

Comments on:

Enforcement and Deterrence with Certain Detection:
An Experiment in Water Conservation Policy

by Céline Nauges, TSE-R

General comments

- Nice paper to read, quite clear-cut results
- Original randomized field experiment varying the method of enforcement (automated or visual inspection) and the level of the fine / threshold
- Adds to the literature on non-price instruments to manage residential water demand, and on environmental regulation enforcement

Other comments

I would have liked to know more about ...

- Background info (water tariff, billing frequency, policies, historical perspective on water prices, water use, water policies etc.)
- Statistics (mean, distribution) of household water use by season (winter/summer), by household group (low vs. high income)
- How do thresholds (300, 500 and 700 gallons per hour) / fines (\$50, \$100) compare to water use / bills?

Also ... a bit more on the way inspections / policies work in practice:

- Restrictions on watering to three nights – How to reconcile it with violations identified based on varying thresholds?
- Smart meters measure water use every 15 minutes. Is violation determined based on consumption over the last 60 minutes?
- Warnings followed by fines ... do households receive warnings only on the first time they are caught or are they fined immediately?
- How can households monitor their water use? By keeping a constant eye on their water meter?

Welfare considerations ... conceptual framework?

One of the most striking results is the surge in hh's complaints ... presumably the policy imposes a disutility to a number of customers

Might be interesting to model households' utility including benefits from water consumption, probability of being caught and level of the fine, but also a moral component that would represent disutility or moral cost induced by the policy (being scrutinized)

Cf. moral cost of nudges / disutility of being watched and compared to others ... Allcott and Kessler (2015) quantified the magnitude of the moral cost induced by nudges (social comparison on electricity bills)

Non-price vs. price instruments – Comparative cost and benefits analysis?

How would such a policy compare to a price increase that would lead to similar reduction in water use?

Price elasticity for residential water is usually in the range -0.5 to -0.1 so a 10% reduction in price may lead to the same expected reduction in water use (3%)

What would be the compared costs and benefits for the households and for the water utility of the two policies?

Pricing policy: would likely generate fewer complaints from consumers (lower moral cost); impact on water bill (but no fine to be paid in case of violation) and water revenues for the utility; efficient pricing (price would be closer to marginal cost)