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Socio-Demographic and Financial Predictors of Discharged Chapter 12 Bankruptcies for Utah, Idaho, and Wyoming

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SOCIO-DEMOGRAPHIC AND FINANCIAL PREDICTORS OF DISCHARGED
CHAPTER 12 BANKRUPTCIES FOR UTAH, IDAHO, AND WYOMING

by

Jessica Johnson

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family, Consumer, and Human Development

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2010

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ABSTRACT

Socio-demographic and Financial Predictors of Discharged Chapter 12
Bankruptcies for Utah, Idaho, and Wyoming

by

Jessica Johnson, Master of Science

Utah State University, 2010

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Department: Family, Consumer, and Human Development

The purpose of this study was to examine the socio-demographic and financial characteristics that were associated with the likelihood of a discharge among Chapter 12 bankruptcy filers in Utah, Idaho, and Wyoming. Previous bankruptcy studies conducted in Utah have looked at the same associations in Chapter 7 and Chapter 13. This study contains individual filer-level data from 158 Chapter 12 bankruptcy cases filed in Utah, Idaho, and Wyoming between 1997 and 2005. These cases were accessed through the Web-PACER system, a database of imaged court documents filed in district bankruptcy courts. Free access to this system was given by the Utah, Idaho, and Wyoming bankruptcy trustees to the researcher.

The principal finding in this study is that filers with longer repayment plans and those that live in the states of Idaho and Wyoming are more likely to attain a discharge. The local legal culture of Idaho and Wyoming may promote plans

that are more feasible and the debtors are more likely to reach a discharge. However, debtors in Utah are more likely to reach a discharge in a shorter time than those living in Idaho or Wyoming. Studies have found that debtors who started making payments were more likely to assure that their plans were successful. Discharge is the most common outcome for cases open for a number of years. Debtors who have reached a Chapter 12 confirmation are more likely to continue on a payment schedule and receive a discharge.

(75 pages)

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CHAPTER I

INTRODUCTION

The American farmer has often been used as a symbol of hard work, determination, and entrepreneurship. The United States used to be a highly agrarian society. In the 1920s the number of farmers held constant at 30% of the population, wherein 2004 a mere 2% remained on the farm (Stam & Dixon, 2004). One explanation for the decreasing number of farms in the U.S. can be attributed to consolidation of small farms into larger, more efficient farms. Between 1948 and 1994 real output from farms doubled, but the agricultural labor force fell by 70% (Stam & Dixon). Advances in biotechnology and a change in farm management practices have influenced the structure of the American farm system (Stam & Dixon).

Chapter 12 bankruptcy was designed by bankruptcy courts to give family farmers, and later family fishermen, a fresh start. The 1980s were a volatile era for American farmers. As a result, legislators sought to find a better debt management vehicle for farmers (Stam & Dixon, 2004). Debt levels for farmers often exceeded the ceilings for bankruptcy Chapters 7 or 13. The Family Farmer Bankruptcy Act of 1986 took effect in November of 1986 and was set to sunset¹ in 1993, but was extended 10 times. Sunsets were hard to enforce because many Chapter 12 debtors were still making payments under their 3-to-5 year Chapter 12 plans (Stam & Dixon). Chapter 12 bankruptcy became permanent

¹ A sunset is having or being a provision stipulating the termination or repeal of something (as a law, grant, or insurance coverage) on a specified date (Merriam-Webster's Dictionary of Law, 1996).

with the passage of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (Porter, 2005).

Farmers who fall on hard financial times, have many tools enabling them to get back on their feet. Chapter 12 bankruptcy is one of those tools. It is a special Chapter for family farmers. Chapter 12 is much like a Chapter 13 repayment plan in that it allows the farmer to pay all or part of their debt over a period of three to five years (Mecham, 2005).

There have been two peaks in farm bankruptcy filings in the United States. The first was fiscal year 1925 when 7,872 farm bankruptcies (12.2 per 10,000 farms, based on 6.37 million farms) were filed (Stam & Dixon, 2004). The 1930s brought more relief to farmers through the Frazier-Lemke Act (Porter, 2005). This act allowed farmers to keep their land while the price of commodities stabilized and was a precursor to Chapter 12 bankruptcy. This act lasted through the World War II era and expired in 1949 (Porter). The second peak in filings came in fiscal year 1987, when 4,812 Chapter 12 bankruptcies (23.05 per 10,000 farms) were filed. This was the highest annual farm bankruptcy rate ever recorded (Stam & Dixon).

Chapter 12 Bankruptcy Basics

Bankruptcy is often referred to as a fresh start. A person who files for bankruptcy is referred to as debtor or petitioner. There are potentially four types of bankruptcy protection available to farmers: Chapter 7, 11, 12, or 13 (Stam & Dixon, 2004). Chapter 7, 11, and 13 can be used by other types of debtors; only

farmers can use Chapter 12. Only Chapter 12 cases were examined in this study.

Chapter 12 bankruptcy relief allows filing under two categories: (1) as an individual or individual and spouse and (2) as a corporation or partnership. Other requirements for all Chapter 12 filers are (1) the individual, or husband and wife, must be engaged in a farming operation at the time of filing, (2) total debts (secured and unsecured) of the operation must not exceed \$3,237,000, (3) at least 50% of the total debts that are fixed in amount (exclusive of debt for the debtor's home) must be related to farming, and (4) at least 50% of the gross income of the individual, or the husband and wife, for the preceding tax year (or, for family farmers only, for each of the second and third prior tax years) must have come from farming (Mecham, 2005). These provisions allow full- and part-time farmers with off-farm employment to remain eligible for Chapter 12 protection. Chapter 12 debtors must be “engaged in a farming operation” on the day they file for bankruptcy protection. Those farmers that have ceased to operate their farms but have substantial debts from farming are excluded from Chapter 12. These debtors are more likely to use Chapter 7 bankruptcy. Congress would like to see more farmers return to full-time farming when their financial difficulties end (Porter, 2005). The bankruptcy process and definitions of commonly used bankruptcy terms are outlined in Appendix A.

Problem Statement

Rural American farmers have borne the brunt of escalating costs of

energy, fertilizer, and equipment (Porter, 2005). Chapter 12 legislation was passed to allow more farmers to remain in the agricultural field, and to protect them from volatile income factors that are out of their control (Stam, Dixon, & Rule, 2003). Chapter 12 is an essential Chapter in the farming industry and allows individual and corporate farms to reorganize their debts. However, it has not been studied as much as other bankruptcy Chapters such as Chapter 7 and Chapter 13.

The most recent studies on Chapter 12 bankruptcy were performed using data from the 1980s and 1990s. A review of these studies (Dixon, Flynn, & Flaccus, 1995; Stam & Dixon, 2004; Stam et al., 2003), indicated that they merely described the number of farmer bankruptcy filings, dismissals, and discharges, but did not explain what socio-demographic and economic factors were associated with the different outcomes of filing Chapter 12. Thus, where available, the studies used national data and they did not contain information about specific states or regions of the country. Therefore, there exists a significant gap in the literature about factors associated with dismissals and discharges of farmers in bankruptcy. By examining those factors associated with discharge, farming financial counselors could be better prepared to assist farmers if similar circumstances were to occur. This research could be used by farming financiers and farm mediation counselors, as well as Chapter 12 bankruptcy attorneys and trustees.

Purpose Statement

The initial purpose of this study was to examine the socio-demographic and financial characteristics associated with the likelihood of a discharge among Chapter 12 bankruptcy filers in Utah. Nevertheless, the Utah sample of farmers who filed Chapter 12 between 1997 and 2005 was relatively small ($n = 28$). It was then decided to include the adjacent states of Idaho and Wyoming to expand the sample size and scope of the study. This inclusion added 119 cases from Idaho and 11 cases from Wyoming. This study contains individual filer-level data from 158 Chapter 12 bankruptcy cases filed in Utah, Idaho, and Wyoming filed between 1997 and 2005. Socio-demographic and financial variables were examined separately because previous bankruptcy studies were performed this way. Previous studies on bankruptcy which separated these two groups of variables include: Evans (2004); Llewellyn (2005); Lown and Rowe (2003), and Sullivan, Warren, and Westbrook (1995).

Research Questions

1. What are the socio-demographic and financial characteristics of all Chapter 12 filers in Utah, Idaho, and Wyoming from 1997 to 2005?
2. What percentage of Chapter 12 cases filed in Utah, Idaho, and Wyoming from 1997-2005 terminated with a dismissal/conversion or discharge?
3. What are the socio-demographic variables associated with the likelihood of discharge?

