

THE RISE IN PERSONAL BANKRUPTCY



- CAUSES
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- CORRECTIVES

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■ ABSTRACT Per capita personal bankruptcy filings in the United States increased nearly 350 percent between 1980 and 2005. This paper first addresses the legal, economic and institutional factors that have occurred over the past 100 years, many in the last 30 years, that are likely contributors to the dramatic rise in personal bankruptcy filings seen across the country. They include a reduction in personal savings, an increase in consumer debt, the proliferation of revolving credit, changes to bankruptcy laws and a reduced social stigma associated with filing for bankruptcy.

Given the availability of bankruptcy data at various levels of aggregation, the remaining sections of the paper contain results from several empirical analyses of bankruptcy filings, using various data sets. Careful attention is paid to personal bankruptcy filings in counties located in Eighth Federal Reserve District states: Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri and Tennessee.

I. INTRODUCTION

Personal bankruptcy filings in the United States have soared over the past 30 years, from 1.2 per 1,000 people in 1980 to over 5.4 per 1,000 people in 2004, an increase of nearly 350 percent. In terms of annual growth, bankruptcies have been growing at an average annual rate of nearly 7 percent, about 1.5 times greater than the average rate of annual per capita gross domestic product growth. Taking a longer perspective, the 2004 filing rate of 5.4 per 1,000 people is nearly 80 times greater than the 1920 rate of 0.06 filings per 1,000 population.¹

These statistics disguise the fact that personal bankruptcy filings are not equal across the country. For example, at the state level, Tennessee had the highest rate of personal bankruptcy filings in the nation, with over 10 filings per 1,000 people in 2004—a filing rate equal to 1 percent of the total population. Within Tennessee, Shelby County (Memphis area) led the nation in personal bankruptcy filings, with a filing rate of over 20 per 1,000 population, or 2 percent of the population of Shelby County. At the other end of the spectrum, Massachusetts had a filing rate of 2.8 per 1,000 people, ranking last of all states.

So what is behind this rapid increase in bankruptcy filings? The general cause of most personal bankruptcy filings is no mystery—an individual having too much debt while often experiencing an unexpected negative shock to his or her income, such as divorce, unemployment or an uncovered medical expense. But this does not explain the increase in personal bankruptcy filings that has occurred over the past 100 years, nor does it explain the explosive growth in bankruptcy filings over the past 30 years.

One of the objectives of this study is to provide readers with an understanding of the legal, economic and institutional factors that have occurred over the past 100 years—many in the last 30 years—that are, to some degree, likely contributors to the dramatic rise in personal bankruptcy filings. Understanding these factors will hopefully clarify the mystique of increased bankruptcy filings and may lead to a better understanding of possible solutions to reverse the upward trend.

The report is organized as follows:

The next subsection provides a brief history on bankruptcy law in the United States. It is important to understand where we have come as a country in terms of bankruptcy law because these laws can create strong incentives or disincentives for individuals to file for bankruptcy. As will be discussed, the formulation of bankruptcy law is influenced by, and often emanates from, highly political processes.

The second section of this report discusses various specific legal, economic and institutional factors that are likely contributors to the rise in personal bankruptcy filings.

The next section of the report contains empirical analyses of bankruptcy filing rates over time in U.S. counties located in Eighth Federal Reserve District states. These analyses reveal stark differences in bankruptcy filing rates across counties and regions within the United States. Solutions to reduce bankruptcies, several of which are discussed at the end of the report, are often met with fierce opposition or support, depending upon whether one views bankruptcy as the fault of the debtor or of his or her creditors. In essence, the debate is over who is ultimately responsible for an individual's financial position and his or her decision to file for bankruptcy.

A Brief History of Bankruptcy Law in the United States

The U.S. Constitution gives Congress the authority to legislate bankruptcy. Article I, Section 8 of the Constitution reads: “The Congress shall have power to establish ... uniform laws on the subject of bankruptcies throughout the United States.” Despite this constitutional authority, no permanent bankruptcy law existed in the United States for the first 120 years after this country's founding.²

Federal bankruptcy acts were passed in 1800, 1841 and 1867, but all were short-lived for several reasons. First, during the late 1700s and most of the 1800s, the demand for bankruptcy legislation by debtors and creditors increased during recessionary periods and diminished during boom periods. Second, strong political divides in Congress between Whigs and Federalists (Republicans) who were pro-creditor and Democrats who were pro-debtor prevented permanent legislation. Third, the process of filing for bankruptcy under each of the three acts was far from easy. A costly administrative structure was in place, and all bankruptcy filings had to be done in one of the relatively small number of federal courts across the country.

The first permanent piece of bankruptcy legislation in the United States was the 1898 Bankruptcy Act. The 1898 act was designed to aid creditors in the liquidation of an individual's assets and reorganize insolvent corporations. At the time of the 1898 act, corporate bankruptcies accounted for the vast majority of all bankruptcy filings. Unlike the earlier acts of 1800, 1841 and 1867, the permanency of the 1898 act was due to (1) a unified Congress and presidency (Republican) and (2) the rapid growth and political strength of special-interest groups (pro-debtor and pro-creditor) that

culminated in the late 1800s. The rise of populism through the 1800s contributed to a strong political demand for pro-debtor bankruptcy legislation. On the other hand, the growth in business and industry during this same time period resulted in the rise of pro-business interest groups, such as chambers of commerce and commercial trade groups. Competition between these growing interest groups placed great political pressure on Congress to pass permanent bankruptcy legislation. The 1898 act also fostered the growth of professional bankruptcy groups that have tremendous political influence, such as the American Bar Association and Community Law League.

The Great Depression in the 1930s revealed several problems with the 1898 Bankruptcy Act.³ First, voluntary personal bankruptcy filings became a growing percentage of all bankruptcy filings. The 1898 act, while containing some provisions for personal bankruptcy filing, mostly addressed the issue of corporate bankruptcy. Second, the 1898 act stipulated that all corporations that filed for bankruptcy be placed in corporate receivership.⁴ Increased business bankruptcies during the Great Depression revealed several problems, including corruption, with the structure of corporate receivership established under the 1898 act.

The Chandler Act of 1938 was designed to remedy weaknesses of the 1898 Bankruptcy Act. Many more provisions for individual and corporate debtors were contained in the Chandler Act. For example, it allowed debtors to choose between liquidation and repayment of debt, and it also provided for voluntary and involuntary bankruptcy filings. As with the 1898 act, the impetus behind the Chandler Act was the strong desire of various special-interest groups, such as the American Bar Association, National Association of Credit Management and the Commercial Law League, to change federal bankruptcy law.

The next significant piece of bankruptcy legislation was the Bankruptcy Reform Act of 1978. Between the 1930s and 1970s, corporate bankruptcy filings decreased but personal bankruptcies steadily increased. The 1978 act (also known as the Bankruptcy Code) replaced many earlier provisions for voluntary personal bankruptcy established by the 1898 act. Individuals could choose between Chapter 7 filing, which provided for the liquidation of the debtor's assets, or Chapter 13, which allowed for the repayment and reorganization of a debtor's assets. Many of the changes to Chapter 13 made bankruptcy more attractive to debtors, and it is argued by some that the 1978 act caused, at least in part, the increase in bankruptcy filings immediately following implementation of the act.⁵

U.S. PERSONAL BANKRUPTCY FILINGS: MONTHLY 2004 TO 2005

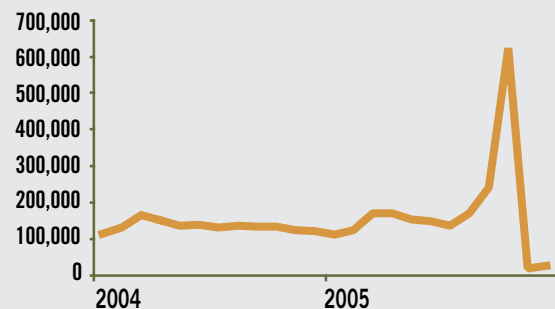


FIGURE 1

Additional changes to the 1978 act were made by the Bankruptcy Reform Act of 1994, such as expediting the procedures for personal and corporate bankruptcy filings and increasing the percentage of a debtor's assets that are exempt from creditors (called the homestead exemption).

The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 became law on April 20, 2005, and took effect on Oct. 17, 2005. The act was designed to reduce the number of personal bankruptcy filings, which have continued to increase since the late 1970s.⁶ One feature of the act is that it increases the cost (in terms of time spent) of filing for personal bankruptcy. Specifically, the 2005 act introduces two needs-based tests (based on income) for Chapter 7 filings (liquidations), requires filers to participate in credit counseling and increases the allowable time between Chapter 7 filings to eight years. The act also established several requirements for lenders, such as better disclosure regarding minimum payments, interest rates on credit cards, late payment deadlines and introductory rates. Because the 2005 act was seen by consumers as increasing the costs of filing for bankruptcy, filing rates increased dramatically—to nearly six times higher than average—prior to the act's effective date (Figure 1). Note that after October 2005, bankruptcy filings were lower than the previous two-year average.

