MIGRATION AND URBAN

POVERTY IN NORTHEAST BRAZIL

by

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C O N T E N T S

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A B B R E V I A T I O N S

BNB	Banco do Nordeste do Brasil S.A.
BNDE	Banco Nacional do Desenvolvimento Econômico
BNH	Banco Nacional da Habitação
CETREINO	Centro de Treinamento do Nordeste
CNPU	Comissão Nacional de Regiões Metropolitanas e Política Urbana
CODEVASF	Companhia de Desenvolvimento do Vale do São Francisco
COLONE	Companhia de Colonização do Nordeste
DNOCS	Departamento Nacional de Obras Contra as Secas
EAP	Economically Active Population
ECLA	Economic Commission for Latin America
ETENE	Departamento de Estudos Econômicos
FIBGE	Fundação Instituto Brasileiro de Geografia e Estatística
FIDEM	Fundação de Desenvolvimento da Região Metropolitana do Recife
FINOR	Fundo de Investimentos do Nordeste
GDP	Gross Domestic Product
GEIDA	Grupo Executivo de Irrigação para o Desenvolvimento Agrícola
GTDN	Grupo de Trabalho para o Desenvolvimento do Nordeste
IBRD	International Bank for Reconstruction and Development
IFOCS	Inspetoria Federal de Obras Contra as Secas
ILO	International Labour Organization
INAMPS	Instituto Nacional de Assistência Médica e Previdência Social
INCRA	Instituto Nacional de Colonização e Reforma Agrária
INPES	Instituto de Pesquisas
IPEA	Instituto de Planejamento Econômico e Social

IPLAN	Instituto de Planejamento
MINTER	Ministério do Interior
OECD	Organisation for Economic Co-operation and Development
PIN	Programa de Integração Nacional
PNAD	Pesquisa Nacional por Amostra de Domicílios
POLONORDESTE	Programa de Desenvolvimento de Áreas Integradas do Nordeste
PPI	Programa Plurianual de Irrigação
PREALC	Programa Regional del Empleo para America Latina y el Caribe
PROTERRA	Programa de Redistribuição de Terras e Estímulo à Agro-indústria do Norte e Nordeste
SCET	Societé pour l'Equipment de Territoire-Cooperation
SIRAC	Serviços Integrados de Assessoria e Consultoria
SUDENE	Superintendência do Desenvolvimento do Nordeste

SUMMARY

The major objective of this thesis was to study urban migration of poor people in Northeast Brazil from a longitudinal perspective, i.e., their situation before migration, upon arrival and after settlement at destination. A second objective was to investigate the role played by Northeastern towns of different sizes in terms of their attraction to migrants. The towns of Recife, Caruaru and Petrolina in the State of Pernambuco were chosen for survey.

Chapter I contains a description of migration in the general context of the Northeastern region. Using secondary data, we demonstrate how the relatively high population growth, a not wholly favourable ecology and distorted patterns of land ownership and poor land use provoke rural emigration. We also show how official development policies have been ineffectual and have failed to stem high rates of intra and interregional migration.

Chapter II is concerned with the basic hypotheses and ideas which underlay the structuring of the questionnaire used in the survey. The chapter describes also the sample procedures and provides a broad description of the three towns and the slum districts chosen to be surveyed.

Chapter III is concerned with those who migrate and the reasons why they do so. The sample in the survey demonstrates that urban migrants in Northeast Brazil are predominantly male, young and poorly educated people who move from rural or small urban areas. Their emigration is motivated by unemployment or poor earnings and they move short distances, with step migration not being a common occurrence. The main reason for their choice of destination is the presence of relatives and friends.

Chapter IV examines the migrants' integration into the urban environment by investigating the conditions of their assimilation into the labour market. The majority of migrants in the three towns surveyed acquire an occupation shortly after arrival. Kinsmen and friends frequently provide maintenance and act as a source of information on jobs. Most occupations held by migrants are in the informal sector, either as wage employees or self-employed workers. Regardless of their occupational conditions, most migrants do not enjoy any sort of job security.

In Chapter V a comparison is made between migrants and non-migrants in terms of their working and living conditions. Low earnings and long hours of work are the common lot of both migrants and non-migrants. Occupational mobility among migrants occurs within the informal sector. A comparison between migrants' first and present occupation show a tendency towards self-employment. The comparison of some material indicators among migrants and natives also indicates that there are not significant differences in the living conditions of the two groups.

Chapter VI contains conclusions and perscriptions. From the data in the survey, the three towns appear to play similar roles in assimilating migrants; in all three their working and living conditions are inadequate.

The causes for the inability of the Northeastern urban economy to absorb labour are discussed and the process of industrialization in Brazil at large and in the Northeast in particular, is briefly described.

In the latter half of the chapter we suggest policies to improve employment and to alleviate the appalling situation of contemporary migrants. The possibilities of land redistribution, rural colonization and irrigation are considered. One central recommendation is that agro-industrial nuclei should be created in

medium-size towns in the interior of the Northeast and that these nuclei should exploit the area's comparative advantage in primary goods.

