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The Harris-Todaro Model

Gary S. Fields
Cornell University, gsf2@cornell.edu

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Gary S. Fields
Cornell University and IZA

In the 1960s, the government of newly-independent Kenya faced a difficult situation: unemployment in Nairobi and other major cities was high and apparently rising. To cope with this problem, Tripartite Agreements were reached in which private sector and public sector employers agreed to increase employment in exchange for unions agreeing to hold wages at their current levels. The larger number of jobs was expected to reduce unemployment. In the event, as far as anyone could tell, it appeared that urban unemployment had *increased* following the Tripartite Agreements rather than decreased.

In light of these events, John Harris and Michael Todaro (HT) formulated a model to explain the puzzle. At the core of the HT model were the following features. First, real wages (adjusted for cost-of-living differences) were higher in urban formal sector jobs than in rural traditional sector jobs. Second, in order to be hired for a formal sector job, it was necessary to be physically present in the urban areas where the formal sector jobs are located. Third, and as a consequence of the first two features, more workers search for formal sector jobs than are hired. Employers hire some of the searchers but not all of them. Those not hired end up unemployed *ex post*. Fourth, in order to maintain equality between the expected wage associated with searching for an urban job and the expected wage associated with taking up a lower-paying rural job, the equilibrium arising in such a setting would be characterized by urban unemployment. And fifth, any temporary difference in the expected wages between one sector and another would be eroded as workers migrate from the low expected wage labor market to the high expected wage one.

The Harris-Todaro model produced two powerful policy results. The first concerned a policy of formal sector job creation to employ the unemployed (who, in the

Harris-Todaro model, were all in urban areas, because that is where the formal sector jobs were assumed to be located). Such a policy, they concluded, would increase the formal sector labor force by more than the number of new jobs created, thereby raising the number of urban unemployed. Thus, the solution to urban unemployment would *not* be urban employment creation.

The second policy option considered was a policy of rural development. If such a program could increase the rural traditional sector wage, unemployment would then *fall*. Thus, in the Harris-Todaro model, the solution to urban unemployment would be *rural* development.

Soon after the model was published, the government of Kenya followed the Harris-Todaro precepts by putting into place an integrated rural development program. Indeed, the result was that unemployment in Kenya *did* fall.

Harris and Todaro's fundamental contribution was to build a model that fit the stylized facts of the labor market they were analyzing and that was based on sound micro-foundations. The fact that the model remains part of our intellectual toolkit today is a tribute to its basic insight and enduring analytical power.

The original model has been both simplified for some purposes and expanded for others; see Fields (2005) for citations to the relevant literatures. HT had formulated a general process determining prices of the products produced by the two sectors and also a rural sector wage that varied inversely with the number of people in the rural sector. A simplified version of the HT model was developed in which product prices and rural sector wages were taken as constant. Numerous additional analytical and policy results were derived in the simplified HT model. At the same time, some of the assumptions of the Harris-Todaro model were judged to be too restrictive, and so the model was generalized in the years that followed to nest their specific formulation within a broader framework. The initial HT model has been extended to allow for on-the-job search from rural agriculture, the existence of an urban informal sector, preferential hiring of the

better-educated, employment fixity, duality within the rural sector, mobile capital, endogenous urban wage setting, risk-aversion, and a system of demand for goods, among others.

As one of the early multi-sector labor market models, the HT model set forth one of the principal alternative frameworks for policy analysis. It showed us one way in which employment and earnings levels in one labor market reflect not only supply, demand, and institutional conditions in *that* labor market but also supply, demand, and institutional conditions in *other* labor markets.

In terms of the current discussion of pro-poor economic growth, the HT model and other multi-sector labor market models can help policy-makers avoid two mistakes. One is to assume that development efforts should necessarily be channeled to the sectors where the poor *are*. The other is to assume that efforts should necessarily be focused on getting the poor *out* of the sectors in which they now are. Careful cost-benefit analysis based on well-specified labor market models is required to decide among such alternatives.

References

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