

# The Realities of Personal Bankruptcy under Chapter 13

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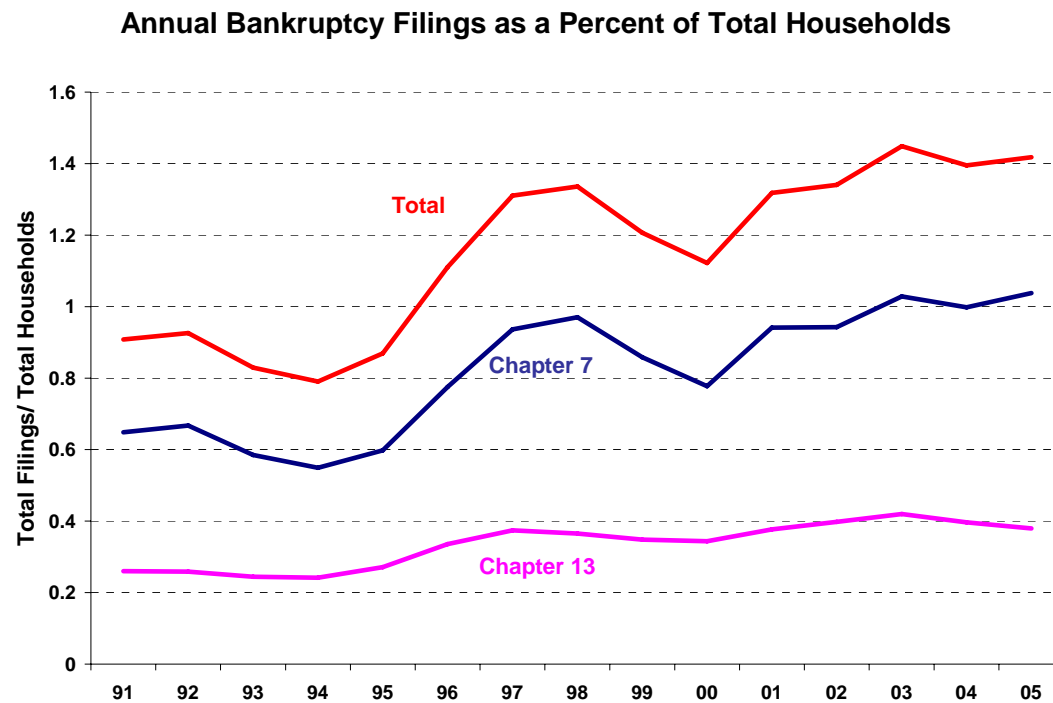
Incomplete and Preliminary

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# Introduction and Motivation

- Personal bankruptcy filing rates have increased sharply in the past two decades.



## Introduction and Motivation

- The dramatic increase in personal bankruptcy filings resulted in the enactment of extensive reform of U.S. consumer bankruptcy laws in 2005 (“Bankruptcy Abuse Prevention and Consumer Protection Act of 2005”)
  - The core of the legal reforms is to impose “means test” on would-be-filers so that debtors with sufficient income would file under Chap. 13 and complete repayment plan out of future income
- Yet very little is known about what debtors and creditors accomplish in Chapter 13 cases or how well the Chapter 13 system serves its intended purposes

## Introduction and Motivation

In short, the bankruptcy system operates behind a veil of darkness created by the lack of reliable data about its operations. The lack of information about 'what is going on' in the bankruptcy system leads to a distrust of its results – a belief by some that creditors, debtors and professional within the system are all somehow taking advantage of one another and the public at large, and that the system suffers from widespread fraud, abuse and inefficiency.