CHAPTER I

MIGRATION IN THE CONTEXT OF NORTHEAST BRAZIL

The Northeast of Brazil is a large area of 1,539,632 km^2, which comprises the States of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe and Bahia. It had approximately 31 million inhabitants in 1976, 30.0 per cent of the national population, living in a territory which represents 18.0 per cent of the country's total area. In 1976 the Northeast had contributed only 14.0 per cent of Brazil's net domestic product at factor price and its *per capita* income was less than half that of the country as a whole.[1]

The regional disparities shown by these figures reflect a situation of severe poverty in a vast sub-area of Brazil. Indeed, the data shown in table I are indisputable evidence of the gravity of the economic and social under-development of the Northeastern region. These figures appear still more alarming when one bears in mind that these socio-economic indicators for all Brazil rank low even if compared with some other developing countries. The magnitude of the problem facing the Northeast is better understood if one considers that the region shelters the largest concentration of poverty in Latin America[2] and that it is the most populated and largest area in the western hemisphere with *per capita* income below 300 dollars per annum. This situation is aggravated by the fact that the income distribution, which is more unequal than that for Brazil as a whole[3], is still worsening. Indeed, whereas 80.0 per cent of poorer *nordestinos* earned 49.7 per cent of the total income in 1960, their share in 1970 had declined to 44.0 per cent. The 5.0 per cent richer had their share increased from 26.0 per cent to 35.0 per cent and the 1.0 per cent on the top of the distribution

Table I

Economic and Social Indicators

Northeast and Brazil

1970

	Northeast Brazil (1)	All Brazil (2)	(1) : (2) %
1. Per Capita Net Domestic Product at f.c. (U.S.$ equivalent)	149	386	38.6
2. Gross Mortality Rate - 1960/70. (%)	18.0	10.1	178.2
3. Infant Mortality Rate per '000 live births	137.7	75.1	183.0
4. Life expectancy at birth. (years)	49.0	61.0	80.3
5. Per cent Underemployment in urban sector (work less than 40 hours per week)	25.0	21.0	
6. Per cent of agricultural workers earning less than the minimum wage (about U.S.$ 25 per month)	93.0	60.0	
7. Per cent male agricultural workers who are owner-operators of plots	25.0	62.0	
8. Enrolment ratio (% of primary age group)	45.0	70.0	26.9
9. Illiteracy Rate (% of labour force)	57.8	29.7	187.5
10. Per cent of urban population served by sewerage	7.0	26.0	
11. Per capita calorie supply as % of requirement	77.0	106.0	72.6
12. Electric power consumption per capita (Kwh)	106.0	477.0	22.2
13. Number of Tractors per 100 farms	2.8	32.0	8.8
14. Agricultural credit as % of gross agricultural product	19.0	37.0	

Source: IBRD, Rural Development Issues and Options in Northeast Brazil. Report No. 665a - BR, June 23, 1975.

pyramid had their share raised from 13.0 per cent in 1960 to 18.0 per cent in 1970.[4] The problem facing Northeast Brazil is, in Williamson's view, the most acute case of interregional development inequalities among countries that face similar problems.[5]

The backwardness of the Northeast is not recent and it has long been officially recognised as a serious obstacle to the nation's present and future development.[7] Indeed, for the past century or so successive attempts have been made, in the form of the establishment of official institutions and programmes, with the specific purpose of tackling the problema nordestino.[8] The efforts made so far to interpret the historical causes for the region's backwardness and the contributing factors to the exacerbation of the regional economic differentials do not yet provide entirely satisfactory explanations for the phenomenon.[9]

Although the regional population has been growing steadily over the years, the rates of growth have been persistently lower than the country's population growth rates, as seen in table II. As a

Table II

Annual Population Growth Rates, Northeast and Brazil

	1900-10	1910-20	1920-30	1930-40	1940-50	1950-60	1960-70
Northeast	0.7	0.1	1.9	1.1	2.2	2.1	2.4
All Brazil	2.1	2.1	2.0	2.3	2.4	3.4	2.8

Source: Fundação IBGE, Demographic Censuses.

consequence of these differentials in population increases, the Northeast has been losing its position as one of Brazil's larger demographic areas. This constant decline is better appreciated if one recalls that in the second half of the 19th century the Northeast was Brazil's most populated area and its population accounted for almost half of the country's total. Indeed, according to the 1872

census, the population of this region constituted 46.7 per cent of the Brazilian population. The subsequent decreases in the Northeast's position vis-à-vis the rest of Brazil were as follows: 41.7 per cent in 1890; 38.7 per cent in 1900; 36.7 per cent in 1920; 35.0 per cent in 1940; 34.6 per cent in 1950; 31.6 per cent in 1960 and 30.3 per cent in 1970. These figures are indicative of two relevant aspects of the demographic evolution in the Northeast: the high rates of natural growth and emigration.

The statistics available on the natural growth of the population (table III) show that, during the past four decades, the region has experienced high rates of birth and declining death rates.