In general, the 2005 act was supported by the financial industry but opposed by consumer groups, which argued that it imposed unnecessary costs on low-income filers. The two opposing views of The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 are evident in the following quotes:

PRO:

“Every year, bankrupts wipe \$44 billion in debts clean off the books, according to the National Consumer Bankruptcy Coalition in Washington, D.C. The cost of wiping away all this debt usually is passed on to you and other consumers, costing the average American household as much as \$550 each year in extra credit costs. Nearly 10 percent to 20 percent of bankruptcy filers are taking advantage of the system—racking up debts and then filing bankruptcy to avoid paying them—even when they have the means to do so, according to the coalition.”⁷

CON:

“A large body of evidence links the rise in consumer bankruptcies in the last 20 years directly to an increase in consumer debt. ... Much of this lending boom was fueled by the extension of credit to vulnerable consumers, including young people, lower-income Americans and minorities and the elderly. Some lenders, such as those offering ‘predatory’ mortgage loans, targeted these borrowers with often deceptive offers that had abusive terms. ... There is nothing ‘balanced’ about this bill. It is unfortunate that creditors have used their political might to push through legislation that will limit access to a fresh start in bankruptcy for many who lose a job, get hit with a major illness or suffer other serious financial misfortunes.”⁸

■ II. THE BANKRUPTCY BOOM: CITED CULPRITS

The primary cause of personal bankruptcy is a high level of consumer debt often coupled with an unexpected insolvency event, such as divorce, death of a spouse, the loss of a job or an uninsured major medical expense.⁹ Lower- to middle-income individuals are more likely to file for bankruptcy in response to an insolvency event, given their relatively limited access to financial counseling and fewer and less-diversified financial resources. The typical bankruptcy filer is a blue collar, high school graduate who is the head of a household in the lower-middle-income class with heavy use

of credit, according to consumer economists’ surveys.¹⁰ However, as mentioned earlier, this description of the average bankruptcy filer cannot by itself explain the rapid increase in personal bankruptcy filings that has occurred over the past 30 years.

It is unlikely that one event triggered the rise in bankruptcy filings. Rather, as is argued here, economic, legal and institutional changes have occurred over the past 100 years that are likely contributors to the rise in personal bankruptcy filings. These changes—such as the increased availability of credit, lower costs of filing for bankruptcy and decreased consumer savings—do not cause bankruptcies per se, but rather have made individuals more susceptible to negative income shocks, thus increasing their chances of filing for bankruptcy.

Economic Factors

Personal bankruptcy filings per 1,000 people in the United States from 1900 to 2005 are shown in Figure 2.¹¹ Bankruptcy filings were relatively low and steady from about 1900 to 1920. Filings increased slightly during the 1920s and 1930s, both as a result of increased economic activity and the Great Depression. Bankruptcy may increase during periods of economic growth as people become more confident in the future and are willing to take on a greater debt burden and finance their increasing obligations based on current income.¹² However, as the supply of credit tightens and interest rates and loan payments begin to rise, the financial strain can become quite large.

World War II saw a marked drop in filings, likely the result of increased employment in support of the war effort. After the war, the number of filings increased and continued to do so into the 1960s. Two reasons for this rise were an increase in economic activity after World War II and the rise in federal

U.S. PERSONAL BANKRUPTCIES
1900-2005 (per 1,000 population)

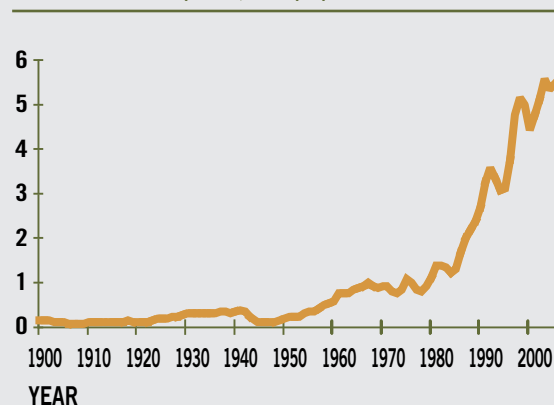


FIGURE 2

and state transfer programs (such as Medicare, welfare and disability), which created an incentive for individuals to be less financially responsible, given the expanding government safety net.¹³

Corresponding with the dramatic change in bankruptcy filings since the early 1980s is a marked decrease in consumer savings. For example, total saving as a percent of income averaged nearly 10 percent in 1980 compared with 0.1 percent in the second quarter of 2005 (Figure 3).¹⁴ Although rising property values have likely led to a portfolio shift from traditional savings to investing in one's home, this latter option offers much less diversity, and thus higher risk, than traditional savings.

Consumer debt has increased dramatically over the past 30 years. Consumer debt, which includes mortgage payments and personal debt (such as credit cards), as a percentage of income increased from about 11 percent of personal income in 1980 to nearly 14 percent of income in the second quarter of 2005 (Figure 3). Similarly, consumer financial obligations (a broader measure than consumer debt) as a percentage of income have increased since 1980 (Figure 3).¹⁵ These statistics, combined with the saving statistics, reveal that Americans have been saving less and spending more (through debt) over the past 30 years, thus making individuals more susceptible to negative income shocks and, thus, more likely to file for bankruptcy.

The simultaneous spread of casino gambling and rising bankruptcy rates in the 1990s has been noted and studied for evidence of a causal relationship. Research has provided

mixed results. The Department of the Treasury, using data from 1962 to 1998 and applying an intervention model, found no measurable effect of gambling on personal bankruptcy rates in Mississippi and New Jersey.¹⁶ Expanding on the study performed by the Treasury, other researchers examined county-level bankruptcy rates for the years 1988 to 1996. The authors found no significant relationship between casino gambling available within 50 miles and personal bankruptcy filings.¹⁷

Another study examined personal bankruptcy rates from 1990 to 1997 in the riverboat gambling states of Iowa, Illinois, Missouri and Mississippi.¹⁸ The authors found that access to casino gambling had no significant influence on personal bankruptcies. However, the authors did estimate that personal bankruptcy rates, on average, would have been 0.4 percent lower in the absence of casino gambling.

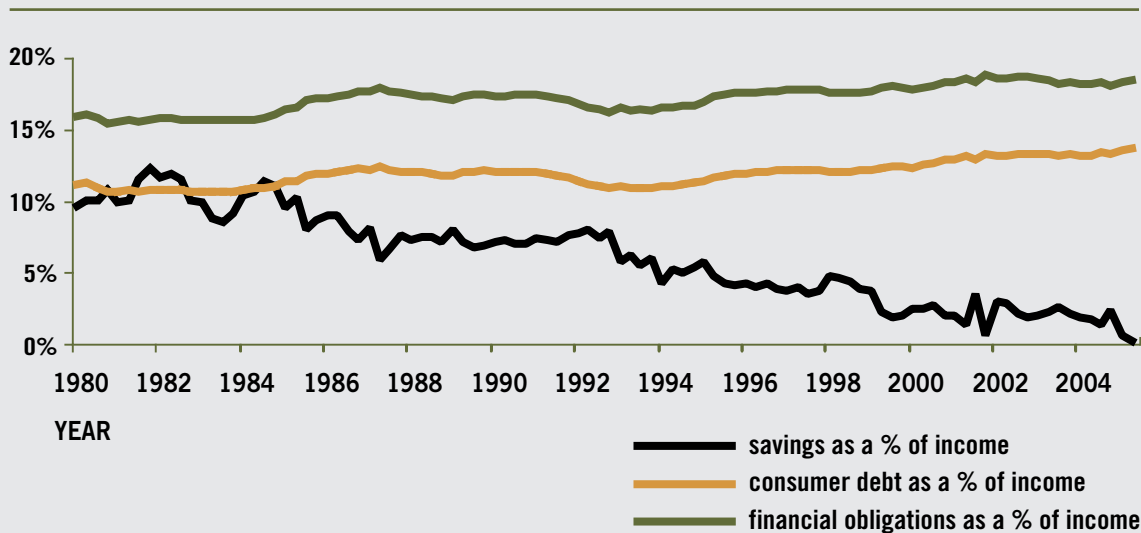
Finally, a recent paper finds a small, localized influence of casino gambling on bankruptcy.¹⁹ Using county-level data from 1993 to 1999, the authors found that casino gambling had a positive and significant influence on personal bankruptcy. They noted that without gambling, counties with or adjacent to casinos would have had bankruptcy rates that were 5.4 percent lower in 1998. Nationwide, however, the reduction in bankruptcies would have been only 1 percent.

Legal and Institutional Factors

The rise in personal bankruptcies in the 1920s and 1930s, along with growing corruption and legal challenges regarding corporate bankruptcy filings during the Great

FIGURE 3

CONSUMER SAVING AND DEBT AS A PERCENTAGE OF INCOME: U.S. QUARTERLY 1980-2005



Depression, prompted passage of the Chandler Act in 1938. The act created a host of new options for those filing for personal bankruptcy, such as alternatives to complete liquidation (e.g., a repayment plan) and a greater ability to file voluntary petitions. The bankruptcy reforms that resulted from the Chandler Act made personal bankruptcy filing relatively more attractive and less costly than in the past.

An increased availability of consumer credit, especially in the form of credit cards, has occurred since the 1950s.²⁰ Although proprietary charge cards were available in the early 1900s, the use of these cards was traditionally limited to a single store. Also, many of these cards did not have the feature of revolving credit.²¹ The first general purpose credit card (BankAmericard, now known as Visa) was introduced in 1966. In 1970, only 16 percent of families had a credit card compared with 82 percent of families in 2000.

