

**AN ANALYSIS OF STATE-WIDE VARIATION IN
BANKRUPTCY RATES IN THE UNITED STATES**

by

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I. INTRODUCTION

A casual examination of the filing rates for personal bankruptcy reveals a surprisingly large variation across the various states in the face of an arguably uniform federal law. Table 1 compares the personal bankruptcy filing rates by states in 1980 and 1991.¹ Inspection of these data reveals a wide and changing variation across states in the interstate filing rates over this time period.² For example, in 1980, the filing rate varied from a low of 0.03% per capita (3 filings per 10,000 population) in South Carolina to a high rate of 0.26% in Nevada. By 1991, both the absolute filing rates and the range of variation had increased significantly - the lowest rates was 0.08% in Hawaii and the highest rate of 0.81% occurred in Tennessee (see Table 1).³ At the same time, the national average filing rate for personal bankruptcy increased from 0.15% in 1980 to 0.34% in 1991.

In principle, the observed variation in statewide bankruptcy filing rates may be attributed to differences in the legal environment in the subject states, differences in their economic climate, or both.⁴ This paper examines the relative importance of legal and economic factors in explaining the differences in interstate bankruptcy filing rates. The results of such an investigation can provide insight into whether changes in current

¹ Data supplied by the Administrative Office of US Courts.

² New bankruptcy legislation (i.e. Bankruptcy Reform Act of 1978, Pub. L. No. 95-598, 92 Stat. 2682, Codified at 11 U.S.C.) went into effect on October 1, 1978 with amendments in 1992 and 1994 (Bankruptcy Judgeship Act of 1992, 28 USC 1988, Sec. 152. Pg. 108-361, 106 Stat. 965; Bankruptcy Reform Act of 1994, Oct. 22, 1994, Pg. 103-394, 108 Stat. 4106, Titles 1-7). Despite its title, the new legislation is known among bankruptcy professionals as the "Bankruptcy Code" while the previous statute is known as the "Bankruptcy Act."

³ The raw (unadjusted) range of variation was 0.23% in 1980 and 0.73% in 1991. However, measured from a perspective of proportions, the ratio of highest to lowest filing rates declined over this period. This is due to the high ratio generated in 1980 by the low absolute filing rate for South Carolina.

⁴ There may of course be other non-quantifiable cultural or sociological factors that affect the filing rates differentially across states. We offer no opinion on the importance of these factors, other than to suggest that a meaningful debate at any rigorous level is difficult without quantification. Sullivan, Warren and Westbrook (*The Persistence of Local Legal Culture*, 17 Harv. J. L. and Pub. Policy 801 (1994)) have argued that local "legal culture" exercises a powerful and systematic influence on bankruptcy filing rates at the local, i.e. inter-state level. Cultural factors of this type emphasized by these authors may also operate to some degree on the more aggregate state level. Corroboration of such a hypothesis must be regarded at present as unfinished business.

legislation are likely to have an impact on a given state's bankruptcy filing rate. Additionally, a model of statewide bankruptcy filings with explanatory power and out-of-sample predictive power could lead to a more efficient allocation of bankruptcy judges or trustees to certain states.

Differences in economic conditions across states are transparent to even the most casual observer. There are also obvious differences in state laws. The variation in state laws that matter for purposes of this study are those that may be expected to affect bankruptcy filing rates. These differences in the legal environment relate first to differences in the federal bankruptcy code as applied differentially across states (primarily via the code's "opt-out" provisions, see 11 USC 522(d)), and second, to variation in non-bankruptcy legal rules, particularly, creditor's remedies such as garnishment, attachment, replevin, etc.