4. What are the financial variables associated with the likelihood of discharge?

5. What are the statistically significant variables from Questions 3 and 4 that are associated with discharge?

CHAPTER II

REVIEW OF LITERATURE

History of Chapter 12 Bankruptcy

The first bankruptcy laws were passed in 1787, but filings were not significant until the 20th century. Special bankruptcy provisions for farmers were set with the passage of the first permanent bankruptcy law: the National Bankruptcy Act of 1898. Farmers were protected from involuntary bankruptcy proceedings, whereas consumers and small business owners were not afforded these same protections. Modern farmers have more protection from financial ruin because of increased access to farm loans, and generous homestead exemptions available in some states. When Congress enacted bankruptcy reforms in 1978, necessary bankruptcy protections for farmers were retained. The only way farmers could lose their property involuntarily was to lose it to foreclosure, and this usually accompanies claims from multiple creditors calling in successive loans held on the same property. Chapter 12 bankruptcy was passed into law in 1986 (Stam & Dixon, 2004) but was an intermittent law until the Bankruptcy Abuse and Consumer Protection Act (BAPCPA) was passed in 2005 which made Chapter 12 a permanent Chapter in the bankruptcy code.

The Impact of BAPCPA

There are three major changes in Chapter 12 due to BAPCPA. The first was the relaxation of the definition of family farming (Porter, 2005). The total

debt levels for Chapter 12 filers before BAPCPA went into effect were \$1.5 million. The debt levels under the new law must not exceed \$3,237,000 in all states (Mecham, 2005). BAPCPA increased debt levels which had not changed since 1986. Secondly, more than 50% of the gross income of the individual, or the husband or wife, must come from the farming operation, opposed to 80% from before. These changes allowed more families or entities to utilize Chapter 12 bankruptcy (Porter). The third expanded the time frame used to determine whether 50% of the debtor's income came from farming. This allowed farmers who had sought off-farm employment to remain eligible for Chapter 12 protection.

BAPCPA also protects Chapter 12 filers by including special tax relief that begins at the time of filing. Under the umbrella of BAPCPA, farmers and fishermen are allowed to classify certain tax claims under unsecured claims rather than filing them under priority debts. If the tax claim was owed to a government unit and was incurred "as a result of the sale, transfer, exchange, or other disposition of any asset used in the debtor's farming operation" the claim would be treated as an unsecured claim, not a priority claim. The provision is only in place if the debtor received a discharge. Previous to BAPCPA, farmers who sold property to gain operating capital would be forced to pay taxes in full over the life of the plan. This would offset any benefit the farmer would receive from selling the property as part of the plan. Now, priority creditors are given the same pro-rata payments that unsecured creditors would receive. This may also help farmers who would like to reduce the size and scope of their farming operations over time without substantial tax penalties.

Bankruptcy Options for Farmers

Chapter 7, Chapter 11, and Chapter 13 are other bankruptcy options for farmers in bankruptcy. The Chapter most often used in farm bankruptcy, which does not include a repayment plan, is Chapter 7. Chapter 7 requires liquidation. In most cases the farmer loses all nonexempt assets and many give up encumbered assets. Using Chapter 7 from the outset instead of Chapter 12 can be advantageous for farmers because the fees are relatively small. Attorney's fees, trustee's fees, and filing fees are generally lower in Chapter 7 (Stam & Dixon, 2004). Filing fees for Chapter 7 bankruptcy are \$274, with a minimum of \$1,200 in attorney's fees (Mecham, 2005). Chapter 7 proceedings take less time than Chapter 12. This allows farmers to return to farming or other enterprises with reduced debt. However, the farmer may not have the necessary assets to continue farming. Taxes are also handled differently between the two Chapters. Chapter 7 debtors avoid personal responsibility for income tax liabilities from liquidating assets, which is not available to Chapter 12 debtors. Chapter 7 may be the only option for a farmer when a farm is in such dire straits that reorganization is not feasible (Dixon, Flynn, & Flaccus, 1995).

Chapter 11 debtors are able to continue to operate their business while they reorganize their debts and propose a debt repayment plan to the court and its creditors. If the plan is confirmed by the court, it binds the creditor and the debtor to the plan until all payments are made. Chapter 11 plans have no restrictions on how long they will last and how much debt is involved at the time

of filing. After the plan has run its course, the company will receive a discharge of all remaining unsecured debt (Stam & Dixon, 2004). Chapter 11 is available to individual farmers or businesses, with most filers being businesses. Chapter 11 plans are relatively expensive and complex because the amount of debt involved, and because all creditors have to agree on the plan (Stam & Dixon). These plans are dictated by a committee of creditors that actively participate in the reorganization. As a result, it is difficult to use Chapter 11 to reorganize farming operations. Chapter 11 is best suited for large businesses that have a large corporate structure. Farmers choose Chapter 11 when they do not qualify for Chapter 12 or 13, either because they have too much debt or do not meet the income requirements set out by the bankruptcy courts (Stam & Dixon).

Chapter 13 cases involve debtors who have regular income and regular debts that do not exceed the debt limits. This allows farmers to repay all or a portion of their debts with future income. While the plan is in progress all of the debtors assets are protected under the plan. This Chapter is mostly used by consumers with primarily consumer debt (Stam & Dixon, 2004). For example, Lown and Rowe (2003) found that 70% of debtors who filed for consumer bankruptcy in Utah in 1997 filed for Chapter 13. Chapter 13 is sometimes referred to as “consumer reorganization” and all creditors must be in agreement for the plan to be confirmed. Chapter 12 and 13 are similar because they are both repayment plans. But, farmers that file using Chapter 12 have more latitude in reorganizing real estate debt. Small or medium farmers may choose Chapter 13 if they have smaller amounts of debt to reorganize (Stam & Dixon). The

unsecured debt limits for Chapter 13 are less than \$307,675 and secured debts must be less than \$922,975. If a debtor chooses to reaffirm debts on personal property, they will have to pay at least the current market value of the collateral held by the creditor. If the purchase was made close to the time of filing, full payment on the item must be made. The original payment schedule for these items may be kept in place for longer than the 3-5 year plan period as long as any arrears are made up during the plan (Mecham, 2005). This is often called a cram down. Chapter 12 and 13 cases utilize a bankruptcy trustee who oversees the case. One of the problems facing farmers who would like to file for Chapter 13 is that the courts do not treat usual farm income as “regular.” Often farm debts may extend past the 3-5 year plan term. Farmers who do not fit the requirements for Chapter 12 may use Chapter 13 as a substitution.

Chapter 12 Plan Completion Studies

Chapter 12 plans are repayment plans for farmers. The goal of Chapter 12 is to allow farmers to restructure their debts and remain in business. Unsecured debts are paid over the length of the plan and the remaining debts are discharged at the end of the plan. Payments on secured debt can continue after the plan is completed or the debtor receives a discharge. However, not all plans end in a discharge. There are many reasons that repayment plans end without a discharge. Dixon and colleagues (1995) examined 15,844 national cases filed from 1986 to 1993 to determine whether the plans were successful. In their study, 42.6% of the farm bankruptcy cases were discharged, 41%

percent of the remaining cases were dismissed, and 16.4% were converted to another Chapter or transferred to another district. They found that farmers who are the most likely to succeed with their plans are those that are older and have the largest farms.

Stam and colleagues (2003) examined national Chapter 12 bankruptcy rates during the 1986 to 2001 period to determine whether farmers were successful with their Chapter 12 plan. They also determined at what stage in the bankruptcy process the debtors dropped out. These researchers used three stages in the bankruptcy process to determine which stage most farmers dropped out of the bankruptcy process. The first stage is when the bankruptcy court decides that the plan is not viable and dismisses it before approval. This stage also included those firms who were dismissed after approval for failure to carry out the plan. The second stage is when the debtor converts the Chapter 12 bankruptcy to another Chapter. The third stage is when the farmer complies with the provisions of the plan and receives a discharge. If a case doesn't receive a discharge it isn't necessarily a failure for the farmer. Negotiations can be made between the farmer and the creditors after confirmation that may be beneficial to both parties. A case only fails when the bankruptcy court, the farmer, and the creditors cannot reach an agreement that would be satisfactory for the creditor and debtor.

From 1986 through 1993, 15,351 cases were filed and 10,291 of these cases were terminated in some fashion, leaving 5,060 cases open. Of the 10,291 cases that were terminated 37% of the cases were discharged while 63% of the

cases were converted to Chapter 7 (Stam et al., 2003).