Descriptive statistics on credit card ownership and balance by family income groups are shown for select years (Table 1).²² All dollar values shown are in 2004 dollars (adjusted for inflation). The top portion of Table 1 reveals that credit card ownership by all income groups has increased over time, but that wealthier families are more likely to possess a credit card. For example, in 1970 only 2 percent of the lowest-income families possessed a credit card, compared with 47 percent in 2003. However, in 1970, 33 percent of the highest-income families possessed a credit card compared with 99 percent in 2003.

Not surprisingly, higher-income groups tend to have higher balances. However, the important question is balance as a percent of income—this reflects the burden of credit card debt. Average credit card balances for the lowest-income families are a greater percentage of family income than for wealthier families (Table 1). In 1970, for example, credit card balances were about 5 percent of income for the lowest-income families and less than 1 percent of income for the highest-income families. In 2003, credit card balances were nearly 12 percent of income for the lowest-income families and roughly 8.5 percent of income for the highest-income families. While wealthier families are more likely to have a credit card, lower-income families that do have a credit card are, on average, likely to carry a balance that is a larger portion of their income compared with wealthier families.

The late 1970s saw numerous legal changes that likely had an impact on bankruptcy filings. First, the Bankruptcy Reform Act of 1978 revamped bankruptcy practices set forth under the 1898 act and the Chandler Act. Although the 1978 act was passed in response to the rise in personal bankruptcies during the 1960s, many provisions in the act made it easier for both businesses and individuals to file for bankruptcy.²³

A second legal change in the late 1970s was a Supreme Court ruling in 1978 called the Marquette decision.²⁴ Prior to this time, many states had usury ceilings on credit card interest rates. The high inflation and interest rates of the late 1970s significantly reduced the earnings of credit card companies. As a result, credit card companies in relatively high-interest-rate states attempted to solicit their credit cards to people living in lower-interest-rate states, but charge the higher rate. Controversy over this practice culminated at the Supreme Court, which ruled that lenders in states with high-interest-rate ceilings could export those rates to consumers residing in states with more restrictive interest-rate ceilings. The result of this ruling was an expansion of credit card availability and a reduction in the average credit quality of cardholders.

The third legal change in the late 1970s was the Community Reinvestment Act (CRA), which was enacted in 1977 to encourage depository institutions to help meet the credit and financing needs of the community, especially low- to moderate-income communities.²⁵ Because the act has increased credit flows to disadvantaged communities, it is possible that it also increased the number of bankruptcy filings by lower-income individuals. Research has suggested that the number of bankruptcies that result from CRA loans is, at most, 3 percent to 4 percent of overall bankruptcy filings.²⁶

TABLE 1

CREDIT CARD USAGE AND BALANCE BY FAMILY INCOME

Percent of Families with a Credit Card

	<i>Lowest Income</i>	<i>Middle Income</i>	<i>Highest Income</i>
1970	2	14	33
1989	17	62	89
1998	28	72	95
2003	47	91	99

Mean Credit Card Balance (2004 dollars)

	<i>Lowest Income</i>	<i>Middle Income</i>	<i>Highest Income</i>
1970	1,038	950	882
1989	909	2,502	3,960
1998	2,596	4,785	6,063
2003	2,938	6,077	14,713

Mean Balance as a Percent of Family Income

	<i>Lowest Income</i>	<i>Middle Income</i>	<i>Highest Income</i>
1970	4.8	2.0	0.9
1989	3.9	4.2	2.7
1998	10.4	7.4	3.6
2003	11.9	9.1	8.4

Although some minor legal changes to the Bankruptcy Code did occur in the 1980s, the next significant change was the Bankruptcy Reform Act of 1994. Each state has laws regarding the percentage of an individual's assets that is exempt from creditors when the individual files for bankruptcy. These assets include insurance plans, pensions, personal property and real estate (the homestead exemption). The federal government also sets exemption levels for these assets, and individuals may choose between using the federal exemption or the state exemption (depending which is higher) if their state allows such a choice.²⁷ The 1994 act increased federal personal property exemption levels, which in essence made it less costly for individuals to file for bankruptcy because they could now keep a greater percentage of their assets. Not surprisingly, personal filings increased roughly 17 percent between 1994 and 1995 in the states affected by the higher federal exemptions.

In addition to the legal changes that have occurred during the past several decades, another potential contributor to the rise in bankruptcy filings is a decrease in the social stigma associated with filing for bankruptcy. Although unquantifiable, it is not unreasonable to suspect that filing for bankruptcy becomes less undesirable as more people declare bankruptcy. It is likely that the aforementioned legal and economic changes were greater causes of the initial rise in filing rates over the past 30 years, but the public's view of personal bankruptcy arguably would have become less negative as a greater percentage of the population filed for bankruptcy.

This section has discussed legal and institutional changes that are likely contributors to the rapid increase in personal bankruptcy filings. The rise in credit card usage and the relaxed restrictions on interstate credit card provision undoubtedly parallels the increase in consumer debt and the reduction in personal savings. These factors suggest that consumers have become less financially secure than in the past, thus increasing the likelihood of filing for bankruptcy in the face of a negative income shock. Similarly, a greater availability of credit to lower-income individuals and a decreased social stigma associated with bankruptcy filings also likely explain the rise in filings over the past 30 years. Finally, changes to bankruptcy law prior to 2005 have made it less costly for individuals to file for bankruptcy.

However, because many of these events occurred around the same time, it is difficult to determine the separate effects of each event on bankruptcy filings. Not surprisingly, empirical tests show evidence of a statistically significant break in the trend level of bankruptcy filings in the late 1970s.²⁸ Thus, it remains unclear whether all changes have had

some effect on bankruptcy filings or the rapid rise is the result of only one or two events.

III. THE BANKRUPTCY BOOM: NATIONAL AND REGIONAL ANALYSES

This section of the report provides data comparisons and statistical analyses of personal bankruptcy filings at the national, state and county levels (for all states in the Eighth Federal Reserve District).

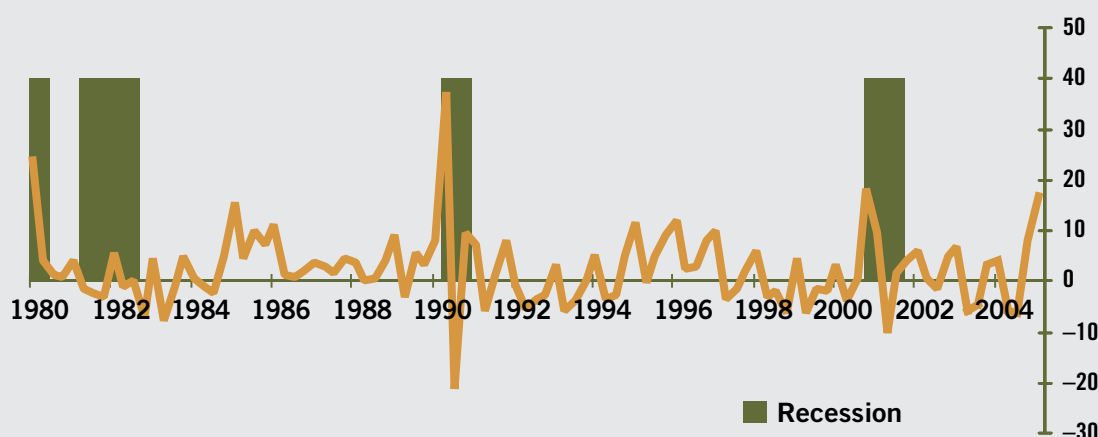
National-Level Analysis

What insights into personal bankruptcies can an analysis using national-level data give us? Earlier in the report, it was noted that the rise in personal bankruptcies over the past 30 years (Figure 2) was paralleled by an increase in consumer debt and a decrease in consumer savings (Figure 3). Although these three variables are moving together, one important question is whether changes in these variables from one period to another can explain changes in bankruptcy filing rates. Before considering the relationship between changes in bankruptcy rates and changes in these variables, however, it is useful to understand the pattern of personal bankruptcy changes from one period to another, say quarter to quarter. Percent changes in quarterly U.S. bankruptcy filing rates from 1980 to 2005 are shown in Figure 4.

Looking at the quarterly percent changes in bankruptcy filing rates absent any other variables reveals two interesting points. First, the majority of the changes are positive (above the horizontal axis) rather than negative, showing that since 1980 there has been positive quarterly growth in bankruptcy filings. Second, quarterly filing rates increased dramatically at the start of three recessions (1980, 1990-1991 and 2001) and actually decreased in the following quarter for the latter two recessions. This scenario reveals that (1) bankruptcy filing rates increased dramatically at the start of a recession, and (2), after the large increase, filing rates were lower than the previous quarter (Figure 4). This suggests that the last two recessions served as "house cleaning" events—individuals teetering on the edge of bankruptcy immediately prior to each recession were pushed into bankruptcy from job losses, unemployment and other setbacks resulting from the recession. After these individuals filed for bankruptcy, the number of individuals filing for bankruptcy was lower, as reflected by the negative growth in filing rates.

