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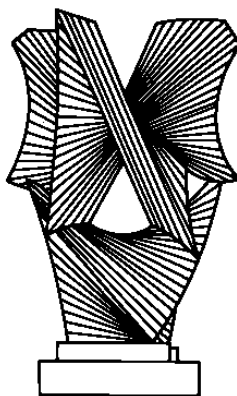
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**THE LAW SCHOOL
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The Political Economy of Property Exemption Laws

Eric A. Posner,¹ Richard Hynes,² and Anup Malani³

September 19, 2001

Every state has laws that protect some of the assets of debtors from the satisfaction of claims by creditors. These “property exemption laws,” which are also called “bankruptcy exemptions,” have long and important political histories. Texas entered the union as the first state with property exemptions—designed, it was said at the time, to draw settlers from other states—but the southern states responded quickly with exemptions of their own, and today every state has property exemptions, frequently quite generous. Like usury, stay, and currency laws, exemption laws have played an important role in the perennial conflict between debtors and creditors.

Exemption laws also play an important role in federal bankruptcy law, and it is here that they enjoy a higher profile. The treatment of state property exemptions in the federal bankruptcy code of 1978 resulted from a compromise between the House, which sought to establish a mandatory system of federal exemptions, and the Senate, which sought to incorporate state exemption laws as the older bankruptcy law did. The compromise law established a set of federal exemptions, and permitted debtors to choose between the federal exemptions and the exemptions of the state in which they reside, unless that state had by statute “opted out” of the federal system, in which case the debtors would have to choose that state’s exemptions. Feelings about exemptions were strong enough in 1978 that this compromise almost did not occur, and they persist today.⁴ Recent efforts to amend the federal bankruptcy law have foundered over, among other issues, the question of whether state exemptions should be capped by a federal ceiling.

Property exemptions are important because of their role in the regulation of consumer credit, and the light they shed on the federal relationship between the states and the national government. But they are poorly understood. Exemptions are a puzzle for economists because, like usury laws, they restrict credit markets in the absence of a well-defined market failure to which they would be a suitable response. Studies of the impact of exemptions on credit markets show effects of ambiguous value; while

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⁴ For a discussion by a bankruptcy judge, see William Houston Brown, Exemption Limitations: Political and Ethical Considerations, in 70th Annual Meeting of the National Conference of Bankruptcy Judges 7-5 (1996). Most legal scholars criticize incorporation of state exemptions; see, e.g., Jean Braucher, Increasing Uniformity in Consumer Bankruptcy: Means Testing as a Distraction and the National Bankruptcy Review Commission’s Proposals as a Starting Point, 6 Am. Bankr. Inst. L. Rev. 1 (1998).

exemption laws may provide some insurance against income shocks, they increase the cost of credit, particularly for the poor.⁵

To understand how exemption laws work, imagine that a creditor lends \$1,000 to a debtor, and that the debtor defaults on the loan. Under ordinary contract principles, the creditor could sue the debtor for breach of contract, obtain a judgment, and then have a local official seize assets of the debtor, which would be sold with the proceeds going to the creditor to the extent of its claim. Suppose that the debtor's only valuable asset is an automobile worth \$2,000, and the relevant property exemption law says that a debtor's automobile is an exempt asset up to a value of \$2,500. Then the local official would refuse to liquidate the creditor's claim by seizing the automobile. The creditor's claim would continue to be valid, and the creditor could enforce it against any nonexempt assets that the debtor might subsequently obtain. The creditor would in most states be able to garnish a portion of the debtor's wages. But the automobile would be safe.

A debtor cannot agree to waive exemption laws in return for a lower interest rate: like usury laws exemption laws supply mandatory, rather than default, rules. However, exemption laws can sometimes be circumvented, albeit imperfectly, through security interests and other arrangements. If, in our example, the creditor had obtained a security interest in the automobile when it lent the \$1,000 to the debtor, default would give the creditor the right to seize the automobile and sell it in satisfaction of its claim.

Exemption laws operate the same way in bankruptcy (under Chapter 7 of the Bankruptcy Code, the dominant form of bankruptcy for consumers) as they do outside of bankruptcy. If the debtor in our first example files for bankruptcy, then his nonexempt assets would be liquidated with the proceeds divided among all of his unsecured creditors. If the debtor owns a painting worth \$200 (in addition to the car), and the state property exemption law does not refer to paintings or other goods of which a painting might be a kind, then the painting is a nonexempt asset. The trustee could sell the painting but not the car, and the \$200 would be distributed to the creditors. In addition, in bankruptcy the debtor can discharge the unsatisfied portion of the creditor's claim, so the creditor would not be able to seize nonexempt assets that the debtor subsequently obtains. The debtor remains roughly as vulnerable to secured creditors in bankruptcy as outside bankruptcy; if a creditor has a security interest in the car, the debtor could retain the automobile only if the creditor were repaid in full.⁶

There are numerous complications, many of which will be discussed below, but the examples above provide a basic picture of state property exemption laws. Their purpose and apparent effect are to restrict the ability of creditors to satisfy unpaid debts.

Many scholars have tried to explain the effect of exemption laws on behavior—including lending practices and the bankruptcy filing⁷—but, despite the absence of an

⁵ See, e.g., Reint Gropp, John Karl Scholz, and Michelle J. White, Personal Bankruptcy and Credit Supply and Demand, 112 Q.J. Econ. 217 (1997).

⁶ An array of bankruptcy rules, however, reduce the value of a secured claim in bankruptcy (especially in Chapter 13) compared to outside bankruptcy: without going into detail, they give the debtor the ability to retain the collateral, or delay return of the collateral, without fully compensating the secured creditor for the time value and additional risk of depreciation.

⁷ For a survey of this literature with citations, see Richard Hynes and Eric A. Posner, A Survey of the Law and Economics of Consumer Finance, 4 Amer. Law and Econ. Rev. (forthcoming 2002).

intuitive theory explaining the market failure for which exemptions would be the solution, no one has tried to explain why states create exemption laws in the first place. This paper begins to fill this gap. We investigate the political determinants of exemption laws, using as data the exemption laws in the fifty states between 1975 and 1996.

We take two basic approaches to these data. First, we exploit the opt-out provision of the Bankruptcy Code, which confronted states with a stark choice between acquiescing in the usually more generous federal personal property exemptions, or opting out and preserving their own. By examining how states reacted, we can discover some of the factors that influence their exemption choice and discover some of the motivation for Congress to pass a statute with an opt-out provision.⁸

Second, we test the various exemption theories by regressing the exemption levels—across states and over time—on independent variables identified by theory. This approach enables us to use more data than the opt-out approach does (which is essentially cross-sectional), but it also involves us in econometric difficulties that we describe below.

Using these approaches, we test theories of exemption laws that have been proposed in the literature, or that are suggested by anecdotal evidence. The theories break down into public interest theories, according to which exemption laws are a crude form of social insurance, and public choice theories, according to which exemption laws are designed to pay off interest groups. We also examine the influence of history, ideology, and perennial worries about the bankruptcy filing rate.

Our paper begins with the historical background, which provides our motivation for testing various hypotheses. Part II describes and explains these hypotheses. Part III presents our empirical results.

I. BACKGROUND

A. History

Laws that enable debtors to avoid paying creditors extend back to Biblical times. There are important precursors of American state exemption laws in the English common law, some of which persist today. For example, some states allow married debtors to shield property held in the form of tenancy by the entirety from creditors of only one spouse. But recognizable property exemption laws did not appear in the United States until the middle of the nineteenth century. The first exemption law was adopted by the (then) Republic of Texas in 1839 and was expanded when Texas became a state in 1845. Many other states followed suit in the 1840s and 1850s. By the end of the 1860s almost every state had adopted a homestead exemption law. These laws either specified a dollar amount of equity in property or an area in acres or town lots. The

⁸ The use of opt-out provisions is common but not, to our knowledge, studied. Examples can be found in the federal regulation of interest rates, banking, nonprofit institutions, pensions, and so forth.

exemptions ranged from \$200 to \$5,000,⁹ and from one quarter of an acre of farmland or a lot in a town to as many as 160 acres of farmland.¹⁰

The first laws set a pattern which prevails today, although the nominal values of exemptions have increased considerably. States make a basic distinction between homestead exemptions, which protect real property, and exemptions that protect personal property.¹¹ Homestead exemptions usually list dollar amounts, but sometimes refer to particular acreage limits that may vary depending on whether the land is in a town or a rural area. In the past, some exemptions could be waived if the owner (and sometimes his spouse) signed a waiver, or filed with a registry, but this is now prohibited by federal law, except with regard to secured credit.¹² Personal property exemptions usually list specific kinds of property, with individual and/or aggregate dollar ceilings, but sometimes allow the debtor to choose the property he will exempt. Personal property exemptions often refer to categories of basic necessities, like food, clothes, furnishings or tools of trade, but sometimes they refer to specific items, like herds of sheep or military uniforms. Exemption levels may vary depending on whether the debtor is the head of a household or is single, the debtor is a veteran or not, and the debtor is elderly or not.

In 1898 the federal government created the first durable bankruptcy law. The federal law incorporated state bankruptcy exemptions. This meant that if an individual filed for bankruptcy under federal law, he could (1) obtain a discharge from all or most of his debts, and (2) keep whatever assets were exempted under the law of the state in which he resided. The federal bankruptcy system did not replace state debt collection laws so much as supplement them. A debtor could choose to enter bankruptcy or not; if he did not, his creditors could sue him for unpaid debts but still could not liquidate his exempt assets. In 1978 the federal government replaced the old bankruptcy system with the current bankruptcy system. The House tried to replace state exemptions with a uniform system of federal exemptions, while the Senate sought to maintain the old system of federal incorporation of state exemptions.¹³ The compromise was a law that set forth uniform federal exemptions and held that a debtor could choose between the federal exemptions and his state's exemptions, except in those states that formally opt out of the federal system, where debtors must use local exemption laws. About two-thirds of the states had opted out by the early 1980s.

The bankruptcy filing rate had been rising gradually through the 1960s and the 1970s, but after the enactment of the Bankruptcy Reform Act of 1978 the filing rate increased markedly. Currently, more than a million people file for bankruptcy every year. Some commentators have blamed the increase on the generosity of state and

⁹ This is approximately \$2,500 to \$63,000 in 2000 dollars according to price indices reported by the Bureau of Labor Statistics and in United States Bureau of the Census, Statistical Research Division, *Historical Statistics of the United States, Colonial Times to the Present*, 211 (1970).

¹⁰ See Paul Goodman, *The Emergence of Homestead Exemption in the United States: Accommodation and Resistance to the Market Revolution, 1840-1880*, 80 *J. Amer. His.* 470, 472 (1993).

¹¹ The states and the federal government also provide exemptions for insurance and for future income in the form of limitations on garnishment. These exemptions are beyond the scope of this paper.