We find that economic variables dominate quantifiable legal variables in explaining variations across states in bankruptcy filings in both Chapters 7 and 13. By itself, this result suggests that manipulation of legal rules such as those dealing with creditors' remedies or affecting personal exemptions in bankruptcy are unlikely to have much impact upon the number of bankruptcy filings. By contrast, economic conditions have a powerful impact upon the bankruptcy filing rates. Thus, to change a state's bankruptcy filing rate requires implementing policies that affect the economic "fundamentals" we identify in this paper, rather than changes in bankruptcy legislation.⁵

While not discounting non-quantifiable legal cultural variables, the present study is an advance over previous empirical work dealing with statewide variations in bankruptcy filing rates in several important ways. First, we include a larger menu of both legal and economic explanatory variables than in previous studies. Second, we employ a larger and more recent data set. Third, both Chapter 7 and Chapter 13 filings are studied. Fourth, unlike previous work, the explanatory power of our model is comparatively high.

⁵ This assertion is subject to the caveat that the legislation in question affects the legal variables we identify in this paper. Sullivan, Warren and Westbrook (cited in note 4 supra.) have referred to the pervasive influence of "legal culture" on bankruptcy filings. We offer no opinion on whether legislation is capable of affecting "legal culture."

We begin by briefly reviewing the related literature in Section II. Section III describes the data utilized in this study and the construction of econometric variables. This is followed in Section IV by a discussion of the methodology employed in our study. Our results are discussed in Section V. The concluding section suggests avenues for future research in this area.

II. PRIOR LITERATURE

Apilado, Dauten, and Smith empirically examine variations in interstate bankruptcy filing rates.⁶ They use data for the period 1962-74 to "investigate the factors associated with the incidence of personal bankruptcy."⁷ They include both economic variables (unemployment rate, per capita personal debt/personal income) and legal variables (restrictiveness of garnishment statutes, personal exemptions) in a stepwise multiple regression. Apilado et al. conclude that legal variables explain interstate bankruptcy variations better than economic variables.

Woodward and Woodward examine the relationship between interstate bankruptcy filings and personal exemption levels.⁸ Using 1978-79 data, they investigate whether states which have larger bankruptcy exemptions experience higher bankruptcy filing rates.⁹ They categorize states into three sub-samples according to the degree of "incentive" provided by the exemptions (no incentive, incentive, and big incentive). Test results based upon a sign test and a rank sums test did not indicate a statistical difference between the sub-samples as distinguished by the degree of incentive. The implication is that interstate variations in bankruptcy must be explained by other (omitted) legal variables or by economic factors.

⁶ Vincent P. Apilado, Joel J. Dauten and Douglas E. Smith, *Personal Bankruptcies*, 7 J. Leg. Stud. 371 (1978).

⁷ Id. at 373.

⁸ William J. Woodward Jr. and Richard S. Woodward, *Exemptions as an Incentive to Voluntary Bankruptcy: An Empirical Study*, 57 Am. Bank. L. J. 53 (1983). See also Woodward, *Exemptions, Opting-Out and Bankruptcy Reform*, 43. Ohio St. L. J. 335 (1982).

⁹ The Bankruptcy Code's opt-out provision (11 USC 522 (d)) permits states to reject the exemptions contained in the Code and to substitute state exemptions instead.

Shepard, in a paper dealing primarily with the evolution of national bankruptcy filing rates, examines whether the thirty-two states that opted out of the federal exemptions at the time of enactment of the Code had different bankruptcy filing rates than the non-opt out states.¹⁰ On an aggregate level, the differences were small suggesting that "...if the Act has had any effect on the overall incidence of bankruptcy, it derives from provisions other than the generous federal exemption levels it specifies."¹¹

White uses data for 1981 to conduct a cross-sectional study of personal bankruptcy filings both in Chapter 7 and Chapter 13 at the county level in the United States.¹² She hypothesizes that personal filings for a cross-section of U. S. counties can be explained by a set of economic and demographic variables.¹³ White finds that, at the county level, "... both economic conditions and the exemption level are of similar importance in determining the number of Chapter 7 bankruptcy filings...[but] neither effect is strikingly important quantitatively."¹⁴ The explanatory power of the model is rather weak for both Chapter 7 and 13 filings - the estimated R-squareds are about 10 percent. Thus, 90 percent of the county-wide variation in bankruptcy filings is due to factors not included in the model.¹⁵

In a comprehensive study, Sullivan, Warren and Westbrook examine the characteristics of individuals filing bankruptcy petitions.¹⁶ They conclude that the debtors who filed for bankruptcy were, with few exceptions, mired in debt. For the

¹⁰ Lawrence Shepard, *Personal Failures and the Bankruptcy Reform Act of 1978*, 27 J. L. and Econ. 419 (1984).

