

Our latest note highlights the results from a collaboration with a state government in Brazil that was designed to test different policy options for bringing informal firms into the formal sector.

A Helping Hand or the Long Arm of the Law? Do carrots or sticks work best for bringing informal firms into the formal sector?

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Since 2004, 75 percent of countries have adopted at least one reform making it easier to register a business. Yet, despite these efforts, the majority of firms in most developing countries remain informal. This is of concern to policymakers, who worry that a large stock of informal firms results in a loss in tax revenue, unfair competition for formal firms, and a culture of informality.

Spurred by the work of Hernando de Soto and *Doing Business*, most of the policy attention to further reducing informality has been devoted to further helping firms to formalize by continuing to lower the costs and complexity of formalization. Much less attention has been given to increasing the costs of remaining informal through better enforcement of existing laws.

A field experiment conducted with the State Government of Minas Gerais in the city of Belo Horizonte in Brazil provides an opportunity to test the relative merits of further cost-reduction versus enforcement in formalizing firms.

Context

Brazil began a process of simplification of firm registration in 1996 with the introduction of the SIMPLES tax system which consolidated multiple taxes and contributions into a single payment, and also lowered the tax burden on small firms. Within Minas Gerais, the Minas Fácil service was started in 2005 with the purpose of additionally reducing the number of procedures and time taken to start a business.

However, despite these efforts, survey data from 2009 revealed that 72 percent of firms

were still informal. As a result, the State Government wanted to test several competing mechanisms for reducing formality.

The Interventions and Experiment

In early 2011 we conducted a listing survey of more than 10,000 businesses in 600 census blocks of Belo Horizonte. These businesses were then matched against a list of registered firms, with those that could not be matched comprising a sample of 7,852 potentially informal firms. These firms were then randomized into five different groups:

1. *Control Firms*: 201 census blocks, containing 2,810 firms were the control group and received no intervention.
2. *Communication Treatment*: 331 firms were given information about how to register and a helpline to call.
3. *Free Cost + Accountant Treatment*: 328 firms were given information about how to register, had approximately US\$200 in registration fees waived, and offered one year of free (mandatory) accounting services.
4. *Inspection Treatment*: 577 firms were assigned to receive a visit from a municipal inspector, who would check proof of a municipal license, and follow-up if they did not have one.
5. *Indirect Inspector Treatment*: 593 firms in the same census blocks as the inspection treatment firms were used to test whether having a neighboring firm inspected has spillover impacts.

Do you have a project you want evaluated? DECRG-FP researchers are always looking for opportunities to work with colleagues in the Bank and IFC. If you would like to ask our experts for advice or to collaborate on an evaluation, contact us care of the Impact editor, David McKenzie (dmckenzie@worldbank.org)

Data

A baseline survey was taken of the control, communication, and free cost firms. The most common firm types were bars, restaurants, hairdressers, mechanics, clothing, and grocery stores. The average firm owner had been in business for 8 years, had 1.3 employees other than him or herself, and monthly profits of about US\$1000. The focus of the experiment was on the firms with fixed premises, not the smallest informal firms.

A follow-up was then taken of all firms between July and September 2012, reaching 56% of targeted firms, with 14% closed down, 20% of owners absent, and 10% refusals. Administrative data on formalization enables us to measure formalization outcomes for the full sample, regardless of whether or not they attrit from the follow-up survey.

Results

- The communication and free cost treatments increased firm owner knowledge about the need for accountants; but had **zero impact on registration for SIMPLES or a municipal license**.
- The free cost treatment actually *reduced* formal registration through a simpler micro-entrepreneur category, which had its eligibility criteria loosened during our study period and which had not been discussed in the information provided to firms.
- Direct inspections had **no impact on the probability a firm closed down**, but **did increase municipal registration**. We estimate that one additional inspection leads to a 21 to 27 percentage point increase in municipal registration.

- We find no spillover impact of inspections on other firms, which is consistent with survey data showing that firms don't talk that much to neighboring firms, and don't notice about half the inspections that take place.

Implications

The process of registering in Belo Horizonte still requires more steps and complications than in a number of other countries that have pursued entry reforms. Moreover, in addition to facing taxes, firms which do register face a relatively large cost in terms of the need to hire an accountant. Faced with these costs of being formal, it appears few informal firms want to formalize unless they are forced to do so by enforcement.

Our findings suggest sticks rather than carrots seem more effective at getting firms to formalize in this context, but also show limits to this approach – many of the firms assigned to get inspections were never found by the inspectors, and informal firms the inspectors closed down were found open again by the time of our follow-up survey.

Coupling simplification with better enforcement therefore seems a way forward. Cost-benefit analysis suggests more enforcement would pay for itself in terms of higher tax revenue, but that the fact that revenue gets split among the federal, state, and municipal governments lessens the incentive of the municipality to pay for more inspections. Further experimentation as to how to better improve the process of enforcement of regulations therefore seems an important area for policy and research efforts going forward.

For further reading see: Gustavo Henrique de Andrade, Miriam Bruhn and David McKenzie (2013) "A Helping Hand or the Long Arm of the Law? Experimental evidence on what governments can do to formalize firms" [World Bank Policy Research Working Paper no. 6435](#)

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