¹² 16 C.F.R. § 444.2

¹³ See Eric A. Posner, *The Political Economy of the Bankruptcy Reform Act of 1978*, 96 *Mich. L. Rev.* 47, 94-108 (1997).

federal exemption laws, but the evidence is conflicting.¹⁴ It is true that the federal exemptions created by the 1978 Act were higher than many state exemptions at the time. However, the federal exemptions were not available in the states that opted out of the federal system; the federal exemptions were actually reduced in 1984; the federal exemptions were not adjusted for inflation until 1994; and most states did not increase their exemptions faster than inflation after 1978 (though many did). Yet all this time the bankruptcy filing rate increased steadily across states.

Despite the lack of evidence of a connection between the bankruptcy filing rate and the Bankruptcy Code or property exemptions, concerns about the default rate and the bankruptcy filing rate have provoked calls for reform of the Bankruptcy Code, including a provision that requires many wealthier debtors to file under Chapter 13. Another popular reform is to cap exemptions so that states can no longer provide generous relief to the wealthiest debtors, but this could hardly be expected to affect the filing rate, because very few debtors who have valuable assets file for bankruptcy.

A separate concern is that state property exemptions are not sufficiently generous, and that they vary too much across states. Many state property exemption laws have archaic provisions that are unchanged since the nineteenth century. In Oklahoma, for example, the debtor can exempt a gun, twenty head of sheep, and “all provisions and forage on hand.”¹⁵ Commentators assume that state legislatures must not care enough about exemptions to update them, justifying a federal role. Although, as we will see, these concerns are exaggerated, the debate reflects the important role of federalism in bankruptcy policy.¹⁶

B. A first look at exemptions

Exemption laws are complex, and pose difficult coding issues, but at this stage it is appropriate to give the reader a sense of their variation between states and over time.

Table 1 shows the nominal personal and homestead exemptions for all states in 1975 and 1996—the first and last years of our period. Roughly speaking, a homeowner can take advantage of both sets of exemptions; a nonhomeowner can take advantage only of the personal property exemptions though in many states nonhomeowners can use a portion of the homeowner exemption for personal property. Significantly, nonhomeowners were able to use the entire amount of the federal homestead exemption toward personal property until 1984. Table 1 also shows the growth rate of homestead exemptions; which states allowed a particularly strong form of tenancy by the entirety, “TBE,” in 1975 (only Ohio and Massachusetts dropped this doctrine before 1996); and which states opt out of the federal exemptions, and when.

[Table 1: Nominal Homestead and Personal Property Exemptions]

Consider a married couple who have \$30,000 equity in their house; a \$20,000 car; and a \$10,000 art collection. Assume further that they have no joint creditors. Both the homestead exemptions and the doctrine of tenancy by the entirety can be used to protect

¹⁴ For a survey of this literature, see Hynes and Posner, *supra* note ____.

¹⁵ 31 Okl. St. § 1 (2000).

¹⁶ For a discussion of exemption policy and federalism, see G. Marcus Cole, *The Federalist Cost of Bankruptcy Exemption Reform*, 74 Am. Bankr. L.J. 227 (2000).

the home equity; almost all states have general personal property exemptions that can be used for cars as well as other property, or else a specific motor vehicle exemption. The debtors could keep the art collection if their state has a generous personal property exemption that is not restricted to, say, cars, furniture, and clothes, but would have no luck if it did not.

In 1975, the debtors could keep \$19,000 of equity (with \$11,000 to the unsecured creditors) if they lived in Alaska; the entire house if they live in Hawaii; the entire house if they lived in Indiana (though only \$1,400 if they jointly owed their obligations); and so forth; and \$0 of equity in New Jersey. In 1996, the debtors could keep the whole house in Alaska, Hawaii, and Indiana (\$15,000 if the obligations were jointly owed); and the whole house in New Jersey because they could now claim the federal exemption.

Figure 1 provides a geographic perspective on nominal homestead exemptions. The states marked with “pins” have unlimited exemptions; the darker states have higher nominal exemptions than the lighter states. One perceives a regional pattern: the unlimited states form a belt up the middle of the country; Midwestern and western states have more generous homestead exemptions than southern and eastern states. This pattern holds up over time, but is less distinct for personal property exemptions.

[Figure 1: Homestead exemptions in 1996]

A glance back at Table 1 confirms the considerable cross-sectional variation in the nominal value of homestead and personal property exemptions in 1975 and 1996. The fourth column shows that homestead exemptions generally grew slowly, and on average much less than inflation; this is true for personal property exemptions as well. Figure 2 shows variation over time of the mean nominal value of the exemptions that could be claimed by a homeowner, and also the exemptions for two states, Alabama and California

[Figure 2: Nominal exemptions over time]

Visual inspection of the data and simple means and growth rates thus reveals (1) some regional patterns; (2) rising nominal exemptions (with a few ambiguous exceptions states do not lower their nominal exemptions) that are nonetheless eroded by inflation in most states; (3) the federal homestead exemption roughly equal to the median state homestead exemption in 1978, and the federal personal property exemptions greater than most state personal property exemptions (especially if one includes the ability of nonhomeowners to use the federal homestead exemption); and (4) considerable variation in dollar exemption levels across time and across states: in some state-years a couple can exempt virtually nothing, in others tens or hundreds of thousands of dollars worth of property. This last observation alerts us that subtle variations across states—risk preferences, for example, or income per capita—are unlikely to explain much variation in exemption levels.

II. HYPOTHESES

A. Federalism and opt out

We begin with the opt-out decision because it is the cleanest test of the sensitivity of state exemption laws to external events. As we will see below, our tests of the levels of

exemptions are hindered by the difficulty of measuring the independent variables and the fact that our explanatory variables exhibit little variation.

By contrast, in 1979 the Bankruptcy Code confronted many states with a stark choice: accept a dramatically higher exemption regime or enact legislation to opt out. At the same time, some states had high enough exemptions already that the federal scheme did not pose any dilemmas. It might seem odd that the federal government would pass a law on a topic that the states have already considered and then allow each state to revert to its own judgment. However, this approach is not uncommon; it has been employed with regard to usury laws, banking regulation, and other areas of the law.¹⁷

We assume that prior to enactment of the Bankruptcy Code, state exemption laws reflected a political equilibrium. Some people probably wanted more generous exemption laws, and other people wanted stricter laws, but no one had the political power to change the status quo. The Bankruptcy Code served as an external shock, for it increased the nonhomeowner exemptions in most states unless they opted out.

If the existing state exemptions reflected a political equilibrium, one might predict that all states would opt out, and reestablish the old equilibrium. But this prediction ignores the possibility that the new status quo created by the Bankruptcy Code increases the political power of actors within the state who prefer a higher exemption level. Some states might not opt out because these actors have enough political power to block such a move. One might also predict that states that are already more generous than the federal government would not bother to opt out. But this ignores the difficulty of comparing federal and state exemptions (as we discuss below) and ideological aversion to federal interference. Still, one might argue that in general, states with stingy exemptions are more likely to opt out than states with generous exemptions.

Extending the argument that enactment of the Bankruptcy Code upset local political equilibria, one predicts that if a state's exemptions are lower than the federal exemptions, that state is likely to increase its exemptions when it opts out, though not above the federal level. The increase in the exemption is necessary to "bribe" those who would otherwise block attempts to opt out because they prefer the more generous federal exemptions. If the state exemptions are higher, the federal exemptions do not change the status quo, and so adjustment of state exemptions would be unnecessary. We thus predict the upon opting out a state with exemptions lower than the federal exemptions will raise its exemptions to an amount between its status quo level and the federal level. We call this prediction the "bargain theory."

We would not necessarily predict that other independent variables would play a role; these are already reflected in the status quo exemptions. However, conservative or populist states might object to federal interference even if it is symbolic.¹⁸ Existing work on the bankruptcy filing rate, and some anecdotal evidence, also suggest that states with higher bankruptcy filing rates will be more eager to opt out, for the federal exemptions were widely seen as likely to increase the attractiveness of bankruptcy. In addition, it is

¹⁷ See *supra* note ____.

¹⁸ For evidence of the influence of ideology on bankruptcy policy, especially in the nineteenth century, see Erik Berglöf and Howard Rosenthal, *The Political Economy of American Bankruptcy: The Evidence from Roll Call Voting, 1800–1978* (manuscript, 1999).

possible that legislatures in states with very low exemptions just did not care enough about the issue to opt out.¹⁹

B. Exemption levels: Public interest hypotheses

Legislators, judges, and commentators have since the beginning advanced a series of stock explanations for exemptions. These explanations center around their usefulness for cushioning debtors against economic shocks such as depressions, helping people who have fallen onto hard times, and protecting the family from the improvidence of the head of household.

Whatever the truth these explanations had in the nineteenth century, when capital markets were thinner, secured credit was less common, more people were self-sufficient farmers, and the family was a more important unit of economic activity, they have less resonance today. Nevertheless, we make an effort to test them (except the third, which we do not consider). To clarify discussion, we recast these arguments in terms of the standard justifications economists give for social assistance programs: insurance and altruism.²⁰

1. Exemptions as credit insurance.

A credit contract can, in theory, insure the debtor against bad states of the world as well as provide for an interest rate that he pays in the good state. In a perfect market, a firm that supplies both credit and such insurance would offer a menu of interest rates and default terms, and debtors would choose among them on the basis of their risk preference, wealth, and so forth. This is more than a mere academic possibility. There is a developed, if heavily criticized, market in credit insurance in which debtors can purchase insurance against default on the occurrence of certain events such as disability and unemployment. Moreover, a debtor can protect himself from default by purchasing insurance against events that often provoke default, events such as illness and destruction of property.

However, insurance markets might be imperfect, and it is possible that neither the creditor nor a third party insurer would supply an insurance term. On this view, exemption laws solve a market failure by requiring creditors to supply the terms that would be offered in a perfect market, much as a mandatory warranty law could solve the lemons problem in, say, the used car industry.²¹ If this is so, then one might predict that the level of exemptions should depend on the factors that would affect an individual's choice of credit insurance in a perfect market. For example, individuals who

¹⁹ One might also predict that the independent variables would be correlated with the timing of opt out; we discuss this prediction in note __, below.

²⁰ See, for example, Harold M. Hochman and James D. Rodgers, Pareto Optimal Redistribution, 59 *Amer. Econ. Rev.* 542, 543 (1969).

²¹ See, for example, Hung-Jen Wang and Michelle J. White, An Optimal Personal Bankruptcy Procedure and Proposed Reforms, 29 *J. Legal Stud.* 255 (2000); R. Dye, An Economic Analysis of Bankruptcy Statutes, 24 *Econ. Inquiry* 417 (1986); S. Rea, Arm-Breaking, Consumer Credit and Personal Bankruptcy, 22 *Econ. Inquiry* 188 (1984); Thomas Jackson, *The Logic and Limits of Bankruptcy Law* (1986).

are more risk averse, who are wealthier, or who face greater risks might demand larger exemptions.²²

There are formidable difficulties with this theory on its own terms, and there are a number of difficulties with testing it.

First, the nature of the failure in credit markets is obscure. Cognitive biases, high transaction costs, and adverse selection are trotted out from time to time, but it is not clear that mandatory exemptions would solve these problems. Moreover, the various theories are indeterminate in their prescriptions, and make strong demands on the capacity of legislators and judges to choose optimal laws.²³ We think it sufficient for the purpose of our paper, however, to assume that legislators believe that the market fails to provide wanted insurance, and for this reason enact exemption laws.