Using the data in Figure 4, a calculation of averages reveals that the average quarterly growth rate of bankruptcies during a recession was 4.3 percent, and the rate of

U.S. PERSONAL BANKRUPTCIES: QUARTERLY PERCENT CHANGES 1980 to 2005



growth during a non-recession quarter was 1.6 percent. Bankruptcy growth rates are thus higher in recessions than in non-recession quarters. However, because there is a relatively large variation in growth rates over the 1980 to 2005 sample period, the mean values of 4.3 percent and 1.6 percent are not statistically different.²⁹

The following exercise, which uses the quarterly data presented in Figure 4, attempts to answer the question of whether quarterly percent changes in bankruptcy filings are influenced by quarterly percent changes in several key economic variables, such as per capita income, employment, the savings rate, health coverage and debt as a percentage of income. The model also considers one-period lags of each variable to assess whether changes in each variable in a previous quarter influenced percent changes in bankruptcy filing in the current quarter. In addition, three other variables are included to capture the effects of recessionary periods on bankruptcy filings. One variable captures the effect of the first quarter of a recession on changes in bankruptcy filings, the second variable captures the effect of the second quarter of a recession, and the final variable captures the effects of all remaining quarters of a recession.³⁰

A qualitative presentation of the empirical results is provided in Table 2.³¹ The majority of variables cannot explain changes in bankruptcy filings. However, the results regarding recessions are interesting. The estimates suggest that the average change in bankruptcy filings is 14.9 percentage points higher during the first quarter of a recession than during a non-recession quarter. However, bankruptcy filings are 9.2 percentage points lower in the

second quarter of a recession compared to a non-recession quarter. These two estimates suggest that the net change in bankruptcy filings is 5.7 percentage points during the first two quarters of a recession. However, statistical tests reveal that the 5.7 percentage point effect is not statistically different from zero.³² The positive increase during the first quarter of a recession is offset by a decrease of a statistically similar magnitude during the second quarter of a recession.

One study by Visa that also used national data (1980 to 1996) to empirically model bankruptcy filings found that lagged employment changes “proved to have the single most powerful coefficient in explaining bankruptcy behavior.”³³ The Visa study did not consider the separate effects of recession in its empirical models. To explore whether the recession variable is picking up the effects of employment changes, the model in Table 2 was re-estimated without the recession dummy variables. The estimated effects of employment on bankruptcy filings still remained statistically insignificant, but less so than when the recession variables were included.

The main conclusion from the national analysis presented here is that recessions (good proxies for negative income shocks) can have significant effects (both positive and negative) on the short-term growth in national bankruptcy filings. Specifically, the results showed that the bankruptcies increase dramatically at the start of a recession, but tend to fall in the second quarter of a recession. At least for the sample period studied here, recessions serve as temporary disruptions to the trend rate of growth in personal bankruptcy filings. However, the first-quarter increase and

TABLE 2

EFFECT OF ECONOMIC VARIABLES ON BANKRUPTCY GROWTH RATES

Variable	Effect of Variable on Quarterly Percent Change in Bankruptcy Filings
Percent change in per capita income	None
Percent change in per capita income, one quarter lag	None
Percent change in savings rate	None
Percent change in savings rate, one quarter lag	None
Percent change in debt rate	None
Percent change in debt rate, one quarter lag	None
Percent change in health coverage	None
Percent change in health coverage, one quarter lag	None
Percent change in employment	None
Percent change in employment, one quarter lag	None
Recession, first quarter***	14.9 percentage points higher (compared to non-recession quarters)
Recession, second quarter**	9.2 percentage points lower (compared to non-recession quarters)
Recession, remaining quarters	None

*** denotes statistical significance at 1 percent.

** denotes statistical significance at 5 percent.

"None" denotes no statistical significance at conventional levels.

Each recession variable is a dummy variable taking the value of "1" if respective quarter(s) is in a National Bureau of Economic Research recession, "0" otherwise.

Sample period is quarterly, 1980 to 2004. Regression R^2 is 0.164. The constant coefficient is 0.020.

second-quarter decrease are not statistically different in magnitude; so, the net effect of an entire recession on bankruptcy filings is no different than in non-recession quarters.

State-Level Statistics

Descriptive statistics on state-level bankruptcy filings and bankruptcy filing growth rates for selected years from 1980 to 2005 are shown in Table 3.

The data reveal that average state filings per 1,000 in population increased from about 1.2 in 1980 to 5.3 in 2004 and to 6.9 in 2005. This 30 percent increase from 2004 to 2005 is, in large part, due to the increase in filings prior to the 2005 Bankruptcy Act (Figure 1). One should keep

in mind, however, that the statistics for 2005 may not represent any long-term changes from prior years if the large increase in filings prompted by the 2005 Bankruptcy Act is temporary.

The data in Table 3 reveal some interesting facts about bankruptcy filings in Eighth District states. From 1980 to 2005, bankruptcy filing rates in Eighth District states were, in most cases, in the top half to top one-third of all states. Tennessee typically has had the highest filing rate in the nation, but the state was surpassed by Indiana (rank of 1) and Ohio (rank of 2) in 2005. Arkansas experienced the greatest increase in rank, moving from 27 in 1980 to 5 in 2005, whereas Illinois had a rank of 6 in 1980 and 16 in 2005. Kentucky's ranking of 11 in 2004 remained fairly consistent over the past 25 years, including 2005. Missouri's rank has worsened over time, moving from the rank of 21 in 1980 to 11 in 2005. Mississippi, which has typically ranked in the top 10, ranked 19 in 2005 from a rank of 9 in 2004.

In 1980, only Arkansas had a filing rate (0.99) that was lower than the U.S. state average of 1.18. In 2004 and 2005, all Eighth District states had filing rates greater than the U.S. state average of 5.34 and 6.38, respectively. In 2004, Tennessee was the only state to have a filing rate greater than 10 per 1,000 people (1 percent). By 2005, however, Arkansas, Indiana and Tennessee all had filing rates greater than 10 per 1,000 people. Over the 25-year period, bankruptcy filing rates in Missouri and Mississippi have been the closest to the U.S. state average.

The final column in Table 3 shows the average annual growth rate in bankruptcy filings from 1980 to 2004. The year 2005 was not considered in the calculation because of the unusually high number of filings in that year due to the 2005 Bankruptcy Act. South Carolina experienced the greatest average annual growth in bankruptcy filings (43 percent) while California's average annual growth rate of 4 percent was the lowest in the country. Although Eighth District states have bankruptcy filing rates that are greater than the U.S. state average, the average annual growth rates in six of the seven Eighth District states have been lower than the U.S. state average growth rate (16.7 percent). Arkansas experienced an average annual growth rate of 31.2 percent from 1980 to 2004, nearly double that of the U.S. state average growth rate. Illinois, Kentucky and Tennessee had the lowest bankruptcy growth rates of the Eighth District states (7.7 percent, 11.9 percent and 11.8 percent, respectively).

The comparison of bankruptcy filings with average annual growth rates suggests that states with higher levels of

STATE/WASHINGTON, D.C., BANKRUPTCY STATISTICS

State	1980 Rank	1990 Rank	2004 Rank	2005 Rank	1980 Bankruptcies per 1,000	2004 Bankruptcies per 1,000	2005 Bankruptcies per 1,000	Average Annual Growth (%) 1980-2004
Alaska	46	37	51	51	0.52	2.20	3.34	12.79
Alabama	2	3	2	6	2.38	9.20	10.42	11.46
Arkansas	27	22	4	5	0.99	8.69	10.85	31.17
Arizona	22	6	22	24	1.18	5.38	6.68	14.31
California	12	15	45	43	1.66	3.32	4.50	4.01
Colorado	11	5	20	10	1.67	5.95	9.04	10.23
Connecticut	42	43	47	45	0.59	3.23	4.31	17.96
D.C.	32	42	43	44	0.87	3.41	4.33	11.68
Delaware	36	45	35	39	0.74	4.09	4.92	18.10
Florida	47	25	26	31	0.50	4.87	5.97	34.59
Georgia	9	2	6	12	1.78	8.51	8.74	15.13
Hawaii	41	51	50	50	0.59	2.43	3.46	12.49
Iowa	29	38	33	29	0.98	4.31	6.15	13.67
Idaho	8	12	12	17	1.78	6.69	8.28	10.99
Illinois	6	17	17	16	2.14	6.24	8.30	7.69
Indiana	5	9	5	1	2.18	8.66	12.47	11.87
Kansas	13	16	21	18	1.57	5.86	8.15	10.96
Kentucky	7	13	11	9	1.95	6.71	9.55	9.74
Louisiana	26	23	14	20	1.01	6.48	7.96	21.59
Massachusetts	48	46	48	47	0.46	2.83	4.11	20.61
Maryland	33	34	24	27	0.84	5.22	6.18	20.77
Maine	38	49	44	40	0.66	3.32	4.90	16.08
Michigan	19	30	16	13	1.37	6.29	8.73	14.37
Minnesota	30	18	46	42	0.96	3.26	4.69	9.62
Missouri	21	24	15	11	1.31	6.47	8.98	15.77
Mississippi	10	8	9	19	1.75	7.24	8.04	12.52
Montana	25	29	32	28	1.07	4.56	6.17	12.99
North Carolina	23	39	34	41	1.15	4.23	4.88	10.67
North Dakota	44	47	41	35	0.55	3.46	5.41	20.96
Nebraska	16	27	25	23	1.50	5.03	6.72	9.41
New Hampshire	40	33	42	46	0.61	3.46	4.21	18.51
New Jersey	39	35	30	33	0.63	4.67	5.60	25.75
New Mexico	28	26	31	30	0.98	4.62	6.01	14.82
Nevada	3	4	10	7	2.30	7.14	9.71	8.41
New York	24	40	37	34	1.07	3.94	5.58	10.66
Ohio	4	14	7	2	2.22	7.72	11.65	9.93
Oklahoma	18	7	8	4	1.38	7.38	10.85	17.35
Oregon	14	11	13	15	1.56	6.57	8.66	12.88
Pennsylvania	45	48	29	26	0.54	4.69	6.24	30.56
Rhode Island	35	31	38	36	0.83	3.77	5.30	14.12
South Carolina	51	44	39	49	0.31	3.64	3.61	43.15
South Dakota	43	41	40	38	0.57	3.52	5.12	20.51
Tennessee	1	1	1	3	2.60	10.28	10.96	11.82
Texas	49	28	36	37	0.43	4.03	5.14	33.30
Utah	20	10	3	14	1.37	9.03	8.70	22.43
Virginia	17	19	23	32	1.48	5.31	5.90	10.38
Vermont	50	50	49	48	0.34	2.60	4.08	26.42
Washington	15	20	19	21	1.52	6.08	7.34	11.98
Wisconsin	31	32	27	22	0.92	4.85	6.76	17.08
West Virginia	37	36	18	8	0.74	6.23	9.62	29.68
Wyoming	34	21	28	25	0.83	4.78	6.25	18.94
State Average	—	—	—	—	1.18	5.34	6.93	16.72

