Emails worth $100 million: Economists use ‘nudges’ to increase tax compliance

news.uchicago.edu/story/emails-worth-100-million-economists-use-nudges-increase-tax-compliance

A picture may be worth a thousand words—but a few words can be worth millions. In a recent field experiment in the Dominican Republic, University of Chicago researchers used simple but carefully crafted email nudges to dramatically improve tax compliance, increasing revenue by more than $100 million.

In the new working paper, UChicago graduate student Justin Holz and Prof. John List examined how messages designed to remind individuals and firms about two potential penalties for tax evasion—public shaming and prison sentences—changed tax filing behavior.

The answer was surprising: Not only did the email nudges have a big impact, but they were more effective at changing the behavior of large firms than small firms or individuals. Firm size was measured by the total number of employees.

“In our setting, the top 20% of firms paid over 80% of all corporate income taxes,” said Holz, a PhD candidate at the Harris School of Public Policy. “So it’s of tremendous interest to policymakers to get this set of firms specifically to increase the amount of taxes that they pay, because that’s really what’s going to make a difference.”

Published by the Becker Friedman Institute, the paper’s co-authors also include UChicago alum Alejandro Zentner, AM’01, PhD’05, now an associate professor at the University of Texas at Dallas.

In previous work, List has shown that a common strategy for evading taxes is via “omission,” in which businesses or individuals underreport their taxable income, hoping authorities will view it as an oversight rather than an active choice. Penalties can be an effective deterrent, but only if those evading taxes think there is a reasonable possibility that they will be caught.

To conduct the experiment, Holz, List and their collaborators partnered with the internal revenue service in the Dominican Republic, where the government has instituted harsher punishments for tax evaders. As a result of a 2018 law, tax evasion is included in a list of offenses now penalized with three or more years in prison.

The research team used data from 2017 filings to randomly assign more than 28,000 self-employed workers and 56,000 firms to one of six groups; a control group, which received a simple reminder about the looming tax deadline, and groups that were warned either about the new potential for prison sentences or the possibility that their tax delinquency would be

made public. Half of the messages in each category also implied that the government could view filing errors as intentional choices made by the taxpayer, rather than accidents.

The group of messages that mentioned potential prison sentences increased taxes paid by firms by about 45%, or an additional $52 million above baseline. But messages that reminded taxpayers about potential prison time and also implied that authorities could view underreporting as intentional led to an even larger increase—an additional $103 million.

“Our experiment provides good evidence that simple messages delivered in the right context can make an enormous difference for governments, not only in terms of revenue but also by reducing enforcement costs,” said List, the Kenneth C. Griffin Distinguished Service Professor in Economics and a pioneer in the use of field experiments in economics.

The public disclosure message—which threatened firms with the possibility of “public shaming” that could lead to damaged reputations and reduced profit—was also effective, but it only increased taxes paid by about $23 million.

Messages that threatened taxpayers with public shaming and warned that mistakes could be viewed by authorities as intentional were less effective. Holz said this could be due to a conflict between these messages, which together suggest that the additional firms shamed by the policy may dilute the effect of the shaming.

The experiment offers an interesting window into the messaging strategies most likely to elicit tax compliance, especially from large firms that comprise a disproportionate amount of government revenue.

“Most research so far has focused on small or medium-sized firms, so the fact that we were able to show this effect among larger firms is exciting,” Holz said.

Holz also noted that the increases seen in the field experiment are not necessarily predictive of what would happen if these messages were sent out to all taxpayers, since the subset of firms and individuals used in the experiment tended to earn more than average.

Still, the research provides important information to policymakers that could make a big difference in improving tax compliance in the Dominican Republic in the future. The team hopes that future research might also help translate these findings to other contexts around the world.