Second, the availability of other forms of insurance, including social insurance, may vary significantly across states and across time. These alternative forms of insurance serve not only as proxies for the demand for insurance, but also as substitutes for exemptions, dampening the predicted relationship between the demand for insurance and exemption laws.

Third, it is difficult to translate a theory of the individual debtor's demand for exemptions as insurance into a theory of the level of exemptions required by the state legislature. We have to add a theory that translates individual demand into state-level demand for insurance. One might employ a variant of the median voter theorem and assume that the level of exemptions reflects the default insurance demanded by the average person in the state. However, the very rich may not care at all about exemptions because they can self-insure; to the extent they borrow at all, their lenders are nearly certain to be repaid and will therefore not "charge" them for the exemptions.²⁴ Therefore, the preference of these individuals is likely to be indeterminate or depend on further assumptions such as the likelihood of tort suits.

For these reasons, we are skeptical as a theoretical matter that an insurance theory can explain interstate and temporal variation of exemptions. At best, the insurance theory can explain in a general sense why exemptions might exist, or why legislatures might think that they are a good idea. Nonetheless, we test the theory against our data set.

2. Altruism

Under the altruism (or merit goods) theory, individuals derive utility from their own consumption and the consumption of others. This assumption is commonly used in

²² One might also expect exemption laws to be enacted during downturns; but unlike stay laws, exemption laws usually persist indefinitely through good times and bad. For evidence that stay laws and pro-debtor federal bankruptcy legislation are countercyclical, see Ian Domowitz and Elie Tamer, *Two Hundred Years of Bankruptcy: A Tale of Legislation and Economic Fluctuations* (unpublished manuscript, undated).

²³ See Posner and Hynes, *supra* note ____.

²⁴ This is somewhat consistent with the empirical research on exemptions which finds that the adverse effects on credit supply are much more pronounced for low-asset debtors than high-asset debtors. See Gropp, Scholz & White, *supra* note ____ at 234.

empirical articles on the political determinants of welfare policy.²⁵ Although taxation and welfare are sometimes thought the most efficient way to transfer funds,²⁶ they also create perverse incentives. If people know that welfare will rescue them, they engage in overly risky borrowing. The attraction of exemption laws is that they allow people who suffer income shocks to keep some of their assets, while forcing the creditor to bear the risk of default, so the creditor and debtor will be unable to externalize the risk on society.²⁷

Altruism by itself cannot explain the existence of exemption laws. Altruism implies concern for the very poor, but exemption laws help only people who have assets to exempt, and most recent variation in state exemption laws protects a level of assets vastly in excess of the means of the poor. Further, relatively poor or working class people with a few assets are probably *hurt* by exemption laws because these laws make them unattractive credit risks.²⁸

An alternative theory is that exemptions respond to a special type of altruism; individuals might be more troubled by a decline in their neighbor's standard of living than by the poverty of strangers—a view that is much discussed in the redistribution literature.²⁹ For this purpose, exemptions seem well-suited although not perfect. People with excessive credit card debt or tort judgments against them can take refuge in the exemption laws, although of course these laws do not prevent someone from gambling away all his money. Whatever the merits of the altruism theory, it would be difficult to distinguish its empirical implications from those of the insurance theory, especially if the altruism theory is taken to mean that debtors incur a cost when they see individuals similar to themselves suffer. We are accordingly skeptical that the altruism theory can be reliably tested.

C. Exemption levels: Public choice hypotheses

The public choice hypotheses are based on the theory that exemptions are adopted not to solve market failures but to benefit interest groups. As potential interest groups that would have an incentive to argue for a deviation from the “optimal” level, we consider farmers, lawyers, repeat tort defendants, and secured creditors. In addition, we also consider a variant of a “race to the bottom” argument suggested by the literature.

1. Competition for migrants

There is evidence that Texas adopted homestead exemptions in order to attract settlers.³⁰ In the mid-nineteenth century Texas had a lot of space, a small population, and

²⁵ See, e.g., Robert A. Moffitt, Explaining Welfare Reform: Public Choice and the Labor Market, 6 *Inter'l Tax & Pub. Finance* 289, 298 (1999).

²⁶ See Louis Kaplow and Steven Shavell, Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income, 23 *J. Legal Stud.* 667. (1994).

²⁷ See Eric A. Posner, Contract Law in the Welfare State: A Defense of the Unconscionability Doctrine, Usury Laws, and Related Limitations on the Freedom to Contract, 24 *J. Legal Stud.* 283 (1995).

²⁸ See Gropp, et al, *supra* note ____.

²⁹ See, e.g., Lorenzo Kristov, Peter Lindert, & Robert McClelland, Pressure Groups and Redistribution, 48 *J. Pub. Econ.* 135, 146 (1992) (“you care more about the well-being of other people the more they are like yourself”). The authors found some evidence for this hypothesis (that transfers are related to what they call “social affinity”) in a pooled time-series cross-section regression of 13 countries from 1960-1981, although as they interpret it, it is identical to the insurance hypothesis.

³⁰ Goodman, *supra* note ____.

security needs that could be alleviated through migration. The Texas government advertised for immigrants, and these advertisements drew attention to the exemption laws in addition to the other charms of the place. Although it is difficult to establish causality, Texas' population rose rapidly over the subsequent decades at the same time that Texas developed a reputation as a debtors' haven. Moreover, it appears that some other southern states, such as Alabama, competed for migrants by increasing the generosity of their exemptions as well.³¹ Thus, one theory of the origin of exemption laws is that they reflected a competition for migrants.

One might doubt whether states still compete for absconding debtors in this way. However, media accounts describe wealthy debtors such as Bowie Kuhn moving to Florida in order to exploit its unlimited homestead exemption,³² and statistical evidence suggests that migration flows are correlated with bankruptcy filings,³³ and that the size of a state's exemption does affect a debtor's choice of residence even if this effect is weak.³⁴ If exemptions are used as a method of attracting migrants or their investments and yet impose some cost on the credit market, one would predict that exemptions are up to the point of diminishing returns, negatively correlated with population density.

2. Interest groups

There is historical precedent for the role of interest group politics in setting exemption policy. Southern plantation owners supported exemption laws for land but not for slaves.³⁵ This may have been a compromise between economically self-sufficient landowners who wanted to keep their creditors at bay and slave traders who needed credit in order to finance their operations.³⁶ In the modern world, we must look for different interest groups.

Existing Debtors—Farmers. States might raise exemptions to benefit debtors by providing them with relief from existing debt. While there was initially some question as to whether exemptions would apply retroactively to existing credit contracts,³⁷ it now appears settled that they do, at least in bankruptcy.³⁸ It is difficult to believe that debtors

³¹ *Id.*, pp. 477-78; see also John H. Smyth, *The Law of Homestead and Exemption* §14 (1875).

³² See Larry Rohter, *Rich Debtors Finding Shelter Under a Populist Florida Law*, *New York Times*, July 25, 1993, at s. 1., p. 1.

³³ See Margaret F. Brinig and F.H. Buckley, *The Market for Deadbeats*, 25 *J. Legal Stud.* 201 (1996), which finds evidence that states compete for migrants by offering insolvency protection. However, their independent variable is the number of bankruptcy filings in a state, rather than the generosity of exemption laws.

³⁴ Ronel Elul and Narayanan Subramanian, *Forum-Shopping and Personal Bankruptcy*, Working Paper, July 1999.

³⁵ Goodman, *supra* note __, p. 480.

³⁶ However, the broader political conflict appears to have been over exemption laws versus stay laws. In the postbellum South, poor farmers sought homestead exemptions, while wealthy plantation owners sought stay laws and debt forgiveness. The plantation owners sought more generous laws simply because they had more debt; the poor farmers resisted the more generous laws because they could only benefit the rich. Republicans in the South tried to woo the poor farmers by promising homestead exemptions. Foner, *supra* note __, at 326-27.

³⁷ Whether in fact exemption laws can, or could, be applied retroactively is an extremely tangled area of the law. Cases decided before the New Deal generally held that retroactive application is unconstitutional due to the Contracts Clause. However, some cases decided since the New Deal have held that retroactive application is constitutional. In any event, in political debate people seemed to believe that exemption laws would have retroactive effect. See Foner, *supra* note __, at 326-27. It may have been that exemption laws could at best delay creditors while their claims made their way through the court system; but this was good enough, in effect, a stay law. Creditors could not be compensated through interest payments if debtors were insolvent anyway.

³⁸ See *In Re Weinstein*, 164 F.3d 677 (1st Cir. 1999).

as a class, dispersed and unorganized, would have much influence on the level of exemptions. However, farmers might serve as a cohesive group of debtors that could lobby for larger exemptions just as they have lobbied for other forms of legislation, and they have a long history of favoring debt relief legislation. Therefore, we expect to find that the exemptions are positively correlated with the political power of farmers.

Lawyers. Bankruptcy and debt-related legal services are a big business. Lawyers earn fees whenever they take on clients who want to avoid paying their debts. Because exemption laws are an important weapon in the lawyer's arsenal, lawyers will lobby for more generous exemption laws. To be sure, if exemptions laws are too generous, creditors will stop extending credit and there will be no debtors seeking legal services. In addition, rents will be dissipated as people seek law degrees. But, on the whole, lawyers who are experts in debt collection issues would obtain short-term returns from the increase in the generosity of exemptions if such exemptions lead to an increase in filings or if they enable more debtors to pay attorneys by increasing their effective wealth.³⁹

Tort Defendants. The insurance theory assumes that creditors can respond to exemptions by raising interest rates or refusing to extend credit; this is clearly not true of tort victims. People who are repeatedly subject to tort suits may form an interest group that would lobby for larger exemptions, which would amount to a wealth transfer from potential tort victims to potential tort defendants. Anecdotal evidence suggests that doctors, who face expensive malpractice claims, form one such interest group.⁴⁰

Secured creditors. The choice of exemptions might also reflect a conflict among creditors. Banks and other institutions that specialize in secured debt might want more generous exemptions because exemptions do not interfere with secured debt—they only interfere with unsecured debt—and thus raise the demand for secured debt relative to unsecured debt. If it is costly for unsecured creditors to enter the secured credit market (this is by no means clear), lobbying for high exemptions is a form of raising rivals' costs. Evidence shows that while exemptions seem to raise interest rates and reduce access to credit generally,⁴¹ the same is not true of home mortgage credit where larger homestead exemptions may actually lead to a slight *decline* in interest rates and a slight *increase* in access to credit.⁴² We therefore predict that exemptions increase as the power of secured creditors increases relative to the power of unsecured creditors.⁴³

³⁹ The evidence on whether exemption laws increase bankruptcy filings is inconclusive, and on whether they increase debt litigation is nonexistent. Lawyers did support more generous exemptions in the legislative history of the Bankruptcy Reform Act of 1978. See Posner, *supra* note ____.