– *1997 National Bankruptcy Commission*

## Goal of the Paper

- We provide one of the first extensive evidence and analysis on the actual performance of Chapter 13.
  - We construct a unique data set using information gathered from court documents
  - We construct four measures that capture the performance of Chapter 13 bankruptcy
  - We conduct econometric analysis to identify factors that are important to the actual outcome of Chapter 13 cases

## Preview of Main Results

- The reality of Chapter 13 personal bankruptcy seems grim
  - Zero recovery rate for both median secured and unsecured creditors
  - Only a few debtors are successful in getting discharged
  - Many debtors fail without even getting their plans confirmed
  - Significant refiling rate
- No strong evidence on the effectiveness of “means testing” in improving the success of Chapter 13 bankruptcies

# Literature Review

- On factors leading to personal bankruptcy
  - Buckley and Brinig (1998), Domowitz and Sartain (1999), Fay, Hurst and White (2002), Gross and Souleles (2002), Nelson (1999)
- On impact of personal bankruptcy filing
  - Elul and Subramanian (2002), Filer and Fisher (2005), Grant (2003), Gropp, Scholz, and White (1997), Han and Li (2006), Lin and White (2001), Repetto (1998), Musto (2004)
- Most related: Norberg and Velkey (2006)

## Some Institutional Details

- Personal bankruptcy in the U.S. Prior to 2005
  - Two chapters: Chapter 7 (“liquidation”) and Chapter 13 (“adjustment of debts of consumers with regular income”)
  - Bankruptcy and chapter choice decisions are voluntary
- Creditors legal remedies outside of bankruptcy
  - Secured creditors: foreclose on the property
  - Unsecured: add fees or interests, send letters or telephone, sell debt to collecting agency, wage garnishment, seize bank account or foreclose the house (very costly)



## Key Features of Chapter 13 Bankruptcy

- Debtor must propose a plan devoting all excess income to the payment of claims
- For the plan to be confirmed, it must be at least 3 years but no more than 5 years; cure any default on secured debt; and be of good faith (payment  $\geq$  those under Chapter 7)
- Confirmed plans are not renegotiation proof.

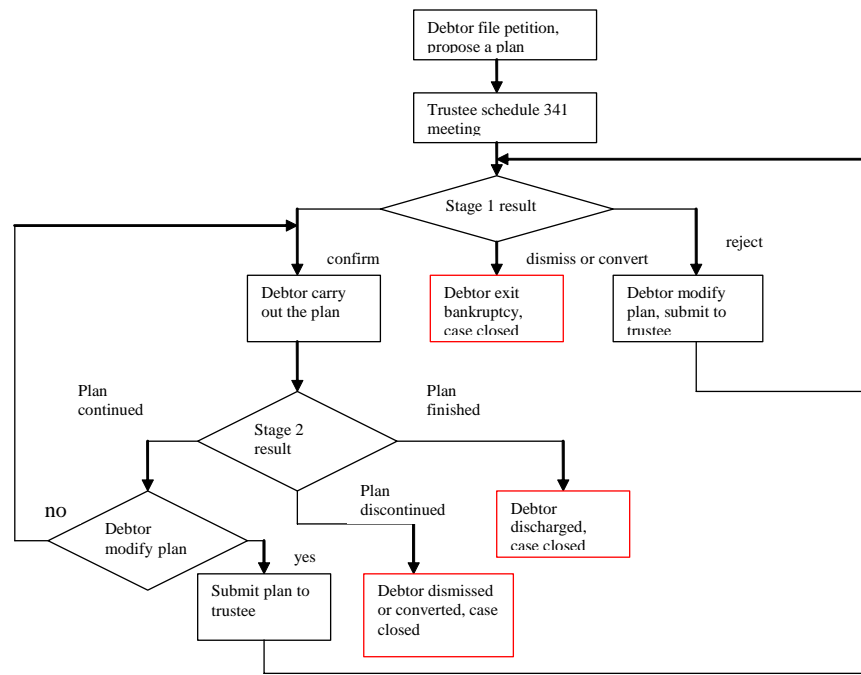


Figure 1. Chapter 13 decision tree

## Data Construction

- Main source: Federal Appellate District and Bankruptcy Courts via PACER
  - Listing of all parties and participants
  - Chronology of the dates of case events in the case record and claims registry
  - Types and imaged copies of documents filed for specific cases
- Supplemental source: Federal Bankruptcy Courts also via PACER
  - Bankruptcy history between 1980 and April 1996

## Data Sample

- All Chapter 13 personal bankruptcy filings in the Delaware District Court between 08/01/2001 and 08/01/2002. Total filings: 1022 + 71 converted to Chapter 7. Delete cases with incomplete filings.