Table III

Birth, Death and Natural Growth Rates in the Northeast

Period	Birth (°/oo)	Death (°/oo)	Natural Growth (°/oo)
1940-50	47.5	27.5	23.0
1950-60	46.5	21.0	25.5
1960-70	44.5	18.0	26.5

Source: Brasil - Ministério do Interior. II Plano Nacional de Desenvolvimento - Programa de Ação do Governo para o Nordeste. Recife, SUDENE, 1975, p.35.

However, owing to inter-regional emigration, the annual rates of population growth appear below the national rates. Another effect of the high birth rate is that the population of the Northeast is predominantly young: in 1970, 55.0 per cent of the total population was under 20 years of age and nearly 30.0 per cent was less than 10 years old. The most obvious consequence of this is a high dependency ratio (2.6 people per each occupied person in 1972)[10], which is associated with a relatively low ratio of the labour force to the total population.

To illustrate the antiquity of the migratory process as a phenomenon in the Northeast, it is worth mentioning an editorial of

the paper the Diário de Pernambuco,[11] in its edition of March 27, 1856. The article is concerned with the problem of immigration in Recife and it presents some interesting insights on the causal relations already existing between land tenure, land under-utilization, excess rural population, poverty in the interior and urban un- and under-employment. The problem remains pertinent today, in that patterns of nordestino migration have increased and diversified in their flow and destination.

Intra-regional migration was, initially, mostly in the form of rural-urban movements. Indeed, whereas the Northeastern population was still predominantly rural in 1940 (76.6 per cent of the total population), this position has steadily changed as follows: 73.6 per cent in 1950; 65.8 per cent in 1960 and 58.2 per cent in 1970.[12] More recently, however, urban-to-urban flows predominate, as seen from the relative importance of each of the main internal flows in the Northeast in 1970: urban-urban, 44.1 per cent: rural-rural, 30.8 per cent; rural-urban, 16.7 per cent and urban-rural, 8.7 per cent.[13] These figures show a predominance of migration towards urban areas, as it accounted for a total of 60.5 per cent of total migration within the region in 1970.

The degree of urbanization (urban population as a percentage of total population) has correspondingly increased: 26.4 per cent in 1950; 34.2 per cent in 1960 and 41.8 per cent in 1970. It was estimated that more than half of the net population growth of the 20 largest cities in the Northeast between 1950 and 1970 resulted from immigration.[14] The annual rural-urban exodus in recent years has amounted to 200,000 people.[15] In absolute terms, a total of 3.9 million people moved from rural to urban areas within the Northeast between 1950 and 1970. The growing intensity of the exodus is evidenced by the fact that, whereas the number of rural-urban migrants was 1.8 million during the 1950-60 decade, the figure rose to 2.1 million through the 1960s.[16]

According to the 1970 Demographic Census, one-fifth of the regional population was living in places different from those of their birth.[17] A confirmation of these figures is provided by the comparison between the rates of growth of both rural and urban populations. Table IV shows that there was a slight reversion of the trends observed during the 1940s and 1950s. The growth rates of the urban population declined slightly, while the rural population increased a little during the 1960s.

Table IV

Annual Growth Rates of Urban and Rural Population in the Northeast

Period	Urban Areas (%)	Rural Areas (%)	Northeast (%)
1940-50	3.4	1.8	2.2
1950-60	4.9	1.1	2.1
1960-70	4.6	1.2	2.4

Source: Moura, Hélio A. and Moura, Herber J. "Crescimento da População Urbana do Nordeste - 1940/70." Revista Economica do Nordeste, No.18, October/December, 1973. p.59.

As regards the spatial distribution of the urban population, there is a high concentration in the littoral. Indeed, for the past three decades the population living in coastal urban areas has represented nearly 60.0 per cent of the region's total urban population.[18] On the other hand, there is evidence that migration has had a major influence on the narrowing of the *per capita* income differentials between urban and rural areas in the Northeast, the difference having decreased from 6 to 1 in 1950, to 4 to 1 in 1970. Over the period, the urban *per capita* income increased at an average annual rate of 1.7 per cent, whereas in the rural sector it grew at 3.8 per cent.[19]

The Northeast is a traditional supplier of labour to other Brazilian regions. This inter-regional labour transfer has been regarded as a factor relieving extreme existing regional inequality,[20] as it reduces the pressure on regional supplies of employment, food and basic infrastructure.

During the 1930-40 decade the region lost about 642,580 people to other areas and over the following decade the number of emigrants was 936,500.[21] The 1950s was a period of intense inter-regional emigration, a result of which was that the average annual growth rate of the Northeastern population was 2.1 per cent over the decade, as opposed to the national average of 3.4 per cent. During that decade there were several factors that contributed to the intensification of population dislocation from the Northeast to the Centre-South region. Internally, the semi-arid interior was struck by two severe droughts in 1951-53 and 1958. The 1950s was also a period during which substantial improvement was made of the country's highway system, which in turn coincided with the post-war industrial boom of the Centre-South. Another major contributing factor was the initiation of the construction of Brasilia, the new capital, in the late 1950s. This was a period in which inter-regional emigration predominated over intra-regional movements; indeed, whereas emigration for other regions had represented 43.7 per cent of total migration of nordestinos in the 1940s, over the 1950s the proportion had grown to 52.0 per cent. During the following decade, despite the fact that the Northeast lost approximately 1 million of its inhabitants to other regions,[22] there was a change towards convergence in the annual growth rates of the regional and national populations: 2.4 per cent and 2.8 per cent respectively (see table II).

