Marriage				0.0033
				(0.003)
2nd (or Additional) Marriage				-0.0089**
				(0.004)
Constant	0.0199***	0.0221***	0.0660***	0.0672***
	(0.002)	(0.002)	(0.013)	(0.014)
State Fixed Effects	No	Yes	Yes	Yes
Time Fixed Effects	No	Yes	Yes	Yes
Observations	30,949	30,949	30,949	30,949
R-squared	0.000	0.009	0.067	0.068

Robust standard errors, clustered at the state level, are displayed in parenthesis. *, **, *** denotes significance at the 10%, 5%, or 1% level, respectively.
Results do not change significantly if state linear and quadratic trends are used instead of time fixed effects, time fixed effects display more conservative estimates that the time trends.
Results do not change if unlimited states are excluded from regressions.
Results do not differ significantly under probit and logit specifications.

Table 9. Personal Property and Homestead Exemption. Dependent Variable is Divorced in Next Time Period.

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homestead Exemption	0.0028	0.0036	0.0027	0.0027	0.0401**	0.0403**	0.0339*	0.0336*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.019)	(0.019)	(0.017)	(0.017)
Homestead Exemption^2	-0.0007*	-0.0007*	-0.0006*	-0.0006*	-0.0038**	-0.0038**	-0.0032**	-0.0032**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Personal Property Exemptions	0.0055	-0.0037	-0.0006	-0.0006	-0.0215	-0.0108	-0.0169	-0.0183
	(0.039)	(0.042)	(0.034)	(0.034)	(0.075)	(0.075)	(0.066)	(0.067)
Personal Property Exemptions^2	0.0080	0.0128	0.0088	0.0089	0.0274	0.0221	0.0233	0.0241
	(0.017)	(0.018)	(0.014)	(0.014)	(0.034)	(0.034)	(0.030)	(0.030)
Child Support Exempt		0.0368***	0.0359***	0.0357***		0.0682**	0.0674**	0.0677**
		(0.011)	(0.011)	(0.011)		(0.033)	(0.032)	(0.032)
Alimony Exempt		-0.0205	-0.0223	-0.0216		-0.0475	-0.0525	-0.0533
		(0.014)	(0.014)	(0.014)		(0.034)	(0.034)	(0.034)
Husband Age			-0.0007***	-0.0031			-0.0007***	-0.0030
			(0.000)	(0.003)			(0.000)	(0.003)
Husband High Grade			-0.0010**	-0.0010**			-0.0010**	-0.0011**
			(0.000)	(0.000)			(0.000)	(0.000)
Husband White			-0.0068	-0.0055			-0.0092**	-0.0076
			(0.004)	(0.005)			(0.004)	(0.005)
Own Home			-0.0078***	-0.0076***			-0.0079***	-0.0076***
			(0.002)	(0.002)			(0.002)	(0.002)
Husband Wages			-0.0001	-0.0001			-0.0001*	-0.0001
			(0.000)	(0.000)			(0.000)	(0.000)
Wife Wages			-0.0000	-0.0000			-0.0000	-0.0000
			(0.000)	(0.000)			(0.000)	(0.000)
Number of Children <18			0.0013	0.0013			0.0011	0.0011
			(0.001)	(0.001)			(0.001)	(0.001)
Head Education = Wife Education				-0.0033**				-0.0036**
				(0.001)				(0.001)

Table 9. Personal Property and Homestead Exemption. Dependent Variable is Divorced in Next Time Period (continued).

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Length of Marriage				0.0023				0.0022
				(0.003)				(0.003)
Husband Race = Wife Race				-0.0031				-0.0036
				(0.006)				(0.007)
Wife Age at Marriage				-0.0007***				-0.0007***
				(0.000)				(0.000)
Husband Age at Marriage				0.0031				0.0031
				(0.003)				(0.003)
2nd (or Additional) Marriage				-0.0087**				-0.0096**
				(0.004)				(0.004)
Constant	0.0280***	0.0294***	0.0709***	0.0720***	-0.0454***	-0.0459***	0.0161	0.0193
	(0.005)	(0.005)	(0.013)	(0.014)	(0.003)	(0.003)	(0.013)	(0.014)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	No	No	No	No
State Linear & Quadratic Trends	No	No	No	No	Yes	Yes	Yes	Yes
Observations	30,949	30,949	30,949	30,949	30,949	30,949	30,949	30,949
R-squared	0.016	0.017	0.073	0.074	0.030	0.031	0.080	0.081

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

Results do no change significantly when estimated under a Probit specification although many variables drop because of perfect prediction.