¹¹ Id. at 426.

¹² Michelle White, *Personal Bankruptcy under the 1978 Bankruptcy Code: An Economic Analysis*, 63 Ind. L. J. 1 (1987).

¹³ The explanatory variables include the unemployment rate, the divorce rate, the percentage of population that is elderly or non-white, and the dollar value of statutory exemptions.

¹⁴ Id. at 27.

¹⁵ White notes that while "...economic factors are important in determining the level of personal bankruptcy filings...unmeasured variables may be even more important" (id. at 28). This observation may be related to those of Sullivan, Warren and Westbrook (cited at note 4 supra.) that legal cultural effects may exert a dominant influence at the local level.

¹⁶ Teresa Sullivan, Elizabeth Warren and Jay L. Westbrook, As We Forgive Our Debtors: Bankruptcy and Consumer Credit in America, Oxford University press (1989).

most part, they found no support for the hypothesis that debtors respond in predictable fashion to economic incentives created by property exemptions.¹⁷ The same conclusion re-emerged in their later work which examined petitioners filing in 1991.¹⁸ Among the reasons these authors report for the increase in filings over the ten year period ending in 1991 are various non-quantifiable factors such as greater availability of legal services and extension of credit card debt to low income individuals rather than measurable aggregate economic variables such as the unemployment rate.

III. THE DATA

The selection of explanatory variables in the present study is based on those utilized in prior research and discussions with bankruptcy professionals regarding the potential causes of variations in bankruptcy filings across the states and across time.

The legal variables included in our examination are various forms of exemptions applying to the homestead, life insurance policies, pension funds, and basic personal property in addition to a variable measuring strength of creditors' remedies outside of bankruptcy, i.e. post-judgment wage garnishment. The economic variables included in our model are reported at the state level. The variables are per capita state gross domestic product, per capita state personal income, state unemployment rate, a proxy for per capita state debt, a number of loan repayment delinquency variables, and certain demographic variables such as the proportions of pensioners or baby boomers in the state's population.

¹⁷ Sullivan et. al. (*id.*) did not however, formally test for the impact of differing exemption levels in bankruptcy filing rates across states.

¹⁸ Teresa Sullivan, Elizabeth Warren and Jay L. Westbrook, *Consumer Debtors Ten Years Later: A Financial Comparison of the Consumer*, 68 Am. Banks L. J. 121 (1994).

The complete list of variables included is as follows:

- (a) Basic Exemptions (Basic),
- (b) Homestead Exemptions (Home),
- (c) Exemptions for life insurance (Life),¹⁹
- (d) Exemptions for pension funds (Pens),
- (e) Percentage of wages exempt from creditor garnishment under state law (Garn),
- (f) Per capita state gross domestic product (GDP),
- (g) Per capita state personal income (PI),
- (h) Per capita national debt level (ND/NI),²⁰
- (i) Average annual state unemployment rate (UR),
- (j) Average annual state divorce rate (DR),
- (k) Percentage of mortgage loans past due (Percall),
- (l) Percentage of mortgage loans past due more than 90 days (Per 90),
- (m) Percentage of home foreclosures (PFORC),
- (n) Percentage of state population consisting of baby boomers (PBB),
- (o) Percentage of state population consisting of pensioners (PP).

