2013 Farm Bill: An Experimental Test of the Senate & House Proposals

The 2008 Farm Bill currently guides agricultural and related environmental/conservation policy. Versions proposed by the U.S. Senate and the House of Representatives, to be implemented in the 2013 Farm Bill after differences are resolved, aim to achieve environmental (and other food related) goals, while also seeking significant spending cuts. While both versions propose to eliminate the Direct Payments program, they differ with respect to how other crop supports should work and whether crop insurance subsidies should be linked to conservation practices. The Senate Bill supports a policy design based on cross-compliance, i.e. crop insurance subsidies are conditional on conservation compliance, whereas the House Bill provides this subsidy without such compliance.

Traditional economic models presume profit maximizing-only behavior. Based on this approach the Senate Bill can be expected to be superior to the House Bill in achieving the goal of environmental protection at a lower cost. However, there is evidence that financial incentives may lead to crowding out of intrinsic motivation and hence it is possible that the House Bill could prove to be more efficient on those grounds.

CAFIO-PRG Research

The key objective of on-going research is to use experimental evidence to evaluate the impact of the aforementioned differences in the design of the House and Senate Bills as well as three modified versions. Results can then be used to provide policy guidance on which approach to favor.

The experiment used the context of a downstream water pollution problem in which an upstream farmer makes choices on conservation technology and thus determines the degree of pollution suffered by a downstream water user. More conservation implies lower profits for the upstream farmer, but cleaner water and hence increased shared benefits. Treatments were designed to represent the changes to the current Farm Bill as proposed in the House and Senate Bills, respectively. Two additional treatments were identical to the House and Senate version respectively, but introduced empathy nudging into the design by allowing the downstream water user to send empathy centered messages prior to upstream farmer's decision. The last treatment provided a mandatory regulation scheme that forced subjects to reach a minimum threshold in their choice of conservation technology. There were a total of 500 subjects, mostly students, with 50% females. The age range was 19 to 78 years (average age 26.3 years) and subjects earned on average $43.60.

CAFIO-PRG Findings

The CAFIO-PRG research shows that:

- Neither the Senate nor the House Bill can be expected to lead to a significant change in behavior of farmers based on the policy design. It follows that the superiority of either one of the proposals depends on differences in cost, rather than differences in response. This would imply that, *ceteris paribus*, the Senate proposal is more efficient, due to lower costs, than the House proposal.
- Providing ever larger monetary incentives, such as the Senate proposal, leads to crowding out of intrinsic motivation. In response to more financial incentives environmental protection may even decrease.
- Mandatory conservation approaches could be superior as long as enforcement is relatively cheap. Participants did show a willingness to go beyond imposed minimum levels.
- Empathy nudging has a statistically and economically significant effect on conservation choices if coupled with monetary incentives. Providing only empathy nudging or only monetary incentives has no statistically significant impact on the average choice of conservation technology. From a policy perspective this implies that empathy nudging, a potentially relatively simple and cheap policy measure, can alleviate problems of crowding out of intrinsic motivation. This suggests that simultaneously implementing both (empathy and financial) types of nudges is more effective. Examples of venues for such empathy nudging are town hall meetings, agricultural extension meetings, local newspapers, and crop insurance enrollment literature/meetings. Written/verbal reminders of the "shared we" can also be communicated to the farmer through the wording of new regulations, as well as through social media.

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