Table 10. Difference-in-Difference-in-Difference Results. Dependent Variable is Divorced in Next Time Period.

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Homestead Exemption	0.0068	0.0072	0.0025	0.0021		0.0442**	0.0421**	0.0310*	0.0305*
	(0.007)	(0.008)	(0.007)	(0.007)		(0.020)	(0.021)	(0.018)	(0.018)
Homestead Exemption*Own Home	-0.0025	-0.0029	0.0010	0.0014	0.0297***	-0.0017	-0.0016	0.0018	0.0022
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.007)	(0.007)	(0.007)	(0.007)
Homestead Exemption^2	-0.0010*	-0.0011*	-0.0006	-0.0006		-0.0041**	-0.0041**	-0.0031**	-0.0030**
	(0.001)	(0.001)	(0.001)	(0.001)		(0.002)	(0.002)	(0.001)	(0.001)
Homestead Exemption^2*Own Home	0.0002	0.0003	-0.0000	-0.0001	-0.0025***	0.0002	0.0002	-0.0001	-0.0001
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Own Home	-0.0234***	-0.0233***	-0.0098**	-0.0095**	-0.0161***	-0.0236***	-0.0236***	-0.0101**	-0.0098**
	(0.005)	(0.004)	(0.004)	(0.004)	(0.000)	(0.005)	(0.005)	(0.004)	(0.004)
Other Exemptions		0.0007	0.0030	0.0032			-0.0011	-0.0067	-0.0073
		(0.046)	(0.040)	(0.040)			(0.101)	(0.086)	(0.086)
Other Exemptions^2		0.0106	0.0065	0.0065			0.0173	0.0173	0.0177
		(0.020)	(0.017)	(0.017)			(0.047)	(0.040)	(0.040)
Alimony Exempt			-0.0150	-0.0145				-0.0079	-0.0078
			(0.013)	(0.013)				(0.026)	(0.026)
Child Support Exempt			0.0210**	0.0208**				0.0140	0.0139
			(0.009)	(0.009)				(0.021)	(0.021)
Husband Age			-0.0010***	-0.0043	-0.0045			-0.0010***	-0.0041
			(0.000)	(0.004)	(0.004)			(0.000)	(0.004)
Husband Education			-0.0010**	-0.0010**	-0.0012***			-0.0010***	-0.0011**
			(0.000)	(0.000)	(0.000)			(0.000)	(0.000)
Husband White			-0.0058	-0.0043	-0.0059			-0.0074	-0.0056
			(0.005)	(0.006)	(0.006)			(0.005)	(0.006)
Husband Wages			-0.0001	-0.0001	-0.0001*			-0.0001	-0.0001
			(0.000)	(0.000)	(0.000)			(0.000)	(0.000)

Table 10. Difference-in-Difference-in-Difference Results. Dependent Variable is Divorced in Next Time Period (continued).