⁴⁰ In Florida, where the homestead exemption has no monetary limit, "Almost annually, members of the Florida Legislature try, without much success so far, to eliminate or curtail bankruptcy benefits to prevent abuses. Earlier this year, for example, a bill to limit the homestead exemption to \$250,000 was defeated. Aides to lawmakers said the defeat was largely because of objections from Florida doctors' groups, which feared what might happen to doctors who lose malpractice suits." Larry Rohter, *Rich Debtors Finding Shelter Under a Populist Florida Law*, *New York Times*, July 25, 1993, at p. 1.

⁴¹ See Gropp, et al, *supra* note ____.

⁴² See Jeremy Berkowitz and Richard Hynes, *Bankruptcy Exemptions and the Market for Home Mortgage Loans*, 42 *J. Law & Econ.* 809 (1999).

⁴³ See Peter V. Letsou, *The Political Economy of Consumer Credit Regulation*, 44 *Emory L.J.* 587 (1995); Daniel J. Villegas, *Regulation of Creditor Practices: An Evaluation of the FTC's Credit Practice Rule*, 42 *J. Econ. & Bus.* 51 (1990). Villegas shows that laws that restrict wage assignments (for example) are correlated with a reduction in the amount of household credit supplied by finance companies and an increase in the amount of household credit supplied by credit unions. *Id.*, p.

D. History and prices

We mentioned earlier that several commentators justify uniform federal exemptions on the ground that the state exemptions are “archaic,” the implication being that state legislators do not care enough about exemptions to bother changing them. To expand on this theory, one might conjecture that exemptions served particular purposes in the nineteenth century when they were introduced—purposes that have been lost to time—but since then they have been ignored, or alternatively, legislatures have intervened only to keep them current with prices, perhaps because they feel that old laws need to be kept up to date though not necessarily questioned and revised.

1. History

Although, as we will discuss, historical exemptions partially predict current exemptions, there are two reasons not to place much weight on the historical artifact theory of exemptions. The first is the continued tension between state and federal control over the exemptions and the number of changes in the state exemptions. From 1976 to 1996 there were almost 3.5 statutory increases per year to the state homestead exemptions alone and at least one state changed its homestead exemption in every year of our study except 1994; the federal exemptions were changed in 1984 and 1994. While some of these changes can be attributed to legislative response to judicial decisions,⁴⁴ this is unlikely to be a complete explanation.

Second, the historical artifact theory begs the question, Why did state exemptions vary historically? We do not have the data to provide a complete answer. We do, however, explore a few theories—competition for migrants and the size of a state’s farm economy—in Part III.C. For the most part, however, we take historical variation in exemptions as given in this paper.

2. Prices

One justification commonly offered for continued state, rather than federal, control of exemptions is that there are significant cost of living differences across regions that states are in the better position to determine. We doubt that this explanation can explain much of the variance across states because the differences in the exemptions are simply too great and a casual glance at Figure 1 reveals no obvious relationship between

65. Villegas reasons that because finance companies specialize in issuing unsecured credit to relatively risky people, restrictions on wage assignments hurt them but not credit unions which rely on payroll deductions to enforce their claims, so that people at the margin switch from finance companies to credit unions as the former raise their prices or restrict credit. It therefore follows, as Letsou suggests, that credit unions might lobby for restrictions in order to raise the costs of their rivals. Similar logic applies to banks, which also specialize in relatively low-risk credit. Although in Villegas’ study banks are not benefited or hurt by restrictions, the study is by no means conclusive, and it is plausible that banks would adopt a legislative strategy of raising the costs of their competitors. (For evidence that banks and finance companies compete for household borrowers, see Gregory E. Elliehausen and John D. Wolken, *Market Definition and Product Segmentation for Household Credit*, 4 J. Fin. Services Res. 21 (1990).) Unfortunately, in recent years banks have been obtaining an increasingly large fraction of their revenues from credit card loans, so it is no longer so clear that they benefit from exemptions. It is worth noting that during legislative hearings on bankruptcy reform in 1992, banks sought amendments that would protect mortgages in Chapter 13, but expressed no opinion on exemption levels. See Hearing Before the Subcommittee on Economic and Commercial Law of the Committee on the Judiciary, House of Representatives, 102d Cong., 2d Sess., July 8, 1992, at p. 58.

⁴⁴ For example, in 1983 Maryland repealed its homestead exemption and enacted a wildcard exemption in its place in response to a court ruling that the homestead exemption was invalid. *In re Locarno*, 23 B.R. 622 (Bkrcty. MD. 1982).

exemptions and those states typically thought of as having a high cost of living. However, it is possible that differences in the inflation rate across regions explain different rates of increase in the exemptions and we cannot dismiss it out of hand. Therefore, we test this theory using various kinds of price data.

III. EMPIRICAL TESTS

We test the hypotheses with data from each of the 50 states (but not the District of Columbia⁴⁵) for the years, 1975-1996.

A. Dependent variables

Exemption laws are complicated, and converting them into variables requires numerous difficult compromises. We give a flavor of the difficulties here; a complete description would be tedious.

The typical state provides for homestead, personal property, and various miscellaneous exemptions that are hard to categorize and quantify. These latter exemptions might include burial funds, legal claims, fraternal benefit society annuities, insurance benefits, pensions, unemployment, veteran's benefits, and public assistance. We exclude these exemptions from our analysis because of the difficulty of quantification, the illiquidity of many of them, the existence in many states of low dollar ceilings over them, and in general their usual small value compared to homestead and personal property exemptions. One must keep them in mind, however, when interpreting the regressions.

Homestead exemptions usually specify a dollar amount of home equity that the debtor is entitled to protect, but some states instead specify an acreage limit so that in principle a house of unlimited value may be exempted. Personal property exemptions also usually specify a dollar amount, but often they are divided into categories (e.g., home furnishings or tools of the trade) with or without individual or aggregate limits.

The "unlimited" exemptions pose significant problems in our study for both homestead and personal property exemptions. Clearly the home can be quite valuable, but many items of relatively low value, such as wedding rings and furniture, often have no dollar limit either. One cannot simply ignore personal property exemptions without dollar limitations as this erroneously treats them as less valuable than similar exemptions that do have a specific limit, however large. On the other hand, one cannot treat the "unlimited" wedding ring as if it were potentially as valuable as a mansion, both as a matter of common sense, and as a result of judicial hostility toward aggressive exemption planning.⁴⁶

Our approach to this problem is to use observed limits to determine caps for several categories of property, including the home. Choosing the appropriate cap was difficult as often one state exemption was significantly greater than the others. For example, Louisiana allows the exemption of wedding and engagement rings up to \$5,000 (a

⁴⁵ The District of Columbia is excluded because its exemptions are set by Congress; it does not have an independent legislature, unlike the states.

⁴⁶ See, e.g., *Norwest Bank Nebraska, N.A. v. Tveten*, 848 F.2d 871, 878 (8th Cir. 1988); *In re Krantz*, 97 B.R. 514 (Bankr. N.D. Iowa 1989).

significant sum in 1975) while the next highest observed limit was \$1,000. We converted all exemptions into real values and then capped all real values (including the unlimited exemptions) at the average of the two highest observed exemptions from different states.⁴⁷ We then converted the values back into nominal terms.

This method is suspect, and thus we consider alternative specifications. We try dropping all states that have an “unlimited” exemption, but this results in the loss of too many observations if we consider all types of personal property. Therefore, we also try restricting our attention to only a few types of personal property exemptions (motor vehicle exemptions and wildcard exemptions) as this dramatically reduces the number of “unlimited” exemptions.

Some empirical work on exemptions focuses on homestead exemptions alone. There are two problems with this approach. First, it leaves unclear how to treat states, such as Maryland and Virginia, with large “wildcard” exemptions that can be applied toward real or personal property.⁴⁸ More seriously, this approach can give a misleading impression as to which states are more generous. To see this, imagine that an individual has \$50,000 of home equity and \$50,000 in personal property; and imagine that state X has a homestead exemption of \$30,000 and a personal property exemption of \$20,000, and that state Y has a homestead exemption of \$20,000 and a personal property exemption of \$30,000. If one counted only homestead exemptions, state X would appear more generous than state Y, but it is not clear which state our individual would prefer.

One of the major differences between the federal exemptions created by the Bankruptcy Reform Act of 1978 and most of the then existing state exemption systems was that the entire value of the federal homestead exemption could be used toward personal property of the debtor’s choosing. The generosity of homeowner exemptions relative to nonhomeowner exemptions continues to be an important issue, with the National Bankruptcy Review Commission calling for much greater use of “spillover” provisions than are typically found in state exemptions today.⁴⁹ Therefore, we consider separately the aggregate exemptions that could be claimed by a homeowner and the aggregate exemptions that could be claimed by a nonhomeowner.⁵⁰

A further complication arises from the existence in some states of the doctrine of tenancy by the entirety, which prevents creditors of one spouse from seizing certain jointly held real property.⁵¹ Because this can serve as a substitute for the homestead exemption, we tried treating those states that allow the use of this doctrine as if they had unlimited homestead exemptions, but, except where noted, this did not qualitatively affect our results.

⁴⁷ In the case of the homestead exemption, this was an average of North Dakota’s 1979 homestead exemption (\$345,833 in 1996 dollars) and Minnesota’s 1993 homestead exemption (\$217,194 in 1996 dollars).

⁴⁸ Compare Md. Cs & Jud. Proc. Code Ann. § 11-504 and VA. Code Ann. §§ 34-4.

⁴⁹ Report of the National Bankruptcy Review Commission, *Bankruptcy: The Next Twenty Years* (1997).

⁵⁰ A further problem – the fact that many changes in the exemption laws will not affect people with few assets and so might not properly be considered real changes – we deal with directly in the regressions. Compare White’s effort to calculate effective exemptions. See Michelle J. White, *Why Don’t More Households File for Bankruptcy?*, 14 *J.L. Econ. & Org.* 205 (1998).

⁵¹ The application of this doctrine is not uniform across states where it remains in use. We restricted our attention to those states that retain a fairly strong version of this doctrine. A good description of the various incarnations of this doctrine can be found in *Sawada v. Endo*, 561 P.2d 1291, 1294-95 (HI 1977).

Exemptions in some states also can vary with the debtor's age, disability, marital status, and status as a veteran. So that we may compare exemptions across states, we assume that all debtors are married, have two children and do not qualify for increased exemptions as a result of age, disability or veteran's status. We further assume that all exemptions may be doubled (because the Bankruptcy Code and most states permit each spouse separately to claim an exemption) unless a statute or a specific case explicitly provides otherwise.

Because debtors in states that have not opted out may choose the federal exemptions in bankruptcy, we must make an assumption about whether those states have "chosen" the federal exemptions and whether they "chose" the changes in the federal exemptions in 1984 and 1994. That is, the choice not to opt out might be attributed in part to simple passivity. Moreover, the federal exemptions are an imperfect substitute for most state property exemptions because the federal exemptions are not available outside bankruptcy. Therefore, we test our hypotheses about the level of exemptions alternatively using just the state exemptions and the greater of the state and federal exemptions for those states that have not opted out.

