**The efficiency of crackdowns: A lab-in-the-field experiment in public transportations**

Zhixin Dai, Fabio Galeotti, and Marie Claire Villeval\*

Université de Lyon, Lyon, F-69007, France

CNRS, GATE Lyon Saint-Etienne, Ecully, F-69130, France

\* GATE Lyon St. Etienne, 93 Chemin des Mouilles, 69130 Ecully, France

**Abstract**

The concentration of high frequency controls in a limited period of time (“crackdowns”), as opposed to the spreading out of controls over time, aims at preventing and restricting illegal behavior. Although it constitutes an important feature of many policies over the world, it has received so far little attention from economists. To explore the relative efficiency of crackdowns in terms of compliance to rules, we conducted a lab-in-the-field experiment involving passengers of public transportations in a large French city. Our *public transportation game* allows us to study how fraudulent behavior reacts to the introduction of various control mechanisms. In the game, participants decide repeatedly whether to buy or not a ticket. We study how compliance behavior evolves over time, depending on exposure to repeated controls concentrated in time vs. irregular controls spread out over time. Precisely, we analyze how individuals react to systematic controls both when these controls are enforced and after they have been withdrawn. We also test whether it is more effective to introduce crackdowns at an early or at a later stage of the game, and whether crackdowns should be pre-announced ex ante or not.

Our results show that (a) spreading out random controls is more effective at reducing fare-dodging than concentrated crackdowns, and this effect is even stronger for real-world frauders; (b) a prolonged crackdown reduces fare-dodging during the period of intense monitoring but induces a burst of fraud as soon as it is withdrawn; (c) pre-announcing controls induces more fraud in the periods in which there is no control. Compared to non-concentrated random monitoring, crackdowns have a positive impact on compliance only in the short run. They may entail potentially deleterious effects in the long run since after monitoring is withdrawn fare-dodging increases to levels that are even higher than before the introduction of the crackdown .

**Keywords:** Crackdowns, fraud, monitoring, transportation, experiment.