bankruptcy filings had lower average annual bankruptcy growth rates. To explore whether this possibility has statistical validity, a simple regression model was estimated to examine the relationship between bankruptcy filing rates in 1980 and the average annual bankruptcy growth rate from 1980 to 2004.³⁴ The results reveal a negative and statistically significant relationship between initial filing rates (1980) and average annual bankruptcy growth rates. Bankruptcy filings are thus converging—states that had a lower level of bankruptcy in 1980 had higher average annual growth in bankruptcy filings between 1980 and 2004. The point estimate from the regression model reveals that for an increase of one filing per 1,000 people in 1980, the average annual bankruptcy growth rate in a state was lower by 8.6 percentage points.

There are two possible explanations for converging bankruptcy filings. First, there are segments of each state's population that are more likely to file (lower-middle-income, etc.) than other segments. Assuming the relative size of each population segment remains constant over time, there is then an upper limit on the number of people likely to file for bankruptcy. States having higher initial bankruptcy filing rates were closer to this upper limit, and thus the filings in these states have grown much less than in states having a larger segment of the population yet to file in the initial year.

Second, numerous studies have demonstrated the convergence of state income over time. That is, lower-income states experience greater income growth than higher-income states.³⁵ State bankruptcy rates and per capita income are negatively correlated ($\rho = -0.453$). Thus, states having a higher initial level of bankruptcy filings would have had lower income. If incomes are converging, as suggested by the literature, then lower-income states would have experienced greater income growth than higher-income states, and thus the growth in bankruptcy filing in these lower-income states would have been lower.

Drawing from past research on what causes bankruptcy filings, differences in state-level filing rates are likely due to economic differences (income, unemployment, transfer payments, debt); social views on bankruptcy (i.e., level of social stigma associated with bankruptcy filings); and specifics of state bankruptcy laws that increase or decrease the costs of filing relative to other states. A research report by Visa found that consumer debt, the population aged 25 to 44 and the state-level unemployment rate were the three most important variables explaining differences in state-level bankruptcy filing rates.³⁶

The comparison of Eighth District states has revealed that these states typically have had bankruptcy filing rates greater than the national average, but the average annual growth rate of bankruptcy filings in Eighth District states is less than the U.S. state average annual bankruptcy growth rate. The data in Table 3 also show the large increase in bankruptcy filings (about 1.5 per 1,000) between 2004 and 2005, the likely result of individuals rushing to file before the 2005 Bankruptcy Act took effect in October 2005.

TABLE 4

2003 BANKRUPTCIES IN COUNTIES LOCATED IN EIGHTH DISTRICT STATES

(15 Highest and 15 Lowest)

County	State	Bankruptcies per 1,000	Per Capita Income (\$)
15 Highest Counties			
Shelby	Tennessee	20.85	34,087
Marshall	Mississippi	16.52	19,224
Haywood	Tennessee	15.82	21,792
Lauderdale	Tennessee	14.58	18,985
Crittenden	Arkansas	13.99	22,266
Hardeman	Tennessee	13.77	18,884
Jefferson	Arkansas	13.56	22,451
Tipton	Tennessee	13.36	23,787
Rhea	Tennessee	13.33	21,097
Tunica	Mississippi	13.24	19,325
Dyer	Tennessee	13.21	25,047
DeSoto	Mississippi	13.15	28,713
Gallatin	Kentucky	12.84	21,642
Marion	Indiana	12.76	33,449
Gibson	Tennessee	12.61	24,629
15 Lowest Counties			
Nodaway	Missouri	2.76	20,914
Putnam	Missouri	2.72	19,304
Scotland	Missouri	2.65	21,113
Texas	Missouri	2.58	17,107
Calhoun	Illinois	2.54	22,675
Elliott	Kentucky	2.47	14,633
Shannon	Missouri	2.40	17,191
Reynolds	Missouri	2.28	19,337
Sullivan	Missouri	2.27	20,855
Moore	Tennessee	2.02	23,166
Oregon	Missouri	1.93	17,523
Chariton	Missouri	1.46	24,087
Worth	Missouri	1.30	19,559
Issaquena	Mississippi	0.97	15,833

Note: There are 681 counties in Eighth District states. All data are from 2003.

BANKRUPTCY STATISTICS: COUNTIES LOCATED IN EIGHTH DISTRICT STATES

<i>County</i>	<i>State Rank</i>	<i>Eighth District Rank</i>	<i>Bankruptcies per 1,000 Population</i>	<i>Per Capita Income (\$)</i>	<i>County</i>	<i>State Rank</i>	<i>Eighth District Rank</i>	<i>Bankruptcies per 1,000 Population</i>	<i>Per Capita Income (\$)</i>
ARKANSAS					MISSOURI				
Top five counties					Top five counties				
Crittenden	1	5	13.99	22,266	St. Louis City	1	93	9.54	27,236
Jefferson	2	7	13.56	22,451	Callaway	2	117	9.02	21,562
Arkansas	3	16	12.51	26,489	St. Louis	3	144	8.61	43,766
Pulaski	4	18	12.17	33,620	Jackson	4	221	7.91	31,966
Mississippi	5	21	12.04	21,738	Madison	5	257	7.63	19,309
Bottom five counties					Bottom five counties				
Marion	71	599	4.50	18,579	Reynolds	111	675	2.28	19,337
Searcy	72	613	4.26	16,793	Sullivan	112	676	2.27	20,855
Fulton	73	621	4.12	18,485	Oregon	113	678	1.93	17,523
Newton	74	662	3.02	16,765	Chariton	114	679	1.46	24,087
Sevier	75	663	3.02	19,926	Worth	115	680	1.30	19,559
ILLINOIS					MISSISSIPPI				
Top five counties					Top five counties				
Knox	1	47	10.53	24,382	Marshall	1	2	16.52	19,224
Vermilion	2	52	10.45	23,283	Tunica	2	10	13.24	19,325
Winnebago	3	53	10.45	27,051	De Soto	3	12	13.15	28,713
Franklin	4	59	10.35	21,599	Clay	4	17	12.22	21,241
Marion	5	85	9.64	23,920	Tate	5	23	11.91	22,818
Bottom five counties					Bottom five counties				
DuPage	98	641	3.64	44,739	Kemper	78	601	4.48	17,711
Woodford	99	647	3.49	28,585	Neshoba	79	624	4.05	25,687
Pope	100	648	3.47	19,325	Wayne	80	629	4.01	18,926
Jo Daviess	101	667	2.84	30,401	Smith	81	633	3.85	22,783
Calhoun	102	672	2.54	22,675	Issaquena	82	681	0.97	15,833
INDIANA					TENNESSEE				
Top five counties					Top five counties				
Marion	1	14	12.76	33,449	Shelby	1	1	20.85	34,087
Jennings	2	30	11.33	22,910	Haywood	2	3	15.82	21,792
Scott	3	31	11.24	22,145	Lauderdale	3	4	14.58	18,985
Madison	4	33	11.16	27,207	Hardeman	4	6	13.77	18,884
Jackson	5	37	11.01	25,476	Tipton	5	8	13.36	23,787
Bottom five counties					Bottom five counties				
Monroe	88	558	5.04	25,162	Hancock	91	623	4.06	14,610
Lagrange	89	596	4.55	20,668	Williamson	92	635	3.77	42,694
Dubois	90	605	4.44	32,448	Clay	93	645	3.52	19,576
Adams	91	612	4.27	24,114	Van Buren	94	656	3.28	21,530
Daviess	92	619	4.13	24,088	Moore	95	677	2.02	23,166
KENTUCKY									
Top five counties									
Gallatin	1	13	12.84	21,642					
Hopkins	2	20	12.07	23,368					
Grant	3	35	11.10	21,468					
Simpson	4	41	10.81	24,146					
Muhlenberg	5	71	10.15	20,658					
Bottom five counties									
Wayne	116	642	3.60	17,748					
Clay	117	653	3.34	14,874					
Green	118	655	3.31	18,257					
Washington	119	666	2.84	21,708					
Elliot	120	673	2.47	14,633					

Note: There are 681 counties in Eighth District states. All data are from 2003.