Because we are testing our hypotheses over twenty-two years, we must account for inflation. We create real values for the exemptions by dividing by the consumer price index.

The following table lists the various ways that we specify the dependent variable.

[Table 2: Main Dependent Variables]

Summary statistics are in the appendix. More useful for present purposes is a list of the correlations among our main dependent variables in Table 3. The homeowner exemptions are fairly well correlated, as are the nonhomeowners exemptions; there is less correlation between the two main groups.

[Table 3: Dependant Variable Correlations]

In all of our regressions we use the alternative specifications described in Table 2. We report below only a few of them, and we note when the alternative regressions are consistent with our illustrative regressions and when they are not.

B. Federalism and opting out

We separately considered why a state might choose to opt out, and how a state that opts out might change its exemption levels in the processing of opting out.

1. The choice to opt out

Thirty-seven states have exercised the right to opt out.⁵² All but two of the states (California and Mississippi) exercised the right by 1982, four years after enactment of the Code. We want to understand why these states opted out of the federal system.⁵³

⁵² One state, Arkansas, opted back in, in order to evade a state constitutional limit on its personal property exemption. See *In re Holt*, 894 F.2d 1005 (1990). We treat Arkansas as an opt-out state. Another state, New Hampshire, opted back in after our period in 1997. N.H. Rev. Stat. Ann. s. 511:2 (1996).

⁵³ Using a hazard model we tested whether the timing of opt out was correlated with the independent variables, but found weak and nonrobust results. This probably reflects the clustering of opt outs within four years of enactment of the

Figure 3 shows the opt-out states (shaded); the states whose homeowner exemptions, broadly defined, exceeded the federal homeowner exemption at the time of the passage of the Bankruptcy Reform Act of 1978 (identified by large dots); the states whose nonhomeowner exemptions, broadly defined, exceed the federal nonhomeowner exemption at the time of the passage of the Bankruptcy Reform Act of 1978 (small dots). Correlations (not reported) confirm the visual impression that there is at best a small relationship between states that opt out and states that have exemptions less than federal exemptions; this remains true when states with TBE are treated as though they had unlimited homestead exemptions.⁵⁴

[Figure 3: 1978 Exemptions and Decision to Opt Out]

To investigate our “choice” hypotheses more formally, we ran probit regressions with the dependant variable a dummy equal to one if the state has ever opted out, and zero if not. The first type of independent variable is a measure of the generosity of the federal exemption level compared to the state’s. The idea is that a state is more likely to opt out if the federal exemption is significantly more generous than the state’s exemption. This theory is complicated by the fact that some state exemptions are more generous than the federal exemptions. Because our story is based on the “pressure” provided by more generous federal exemptions, once state exemptions exceed the federal exemptions, it should not matter by how much. However, this assumes that our coding of the exemptions captures all of the relevant differences, which it clearly does not. Therefore, we generally followed the simplest approach and subtracted the state level from the federal level,⁵⁵ though we also tried setting a floor on this difference at zero.

The other main independent variables are the state’s ideology (a scale from 1 to 5, with 5 being more liberal); and the bankruptcy filing rate (per 10,000 people). The first requires some explanation. We relied on a study of political attitudes across states during our period (through 1988).⁵⁶ The ideology measure was derived from polls that asked people whether they consider themselves liberal or conservative. The variation is cross-sectional only; the authors of the study did not find much change over time. The variation is also correlated with measures of party identification in a state (Democratic versus Republican) controlling for Democratic dominance in the conservative South until recently.

The results are in Table 4.

[Table 4: Determinants of the Choice to Opt out]

The effects of the bankruptcy filing rate and ideology are as predicted. If a state has a million people, and the number of filings increases by 100, the probability of opting

Bankruptcy Code; further, as a theoretical matter, we have no reason to believe that states would wait before opting out. Bargaining models with asymmetric information would be too hard to test.

⁵⁴ The correlation for opt-out and real federal minus state homeowner is 0.007; for opt-out and real federal minus state nonhomeowner is 0.218, and lots of variation in between. No correlation is significant at the 10% level.

⁵⁵ This is essentially equivalent to looking at the negative of the exemption level.

⁵⁶ Robert S. Erickson, Gerald C. Wright, and John P. McIver, *Statehouse Democracy* (1993).

out increases by about 0.05.⁵⁷ If a state moves from the average level of liberalness, to the next quintile, its probability of opting out decreases by about 0.10. More conservative states thus tend to opt out. The results are robust: they persist not only across different specifications of the exemption, but also in regressions that include other independent variables that might be thought to explain states' opt-out choices.⁵⁸

The story about exemption differences is more complex. The results in these regressions, and others that are unreported, are almost always in the right direction and occasionally significant.⁵⁹ In particular, federal-state *nonhomeowner* differences are more likely to predict opt-out than are federal-state *homeowner* differences. This is not surprising. The federal exemptions available to homeowners were less generous than many of the state exemptions then in existence and therefore probably did not serve as a strong motive to opt out for many states. By contrast, because the entire federal homestead exemption could be used toward personal property, the federal exemptions available to nonhomeowners were significantly greater than the exemptions of almost all of the states. Contemporary complaints about the generosity of the federal exemptions usually centered on the wildcard exemptions, including the mislabeled federal homestead exemption. Our results are consistent with this and suggest that states opted out to avoid the high personal federal exemption levels, not the relatively low federal homestead. However, we stress that even our strongest results are quite weak: a \$10,000 increase in the fed-state difference for the narrowly defined nonhomeowners exemption (real) increases the probability of opting out by only 0.13.

In sum, we find weak but suggestive evidence that states opted out in order to prevent resident debtors from taking advantage of the generous federal personal property exemptions, and that they did so because they feared that these exemptions would increase their already high bankruptcy filing rate. Further, we find that more conservative states were more likely to opt out, reflecting perhaps an ideological aversion to federal interference even when it is purely symbolic.

2. Exemption changes when states opt out

We argued that the Bankruptcy Code served in 1978 as a shock to each within-state political equilibrium. It gave bargaining power to groups that prefer more generous exemptions, and yet obviously groups that prefer the status quo would not be helpless. One predicts that the two groups would strike a new bargain: opting out but with an increase of the exemption to a level between the status quo and the federal system. One also predicts that the exemption level would not change significantly in states which are already more generous than the federal system, even if they do opt out (for ideological or other undiscovered reasons).

⁵⁷ This is consistent with the previous literature which found states with higher bankruptcy filing rates in 1978 were more likely to have opted out of the federal exemptions and chosen a homestead exemption less than the federal homestead exemption. See Alden F. Shiers and Daniel P. Williamson, "Nonbusiness Bankruptcies and the Law: Some Empirical Results," 21 J. Consumer Affairs 277, 290 (1987).

⁵⁸ These are the independent variables that we use in the exemption level regressions in Part III.C; they are insignificant when included in the regressions.

⁵⁹ This remains true when we try some other independent variables, including income per capita, population density, and divorce rate, which were insignificant.

Initially, we checked our assumption that states increase their exemptions at the same time that they opt out, rather than in separate statutes over time, which might indicate the lack of deal making. We found that this is true at a 1% significance level for all kinds of exemptions. (It is true for all years and each individual year except 1979 when there were only four states that opted out.)

One way to test our hypothesis is to look at the relationship between opting out and the extent to which states increase their exemptions. There is a baseline problem, however. Although we could look at the amount that a state increases its exemption in the year that it opts out, it is not clear whether this should be compared to exemption increases in all states (including the non-opt-out years of the states that opt out); in only states that do opt out; or in only states whose exemptions are greater than the federal exemptions. We prefer the most general comparison, but tested alternative specifications.

A very rough test looks at correlations between the decision to opt out (yes=1) and the increase in the real exemption level during the period when most states opted out, 1978 to 1982. Panel A of Table 5 reports the correlation with the dollar increase in the exemptions and Panel B reports the correlation with the percentage increase. Finally, Panel C reports the difference between the mean dollar and percentage increase of those states that opted out and those states that did not.

[Table 5: Correlation Between Opting Out and Real Exemption Increase from 1978 to 1982]

The correlations are consistent with our bargain hypothesis though they are not terribly robust (nor are they robust against alternative specifications not reported). As was true when we tested opt-out levels, nonhomeowner exemptions seem to matter more for opting out, consistent with the observation that states already had high homestead exemptions (or TBE) and were mainly concerned with the generosity of the federal personal property exemptions.⁶⁰

The results summarized in Panel C imply that this effect was both statistically and economically significant; the Bankruptcy Reform Act of 1978 apparently caused some states to increase their exemptions by several thousand dollars. In fact, absent this change, the real value of the exemptions may well have decreased during this period of high inflation as is indicated by the experience of the states that did not opt out.

In order to test the robustness of these simple statistics, we also ran regressions. We estimated the following equation:

$$\text{Log(Exemption)} = \text{State Dummy} + \text{State Dummy} * (\text{Year} - 1975) + \text{State Dummy} * (\text{Opt Out Year} - 1978)^2 + [(\text{Opt Out Year} - 3 \text{ Dummy}) + (\text{Opt Out Year} - 2 \text{ Dummy}) + (\text{Opt Out Year} - 1 \text{ Dummy}) + (\text{Opt Out Year Dummy}) + (\text{Opt Out Year} + 1 \text{ Dummy}) + (\text{Opt Out Year} + 2 \text{ Dummy}) + (\text{Opt Out Year} + 3 \text{ Dummy})],$$

with the second and third terms (on the right hand side) designed to control for the state-specific exemption trends, and the opt out dummies (for the year of opt out, and

⁶⁰ Some alternative specifications limited to states with homeowners' exemptions less than federal finds the "wrong" sign when comparing the growth in some measures of the homeowners' exemptions in opt-out states to the growth in states that did not opt-out. However, these results are far from statistically significant, and are likely due to a very low number of observations.

for the three years before and after opt out) designed to reveal when the exemption changes took place. We ran two separate regressions limited to opt-out states, one for states whose exemptions are less generous than the federal; the other for states whose exemptions are more generous than federal.⁶¹ We predicted that only states with less generous exemptions would increase them when they opted out, for only in those states did the Bankruptcy Code act as a shock to the equilibrium exemption level. The results are in Table 6, and illustrated in Figure 4.

[Table 6: Effect of Opting Out on Level of Exemptions]

The F statistic in Table 6 tests whether, on average and controlling for the other factors listed above, states increased their exemptions in the year that they opted-out from the previous year. If one focuses on those states that had exemptions less generous than the federal exemptions, the answer is clearly yes. If one focuses on those states with exemptions more generous than the federal exemptions, the test is not statistically significant.⁶²

[Figure 4: Effect of Opting Out on Level of Exemptions]

Figure 4 presents these results graphically. Specifically, Figure 4 presents the exemption growth rate relative to the state trend.⁶³ If there is nothing unusual about that year, we expect the value to be one. This is roughly the case for all years except the year in which a state opts out. Those states that had exemptions less than the federal exemptions show a significant deviation in the year that they opt out, those that had exemptions greater than the federal exemptions do not.