Cases can be terminated by being dismissed, converted, or discharged. Increased land values and reduced interest rates may allow farmers to discontinue their Chapter 12 plans. The low number of bankruptcy cases that actually reach a discharge may be attributed to the power of Chapter 12 outside of court. Chapter 12 bankruptcy is often referred to as a bargaining chip allowing farmers to avoid bankruptcy. Potential bankruptcy cases can be avoided and a satisfactory outcome for the farmer and creditor alike can be negotiated in lieu of bankruptcy. With enough experience in farm family finance many Chapter 12 reorganizations may happen outside the courtroom, especially among those cases that have one or a small number of major creditors. Many potential workouts that receive a favorable outcome are not recorded because the debtor didn't have to file for bankruptcy (Stam et al., 2003). It can be argued that the farmers who end up in bankruptcy court are the "hard cases" that could not be saved outside of bankruptcy protection.

Chapter 7 and 13 Bankruptcy Studies

Even though the present study's purpose is to better understand socio-demographic and financial factors associated with discharge or dismissals in Chapter 12, it is worth reviewing previous studies conducted in Utah that look at the connection between socio-demographic and financial variables and dismissal/discharge in Chapter 7 and 13, because they provide the methodological model that has been replicated in this study.

Lown and Rowe (2003) developed a profile of 1997 Chapter 7 and 13 debtors who filed in Utah. Utahns have struggled with volatile financial and employment markets making it difficult to have a steady stream of income and benefits. These researchers found some debtors had only been on the job for a few weeks or months. Among the 1,081 Chapter 13 cases in their sample there was a 26.5% discharge rate. These researchers also found that 140 originally filed Chapter 13 cases were converted to Chapter 7. Only 10.8% (102 cases) of the overall sample were able to reach a discharge. At the end of their study they had 126 cases that were yet to reach a conclusion.

Llewellyn (2005) profiled repeat Chapter 7 and 13 bankruptcy debtors who filed between 1984 and 1997 in Utah. The study found that 11% of the filers in their sample were repeat filers and appeared to be abusing the bankruptcy system. Abusers were characterized as debtors with three filings within a 2 year period and debtors with four or more total filings over the course of the study. There were 171 Chapter 13 abusers and only 5 (2.9%) of these cases reached a discharge. Chapter 13 debtors were almost five times as likely to be abusers as compared to the Chapter 7 debtors. Those debtors who had larger amounts of debt were more likely to be abusers.

Evans (2004) examined the socio-demographic and financial characteristics of Chapter 13 debtors and the stage at which their case terminated. This study included characteristics of bankruptcy filers in Utah, but did not include the characteristics of farmers in bankruptcy. The researchers used three levels of case dismissal. The first, cases that were dismissed before

the 341 hearing ($n = 115$ or 12.7%). The second level were cases dismissed before confirmation of the plan ($n = 267$ or 29.4%), and the third level were cases dismissed after plan confirmation but before discharge ($n = 286$, or 31.5%). A fourth group of debtors comprised the group that completed their Chapter 13 plan and received a discharge ($n = 286$, or 26.4%). Demographic and financial characteristics of the debtors were collected. It was found that those who were more likely to reach a discharge were those who had longer job tenures and a mortgage.

Summary of Literature Review

Chapter 12 bankruptcy came into being in 1986 in response to a struggling farm economy in the 1980s. In 1987 there were a record number of farmers filing for Chapter 12 bankruptcies. This may be that farmers were waiting for their own bankruptcy Chapter to be enacted so they could take advantage of the benefits Chapter 12 bankruptcy afforded, especially the benefit of the cram down (Porter, 2005).

The BAPCPA of 2005 made Chapter 12 bankruptcy a permanent Chapter in the bankruptcy code. With increased debt levels, new debt counseling requirements, and financial education classes there are many new requirements for debtors to satisfy. The new debt level for Chapter 12 debtors is \$3,237,000 nationwide. Prior to BAPCPA, 80% of the family gross income had to come from farming; now that is reduced to 50% and the farm must be in operation at the time of the filing (Porter, 2005).

Chapter 12 bankruptcy is a repayment plan that can span three to five years. There are very few studies that have assessed whether Chapter 12 debtors receive a discharge following their Chapter 12 repayment plan. Dixon and colleagues (1995) examined 15,844 cases filed from the 1986 to 1993 to determine whether the plans were successful. From those cases, 4,543 were still open as of September 2, 1994. They had 11,301 cases that were terminated with only 42.6% being discharged, with the remaining 57.4% being terminated in other ways. Only 41% of the cases were dismissed; the remaining cases were converted to another Chapter or transferred to another district. Dixon and colleagues also found that Chapter 12 bankruptcy filers often convert their cases to a Chapter 7 bankruptcy when their economic situations improve.

There are many legal barriers for farmers who fall on hard financial times. Attorney's fees, filing fees, and the cost of the plan payments may be too cost prohibitive for many farmers. There are also fewer full-time farmers; many farmers have had to supplement their farming income with work outside of the farm. Local legal culture may lead farmers into using the more commonly used repayment plans. Most farmers file for bankruptcy for the same reasons other debtors do (Porter, 2005).

In the national Chapter 12 bankruptcy studies reviewed, very little individual socio-demographic and financial data is reported. This study includes socio-demographic and financial information about the farm families who filed for bankruptcy. When farmers experience financial problems they are often unprepared to deal with these disappointments. Farmers are raised to be

problem-solvers and when they cannot control their financial situations it makes them question their own worth (Farmer, 1994). By examining the socio-demographic and financial information about these farm families, we are better able to predict which farmers will reach a discharge and get the fresh start that bankruptcy can afford. Former Utah bankruptcy studies have not included farm bankruptcy filers and their characteristics. This study will add another chapter to bankruptcy research in Utah, Idaho, and Wyoming.

CHAPTER III

METHODS

Population and Sample

The original intent of this study was to examine farm bankruptcies in the state of Utah. Later it was expanded to include cases from Utah, Idaho, and Wyoming for which data was available. The Bankruptcy Abuse and Consumer Protection Act went into effect on October 17, 2005 and only cases that were filed prior to this date were used in this study. Cases that were filed after the passage of BAPCPA were excluded because they have different debt level and filing requirements than those cases filed before BAPCPA.

Summary reports from the PACER system indicated that 225 Chapter 12 cases were filed in Utah, Idaho, and Wyoming between 1997 and 2005. The PACER system is an internet based case management system that holds scanned court documents. However 67 cases on the PACER system showed the case number but no other information was available for these cases. As a result, only 158 cases were available. Data for these cases was extracted from the imaged files on the PACER system and recorded in an SPSS database.

The number of Chapter 12 cases filed in Utah, Idaho, and Wyoming from 1997 to 2005 is shown in Table 1. According to the 2002 Agricultural Census there were 25,000 farms in Idaho in 2002, which was more than Utah (15,200) and Wyoming (9,200) combined. While the number of farms remained steady in all three states, it was computed that the percentage of farms in bankruptcy were

Table 1

Open and Closed Chapter 12 Case Filed in Utah, Idaho, and Wyoming – January 1997 to October 17, 2005

State	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Utah	4	9	7	0	1	4	1	1	1	28
Idaho	16	16	15	19	14	14	18	3	4	119
Wyoming	3	2	5	0	0	0	1	0	0	11
Total	23	27	27	19	15	18	20	4	5	158

Source: Pacer System (2006) reports for Utah, Idaho, and Wyoming.

for Utah .18% (28/15,200), for Idaho .21% (119/25,000), and for Wyoming .11% (11/9,200).

Data

The unit of analysis were public bankruptcy files which were scanned into a computer and accessed through the PACER system on the Internet. Each case contained a docket sheet and provided links to the Statement of Financial Affairs from where the majority of the data was recorded. The data files commonly had numerous pages of information (e.g., 30 to over 100 pages) per case. The researcher completed Utah State University's Institutional Review Board human subjects training, and confidentiality measures were taken to assure that all personal information remained private: for example, when entering the data, no name was associated with the variables.

The dependent variable in this study was whether the case received a

discharge or was dismissed/converted. The independent variables included characteristics associated with dismissal or discharge. These variables were collected from the Statement of Financial Affairs listed in each case. These statements listed all real property, personal property, exempt property, all debts owed to creditors, all contracts and unexpired leases, and any co-debtors. These statements also listed the current income for the farmer both from farming and off-farm employment. The current monthly expenses were also listed.

Variables

Discharge-Converted

If the Chapter 12 case was completed and successfully discharged it was coded as one. If the case was dismissed or converted it was coded as zero. This dichotomous variable was used for the logistic regression models.

Marital Status

The marital status of the debtors was coded into two categories: married and other. The marital status of the debtor was listed at the time of filing. Married debtors were those that filed a joint petition. The Bankruptcy Code required that joint petitioners be married at the time of filing. Those debtors who reported being divorced, widowed, or never married were classified as single. The married debtors were coded as one and all other debtors were coded as zero.