Inter-regional migratory balances are calculated as the difference between the numbers of nordestinos living in other regions and the number of natives of other regions living in the Northeast. The

results pictured in table V reveal not only a negative balance, but also a rising trend of nordestinos living elsewhere, indicating that the Northeast is a region of net emigration.

Table V

Ratio of Natives and Non-Natives in the Northeast's Population (Percentages)

Year	Absent Natives(1) / Total Population	Present Non-Natives(2) / Total Population	Migratory Balance (1) - (2)
1940	4.7	0.5	- 4.2
1950	5.4	0.5	- 4.9
1960	8.4	0.7	- 7.7
1970	11.9	0.8	-11.1

Source: Brasil, Ministério do Interior, op.cit., p.35.

A pertinent question that emerges at this stage is: why has the Northeast traditionally been a producer of emigrants? The following part of this chapter will attempt to answer this question. It will start by investigating the links between employment and migration in the region. Immediate evidence is that the Northeast is typically a region with under-utilized labour resources as a consequence of the failure by the economic system to generate enough employment opportunities to satisfy the rapid increases in the regional labour force, which amounted to 8.7 million people in 1970. Of this total, 5.2 million were located in the primary activities and 3.2 million were dedicated to urban occupations. The economically active population (EAP), un- and underemployed workers included, was respectively 4.6 and 2.4 million people. If this total of 7.0 million is compared with the labour supply of 8.7 million, a deficit of 1.7 million employment opportunities is produced. In terms of sectors, the deficit would be 600,000 in primary activities and 800,000 in urban occupations.[23]

Rural unemployment (0.4 per cent of the rural EAP in 1970) is negligible compared to under-employment in that sector. There was an estimated excess of rural labour in the Northeast in 1972 of 49.0 per cent of the agricultural families, mostly smallholders and temporary wage labourers.[24] This astonishing finding is corroborated by an earlier study that had estimated the excess families in rural Northeast in 1969 to be 50.0 per cent of total agricultural families.[25]

Migration from and within the Northeast has been, historically, one of the symptoms of the region's inability to provide adequate employment and income for the majority of its population. Because rural-to-urban migration persists in the Northeast, it is appropriate to consider the extent to which the man/land relationship works as a determinant to emigration.

Although the Northeastern region has preserved a single identity within Brazil, it is a heterogeneous region as regards its ecological, demographic and economic characteristics. Therefore the differentiation in the physical environment has played a central role in the shaping of the various forms of human occupation, economic activity and socio-cultural structure. The relative scarcity and geographical dispersion of arable land, aggravated by irregular rainfall distribution, are some of the factors which determine the economic activity and agrarian organization of rural Northeast. The semi-arid climate that castigates half of the region's territory and where periodical droughts occur, besides conferring a peculiarity to the Northeast, constitutes an element of potential economic instability and a limiting factor to regional development.

A panoramic view of the geo-economy of the Northeast permits the distinction of two large sub-systems: the humid peripheries and the semi-arid interior. For analytical purposes, these two large and

distinctive sub-systems can be sub-divided, each, into two other sub-zones: the two humid peripheries correspond to what SUDENE, the regional development agency, considers as Zona do Litoral e Mata (Forest and Coastal Zone) and Zona do Meio-Norte ou Transição Amazônica (Mid-North or Transition to Amazon).[26] The first is a narrow coastal strip, on average 100 kilometres wide, which runs parallel to the littoral from Paraiba to Bahia, representing only 6.10 per cent of the Northeast's total area.[27] It is a sub-region dominated by sugar cane and cocoa plantations, producing for the external markets. It is also an area of high levels of demographic concentration (23.0 per cent of the regional population in 1970), population density and use of wage labour. It is on the coast that the largest cities and all but one state capital are sited. Because it is a highly concentrated economy in terms of land, industry and income, it has a large contingent of landless workers. Most of the new industries established in the region are located in this zone, but the insufficiency of working opportunities has led to intensive rural emigration and urban immigration.

The second zone is the western portion of the Northeast and it comprises the entire State of Maranhão and part of Piauí. It is a transition zone in which the environment changes gradually from the semi-arid climate in the eastern part, to the Amazon rain forest in the western portion. Its area corresponds to 26.5 per cent of the Northeastern territory and its population represented 13.0 per cent of the region's total in 1970. Owing to its comparatively favourable ecology - abundant rainfall and absence of droughts - and low demographic densities, the zone has experienced intense immigration during the past two decades. As an agricultural frontier at the final stage of occupation, the Meio-Norte has helped to alleviate the more densely populated sub-regions from increasing population pressures.[28] Policulture of food staples, specially rice, vegetal

collection and cattle raising are the principal economic activities in the sub-zone.

For analytical purposes the semi-arid interior can be sub-divided into two sub-systems which constitute, in fact, aggregations of SUDENE's remaining four sub-regions. One is formed by Zona do Agreste (Semi-Arid Transition Zone) and Zona das Manchas Férteis (Fertile Spots - Humid Valleys and Highlands), and the other is constituted by Zona Semi-Arída (Semi-Arid Backland, or Sertão) and Zona do Cerrado (Savanna Area).