Data on individual state exemptions and garnishment levels are obtained from Williamson's Consumer Bankruptcy Handbook for Attorneys, and by examining the relevant state statutes.²¹ They are corroborated by interviews with various bankruptcy judges, trustees, clerks, and attorneys. Unfortunately, the states do not have a standard set of definitions for their exemptions. It was necessary, therefore, to make certain reasonable assumptions in order to obtain a comparable set of exemptions

¹⁹ This is usually the cash surrender value of life insurance policies (See Appendix 1).

²⁰ This variable is included to control for year to year fluctuations. We would have preferred to include a variable for statewide personal debt, but reliable data for this appears to be unavailable.

²¹ Williamson, Consumer Bankruptcy Handbook for Attorneys, 1st, 2d, 3d, 5th, 7th, 10th, 12th, 13th, 14th and 16th editions.

across states and years. These assumptions and a list of exemptions are provided in Appendix 1.

Data on the economic and demographic variables used in the tests were obtained from various sources including the U. S. Department of Commerce, various regional Federal Reserve Banks and the Mortgage Banker's Association. Data on bankruptcy filings were obtained from the Administrative Office of U. S. Courts. Information on state exemptions and creditors' remedies was obtained from Williamson (cited in note 21) and various state statutes.

Economic variables were lagged one period in the model; a change say, in the unemployment rate is not expected to affect the bankruptcy filing rate at once. On the other hand, legal variables were not lagged; legislation concerning changes is almost certainly known in advance of its enactment.²²

Data were gathered for all 50 states and the District of Columbia for the post-code years 1980-92.²³ The set of data thus comprised 663 observations (50 states plus the District of Columbia for each of the 13 years).

IV. METHODOLOGY

Statistical procedures for panel data were used to determine the explanatory power of the included variables in explaining the observed variation in per capita filing rates across states. We analyzed Chapter 7 and Chapter 13 filings separately. We did not include any Chapter 11 filings since they are primarily business filings.²⁴ No adjustment is made for business filings included in Chapter 7 or Chapter 13 filing totals because such filings make up a very small proportion of total filings and are unlikely to have any impact upon the results.

²² There are no meaningful change in our results when legal variables are lagged one period.

²³ Because of the one-period lag for certain economic variables as discussed supra., the relevant years for these variables extended over 1979-1991.

²⁴ Most of Chapter 7 and 13 filings are personal while most of Chapter 11 filings are for business. Chapter 11 can be utilized by individuals [see 11 USC 1101 et. seq.], but this is done primarily when the amount of debt is relatively large [see 11 USC 109 (c)]. For example, figures from the Administrative Office of U.S. Courts indicate that in 1993 just over 10 percent of total Chapter 7 filings were business filings. By contrast, 95 percent of Chapter 11 fillings were business filings.

Our initial regressions included a year variable going from 1990 through 1992 for each state and dummy variables for each state, running from 1-51. Variables which were not statistically significant were dropped from further analysis. The basic regression model is:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2t-1} + \beta_3 X_{3t-1} + \beta_4 Y_{1t-1} + \varepsilon_{it}$$

where $i = 1, \dots, 51$ (representing the different states plus the District of Columbia), $t = 1980, \dots, 1992$ (representing the year).

The dependent variable, Y_{it} , is the per capita bankruptcy filing rate for either Chapter 7 or Chapter 13 and varies in state i and time t . Four types of explanatory independent variables were included. Of these, only the legal variables x_{1it} enter contemporaneously.

Economic variables are lagged one period. Some of the variables only vary across time (such as annual national debt) and are included in x_{2t-1} . Others vary across both time and states and are captured by x_{3it-1} . Finally, we also include a lagged endogenous variable (Y_{1t-1}) to allow for possible systematic dynamic influences on the bankruptcy filing rate.²⁵

We had the choice of using the fixed-effects estimator or the random-effects estimator.²⁶ We estimated our results using both, and our principal results were unchanged in either case. For ease of exposition here, we present the results applicable only to a fixed effects model.