Filing Status

Filing status for the debtors were divided into three categories: joint, male filing alone, and female filing alone. The filing status for the debtor was determined by the names listed on the docket sheet for each case. Cases that had two names listed were classified as joint. The gender of the debtors were listed in the case, and the debtors were classified as such. Those debtors who filed alone could also be married. One spouse may file alone to protect the credit of the other spouse. Joint filers were coded as one and all others were coded as zero.

Off-Farm Employment

Farmers or farmers' wives may work off the farm to help support the farm. Many wives seek off-farm employment to provide income, medical insurance, or other services for the family. A single indicator variable was created with 1 = off-farm employment for either spouse, and 0 = no off-farm employment listed in the file.

Real Property Size and Real Property Value

Real property was measured as the size of the farm in acres. The size of the farm was listed in Schedule A of the bankruptcy case, and often included the legal description of the property. In some cases, the legal description was all that was listed, making it impossible to know how many acres the farmer worked. The market property value is reported in dollars.

Livestock Present and Value

Livestock were listed as personal property in Schedule B of the Statement of Financial Affairs. Not all farmers raised livestock, therefore a single indicator variable was created with livestock present on the farm being coded as one, and no livestock being coded as zero. The mean, median, and mode were calculated for the value of the livestock. These values were based on the current market value of the animals at the time of filing. Market value was the most commonly used in bankruptcy.

Equipment Value

The equipment a farmer used was listed in Schedule B, including the market value of each piece of equipment. A farmer may have had their equipment appraised before they filed for bankruptcy. The market value for equipment was used because that was the price at which the farmer could sell the piece of equipment. The market value was used regardless of whether an appraisal was performed. Market values for equipment are listed in price guides published by equipment producers, much like those for vehicles (Iron Guides, 2008). This may have had an affect on the results because the market value of the piece of equipment could be subjective.

Crop Value

Values for crops were reported in dollars. This was the value listed in the file at the time of filing. The valuation of the crops was based on current crop prices at the time of filing. The farmer and their attorney placed the

corresponding value. Crop values change over time and may cause threats to validity.

Farming Tenure

It measures how long the farmer had been farming in years. This variable assessed whether the length of time spent farming had an impact on whether the farmer reached a discharge.

Farm Specialty

There were many specialties that farmers could develop. Farmers concentrated on certain crops that successfully grew in their area, and many raised animals as well. While all of these debtors were farmers, some listed their occupation in Schedule I as being a rancher, dairyman, or other specialty farm profession. To be used in the logistic regression models, this variable was converted to a bivariate variable with farmers being coded as 1 and those with a specialty were coded as 0. For descriptive purposes four groups were created: farmers, ranchers, dairies and other. The farmer lists a specialty in the in the file. When a farmer has a diversified operation, they are often more successful.

Monthly Income

The monthly household income was reported at the time of filing and was a continuous variable. This was calculated by adding all income from farming and off-farm employment for both spouses. Farmers received an annual payment for products sold at the end of the farming season. Farmers will often

divide this income into equal amounts throughout the year. This is the income listed in the schedules and the listed dollar amount reported in the file.

Expenses

The monthly household expenses at the time of filing were listed as a continuous variable. Farmers often made one yearly payment for goods and services purchased. Those expenses were then annualized into monthly payments to calculate the monthly expenses for the case. These expenses included all household expenses, equipment payments, taxes, and so forth. The total monthly expenses were listed in a dollar amount in the schedules of the case.

Debts and Assets

Total debt was the sum of all secured debt (e.g., home, tractor), unsecured priority debt (e.g., back familial obligations, taxes), and unsecured non-priority debt (e.g., credit cards, utilities) owed by the debtor. The total dollar amounts for debts were listed in Schedules D-F. The total asset value was listed in dollars in the Summary of Schedules. The total asset level combined the total value of all equipment, crops, livestock, and so forth. Total debts and total assets were reported as a continuous variable.

Farmers Home Administration Loans

This indicator variable was used to assess how many farmers had these loans. The dollar amounts of these loans were also reported as a continuous

variable. Farmers Home Administration loans were the lender of last resort and would only be used by the farmers who had the greatest financial difficulty.

Number of Creditors

The total number of creditors was listed as a continuous variable. The number of creditors was derived by counting the number of creditors listed in the file.

State

Idaho was coded as 1, Utah was coded as 2, and Wyoming was coded as 3. Utah was used as the reference variable. Idaho and Utah were both recoded into dummy variables to be included in the logistic regression models.

Other Variables

Some other variables could be important but were not included in the bankruptcy files. For example, the event that triggered the filing. The triggering event would show the trends associated with filings and these problems could be prevented or lessened in degree. The most sought-after design for bankruptcy studies are those studies that contain both case data and a questionnaire with open-ended questions. With open-ended questions one is able to identify the causes of the bankruptcy filing. The bankruptcy files do not contain information about the hours spent working, or whether the farmer had lost off-farm employment. Health insurance information that is provided through the farm or off-farm employment was not listed in the file. Education level of the farmer was

also omitted from the file. The ages of the debtors are not always listed in the file and therefore, were not collected for this study. Household size was also omitted.

Threats to Internal Validity

Debtors were often required to document copious amounts of financial information while filing for bankruptcy. Attorneys may have provided assistance, but the attorney may have not set up an acceptable budget for the debtor's family. Some bankruptcy firms sent the packet of forms home with the debtor and assumed that they would be filled out correctly. The debtors may not have complete financial records for all debts, and may have been held responsible for debts not recorded in the bankruptcy files. This measurement error was the largest threat to internal validity for this study. The data collected in bankruptcy files may have affected future debtors in the nation; for this reason debtors must swear that the data was correct. Debtors could be charged with perjury if the information given was not correct. A discharge could be revoked within a year if the trustee, a creditor, or the United States trustee believed that the discharge was obtained fraudulently. The bankruptcy court would investigate allegations made against the debtor, and decide whether to stay or revoke the discharge (Mecham, 2005).

Data Analysis and Procedures

This study was designed as a cross-sectional, exploratory study in which

individual Chapter 12 filer data was used as the unit of analysis. Five research questions were formulated to carry out this design.

To answer research questions 1 and 2, descriptive and cross-tabulations were performed to describe the socio-demographic and financial characteristics of all Chapter 12 filers in Utah, Idaho, and Wyoming. These operations also revealed the percentage of Chapter 12 filers that terminated with a dismissal/conversion or discharge. Cross-tabulations were used to reveal associations between categorical variables (e.g., marital status, state). Means and standard deviations were calculated for each of the continuous variables.

To answer research questions 3 through 5, logistic regression models were computed to examine the association between the independent variables and the dichotomous dependant variable (dismissed or discharged). These models assessed the effect of each independent variable and its contribution to variation in the dependent variable, net of the effects of the other independent variables. These models were exploratory and the statistical analyses used an alpha level of 0.10. This means that the variables were removed if they did not fit the .10 significance level to be considered statistically significant.

All the logistic regression models used the backward elimination approach. This approach gave each independent variable at least one test for significance, in the presence of all other variables which are at least as significant, but ultimately the variable will only stay in the model if it remains significant. This approach gave the researcher the opportunity to test each variable for significance in one large, overall model with all independent variables considered

together (SFSU, 2002). Backward regression is an exploratory process that removes independent variables one at a time if no longer significant at each step. First, it removes the variable that is the least predictive of the dependent variable, then removing the next least predictive, and so on. When the procedure reaches the point where there are no longer any independent variables in the model that are not significant it stops, keeping the remaining variables in the final model. Backward regression is an exploratory technique that allows researchers to utilize a smaller subset of variables to include in the final model describing the characteristics of the debtors who were able to reach a discharge.

Unlike regression analysis, logistic regression yields pseudo *R* squares. These are called "pseudo" *R* squares because they look like *R* squared in the sense that they are on a similar scale, ranging from 0 to 1 with higher values indicating better model fit, but they cannot be interpreted as one would interpret an Ordinary Least Squares *R* square (UCLA, 2008).

