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Exemptions As An Incentive To Voluntary Bankruptcy: An Empirical Study

by

William J. Woodward, Jr.* and Richard S. Woodward**

INTRODUCTION

As has happened in the past, the rising incidence of consumer bankruptcy filings has again precipitated calls for legislative reform of the bankruptcy law. The latest steady rise in the filing statistics, having occurred during the first years under the Bankruptcy Reform Act of 1978, has spawned a natural tendency to associate the increase in filings with provisions of the Act itself. Downplayed in the analysis are factors which are less readily susceptible of legislative management — increased media coverage of bankruptcy as a solution to debt; the probably-related decrease in the “stigma” attached to bankruptcy; the increased interest by the private bar in bankruptcy practice; the post-World War II rise in consumer

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2See, e.g., Eisenberg, Bankruptcy Law in Perspective, 28 U.C.L.A. L. Rev. 953 (1981); R. Johnson, et al., MONOGRAPHS Nos. 23 and 24, CONSUMER BANKRUPTCY STUDY VOLUMES I AND II (Credit Research Center, Krannert Graduate School of Management, Purdue Univ. 1982); S. REP. No. 446, 97th Cong., 2d Sess. 3 (1982).


4Two bills to change consumer bankruptcy provisions of the Reform Act were pending in Congress at the conclusion of the last session: S.2000, 97th Cong., 1st Sess. (1982); H.R. 4786, 97th Cong., 1st Sess. (1982). The Senate view was “that provisions of the Code have played a substantial role in stimulating the number of bankruptcy filings.” S. REP. No. 446, 97th Cong., 2d Sess. 3 (1982). See generally Schuchman and Rhorer, Personal Bankruptcy Data for Opt-Out Hearings and Other Purposes, 56 AM. BANKER. L. J. 1, 1-3 (1982).

5See Schuchman & Rhorer, supra note 4 at 2.

6Id.

7See, e.g., Tell, Chasing the Bankruptcy Bumblers, NAT’L L. J. 1 (May 11, 1981).
borrowing; the progressive depersonalization of the debtor-creditor relationship; the general downturn in the economy; etc., etc.

The relationship between bankruptcy filings and provisions of the Reform Act is commonly expressed in terms of “incentive”: attractive provisions of the Act are said to provide debtors with “incentives” to choose bankruptcy. More specifically, if the provisions of the bankruptcy law are made more attractive to debtors, more of them will select that option as a solution to their financial problems. A corollary of this idea is commonly used to deal with rising bankruptcy rates: make the law less attractive to debtors and less of them will choose bankruptcy. The argument is made yet more specific for purposes of policymaking: if this or that specific provision of the law is made less attractive, fewer debtors will choose bankruptcy, all other things being equal.

But the purported relationship between the attractiveness of the bankruptcy law and the rate of voluntary filings may not hold for specific, individual provisions of the law thought to be attractive. The provision in question may not, in fact, be attractive to most debtors. Debtors may not know that the provision is attractive at the time they exercise their choice. The attractiveness of the provision in question may, unknown to observers, be controlled by some other provision which is being ignored in the analysis. Or debtors may not act rationally about choosing a solution to their financial problems. The incentive approach, if utilized without adequate data and analysis, can result in sacrificing whatever good the attractive provision was designed to achieve without obtaining the hoped-for reduction in bankruptcy filings.

Recent expressions of this “incentive” approach to bankruptcy policy making are to be found in connection with exemption provisions of the Bankruptcy Reform Act and, specifically, in connection with a provision of the Bankruptcy Reform Act popularly known as the “opt-out provision.”

8See Bankruptcy Commission Report, supra note 1, Part I, at 49.
12See, e.g., Johnson, supra note 10, at 142-43.
13Id. at 143.
15See id. at 84-89.
17“Opt-out” is the term widely used by courts and commentators to describe a state’s legislative action of denying to its debtors the exemption rights found in section 522(d) of the Reform Act. See, e.g., In
The provision allows states by suitable legislation to foreclose to their debtors the property exemptions found within the Reform Act and to substitute for the federal provisions a set of exemptions of the state's own making. The Reform Act's opt-out provision, unique in United States bankruptcy legislation, was a political compromise between those who saw uniform bankruptcy exemptions as a necessary part of comprehensive bankruptcy reform and others who wished to leave bankruptcy exemption decisions with the states where they had been under the 1898 Act. From a larger perspective, the opt-out compromise is yet another episode in the ongoing policy struggle about whether the statutory source of bankruptcy exemptions should be Congress or the state legislatures.

The reform movement for a return to an earlier form of bankruptcy legislation containing uniform, federal bankruptcy exemptions had begun in

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18. The exemption provision of the Bankruptcy Reform Act, section 522, generally defines the property a debtor will retain from the bankruptcy estate following bankruptcy.

19. The operative authorization for opting-out in section 522 reads:

- Notwithstanding section 541 of this title, an individual debtor may exempt from property of the estate either:
- (1) property that is specified under subsection (d) of this section, unless the State law that is applicable to the debtor...specifically does not so authorize.


Among the federal bankruptcy exemptions found in section 522(d) are $7,500 worth of property used as a residence, § 522(d)(1); $1,200 of interest in a motor vehicle, § 522(d)(2); limited interests in household goods and jewelry, § 522(d)(3) and (4); limited interests in tools of the trade, § 522(d)(6); certain interests in life insurance policies, § 522(d)(7) and (8); and alimony, social security and other rights to periodic payments, as well as certain limited rights of action, § 522(d)(10) and (11). The federal provision also has a "spillover provision" which permits a non-homeowner to utilize the value of the homestead exemption available to homeowners. 11 U.S.C. § 522(d)(5)(1980).