Table 1. Sample Data Description

	Total	Non-converted-to-7	Converted-to-7
Total filing	973	904	69
Terminated	771	703	68
Discharged	340	277	63
Dismissed	431	426	5
Open	202	201	1

Note: The status of the cases are as of September 18, 2006.

# What Uses Chapter 13?

- 14% filers have above state median income, high home ownership rate, low unemployment rate; heavily indebted, experienced income loss, pending foreclosure

Table 2. Summary Statistics: The Debtors

Variable	All cases			State or national		
	Mean	S.d.	Median	Mean	S.d.	Median
Family size	2.68	1.54	2.00	2.50		
Home ownership	0.87	0.34		0.72		
Pending lawsuits	0.53	0.73	0			
Foreclosure	0.22	0.42	0	3.5e-03		
Filed before	0.22	0.41	0	2.5e-03		
Self-employed	0.05	0.21		0.05		
Unemployed	5.14e-03	0.07		0.05		
Monthly income (\$)	2,902	1,695	2,600	4,066		4,197
Total assets (\$)	116,918	101,365	102,202	451,734	2,122,872	136,510
Total debts (\$)	139,088	98,381	120,376	54,514	115,549	14,300
Secured (\$)	107,011	78,656	99,000	52,677	114,713	12,100
Unsecured (\$)	28,773	43,506	16,269	1,837	5,725	0
Debt/annual income	4.35	5.42	3.74	1.11	11.54	0.38
Unsec. debt/annual income	0.92	1.52	0.54	0.07	1.11	0

## Chapter 13 in Action – the Plans

- 5 yr plan the norm; important fraction retrieve money from assets; low repayment to unsecured creditors

Table 3. Summary Statistics: The Plans

Variable	All cases			Terminated		
	Mean	S.d.	Median	Mean	S.d.	Median
<b>First proposed</b>						
Payment length (months)	55	10	60	54	11	60
Average monthly payment (\$)	374	285	304	375	290	304
Additional resources from houses	3.41e-02	0.18	0	3.68e-02	0.19	0
Additional resources from cars	2.64e-02	0.16	0	2.69e-02	0.16	0
Pay ratio to unsecured creditors	0.31	0.11	0.15	0.31	0.12	0.15
<b>First confirmed</b>						
Payment length	55	9.70	60	54	10.52	60
Average monthly payment (\$)	383	288	326	388	303	326
Additional resources from houses	7.00e-02	0.26	0	7.77e-02	0.28	0
Additional resources from cars	8.81e-02	0.28	0	8.27e-02	0.28	0
Pay ratio to unsecured creditors	0.21	0.30	6.65e-02	0.21	0.21	6.50e-02
Wage order	0.59	0.49		0.58	0.49	0
Number of Modifications	0.47	0.83	0	0.63	0.91	0

# Measuring the Performance of Chapter 13 Bankruptcy

- Guidelines: maximizing returns to creditors and debtors
  - Recovery rates for unsecured creditors should match or exceed those obtained under other solutions to borrower default;
  - All confirmed cases should eventually be discharged;
  - Multiple filings should be the exception, not the rule, especially for those who have previously obtained a discharge.
- Performance measures
  - Repayment rate; rate of discharge; rate of dismissal without confirmation; repeated filing rate

# Chapter 13 Outcomes: A Rather Grim Picture

Table 4. Summary Statistics: Final Outcomes – 1

Variable	whole sample	confirmed & terminated	terminated
Rate of dismissal without a confirmation	0.18		0.23
Rate of discharge after confirmation		0.47	0.36
Rate of dismissal after confirmation		0.53	0.41
Repeated filing rate		0.24	0.30