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Wife Wages			-0.0000	-0.0000	-0.0000			-0.0000	-0.0000
			(0.000)	(0.000)	(0.000)			(0.000)	(0.000)
Number of Children <18			0.0000	-0.0002	-0.0002			-0.0002	-0.0004
			(0.001)	(0.001)	(0.001)			(0.001)	(0.001)
Husband Education = Wife Education				-0.0027*	-0.0028*				-0.0030*
				(0.002)	(0.002)				(0.002)
Length of Marriage				0.0032	0.0034				0.0031
				(0.004)	(0.004)				(0.004)
Husband Race = Wife Race				-0.0041	-0.0045				-0.0053
				(0.008)	(0.008)				(0.008)
Wife Age at Marriage				-0.0008***	-0.0009***				-0.0009***
				(0.000)	(0.000)				(0.000)
Husband Age at Marriage				0.0043	0.0045				0.0042
				(0.004)	(0.004)				(0.004)
2nd (or Additional) Marriage				-0.0084**	-0.0083**				-0.0094**
				(0.004)	(0.004)				(0.004)
Constant	0.0582***	0.0579***	0.0943***	0.0959***	0.0823***	-0.0758***	-0.0758***	-0.0219	-0.0161
	(0.005)	(0.005)	(0.014)	(0.017)	(0.016)	(0.005)	(0.004)	(0.016)	(0.019)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	No	No	No	No
State * Time Fixed Effects	No	No	No	No	Yes	No	No	No	No
State-Linear & Quadratic Trends	No	No	No	No	No	Yes	Yes	Yes	Yes
Observations	25,026	25,026	25,026	25,026	25,026	25,026	25,026	25,026	25,026
R-squared	0.018	0.018	0.093	0.094	0.116	0.033	0.033	0.100	0.102

Robust standard errors, clustered at the state level, are displayed in parenthesis.*,**,*** denotes significance at the 10%, 5%, or 1% level, respectively. Results do no change significantly when estimated under a Probit specification although many variables drop because of perfect prediction.

APPENDIX B

BANKRUPTCY EXEMPTION DATA

Table 11. Bankruptcy Exemption Data.

	Homestead											
State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
AK	54000	54000	54000	54000	54000	54000	54000	58000	250000	64800	67500	67500
AZ	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	150000	150000
AR	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
CA	50000	50000	50000	50000	50000	50000	50000	50000	50000	50000	50000	50000
CO	20000	25000	30000	30000	30000	30000	30000	30000	30000	45000	45000	45000
CT	0	0	0	75000	75000	75000	75000	75000	75000	75000	75000	75000
DE	0	0	0	0	0	0	0	0	0	0	0	50000
DC	0	0	0	0	0	0	0	0	0	unl.	unl.	unl.
FL	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
GA	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000	10000
HI	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
ID	30000	40000	50000	5000	50000	50000	50000	50000	50000	50000	50000	50000
IL	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	15000
IN	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	15000
IA	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
KA	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
KY	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
LA	15000	15000	15000	15000	15000	15000	15000	15000	25000	25000	25000	25000
ME	7500	75000	7500	10000	12500	12500	12500	12500	25000	30000	35000	35000
MD	0	0	0	0	0	0	0	0	0	0	0	0
MA	100000	100000	100000	100000	100000	100000	100000	100000	100000	300000	500000	500000
MI	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	31900
MN	unl.	unl.	unl.	unl.	unl.	200000	200000	200000	200000	200000	200000	200000
MS	30000	52500	75000	75000	75000	75000	75000	75000	75000	75000	75000	75000
MO	8000	8000	8000	8000	8000	8000	8000	8000	8000	11500	15000	15000
MT	40000	40000	40000	40000	40000	40000	50000	60000	60000	80000	100000	100000
NE	10000	10000	10000	1000	10000	10000	11250	12500	12500	12500	12500	12500
NV	95000	95000	95000	95000	95000	125000	125000	125000	125000	200000	200000	350000
NH	5000	17500	30000	30000	30000	30000	30000	30000	30000	65000	100000	100000
NJ	0	0	0	0	0	0	0	0	0	0	0	0
NM	20000	20000	20000	25000	30000	30000	30000	30000	30000	30000	30000	30000
NY	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	50000

Table 11. Bankruptcy Exemption Data (continued).