20. Section 6 of the 1898 Act provided:

Sec. 6 Exemptions of Bankrupts
This Act shall not affect the allowance to bankrupts of the exemptions which are prescribed by the State laws in force at the time of the filing of the petition in the State wherein they have had their domicile for the six months or the greater portion thereof immediately preceding the filing of the petition.


22. See supra note 22.
the late 1950's when observers began to focus on the anachronistic state exemption legislation which the provisions of the 1898 Act made applicable in bankruptcy. State exemption provisions had been largely ignored in this century and their use in bankruptcy was eventually perceived by reformers to be interfering with the federal policy of providing the bankrupt debtor with a "fresh start." But in response to the early call for uniform federal bankruptcy exemptions to be supplied by federal reform legislation itself came the rejoinder that uniform bankruptcy exemptions which were more generous than state counterparts would drive debtors to voluntary bankruptcy in order to keep more property from creditors; and conversely, more niggardly federal exemptions than their state counterparts would induce creditors to precipitate involuntary bankruptcy in order to get more property than is available outside bankruptcy. This notion did not capture the favor of the Bankruptcy Commission which recommended uniform federal bankruptcy exemptions anyway. However, the argument might well have helped pro-

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24E.g., Countryman, For a New Exemption Policy in Bankruptcy, 14 Rutgers L. Rev. 678 (1960); Note, Bankruptcy Exemptions: Critique and Suggestions, 68 Yale L. J. 1459 (1959).


26Indeed, Professor Kennedy, an early spokesperson of the view, apparently altered his views as the head of the Bankruptcy Commission. In testimony before Congress he stated:

The Commission was aware of and concerned by the possibility that a discrepancy between state and federal exemptions may provide an artificial incentive for filing petitions in bankruptcy. If the federal exemptions are more generous than the state exemption, a debtor may seek relief in bankruptcy in order to get the advantage of the larger allowance against creditors. If the federal exemptions are less liberal than the state law, creditors may wish to place their debtor in bankruptcy to reach the property that is exempt under state law. The Commission was at first troubled and deterred by this consideration from proposing federal exemptions but ultimately concluded that it was an insufficient basis for recommending either preemption of the field by federal law or retention of the present incorporation of state exemption laws by reference into the Bankruptcy Act. The fact that bankruptcy is an available recourse for the debtor or the creditors will be a limitation on the extent to which the parties will rely on their rights as determined by state law. They will negotiate and settle in the light of what advantages and disadvantages are available under both systems. The fact that bankruptcy requires a surrender of all nonexempt property and still carries a stigma will be deterrents to a person contemplating voluntary bankruptcy to get the advantage of a more generous exemption. The realization that the debtor will probably get a discharge and that all creditors will share in the distribution of proceeds of the sale of nonexempt assets will be substantial deterrents to creditors contemplating involuntary bankruptcy as a way of reaching assets of their debtor that are beyond their reach under state law.


duce the Code's opt-out provision which permits states to reject the set of exemptions contained in the Code and to substitute state provisions for the rejected federal exemptions. Perhaps more important, the argument that larger federal bankruptcy exemptions will induce the filing of voluntary bankruptcy petitions has probably influenced the opt-out decisions of some of the legislatures of the thirty-two states which have thus far opted-out.

An unintended benefit of the Reform Act's opt-out provision is the unique opportunity it affords to empirically test the hypothesized connection between statutory exemption levels in personal bankruptcy and the rate of voluntary bankruptcy filings. We set out to determine whether such an influence could be detected; the purpose of this article is to report on and discuss our findings.

28The opt-out compromise itself has almost no legislative history. See In re Sullivan, 680 F.2d 1131, 1136 (7th Cir. 1982). We have found no mention of the incentive idea in that meager legislative history.


30Because section 522(b) permits a debtor in a state which has not opted-out to choose either federal or state exemptions for bankruptcy purposes, smaller federal exemptions than the state's counterpart will not, in theory, be a disincentive for a debtor to file for voluntary bankruptcy or a corresponding incentive for a creditor to file an involuntary bankruptcy petition.

31The most forceful expression of this idea we have found was contained in a plea to the South Carolina legislature to opt-out:

[Un]less the General Assembly enacts a specific statute depriving debtors of the right to claim the federal exemptions enumerated in section 522(d), a substantial and perhaps irresistible incentive to file consumer bankruptcies will arise with the probable result of a significant increase in the rate of consumer bankruptcies in South Carolina.


