A RE-EVALUATION OF THE CONTRIBUTION OF THE RURAL-TO-URBAN LABOR FLOW

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INTRODUCTION

In 1954, W. Arthur Lewis published his well-known landmark article conceptualizing a two-sector model of a developing nation, and centered his analysis around the classical assumption of an unlimited supply of labor [12]. The two sectors in the model consisted of the non-capital-using subsistence sector, and the capitalist sector which used reproducible capital.[1] Among the key features of the model was the gain in productivity to be derived from the transfer of labor from the labor-abundant subsistence sector to the more productive capital-using sector. Given an assumption of a negligible marginal productivity of labor in the subsistence sector, labor could be transferred at a very low opportunity cost and with very little required increase in wages. Cheap labor was viewed as a boon to development since it produced a "capitalist surplus" which could be reinvested in capitalist enterprise for continued growth. This capitalist surplus would continue to be reaped so long as there existed surplus labor in the subsistence sector to provide labor to the capitalist sector at a constant wage. The capitalist surplus was viewed as the key to the model since it was assumed that savings and investment were available primarily from profits and not from wages or rents.

Subsequently, the concepts used in the Lewis two-sector model were modified and expanded by numerous other economists. Notable among these are the works of Ranis and Fei, Johnston and Mellor, and Jorgenson [14, 10, 11]. These models have provided a neat conceptual framework for viewing the interrelationships between the agricultural sector and the rest of the economy, and this approach has been properly incorporated as an integral part of our body of economic development theory. In each case, the implicit assumption is made that an "unlimited" labor supply is a positive factor for development. In contrast to the other authors, Jorgenson explicitly assumes a reduction in food supply as population migrates from the agricultural sector.

Although labor-surplus two-sector models were integrated into the development literature, some theoreticians and practitioners soon began to raise questions regarding the benefits of this large reservoir of labor, and to suggest the need for clarification of the issue. These questions were, however, generally raised in papers focusing specifically on other issues [3, pp. 35-36; 4; 7; 15; 17]. Furthermore, the questions were raised largely as a result of field observations and a growing recognition of the magnitude of problems of urban growth and unemployment rather than resting upon formal empirical testing. More recently, literature articles appeared casting additional light on the issue by reporting the results of empirical studies of the causes and consequences of the rural-to-urban labor movement, through the development of models designed to explain and to make predictions regarding this flow, or through some combination of the two [1, 5, 8, 9, 16, 18, 19, 21, 22].

EXTENT OF MIGRATION

The employment problem, arising from accelerating migration and rapid urbanization, facing today's developing countries is much more acute than that which confronted the countries of Europe when

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[1]Lewis pointed out that although the subsistence sector was primarily agricultural, there were also islands of capital-using agriculture as well as non-capital-using business and services. Thus, the terms subsistence and agricultural were not considered to be synonomous. Subsequent authors have tended to view the two sectors as the agricultural sector and the non-agricultural (sometimes industrial) sectors.

they underwent the transformation process during the nineteenth century. Comparative data for a number of countries indicate that the ratio between the extent of industrialization and urbanization was substantially more favorable for the European countries at similar stages of development; hence, labor could be more readily absorbed [28]. Furthermore, the option of international migration on a broad scale is much more severely constrained today.

Estimates by the United Nations indicate that on a worldwide basis:

. . . net population transfers from rural-to-urban areas amounted to 45 million in the 1920's, 80 million in the 1930's, 90 million in the 1940's, and 170 million in the 1950's. It is probable that this phenomenon has attained an even greater magnitude in the 1960's. . . . [24, p. *18].*

Although the increase in migration to urban centers has been felt in the developed as well as the developing countries, it is in the latter that the rate has accelerated most rapidly.

As the flow of migrants from rural areas to urban centers continues,[2] the numbers of persons living in substandard conditions, often as squatters in unplanned settlements, continue to rise rapidly.

Over one-third of the population of Mexico City, 1.5 million people, live in the colonias proletaries–known originally as barrios paracaidistas or "parachutists' neighborhoods"; nearly half of Ankara's population of 1.5 million in gecekondu districts– the squatter settlements whose name describes a house built overnight, the area of the villes extracoutumiers of Leopoldville is greater than that of the city itself [23, p.47].

The growth of these squatter settlements has generally been regarded as a shortrun phenomenon—a staging ground, as new migrants locate employment which enables them to gravitate to a more secure economic position and subsequently to move on to better housing.[3] Thus, public policy has failed to address the problem in any systematic way.[4] In the face of unemployment rates, which may run as high as 20 percent in some of the major cities of the developing world, there appears to be room for real question as to whether this "economic ladder" out of the slum settlement is, in fact, a viable alternative for the majority of the migrant populace. As noted by Turner [23, p. 47], today's growth around the outer edges of the urban center constitutes tomorrow's inner core of the city—thus, contributing to substantial future costs for clearing, rebuilding, etc.

