Case Study 7

Rural-Urban Migration and Urbanization in Developing Countries: India and Botswana

About half of the world's population lives in cities; by 2025, nearly two-thirds will live in urban areas. Most of the urban growth is taking place in the developing world. The patterns of this growth and its implications are complex. Urban population growth in the developing world is far more rapid than population growth generally; about half the urban growth is accounted for by migrants from rural areas. Unchecked urbanization of the developing world is placing a strain on infrastructure and public health and threatens social stability. Shantytowns and similar makeshift settlements represent over one-third of developing-country urban residences. About half of the urban labor force works in the informal sector of low-skilled, low-productivity, often self-employed jobs in petty sales and services. Still, this sector may generate up to a third of urban income and features a low capital intensity, low-cost training, waste recycling, and employment creation. What drives migration? The cases of India and Botswana are instructive in showing the value of the probabilistic theory of migration and suggesting ways of extending it.

The scale of urbanization in these countries is dramatic. The UN Population Division projected in 2013 that India will surpass China as the world's largest nation in 2028, when India reaches a population of 1.45 billion; due largely to migration, the growth of the urban population will be much faster than that of the rural population. Botswana is a small country but represents one of Africa's relatively few long-term success stories (see the case study for Chapter 14); and as of 2012, its urbanization rate had already reached well over 60%, compared with an average of under one-third in sub-Saharan Africa as a whole.

Any economic or social policy that affects rural and urban incomes will influence migration; this, in turn, will affect sectoral and geographic economic activity, income distribution, and even population growth. Before the Todaro and Harris-Todaro migration models were introduced, migration was widely viewed as irrational or driven by noneconomic motivations, sometimes attributed to the lure of the "bright city lights." Noneconomic factors do influence migration decisions, but economic factors are now understood to be primary. In the economic version of the bright-city-lights theory, people rationally migrated on the basis of costs and benefits. In this approach, it was assumed that if migrants appeared to be worse off, this was because other benefits were being overlooked, with the effect of making the migrants feel better off (or raising their overall utility).

The Todaro migration models postulate that observed migration is individually rational but that migrants respond to urban-rural differences in expected rather than actual earnings. Urban modern-sector earnings are much higher than rural earnings, which may in turn be even higher than urban traditional-sector earnings. Migration occurs until average or expected rather than actual incomes are equal across regions, generating equilibrium unemployment or underemployment in the urban traditional sector. The extension of the model to consider equilibrium and effects of actions such as increases in wages and probability of employment in the urban areas, undertaken by Harris and Todaro, shows that under some conditions, notably elastic supply of labor, creation of employment opportunities in cities can actually lead to an *increase* in unemployment by attracting more migrants than there are new jobs. Despite being individually rational, extensive rural-urban migration generates social costs for crowded cities, while excessive migration also

imposes external costs on the rural areas emptied of better-educated, more venturesome young people, as well as external costs on urban infrastructure and lost output.

One set of relevant migration and employment policies emphasizes rural development, rural basic-needs strategies, elimination of factor price distortions, appropriate technology choice, and appropriate education. Each is intended to increase the incentives for rural residents to remain in rural areas rather than migrate to cities. But even if rural development is successful, fewer rural laborers will ultimately be needed, and demand for products of the cities will grow, which will fuel migration anyway. So other policies seek to influence the pace and pattern of urban development to gain the most benefits for the fewest costs from migration that is probably inevitable.

India provides an interesting setting for a case study because future urban migration is potentially so vast and because a number of interesting studies have been undertaken there. Botswana offers a good counterpoint because it has been the subject of some of the most interesting empirical research and represents one of the most rapidly urbanizing African countries as well as one of its most important success stories.

India

The growth of Delhi has been extraordinary: In 1950, Delhi was not even among the world's 30 largest cities, but by 2013 its population had soared to become second in size only to Tokyo.

One of the most detailed studies of rural-urban migration, providing some tests of the Todaro migration models and depicting the characteristics of migrants and the migration process, is Biswajit Banerjee's *Rural to Urban Migration and the Urban Labor Market: A Case Study of Delhi*.

Everyone who has been to a major city in a developing country has noticed the sharp inequality between residents with modern-sector jobs and those working in the informal sector. But can the informal sector be seen as a temporary way station on the road to the formal sector, or can the barriers between these sectors be explained by education and skill requirements that informal-sector workers cannot hope to meet? Banerjee found that the idea of segmented formal-informal rural labor markets could be substantiated statistically. After carefully controlling for human capital variables, Banerjee was still left with earnings in the formal sector 9% higher than in the informal sector that were not explained by any standard economic factor. Even so, the earnings differences found in India were not nearly so dramatic as implied in some of the migration literature.