NC	7500	8750	10000	10000	10000	10000	10000	10000	10000	10000	10000	18500
ND	80000	80000	80000	80000	80000	80000	80000	80000	80000	80000	80000	80000
OH	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
OK	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
OR	15000	15000	15000	20000	25000	25000	25000	25000	25000	25000	25000	30000
PN	0	0	0	0	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	100000	150000	200000	300000
SC	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
SD	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
TN	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
TX	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.	unl.
UT	8000	8000	8000	8000	8000	8000	9000	10000	20000	20000	20000	20000
VT	30000	30000	30000	30000	30000	30000	75000	75000	75000	75000	75000	75000
VA	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
WA	30000	30000	30000	30000	30000	30000	30000	30000	40000	40000	40000	40000
WV	7500	7500	7500	7500	7500	15000	15000	15000	15000	25000	25000	25000
WI	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000
WY	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
Fed	7500	7500	7500	7500	7500	15000	15000	15575	17425	17938	18450	18450
AVG	20534	23233	22864	23625	25136	30022	31294	31668	39143	45346	53681	62701

	Motor Vehicle											
State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	0	0	0	0	0	0	0	0	0	0	0	0
AK	3000	3000	3000	3000	3000	3000	3000	3225	3600	3600	3750	3750
AZ	1500	1500	1500	1500	1500	1500	1500	1500	5000	5000	5000	5000
AR	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
CA	1200	1200	1200	1200	1200	1900	1900	1900	1900	1100	2300	2550
CO	1000	1000	1000	1000	1000	1000	1000	1000	3000	3000	3000	3000
CT	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
DE	0	0	0	0	0	0	0	0	0	0	0	0
DC	500	0	0	0	0	0	0	0	2575	2575	2575	2575
FL	0	0	0	500	1000	1000	1000	1000	1000	1000	1000	1000
GA	1000	1000	1000	1000	1000	1000	1000	1000	3500	3500	3500	3500
HI	1000	1000	1000	1000	1000	1000	1000	1000	2575	2575	2575	2575

Table 11. Bankruptcy Exemption Data (continued).

ID	1500	1500	1500	1500	1500	1500	1500	2250	3000	3000	3000	3000
IL	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	2400
IN	4000	0	0	0	0	0	0	0	0	0	0	0
IA	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	7000
KA	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
KY	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
LA	0	0	0	0	0	0	0	0	0	0	0	0
ME	1200	1200	1200	1850	2500	2500	2500	2500	5000	5000	5000	5000
MD	0	0	0	0	0	0	0	0	0	0	0	0
MA	700	725	750	750	750	750	750	725	700	700	700	700
MI	0	0	0	0	0	0	0	0	0	0	0	2950
MN	2000	2500	3000	3100	3200	3200	3200	3300	3600	3600	3800	3800
MS	0	0	0	0	0	0	0	0	0	0	0	0
MO	500	500	500	750	1000	1000	1000	1000	1000	1000	3000	3000
MT	1200	1200	1200	1200	1200	1200	1200	1200	2500	2500	2500	2500
NE	0	0	0	0	0	0	0	0	0	0	0	0
NV	1000	1250	1500	15000	1500	1500	3000	4500	4500	9750	15000	15000
NH	1000	1000	1000	1000	1000	4000	4000	4000	4000	4000	4000	4000
NJ	0	0	0	0	0	0	0	0	0	0	0	0
NM	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
NY	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
NC	1000	1250	1500	1500	1500	1500	1500	1500	1500	1500	1500	3500
ND	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
OH	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
OK	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
OR	1200	1200	1200	1450	1700	1700	1700	1700	1700	1700	1700	2150
PN	0	0	0	0	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	10000	10000	10000
SC	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SD	0	0	0	0	0	0	0	0	0	0	0	0
TN	0	0	0	0	0	0	0	0	0	0	0	0
TX	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000
UT	1500	0	0	0	0	0	1750	2500		2500	2500	2500
VT	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
VA	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
WA	1200	1850	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500

Table 11. Bankruptcy Exemption Data (continued).