The Zona do Agreste is a transition area between the humid atlantic strip and the semi-arid Sertão, spanning between Rio Grande do Norte and Bahia. Its area corresponds to 5.3 per cent of the regional territory and its share of the total population was 14.0 per cent in 1970, making it a densely populated sub-region. It is characterized by a variety of climates which have similarities with the neighbouring zones: humid or sub-humid in the eastern parts and semi-arid in the western portion. Land distribution in the Agreste exhibits considerable diversification, unlike the Zona da Mata. There is also a degree of agricultural specialization according to property sizes, whereby latifundia are dedicated to cattle grazing, whereas in medium and small holdings policulture of food-stuffs and short-cycle commercial crops predominate, their surpluses supplying the more urbanized and industrialized coastal areas. For the past two decades, cattle rearing, with official incentives, has been replacing agricultural production. Income distribution is also unequal as a consequence of the structure of land ownership and labour relationships.[29] Several of the region's medium-sized towns are located in the zone and its industries are devoted to the processing of locally produced raw materials.

The Manchas Férteis are isolated, humid and densely populated spots scattered throughout the semi-arid backlands. They are composed of areas where the environmental conditions permit the practice of more

productive types of agriculture, particularly in the highlands and irrigated river basins. They have a peculiar role in the occurrence of a drought, because it is there that herds of cattle are sent in order to escape from the climatic hardships. Their area corresponds to roughly 2.0 per cent of the regional territory.

Both the Sertão and Cerrado, seen as a single sub-region, are heavily dependent upon the rainfall cycle, and are used for dry agriculture of low yield. The sub-region covers 62.0 per cent of the regional territory and its population corresponded to 46.0 per cent of the Northeast's in 1970. In absolute terms, its population density of 14 inhabitants per square kilometre appears to be low. However, given the ecological conditions, it is very high. The primary activities in the area are extensive cattle grazing, xerophytic agriculture (mainly arboreal cotton), both oriented towards the market, and subsistence crops with routine farming methods. This combination is realized in the form of farming consortia in which cotton is inter-planted with short-cycle crops and, once harvested, leaves the land available for grazing cattle. This agricultural organization determines a division of labour whereby the most important activity for medium and large landholders is cattle raising, whereas the small owners and landless workers cultivate subsistence crops.[30] This is, indeed, the very essence of the production system, because, as the landlord appropriates the entire income derived from cattle raising and a fraction of that generated by cotton production, he releases part of the land for the landless labourers to cultivate subsistence crops. In doing so, the proprietor guarantees the supply of labour, at no monetary cost, for commercial agriculture. Thus, the availability of land and the elastic supply of labour are the key elements for agricultural expansion in the semi-arid interior. It is made possible also because of the variety of land tenure arrangements between proprietors and rural labourers. Besides the owners, administrators and wage workers,

the most common categories as regards access to land are: sharecroppers, renters, moradores (resident workers) and squatters. The basic differentiation among the first three categories is the form of payment of rents and receipt of rewards, usually a mix of cash and kind, between the worker and the landlord, in exchange for the use of the land. By and large, these are very exploitative agreements, most benefits accruing to landlords at the expense of those working the land.

Historically, the rural exodus in the Northeast has been associated with the occurrence of droughts in the semi-arid interior, and there is evidence that the problem was accentuated from the end of the 19th century, when the demographic situation in the Sertão became incompatible with the ecological and climatic conditions. Hordes of jobless flagelados ('beaten' people) and the convoys of retirantes (those 'fleeing') moving about the Sertão during droughts are vivid examples of the extent of the social calamity that climatic crises bring. The drought is a periodic phenomenon due to the scarcity and uneven distribution of rainfall over the year. It affects the semi-arid interior in varying degree,[31] but it invariably provokes a crisis of extensive proportion in the whole Northeastern economy. This repercussion can be perceived through the very low or even negative growth rates of the regional domestic product during the major droughts of the past three decades: -0.8 per cent in 1951; -1.6 per cent in 1953; 0.3 per cent in 1958 and -0.9 per cent in 1970.[32]

Not surprisingly, the climatic irregularity most affects poor rural families, the majority of those living in the Sertão. Low income farmers, notably smallholders and the landless, due to their very weak links with the cash economy are, during droughts, suddenly deprived of any means of subsistence. Moreover, because these

farmers do not have control over the marketable agricultural surplus, and lack storage facilities, they are unable to accumulate reserves during the years of normal rainfall. So, for those turned into flagelados by the drought, the only alternative for survival is emigration.