32More than three-fourths of the states which have opted-out have manifested an intent through their legislation that debtors in both systems be afforded the same exemption protection. See Woodward, Exemptions, Opting-Out, and Bankruptcy Reform, 43 Ohio St. L.J. 335, 344-45 (1982). Opt out legislation thus far is as follows:


33At least one other researcher has attempted to study the effects of different exemption levels on debtors in bankruptcy. Future Earnings: Hearings on the Bankruptcy Reform Act of 1978 Before the Subcommittee on Courts, Senate Committee on the Judiciary, 97th Cong., 1st Sess. 24 (statement of Robert W. Johnson).
I. BACKGROUND

An exemption statute is one that defines a certain quantity of a debtor's real or personal property as unavailable to creditors in satisfaction of most debts. Exemption provisions have been part of American bankruptcy law from its inception and of state collection law from at least the early 1830's. The Bankruptcy Acts of 1800 and 1841 contained their own exemption provisions which operated without regard to state exemption law. In 1867, as a concession to those states with liberal state exemption provisions, Congress for the first time not only set uniform federal exemptions but also allowed debtors in bankruptcy to utilize state exemption provisions as well. Under the Acts of 1841 and 1867, exemptions arguably could have made a difference in the decision to file for voluntary bankruptcy: under both schemes, larger federal exemptions than the state counterparts could have lowered the threshold for filing a voluntary petition because more property would be protected from creditors as a result of filing a bankruptcy petition than would be protected outside. The Bankruptcy Act of 1898 eliminated federal bankruptcy exemptions and, instead, simply incorporated into its operation the exemption provisions of the state in which the debtor was domiciled. What developed from this scheme was the idea that there was a quantity of property which was protected from the involuntary payment of debts whether that payment was extracted through

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34Exemption statutes typically "except" certain types of debts from their operation. For example, in most places, a debtor owing alimony will not derive protection from the exemption provisions. See, e.g., Countryman, For a New Exemption Policy in Bankruptcy, 14 Rutgers L. Rev. 678, 708-709 (1960). Because the Reform Act contains federal provisions addressing many of these issues, the "excepted creditor" has created knotty problems of choice of law under the Bankruptcy Reform Act. See generally Stern, State Exemption Law in Bankruptcy: The Excepted Creditor as a Medium for Appraising Aspects of Bankruptcy Reform, 33 Rutgers L. Rev. 70 (1980).


38C. Waren, Bankruptcy in United States History 103 (1935).


40Voluntary bankruptcy was unavailable under the 1800 Act. See C. Waren, Bankruptcy in United States History 27 (1935).

41In addition, under the same reasoning, under the 1841 scheme smaller federal exemptions than their state counterparts could supply a disincentive to filing voluntary bankruptcy and an incentive for creditors to precipitate involuntary bankruptcy. Cf. Kennedy, Limitations of Exemptions in Bankruptcy, 45 Iowa L. Rev. 445, 452 (1960).

42Bankruptcy Act of 1898, ch. 541, § 6, 30 Stat. 544, 548 (1898). The text of section 6 is quoted in supra note 21.
bankruptcy or through state collection mechanisms. Indeed, the operation of the 1898 Act also treated such issues as waiver of exemptions, the validity of security interests in exempt property, and the validity of exemption rights against special favored claimants as matters of state law thereby increasing the parity of treatment of debtors in and out of bankruptcy. In short, the 1898 Act went a long way in eliminating whatever exemption-related incentive there might have been under prior Acts. The elimination of an exemption-based incentive does not appear to have had anything to do with incorporation of these provisions into the 1898 Act.

Rather, as indicated earlier, the notion that different bankruptcy exemptions would have an effect on the bankruptcy rates seems to have developed much later, at about the time that the 1898 Act’s exemption scheme was being challenged as an impediment to the fresh start objectives of bankruptcy. At first blush, the idea has a compelling ring: if debtors are rational maximizers, one would think that the prospect of keeping more property from creditors through bankruptcy would induce some debtors to choose bankruptcy who would not have otherwise done so. Perhaps more important for policy makers is the corollary: reducing or eliminating this incentive—that is making federal bankruptcy exemptions closer to or the same as state exemptions—will slow the rate of bankruptcy filings.

The opt-out provision of the Bankruptcy Reform Act gave state legislatures just such an opportunity to try to slow the rate of bankruptcy filings by eliminating the differential between state and Bankruptcy Code exemptions. With the simple addition of one or two sentences to its exemption statutes, a state could make its own state exemptions operate in bankruptcy much as they had prior to the Reform Act. Most of the thirty-two states which opted-out did, in fact, simply replace the Code’s exemptions

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43See, e.g., Hanover National Bank v. Moyses, 186 U.S. 181, 190 (1902); In re Kanter, 505 F.2d 228, 231 (9th Cir. 1974).
44See supra note 34.
45See supra note 34.
46See Stern, State Exemption Law in Bankruptcy: The Excepted Creditor as a Medium for Appraising Aspects of Bankruptcy Reform, 33 Rutgers L. Rev. 70, 74-77 (1980).
47See text at notes 23-27, supra.
49See supra note 31.
50For example, KAN. STAT. ANN. § 60-2312 (Cum. Supp. 1981) provides:
   No person, as an individual debtor under the federal bankruptcy reform act of 1978 [sic] (11 U.S.C.A. § 101 et seq.), may elect exemptions pursuant to subsection (b)(1) of section 522 of such federal act.
51The operation of state exemptions in bankruptcy under the Bankruptcy Reform Act is different from their operation under the 1898 law because, among other things, federal law now probably controls such matters as waivers (11 U.S.C. § 522(e)), debts excepted from the operation of the exemptions (11 U.S.C. § 522(c)), and the validity of certain security interests in exempt property (11 U.S.C. § 522(f)(2)). To the extent that federal bankruptcy law differs from state law on these issues, the proceeds of a given opt-out state’s exemption may be different in bankruptcy than outside. See generally Woodward, Exemptions, Opting-Out and Bankruptcy Reform, 43 Ohio St. L.J. 335, 354-60 (1982).
with those exemptions available to debtors generally outside of bankruptcy. In the process, each state that opted-out also reduced significantly the value of the exemptions available to non-homeowners in bankruptcy. The supposed incentive having been eliminated in such states, yet arguably present in varying degrees in non-opt-out states, researchers are presented with at least two samples — an “incentive group” and a “no incentive group” — whose bankruptcy rates can be compared statistically.

