Abstract:

(joint with Paul Carrillo (GWU), Dina Pomeranz (Zurich) and Monica Singhal (Davis))

Is there misallocation of firm production, as we might expect to result from credit constraints, imperfect competition, regulations, political connections, or other market failures? To test for such departures from allocative efficiency we develop a novel and nonparametric test based on heterogeneity in the way that firms’ outputs and inputs respond to demand shocks -- this leverages the idea that demand reallocations would be zero-sum if the marginal products of all inputs were already equalized across firms. To apply this test we turn to a setting in which thousands of firms experience exogenous demand shocks (equal to about 50% of annual sales for the median firm) due to the randomized awarding of certain public procurement contracts in Ecuador. Using monthly data on firm-to-firm transactions and employer-employee relations, we first document average responses: firms respond to demand shocks by rapidly expanding total scale and input use, and do so with no crowd-out or crowd-in of other activities, either contemporaneously nor in the future. We then go on to document a lack of heterogeneity in these responses across firms -- that is, we fail to reject the null of allocative efficiency -- and find that only minor gains in aggregate productivity could be achieved from a move to the optimal allocation.