We have only 12 time series observations, so it is difficult to determine if the bankruptcy filing rates are non-stationary. Therefore, we estimate the model in terms of both levels and first differences except for the exemption variables which are always in levels since they have little time series variation. Our main results are not sensitive to the choice of the estimation model. Finally, to account for cross sectional

²⁵ Bankruptcy filing rates both at the state and national levels gradually increased over this period. For example see Jagdeep S. Bhandari, and Lawrence A. Weiss, *The Increasing Bankruptcy Filing Rate: An Historical Analysis*, 67 Am. Bank. L. J., 1 Winter (1993).

²⁶ See C. Hsiro, Analysis of Panel Data, Cambridge University Press, Cambridge, (1986) and W. H. Greene, Econometric Analysis, McMillan, New York (1990).

heteroskedasticity, we use White's heteroskedastic-consistent standard errors for significance level inferences.²⁷

V. RESULTS

As can be seen in Table 2, none of the legal variables representing the different levels of exemptions or garnishments appear significant in either Chapter filing. By contrast, economic variables explain a substantial amount of the differences in the bankruptcy filing rates across states for both Chapters 7 and 13.

The economic variables measuring debt paying capacity show a strong positive relationship to the bankruptcy filing rates. Our first proxy for debt paying capacity, interstate per capita disposable income, is significant for both Chapters 7 and 13. Our second proxy, national debt/national income, was only significant for Chapter 7. This may occur because individuals who file Chapter 13 have a low debt-to-income ratio which gives them a higher probability of being able to reorganize their debt successfully. Individuals with a high debt to income ratio and, therefore, a lower probability of successfully reorganizing their debt, are more likely to file Chapter 7. The lack of available data on per capita state debt forced us to use the per capita state disposable income and national debt/national income instead of per capita state income/per capita state debt. The percentage of individuals who are late with their mortgage payments or experience foreclosures is a proxy for debt paying capacity. Therefore, to incorporate some measure of per capita state debt, we also included two mortgage payment delinquency variables and a foreclosure variable. The percentage of loans past due, reflecting one missed mortgage payment, was significant for Chapter 7 but not for Chapter 13. The percentage of loans past due for more than 90 days, reflecting three or more missed mortgage payments, and

²⁷ H. White, *A Heteroskedastic - Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity*, *Econometrica* 48, 817 (1980).

per capita foreclosures was significant for both Chapters 7 and 13. These results reflect the significant positive correlation between state debt and the interstate bankruptcy filing rates.

The long term trend variable and the lagged filing rates are significant for both Chapters if lagged one or two years, and significant in Chapter 13 if lagged three years. This indicates a trend over time in the number of bankruptcies which may be a reflection of the reduced social stigma attached to bankruptcy in the 1980's²⁸ or the failure to fully measure the increased debt load at the statewide level as noted above.

Neither the absolute amount of gross state product, the absolute amount per capita, the percentage change from one period to the next, nor the divorce rate are significant. The unemployment rate is significant and positively related to the filing rate for Chapter 7 but not for Chapter 13. The lack of significance of these variables may result from their effect already being incorporated in the debt-paying capacity proxies.

We had no hypothesis concerning the coefficients on interstate exemptions since results from prior research are mixed. At the margin, individuals may strategically plan their bankruptcy filings and move to states which feature higher exemptions. This conjecture certainly has some historical merit.²⁹ However, if only a small percentage of filers move to a state or file strategically because of the states' exemptions, the differences across states will not be significant. Additionally, state exemption levels apply whether or not an individual files for bankruptcy, further reducing the probability an individual will file in a state with higher exemption levels.

The basic and homestead exemptions are highly correlated with each other, but the results did not change whether they were combined into the one variable as presented in Table 1 or treated as two separate variables. None of the exemptions appear significant in

²⁸ Stephanie W. Kanuit, *Attorney's Responsibilities to Ensure that Professional Advertising is Truthful and Non-Deceptive*, 77 Illinois Bar Journal, 414 (1989). See also Linda Sorenson Ewald, *Content Regulation of Lawyer Advertising. An Era of Change*, 3 Georgetown Journal of Legal Ethics, 429 (1990).