II. METHODOLOGY

In constructing a method to test the “incentive hypothesis,” we attempted simply to duplicate, in experimental form, the hypothesis itself. The idea is that debtors are drawn by higher exemptions to bankruptcy and, therefore, states which have larger bankruptcy exemptions than non-bankruptcy exemptions will experience higher bankruptcy rates than will states without such a difference in exemption provisions. We therefore focussed on the exemption provisions of the states and of the Code and not on the characteristics of debtors who might make decisions under those provisions. We thus defined “incentive” in the way it is defined in the hypothesis: access to larger exemption provisions when a debtor is in bankruptcy than when he is not in bankruptcy. Our results must be interpreted in light of our central focus on the statutory provisions themselves; as will be discussed later, the results under our method of testing underscore the oversimplification implicit in the incentive hypothesis.

Preparing the data for statistical testing involved ascertaining, for each fiscal year in question, those states whose debtors had access to larger exemptions in bankruptcy than outside of bankruptcy. This “incentive” group contained two types of states: those non-opt-out states that had ex-
emptions which were smaller than those available through the Bankruptcy Code and those opt-out states which, through their own exemption statutes, gave debtors in bankruptcy access to more exempt property than given to debtors outside of bankruptcy. We thus defined "incentive" for purposes of this study by reference to the basic state and federal statutory exemption provisions alone; no attempt was made to quantify the subtle effects of differing procedure for claiming exemptions, the differing legal contexts in which such claims are asserted, or differing exemption related


The approximate value of each state's and the Bankruptcy Code's real and personal property exemption provisions was estimated in order to make this determination. Initially, state exemption values were estimated for both homeowners and non-homeowners as well since many states have homestead provisions unavailable to non-homeowners; the Bankruptcy Code, at present, makes no such distinctions. 11 U.S.C. § 522(d)(5) (1980). Other studies suggest strongly that most persons who file voluntary bankruptcy petitions do not own homes and, therefore, do not have access to homestead exemptions. See, e.g., Schuchman, Little Bankruptcies in New England, 56 B.U.L. Rev. 685 (1976); Credit Research Center, Monograph No. 24, Consumer Bankruptcy Study, supra note 2, Vol. II, 11-12. Consequently, we utilized the state exemption values for non-homeowners and constructed the samples discussed in the text without regard to homestead exemptions unavailable to non-homeowners. Values used in constructing the actual samples are on file with the publisher.


We did not believe that state life insurance exemptions, comparable provisions of which are found in the Bankruptcy Code (11 U.S.C.A. § 522(d)(7)-(8)(1980)), could have much impact on the bankruptcy decisions of many debtors and consequently did not attempt to assess the influence of such provisions on debtor behavior. See generally Appendices, infra.

Common law rules of law having the effect of immunizing debtor property outside of bankruptcy were not taken into account in this study. Since the vast majority of debtors in bankruptcy do not own real estate, see supra note 56, which might be protected by the tenancy by the entirety, we felt that the incentive effects of such common law protection in non-opt-out states could be safely ignored in our comparisons of state and Code exemptions. In opt-out states, such interests are treated the same way in or out of bankruptcy. Similarly, we have seen nothing to suggest that more than an extremely small percentage of debtors in bankruptcy might be holders of claims for personal injuries which common law doctrine would generally protect from creditors. See S. Reisenfeld, Creditors' Remedies and Debtors' Protection 229 (3d ed. 1979); Plumb, The Recommendations of the Commission on the Bankruptcy Laws Exemption and Immune Property, 61 Va. L. Rev. 1, 43-47 (1975); Annot., 66 A.L.R. 2d 1217 (1959). Spend-thrift trusts are treated the same way in bankruptcy as outside. 11 U.S.C. § 541(c)(2)(1980); see generally 4 Collier on Bankruptcy § 541.23 (15th ed.).
rules\(^6\) which the well informed debtor might take into account in assessing the attractiveness of exemption provisions in the two systems.\(^6\)

The "no incentive" groups for each year were similarly constructed and consisted of two types of states: those that had made exemptions the same in both systems by the form of their opt-out and those states with exemptions which were larger than those provided by the Bankruptcy Code. Since the Code gives a debtor in bankruptcy in a state which has not opted-out the choice of federal exemptions or state exemptions,\(^6\) there is, in theory, no exemption-related incentive affecting the choice of bankruptcy in the latter group. Whether such a state has opted-out or not, the debtor has access to the relatively higher exemptions both in and out of bankruptcy.

In addition, a subgroup of each "incentive" group was created containing those states in which the difference in value between exemptions available in and out of bankruptcy was comparatively large.\(^6\) The objective was to see whether those states whose law contained a "big incentive" to bankruptcy might have significantly higher bankruptcy rates than states in the "no incentive" group. The states making up the various samples as well as a more detailed explanation of the methodology used in constructing this study can be found in the Appendices.