Following the approach of Evans (2004), Llewellyn (2005), and Lown and Rowe (2003), and to keep parsimonious models, the variables were divided into two domains: socio-demographic and financial variables. The rationale for grouping these variables was to be consistent with the generally accepted parameter of no more than one independent variable per 10 cases (Logistic Regression Overview, 2006). Further, conducting three backward elimination logistic regression models permitted the researcher to ascertain the most predictive variables within each of these two domains. The first used only the socio-demographic variables (research question 3). The second used only the

financial variables (research question 4). The third model combined the two domains in a single logistic regression model (research question 5). The socio-demographic variables included in the models were: plan tenure, marital status, filing status, off-farm work, livestock present, farm type, and state of filing. The financial variables used included: assets, secured debt, unsecured debt, total debt, farm tenure, monthly income, monthly expenses, and creditors. To answer research question 3, the socio-demographic variables were regressed with the dependent variable discharged/dismissed. The backward procedure was used to remove variables that showed no statistical significance.

CHAPTER IV

RESULTS

This chapter presents the results of the statistical analysis to answer the research questions. Research question 1 and 2 were answered with descriptive statistics and cross-tabulation. Research questions 3 through 5 were answered using logistic regressions, resulting in a final model that predicts log-odds of reaching a discharge on a Chapter 12 bankruptcy filing.

Demographic Characteristics and Financial Characteristics

Research Question 1 was designed to outline the socio-demographic and financial characteristics of all Chapter 12 filers in Utah, Idaho, and Wyoming from 1997 to 2005. Table 2 shows that joint filers account for a little more than half of the cases filed (55.7%), and single males make up 22.3% and single females accounted for 3.8%. Married filers made up the majority of the debtors (62.4%). Separated, divorced, widowed, and single debtors made up 19.7% of the sample. Farmers and their spouses may have required off-farm employment in order to support themselves. There were 80 files (50.6%) that showed off-farm employment, 77 (48.7%) were strictly farmers, and one that could not be determined. A little less than half of debtors (47.5%) reported owning livestock.

The debtors in the sample were very diverse in their financial characteristics (see Table 3). For example, the size of farms ranged from one acre to 2,569 acres. Assets for the farmer consisted of value of the real property,

Table 2

Socio-demographic Characteristics of All Chapter 12 Debtors in Utah, Idaho, and Wyoming (N = 158)

Variable	N	%
Marital Status		
Other	59	37.3%
Now married	98	62.0%
Unknown	1	.6%
Filing status		
Other	70	44.3%
Joint	88	55.7%
Off-farm employment		
Yes	80	50.6%
No	77	48.7%
Unknown	1	.6%
Livestock present		
Yes	75	47.5%
No	83	52.2%
Farm specialty		
Farmers	91	57.6%
Other	67	42.4%
Farm type		
Non-corporate	127	80.4%
Corporate	31	19.6%
State		
Utah	28	17.7%
Idaho	119	75.3%
Wyoming	11	7.0%
Farmers Home Admin Loans		
Yes	6	3.8%
No	152	96.2%

Table 3

Financial Characteristics of the Chapter 12 Debtors in Utah, Idaho, and Wyoming from January 1997 to October 17, 2005 (N = 158)

Variable	Average (median)	Standard deviation	Minimum	Maximum
Debt secured	\$554,821 (\$503,929)	\$353,734	\$16,000	\$1,618,376
Unsecured priority	\$16,069 (\$7,850)	\$32,631	\$200	\$247,881
Unsecured non-priority	\$131,817 (\$75,417)	\$163,050	\$864	\$895,087
Total	\$676,276 (\$590,860)	\$412,441	\$119,300	\$1,966,306
Equipment debt	\$127,191 (\$62,109)	\$162,422	\$1,000	\$801,998
FmHa debt	\$133,876 (\$61,488)	\$174,906	\$3,700	\$439,768
Plan tenure months	32.5 (32)	23.24	2	105
Plan tenure years	2.71 (2.67)	1.94	.16	8.75
Farm tenure (years)	19.5 (20)	12.1	0	57
Real property (acres)	363.14 (175)	496.7	1	2,569
Number of creditors	23.65 (20)	14.79	2	70
Total assets	\$682,808 (\$471,539)	\$701,622	\$ 10,075	\$5,185,360
Monthly income	\$6,745 (\$2,600)	\$13,335	\$600	\$105,561

(table continues)

Variable	Average (median)	Standard deviation	Minimum	Maximum
Monthly expenses	\$4,981 (\$2,177)	\$8,692	\$511	\$52,215
Property value	\$459,917 (\$300,000)	\$565,852	\$15,000	\$4,810,000
Livestock value	\$99,205 (\$42,225)	\$135,135	\$100	\$544,700
Crop value	\$121,001 (\$38,000)	\$293,568	\$107	\$2,000,000
Equipment value	\$133,230 (\$78,550)	\$150,951	\$200	\$718,400

crops, livestock, and equipment. The values for total assets ranged from \$10,075 to \$5,185,360, with a mean of \$682, 208 ($SD = \$701,622$).

The amount owed on a piece of equipment was listed in the bankruptcy file. There were considerable differences in equipment values for the farmers. The farmer with the least amount of equipment listed, simply a saddle and some tack, was valued at \$200. The farmer with the most equipment had multiple pages of equipment valued at \$718,400. The amounts owed on all equipment were added and reported. The market value of the property was also listed in the bankruptcy file and reported by adding the amounts reported by the debtor.

Seventy-five farmers (47.5%) reported that they owned livestock; 83 (52.2%) farmers that were purely crop farmers. In this sample there were 91 farmers (57.6%), 30 ranchers (19.0%), 28 dairies (17.7%), and 9 other (5.7%). There were 127 (80.4%) non-corporate farmers and 31 family corporation farms (19.6%). There were six cases that showed debt from the FmHA.

There were 20 (12% of the sample) cases that had secured debts over \$1,000,000. The mean for the group that had over \$1,000,000 dollars in secured was \$1,202,770 ($SD = \$163,061.8$), the median was \$1,184,535 and multiple modes. The minimum was \$1,003,261 and the maximum was \$1,618,376. Twenty percent of the sample had over \$1,000,000 in total debts. The mean for this group was \$1,327,950 ($SD = \$201,807$), with a median of \$1,291,399 and multiple modes. The minimum of the group was \$1,029,827 and the maximum was \$1,966,306.

The tenure of the plan played a large part in whether the case reached a discharge. Cases normally are scheduled for a three to five year term. There were 18 cases that exceeded this threshold. Seven cases were from Utah, 7 cases were from Idaho, and 4 cases were from Wyoming. The range of the number of creditors was from 2 to 70, with 52 cases (32%) with more than 30 creditors.

The assets that the debtors possessed ranged from \$10,075 to \$5,185,360 with a mean of \$682,808 ($SD = \$701,622$) and median of \$471,539. There were six farmers who had more than \$2,000,000 in assets and three cases that had more than \$3,000,000.

Research Question 2 was designed to determine what percentage of Chapter 12 cases terminated with a dismissal/conversion or discharge. In the sample, there were 93 cases (58.8%) that were dismissed or converted, and 50 cases (31.6%) were able to reach a discharge. There were 15 cases (9.5%) that were filed before the new law (BAPCPA) went into effect that had not terminated

at the time of this study; these were classified as still in progress. Table 4 shows the percentages of dismissed, converted, and discharged cases for the three states.

Research Question 3 was designed to assess what socio-demographic variables were associated with the likelihood of a discharge. The first logistic regression (LR1), hereafter referred to as Model 1, was run to assess what socio-demographic characteristics were associated with discharge. LR1 used the following variables: plan tenure, marital status, filing status, livestock present, farm tenure, farm type, and state. The state variables were recoded into a bivariate variable, Idaho = 1 and others = 0; and other one in which Utah = 1 and

Table 4

Number and Percentage of Dismissed/Converted, and Discharged Chapter 12 Cases for Utah, Idaho, and Wyoming

State	Dismissed or converted	Discharged	In progress	<i>N</i>
Utah	21 (75%)	6 (31.9%)	1 (3.6%)	119
Idaho	67 (56.3%)	38 (31.9%)	14 (11.7%)	28
Wyoming	5 (45.5%)	6 (54.5%)	0	11
Total	93	50	15	158

others = 0. Idaho was used as the comparison group. LR1 used the backward likelihood ratio (LR) method. If the forward approach was used, a different set of statistically significant variables could emerge. The forward approach starts with the constant-only model and added variables one at a time to find the final model using the desired statistical significance level (NCSU, 2008). The backward approach allowed each independent variable at least one test for significance, in the presence of all other variables. These variables needed to be at least as significant as the other variables, but ultimately the variable would only stay in the model if it remained significant. When the variables that best fit the model were determined, the process stopped (NCSU). This research question was exploratory and used the $p < .10$ removal value in SPSS (Salkind, 2004). The final model resulted from the backward LR procedure and reported the independent variables that had the most significant effect on the dependent variable. The dependant variable was binomial; discharged cases = 1 and dismissed/converted cases = 0. Results of the LR1 are shown in Table 5.