THE ISSUE

The central issue is whether the large supplies of agricultural labor (being steadily released to the urban areas of many, if not most, of today's underdeveloped countries) represent a positive force for economic development as implied in the two-sector models or whether they, in fact, can constitute a rather serious brake on developmental efforts. The latter is clearly possible, if both private and social marginal benefits are negative, or if private benefits and public social benefits diverge to the point where the private benefits are positive and the social benefits are negative.

Two-sector models generally include the assumptions of perfect knowledge and foresight, frictionless labor markets, and costless transfer of goods and services. Furthermore, they assume that the only source of utility for the workers is their wages, and that the value of labor's marginal product in the subsistence sector is negligible. Under these restrictive assumptions, marginal social and private benefit must be equal and positive. Since the marginal product of labor in the subsistence sector is negligible, the loss of output is also negligible when labor leaves the sector. All products in the capitalist sector represent a net increment to output. Since the workers have perfect knowledge and foresight, they cannot err in appraising their returns, and since there are no costs to transferring goods and services between sectors, there are no additional costs in supplying these goods and

[2]In many instances this flow may be initially from a rural area to a neighboring village or provincial seat and then after some lag time to one of the major urban centers, rather than directly from farm to metropolis. Research findings in this area are scarce.

[3]There are some problems in the assumption that these shanty towns are populated primarily by migrants. A 1963 ECLA study concluded that in the Santiago shanty towns the percentage of recent migrants found there approximated their percentage distribution in the city as a whole, and that the shanty-town dwellers differed . . . "from the rest of the urban population more in degree of poverty than in origin" [25]. From the data, it was not possible to determine the relative distribution of rural as opposed to interurban migrants in the shanty towns. Flinn [6] found that 12 percent of the residents of a shanty town in Bogota, Colombia, were native to Bogota and almost half of the migrants were born in cities with populations of 2,000 or more.

[4]Of course, there exists the possibility, and perhaps even probability, that state action to ameliorate living conditions through the construction of low cost housing may have the end result of stimulating increased in-migration as news of availability of better housing filters back to the rural areas.

services to the migrant after relocation.

It might be argued that if the value of labor's marginal product in the subsistence sector is positive and the labor market in the capitalist sector is not frictionless, then the marginal social benefit will be negative. This is not necessarily the case. If labor's marginal value product in the subsistence sector is positive, migration would entail a cost; however, the marginal social benefit would be positive so long as the value of the marginal product of labor in the capitalist sector exceeds that in the subsistence sector. Todaro [22] has shown, the presence of unemployed migrants is not necessarily indicative of negative marginal social benefits if the unemployment was anticipated by the migrant.

What, then, could be the major sources of negative marginal social product? We contend that there are three. The first and most obvious is a lack of knowledge of urban labor markets. We would posit that it is likely that the migrant makes his decision to move to the urban area based upon far from perfect knowledge of the job market, derived from word-of-mouth reporting of the fortunes of a few migrants.[5] Under these conditions, if the migrant overestimates the income he can receive in the urban area and underestimates the time required to obtain employment, both the private and social marginal benefits may be negative. If, on the other hand, the migrant underestimates his potential returns and there are not external economies or diseconomies associated with migration, then private and social returns would be positive.

Secondly, the marginal private benefit may be positive while the marginal social benefit is negative if a migrant receives transfer payments after migrating. These could take the form of support from relatives or friends already well-established in the urban area, or welfare payments from the government in the form of cash, food, housing, etc. Such transfer payments may result in a positive marginal private benefit to migration but do not enter the social account. If these resources represent productive investment opportunities foregone, either in the public or the private sector, the real cost to the growth of the economy may be quite substantial.

Akin to transfer payments, in cash or kind, are public services such as sanitation and public health services, education, fire and police protection, utilities, and roads. If the government spends more to provide the migrant public services in the urban center, than was spent in the rural area, then this increment is an external diseconomy of migration.[6] The increase can result from the provision of additional services or from increased costs of providing a similar set of services. Additional services can be regarded as a transfer payment, raising the private returns to migration, but not substantially altering the social benefits. If the costs of providing the same level of services are increased, the social benefit of migrating is reduced by the amount of the incremental costs, but private benefits are unaffected. Both cases may result in private benefits being positive at the same time that social benefits are negative.

Finally, the Lewis-type two-sector models assume costless transfer of goods and services between sectors. Contrary to the usual assumption, the migrant does not carry a "bundle of food" with him; it must be transferred through the marketing system.[7] Inevitably, through waste, spoilage, pests, etc., some food is lost. Furthermore, the transfer of this food requires labor, capital equipment, and managerial skills which could have been used in either the subsistence or capitalist sector to produce directly consumable products. Hence, not only is the migrant worker's foregone marginal value product a cost of migration, but the calculus must also include food lost in the marketing system, and the food which could have been produced by those employed in the marketing system. It might be argued that the migrating worker pays for the added costs of his food through higher food prices. This is true, but he pays for only a small portion of these costs, since they are

[5] In one study of internal migration in the U.S. [13], it has been concluded that the number of friends and relatives living in the place of destination is more statistically significant as a migration-inducing variable than either income or unemployment differentials.

Similarly, a study of migration into Santiago, Chile [9], showed that annual flow to the city did not vary substantially from the mid-fifties to 1963 even though the measured rate of unemployment fluctuated between 5 percent and 10 percent during this same period.