III. STATISTICAL EXAMINATION

To statistically assess whether the new exemption provisions of the Bankruptcy Reform Act affected the rate of personal bankruptcies in the states in the "incentive" groups, two alternative tests were applied: a sign

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\(6^6\)Certain creditors may have access to exempt property outside of bankruptcy who would not have such access inside bankruptcy. For example Indiana's exemption statute extends only to those debtors who are liable "for any debt growing out of or founded upon a contract express or implied," I.C. 34-2-28-1 (1980), thereby offering no exemption protection to the debtor liable in tort. While by no means certain, in bankruptcy, it may well be that the Indiana exemption operating through the Bankruptcy Code will protect the debtor's exempt property against all forms of liability except those specified in 11 U.S.C. § 522(c), a section which does not give special status to tort creditors. See generally Stern, State Exemption Law in Bankruptcy: The Excepted Creditor as a Medium for Appraising Aspects of Bankruptcy Reform, 33 Rutgers L. Rev. 70 (1980).

Quantifying such subtle differences in the operation of the two systems is nearly impossible. In any event, we believe that such differences would influence debtor decisions in very few cases.

\(6^6\)In this respect, the structure of our study replicates the incentive argument itself which is focused almost exclusively on a comparison of the personal property exemptions found in the two systems.


\(6^6\)Any state in which the Code allowed the debtor to exempt $6,000 or more property in bankruptcy than she could outside of bankruptcy was included in these groups. Members of all groups are listed in the Appendices; specific estimates of the value of the provisions examined in this study are on file with the publisher.
test\textsuperscript{64} and a rank sums test.\textsuperscript{65} Both methodologies can be used to determine whether or not any two selected samples were likely to have been drawn from the same parent population and, therefore, are not statistically different from one another. In this study, these tests were used to examine whether or not the exemption provisions in the Bankruptcy Code resulted in statistically significant differences in the bankruptcy rates between the "incentive" groups and the "no incentive" groups described in the previous section. The non-parametric sign test was used to compare the bankruptcy rates of the two "incentive" groups for the fiscal years before the federal law took effect, i.e., when there was no exemption-related "incentive," with the rates of those states after the law was effective and the incentive was hypothetically present. The rank sums test, on the other hand, was used to compare the bankruptcy rates of the "incentive" groups with those of the "no incentive" samples for each of the years that the Reform Act was in effect.

Before applying either of these tests to the state bankruptcy data, it was important to convert the filing figures\textsuperscript{66} to a per capita bankruptcy rate by dividing each state's annual bankruptcies by the state population. This adjustment results in year to year bankruptcies per capita for each state thus assuring that all sample members are roughly comparable.\textsuperscript{67} Further adjustments, to be discussed below, were also necessary to minimize economic effects which, by themselves, could lead to significantly different bankruptcy rates across the various samples being compared and thus distort the resulting assessment of the effects of the exemption provisions of the Reform Act.

The sign test was carried out on the bankruptcy data for the fiscal years 1978 and 1979. Using that test, the "incentive" samples were examined for the periods before and after the effective date of the Bankruptcy Reform Act, i.e., before and after the "incentive" was in place. The null hypothesis, that the samples were drawn from the same population, can be tested using the binomial distribution. The appropriate binomial test is one-sided indicating that if the "incentive" effects are significant, this will be reflected in higher bankruptcy rates for those incentive groupings.

The rank sums or Mann Whitney U test is another nonparametric statistical test which can be used to determine whether two samples are significantly different. Here, a "U" statistic is calculated by jointly ranking the bankruptcy rates across the two samples and then summing the ranks for either of the individual samples. On the basis of this count and the sizes of the two samples, the probability that the two samples differ significantly can be determined.

Filing figures were those for voluntary chapter 7 bankruptcies.

State population figures were taken from the 1980 Census figures. As such, year to year interstate migration is not captured in these per capita figures.
Act. Our null hypothesis was that the “before” and “after” samples of both of the incentive groupings were drawn from the same population. This implies that the probability of an increase in any state’s bankruptcy rate (resulting from exemption provisions of the federal law) is 50% and thus equivalent to the probability of a decrease.

Unfortunately, economic conditions deteriorated considerably over the years being considered. Economic factors as well as other provisions of the new law may have influenced the filing statistics. Over 70 percent of the 50 states had an increase in their bankruptcy rates from fiscal year 1978 to fiscal year 1979 and then again from fiscal 1979 to fiscal 1980. The personal bankruptcy rates in 48 of the 50 states increased during fiscal year 1980, with South Dakota and Alaska being the only states registering a slight decrease over that period. To correct for changes in general economic conditions or other aspects of the change in law which may have influenced bankruptcy rates over the period of interest, year to year state bankruptcy rates were adjusted (either up or down) depending on whether the overall average of all state bankruptcy rates for any given year was above or below the state’s average calculated over the 5 year period 1977 to 1981.69

The test results indicate that the bankruptcy rates for both of the incentive samples (see Table, Appendix B) were unaffected by the exemption provisions of the Bankruptcy Reform Act. The number of increases in the corrected bankruptcy rates between fiscal years 1978 and 1979 for those states included in the “big incentive” sample was 13 out of a maximum of 22 states; 11 were expected under the null hypothesis. For the larger sample of “incentive” states which had their bankruptcy exemptions raised by the Reform Act, even if by only a small amount, the number of corrected bankruptcy rate increases was 20 out of a total sample size of 36, whereas 18 was the number expected under the null hypothesis. Although the actual number of bankruptcy rate increases after the effective date of the Code is slightly greater than expected under the null hypothesis, these differences are not statistically significant. Accordingly, under this test the hypothesis that the new exemption provisions in the Reform Act had no effect on the rate of personal bankruptcies cannot be rejected.