In much of the literature on urbanization, the typical laborer is characterized as self-employed or working on some type of piecework basis. But Banerjee found that only 14% of his informal-sector sample worked in nonwage employment. Interestingly, average monthly incomes of nonwage workers were 47% higher than those of formal-sector workers.

Banerjee argued that entry into nonwage employment was not easy in Delhi. Some activities required significant skills or capital. Those that did not were often controlled by cohesive "networks" of operators that controlled activities in various enterprises. Entry barriers to self-employment in petty services were probably lower in other developing-country cities.

Consistent with these findings, Banerjee found that mobility from the informal to the formal sector was low: There was little evidence that more than a very small minority of informal-sector workers were actively seeking jobs in the formal sectors, and only 5% to 15% of rural migrants in the informal sector had moved over to the formal sector in a year's time.

Moreover, the rate of entrance into the formal sector from the informal sector was just one-sixth to one-third that of the rate of direct entry into the urban formal sector from outside the area.

Informal-sector workers tended to work in the same job almost as long as those in the formal sector; the average informal-sector worker had worked 1.67 jobs over a period of 61 months in the city, while formal-sector workers averaged 1.24 jobs over an urban career of 67 months.

Banerjee's survey data suggested that a large number of informal-sector workers who had migrated to the city were attracted to the informal rather than the formal sector, coming to work as domestic servants, informal construction laborers, and salespeople. Of those who began nonwage employment upon their arrival, 71% had expected to do so. The fact that only a minority of informal-sector workers continued to search for formal-sector work was taken as further evidence that migrants had come to Delhi expressly to take up informal-sector work.

Workers who appear underemployed may not consider themselves as such, may perceive no possibility of moving into the modern sector, may be unable to effectively search for modern-sector work while employed in the informal sector, and hence do not create as much downward pressure on modern-sector wages as it may at first appear. This may be one factor keeping modern-sector wages well above informal-sector wages for indefinite periods of time despite high measured urban underemployment.

One reason for this focus on the informal sector was concluded to be the lack of contacts of informal-sector workers with the formal sector. About two-thirds of direct entrants into the formal sector and nearly as many of those switching from the informal to the formal sector found their jobs through personal contacts. This overwhelming importance of contacts explained why some 43% of Banerjee's sample migrated after receiving a suggestion from a contact, which suggests that job market information can become available to potential migrants without their being physically present in the city. An additional 10% of the sample had a prearranged job in the city prior to migration.

Finally, the duration of unemployment following migration is usually very short. Within one week, 64% of new arrivals had found employment, and although a few were unemployed for a long period, the average waiting time to obtain a first job was just 17 days.

Banerjee also found that migrants kept close ties to their rural roots. Some three-quarters of the migrants visited their villages of origin and about two-thirds were remitting part of their urban incomes, a substantial 23% of income on average. This indicates that concern for the whole family appeared to be a guiding force in migration. It also suggests a source of the rapid flow of job market information from urban to rural areas.

In a separate study, A. S. Oberai, Pradhan Prasad, and M. G. Sardana examined the determinants of migration in three states in India—Bihar, Kerala, and Uttar Pradesh. Their findings were consistent with the ideas that migrants often have a history of chronic underemployment before they migrate, migrate only as a measure of desperation, and have the expectation of participating in the informal urban sector even in the long run. Remittances were found to be substantial, and considerable levels of return migration were also documented, among other evidence of continued close ties of migrants to their home villages.

But Banerjee's fascinating findings do not necessarily represent a challenge to the applicability of Harris-Todaro or other "probabilistic migration models." Instead, they suggest that they need to be extended to accommodate the apparently common pattern of migrating with the ultimate aim of urban informal-sector employment. As Ira Gang and Shubhashis Gangopadhyay have noted, one can modify the model to include in the urban area not only a formal sector but also a highly paid informal sector, as well as a low-paid (or unemployed) sector. In this case, people will migrate looking for either a formal-sector job or a high-paying informal-sector job. This seems to be consistent with Banerjee's evidence. The assumption that keeps the essence of the probabilistic models intact is that the wage of the formal urban sector exceeds the high-paying informal wage, which in turn exceeds the agricultural wage, which in turn exceeds the low-paying informal (or unemployed) wage. In fact, if rural wages remain below all urban opportunities, this suggests that we are well out of equilibrium, and much additional migration must occur before expected incomes can be equalized across sectors. The particular formulations of the Todaro models are really no more than examples of a general principle: that migrants go where they expect in advance to do better, not where they do better after the fact. The basic ideas of the Todaro models do not depend on a particular notion of an informal or a formal sector.

