

Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution

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Disclaimer: The views in this paper are those of the authors only and do not necessarily reflect the positions of the IRS or the Taxpayer Advocate

Background

- A statutory lien is established when Taxpayer fails to pay a federal tax assessment
- A Notice of Federal Tax Lien (NFTL) can be filed that will
 - Make the statutory lien public information
 - Help to establish priority over other secured creditors
 - Be in force until all unpaid amounts are resolved
- NFTLs act as an incentive for taxpayers to pay down outstanding debts, but may also have negative impacts on taxpayers' credit scores, as tax liens become public information
- To help IRS decide how much it should use NFTLs and which taxpayers to send them to, it's important to assess the effectiveness of the NFTLs and whether any alternative treatments might be preferable

Research Question

- How effective are NFTL and other treatment alternatives at motivating taxpayers to resolve their outstanding debt?
 - Focus on taxpayers with \$10K to \$25K outstanding balance due
- Taxpayers were randomly assigned to one of five treatment groups, including the control group
 - File standard Notice of Federal Tax Lien
 - Issue Collection Alternative Letter 5696C
 - Issue Reminder Notice 5701C
 - Issue 5701C first, then Monthly Reminder 5702C for nine months if no response
 - Control group with no contact
- Initially tracked case outcomes after 12 months
 - Pilot ran from April 2016-April 2017

Study Design

Pilot Group	Treatment	Number of Taxpayers Selected
Pilot 1	File traditional NFTL	2,996
Pilot 2	Issue Collection Alternative Letter 5696C	2,564
Pilot 3	Issue Reminder Notice 5701C	2,571
Pilot 4	Issue 5701C first, then Monthly Reminder 5702C for up to 9 months if no response	2,583
Pilot 5	Control group, no additional action taken	2,487

- Completely randomized design, taxpayers assigned by last two digits of TIN
- Study population: 13,201 Individual Master File taxpayers with balance due between \$10K-\$25K at beginning of the study
- New letters tested in pilot groups 2, 3, and 4 remind taxpayers of their outstanding balance due, including penalties and interest, and provide instructions for making payments, arranging CNC and offers in compromise, contacting TAS, etc.

Empirical Model

- OLS model for change in balance due (Δb) over the course of the pilot

$$\Delta b_1 = b_1 - b_0 - \alpha_1$$

b_1 = Natural log of entity balance for taxpayer at end of pilot

b_0 = Natural log of entity balance for taxpayer at start of pilot

α_1 = Sum of initial module balances for previously identified delinquent returns assessed during the one-year pilot

- Model Change in Balance as

$$\Delta b_1 = X\beta + \beta_1 T_1 + \beta_2 T_2 + \beta_3 T_3 + \beta_4 T_4 + \varepsilon$$

X = Vector of controls

$T_1 - T_4$ = Dummy indicators for four treatment groups

Modeling Likelihood of Paying Down Balance

- Ordinal logistic model to assess the chances of a taxpayer belonging to one of three outcome categories:
- Model outcome R_1 as

$$R_1 = \begin{cases} 0, & \text{if } b_1 > b_0 + \alpha_1 \\ 1, & \text{if } b_1 \leq b_0 + \alpha_1 \text{ and } b_1 \neq 0 \\ 2, & \text{if } b_1 = 0 \end{cases}$$

- Assume probability of observing a value of R_1 determined as follows, where ϕ is the logistic cumulative density function

$$P(R_1 = 2) = \phi(aX + a_1T_1 + a_2T_2 + a_3T_3 + a_4T_4)$$

$$P(R_1 = 1) = \phi(aX + a_1T_1 + a_2T_2 + a_3T_3 + a_4T_4 + c) \\ - \phi(aX + a_1T_1 + a_2T_2 + a_3T_3 + a_4T_4)$$

$$P(R_1 = 0) = 1 - \phi(aX + a_1T_1 + a_2T_2 + a_3T_3 + a_4T_4)$$

Control Variables

- Prior ACS contacts
- Ability to pay: Ratio of annual income to balance due
- Major source of assessment
- Previous Taxpayer Delinquency Investigation prior to pilot
- Major source of income (wages, self-employed, etc.)
- Number of modules
- Prior NFTL
- Age of oldest module
- Added when extending analysis beyond first year:
 - Entering installment agreement after first year
 - Currently Not Collectible (CNC) status after first year

Ordinal Logistic Regression (Response: R)

Parameter	Parameter Estimate		
	Year One ($b_1 - b_0$)	Two Years ($b_2 - b_0$)	Year Two ($b_2 - b_1$)
N	13,201	13,201	12,352
Intercept ($R=2$ vs. $R=0$)	-2.554 ***	-1.787 ***	-2.396 ***
Intercept ($R=1$ vs. $R=0$)	-0.421 ***	-0.011	-0.101
NFTL	0.503 ***	0.425 ***	0.047
Letter1 (5696C)	0.100	0.119 **	0.038
Letter2 (5701C)	0.110 *	0.107 *	-0.004
Letter2_monthly (5702C)	0.162 **	0.186 ***	0.078
Ltr_LT11	-0.139 **	-0.146 **	-0.152 **
Ltr_LT16	-0.137 ***	-0.156 ***	-0.095 *
Ltr_other	0.001	-0.002	-0.062