²⁹ Margaret Brinig and F. H. Buckley, *The Market for Migrants*, Working Paper, George Mason University School of Law, (July 9, 1994).

either Chapter 7 or Chapter 13 filings. These variables apparently add little in explaining the differences in the bankruptcy filing rates across states. Our results are consistent with Sullivan et al. (1989) as individuals do not, on average, appear to shield assets strategically from creditors by filing bankruptcy petitions.³⁰

We expected an individual residing in a state allowing garnishment of wages to be more likely to file for bankruptcy and thereby halt the garnishment process rather than an identical individual living in another state where garnishment of wages is not permitted. The results do not support this hypotheses. The garnishment variable was insignificant for both Chapters 7 and 13. The lack of significance could result from only a small proportion of the bankruptcy filing population being subject to garnishment of wages or from low variation in the variable across states.

VI. CONCLUSION

This study examines whether certain legal (i.e., interstate variations in exemption levels and creditor remedies) and economic variables (e.g., debt capacity, unemployment rates, etc.) are related to the observed variation in the interstate per capita personal bankruptcy filing rates. The study extends previous research on statewide variations in bankruptcy filing rates by examining the potential effects of a large variety of economic and legal variables in both Chapter 7 and Chapter 13 filings for a larger and more recent data set (50 states plus the District of Columbia for the period 1980-1992).

We find economic variables explain a substantial amount of the differences in the bankruptcy filing rates across states for both Chapters 7 and 13. In contrast, none of the legal variables representing the different levels of exemptions or garnishments appear significant in either Chapter. Our results are consistent with interstate economic conditions being the principal determinant of bankruptcy filing rates and differences among state

³⁰ Kevin Delaney, Strategic Bankruptcy, University of California Press (1992).

exemptions and garnishment rules having little, if any, impact. These results imply that manipulating a particular state's legal rules (percentage of wages subject to garnishment outside of bankruptcy and personal exemption levels in bankruptcy) is unlikely to have much impact on the number of bankruptcies filed in that state. Instead, policies which affect the economic fundamentals of a state are much more likely to have a measurable impact upon that state's bankruptcy filing rate

Table 1
Per Capita Personal Bankruptcy Filing Rates

State		1980	1991
Alabama		0.10187 %	0.67214 %
Alaska		0.10864	0.18526
Arizona		0.14141	0.48933
Arkansas		0.03686	0.31804
California		0.15449	0.39746
Colorado		0.12282	0.49701
Connecticut		0.06758	0.20058
Delaware		0.07597	0.16162
District of Columbia		0.08840	0.18846
Florida		0.05820	0.31594
Georgia		0.13414	0.72902
Hawaii		0.04669	0.08176
Idaho		0.16270	0.38932
Iowa		0.11855	0.20651
Illinois		0.17796	0.34508
Indiana		0.22325	0.47144
Kansas		0.14249	0.37780
Kentucky		0.17179	0.41530
Louisiana		0.09749	0.30336
Maine		0.06135	0.17182
Maryland		0.08966	0.25080
Massachusetts		0.04536	0.19842
Michigan		0.11856	0.24311
Minnesota		0.10093	0.37058
Mississippi		0.12359	0.46462
Missouri		0.13961	0.32918
Montana		0.12890	0.24517
Nebraska		0.14692	0.27294
Nevada	High	0.26099	0.51861
New Hampshire		0.07738	0.29376
New Jersey		0.05984	0.23880
New Mexico		0.10382	0.28307
New York		0.10303	0.21218
North Carolina		0.04524	0.22513
North Dakota		0.08214	0.18315
Ohio		0.17518	0.38677
Oklahoma		0.15219	0.50129
Oregon		0.16457	0.45599
Pennsylvania		0.05291	0.16556
Rhode Island		0.08293	0.29044
South Carolina	Low	0.02976	0.18705
South Dakota		0.08741	0.21778
Tennessee		0.16294	0.80937
Texas		0.03722	0.25777
Utah		0.17176	0.44412
Vermont		0.05283	0.14021
Virginia		0.14771	0.39119
Washington		0.13608	0.33394
West Virginia		0.08618	0.21516
Wisconsin		0.09031	0.23919
Wyoming		0.09789	0.31522
	Mean	0.150 %	0.340 %
	High less low	0.230	0.730