In sum, our results are consistent with the hypothesis that the Bankruptcy Code led to an increase in exemptions in states with relatively strict exemptions (especially, personal property) by giving bargaining power to groups that preferred more generous local exemptions.

C. Exemption levels: Public interest and public choice theories; history; prices

We hypothesized that a state chooses its exemption level on the basis of public interest factors—credit insurance and altruism—and interest group influence. Among possible interest groups, we identified farmers (or debtors generally), lawyers, tort defendants, and secured creditors. There are many possible proxies for these variables; we settled on the following:⁶⁴

⁶¹ We also ran regressions focusing on all states with exemptions greater and less than the federal exemptions and the results were virtually identical to those presented.

⁶² These results held up well for alternative specifications, except in some regressions n was too low for significant results (for example, nonhomeowner exemptions when the state exceeds the federal, which we do not report). We also find, as predicted, that most states do not raise their exemptions above the federal level.

⁶³ Mathematically, Figure 4 graphs the exponent of the coefficient in year t divided by the exponent of the coefficient in year t-1.

⁶⁴ Formal definitions and sources are in Table 7, Panel C.

Divorce rate might be a proxy for risk, as divorce appears to lead to bankruptcy.⁶⁵ Under the credit insurance and altruism theories, states might increase exemptions in order to protect divorced people from debts they accumulated during marriage; in effect, insurance against the credit consequences of divorce. As the divorce rate increases, so should exemptions.

Income per capita (real) is a proxy for the extent of poverty. Under the credit insurance and altruism theories, states might increase exemptions to help prevent people from falling into poverty. As income per capita increases, exemptions should decline.

Total transfers per capita is another proxy for risk or altruism. However, the transfer level could be a substitute for exemptions. If not, we predict that exemptions increase with transfers.

Charitable giving is a more direct proxy for altruism. However, it might be a substitute for generous exemption laws. If not, we predict that exemptions increase with giving.

Population density is a proxy for migration demand: states with a less dense population increase their exemptions to attract migrants who do not want to pay their debts. We predict that exemptions decline with population density.

Farm proprietors per capita is a proxy for the power of farming interest groups. We predict that exemptions (especially homestead exemptions) increase with farm proprietors per capita.

Banking could be a measure of secured creditor influence. Secured creditors ought to support exemption increases if the higher price of unsecured creditor drives debtors into the arms of secured creditors, and there are barriers between the markets. Exemptions should increase as banking increases.

Finally, we use *history* (homestead exemptions as of 1920), *prices* (geographic cost of living and differences in regional inflation rates), and *ideology* (on a 1-5 scale, with 5 most liberal). We also tested to see whether increases in the exemptions were correlated with regional cost of living changes obtained from the Bureau of Labor Statistics. However, we could not find any statistically significant correlation.

We acknowledge the ambiguity of direction of causation for many of these variables. For example, in theory increasing exemptions might make divorce more attractive for debt-burdened spouses, and thus result in an increase in the divorce rate. We also acknowledge the problem of omitted variable bias; for example, divorce rate and exemption level might both be the effect of changes in the labor market. However, our results turn out to be weak, and these problems can thus be ignored.

We performed a variety of regressions, using different techniques and specifications of the variables. The only result in which we have confidence is the influence of the history variable in cross section regressions for each of the years in the period. The

⁶⁵ There is some doubt about whether this correlation is real; compare Michelle J. White, Personal Bankruptcy Under the 1978 Bankruptcy Code: An Economic Analysis, 63 Ind. L.J. 1 (1987), and Jagdeep S. Bhandar and Lawrence A. Weiss, The Increasing Bankruptcy Filing Rate: An Historical Analysis, 67 Am. Bankr. L.J. 1 (1993).

variable is highly significant and robust against the inclusion of various combinations of other variables.

No other variable performs well. We report some of our cross-sectional and pooled regressions with state and year fixed effects (Table 7).

[Table 7: Exemption Levels]

The results are disappointing, but not too surprising. We hazard that exemption laws mattered less during our period than in the nineteenth century, when debt relief was a more salient political issue and migration was a more pressing need for low density states. Although data from that period are not good, we did run regressions of the 1920 exemption level on population density and farmers per capita and found these variables to be significant at the ten percent level in the predicted direction.⁶⁶

During the twenty-two year period under study, exemptions continued to matter—there is no doubt of that, from the frequent changes, and the many special interest exemptions that we do not code for—but they are not as politically salient as they used to be, and they probably track public interest and public choice variables crudely at best. There is not enough cross-sectional data to test these theories if the effects are subtle. Adding time-series data increases the number of observations, but creates econometric problems, for exemption changes within a state are not likely to be independent of each other. So although pooled regressions (not reported) generate significant effects, they disappear when state and year fixed effects are added (Table 7, Panel B).

CONCLUSION

We have not fully explained bankruptcy exemption law, but we have fitted together a few pieces of the puzzle. Historical evidence suggests that exemptions were initially popular as a way to protect existing debtors against creditors, and of attracting migrants to sparsely populated states. Inertia appears to explain some of the cross-sectional variation that we observe starting in 1975, and continuing through 1996. Existing law always supplies the starting point from which legislators bargain over reform, and so very old laws can exert influence over the present and recent past.

Our evidence does not support any of the many theories for variation in exemption law. If exemption laws were once designed to protect debtor interests, there is no evidence that they still do so, or that they play an important role in the welfare system by protecting people from the consequences of default. The evidence does not support the theory that exemptions reflect altruism on the part of wealthier citizens. And the evidence does not support interest group theories that emphasize the role of creditors such as banks, debtors such as farmers, lawyers, or doctors. Without more data, most of the post-1975 variation in exemption laws will remain a mystery.

Our strongest results concern opt-out. After 1978, most state legislatures were confronted with federal exemptions that were more generous than the state nonhomeowner exemptions. Most states responded by opting out. We found that conservative states were more likely to opt out than liberal states, and that states with

⁶⁶ Because population density and farmers per capita were highly correlated (negatively), the significant results for both occurred only in separate regressions.

higher bankruptcy rates were more likely to opt out than states with lower bankruptcy rates. Legislators who wanted to opt out because of ideology, concern about bankruptcy filings, or other reasons, had to strike a deal with legislators who preferred the more generous federal exemptions; as a consequence we observed that states raised their exemption levels as they opted out.

These results give us some clues about the political history of the Bankruptcy Reform Act. The battle between the House and the Senate over exemptions was, it turns out, really a battle over whether nonhomeowners ought to enjoy more generous exemptions (the original House bill) or be stuck with the original stingy state exemptions (the original Senate bill).⁶⁷ The compromise was the opt-out system, and it really was a compromise in the sense that the effective exemptions for nonhomeowners in nearly all stingy states went up—either because federal exemptions became available to debtors or states raise their exemptions as they opted out. At the same time, the law permitted the states more local control and resulted in more variation than would have been the case if the Senate and House had merely agreed on uniform federal exemptions that were somewhat lower than those in the House bill.

⁶⁷ What did the Senate get in return for giving up incorporation of state exemptions, the status quo? The most likely answer is new patronage opportunities resulting from the elevation of bankruptcy judges. See Posner, *supra* note ____.

Table 1: Nominal Homestead and Personal Property Exemptions for a Household

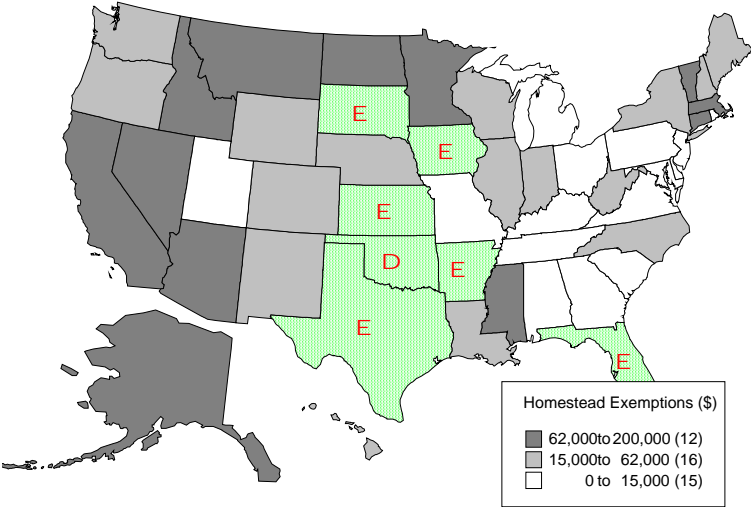
State	Homestead			Personal Property		TBE	Opt Out
	1975	1996	Ave. Annual Growth	1975	1996		
AK	19,000	62,100	11%	5,000	6,900		1982
AL	4,000	10,000	7%	2,000	6,000		1980
AR	U	U		500	500		1981
AZ	15,000	100,000	27%	0	3,000		1980
CA	20,000	75,000	13%	1,000	3,800		1984
CO	15,000	60,000	14%	1,000	2,000		1981
CT	0	150,000		0	5,000		
DE	0	0	0%	500	10,500	yes	1981
FL	U	U		2,000	4,000	yes	1979
GA	1,000	10,000	43%	0	2,800		1980
HI	50,000	50,000	0%	2,000	2,000	yes	
IA	U	U		0	2,400		1981
ID	14,000	100,000	29%	1,000	3,000		1981
IL	10,000	15,000	2%	1,300	6,400		1981
IN	1,400	15,000	46%	1,200	8,000	yes	1980
KS	U	U		U	40,000		1980
KY	2,000	10,000	19%	4,000	7,000		1980
LA	15,000	15,000	0%	U	U		1979
MA	24,000	100,000	15%	1,400	1,400	yes	
MD	0	0	0%	1,000	11,000	yes	1981
ME	6,000	25,000	15%	2,000	5,800		1981
MI	7,000	7,000	0%	0	0	yes	
MN	U	200,000		4,000	6,800		
MO	2,000	8,000	14%	1,300	4,150	yes	1982
MS	30,000	150,000	19%	0	20,000		1987
MT	40,000	80,000	5%	0	2,400		1981
NC	2,000	20,000	43%	1,000	3,000	yes	1981
ND	80,000	160,000	5%	5,000	7,400		1981
NE	8,000	20,000	7%	0	0		1980
NH	5,000	60,000	52%	0	10,000		1981
NJ	0	0	0%	2,000	2,000		
NM	20,000	60,000	10%	U	9,000		
NV	25,000	125,000	19%	2,000	2,000		1981
NY	4,000	20,000	19%	0	4,800		1982
OH	0	10,000		0	2,800	yes	1979
OK	U	U		3,000	6,000		1980
OR	12,000	33,000	8%	1,600	4,200		1981
PA	0	0	0%	0	300	yes	
RI	0	0	0%	0	0	yes	
SC	2,000	10,000	19%	1,000	2,400		1981
SD	U	U		2,000	4,000		1980
TN	7,500	7,500	0%	0	8,000		1980
TX	U	U		20,000	30,000		
UT	11,000	11,000	0%	0	3,000		1981
VA	10,000	11,000	<1%	0	4,000	yes	1979
VT	10,000	150,000	67%	0	14,800	yes	
WA	20,000	60,000	10%	0	5,000		
WI	25,000	40,000	3%	4,000	4,400		
WV	0	30,000		0	6,400		1981
WY	20,000	20,000	0%	0	4,800	yes	1980
Mean	12,788	48,595	13%	1,549	6,187		
Federal*	15,000	30,000	5%	3,200	6,400		

Note: amounts are nominal; U means no dollar limit; pp considers only wildcard and automobile exemptions; for household of four. *Because Bankruptcy Reform Act of 1978 not yet enacted in 1975, values presented as of 1979.

