

ABSTRACT:

HETEROGENEOUS EFFECTS OF WASTE PRICING POLICIES

MARICA VALENTE

DIW BERLIN & HU BERLIN

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Using machine learning methods in a quasi-experimental setting, I study the heterogeneous effects of waste prices -- unit prices on household unsorted waste disposal -- on waste demands and social welfare. First, using a unique panel of Italian municipalities with large variation in prices and observables, I show that waste demands are nonlinear. I find evidence of nudge effects at low prices, and increasing elasticities at high prices driven by income effects and waste habits before policy. Second, I combine municipal level price effects on unsorted and recycling waste with their impacts on municipal and pollution costs. I estimate overall welfare benefits after three years of adoption, when waste prices cause significant waste avoidance. As waste avoidance is highest at low prices, this implies that even low prices can substantially change waste behaviors and improve welfare.