Table 2
Least Squares Regressions on Per Capita Bankruptcy Filing Rates

<u>Variable</u>	<u>Chapter 7</u>	<u>Chapter 13</u>	<u>Combined</u>
Constant	-1.5983	-0.7521	0.5964
Home&Basic	0.0000	0.0000	-0.0000
Insurance	0.0000	0.0000	-0.0000
Pension	0.0000	-0.0000	-0.0000
Garnishment	-0.0011	-0.0008	-0.0001
% Change in GSP	-0.6522	-0.0610	-0.5133
Per Capita Disposable Income	-0.7299 *	-0.4452 ***	-0.6204
National Personal Debt/Income	4.7297 **	-1.6616	7.2802 ***
% of loans past due	0.0629 ***	0.0095	0.0549 ***
% of loans past due > 90 days	0.0025 *	-0.0005 **	0.0027 **
Per Capita Foreclosures	0.0031 **	0.0033 ***	0.0008
Unemployment Rate	0.0015 *	-0.0005	0.0031 **
GSP%POP	0.0068	-0.0007	0.0080
Long Term Trend	0.1149 ***	0.0215 *	0.0346 *
Divorce Rate	-0.0320	0.0149	-0.0484
Filing rate lagged once	1.1718 ***	1.5123 ***	1.2314 ***
Filing rate lagged twice	-0.3563 ***	-0.6554 ***	-0.4443 ***
Filing rate lagged thrice	-0.0965	0.1974 ***	0.0762
Uncentered R squared	0.9944	0.9924	0.9878
Centered R Squared	0.9771	0.9868	0.9698
R Bar squared	0.9728	0.9844	0.9641
Durbin-Watson statistic	2.0261	2.1204	1.9851
Ho: coeff of exemptions are 0			
Chi-Squared(4) =	13.0455	1.1120	4.3355
Significance level	0.0111	0.8924	0.3625

- * Significant at better than 90% level
- ** Significant at better than 95% level
- *** Significant at better than 99% level