Table 2: Main Dependent Variables

Basic Variable	Abbreviation	Description
Homestead	Hstead	Homestead exemption
Homeowners	Hown	Aggregate of homestead and personal property exemption
Nonhome Owners	NHown	Personal property exemption plus any spillover for those who do not claim the homestead exemption
Variants		
Nominal	Nom	The dollar value of exemptions
Real	R	The dollar value divided by regional CPI
Logged	L	The dollar value logged
Exclude	Excl	Excluding states with unlimited homestead from the sample
Cap	Cap	Including unlimited homestead exemptions, calculated by taking the mean of the two highest real values and converting to nominal value
Narrow	Nar	Excluding unlimited personal property exemptions of high value
Broad	Brd	Including unlimited personal property exemptions of high value, calculated by taking the mean of the two highest real values in the category and converting to nominal value
Tenancy by Entirety	TBE	Treating states with dollar homestead exemptions and TBE as though they had unlimited homestead exemptions
Federal	Fed	The maximum of the state and federal exemptions in states that have not opted out

Figure 1: Homestead exemptions for married couple in 1996



Note: States with unlimited exemptions marked with “pins.”

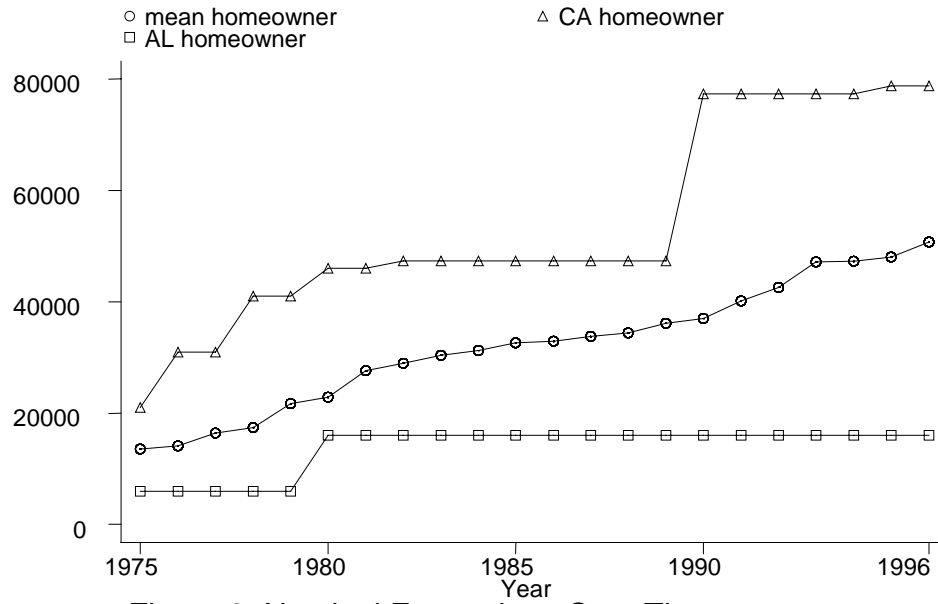


Figure 2: Nominal Exemptions Over Time

Table 3: Dependant Variable Correlations

Homestead exemptions excluding states with unlimited exemptions (excl) compared with homestead exemptions including those states but capping their exemptions (cap)
(obs=928)

	excl	cap
excl	1.0000	
cap	0.9995	1.0000

Pairwise correlation of different types of homeowner exemptions

		Excl		Cap		Cap
		Brd	Nar	Brd	Nar	TBE
Excl	Brd	1.0000 709				
	Nar	0.9877 709	1.0000 898			
Cap	Brd	0.9995 709	0.9574 898	1.0000 1100		
	Nar	0.9877 709	0.9996 898	0.9844 1100	1.0000 1100	
Cap	TBE	0.1681 709	0.1945 898	0.5613 1100	0.5489 1100	1.0000 1100

Correlation of capped exemptions

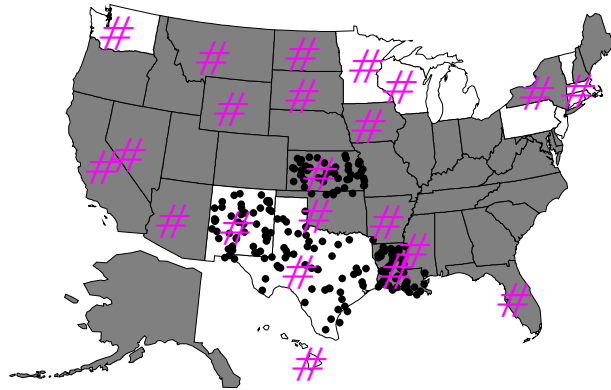
(obs=1100)

		NHown Brd	NHown Nar	Pers Brd	Hown Brd	Hstead
NHown	Brd	1.0000				
NHown	Nar	0.7002	1.0000			
Pers	Brd	0.9817	0.6236	1.0000		
Hown	Brd	0.4841	0.3407	0.5068	1.0000	
Hstead		0.2873	0.2197	0.3078	0.9762	1.0000

Note: see Table 2 for variable descriptions and abbreviations

Figure 3: 1978 Exemptions and Decision to Opt Out

1978 Exemptions and Decision to Opt Out



Legend:

Shaded states: states that have opted out

Large dots: states with homeowner exemptions greater than federal in 1978

Small dots: states with nonhomeowner exemptions greater than federal in 1978

Table 4: Determinants of the Choice to Opt Out

Homeowner Difference (Federal Minus State)

		(1)	(2)	(3)	(4)	(5)	(6)
	Bk filing /10,000	0.04572 [0.001]***	0.04144 [0.001]***	0.04240 [0.001]***	0.04357 [0.001]***	0.04557 [0.001]***	0.04359 [0.001]***
	Ideo (lib. +)	-0.11298 [0.007]***	-0.10737 [0.008]***	-0.11221 [0.005]***	-0.11371 [0.005]***	-0.10894 [0.015]**	-0.11377 [0.005]***
Homeowner Exemptions	Nar	0.00057 [0.189]					
	Excl. unlimited		0.00077 [0.173]				
	Brd, cap			0.00066 [0.050]**			
	Nar, cap				0.00064 [0.094]*		
	Brd, cap, TBE					0.00041 [0.324]	
	Nar, cap, TBE						0.00064 [0.094]*
	Obs.	48	40	48	48	48	48

Nonhomeowner Difference (Federal Minus State)

		(7)	(8)
	Bk filing /10,000	0.04606 [0.001]***	0.04264 [0.000]***
	Ideo (liberal +)	-0.10524 [0.014]**	-0.11374 [0.002]***
Homeowner Exemptions	Brd, cap	0.00324 [0.041]**	
	Nar, cap		0.01201 [0.000]***
	Obs.	48	48

Note: dependent variables is a dummy that takes a value of 1 if the state has opted out. Coefficients refer to the marginal increase in the probability of opting out as a result of a one unit increase in the independent variable (probit). All exemption values are federal minus state, in real \$1000s. See Table 2 for abbreviations.

Table 5: Correlation Between Opting Out and Real Exemption Increase from 1978 to 1982

	Homeowner		Nonhomeowner		Homestead		Pers. Prop.	
PANEL A	brd/cap	nar/cap	brd/cap	nar/cap	cap	excl	brd/cap	nar/cap
Difference	0.242	0.152	0.322	0.219	0.131	0.138	0.297	0.119
P value	(0.09)*	(0.29)	(0.02)**	(0.13)	(0.36)	(0.38)	(0.04)**	(0.41)
Obs.	50	50	50	50	50	42	50	50
PANEL B								
% Growth	0.244	0.177	0.311	0.266	0.110	0.110	0.311	0.208
P value	(0.09)*	(0.23)	(0.03)**	(0.12)	(0.48)	(0.48)	(0.03)**	(0.25)
Obs.	50	47	49	36	43	43	49	33
PANEL C								
Opt out states minus others	\$12,228	\$6,785	\$9,054	\$3,611	\$6,475	\$5,617	\$6,612	\$1,169
P value	(0.13)	(0.40)	(0.01)***	(0.08)*	(0.47)	(0.46)	(0.02)**	(0.48)
1978 mean exemption	\$43,248	\$34,624	\$11,366	\$2,743	\$32,261	\$21,056	\$11,026	\$3,848

Note: all real values, 1996 dollars. See Table 2 for abbreviations. Panel A shows the correlation between opting out and the real exemption increase in dollars from 1978 to 1982 (using different specifications of the exemption variable). Panel B shows the correlation between opting and the real exemption in percentage. Panel C shows the dollar difference between states that opt out and states that do not. The bottom row, which shows the 1978 mean exemption, gives a sense of the magnitudes involved.

PANEL D	Homeowner		Nonhomeowner		Homestead		Pers. Prop.	
	br/cap	nar/cap	br/cap	nar/cap	cap	excl	br/cap	nar/cap
Dollar Growth								
Opt-Out	5,636	6,452	3,623	4,440	4,465	5,145	1,173	1,989
Opt-In	(6,592)	(332)	(5,430)	829	(1,153)	(1,330)	(5,439)	820
Difference	12,228	6,785	9,054	3,611	5,617	6,475	6,612	1,169
P value	(0.13)	(0.40)	(0.01)***	(0.08)*	(0.47)	(0.46)	(0.02)**	(0.48)
Percentage Growth								
Opt Out	48.03	113.48	113.87	125.39	50.44	50.44	75.10	95.83
Opt In	(5.91)	12.14	(19.37)	(16.63)	18.80	18.80	(19.56)	(15.36)
Difference	53.94	101.35	133.23	142.02	31.64	31.64	94.66	111.19
P value	0.02	0.08	0.00	0.02	0.42	0.42	0.00	0.06

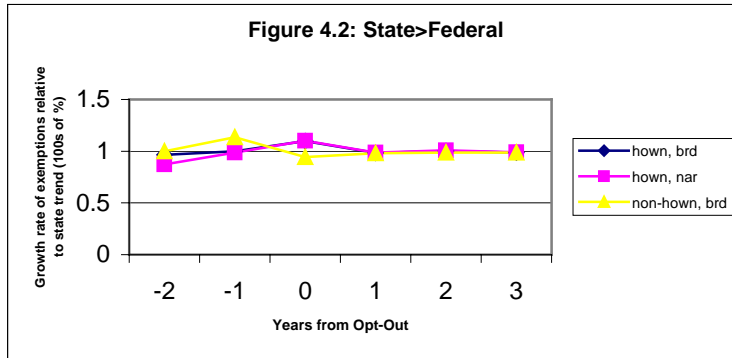
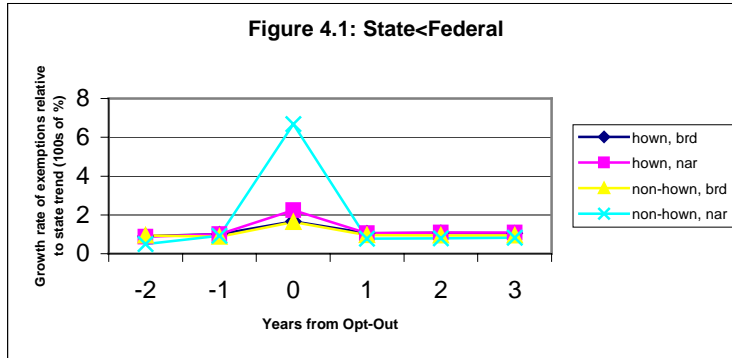
Note: all real values, 1996 dollars. Panel D breaks down Panel C above. It shows the dollar (and percentage) growth of states that opt out and do not opt out, and the difference between them.