More specifically, the “before” period was July 1, 1978-June 30, 1979; the “after” period was October 1, 1979 (the effective date of the Reform Act) to June 30, 1980. The latter period was the first time period during which filing statistics were kept under the Code’s provisions. A correction was applied to make the nine-month “after” period’s figures comparable to the twelve-month “before” period’s figures. Specifically, the bankruptcy rates for all 50 states were averaged for each year (from 1977 to 1981) and then these were again averaged over the 5 year period. Each year’s average rate was then expressed as a fraction of the 5 year average resulting in an index ranging from .895 in 1978 to 1.23 in 1981. Each state’s yearly bankruptcy rate was then deflated by this index thus eliminating the effect of a deteriorating economy on the change in any state’s bankruptcy rate over the period in question. Because bankruptcy rates were the basis for adjustment here, other effects of the change from the 1898 Act to the Reform Act were also eliminated.
While one examines the same set of states in successive years using the sign test, different samples of states in the same year can be compared using the rank sums test. This makes the rank sums test somewhat stronger than the sign test because the members from the two samples being examined do not have to be matched, and therefore the samples do not have to be the same size.\textsuperscript{70} Again, the null hypothesis was that the "incentives" generated by the Reform Act's exemption provisions were not, in themselves, significant enough to affect the rate of voluntary bankruptcies and thus we would not expect statistically significant differences between the incentive and no incentive samples during the period after the federal legislation took effect.

As indicated earlier, changing conditions from year to year first had to be eliminated under the sign test before the possible effects of the Reform Act on personal bankruptcies could be examined over two successive years. Because the rank sums test is applied to different samples over a single period of time, overall year to year changes do not affect the test results.

Interstate differences due to local economic conditions could, however, result in different bankruptcy rates across any two selected samples of states. It is clear, for example, that the effects of the recession are not distributed equally across the 50 states. Certain states like Michigan were affected considerably more than some of the more prosperous states in the southwest. Indeed, certain states like Alaska were hardly affected at all by the economic downturn. If, by chance, the various incentive or no-incentive state samples are geographically bunched either in above average or below average unemployment regions, drawing conclusions from these sample bankruptcy rates about the possible effect of the BRA will not be possible. Differences (or lack of differences) in the bankruptcy rates of the samples could be explained by factors other than "incentive" differences associated with exemption provisions of the Reform Act. Using a methodology somewhat similar to that suggested earlier for eliminating the effects of year to year changes in nationwide average bankruptcy rates, states rates were adjusted to eliminate or at least reduce interstate economic differences within any fiscal year.\textsuperscript{71}

The results of the rank sums test support our earlier findings. Although

\textsuperscript{70}In general, the less restrictions required by a statistical test, the stronger the statistical test is considered to be.

\textsuperscript{71}To adjust the bankruptcy rates for interstate economic differences, income per capita figures were collected for each state over the period 1979 to 1981. For each year, the income per capita was averaged across the 50 states, with the resulting figure used to deflate each individual state's per capita income. Wealthy states had indices which were greater than one while the poorer states had figures less than one. These state economic indices were then used to deflate or inflate the actual state bankruptcy rates to eliminate interstate differences in bankruptcy rates that were likely to have been caused by economic differences.
there were differences in the median bankruptcy rates calculated for the incentive and no incentive state groupings in various periods, these differences were never statistically significant. These results were found for each of the fiscal years considered. The "incentive" and "no incentive" samples appeared to be drawn from the same population. Under the tests we applied to the data, the exemption provisions of the Act itself had no statistically significant influence on the level of personal bankruptcies.

IV. RESULTS AND DISCUSSION

One must interpret the results of this study with caution. For the years tested, this study establishes only that there is no statistically significant relationship between state bankruptcy rates and the incentive to bankruptcy, as we defined it, found in the state's applicable bankruptcy exemption provisions. At minimum, the results suggest that the dynamics of the debtor's bankruptcy decision are far more complex than the exemption-incentive notion recognizes; the results also underscore the oversimplification implicit in the incentive notion. In addition, the results also show that the simple reduction in present Code exemption levels probably will not result in a significant reduction in the number of voluntary bankruptcy filings—all but one member of the "no incentive" group have reduced the value of the non-homeowner bankruptcy exemption provisions in their states and yet the group has not realized significantly lower numbers of local bankruptcy filings.

As one of us has suggested elsewhere, several reasons might explain the results found in this study. Assuming that larger bankruptcy exemptions offer an incentive to choose voluntary bankruptcy, it would seem on reflection that such an incentive controls the bankruptcy decision in relatively few cases. The decision to file a voluntary bankruptcy petition is a highly complex one involving for some debtors serious questions of morality and self-worth as it may involve notions of retaliation or simple debt avoidance for others. Studies have suggested, for example, that gaining the immediate relief from creditor collection efforts is often a precipitating cause of

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72Actual results of these individual tests which were performed with a computer are on file at the author's office at the University of Calgary.

73Texas is the only state in the study where non-homeowner exemptions were as large as the Code's. Although it did not opt-out, it was therefore included in the "no incentive" group.

74The Senate Report accompanying S.2000 emphasized the rise in bankruptcy filings as an impetus to the legislation. S. REP. 446, 97th Cong., 2d Sess. 3 (1982). Proposed as part of the legislation was the reduction of exemption levels specified by the Code. Id. at 18-19. To the extent that some reduction in the bankruptcy rates was anticipated as a result of the proposed reduction in exemptions, the results of this study suggest that the anticipated rate reduction is unwarranted.