After six steps, the first logistic regression produced a final model in which three variables (plan tenure, livestock present and Idaho) met the entry requirement to be included in the equation; the remaining five variables (marital status, filing status, farm tenure, farm type, and Utah) were removed because they did not explain a significant portion of variance in the dependent variable. The procedure revealed a Pseudo R square = .407. The results suggest that the longer the farmer stayed in their repayment plan the more likely they would reach

Table 5

*Socio-demographic Variables Associated with Likelihood of Discharge
(Model 1)*

Variables	<i>B</i>	S.E.	Exp (B)	Sign.
Plan tenure years	.063	.013	1.065	.000
Livestock present	.986	.515	2.681	.055
State – Idaho	2.806	.833	16.543	.001
Model psuedo <i>R</i> square	.407			

a discharge. Having livestock and living in Idaho (versus Utah or Wyoming) were also factors related to higher success probability for reaching a discharge.

Research Question 4 was designed to determine which, if any, financial variables were associated with the likelihood of discharge. A logistic regression model was run using the financial variables obtained from the bankruptcy files (this second model will be called Model 2). The normality of these variables were examined before they were used in the model. All the original financial variables had to be logged because they were skewed. Log transformation is a commonly used statistically procedure to correct for skewness. The variables included in the initial model were: log assets, log unsecured priority debt, log unsecured debt, log monthly expenses, and log number of creditors (Table 6). The backward procedure was used to remove variables that show no statistical

Table 6

Financial Variables Associated with Discharge (N = 158; Model 2)

Variables	<i>B</i>	S.E.	Exp(<i>B</i>)	Sign.
Logexpenses2	-2.347	1.186	.096	.048
Logcreditors2	-3.808	1.453	.022	.022
Model pseudo <i>R</i> square	.278			

significance with only two variables remaining: log monthly expenses, and log number of creditors. The explanatory power of the model yielded a pseudo *R* square of (.278). This model showed that those farmers that have fewer creditors and lower monthly expenses are more likely to reach a discharge.

Research question 5 was designed to determine what combination of socio-demographic and financial variables, if any, are associated with discharge? Model 3 (Table 7) combined the socio-demographic characteristics of Model 1 and the financial characteristics of Model 2 to assess which variables were associated with discharge. The variables that were included in the model were: plan tenure, livestock present, Idaho, logexpenses2, and logcreditors2. After three steps, the final model kept the variables: plan tenure, Idaho, and Log creditors. This model showed that the longer the debtor stayed in their repayment plan the more likely they would reach a discharge. Cases that were filed in Idaho and had fewer creditors were also more likely to reach a discharge. The pseudo *R* square was .342.

Table 7

Combined Statistically Significant Demographic and Financial Variables (N = 158; Model 3)

Variables	B	S.E.	Exp (B)	Sign.
Plan tenure	.058	.012	1.060	.000
Idaho	1.309	.636	3.702	.040
Logcreditors2	-1.324	.810	.266	.102
Model pseudo R square	.342			

To further answer research question 5, another model was formed. A backward logistic regression model was also run using all the socio-demographic and financial variables initially input into the two respective backward logistic regression analyses. The variables that were included in the model were: plan tenure, marital status, filing status, livestock present, farm tenure, farm type, the state of Idaho, the state of Utah, log assets2, log unsecured priority, log unsecured non priority, log monthly expenses, and log creditors. This model allowed each of these variables to exhibit their unique contribution to prediction of log-odds of discharge of debt. The results for this model are shown in Table 8.

After 11 steps, the variables that remained in the model were: plan tenure in years, log unsecured non priority debts, and log monthly expenses. Plan tenure was a crucial variable associated with the likelihood of a discharge because it was consistently statistically significant in three of five logistic

Table 8

Combination of All Variables from Both Socio-demographic and Financial Domains (Model 4)

Variables	<i>B</i>	S.E.	Exp (B)	Sign.
Plan tenure	.793	.342	2.209	.020
Logunsecnon2	-3.426	1.387	.033	.013
Logexpenses2	-5.434	2.497	.004	.030
Model pseudo <i>R</i> square	.588			

regression models. This means that the longer the farmer stayed in the repayment plan, the more likely they would reach a discharge. This model also showed that farmers with less unsecured, nonpriority debts, and lower monthly expenses were more likely to reach a discharge. There were several variables that were statistically significant throughout most of the analysis, but did not remain in the final model. One of these, marital status, was significant until step number 10, the step before the final results. Livestock was also very close to being included in the final model and remained significant until step nine.

Tables 10-13 are the financial and socio-demographic characteristics of the filers in the three stages of Chapter 12 bankruptcy. The groups are the discharged debtors, dismissed/converted, and cases that were still in progress. These tables are provided in Appendix B.

Summary of Findings

This chapter presents the results from descriptive and logistic regression analyses to address the five questions asked in the study. The first two questions were to determine the socio-demographic and financial characteristics of the debtors filing for Chapter 12 bankruptcy. This was accomplished using descriptive statistics where the mean, median, and standard deviation were computed for the continuous variables and frequencies were run for the dichotomous and string variables.

The next step was to test the variables to assess which attributes were associated with achieving a discharge. Four logistic regressions were used to answer: what financial and socio-demographic variables uniquely explain the variance in the likelihood of either dismissal or discharge in the Chapter 12 process. Model 1 reported that three variables, plan tenure years, livestock present, and living in Idaho, are associated with completing a Chapter 12 plan successfully. The second logistic regression model (Model 2) examined the financial variables that lead to a discharge. Model 2 showed that the lower the monthly expenses and the lower number of creditors helped the debtors reach a discharge. Research question 5 included the third model that combined Model 1 and Model 2 to examine which variables best explained the variance between the two groups of variables. The variables that were statistically significant were plan tenure, Idaho filers, and logcreditors.

CHAPTER V

DISCUSSION AND IMPLICATIONS

Discussion

This chapter presents the principle findings and conclusions of this study. Limitations of the study are presented and conclusions from the logistic regression results and policy applications discussed. Recommendations for future research and policy will be applied to future Chapter 12 debtors.

The principle finding in this study is that filers with longer repayment plans and those that live in the state of Idaho and Wyoming are more likely to attain a discharge. The local legal culture of Idaho and Wyoming may promote plans that are more feasible and the debtors are more likely to reach a discharge. However, for debtors who were from Utah and reached a discharge, they were more likely to reach a discharge in a shorter time than those living in Idaho or Wyoming. Stam et al. (2003) found that debtors that started making payments are more likely to assure that their plans are successful. Discharge is the most common outcome for cases open for a number of years. Debtors who have reached a Chapter 12 confirmation are more likely to continue on a payment schedule and receive a discharge.

It was found that 38 cases (24%) were dismissed within the first year of filing. Forrest Hymas, Chapter 12 bankruptcy trustee for southern Idaho, said that Chapter 12 is unique because the farmer can choose to step out of the plan at any time. However, to exit the plan, the unsecured creditors must be repaid

the amount they would have received if the farmer had liquidated with a Chapter 7 bankruptcy. There are many reasons that a case would terminate within the first year. When the farmer submits the Chapter 12 plan, the feasibility of the plan is assessed, and sometimes it is feasible for a farmer to complete a repayment plan within one year. It could be that the farmer had fewer creditors and was able to negotiate with them and reach a favorable outcome for both parties. The farmer may sell some of his property in order to pay creditors sooner than planned. Common problems for cases that fail during the first year include dissolution of a marriage, deaths in the family, and crop failures (Hymas, personal communication, April 29, 2008 and May 2, 2008).

Another key finding for this study was that farmers who own livestock are more likely to reach a discharge. Livestock is an important asset for farmers and ranchers, especially if the sale of the animals will generate short-term operating capital. There were 75 (47.5%) farmers who reported that they owned livestock; 83 (52.2%) farmers were purely crop farmers. There are no other studies that examine livestock. This variable was used because livestock can be a significant part of a farmer's assets.

The number of creditors was negatively associated with discharge. Those cases with fewer creditors were more likely to reach a discharge. Many farm creditors will agree to work out payment plans with the debtors to prevent them from filing (Porter, 2005). The mere shadow of Chapter 12 bankruptcy may assist farmers in reorganizing their debts. A survey of attorneys by Faiferlick and Harl (1998) who represented distressed farmers or agricultural creditors, reported

that one-third to one-half of disputes were negotiated successfully. Chapter 12 was an influencing factor in 58.06% of those negotiations (Porter).