Analyses of Counties in Eighth District States

The counties in Eighth District states with the 15 highest and 15 lowest bankruptcy filing rates for 2003 are shown in Table 4, along with county per capita personal income. There are 681 counties in Eighth District states, having an average filing rate of seven per 1,000 people. The majority of the counties having the highest bankruptcy filing rates in Eighth District states are located in Tennessee (eight counties). Two counties are in Arkansas, three in Mississippi and one each in Kentucky and Indiana. Missouri and Illinois had no counties with bankruptcy filing rates in the top 15. The average filing rate in the top 15 counties was 14.2 per 1,000 people. In terms of the lowest filing rates in Eighth District states, 10 of the 15 lowest-ranked counties are located in Missouri. The filing rate in each of the lowest 15 counties is about one-seventh that of the top 15 counties, with the lowest 15 counties having an average filing rate of 2 per 1,000 people.

Table 5 presents 2003 data on county bankruptcy filings for each of the Eighth District states along with county per capita income. County rankings within each state and for all states in the Eighth District are also shown. The data in Table 5 show large differences in county bankruptcy filing rates within states as well as across states. In most cases, the five highest bankruptcy counties in a state had filing rates roughly three to four times that of the lowest bankruptcy counties in the state. Although filing rates in the bottom five counties of each state are similar, there is quite a large difference in the filing rates of the top five counties in each state. For example, St. Louis City (an independent jurisdiction) in Missouri had the highest bankruptcy filing rate in the state (9.54 per 1,000), but this rate was the lowest of all top counties in other states. Also, Shelby County in Tennessee had the highest filing rate (nearly 21 per 1,000 people) in Tennessee, but the county with the highest filing rate in Illinois is Knox County, with a rate of 10.5 per 1,000 people, or nearly half that of the Shelby County rate.

The data in Table 4 reveal that county per capita income is higher for the 15 highest-bankruptcy counties in Eighth District states than for the lowest 15 bankruptcy counties. Average county per capita income for the top 15 counties is \$23,692, and average county per capita income for the bottom 15 counties is \$19,521.³⁷ Notice also that Issaquena County in Mississippi had the lowest per capita income in the sample, but it also had the lowest bankruptcy filing rate—less than one per 1,000 people. This visual, positive relationship between per capita income and bankruptcy

filings lends support to the findings of past research on bankruptcy filings—that the majority of bankruptcy filers are not lower income. However, this research has also established that filings are highest for lower- and middle-income people, a fact that cannot be discerned from Table 4.

County Income and Bankruptcy

Technical methods must be used to arrive at a more precise estimate of the relationship between county per capita income and bankruptcy filing rates. A scatter plot of 2003 county per capita income and bankruptcy filing rates for all 681 counties in Eighth District states is shown in Figure 5. Included in this scatter plot is a regression line that reveals the “best fit” for the relationship between county per capita income and bankruptcy rates.³⁸ Notice that this relationship is nonlinear (i.e., bankruptcy filing rates increase with income up to a certain income level, then filing rates decrease with further increases in county per capita income).³⁹

Similar scatter plots for each of the Eighth District states are shown in Figures 6 through 12. Each scatter plot also reveals a nonlinear relationship between per capita county income and bankruptcy filing rates, although the nonlinear relationship is stronger in some counties than in others. As with the full sample scatter plot in Figure 5, the general evidence from Figures 6 through 12 is that bankruptcy filing rates increase with income up to a certain income level, then decrease with further increases in income. Lower-middle-income and middle-income counties have the highest filing rates, whereas in all states except Missouri and Arkansas, bankruptcy filing rates for the highest-income counties are very similar to the filing rates for the lowest-income counties. This reflects the fact that the poorest of the poor cannot acquire credit or other assets; thus, there is no chance of accumulating too much debt that filing for bankruptcy may alleviate. Wealthier individuals, on the other hand, have greater incomes and more financial diversification that shield them from negative income shocks, and their higher levels of education make it more likely they better understand the risks of acquiring debt, are less likely to do so, and are, thus, less likely to file for bankruptcy.

With this information, the number of counties in each state that are above and below this maximum value can be computed using statistical techniques. From this information, it can be determined how a change in per capita income will influence a county's bankruptcy rate (i.e., increase it or decrease it). For the full sample of Eighth District states and each individual state in the Eighth District, the level of county per capita income that maximizes personal bankruptcy filings

FIGURE 5

COUNTIES IN EIGHTH DISTRICT STATES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003

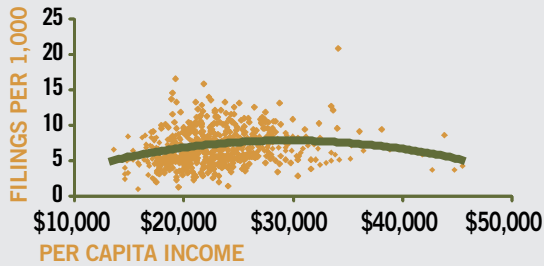


FIGURE 6

ARKANSAS COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003

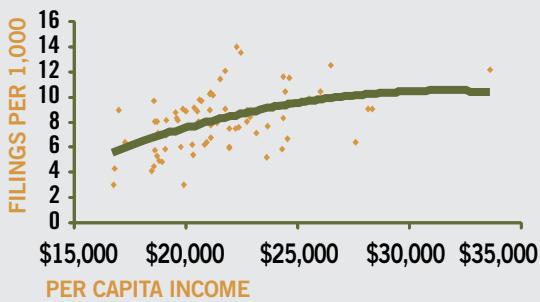


FIGURE 7

ILLINOIS COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



FIGURE 8

INDIANA COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



FIGURE 9

KENTUCKY COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



FIGURE 10

MISSOURI COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



FIGURE 11

MISSISSIPPI COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



FIGURE 12

TENNESSEE COUNTIES: PER CAPITA INCOME AND PERSONAL BANKRUPTCY FILINGS, 2003



TABLE 6

COUNTY INCOME AND BANKRUPTCY FILINGS

State	Level of Per Capita County Income that Maximizes Bankruptcy Filings	Number of Counties Below Maximizing Income Level	Number of Counties Above Maximizing Income Level	Average County Per Capita Income 2003
Arkansas	\$31,692	74	1	\$21,452
Illinois	\$26,901	74	28	\$25,335
Indiana	\$28,726	72	20	\$26,137
Kentucky	\$27,327	104	16	\$22,040
Missouri	\$53,572	115	0	\$22,846
Mississippi	\$26,442	75	7	\$20,870
Tennessee	\$30,434	89	6	\$23,330
Eighth District	\$29,698	631	50	\$23,197

Note: The above values are estimated using the coefficient estimates from a regression of county bankruptcy filing rates on income and income squared. The nonlinear relationship between income and bankruptcy is not statistically significant for all states. See Appendix Table 1 for coefficient estimates and standard errors.

and the number of counties above and below this value are shown in Table 6.⁴⁰

For all Eighth District states, the level of county per capita income that maximizes bankruptcy filings is relatively high, as can be seen by the fact that all bankruptcy-maximizing income values are above the average county per capita income. What this reveals is that there is generally a positive relationship between county per capita income and bankruptcy filings for all but the wealthiest counties in each state; and, for the wealthiest counties, the relationship between per capita income and bankruptcy filings is negative. It is interesting to note that this relationship holds, in general, for states having relatively significant differences in per capita income.

The data in Table 6 support previous evidence that bankruptcy filings are highest for individuals in the lower-middle to middle-income range. However, there are several caveats that should be understood when looking at the relationship between income and bankruptcy filings. First, the values in Table 6 are based solely on the estimates of the regression lines in Figures 5 through 12 and not on the statistical significance of these estimates. As seen in Appendix Table 1, several of the estimates are not statistically significant. Second, although county data is much more disaggregated than state or national data, it is still relatively aggregate data. The analysis here attempts to make inferences about individual-level behavior using county-level data. Similarly, county boundaries are political boundaries, not necessarily economic boundaries (i.e., local economic conditions are not contained within county boundaries). Third, Eighth District counties in Eighth District states are only a sub-sample of all U.S. counties, and counties in Eighth District states have per capita income below U.S. per capita income. For example, U.S. per capita income in 2003 was \$31,484. The average of county per capita income in Eighth District

states in 2003 was \$23,197. Thus, the sample of counties used here was of relatively poorer counties compared with the U.S. average. Whether the results obtained here would be similar for wealthier counties and states is a question for future analysis.

