Shaming Tax Delinquents

Evidence from a Field Experiment in the United States

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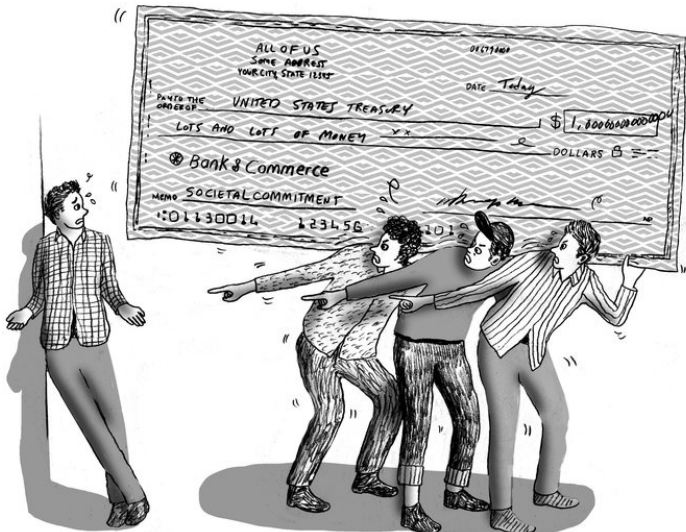***UCLA***   *University of Michigan*

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Outline

Bangalore, India

Photo: K. Venkatesh.

Threat of Social Sanction

Source: New York Times, April 15 2015.

Sample Website: Kentucky

Sample Search: Kentucky

Shaming Is Booming

- Used increasingly in U.S.A. and around the world (Kahan and Posner, 1999; Owens, 2011).
    - Internet makes shaming very cost-effective!
- Currently online lists of tax delinquents in:
    - 23 U.S. states, with varying degree.
        - California, Colorado, Connecticut, Delaware, Florida, Georgia, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Montana, Nebraska, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, Wisconsin.
    - Many U.S. counties and cities.
    - Local and federal governments around the world.
        - E.g.: Argentina, Bosnia and Herzegovina, Canada, Croatia, El Salvador, Greece, Ireland, Italy, Macedonia, Mexico, Montenegro, New Zealand, Portugal, Serbia, Slovenia, Spain, United Kingdom.

Our Contribution

- Research Question:
  - Does shaming work through intended mechanisms?
  - Do the effects go in the intended direction?

- Despite widespread use, no empirical study!
  - Shaming could be ineffective:
    - Anti-social individuals may not care about reputation. E.g.: Massaro (1997).
  - Shaming could even backfire!
    - Crowding-out intrinsic motivation. E.g.: Bénabou and Tirole (2003).
    - Pride rather than shame?

Preview of Findings

- Experimental design:
    - Send letters to 35,000 individual delinquents.
    - Randomize content of the letter.
    - Measure effect of content on payment rates.

- Findings:
    - Effects of shaming through "social image."
    - Effects may not scale-up.
    - No evidence of social comparisons.

Related Literature

- **Shaming in Legal Literature.** E.g.: Posner (2002); Kahan (1996); Kahan and Posner (1999); Massaro (1997); Nussbaum (2004).

- **Tax Enforcement.** E.g.: Blumenthal, Christian and Slemrod (2001); Kleven et al (2011); Almunia and Lopez-Rodriguez (2012); Kumler, Verhoogen and Fras (2013); Pomeranz (2015); Bø, Slemrod and Thoresen (2015); Carrillo, Pomeranz, and Singhal (2015); Naritomi (2015); Casaburi and Troiano (2015); Bergolo et al. (2017).

- **Social Incentives.** E.g.: Bénabou and Tirole (2003); Gerber, Green and Larimer (2008); DellaVigna, List and Malmendier (2012); Perez-Truglia and Cruces (2013).

Outline

Subject Pool

- Started with listed individuals in 23 states.
- Feasibility conditions: exact address, large N.
- Three states were "feasible":
  - Kentucky (debts>$250): 50% of sample.
  - Kansas (debts>$2,500): 25% of sample.
  - Wisconsin (debts>$5,000): 25% of sample.
- Sent letters to 34,334 individuals in these states.
  - Collectively half a billion dollars in debt.

Who are these subjects?

- Debts originated primarily as state income taxes.
  - Low-income households usually unaffected.
- Mean subject trying hard to avoid payment:
  - Already listed online.
  - Has been delinquent for 3 years.
  - Notified several times.
  - Subject to high penalties.
  - Possibly tied to garnish income.

Who are these subjects?

- Tax delinquency significant problem.
  - Even in U.S.A.: 25% of the U.S. tax gap in 2006.
  - Crucial in developing world.
- However, largely under-studied.
- Potential factors explaining delinquency: tax sophistication, social capital, etc.
  - Present suggestive evidence from cross-sectional data.

