

Risk, Insurance and Wages in General Equilibrium  
by: Mushfiq Mobarak

Abstract:

We estimate the general-equilibrium labor market effects of a large-scale randomized intervention in which we designed and marketed a rainfall index insurance product across three states in India. Marketing agricultural insurance to both cultivators and to agricultural wage laborers allows us to test a general-equilibrium model of wage determination in settings where households supplying labor and households hiring labor face weather risk. Consistent with theoretical predictions, we find that both labor demand and equilibrium wages become more rainfall sensitive when cultivators are offered rainfall insurance, because insurance induces cultivators to switch to riskier, higher-yield production methods. The same insurance contract offered to agricultural laborers smoothes wages across rainfall states by inducing changes in labor supply. Policy simulations based on our estimates suggest that selling insurance only to land-owning cultivators and precluding the landless from the insurance market (which is the current regulatory practice in India and other developing countries), makes wage laborers worse off relative to a situation where insurance does not exist at all. The general-equilibrium analysis reveals that the welfare costs of current regulation are borne by landless laborers, who represent the poorest segment of society and whose risk management options are the most limited.