WV	1200	1200	1200	1200	1200	2400	2400	2400	2400	2400	2400	2400
WI	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
WY	0	1000	2000	2000	2000	2000	2200	2400	2400	2400	2400	2400
Fed	1200	1200	1200	1800	2400	2400	2400	2487.5	2775	2862.5	2950	3225
AVG	3452	3388	3439	3744	3530	3624	3690	3759	4130	4378	4549	4725

Tools of Trade

State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	0	0	0	0	0	0	0	0	0	0	0	0
AK	2800	2800	2800	2800	2800	2800	2800	3010	3360	3360	3500	3500
AZ	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
AR	750	750	750	750	750	750	750	750	750	750	750	750
CA	2500	2500	2500	2500	2500	5000	5000	5000	5000	5537.5	6075	6750
CO	1500	1500	1500	1500	1500	1500	1500	1500	3000	3000	3000	3000
CT	0	0	0	0	0	0	0	0	0	0	0	0
DE	75	75	75	75	75	75	75	75	75	75	75	75
DC	200	200	200	200	200	200	200	200	200	200	200	200
FL	0	0	0	0	0	0	0	0	0	0	0	0
GA	500	500	500	500	500	500	500	500	1500	1500	1500	1500
HI	0	0	0	0	0	0	0	0	0	0	0	0
ID	1000	1000	1000	1000	1000	1000	1000	1250	1500	1500	1500	1500
IL	750	750	750	750	750	750	750	750	750	750	750	1500
IN	0	0	0	0	0	0	0	0	0	0	0	0
IA	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
KA	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	750	7500
KY	300	300	300	300	300	300	300	300	300	300	300	300
LA	0	0	0	0	0	0	0	0	0	0	0	0
ME	1000	1000	1000	3000	5000	5000	5000	5000	5000	5000	5000	5000
MD	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	5000	5000
MA	500	500	500	500	500	500	500	500	500	500	500	500
MI	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
MN	5000	6250	7500	7750	8000	8000	8000	8250	9000	9000	9500	9500
MS	0	0	0	0	0	0	0	0	0	0	0	0
MO	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	3000
MT	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000

Table 11. Bankruptcy Exemption Data (continued).

NE	1500	1500	1500	1500	1500	1500	1950	2400	2400	2400	2400	2400
NV	4500	4500	4500	4500	4500	4500	4500	4500	4500	4250	4500	4500
NH	1200	1200	1200	1200	1200	5000	5000	5000	5000	5000	5000	5000
NJ	0	0	0	0	0	0	0	0	0	0	0	0
NM	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
NY	600	600	600	600	600	600	600	600	600	600	600	600
NC	500	625	750	750	750	750	750	750	750	750	750	2000
ND	0	0	0	0	0	0	0	0	0	0	0	0
OH	750	750	750	750	750	750	750	750	750	750	750	750
OK	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
OR	750	750	750	2250	3000	3000	3000	3000	3000	3000	3000	3000
PN	0	0	0	0	0	0	0	0	0	0	0	0
RI	500	500	500	500	500	500	500	500	500	1200	1200	1200
SC	750	750	750	750	750	750	750	750	750	750	750	750
SD	0	0	0	0	0	0	0	0	0	0	0	0
TN	750	750	750	750	750	750	1325	1900	1900	1900	1900	1900
TX	0	0	0	0	0	0	0	0	0	0	0	0
UT	1500	1500	1500	1500	1500	1500	2500	3500	3500	3500	3500	3500
VT	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
VA	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
WA	3000	4000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
WV	750	750	750	750	750	1500	1500	1500	1500	1500	1500	1500
WI	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500
WY	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Fed	750	750	750	11250	1500	1500	1500	1562.5	1750	1800	1850	2025
AVG	1811	1857	1902	2176	2047	2182	2221	2275	2353	2373	2319	2523

Cash & Bank Deposits

State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	0	0	0	0	0	0	0	0	0	0	0	0
AK	0	0	0	0	0		0	0	8075	1680	1750	1750
AZ	150	150	150	150	150	150	150	150	150	150	150	150
AR	0	0	0	0	0	0	0	0	0	0	0	0
CA	0	0	0	0	0	0	0	0	0	0	0	0
CO	0	0	0	0	0	0	0	0	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0	0	0

Table 11. Bankruptcy Exemption Data (continued).