[6] This ignores human investment aspects of public services. To the extent such services result in human capital formation, they cannot be viewed as an external diseconomy.

[7] The impact of this shift of population from rural to urban areas on the demand for food and marketing services has been analyzed in a recent USDA publication [20].

spread over the entire capitalist sector working force in the form of higher food prices. Further migration represents an external diseconomy for the workers already in the capitalist sector. Because most of the costs of providing food and other goods produced in the subsistence sector to the migrant worker is born by the entire population in the capitalist sector, it is possible that migration's marginal private benefits are positive while the marginal social benefits are negative.

SOME DEVELOPMENT RETARDING ASPECTS OF MIGRATION

Although some rural-urban migration is essential to the development of most less developed countries, it can proceed to the point where it is no longer a positive force for development. As pointed out, migrants do not, in the real world, carry their "bundle of food" with them when they leave the rural area. Transportation, storage, and other marketing facilities which are, at best, only weakly developed must cope with an additional burden at a stage in development when they are ill-equipped to do so. This is coupled, in many cases, with an agricultural sector whose output is growing only slowly, if at all. The impact in an underdeveloped country, where food represents the primary wage good, is likely to be felt throughout the economy as rising food prices trigger inflationary pressures.[8] Furthermore, any expansion of public services to meet the needs imposed by additional migrants may also have an inflationary impact. If not brought under control, the resultant inflation will tend to distort investment in favor of short-term speculative ventures and will encourage capital flight abroad. In the absence of either devaluations or a move to some form of multiple exchange rates, exports (generally agricultural products) will be slowed, foreign exchange will become increasingly scarce, and the total national development program will be impeded. Alternatively, if the government elects to follow policies designed to suppress the prices of agricultural products in order to subsidize urban consumption and retard inflation, the result will be a further disincentive to agricultural producers and an additional incentive to migrate.

In those developing countries where social legislation has attempted to provide for the unemployed, whether they be migrants in shanty towns or long-time residents, welfare costs have, on occasion, imposed a severe burden on the economy.[9] This burden may be in terms of actual welfare disbursements or may take the form of requiring commercial firms to employ more workers than needed. Welfare disbursements in the form of cash subsidies, housing, food, clothing, etc., reduce the public sector's ability to invest for development and can also be inflationary. The forced employment of surplus labor in urban areas, particularly in the public services, beyond the point where they are making a net marginal contribution may entail high costs to the economy in terms of increased prices of goods and services and inability to compete internationally. Insofar as these subsidies to migrants contribute to increasing the marginal private benefit of migration, migration will be further stimulated and the cycle will repeat itself as urban population growth outstrips the provision of socially acceptable living conditions.[10] Thus, we find ourselves in another of those "vicious circles" with which the literature of development is so replete.

One must also consider present and potential political consequences of the growing numbers of unskilled and unemployed migrants who continue to flock to the central cities to take up residence in the squalid conditions reserved for the very poor. Labor strife, strikes, riots, and violence are becoming increasingly common occurrences.[11] If a correlation exists between education, urbanization, and political articulation, one might anticipate increasing organized protest against unacceptable social, political, and economic conditions as the flow of migration continues. Needless to say, the resultant paralysis of an economy can hardly be construed as a positive factor in economic development.

CONCLUSIONS

Although there no doubt exist scarcities of certain labor skills in the industrial sectors in today's underdeveloped countries, it is questionable whether these labor shortages can be met by an unselective flow of

[8] This of course, assumes that the marginal product of labor in the subsistence sector is, indeed, positive. Then migration will result in a decline of output in the subsistence sector ceteris paribus.

[9] The current state of the Uruguayan economy is a good example of the pitfalls to development which surround growing welfare commitments, although resulting from a combination of many factors [2].

[10] Data for twelve Latin American countries indicate that the population of the capital city (or largest city) in all cases but one has been growing at a much faster rate than the nation as a whole [26, 27].

[11] Few major developing countries in recent years have been immune from organized and violent protests against lack of employment opportunities and/or wages that fail to keep pace with inflation.

unskilled agricultural workers from rural areas. We are not being realistic if, in our models, we continue to treat labor as a homogeneous input which may be readily transferred from one form of employment to another at relatively low social cost. There has also been a tendency to underestimate or even to neglect the mounting public costs of housing, police and fire protection, sewerage, transport, electrification, education and training, medical facilities, etc., necessitated by the massive rural-to-urban movement of the populations of many underdeveloped countries.

In our development models we have not given sufficient consideration of the costs associated with providing food and other subsistence-sector-produced goods to the migrants. Migration has in many cases led to negative marginal social benefits because of imperfect knowledge of labor market conditions on the part of potential migrants, the external diseconomies of migration, and welfare policies which favor urban residents and hence reward migrants regardless of their participation in the urban labor force.

Additional empirical research on the developmental impact of rural-to-urban migration is urgently needed by planners and administrators in the developing countries. Such knowledge will become increasingly important as the basis for making the right policy decisions in the coming decades.

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