Multinomial Logistic Regression

Year One (Response: R)

Year One ($b_1 - b_0$) (N=13,201)	Parameter Estimate $R_1=2$ (vs. 0)	Parameter Estimate $R_1=1$ (vs. 0)
Intercept	-1.119 ***	-0.803 ***
NFTL	0.885 ***	0.363 ***
Letter1 (5696C)	0.238 *	0.075
Letter2 (5701C)	0.215	0.090
Letter2_monthly (5702C)	0.217	0.170 **
Ltr_LT11	-0.217	-0.138 **
Ltr_LT16	-0.334 ***	-0.091 *
Ltr_other	0.136	-0.043

Marginal Treatment Effects for Logistic Models

Treatment		Marginal Effect Ordinal Models			Marginal Effect Multinomial Models		
Model	(vs. $R=0$)	$R=2$	$R=1$	$R=1$ or $R=2$	$R=2$	$R=1$	$R=1$ or $R=2$
Year 1 ($b_1 - b_0$) R_1	NFTL	0.034	0.084	0.118	0.048	0.063	0.111
	Letter 1 (5696C)	0.011	0.033	0.044	0.014	0.029	0.043
	Letter 2 (5701C)	0.010	0.032	0.043	0.012	0.030	0.042
	Letter 2 monthly (5702C)	0.014	0.040	0.054	0.011	0.045	0.056

- NFTL group roughly 11 percentage points likelier to fully or partially pay down balance after one year compared with control
- Calculations for letter treatments suggest they are about one third to one half as effective, though this may not be significant for all models

Linear Regression (Response: Δb)

Parameter	Parameter Estimate		
	Year One ($b_1 - b_0$)	Two Years ($b_2 - b_0$)	Year Two ($b_2 - b_1$)
Model			
N	13,201	13,201	12,352
Intercept	-1.537 ***	-2.521 ***	-1.414 ***
NFTL	-0.548 ***	-0.637 ***	-0.206 ***
Letter1 (5696C)	-0.112	-0.087	-0.038
Letter2 (5701C)	-0.080	-0.146 *	-0.076
Letter2_monthly (5702C)	-0.111	-0.169 *	-0.106
Ltr_LT11	0.085	0.149 *	0.051
Ltr_LT16	0.151 ***	0.225 ***	0.073
Ltr_other	-0.081 *	-0.046	0.048

Case Status Two Years After Start of Pilot (% by Pilot Group)

Pilot	Group 1 <i>NFTL</i>	Group 2 <i>Letter 1</i>	Group 3 <i>Letter 2</i>	Group 4 <i>Letter 2 Monthly</i>	Group 5 <i>Control</i>
Queue or Shelved	38.6%	43.3%	43.9%	45.8%	45.2%
Installment Agreement	14.7%	13.2%	13.7%	15.1%	12.3%
Resolved	14.3%	10.3%	10.9%	11.0%	8.3%
ACS or Field	19.7%	22.9%	20.5%	17.5%	24.1%
Currently Not Collectible (other than shelved)	3.3%	2.6%	2.4%	2.3%	2.2%
Other	9.4%	7.8%	8.6%	8.3%	7.8%

Comparison with Prior Work

Impact of NFTL (one year)	Predicted Impact on Change in Balance Due	Average \$ Change
Lien Pilot Study (IMF)	-55%	-\$7,701
“Fresh Start” Study—IMF	-23%	-\$3,379
“Fresh Start” Study—BMF	-40%	-\$4,103

- Prior studies of the same population using the 2011 “Fresh Start” threshold increase found about half the impact in terms of reduce unpaid balances for the IMF cases
- Different economic conditions during the 2011 “Fresh Start” study and the current 2016 pilot
 - Great Recession
 - Different levels of enforcement activity
- The pilot study does not include BMF cases
 - Larger impact for BMF in Fresh Start Study

Pooled Fresh Start Model (Response: Δb)

Parameter	Parameter Estimate
N	61,648
Intercept	-1.302 ***
Fresh	0.183 ***
NFTL	-0.174 ***
Pilot_NFTL	-0.382 ***
ACS Letter LT11	-0.009
ACS Letter LT16	0.044 **
ACS Letter—other	0.019

- Differences in time factors captured by “Fresh” variable, as well as between the NFTL treatments in different periods
- Likely more than just methodological differences driving different outcomes

Conclusions

- The impact of the NFTLs is roughly 3-5 times larger than any of the letter treatments
- Letter treatments appear to yield positive, though smaller effects, but are not statistically significant in many cases
- Prior ACS letters correlate with less debt reduction, likely because prior treatment encouraged compliance and remaining cases selected for pilot are more difficult to resolve
 - Supports the idea that it's important to use lower-cost treatments prior to filing NFTL
- NFTL estimates consistent with prior study of changes in NFTLs filing following the 2011 "Fresh Start"