Occupational Choice and Agricultural Labor Exits in Sub-Saharan Africa

Ellen B. McCullough

Charles H. Dyson School of Applied Economics and Management
Cornell University

The process of economic development is characterized by rising output per agricultural worker and the exit of labor from agriculture to other sectors, which together result in rising incomes and falling incidence of poverty. This paper addresses agricultural technology’s role in determining households’ occupational choices, which underlie the structural transformation process. I model households’ decisions to participate in different activities – farming, wage employment, and self employment – through operation of a household non-farm enterprise. I estimate a structural, polytomous model of occupational choice using nationally representative household survey datasets from Tanzania, matched with several other relevant datasets. Then, I simulate the response of occupational choice to stylized policy interventions: improved agricultural technology, improved infrastructure, and improved human capital. I find that agricultural technology improvement is not as strongly associated with agricultural labor exits as is increased educational attainment. Technology improvement is an important source of within-sector growth in labor productivity due to very high participation rates in farming.