Oded Stark's ideas on a family's use of migration can be a useful supplement to the Todaro models and may apply to some of Banerjee's findings. In his view, a family will send members to different areas as a "portfolio diversification" strategy, to reduce the risk that the family will have no income. This approach is useful to explain any observed migration from higher- to lower-wage areas and into higher-wage areas but not necessarily the area with the highest expected wage. The basic idea of the Todaro models still applies, but this approach looks at families rather than individuals and stresses risk aversion.

Other studies have shown that the Todaro migration models have held up well without modification in other parts of the world. A survey by Deepak Mazumdar confirmed that the evidence is overwhelming that migration decisions are made according to rational economic motivations.

Botswana

A study of migration behavior conducted by Robert E. B. Lucas in Botswana addressed such problems in one of the most careful empirical studies of migration in a developing country. His econometric model consisted of four groups of equations—for employment, earnings, internal migration, and migration to South Africa. Each group was estimated from microeconomic data on individual migrants and nonmigrants. Very detailed demographic information was used in the survey.

Rural migrants in Botswana moved to five urban centers (they would be called towns rather than cities in many parts of the world) as well as to neighboring South Africa. Lucas found that unadjusted urban earnings were much higher than rural earnings—68% higher for males—but these differences became much smaller when schooling and experience were controlled for.

Lucas's results confirm that the higher a person's expected earnings and the higher the estimated probability of employment after a move to an urban center, the greater the chances that the person will migrate. And the higher the estimated wage and probability of employment for a person in his or her home village, the lower the chances that the person will migrate. This result was very "robust"—not sensitive to which subgroups were examined or the way various factors were controlled for—and statistically significant. It represents clear evidence in support of Todaro's original hypothesis.

Moreover, Lucas estimated that at current pay differentials, the creation of one job in an urban center would draw more than one new migrant from the rural areas, thus confirming the Harris-Todaro effect. Earnings were also found to rise significantly the longer a migrant had been in an urban center, holding education and age constant. But the reason was because of increases in the rate of pay rather than in the probability of modern-sector employment.

Taken together, the best-conducted studies of urbanization confirm the value of probabilistic migration models as the appropriate place to start seeking explanations of rural-to-urban migration in developing countries. But these studies underscore the need to expand these explanations of migration, considering that many people today migrate to participate in the informal rather than the formal urban sector and that workers may face a variety of risks in different settings. ■

Sources

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Concepts for Review

Agglomeration economies
Congestion
Efficiency wage
Harris-Todaro model
Induced migration
Informal sector
Labor turnover
Localization economies
Present value
Rural-urban migration
Social capital
Todaro migration model
Urban bias
Urbanization economies
Wage subsidy

Questions for Discussion

1. Why might the problem of rapid urbanization be a more significant population policy issue than curtailing population growth rates over the next two decades for most developing countries? Explain your answer.
2. Describe briefly the essential assumptions and major features of the Todaro model of rural-urban migration. One of the most significant implications of this model is the paradoxical conclusion that government policies designed to create more urban employment may in fact lead to more urban unemployment. Explain the reasons for such a paradoxical result.
3. "The key to solving the serious problem of excessive rural-urban migration and rising urban unemployment and underemployment in developing countries is to restore a proper balance between urban and rural economic and social opportunities." Discuss the reasoning behind this statement, and give a few specific examples of government policies that would promote a better balance between urban and rural economic and social opportunities.
4. For many years, the conventional wisdom of development economics assumed an inherent conflict between the objectives of maximizing output growth and promoting rapid industrial employment growth. Might these two objectives be mutually supportive rather than conflicting? Explain your answer.
5. What is meant by the expression "getting prices right"? Under what conditions will eliminating factor price distortions generate substantial new employment opportunities? (Be sure to define *factor price distortions*.)
6. The informal sector has become a very large part of the urban economy. Distinguish between the urban formal and informal sectors, and discuss both the positive and the negative aspects of the informal urban labor market.