DE	0	0	0	0	0	0	0	0	0	0	0	0
DC	0	0	0	0	0	0	0	0	0	0	0	0
FL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
GA	0	0	0	0	0	0	0	0	0	0	0	0
HI	0	0	0	0	0	0	0	0	0	0	0	0
ID	0	0	0	0	0	0	0	0	0	0	0	0
IL	0	0	0	0	0	0	0	0	0	0	0	0
IN	4100	2100	100	100	100	100	100	100	100	100	100	300
IA	0	0	0	0	0	0	0	0	0	0	0	0
KA	0	0	0	0	0	0	0	0	0	0	0	0
KY	0	0	0	0	0	0	0	0	0	0	0	0
LA	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MD	0	0	0	0	0	0	0	0	0	0	0	0
MA	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
MI	0	0	0	0	0	0	0	0	0	0	0	0
MN	0	0	0	0	0	0	0	0	0	0	0	0
MS	0	0	0	0	0	0	0	0	0	0	0	0
MO	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	0	0	0	0
NV	0	0	0	0	0	0	0	0	0	0	0	0
NH	0	0	0	0	0	0	0	0	0	0	0	0
NJ	0	0	0	0	0	0	0	0	0	0	0	0
NM	0	0	0	0	0	0	0	0	0	0	0	0
NY	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
NC	0	0	0	0	0	0	0	0	0	0	0	0
ND	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
OH	400	400	400	400	400	400	400	400	400	400	400	400
OK	0	0	0	0	0	0	0	0	0	0	0	0
OR	5000	6250	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500
PN	0	0	0	0	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	0	0	0
SC	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
SD	6000	6000	6000	6000	6000	6000	6000	6000	0	0	0	0

Table 11. Bankruptcy Exemption Data (continued).

TN	0	0	0	0	0	0	0	0	0	0	0	0
TX	30000	45000	60000	60000	60000	60000	60000	60000	60000	60000	60000	60000
UT	0	0	0	0	0	0	0	0	0	0	0	0
VT	700	700	700	700	700	700	700	700	700	700	700	700
VA	0	0	0	0	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0	0	0	0	0
WV	0	0	0	0	0	0	0	0	0	0	0	0
WI	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
WY	0	0	0	0	0	0	0	0	0	0	0	0
Fed	0	0	0	0	0	0	0	0	0	0	0	0
AVG	1116	1390	1664	1664	1664	1697	1664	1664	1704	1581	1583	1587

Wild Card												
State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
AK	0	0	0	0	0	0	0	0	0	0	0	0
AZ	0	0	0	0	0	0	0	0	0	0	0	0
AR	500	500	500	500	500	500	500	500	500	500	500	500
CA	0	0	0	0	0	0	0	0	0	0	0	0
CO	0	0	0	0	0	0	0	0	0	0	0	0
CT	0	0	0	500	1000	1000	1000	1000	1000	1000	1000	1000
DE	500	500	500	500	500	500	500	500	500	500	500	500
DC	0	0	0	0	0	0	0	0	850	850	850	850
FL	0	0	0	0	0	0	0	0	0	0	0	0
GA	400	400	400	400	400	400	400	400	600	600	600	600
HI	0	0	0	0	0	0	0	0	0	0	0	0
ID	0	0	0	0	0	0	0	0	800	800	800	800
IL	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	4000
IN	0	2000	4000	4000	4000	4000	4000	4000	4000	4000	4000	8000
IA	100	100	100	100	100	100	100	100	100	100	100	100
KA	0	0	0	0	0	0	0	0	0	0	0	0
KY	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
LA	0	0	0	0	0	0	0	0	0	0	0	0
ME	400	400	400	400	400	400	400	400	400	400	400	400
MD	5500	5500	5500	5500	5500	5500	5500	5500	5500	5500	6000	6000

Table 11. Bankruptcy Exemption Data (continued).