IV. CONCLUDING COMMENTS

The rapid rise in bankruptcy filings can be attributed to numerous economic, legal and institutional factors. Increased consumer debt as a percentage of income, decreased savings and widespread credit card availability and usage all have made individuals less financially secure than in the past. This decreased financial security has increased the probability of bankruptcy in the face of negative income shocks, such as divorce, job loss and medical expenses. Legal changes also have contributed to the rise in bankruptcy by making it less costly (or more attractive) for individuals to file. Greater access to credit by lower- and middle-income households that may not have adequate financial education is another cited factor. Finally, there has been a decrease in the social stigma associated with filing for bankruptcy.

The analyses presented in this report revealed some interesting insights into bankruptcy filing rates. At the national level, it appears that recessions have a direct effect on bankruptcy filing rates—filing rates are 14.9 percentage points higher during the first quarter of a recession compared to non-recession quarters. However, bankruptcy filing rates are 9.2 percentage points lower in the second quarter of a recession compared to non-recession quarters. The net effect of the first quarter and second quarter of a recession are not statistically different, however, thus suggesting that the net effect of a recession on bankruptcy filing rates is no different than that of non-recession quarters. Recessions appear to cause, at least as evident in

national-level data, a so-called housecleaning effect on bankruptcy filings. However, despite the short-run shocks to bankruptcy filings from recessions, the upward trend in bankruptcy filings has continued.

Personal bankruptcy rates are quite different across the states, especially those states within the Eighth Federal Reserve District. These states have a filing rate that is greater than the U.S. average filing rate. An interesting point, however, is that the analysis revealed that states with higher levels of bankruptcy filings in 1980 experienced slower annual bankruptcy growth rates through 2004. In other words, the growth in bankruptcy filings is less in those states having had more bankruptcy filings in 1980.

An analysis of bankruptcy filing rates and income in those counties located in Eighth District states revealed a nonlinear relationship between the two variables. Bankruptcy filings increased with county income, but only to a certain point. After a certain income level, bankruptcy filings decreased with income. In other words, there is some level of income that maximizes bankruptcy filings, and it isn't the lowest level of income. For most states in the Eighth District, the bulk of each state's counties had a level of per capita income that was below the bankruptcy-maximizing level. Thus, for most counties in Eighth District states, bankruptcy filing rates increased with county income. This nonlinear relationship between income and bankruptcy filings reflects the fact that the lowest-income individuals are likely to have few assets and limited access to credit, thus making it unlikely that they could incur debt, default and file for bankruptcy. This finding for counties in Eighth District states also supports earlier research using survey data on bankruptcy filings that suggests that lower-middle-income individuals are more likely to file for bankruptcy than individuals of other income groups.

County-level data also revealed huge differences in filing rates across counties. Probably the most striking example is Shelby County, Tenn., which had a filing rate of over 20 per 1,000 people in 2003—the highest county rate in the nation. What is most interesting about Shelby County, however, is that its demographics and economics suggest the bankruptcy rate should be much lower: Per capita income in Shelby County is relatively high (about \$34,000), home prices are rising, unemployment is low and consumer loan losses are not the worst in the nation.⁴¹

So why is bankruptcy in Shelby County so high? This remains a mystery, but there are several possibilities. First, county-level data is an average of all sub-jurisdictions. Detailed research at the ZIP-code or census-tract level might reveal several pockets of extremely high bank-

ruptcy filing rates dispersed throughout the county. Thus, several small areas might be driving the Shelby County results. Second, various community and business leaders in the Memphis area have remarked that Shelby County has an unusually high number of bankruptcy attorneys, thus suggesting more filings. However, the direction of causality is unknown. That is, do more attorneys cause more filings, or are there more attorneys because filings are higher? Third, it is possible that, for whatever reason, the social stigma associated with bankruptcy filings in Shelby County has always been low. Quantifying social stigma would prove to be a challenge, however.

Correctives

Economic theory suggests there are two ways to reduce the amount of any activity: decrease demand or decrease supply. Common policy prescriptions for reducing bankruptcy filings have addressed both possibilities, although most policies aim at reducing demand. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 seeks to reduce consumers' demand for bankruptcy by increasing the costs of filing for bankruptcy. Recall that these costs not only include financial costs, but also time costs through required credit counseling and extending the allowable time period for re-filing.

Another potential avenue for reducing bankruptcy filings, and one that is most often proposed by pro-debtor interest groups, is a reduction in the availability of credit cards, or at least a reduction in the solicitation of credit cards by credit card companies. Debtor advocates also argue for better disclosure of late fees, grace periods and other stipulations by credit card companies. This latter point was also addressed in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005. Although the increased availability of credit cards has likely contributed to the rise in bankruptcy filings, any policy that is designed to restrict individuals' access to credit should be scrutinized very closely. A greater access to credit, if not abused, has likely increased the credit standing of millions of consumers. Good credit standing with credit cards often translates into increased probabilities of getting car loans, home loans and business loans. This, then, translates into asset and wealth accumulation.

Many of the policies designed to decrease bankruptcy filings do not address one key issue—the decrease in social stigma associated with filing for bankruptcy and the growing public belief that excess debt is acceptable. Although it is too early to tell whether the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 will have its intended goal of reducing personal bankruptcy filings, it

is not unreasonable to believe that reductions in bankruptcy filings would be even greater if the act, or any other public policy aimed at reducing bankruptcy, would address the issue of decreased social stigma. As long as consumers believe it is acceptable to acquire unmanageable debt loads relative to their income, the effects of any policy aimed at increasing the costs of filing for bankruptcy or reducing accessibility to credit will be muted.

Financial education is the key to reversing the decreasing social stigma associated with bankruptcy and, thus, to reducing the demand for personal bankruptcies. At a young age, children should be taught that financial security is ultimately their responsibility and not that of a credit card company or government program. Not only should financial education be an important part of any public school's curriculum, but teaching responsible financial management should be done by the thousands of community activist groups across the country. Breaking the decreased social stigma associated with bankruptcy will take time.

APPENDIX

TABLE 1

COUNTY INCOME AND BANKRUPTCY FILINGS: EMPIRICAL RESULTS						
	Constant	Per Capita Income	Square of Per Capita Income	Adjusted R ²	Observations	F-test on Joint income coeff. significance
ARKANSAS	-11.23 (1.31)	0.137e-02* (1.85)	-0.216e-07 (1.38)	0.204	75	10.54***
ILLINOIS	-0.205 (0.06)	0.520e-03** (2.24)	-0.967e-08** (2.47)	0.051	1.02	3.73**
INDIANA	0.733 (0.12)	0.515e-03 (1.17)	-0.897e-08 (1.18)	-0.006	92	0.69
KENTUCKY	-5.283* (1.70)	0.931e-03*** (3.51)	-0.170e-07*** (3.10)	0.143	120	10.99***
MISSOURI	-1.17 (0.46)	0.342e-03* (1.74)	-0.318e-08 (0.87)	0.191	115	14.47***
MISSISSIPPI	-1.67 (0.28)	0.753e-03 (1.47)	-0.142e-07 (1.31)	0.198	82	1.65
TENNESSEE	-4.09 (0.78)	0.885e-03** (2.21)	-0.145e-07* (1.93)	0.033	95	3.55**
EIGHTH DISTRICT	-1.81 (1.14)	0.640e-03*** (5.16)	-0.108e-07*** (4.53)	0.051	681	19.29***

* denotes significance at 10 percent.

** denotes significance at 5 percent.

*** denotes significance at 1 percent.

Absolute t-statistics in parentheses. The dependent variable is county personal bankruptcy filings per 1,000. All data are from 2003. A statistically significant F-test reveals that income coefficients are jointly significantly different from zero.