Population

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
	(0.030)
EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Income

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
	(0.030)
EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Income Garnishability

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
	(0.030)
EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Tax Sophistication

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
	(0.030)
EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Social Capital

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
	(0.030)
EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Partisanship

Negative Binomial Regression	Dep. Var.: Number of Delinquents in ZIP-5
Log(Population)	1.030***
	(0.018)
Mean Income (STD)	-0.001
	(0.015)
Share of Wage Income (STD)	-0.079***
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EITC Bunching (STD)	0.177***
	(0.023)
Civic Life Index (STD)	-0.140***
	(0.031)
Share Republican (STD)	-0.086***
	(0.029)
Observations	1,972

Experimental Design

- Sent letters to all 35,000 subjects.
- Cross-randomized information in the letter:
    - Shaming.
    - Financial penalties.
    - Social comparisons.
- Measure effect of letter on subsequent payment rates.

Sample Letter

Shaming

- Individuals already know that they are listed online.
- One specific mechanisms in mind: social image.
- How to randomize shaming?
    - Teach neighbors how to use the website.

Lower Visibility

YOUR HOUSEHOLD WAS THE ONLY HOUSEHOLD RANDOMLY CHOSEN FROM YOUR AREA TO RECEIVE A LETTER OF THIS TYPE

Names, addresses and other details about tax delinquents are freely available to see for anyone with access to the Internet. You can search for individual debtors by first and last name, or by zipcode, by visiting the following web-page from the website of the Kentucky Department of Revenue:

http://ilp.ky.gov/ILPInterNet.aspx?dt=I

Higher Visibility

YOUR HOUSEHOLD AND OTHER HOUSEHOLDS IN YOUR AREA WERE RANDOMLY CHOSEN TO RECEIVE A LETTER OF THIS TYPE

Names, addresses and other details about tax delinquents are freely available to see for anyone with access to the Internet. You can search for individual debtors by first and last name, or by zipcode, by visiting the following web-page from the website of the Kentucky Department of Revenue:

http://ilp.ky.gov/ILPInterNet.aspx?dt=I

Shaming

- Hypothesis 1: higher (vs. lower) visibility should increase payment rates.
- Note: we are just increasing visibility at the margin:
  - Most people do not read unsolicited mail.
  - Exposes recipient only to neighbors, not all social contacts.
  - Sample biased toward subjects who care the least about social image.

Financial Reminder

- Random assignment:
  - **With Reminder:** "This website also includes information about penalties. For instance, your tax debt is subject to, among other penalties, an annual interest rate of X%." [X = 30% in Kentucky, 12% in Kansas and 18% in Wisconsin]
  - **Without Reminder:** Message not shown.
- Hypothesis 2: reminder should increase payment rates.
  - If they under-estimate interest rates. E.g.: Ausubel (1991); Stango and Zinman (2011); Frank (2011).
  - And/or if they are inattentive about financial decisions. E.g.: Karlan et al. (2014).

Social Comparisons

- Publishing lists of delinquents may change intrinsic motivation:
  - E.g., finding out people owe more than you thought.
- Varied randomly another piece of information:
  - The set of neighbors shown in the table of delinquents.

Table of Delinquents

The following is a sample of tax delinquents living close to your household as of today:

First and Last name	Debt Amount
██████████	$68,509
█████████████	$12,051
████████████████	$2,648
███████	$2,638
█████████	$2,024
████████	$1,944
████████	$1,505
██████	$1,158
█████████	$873
█████████	$269

Social Comparisons

- Randomized parameter α that determines who gets into the list
  - Higher α means higher debts among neighbors in the table.
- Hypothesis 3: Higher α reduces the payment rates.

- Wide variation in delinquent amount: $250-$150,000.
- According to social image models, shaming reminder should be less effective with higher debt amount.
  - Intuition: would you pay $100 to gain the respect of your neighbors? What about $100,000?
- Consistent with conversations and press releases by DORs.
- This presentation: show effects by quartiles of debt amount.
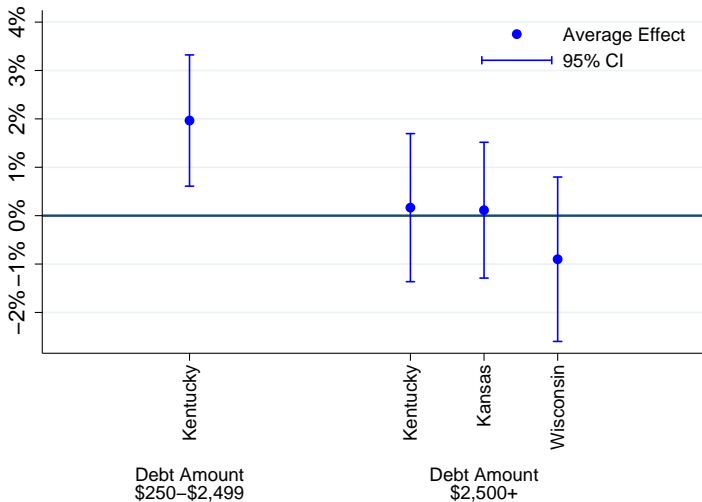
Outline