75See generally Woodward, Exemptions, Opting-Out and Bankruptcy Reform, 43 Ohio St. L.J. 335 (1982).
bankruptcy and that a debtor's incurring large medical expenses often precedes the debtor's decision to file for bankruptcy. It may well be that these or other comparably strong reasons simply control the bankruptcy decisions — that debtors choosing bankruptcy will choose it regardless of the exemption level that comes with the choice of bankruptcy. If the exemption-incentive is controlled in most individual cases by other variables of much greater importance, evidence of an exemption incentive will not show up in a statistically significant way in the bankruptcy rates.

The time at which the debtor makes the decision to choose bankruptcy may also explain the results. It may well be that most consumer debtors decide on bankruptcy before they have any awareness of the significance of exemptions at all. Reasons other than the state's exemption differential probably prompt the debtor's initial consideration of bankruptcy as a solution to debt and the decision to file a bankruptcy petition may well be made in many cases before the debtor learns of the state's exemption differential. If that is so, once again, one would not perceive a significant exemption-related influence on the bankruptcy rates. Since no state exempts less property in bankruptcy than outside, there is little exemption information which the bankruptcy lawyer can convey to the debtor that is likely to alter the debtor's decision if it has already been made.

A final possibility is implicit in our experimental design which, like the incentive argument, focuses narrowly on exemption provisions and defines incentive solely by reference to those provisions. The nature of exemption provisions suggests a much more complicated reality captured neither by our testing nor by the incentive argument. The value of an exemption to an individual depends not only on the size of the exemption provisions but also on whether the debtor happens to own the specified property. Accordingly, a disparity in exemption provisions will, in fact, offer an incentive only to those debtors who have property not protected by the lower provisions which is protected by the larger provisions. If, for example, a state's exemption provisions were less generous than the federal bankruptcy alternatives, yet fully protected all assets of most of that state's debtors who might choose bankruptcy, the theoretical incentive created by larger Code exemption provisions could, in fact, operate as an incentive only for the few whose assets exceeded that state's particular limits and fit within the categories of exempt property found in the Code. In that state the Code's relative "generosity" in exemptions would be irrelevant to most debtors choosing...

76D. STANLEY & M. GIRTH, BANKRUPTCY: PROBLEMS, PROCESS, REFORM 47-49 (1971); Cf. Johnson, supra note 2, at 35 wherein the author breaks what might be called creditor collection efforts into four different categories.
77Johnson, supra note 2 at 35.
bankruptcy and evidence of the incentive would probably not appear in the bankruptcy rates.

We could find no way to determine with any accuracy how many persons choosing bankruptcy in the various states had the "right" kinds and amounts of property to make the theoretical incentive, as we defined it, actually meaningful to them. One cannot therefore eliminate the possibility that the "incentives" created by disparities in exemption provisions themselves are simply irrelevant to many debtors in many places or that the "generosity" of the Code's exemption provisions is lost on the vast bulk of debtors filing chapter 7 petitions. The possibility that the exemption mechanism might be increasingly irrelevant as a form of debtor protection in an increasingly credit-oriented economy was raised nearly fifty years ago.\textsuperscript{78} Unfortunately, there does not appear to be a substitute mechanism other than welfare for protecting those debtors who own little or nothing which an exemption might protect.

V. CONCLUSION

This study shows that states that have eliminated the disparity between exemptions available to debtors outside of bankruptcy and those available to debtors in bankruptcy have not realized significantly lower bankruptcy rates than those states which have continued to allow debtors access to the Code's relatively higher bankruptcy exemptions. All states that have eliminated the exemption disparity have done so by lowering the federal level of exemptions to the state exemption level by opting-out. This strongly suggests that reducing the present level of federal bankruptcy exemptions will have an insignificant effect on bankruptcy rates because, as this study shows, the state experience in reducing federal bankruptcy exemptions has not resulted in reduced bankruptcy rates.

The inability to offer definitive explanations about the results of the study underscores the complexity in debtor behavior not captured by a superficial incentive argument such as the one examined here. The study also counsels caution in too readily embracing the incentive approach to legislation in this highly complex field. For in the context of voluntary bankruptcy, the incentive approach supports the proposition that a drop in the bankruptcy rates will follow if one simply reduces various debtor relief provisions of the bankruptcy law, definitionally "attractive" to debtors. As such, the approach — scientific-sounding and intuitively appealing — is always available in a time of rising voluntary bankruptcy rates to support a reduction in the debtor relief provisions of the law, changes that may well be

\textsuperscript{78}Hamilton, \textit{In re the Small Debtor}, 42 \textit{Yale L.J.} 473, 481-82 (1933).
counterindicated by economic or other policy considerations. In short, like other analytical tools, the incentive approach, if used in this field without adequate data and analysis, can distort and obscure rather than clarify policy choices. If the delicate balance between the rights of debtors and creditors in bankruptcy is to be shifted, a more compelling justification than is offered by an oversimplified, untested incentive argument ought to be required.
APPENDIX A – METHODOLOGY

Constructing samples of states with a hypothetical exemption-related incentive to bankruptcy required, initially, ascertaining the "value" of each state's and the Code's exemption provisions. In attempting to arrive at estimates of value, it quickly became clear that some types of provisions were either too difficult to evaluate or seemed of insubstantial importance to warrant evaluation. Life insurance exemptions which are present in the Bankruptcy Code, 11 U.S.C. § 522(d)(7)-(8) (1980) and in all state exemption provisions, S. Riesenfeld, CREDITORs' REMEDIES AND DEBTORS' PROTECTION 332 (3d ed. 1979), were not included in the evaluation nor were provisions exempting health aids or rights to personal injury claims or awards. Exemptions mandated by federal law apart from the Code are available in bankruptcy to a debtor in an opt-out state, 11 U.S.C. § 522(b)(2)(A)(1980), and generally to a debtor using the Code's exemptions, 11 U.S.C. § 522(d)(10)(1980), and were therefore not counted in the evaluation process either.