The monthly expenses that a farmer has also play a significant role in whether the farmer is able to reach a discharge. Those farmers who have lower monthly expenses are more successful in their plans. This variable has a combined significance with the unsecured non-priority debts that a farmer has and the tenure of the plan. Those farmers with lower unsecured debts and a longer plan are more likely to reach a discharge. These observations were gleaned from the model that included all the socio-demographic and financial variables that were included in the logistic model. This model was compared to the model that only contained those variables that were significant from the first two models run. Plan tenure was statistically significant in both models but yielded different significant variables.

Patrick Geile, a bankruptcy attorney in Idaho, said that Idaho has a good track record in all repayment plan Bankruptcy Chapters. "There are not a lot of debtors that file for bankruptcy in Idaho that don't succeed." He also said that debtors rarely use the formal mediation process, because negotiations are made between the debtor's attorney and the creditors. Like most bankruptcy filings, Chapter 12 debtors only file for bankruptcy as a last resort. The farmer can only negotiate with creditors for so long before the debtors have no choice but to file for bankruptcy. This may be a period of months to years. According to Geile most farmers don't want to file for bankruptcy (P. Geile, personal communication, April 29, 2008). According to Hymas, farmers are private people and do not want

to admit that they are having financial problems. "If a farmer has to file for bankruptcy it can be a frightening time for them and they may lose confidence." (personal communication, April 29, 2008 and May 2, 2008).

Val Farmer, a rural psychologist, who worked with farmers in South Dakota during the farm crisis of the 1980s, said that farmers are raised with the ethic of solving their own problems (Farmer, 1994). Farmers may be afraid to talk about their financial problems and may isolate themselves from the community. To make ends meet, many farmers will depend on longer hours, their spouses and their own off-farm income, or by cutting corners. Farmers pride themselves on being self-sufficient and showing emotions during a financial crisis is a threat to a farmer's psychological well-being (Farmer). Showing emotions during times of trouble is equated with showing weakness and may affect relationships between couples as well as with members of the community. Farming couples may disagree on the method used to alleviate their financial crisis and this may interfere with their ability to reach out to each other at the most critical time. Farming families may choose to avoid their creditors, who are often members of their community, because they don't want to show that they are not in control of their financial situation. The time away from the community allows the family some breathing room, allowing them to formulate a plan of attack for the future (Farmer).

Limitations

This study was to assess the characteristics of successful Chapter 12

filers that were able to reach a discharge. One limitation is that the data was restricted to only information listed in the bankruptcy court files. The data only provided a snapshot of the debtor's situation at the time of filing and does not provide reasons for filing. Secondly, the study was designed to include all of the Mountain States (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming). After obtaining permission from all of states for use of the PACER system it was discovered that the only states that had complete data for all desired dates were Utah, Idaho, and Wyoming. Thus, the sample size was reduced from 225 possible cases to 158. Due to such a small number of cases, some of the originally proposed procedures couldn't be pursued, and some variables had to be reduced from five categories to three. There were also many cases that had missing data.

Another limitation is that bankruptcy files don't include possible trigger events. Like most bankruptcy studies, researchers are limited to what is listed in file and no open-ended questions are answered by the debtors at the time of filing. The ideal bankruptcy study would include the bankruptcy file and a questionnaire that lists more complete demographic information and the trigger events associated with the bankruptcy filing. Bankruptcy files list the creditors owed and many of the creditors listed were creditors that were not associated with the farming operation. Many times it is debt that is routinely classified as consumer debt that causes the farmer to file for bankruptcy (Porter, 2005). These debts may include medical, credit card, and so forth.

Suggestions for Future Research

The results from this study imply that there is a need for more research on Chapter 12 bankruptcy. Idaho is the state with the most farms of the three states studied, and as a result, Idaho would be expected to have the most Chapter 12 filings. It would be beneficial to compare the years that had the most bankruptcy filings to what the economic conditions were at the peaks in filing. What were the bankruptcy triggering effects for farmers in those years?

The models in this study were exploratory and could be enhanced by using more robust statistics for the data. By including all variables in future models it would expand the scope of the study.

A future study could focus just on debtors in Idaho, and include an open-ended questionnaire distributed to farm bankruptcy filers. This would allow researchers, financial counselors, and farm lenders to realize what pushed the debtors over the edge. The survey should also include a section to assess who they owed and if they were owed money. The filing may have been because the debtors were owed money and not the other way around. Farmers may rely on credit cards to keep farming, especially when the bank will not loan them any more money. Credit card statements could be analyzed to assess the role that credit cards played in everyday finances.

The Chapter 12 plan was not examined in this study and should be examined in future research. The plan gives many clues into what the farmer will be doing in the near future, and may even be able to assess whether the farm

could survive, be subdivided, or be sold off completely.

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APPENDICES

Appendix A: Bankruptcy Process

The first step in the bankruptcy process is filing a petition with the federal bankruptcy court. Once the case has been filed, the debtor will be protected by an automatic stay. This restricts creditors from pursuing debtors for debts owed. In Chapter 12 bankruptcy, co-debtors are also protected if listed in the bankruptcy file. The debtor then must file the following documents with the courts: (1) schedules of assets and liabilities, (2) a schedule of current income and expenditures, (3) a schedule of executory contracts and unexpired leases, and (4) a statement of financial affairs. The statement of financial affairs contains a list of all creditors and the amount owed to each. The schedules also contain any liens or judgments that the debtor may have against them. A lien gives the creditor the right to repossess the property of a debtor as security or payment for a debt (Mecham, 2005). A judgment is a formal decision made by a court following a lawsuit. The debtor's income is listed, including the source and amount, and how frequently they receive each source of income. The property that the debtor has at the time of filing is carefully listed in the file and exemptions are identified. Exempt property is property that is protected by the Federal Bankruptcy Code that cannot be seized by unsecured creditors. All monthly expenses associated with the farm operation and daily living expenses are determined (e.g., food, shelter, utilities, taxes, transportation, medicine, feed, fertilizer; Mecham, 2005).

Definitions

Filing Fee

As of October 17, 2005 the filing fees for a Chapter 12 bankruptcy were a \$200 case filing fee, and a \$39 miscellaneous administration fee (Mecham, 2005). These fees are paid to the clerk of the court. These fees may be paid as a lump sum or broken up into payments. Chapter 12 debtors cannot be forced to file for bankruptcy by their creditors.

Automatic Stay

The automatic stay is an injunction that stops all lawsuits, foreclosures, garnishments, and all other collection efforts against the debtor once the bankruptcy petition is filed. This gives debtors some relief from some bills, and allows them to re-examine their finances.

Meeting of Creditors or 341 Hearing

The debtor will have between 20 and 35 days after filing to prepare for the meeting of creditors, also called a 341 hearing. Each case is assigned to an impartial trustee that will officiate in the bankruptcy proceedings. After the 341 hearing the debtors, trustees, and interested creditors will meet to either confirm or reject the plan. Unsecured creditors will have 90 days after the 341 hearing to file claims with the court. After the plan is confirmed, the debtor will have to make monthly payments to the trustee to keep their bankruptcy protection in place, with plans lasting from three to five years. Secured debt payments may

exceed the 3-5 year plan if provisions are made between the debtor, court, and creditor (Mecham, 2005). The farmer has one year from when he/she filed for bankruptcy to make the first payment. This allows the farmer to establish a better cash flow for the coming year. Some farmers will make good faith payments to creditors during the payment moratorium to assure creditors that the farmer will make good on the debts owed (F. Hymas, personal communication, April 29, 2008 and May 2, 2008).

Repayment Plan

Drafting a viable Chapter 12 plan is a complicated process. These plans can be for three to five years, after which the debtor may receive a discharge. The repayment plan will need to include: payments to secured creditors, operating expenses for the farm, and payments to unsecured debtors. The plan is presented to the court-appointed trustee who evaluates the plan to determine whether the plan is realistic and will be confirmed or dismissed at the 341 hearing. Confirmation of plans is contingent on the trustee and the farmer because creditors do not vote on Chapter 12 plans (Mecham, 2005).

Cram Down

Secured creditors in a Chapter 12 plan are paid in full. However, their claims are crammed down and limited to the amount of their collateral's fair market value, which is commonly different than replacement value. Any remaining balance becomes unsecured debt. This is the most frequent dispute when negotiating a Chapter 12 case because creditors try to increase the value

of the disputed item, while the debtor may try to undervalue the property to lower payments. The bankruptcy court may intervene in this instance and perform appraisals and take testimonies. In essence the farmer attempts to lessen the amount that they owe to make it more manageable (State Bar of Wisconsin, 2007).

Confirmation

A bankruptcy judge's approval of a plan of reorganization or liquidation in Chapter 12 repayment plans is called confirmation.