■ ENDNOTES

- ¹ Bankruptcy data are from the Administrative Office of the U.S. Courts. See www.uscourts.gov/bankruptcycourts.html.
- ² Skeel, David A. *Debt's Dominion: A History of Bankruptcy Law in America*. Princeton University Press, 2001 and www.princeton.edu/~pefinmar/Hansen.pdf.
- ³ See <http://eh.net/encyclopedia/article/hansen.bankruptcy.law.us>.
- ⁴ A receiver is a person or company appointed to manage a corporation during its reorganization.
- ⁵ Shepard, Lawrence. "Personal Failures and the Bankruptcy Reform Act of 1978." *Journal of Law and Economics*, October 1984, Vol. 27(2), pp. 419-37.
- ⁶ The 2005 act can be found at www.uscourts.gov/bankruptcycourts/abuseprotection.pdf.
- ⁷ Amy Manzetti. "Bankruptcy Abusers Hurt Everyone." Credit Union National Association. See http://hffo.cuna.org/story.html?doc_id=290&sub_id=12433.
- ⁸ Consumers Union, 2005. For additional views on the 2005 act, see www.pbs.org/now/politics/bankruptcydebate.html.
- ⁹ Gropp, Reint; Scholz, John K.; and White, Michelle J. "Personal Bankruptcy and Credit Supply and Demand." *Quarterly Journal of Economics*, February 1997, Vol. 112, pp. 217-51; Buckley, F.H. and Brinig, Margaret F. "The Bankruptcy Puzzle." *Journal of Legal Studies*, January 1998, Vol. 27, pp. 187-207; Nelson, Jon P. "Consumer Bankruptcy and Chapter Choice: State Panel Evidence." *Contemporary Economic Policy*, October 1999, Vol. 17(4), pp. 552-66.
- ¹⁰ Shepard, Lawrence. "Accounting for the Rise in Consumer Bankruptcy Rates in the United States: A Preliminary Analysis of Aggregate Data (1945-1981)." *Journal of Consumer Affairs*, Winter 1984, Vol. 18, pp. 213-30.
- ¹¹ Data prior to 1960 were obtained from Hansen, Bradley and Hansen, Mary. "The Transformation of Bankruptcy in the United States." Working paper, University of Mary Washington. Available at www.princeton.edu/~pefinmar/Hansen.pdf. For years prior to 1960, it was assumed that "miscellaneous bankruptcies," as reported in Hansen and Hansen, were 60 percent corporate and 40 percent personal.
- ¹² Ekstein, Otto and Sinai, Alan. "The Mechanisms of the Business Cycle in the Postwar Era." *The American Business Cycle: Continuity and Change*. National Bureau of Economic Research Studies in Business Cycles series, Vol. 25. Chicago: University of Chicago Press, 1986, pp. 39-105.
- ¹³ "Consumer Bankruptcy: Causes and Implications." Visa Consumer Bankruptcy Reports, Visa USA, July 1996.
- ¹⁴ The savings rate referred to here is the difference between disposable personal income and current consumption divided by disposable personal income. This measure of the savings rate is from the Bureau of Economic Analysis' National Income and Product Accounts (NIPA). This measure of savings is not without criticism. For example, realized capital gains are excluded, whereas taxes on realized capital gains are included. Also, pension benefits are not included in personal income, but contributions to pensions are deducted from personal income. Another measure of the savings rate is based on the flow of funds (FOF) by the Federal Reserve Board of Governors. This measure computes savings as the change in net wealth divided by disposable income. The FOF measure and the NIPA measure are quite different. The FOF savings rate averaged 11.2 percent between 1954 and 2005, and the NIPA measure averaged 6.9 percent over the same time period. Although producing different estimates of the savings rate, the two measures are correlated over time.
- ¹⁵ Financial obligations is a broader measure than consumer debt in that it considers automobile payments, rental payments, homeowners insurance and property tax payments.
- ¹⁶ Treasury Department. "A Study of the Interaction of Gambling and Bankruptcy." 1999.
- ¹⁷ De la Vina, L. and Bernstein, D. "The Impact of Gambling on Personal Bankruptcy Rates." *The Journal of Socio-Economics*, Vol. 31, 2002, pp. 303-9.
- ¹⁸ Thalheimer, R. and Ali, M. "The Relationship of Pari-Mutuel Wagering and Casino Gaming to Personal Bankruptcy." *Contemporary Economic Policy*, Vol. 22(3), 2004, pp. 420-32.
- ¹⁹ Barron, J.; Staten, M.; and Wilshusen, S. "The Impact of Casino Gambling on Personal Bankruptcy Filing Rates." *Contemporary Economic Policy*, Vol. 20(3), 2002, pp. 440-55.
- ²⁰ Sienkiewicz, Stan. "Credit Cards and Payment Efficiency." Discussion paper, Federal Reserve Bank of Philadelphia, August 2001.
- ²¹ Revolving credit is an agreement to lend a specific amount to a borrower and to allow that amount to be borrowed again once it has been repaid.
- ²² Data prior to 2003 were obtained from Durkin, Thomas. "Credit Cards: Use and Consumer Attitudes, 1970-2000." *Federal Reserve Bulletin*, September 2000. Data for 2003 were computed using data from the Survey of Consumer Finances. "Lowest" is the upper range of the first quartile (about \$25,000 in 2004); "middle" is the upper range of the third quartile (about \$66,000 in 2004); and "highest" is the lowest range of the top 5 percent (about \$174,000 in 2004). See www.census.gov/hhes/www/income/histinc/f01ar.html for a description of the family income distribution data.

²³ Research on the effects of the 1978 act is mixed. See Shepard, Lawrence. "Personal Failures and the Bankruptcy Reform Act of 1978." *Journal of Law and Economics*, Vol. 27(2), October 1984, pp. 419-37 and Domowitz, Ian and Eovaldi, Thomas. "The Impact of Bankruptcy Reform Act of 1978 on Consumer Bankruptcy." *Journal of Law and Economics*, Vol. 36(2), October 1999, pp. 803-36.

²⁴ The actual case is *Marquette National Bank of Minneapolis v. First of Omaha Service Corp.* For a detailed discussion, see Ellis, Diane. "The Effect of Consumer Interest Rate Deregulation on Credit Card Volumes, Charge-Offs, and the Personal Bankruptcy Rate." FDIC, Bank Trends, March 1998.

²⁵ See www.stlouisfed.org/community/about_cra.html for a discussion of the Community Reinvestment Act.

²⁶ Gramlich, Edward M. "A Policy in Lampman's Tradition: The Community Reinvestment Act." Remarks by Federal Reserve Board governor, June 16, 1999. Available at www.federalreserve.gov/BoardDocs/speeches/1999/19990616.htm.

²⁷ The following states allow debtors to select the federal or state exemptions: Arkansas, Connecticut, Hawaii, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Washington and Wisconsin. See www.bankruptcyinformation.com for detailed information on each state's bankruptcy law and exemptions.

²⁸ Bankruptcy filings were regressed on a time trend for the period 1900 to 2005 and a time trend for 1978 to 2005. Empirical tests revealed that the coefficient on the 1978 to 2005 time trend variable was statistically greater than the coefficient on the overall sample period time trend.

²⁹ The *t*-statistic from the difference in means test is 0.72.

³⁰ The empirical model is:

$$\text{Bankruptcy}_t = \mathbf{X}_t \boldsymbol{\beta}_k + \mathbf{X}_{t-1} \boldsymbol{\alpha}_k + \mathbf{e}$$

where *Bankruptcy_t* is the percentage change in U.S. nonbusiness bankruptcy filings per 1,000 people in quarter *t*. The matrix \mathbf{X}_t contains the variables per capita income, payroll employment, savings as a percent of disposable income, the percent of the population covered by private/public health insurance, and consumer debt as a percentage of personal income. All five variables are also lagged by one period and included in matrix \mathbf{X}_{t-1} . Also included in \mathbf{X}_t are three dummy variables to reflect the first quarter, second quarter and remaining quarters, respectively, of a recession. NBER recession dates are used. All variables except the recession dummy variable are in percent changes. Data sources: Nonbusiness bankruptcy filings are from the Administrative Office of the U.S. Courts, per capita income and savings as a percent of income are from the Bureau of Economic Analysis, payroll employment is from the Bureau of Labor Statistics, consumer debt as a percentage of income is from the Federal Reserve Board of Governors, and the percent of the popu-

lation with public/private health insurance for 1980 to 1987 is from the *Source Book of Health Insurance Data* and for 1987 to present the U.S. Bureau of the Census. The sample period is quarterly from 1980 to 2004 (1980:3 to 2004:4 data used for a total of 98 observations). Although the data through the second quarter of 2005 are available, these data were not used because the passage of the 2005 Bankruptcy Abuse Prevention and Consumer Protection Act was signed in April. It was thought the bankruptcy data for the first two quarters of 2005 would in part reflect action on the part of consumers to file before the act took place.

³¹ Coefficients and other regression output will be provided upon request.

³² An *F*-test was conducted on the null hypothesis that the two coefficients sum to zero. The *F*-statistic from this test is 0.764 with a *p*-value of 0.39.

³³ "Consumer Bankruptcy: Causes and Implications." Visa Consumer Bankruptcy Reports. Visa USA, July 1996. The report is available at <http://govinfo.library.unt.edu/nbrc/report/g2a.pdf>.

³⁴ The average annual percentage change in bankruptcy filing rates from 1980 to 2004 was regressed on bankruptcy filing rates in 1980 and a constant term. The coefficient on 1980 filings was -0.0855 and had a *t*-statistic of 5.91. The regression *R*² was 0.42.

³⁵ Carolino, Gerry and Mills, L. "Convergence and the U.S. States: A Time Series Analysis." *Journal of Regional Science*, Vol. 36, 1996, pp. 597-616.

³⁶ "Consumer Bankruptcy: Causes and Implications." Visa Consumer Bankruptcy Reports. Visa USA, July 1996. The report is available at <http://govinfo.library.unt.edu/nbrc/report/g2a.pdf>.

³⁷ These averages are statistically different (*t*-statistic = 3.25).

³⁸ The regression line is almost identical if Shelby County, Tenn., is removed from the sample.

³⁹ The results are very similar when median county household income is used rather than per capita personal income. The percent of the county population below the poverty level was also considered. The empirical results from these regressions also provided evidence, although much weaker, of a nonlinear relationship between poverty levels and county bankruptcy filings. Specifically, bankruptcies increase with poverty, but at a decreasing rate.

⁴⁰ The regression estimates that generated the regression lines in Figures 5 through 12 are shown in the appendix. Using these estimates, the level of per capita income that maximizes personal bankruptcy rates is found by differentiating bankruptcy filings.

⁴¹ SMR Research Corp., "Bankruptcy Data by County." Hackettstown, N.J. See www.smrresearch.com/countybkr.html.