For purposes of the study, it was the "value" of the exemption provisions that was important because the hypothesized incentive is said to arise from those provisions themselves. Except as indicated above, it was thus unimportant, for the purposes of the study, whether the typical debtor was likely to have the type of property covered by a given provision and, therefore, whether the provision was likely in fact to have an incentive effect on that "typical" debtor. Our effort, rather, was simply to test the incentive hypothesis as advanced by those pressing for a state to opt-out or by those seeking to lower bankruptcy exemptions and, with them, consumer bankruptcy rates. Our methodology was constructed in accordance with that hypothesis.

The Reform Act's exemption provisions can illustrate the method we followed in placing a value on a state's exemption provisions. Where a limit was found in the statute (e.g., 11 U.S.C. § 522(d)(1), (2), (4), (5), (6) (1980)), that limit served as the "value" of that particular component of the provisions. Where there was no limit in value, we estimated as consistently as possible the likely value of such a provision to a debtor in a position to use such a provision. For example, we estimated the general household goods and furnishings provision of the Code (§ 522(d)(3)) to be worth $4,000. The total of all such values, rounded off to the nearest $500, produced the "value" of the provisions for our study. The Code's package was valued at $14,500 in this manner. We did the same for each state. Values placed on state exemption provisions are on file with the publisher.

Two types of limiting provisions found in state statutes, but not in the Code, seriously complicated the valuing process. Many states have home-
stead exemptions which, by their nature, are limited to debtors who own real estate. The Code's homestead exemption of $7,500 is presently available in "any property" to the non-homeowner through 11 U.S.C. § 522(d)(5), named the "spillover provision" by some and the "wild card" exemption by others. The result was that in most places the value of the state's exemptions would vary with the status of the debtor: if the debtor were fortunate or wealthy enough to own a home, she had access to the value of whatever homestead provision the state had; if the debtor did not own a home, the state's provisions would typically afford substantially less protection. Because the Code does not now discriminate between the two groups, the exemption-related incentive to bankruptcy in a homestead state will vary with the status of the debtor. Because studies have uniformly suggested that the vast bulk of consumer bankrupts do not own real estate, we excluded from our state valuations homestead or other exemptions which were triggered by homeowner status. Such exemptions do not have much relevance to the bulk of debtors that chooses bankruptcy and our samples were constructed on that basis.

A second complicating type of provision found in state exemption provisions is that which makes exemption protection turn on status as a "head of household." While some researchers have gathered data on filings by "married" consumers, we found none for the somewhat different status of head of household, even the definition of which can vary by state. Our solution was to eliminate those ten states (see supra note 55) from the samples we ultimately constructed.

Once values were ascertained, we determined "incentive" by simply subtracting the state's non-bankruptcy exemption value from the state's bankruptcy exemption value. If the bankruptcy value were larger, the state was included in the "incentive" group for that fiscal year. This method included in the incentive group non-opt-out states whose state exemptions are smaller than the Code's as well as a handful of opt-out states who give their debtors in bankruptcy more exempt property than debtors outside of bankruptcy. In addition, if the applicable bankruptcy provisions were $6,000 or more larger than the state's, that state was also included in the "big incentive" subset for that year. On the other hand, if a state's exemption value were larger than the Code's, that state was put into the "no incentive" group since a debtor in that state would have access to the same larger exemptions in both systems. For non-homeowners, only Texas was in this category. Opt-out states who made their provisions the same for both systems were the other members of the "no incentive" group.

The samples were different for each fiscal year because states have opted-out each year since the Code became effective. Because the precise ef-
fective dates of the legislation were often unavailable and because state filing figures were available only on a fiscal year basis, we had to develop a convention for treating the effectiveness of legislation occurring during a given period. For the period October 1, 1979-June 30, 1980 (the figures of which were "inflated" to twelve-month figures for purposes of comparison), we counted any opt-out occurring prior to February 1, 1980 as an opt-out for the entire period; an opt-out after that time was not counted at all for that first period under the Code. Following this first period, we counted any pertinent legislation occurring from January 1-December 31 as affecting a state's status for the entire new fiscal year which would begin on July 1 of the calendar year and run through June of the next. Thus, under this convention, opt-outs occurring on March 1, 1980 and on December 30, 1980 would both be treated as opt-outs for fiscal year 1981; any opt-out occurring in calendar year 1981 would be considered an opt-out for fiscal 1982. The members of the samples constructed in this manner are shown in Appendix B.

Since bankruptcy filing statistics are available in a number of different forms, it was also necessary to select the statistics with most relevance for our study. If there is an exemption-related incentive to bankruptcy, one would see that incentive operating most directly in chapter 7 of the Code under which all debtor property not exempt is liquidated and distributed. And since it is voluntary bankruptcy that the incentive might induce, the figures for voluntary chapter 7 filings would most likely reflect any incentive effects of differing exemption provisions in the two systems. It was these figures that were used throughout.
## APPENDIX B - SAMPLES

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