In order to avoid mass starvation and contain the population in the rural areas, the Brazilian authorities have traditionally resorted to emergency work fronts in order to ensure employment and earnings for flagelados.[33] Although these are characteristically assistentialist measures, they have helped to alleviate the suffering of many thousands of people. At the present moment SUDENE, the institution responsible for the work fronts, has a permanent emergency plan capable of assisting 900,000 workers if a drought occurs.[34] The number of recruits in the work fronts during the past three major droughts was: 60,000 in 1951-53; 536,000 in 1958 and 500,000 in 1970.[35] The information on the occupational status of the workers employed in the 1970 work fronts corroborates what was said earlier as regards the discriminatory character of the droughts: of the total population assisted, 42.2 per cent were sharecroppers and 31.9 per cent were smallholders. Furthermore, 82.0 per cent of the recruits worked in properties of less than 10 hectares.[36] Unemployment is, understandably, one of the consequences of the drought that gives rise to great concern. During the 1958 drought the rate of unemployment in the semi-arid Northeast was estimated at 50.0 per cent of the EAP[37] and in 1970, 35.0 per cent.[38]

Long term policies to reduce the impact of the droughts have been applied in the region for approximately 100 years. Until the early 1950s the strategy was concentrated on large scale engineering work, especially reservoir and road construction, and the perforation of wells, on the assumption that shortage of water was the core of the

problema nordestino. The policy failed because the diagnosis was over simplistic; it failed to touch the questions of land reform and irrigation for the weakest sector, to small-scale sharecropper and subsistence farmers of the area. As a consequence, the semi-arid economy became paradoxically more vulnerable to the drought.[39] In 1952, with the creation of the regional bank, BNB, a policy of medium and long term, specialized rural and industrial credit, came to reinforce the so-called política hidráulica. In 1959 SUDENE was established with responsibility to supervise, coordinate and control the action of federal institutions in the Northeast and also to formulate and implement the development plans for the region.[40]

It has been shown how the drought, being discriminatory for the poorer rural labourers, has become a cause for emigration. We now proceed to a macro-appraisal of the region's agriculture, emphasizing those aspects which may have some bearing on rural emigration. One historical characteristic of the Northeastern agriculture is its extensive growth without technological or institutional changes,[41] which is confirmed by the very little improvement in the macro-economic parameters. Increases in production are achieved, as mentioned earlier, by the incorporation of under-utilized or idle land and the use of a highly elastic supply of labour. Productivity levels are, as expected, low: the slight increases in the average productivity of labour during the 1950s and 1960s were due to reductions in rural under-employment and emigration.[42] On the other hand, regardless of some increase during the past four decades, the cultivated area per worker in rural Northeast has been consistently lower than the ratio for Brazil as a whole.[43] Over the 1960s, however, fragmentation was observed in the size of small holdings (less than 50 hectares), which was reduced from a

mean size of 12.4 hectares in 1960 to 7.3 hectares in 1970, evidence that the rural population growth outpaced the expansion of cultivated land.[44] As there remains little area available for the expansion of the agricultural frontier, the prospects are that, without technological and institutional changes in the rural sector, the creation of new jobs will soon recede, while the work force will continue to grow.[45]

The intensity of land utilization in the Northeast is dictated by both environmental conditions and patterns of agrarian organization. As will be seen, the regional agriculture faces both problems. According to INCRA, the institution responsible for agrarian policies in Brazil, the total agricultural area in the region in 1972 was 86 million hectares, of which 71 million hectares (82.6per cent) was arable land. However, only 47 million hectares were effectively explored, which means that only 65.7 per cent of arable land was under cultivation in 1972.[46] On the other hand, Table VI shows that there was a high concentration of the arable land in larger properties: those with areas above 200 hectares accounted for 64.5 per cent and those above 500 hectares constituted 45.8 per cent of the total number of properties. Similar pattern occurs with reference to the area effectively exploited, although there is not a clear relationship between intensity of exploitation and property size.

SUDENE demonstrated that there was a surplus of 2 million agricultural families in the Northeast in 1972. The calculation was based on the following assumptions: a) there was a cultivated area of 71 million hectares; b) a typical rural "module" should be 42.3 hectares, as suggested by INCRA; c) ideally, there should be a family income equivalent of 2.2 minimum salaries per month;[47] and

d) there were 3.4 million agricultural families in the region.[48]

Table VI

Use of Agricultural Land in the Northeast

1972

Size Stratum (ha)	Arable Land (%)	Exploited Arable Land (%)	Intensity of Exploitation * (%)
0 - 50	13.0	13.6	68.4
50 - 200	22.5	21.4	62.4
200 - 500	18.7	18.1	63.6
500 - 1000	12.9	13.0	66.5
Over 1000	32.9	33.9	67.8
Total	100.0	100.0	65.7

* The ratio of exploited land to arable land.

Source: Brasil. Ministerio do Interior. II Plano Nacional.... Tables 2.21 and 2.22

These families are obviously identified with the small owners and the landless labourers, who constituted the low-income 3,098 families whose earnings totalled less than 2.2 minimum salaries in 1970, and represented 92.0 per cent of the agricultural households.[49]

Table VII shows the distribution of the agricultural families by type of occupation and the control of land by each sub-group.

Table VII

Occupational Status and Access to Land in the Northeast

1970

Sub-groups	Number of Agricultural Families (%)	Area controlled (%)
Landowners	37.4	89.3
Renters	11.3	3.0
Sharecroppers	3.3	1.6
Squatters	13.9	6.1
Wage Labourers	34.1	-
Total	100.0	100.0

Sources: Brasil. Ministerio do Interior. II Plano Nacional .... p.55 and FIBGE, op.cit. p.275.