Table 6: Effect of Opting Out on Level of Exemptions

	States < Federal				Sates > Federal	
	Homeowner		Nonhomeowner		Homeowner	
	brd/cap	nar/cap	brd/cap	nar/cap	brd/cap	nar/cap
Optyr - 3	-0.595** [0.247]	-0.910*** [0.268]	-0.057 [0.288]	-0.182 [0.602]	-0.076* [0.036]	-0.006 [0.077]
Optyr - 2	-0.688*** [0.213]	-1.042*** [0.287]	-0.118 [0.482]	-0.901 [0.675]	-0.111 [0.087]	-0.143* [0.070]
Optyr - 1	-0.679*** [0.193]	-1.030*** [0.268]	-0.255 [0.320]	-0.98 [0.616]	-0.111 [0.085]	-0.155** [0.072]
Optyr	-0.173 [0.121]	-0.224* [0.123]	0.239 [0.177]	0.919** [0.370]	-0.018 [0.065]	-0.059 [0.057]
Optyr + 1	-0.12 [0.082]	-0.164* [0.089]	0.193* [0.108]	0.661** [0.264]	-0.036 [0.060]	-0.073 [0.056]
Optyr + 2	-0.057 [0.056]	-0.08 [0.064]	0.132** [0.057]	0.421** [0.179]	-0.034 [0.060]	-0.066 [0.059]
Optyr + 3	0 [0.033]	0.01 [0.026]	0.066 [0.043]	0.219* [0.124]	-0.046 [0.059]	-0.075 [0.060]
Obs.	432	414	666	378	234	252
R-squared	0.93	0.9	0.82	0.96	0.99	0.99
F Test, optyr-1 = optyr	12.02	13.84	9.03	3.65	1.86	2.66
Prob > F	0	0	0	0.07	0.2	0.13

Note: dependent variables are exemptions (as indicated) divided into subsamples where states are less than federal exemptions as of 1978, and where states are greater than federal exemptions. Independent variables are years before and after opt out, with state and year fixed effects. All values logged, real.

Figure 4: Effect of Opting Out on Level of Exemptions



Note: x-axis shows years before and after opt out (t=0 for year of opt out). All exemptions are real and logged.

Table 7: Exemption Levels**Panel A: Cross Sectional Regressions (1996)**

	Hstead, Cap	Hstead, Excl. Unlim.	Hown, Brd, Cap	Nhown, Brd, Cap	Hown, Brd, Cap, Fed	Nhown, Brd, Cap, Fed
History	1.264 [0.000]***	1.156 [0.000]***	0.238 [0.079]*	0.058 [0.603]	0.185 [0.041]**	0.042 [0.604]
Banks	0.214 [0.743]	-0.190 [0.832]	0.244 [0.507]	0.245 [0.429]	0.072 [0.767]	0.059 [0.795]
Cost of Living	1.533 [0.905]	1.215 [0.937]	5.398 [0.458]	8.844 [0.153]	3.893 [0.419]	8.359 [0.068]*
Farmers	-0.856 [0.651]	-0.509 [0.822]	-0.465 [0.661]	-0.117 [0.895]	-0.661 [0.349]	-0.400 [0.542]
Income per Capita	-0.961 [0.889]	-0.174 [0.984]	0.143 [0.971]	-2.068 [0.527]	-0.621 [0.809]	-3.569 [0.142]
Population Density	-0.393 [0.493]	-0.600 [0.382]	-0.396 [0.223]	-0.077 [0.774]	-0.330 [0.127]	-0.024 [0.904]
Divorce Rate	0.393 [0.839]	-0.114 [0.960]	0.583 [0.593]	1.022 [0.269]	-0.253 [0.726]	-0.111 [0.869]
Ideology, 1 – 5 (liberal +)	-0.269 [0.540]	-0.254 [0.629]	-0.256 [0.301]	0.031 [0.879]	-0.170 [0.299]	0.162 [0.289]
Gov Transfers	-0.339 [0.930]	-1.073 [0.807]	0.008 [0.997]	-2.951 [0.114]	0.898 [0.535]	-2.308 [0.093]*
Charitable Giving	-2.096 [0.348]	-2.630 [0.314]	-1.269 [0.312]	-1.040 [0.324]	-1.552 [0.067]*	-1.327 [0.091]*
Obs.	42	36	42	42	42	42
R-Squared	0.675	0.655	0.362	0.236	0.378	0.387

Note: p values in brackets; all exemptions logged and real; state and year fixed effects; exemptions are real and logged.

*significant at 10%; ** significant at 5%; *** significant at 1%

Panel B: Pooled Regressions

	Homestead, Cap	Homeowner, Broad, Cap	Nonhomeowner, Broad, Cap	Homeowner, Broad, Cap, TBE	Nonhomeowner, Federal
Banks	-0.546 [0.077]*	-0.128 [0.269]	0.031 [0.899]	-0.068 [0.462]	-0.175 [0.169]
Cost of Living	0.650 [0.747]	0.493 [0.590]	-1.865 [0.499]	1.458 [0.156]	1.452 [0.166]
Farm Population	1.554 [0.535]	-1.382 [0.128]	0.055 [0.986]	-0.828 [0.254]	0.460 [0.639]
Income per Capita	2.836 [0.190]	0.271 [0.676]	-0.998 [0.534]	-0.416 [0.431]	0.365 [0.577]
Population Density	-1.667 [0.299]	-0.190 [0.732]	-0.779 [0.518]	0.582 [0.312]	-0.764 [0.387]
Divorce Rate	-1.292 [0.195]	0.020 [0.945]	-0.463 [0.639]	0.146 [0.726]	0.401 [0.319]
Gov Transfers	4.923 [0.069]*	1.063 [0.041]**	1.612 [0.168]	0.578 [0.226]	0.352 [0.467]
Observations	1045	1045	1045	1045	1045
R-Squared	0.923	0.919	0.643	0.935	0.723
Robust p values in brackets; state and year fixed effects; see appendix for definitions of independent variables					
* significant at 10%; ** significant at 5%; *** significant at 1%					

Panel C: Definitions of Independent Variables

Variable	Definition	Source
Population	Total population	http://www.census.gov/population/estimates/state
History	Homestead exemption in 1920, logged	Goodman, The Emergence of Homestead Exemption in the United States, p. 472 (cited in note ___)
Ideology	Conservative (1) to liberal (5)	Erickson, Robert S., Gerald C. Wright, and John McIver, 1993, Statehouse Democracy
Banks	Banks per 100K population, logged	http://www.fdic.gov/bank/historical/index.html
Bk Filing	Bankruptcy filings per 10K population, logged	Administrative Office of the U.S. Courts.
Cost of Living	Geographical cost of living index, by state, logged	Source: Walter McMahon, Geographical Cost of Living Differences: An Update, AREUEA Journal, Vol. 19, No. 3, 1991, 426-450.
Farm Population	Farm proprietors per 100K population, logged	http://fisher.lib.virginia.edu/reis/
Income per Capita	Income per capita, real, logged	http://fisher.lib.virginia.edu/reis/
Population Density	Population per square mile, logged	Statistical Abstract
Divorce Rate	Divorces per 100K population, logged	National Center for Health Statistics
Gov Transfers	Thousands of real dollars of total government transfers per capita, logged	http://fisher.lib.virginia.edu/reis/
charitable giving	Charitable donations divided by adjusted gross income in 1998, logged	Center on Nonprofits and Philanthropy, The Urban Institute

APPENDIX: Summary statistics for selected variables

Variable		Obs	Mean	Std. Dev.	Min	Max
Home -tead	Excl. Unlim.	928	29,310.02	36,238.27	0	200,000
	Cap For Unlim	1,100	54,555.73	71,064.95	0	281,513.50
Pers. Prop.	Brd, Excl	788	9,442.91	7,340.28	0	34,000
	Brd, Cap	1,100	17,095.47	17,854.35	0	105,571.20
	Nar, Excl	1,057	4,072.71	5,519.49	0	40,000
	Nar, Cap	1,100	4,600.35	5,937.27	0	33,813.07
Homeowner	Brd, Excl	709	39,268.56	39,747.12	0	174,800
	Brd, Cap	1,100	71,593.92	78,460.59	0	387,084.70
	Nar, Excl	898	33,019.77	37,920.79	0	206,800
	Nar, Cap	1,100	59,098.81	73,049.91	0	315,326.60
	Brd, Excl, TBE	507	46,845.88	42,683.42	2,000	170,000
	Brd, Cap, TBE	1,100	115,993	93,661.43	2,000	387,084.70
	Nar, Excl, TBE	898	33,089.92	37,897.09	0	206,800
Nonhome- Owner	Brd, Excl	788	10,937.83	8,430.77	0	57,400
	Brd, Cap	1,100	18,401.01	18,234.05	0	105,571.20
	Nar, Excl	1,057	5,513.10	6,507.94	0	40,000
	Nar, Cap	1,100	6,006.26	6,772.60	0	36,400
	Brd, Cap, Fed, Real	1,100	45,586.50	19,314.93	23,022.60	81,567.34
Independent Variables	Gov Transfers	1,100	0.51	0.50	-0.74	1.63
	Banks	1,100	-9.83	0.90	-11.93	-8.10
	Cost of Living	1,100	4.68	0.12	4.48	5.10
	Divorce Rate	1,045	1.60	0.30	0.71	2.88
	Farm Population	1,100	-1.34	1.35	-5.83	0.81
	Charitable Giving	1,100	1.97	0.49	1.20	4.60
	Ideology	1,056	2.92	1.38	1	5
	Income per Capita	1,100	9.92	0.17	9.41	10.42
	Bankruptcy Filing	1,100	-6.52	0.76	-9.13	-4.71
	Population Density	1,100	4.24	1.44	-0.43	6.98

Note: see Tables 2 and 7.C for variable definitions. Some independent variables are real values or logged, as described there.

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1. William M. Landes, Copyright Protection of Letters, Diaries and Other Unpublished Works: An Economic Approach (July 1991).
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