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Private Information and the Allocation of Land Use Subsidies in Malawi[†]

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Efficient targeting of public programs is difficult when the cost or benefit to potential recipients is private information. This study illustrates the potential of self-selection to improve allocational outcomes in the context of a program that subsidizes tree planting in Malawi. Landholders who received a tree planting contract as a result of bidding in an auction kept significantly more trees alive over a three year period than did landholders who received the contract through a lottery. The gains from targeting on private information through the auction represent a 30 percent cost savings per surviving tree for the implementing organization. (JEL D04, D44, D82, O13, Q24, Q28)

Health, environment, and poverty alleviation programs are often designed to target transfers toward recipients who maximize the net benefits of the program. If costs or benefits are private information, or if there are incentives for strategic behavior, then targeting can be improved through the use of mechanisms that induce self-selection into the program (Nichols and Zeckhauser 1982; Coady, Grosh, and Hoddinott 2004). Self-selection has most frequently been implemented through market segmentation for subsidized food or health products or through below-market wages in public employment settings (Besley and Coate 1992; Alderman and Linden 1998), however, questions around the design of targeting tools for environmental land use programs have gained policy prominence with increasing attention to climate change mitigation and biodiversity conservation (Babcock et al. 1997; Ferraro 2008; Mason and Plantinga 2011).

For self-selection to improve efficiency, recipients must possess private information about their costs or benefits under the program, and must respond to an

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