Table 5. Summary Statistics: Final Outcomes – 2

Variable	Discharged			Terminated		
	Mean	S.d.	Median	Mean	S.d.	Median
Payments to the face value of debt						
Secured	1	0		0.22	0.39	0
Mortgage arrearage	1	0		0.32	0.47	0
Priority	1	0		0.36	0.58	0
Unsecured	0.41	0.39	0.25	0.16	0.33	0
Payments to total disbursement						
Secured	0.19	0.28	0	0.15	0.25	0
Mortgage arrearage	0.21	0.27	0.02	0.24	0.29	0.07
Priority	0.07	0.16	0	0.08	0.17	0
Unsecured	0.37	0.33	0.25	0.20	0.30	0
Attorney fees	6.43e-02	9.10e-02	3.93e-02	0.18	0.25	6.61e-02
Trustee expenses	5.42e-02	5.57e-02	6.77e-03	5.21e-02	1.54e-02	5.72e-02



## Preliminary Econometric Analysis: Model

- Notation:  $Z$ : filer characteristics,  $P$ : initial proposed plan information,  $Y_c$ : confirmation;  $Y_d$ : discharge;  $Y_p$ : repayment rate;  $Y_f$ : refiling
- $\Pr(Y_c = 1|Z, P) = F_c(Z, P)$
- $\Pr(Y_d = 1|Z, P, Y_c) = \begin{cases} F_d(Z, P), & \text{if } Y_c = 1, \\ 0, & \text{if } Y_c = 0. \end{cases}$
- $E(Y_p|Z, P, Y_c) = \begin{cases} F_p(Z, P), & \text{if } Y_c = 1, \\ 0, & \text{if } Y_c = 0. \end{cases}$
- $\Pr(Y_r = 1|Z, Y_c) = \begin{cases} F_r(Z), & \text{if } Y_c = 1, \\ \tilde{F}_r(Z), & \text{if } Y_c = 0. \end{cases}$

## Preliminary Econometric Analysis: Model

- Unconditional probabilities

$$\Pr(Y_d = 1|Z, P) = \Pr ob(Y_d = 1|Z, P, Y_c = 1) * \Pr ob(Y_c = 1);$$

$$E(Y_p|Z, P) = E(Y_p|Z, P, Y_c = 1) * \Pr ob(Y_c = 1);$$

$$\Pr(Y_r = 1|Z, P) = \Pr ob(Y_r = 1|Z, P, Y_c = 1) * \Pr ob(Y_c = 1) + \Pr ob(Y_r = 1|Z, P, Y_c = 0) * \Pr ob(Y_c = 0)$$

## Preliminary Econometric Analysis: Summary of Results

- Income, expense, and debt are important factors for Chapter 13 outcomes. Whether income above state median or not also important for confirmation, conditional repayment rate, and refiling rate.
- Interestingly, attorney experience important for confirmation and conditional discharge rate, but not for conditional repayment and refiling rate.

## Preliminary Econometric Analysis: Results

- Factors important for confirmation: bankruptcy experience (-), attorney experience (+), attorney fee (+), self-employment (-), job tenure (+), total debt to asset (-), unsecured debt to total debt (+), herfindahl index for unsecured debt (-), herfindahl index for secured debt (-) proposed payment to income ratio when income above state median(+)
- Factors important for discharge conditional on confirmation: bankruptcy experience (-), household size (-), home ownership (+), attorney fee (+), monthly income (+), monthly income squared (-), monthly expense (-), monthly expense squared (+), herfindahl index of secured debt (-), proposed pay length (-)

## Preliminary Econometric Analysis: Results

- Factors important for repayment rate conditional on confirmation: job tenure (+), monthly income (+), monthly income squared (-), monthly expense (-), monthly expense squared (+), unsecured debt relative to total debt (-) proposed payment to income ratio if income above state median (+), proposed pay length (-)
- Factors important for refiling conditional on confirmation: bankruptcy experience (+), household size (+), home ownership (+), married (-), monthly income (-), monthly income squared (+), monthly expense (+), monthly expense squared (-), unsecured debt relative to total debt (-), herfindahl index of unsecured debt (+), proposed payment to income ratio if income is above state median income (-)

## Preliminary Conclusion

Our preliminary analysis casts some doubt on not only the effectiveness of changes incorporated in the 2005 Bankruptcy Reform Act but also on the effectiveness of Chapter 13 as a bankruptcy procedure at its current form.