An alarming conclusion arises from table VII: nearly 90.0 per cent of the region's labour force do not own the land they cultivate. Moreover, of the 1.2 million landowners, approximately 1 million (83.0 per cent) possessed holdings of 50 hectares or less.[50] On the other hand, there is evidence that the number of sharecroppers and wage labourers has been decreasing over the past three decades, whereas the number of renters and squatters is growing considerably. This is indicative of some change in the nature of labour arrangements by which sharecropping is being replaced by the system of arrendamento. The increasing participation of squatters may be explained by intra-regional migration to the agricultural frontiers of the region's peripheries. Indeed, it was in the States of Maranhão, Piauí and Bahia that the squatters' shares were larger in 1970.[51]

Another potential cause for emigration is the structure of land ownership. In the Northeast, the land distribution is extremely unequal, the Gini coefficient for the whole region being 0.83 in 1973.[52] As shown in table VIII minifundia (holdings of less than 10 hectares) represented 68.4 per cent of the number of holdings, but accounted for only 5.6 per cent of the total area in 1970.

Table VIII

Distribution of Agricultural Establishments by Total Area in the Northeast 1970

Size Stratum (ha)	Number of Establishments		Total Area	
	Thousands	(%)	('000 ha)	(%)
0 - 10	1,503.2	68.4	4,090	5.6
10 - 50	449.5	20.4	10,170	13.7
50 - 100	112.1	5.1	7,724	10.5
100 - 200	66.7	3.0	9,041	12.2
200 - 500	45.2	2.1	13,475	18.3
500 and Over	22.8	1.0	29,312	39.7
Total	2,199.5	100.0	73,812	100.0

Source: FIBGE. Agricultural Census.

At the opposite extreme, latifundia over 500 hectares constituted only 1.0 per cent of the total number of properties, and controlled nearly 40.0 per cent of the area. Because of this distortion, approximately, 64.0 per cent of the agricultural establishments in the Northeast have areas that are insufficient to absorb the family work force, and operate at very low productivity levels.[53]

Bearing in mind that the distribution of land is a good proxy for the distribution of capital and wealth in Northeast agriculture and that the distribution of income of the landholding individuals should be closely related to landholding size,[54] landlessness is likely to be a fundamental cause for rural emigration.

Certain other generic aspects of the region's rural sector have some bearing on the issue of emigration. During the 1960s more than 40.0 per cent of the region's cultivated land was devoted to the production of raw materials and exportable agricultural goods,[55] a situation which has not changed lately.[56] This creates a paradox because the region is impelled to import food, since the surpluses from the subsistence sector are not sufficient to meet the regional demand.[57] The unsatisfied demand and the relatively high production costs are, then, responsible for higher food prices in the Northeast than in the rest of the country.[58] These market incentives, however, do not affect the rural producers who are placed at the initial leg of a long commercialization chain, in which intermediaries subtract profit along the marketing circuit. Agricultural production has, therefore, been unable to respond to these incentives. The measure of rural poverty in the Northeast is manifested by the low level of its per capita income, about U.S.$ 76 in 1970.[59]

The official agricultural development policy in the Northeast is constituted by a multiplicity of rather diffuse and vague strategies under the responsibility of several agencies and

programmes. Apart from the lack of coordination among these strategies, the authorities show no concern for the actual implementation and working interdependence of these policies. Nevertheless, theoretically, in principle, they cover all the major issues related to northeastern rural development: land reform, irrigation, colonization, cooperativism, rural credit and extension, agricultural research and minimum prices policy.

SUDENE, institutionally restrained from enforcing the far-reaching rural transformations proposed by GTDN, and incorporated in its First Master Plan (Primeiro Plano Diretor de Desenvolvimento do Nordeste - 1960/62), has emphasized three basic strategies for agricultural development: irrigation, colonization and subsidies to large-scale rural enterprises. Given the ecological conditions of the semi-arid Northeastern interior, irrigated agriculture should be a crucial part of the overall rural development strategy. Indeed, the idea is very old and it goes back to the year 1909 when IFOCS (re-named DNOCS in 1945) was created. Ever since, irrigation has been intended to accompany the construction of dams in the Sertão, but with little practical result.[60] Although there was roughly 16.5 billion m^3 of water stored in public and private dams and 20 thousand wells pumping 1 million m^3 of water daily,[61] in 1971 federal-sponsored irrigation projects in the "Drought Polygon" served only 10,000 hectares.[62] After the 1970 drought, GEIDA, the organ responsible for the irrigation policy, published its long-term national irrigation programme.[63] Among the objectives explicitly conveyed is the retention of workers in the irrigated perimeters in order to reduce emigration to the urban areas.[64] An evaluation of three of DNOC's irrigation projects, made in 1975, provides distressing results as to the prospects of GEIDA's programme in the Northeast. By the end of 1975, DNOCS had

accommodated only 900 families in a total irrigated area of 9,000 hectares.[65] This result sharply contrasts with the goal of settling 21,000 families by 1980, an insignificant target in itself because it would represent only 2.3 per cent of the surplus rural population.[66] Furthermore, DNOCS's accomplishments were extremely costly: an average of U S $ 1,450 per hectare of irrigated land, a large sum by international standards.[67] Worst of all, the basic objectives of employment and income generation were not achieved. On the contrary, it was found that in the three projects an average of six workers were expelled from the land in order to accommodate each new farmer, and the income generated is unevenly distributed, the majority of the colonos being in debt with the project's financial administration.[68]