MA	0	0	0	0	0	0	0	0	0	0	0	0
MI	0	0	0	0	0	0	0	0	0	0	0	0
MN	0	0	0	0	0	0	0	0	0	0	0	0
MS	0	0	0	0	0	0	0	0	0	0	0	0
MO	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
MT	0	0	0	0	0	0	0	0	0	0	0	0
NE	2500	2500	2500	2500	2500	2500	2500	2500	2500	12500	2500	2500
NV	0	0	0	0	0	0	0	0	0	0	0	0
NH	0	0	0	0	0	0	500	1000	1000	1000	1000	1000
NJ	0	0	0	0	0	0	0	0	0	0	0	0
NM	500	500	500	500	500	500	500	500	500	500	500	500
NY	0		0	0	0	0	0	0	0	0	0	0
NC	2500	2750	3500	3500	3500	3500	3500	2000	500	500	500	500
ND	0	0	0	0	0	0	0	0	0	0	7500	7500
OH	400	400	400	400	400	400	400	400	400	400	400	400
OK	0	0	0	0	0	0	0	0	0	0	0	0
OR	400	400	400	400	400	400	400	400	400	400	400	400
PN	300	300	300	300	300	300	300	300	300	300	300	300
RI	0	0	0	0	0	0	0	0	0	0	0	0
SC	0	0	0	0	0	0	0	0	0	0	0	0
SD	0	0	0	0	0	0	0	0	6000	6000	6000	6000
TN	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
TX	0	0	0	0	0	0	0	0	0	0	0	0
UT	0	0	0	0	0	0	0	0	0	0	0	0
VT	400	400	400	400	400	400	400	400	400	400	400	400
VA	0	0	0	0	0	0	0	0	0	0	0	0
WA	500	750	1000	1000	1000	1000	1000	1000	1000	2000	2000	2000
WV	400	400	400	400	400	800	800	800	800	800	800	800
WI	0	0	0	0	0	0	0	0	0	0	0	0
WY	0	0	0	0	0	0	0	0	0	0	0	0
Fed	400	600	800	800	800	800	825	900	925	975	975	1075
AVG	518	581	632	641	651	659	669	651	774	986	948	1065

Table 11. Bankruptcy Exemption Data (continued).

Federal Option

State	1991	1992	1993	1994	1995	1996	1997	1999	2001	2003	2005	2007
AL	No	No	No	No	No	No	No	No	No	No	No	No
AK	No	No	No	No	No	No	No	No	No	No	No	No
AZ	No	No	No	No	No	No	No	No	No	No	No	No
AR	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CA	No	No	No	No	No	No	No	No	No	No	No	No
CO	No	No	No	No	No	No	No	No	No	No	No	No
CT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DE	No	No	No	No	No	No	No	No	No	No	No	No
DC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FL	No	No	No	No	No	No	No	No	No	No	No	No
GA	No	No	No	No	No	No	No	No	No	No	No	No
HI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ID	No	No	No	No	No	No	No	No	No	No	No	No
IL	No	No	No	No	No	No	No	No	No	No	No	No
IN	No	No	No	No	No	No	No	No	No	No	No	No
IA	No	No	No	No	No	No	No	No	No	No	No	No
KA	No	No	No	No	No	No	No	No	No	No	No	No
KY	No	No	No	No	No	No	No	No	No	No	No	No
LA	No	No	No	No	No	No	No	No	No	No	No	No
ME	No	No	No	No	No	No	No	No	No	No	No	No
MD	No	No	No	No	No	No	No	No	No	No	No	No
MA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MS	No	No	No	No	No	No	No	No	No	No	No	No
MO	No	No	No	No	No	No	No	No	No	No	No	No
MT	No	No	No	No	No	No	No	No	No	No	No	No
NE	No	No	No	No	No	No	No	No	No	No	No	No
NV	No	No	No	No	No	No	No	No	No	No	No	No
NH	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
NJ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 11. Bankruptcy Exemption Data (continued).