Appendix 1

Interstate Personal Exemptions & Garnishment in 1992¹

<u>State</u>	<u>Basic²</u>	<u>Homestead³</u>	<u>Ins.⁴</u>	<u>Pens.⁵</u>	<u>Garn⁶</u>	<u>Opt⁷</u>
Alabama	\$ 3,000	\$5,000	100%	0	75%	1
Alaska	9,800	54,000	\$10,000	100%	75	1
Arizona	10,500	100,000	5,000	100%	75	1
Arkansas	3,650	2,500	100%	\$20,000	0	1
California	16,200	50,000	100%	100%	75	1
Colorado	7,250	30,000	5,000	100%	75	1
Connecticut	6,850	7,500	100%	100%	75	0
Delaware	5,500	0	100%	0	85	1
D. C.	6,850	7,500	100%	100%	75	0
Florida	1,000	100%	100%	100%	75	1
Georgia	5,900	5,000	100%	100%	75	1
Hawaii	6,850	20,000	100%	100%	75	0
Idaho	6,750	30,000	100%	100%	75	1
Illinois	3,950	7,500	100%	100%	85	1
Indiana	4,100	7,500	100%	100%	75	1
Iowa	19,000	100%	100%	0	75	1
Kansas	33,500	100%	100%	100%	75	1
Kentucky	8,500	5,000	100%	100%	75	1
Louisiana	20,000	15,000	100%	100%	75	1
Maine	8,100	7,500	100%	100%	75	1
Maryland	6,000	2,500	100%	100%	75	1
Massachusetts	6,850	100,000	100%	100%	75	0
Michigan	6,850	7,500	100%	100%	75	0
Minnesota	11,500	100%	100%	100%	75	0
Mississippi	10,250	75,000	50,000	100%	75	1
Missouri	4,100	8,000	100%	100%	75	1
Montana	8,700	40,000	100%	100%	75	1
Nebraska	5,500	10,000	100%	100%	75	1
Nevada	9,000	95,000	100%	100%	75	1
New Hampshire	5,100	5,000	0	0	85	1
New Jersey	6,850	7,500	100%	100%	90	0
New Mexico	10,500	20,000	100%	0	75	0
New York	5,500	10,000	0	100%	90	1
North Carolina	8,200	10,000	100%	0	75	1
North Dakota	5,000	80,000	100%	100%	75	1
Ohio	4,550	5,000	100%	100%	75	1
Oklahoma	12,000	5,000	100%	100%	75	1
Oregon	4,700	15,000	100%	100%	75	1
Pennsylvania	6,850	7,500	100%	100%	100	0
Rhode Island	6,850	7,500	100%	100%	75	0
South Carolina	5,950	5,000	100%	100%	100	1
South Dakota	2,000	100%	20,000	0	80	1
Tennessee	6,750	5,000	100%	100%	75	1
Texas	30,000	100%	100%	100%	100	0
Utah	6,500	8,000	100%	100%	75	1
Vermont	11,900	30,000	100%	10,000	75	0
Virginia	19,000	5,000	100%	17,500	75	1
Washington	6,850	30,000	100%	100%	75	0
West Virginia	4,850	7,500	100%	100%	75	1
Wisconsin	14,700	40,000	100%	100%	75	0
Wyoming	7,000	10,000	100%	100%	50	1

Appendix 1

Interstate Personal Exemptions & Garnishment in 1992

1. Interstate personal exemptions and garnishment figures were taken from three main sources: brief interviews with bankruptcy clerks, trustees and others; Williamson's Consumer Bankruptcy Handbook for Attorneys (the 1st, 2nd, 3rd, 5th, 7th, 10th, 13th, 14th, and 16th editions); and a search on Lexis (re the statutes exempting cash value of life insurance or cases/annotations interpreting the language of a statute to mean "cash value"). We encountered several obstacles in finding the exemptions. Many definitions were unclear and dates of changes are often stated as early eighties or late seventies. The definitions varied from state to state so certain assumptions had to be made to present a coherent set of data.
2. Basic exemptions are standard exemptions allowed for basic necessities. We used the dollar amount given excluding; 1) clothing unless included as part of other property, 2) bibles, library, and burial plots, 3) family heirlooms and engagement rings unless a specific dollar amount was listed, and 4) pets, farm animals, and most items re a family farm.
3. The homestead exemption is an exemption for the family house. In cases where the amount was unlimited (i.e. the house was protected even if it was worth millions of dollars) an amount of \$1 million was included for the purpose of the regression. \$0 if the amount can be combined with other personal property.
4. This is the exempt amount of the cash surrender value of life insurance (most states have restrictions that the life insurance must have been purchased anywhere from 3 months to a year prior to the bankruptcy filing). In states where the amount was unlimited (or listed as 100%) we included an amount of \$100,000 in the regression. In some states the description was not clear and we may be picking up death payments.
5. This is the amount of exempt pension funds. In many states separate amounts are listed for state employees. We included 0 if only certain pension funds for teacher and other state workers (i.e. firemen) were listed. Generally, IRA's, 401's, or company pensions must have been included for us to include the amount. An amount of \$100,000 was included in the regression if 100% of pensions were exempt.
6. This is the percentage of assets exempt from garnishment (seizure by creditors outside of bankruptcy). In states where only a limited dollar amount was stated, the rate of 75% was included in the regression.
7. A 1 indicates that the state opted out of standard federal exemptions.