Hypothesis 1: Shaming

Effect of Higher Visibility on Probability of Leaving the List
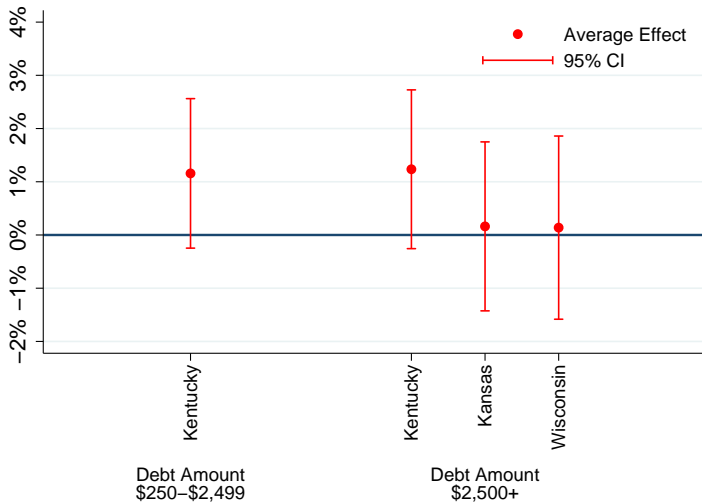10 Weeks After Mail Delivery
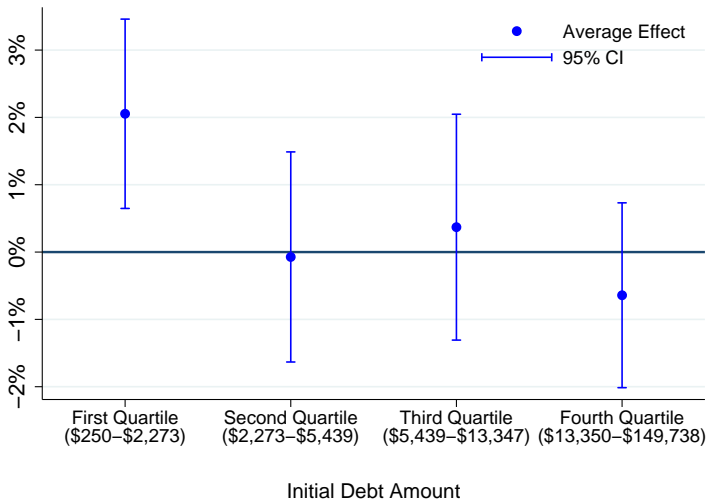
Hypothesis 1: Shaming

Effect of Shaming Penalty on Probability of Leaving the List
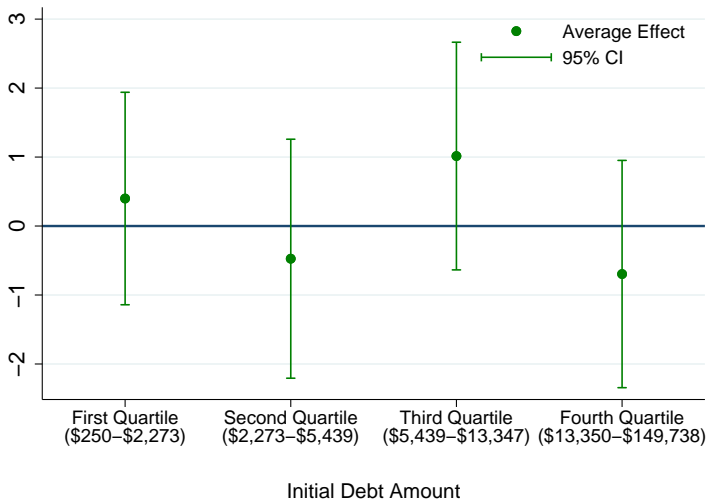10 Weeks After Mail Delivery

Hypothesis 2: Financial Reminder

Effect of Financial Reminder on Probability of Leaving the List
10 Weeks After Mail Delivery

Hypothesis 3: Social Comparisons

Effect of Higher α on Probability of Leaving the List
10 Weeks After Mail Delivery

Initial Debt Amount

Outline

Conclusions

- What did we learn from this?
  - Evidence of social image channel.
    - However, may be difficult to scale up.
  - No evidence of social comparisons.
- Lessons for broader literature on social incentives.

Food for Thought

- Is shaming optimal?
- Why use social incentives when financial incentives are available?

    - Appendix Model:
        - Heterogeneity in garnishability.
        - + Assymetric information.

- What are the "direct" welfare effects of shaming?