

Information Frictions, Stigma, and Small Business Bankruptcy

Shai Bernstein, Emanuele Colonnelli, Mitch Hoffman, Ben Iverson

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1 Introduction

This project aims to understand whether information and stigma affect small businesses' interest in bankruptcy. We do so by means of an experimental survey where we randomly vary the individual (i) knowledge of bankruptcy, and (ii) perceptions of the stigma bankruptcy may induce, using a series of original short animated videos.

2 Data

We collect survey data on a sample of small businesses from our research partner SCORE. The survey contains several sections:

1. Basic business details, such as ownership, business age, debt, employment
2. Video, which varies depending on treatment group
3. Knowledge about bankruptcy, with an emphasis on the difference between Chapter 7 and 11, whether bankruptcy means death of a business, and the Small Business Reorganization Act (SBRA)
4. Stigma about bankruptcy, with a question to capture the perceived source of stigma
5. Interest in bankruptcy options, including: a webinar on bankruptcy by an expert retired judge, a conversation with a small business owner who successfully used Chapter 11, two hours of paid time with a bankruptcy lawyer, two hours of time with a small business financial advisor, willingness to provide contacts of other business owners who might be interested in bankruptcy. Most of these questions ask respondents to choose

between the given option and a gift card of varying amount, and most questions are asked also in the hypothetical scenario in which the business is in financial distress.

6. Expectations regarding staying operational, filing for bankruptcy, employment (incentivized for accuracy), debt renegotiation, investment, risk-taking, and debt.
7. Open-ended questions to investigate why individuals made certain choices.
8. Socio-demographic questions on gender, age, income, ethnicity, and education. This final part also includes other qualitative questions regarding the survey.

3 Experimental Design

3.1 Randomization

We introduce two sources of treatment. First, we introduce a video that is shown after Section 1 of the survey. This treatment is aimed at varying the respondents' knowledge about bankruptcy, by provide basic neutral information about bankruptcy options and regulation regarding small businesses. Second, we introduce a video, also shown after Section 1 and that starts identical to the knowledge video, but that continues with the goal of reducing the negative stigma we hypothesize small business owners think exists regarding filing for bankruptcy. The control respondents also watch a video after Section 1, but the video provides only basic information regarding the survey.

The sample is equally divided in the three groups above, i.e. two treatments and one control. The randomization is conducted by our research partner SCORE. The survey will be sent out the week of November 10, 2020.

3.2 Main Hypotheses Tested

1. Receiving either treatment will increase subjects' information about bankruptcy relative to the Control group.
2. Receiving the information+stigma treatment will decrease stigma about bankruptcy relative to the Control group.
3. Receiving either treatment will increase interest subjects' interest in bankruptcy options. This should be particularly so when subjects are asked the question as it pertains for a state where the business is in financial distress.

3.3 Secondary Hypotheses Tested

1. Receiving either treatment will increase firms' expectations of business success and will increase subjects risk-taking.
2. The impact of the treatments on interest in bankruptcy options should be larger for firms that are more financially distressed.

3.4 Analysis

Our main analysis of the experimental results will consist of running regressions of the form:

$$Y_i = \beta_0 + \beta_1 T_i^{INFO} + \beta_2 T_i^{INF+STIG} + X_s' \gamma + \epsilon_i$$

where Y_i is the given outcome variable for small business i measured in our survey; T_i^{INFO} is an indicator equal to one if small business i received the information-only treatment; $T_i^{INF+STIG}$ is an indicator for receiving the information + stigma treatment; X_i is a vector of control variables at the small business level such as socio-demographic status; and ϵ_i is the error term. Our main specifications will focus on the impact of the two treatments relative to control. In addition, we will also consider specifications where the two treatments are lumped together. We will use robust standard errors, reflecting our randomization at the firm level.

Our main outcomes and secondary outcomes are listed in full in the online AEA RCT registration. The main outcomes are information, stigma, and interest in bankruptcy options.

We are also interested in additional analyses aimed at estimating heterogeneous effects of our treatments. In particular, we expect the effects of our treatment to be stronger for small business facing financial constraints.

Multiple hypothesis testing will be addressed by presenting by presenting Westfall-Young family-wise error rate adjusted p-values.

3.4.1 Additional Surveys

We hope to be able to conduct follow-up surveys on a sub-sample of the respondents, depending on SCORE ability to contact them. We hope to conduct these follow-up survey one to two weeks after the first survey. These surveys would be aimed at measuring whether the treatment effects persist when detaching the treatment from the responses.

We also plan to reach out to respondents 3 months after the treatment, to further gather interest in bankruptcy options.

4 Power Calculations

As noted above, our main empirical strategy will look separately at each of the treatment groups versus the control. However, we also intend to look at results where we lump the two treatment groups together.

For questions on knowledge of bankruptcy, suppose the share of control firms getting the answer right is 0.4. Comparing the Control group to either of the two treatment groups, then the MDE is 0.09 under 80% power. Lumping the two treatment groups together, then the MDE is 0.08 under 80% power.

For stigma, consider the overall measure created by averaging the normalized questions together. We would obtain MDEs of roughly 0.15-0.20 sigma, depending on whether we compare both treatments separately versus control, or if we lump the two together.

Last, consider the incentivized interest in bankruptcy questions. One of the main ones is whether a person would prefer free time with a bankruptcy lawyer (instead of money). Comparing the Control group to either of the two treatment groups, if the Control group has a mean of 0.10 for the share of firms choosing time with the bankruptcy, then the MDE is 0.06 under 80% power. Lumping the two treatment groups together, then the MDE is 0.05 under 80% power.