NY	No	No	No	No	No	No	No	No	No	No	No	No
NC	No	No	No	No	No	No	No	No	No	No	No	No
ND	No	No	No	No	No	No	No	No	No	No	No	No
OH	No	No	No	No	No	No	No	No	No	No	No	No
OK	No	No	No	No	No	No	No	No	No	No	No	No
OR	No	No	No	No	No	No	No	No	No	No	No	No
PN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SC	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
SD	No	No	No	No	No	No	No	No	No	No	No	No
TN	No	No	No	No	No	No	No	No	No	No	No	No
TX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UT	No	No	No	No	No	No	No	No	No	No	No	No
VT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VA	No	No	No	No	No	No	No	No	No	No	No	No
WA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WV	No	No	No	No	No	No	No	No	No	No	No	No
WI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WY	No	No	No	No	No	No	No	No	No	No	No	No
Fed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AVG	0.27	0.29	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31

APPENDIX C

RESULTS FROM TRACZYNSKI (2010)

Table 12. Results from Traczynski (2010).

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Exemption	0.0611*	0.0605**	0.0496**	0.0457**	0.0466*	0.0491**	0.0473**	0.0433**
	(0.0311)	(0.0259)	(0.00199)	(0.0210)	(0.0267)	(0.0243)	(0.0183)	(0.0205)
Total Exemption2	-0.00117***	-0.000935***	-0.000843***	-0.000751**	-0.000560	-0.000528	0.000620**	-0.000565**
	(0.00039)	(00.00032)	(0.0027)	(0.00030)	(0.00050)	(0.00043)	(0.00025)	(0.00025)
Real Personal Income		0.851	0.733	0.556		0.338	0.350	0.114
		(0.910)	(0.853)	(0.886)		(0.777)	(0.726)	(0.758)
Unemployment Rate		-0.0981	-0.0626	-0.0679		-0.125**	-0.0963	-0.0999
		(0.0676)	(0.0656)	(0.0665)		(0.0614)	(0.0628)	(0.0618)
Real Median House Price		-0.0320	-0.0424	-0.0293		-0.0611	-0.0607	-0.0517
		(0.0627)	(0.0539)	(0.0496)		(0.0600)	(0.0547)	(0.0499)
Homeownership Rate		-4.677**	-4.721**	-3.977**		-5.043**	-5.152***	-4.658**
		(2.230)	(1.981)	(2.027)		(2.112)	(1.904)	(1.924)
Percent Hispanic			-42.21**	-43.34**			-39.58**	-40.28**
			(15.92)	(15.96)			(16.44)	(16.50)
Percent Black			13.62	15.63			-18.62	-17.42
			(20.85)	(20.04)			(23.55)	(23.32)
Percent Age 15-64			4.095*	4.362*			4.242*	4.445*
			(2.367)	(2.291)			(2.183)	(2.146)
Child Custody Guidelines			-0.204	-0.0199			-0.412	-0.400
			(0.252)	(0.251)			(0.267)	(0.259)
No Fault Maintenance			-0.0889	-0.0748			0.0520	0.0621
			(0.104)	(0.0826)			(0.121)	(0.107)
Covenant Marriage			-0.804***	-0.819***			0.468	-0.433
			(0.149)	(0.0166)			(0.294)	(0.292)
Real Max AFDC/TANF				0.000730				0.00180
				(0.00114)				(0.00134)

Table 12. Results from Traczynski (2010 (continued).

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Real Max EITC Payment				0.000575				0.000606
				(0.000362)				(0.000380)
Constant	7.359***	8.559**	6.803	5.903	7.642***	10.88***	13.51**	12.49**
	(0.178)	(3.388)	(5.721)	(5.394)	(0.268)	(2.853)	(5.465)	(5.246)
Homestead Defined	No	No	No	No	Yes	Yes	Yes	Yes
Number of Observations	674	674	674	674	801	801	801	801
State Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Linear and Quadratic Trends								
Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.943	0.945	0.947	0.948	0.948	0.950	0.952	0.953

Standard errors are in parenthesis. Standard errors are Huber- White robust estimates, clustered at the state level. *, **, *** denotes significance at the 10%, 5%, or 1% level, respectively.

*Results are directly out of Traczynski's (forthcoming).