Secured Debts

Secured debts are items purchased under a written agreement that the title will not be passed to the buyer until full payment is made. The goods purchased serve as collateral which the creditor can repossess for non-payment. Examples include tractors, livestock, or land.

Unsecured Priority Debts

Unsecured priority debts do not have collateral and cannot be discharged. Some examples include: fines imposed by a criminal court, student loans, child support and alimony, and most taxes.

Unsecured Non-priority Debts

Unsecured non-priority debts include credit card debt, medical expenses, utility bills, and similar debts. These debts are the most commonly discharged debts. Creditors holding these claims receive minimal amounts in bankruptcy

proceedings.

Disposable Income

Husbands and wives can file as individuals or jointly, but all information about the non-filing spouse will be collected to determine the amount of disposable income that can be devoted to the repayment plan. The definition of disposable income is income not reasonably needed to support the debtor and their dependents, and represents the amount available for making payments needed to continue, preserve, and operate the debtor's business. When a debtor files for Chapter 12 the amount of disposable income the debtor has is calculated and paid to the trustee to disperse to the creditors listed in the statement of financial affairs. This amount is based on the current monthly income of the debtor. This amount is the average monthly income received during the six months prior to the bankruptcy filing. This includes the amount contributed to household living expenses.

Dismissal

If payments are not paid, the trustee can move to dismiss the case. This forces the debtor to re-file under Chapter 12 or they may convert their case to a Chapter 7 bankruptcy.

Discharge

If the repayment plan is successful the debtor will be awarded a discharge of all remaining unsecured debt.

Exempt Property

This is property that is owned by the debtor that is protected from unsecured creditors. Exemptions vary by state. Exemptions for property that is used by the debtor to make a living are called tools of the trade. Some exemption amounts may be exceeded by just one piece of equipment. Table 9 shows the exemption levels in Utah, Idaho, and Wyoming.

Table 9

Exempt Property for Utah, Idaho, and Wyoming

	Homestead	Personal Property	Tools of Trade	Misc.
Utah	\$20,000 primary residence (may be doubled) \$5,000 non-residence	\$4,500 household items, restitution for injury or wrongful death	\$3,500 includes military issued items	Alimony and child support Property of business or partnership
Idaho	\$50,000	\$10,000	\$1,500 Uniforms for military or employment	Alimony and child support Liquor licenses
Wyoming	\$10,000 in real property, \$6,000 in trailer (may be doubled for spouse)	\$2,000 per person for personal items. \$3,400 other items	\$2000	Liquor licenses & malt beverage permits

Source. Martin & Zinman, 2006.

Appendix B: Statistical Tables

Table 10

Descriptive Statistics for Debt and Asset Characteristics for Discharged Debtors`

Variable	Mean (median)	Standard deviation	Minimum	Maximum
Debts secured	\$524,451 (\$478,647)	\$290,309	\$16,000	\$123,731
Unsecured priority	\$21,248 (\$82,000)	\$52,483	\$538	\$247,881
Unsecured non-priority	\$103,584 (\$68,856)	\$98,907	\$3,354	\$371,248
Equipment debt	\$106,306 (\$61,301)	\$156,376	\$1,000	\$793,392
FmHa debt	\$221,734 (\$221,734)	\$308,347	\$3,700	\$439,768
Total debt	\$606,884 (\$496,468)	\$427,711	\$122,371	\$1,396,729
Plan tenure years	3.98 (47)	14.63	1.30	7.08
Farm tenure (years)	2.40 (24)	10.73	2	43
Creditors	22.08 (16)	15.983	4	70
Assets	\$654,780 (\$471,891)	\$589,643	\$40,205	\$2,877,055
Real property (acres)	322.97 (177)	435.50	2	2,280
Real property value	\$452,286 (\$317,502)	\$480,402	\$17,595	\$2,640,000
Livestock value	\$106,236 (\$317,502)	\$150,752	\$500	\$544,700

(table continues)

Variable	Mean (median)	Standard deviation	Minimum	Maximum
Crop value	\$34,421 (\$10,296)	\$40,306	\$1,000	\$119,000
Permit value	\$97,000 (\$97,000)	\$97,000	\$97,000	\$97,000
Equipment value	\$122,333 (\$78,825)	\$132,668	\$4,550	\$685,047
Monthly income	\$5,878 (\$2,100)	\$10,908	\$700	\$59,000
Monthly expenses	\$3,944 (\$1,725)	\$6,734	\$700	\$31,006

Table 11

Socio-demographic and Financial Characteristics for Dismissed and Converted Debtors

<i>Variable</i>	<i>Mean (median)</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Debts secured</i>	\$575,787 (\$514,995)	\$388,950	\$22,784	\$1,618,376
<i>Unsecured priority</i>	\$11,786 (\$8,679)	\$14,288	\$200	\$61,700
<i>Unsecured non-priority</i>	\$147,524 (\$80,490)	\$190,331	\$864	\$895,087
<i>Equipment debt</i>	\$141,322 (\$74,347)	\$167,403	\$5,500	\$801,990
<i>FmHa debt</i>	\$75,304 (\$61,488)	\$27,934	\$56,970	\$107,454
<i>Total debt</i>	\$714,087 (\$665,030)	\$450,508	\$119,399	\$196,306
<i>Plan tenure years</i>	2.02 (1.42)	1.91	.16	8.75
<i>Farm tenure (years)</i>	18.53 (19)	12.74	0	57
<i>Creditors</i>	23.89 (21)	14.01	2	65
<i>Assets</i>	\$698,485 (\$458,817)	\$789,787	\$10,075	\$518,360
<i>Real property (acres)</i>	391.17 (189)	546.97	1	2,569
<i>Real property value</i>	\$472,047 (\$284,200)	\$633,666	\$15,000	\$481,000
<i>Livestock value</i>	\$92,734 (\$32,000)	\$130,508	\$300	\$540,000

(table continues)

<i>Variable</i>	<i>Mean (median)</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Crop value</i>	\$148,320 (\$49,200)	\$338,308	\$3,000	\$2,000,000
<i>Permit value</i>	\$21,900 (\$21,900)	\$14,000	\$12,000	\$31,800
<i>Equipment value</i>	\$138,244 (\$77,820)	\$158,087	\$200	\$718,400
<i>Monthly income</i>	\$7,358 (\$2,750)	\$15,131	\$600	\$105,561
<i>Monthly expenses</i>	\$5,569 (\$2,353)	\$9,814	\$511	\$52,215

Table 12

Socio-demographic and Financial Characteristics for Cases Still in Progress

Variable	Mean (median)	Standard deviation	Minimum	Maximum
Debts secured	\$526,070 (\$396,992)	\$327,780	\$138,928	\$1,176,665
Unsecured priority	\$20,977 (\$6,748)	\$30,496	\$916	\$84,254
Unsecured non-priority	\$131,898 (\$80,106)	\$154,320	\$6,708	\$623,275
Equipment debt	\$118,238 (\$51,900)	\$161,295	\$2,200	\$585,097
Total debt	\$676,153 (\$602,883)	\$413,916	\$269,779	\$1,491,927
Farm tenure (years)	19.70 (21.50)	12.11	2	41
Creditors	27.33 (29)	15.38	5	60
Assets	\$679,036 (\$591,290)	\$447,374	\$159,479	\$1,669,027
Real property (acres)	343.17 (153.50)	420.83	5	1,410
Real property value	\$410,250 (\$235,550)	\$368,415	\$62,400	\$1,155,000
Livestock value	\$105,490 (\$82,200)	\$118,363	\$100	\$360,000
Crop value	\$42,877 (\$27,000)	\$48,158	\$,107	\$125,003
Equipment value	\$140,690 (\$79,090)	\$173,430	\$7,000	\$667,650
Monthly income	\$5,821 (\$2,679)	\$8,308	\$600	\$30,701
Monthly expenses	\$4,975 (\$2,519)	\$7,509	\$600	\$27,835

Table 13

Socio-demographic Characteristics for All Debtors

Independent variables	Discharged	Dismissed or converted	Cases still in progress
Marital status			
Now married	37	52	9
Other	13	41	5
Filing status			
Joint	31	48	9
Other	19	45	6
Off-farm employment			
Yes	28	42	7
No	21	51	8
Livestock present			
Yes	27	39	9
No	23	54	6
Farm specialty			
Farmers	28	53	10
Others	22	40	5
Farm type			
Non-corporate	39	74	14
Corporate	11	19	1
State			
Utah	6	21	1
Idaho	38	67	14
Wyoming	6	5	0
FmHa loans present			
Yes	3	3	n/a
No	47	93	n/a