As mentioned earlier, the colonization of the wetter lands of the sparsely populated peripheries of the Northeast was fundamental in the GTDN's development guidelines. Schematically, it envisaged the economic, agrarian and demographic reorganization of the region. This inter-dependent and coordinated scheme suggested the following lines of action: a) modernization of the sugar economy, which should increase productivity, thus liberating land for food production for the local urban markets; b) re-organization of the semi-arid agriculture, aiming at the elimination of the subsistence sector by stimulating the creation of agricultural units consistent with the ecological conditions; c) oriented colonization of the humid lands of Northwestern Maranhão and Southeastern Bahia, in order to re-settle the population liberated from the semi-arid sub-region and to increase the regional production of foodstaples and raw materials; d) industrialization based on the region's comparative advantages, abundant labour and natural resources.[69] This imaginative scheme was incorporated into SUDENE's First Master Plan

and a colonization pilot project was installed in 1960 in an area of 2,500 km^2, within a territory of 30,000 km^2, in the heart of the rain forest of Northwestern Maranhão.[70] It was thought, among SUDENE's officials, that colonization should be a relatively easy task compared with the transformation of the agrarian structure of Zona da Mata and the re-organization of the semi-arid economy.[71] Very soon the initial enthusiasm waned with the unsurmountable obstacles which appeared. Many of them stemmed from difficulties of communication between SUDENE's headquarters in Recife, some 1,500 kilometres away from the pilot project which remained completely isolated from the rest of the region until the early 1970s. The more serious drawbacks started soon after SUDENE's technicians started to move into the area. One was the presence in the area of peasants who had spontaneously settled earlier. This led SUDENE to review its initial target of settling 25,000 people between 1961 and 1963.[72] Indeed, the Second Master Plan gave priority to medical, educational and agricultural assistance to 50,000 people living in the area of the project.[73] Furthermore, the environmental conditions proved to be an enormous challenge. Once the forest was cleared, heavy rainfalls provoked flooding and soil erosion, and the tropical climate favoured the rapid spreading of animal and vegetal diseases. Moreover, the sandy soils proved to be so poor that they are exhausted after only one harvest and need to lie fallow for some five years before being put into production again.[74] This has been the reason, in turn, for the rapid process of the de-forestation in the area, as the exhausted land creates a need for more land reclamation. However, the major drawback was to come with the advent of the military regime which took over Brazil in 1964, and for whom the agrarian question has been anathema. The project henceforth gradually lost momentum and, despite the World Bank's interest and financial

support, was never revived. As a result, the number of families accommodated in the project by SUDENE was only 850 in 1972, the year when the project was transformed into a colonization company, COLONE and thus GTDN's imaginative proposal was definitively abandoned.

The third strategy is constituted of an array of tax exemptions, incentives and investment subsidies which were introduced in 1961, primarily as an industrialization scheme, but was extended to the agricultural sector in 1965. The Article 34/18 (re-named FINOR in 1974 after some operational modifications) programme consists, briefly, of permission granted to registered Brazilian enterprises to reduce their annual federal income tax liability by 50.0 per cent, by opting to invest these resources on their own projects or on third-party projects approved by SUDENE.[77] Soon after its creation the funds administered by SUDENE started to be transferred to other sectors, programmes and to the Amazon region. So much so that, whereas 100.0 per cent of the savings from the tax credit mechanism in 1962 was allocated to SUDENE, in 1973 this percentage was reduced to only 25.0 per cent.[78] Between 1965 and 1976 SUDENE had approved a total investment of Cr$10,073.8 million (U.S.$753 million) at 1976 prices, distributed among 608 agricultural projects, which would generate 25,903 new jobs. This is indeed a very mediocre contribution as it constituted only 0.4 per cent of the region's rural labour force in 1976. Moreover, the strong emphasis on livestock input has been responsible for the highly capital-intensive projects approved by SUDENE.[79] Indeed, the capital-labour ratio for agricultural projects approved in the period 1965-76 has exceeded U.S.$29,000, a figure higher than the ratios for irrigation and settlement projects in the Northeast.[80]

The 1970 drought exposed, once again, the ineffectiveness of the official policies for the Northeastern agricultural development.

Owing apparently to that evidence, the present decade has been particularly prodigal in official innovation related to the region's rural sector. In 1970 the national integration programme, PIN, was launched: its emphasis on colonization of the margins of the Trans-Amazon Highway was expected to have positive impact on the Northeast, both as an employment source and as a stabilizer of food supplies. This part of the programme is virtually abandoned now. A PROTERA land redistribution programme was announced in 1971, as a measure to enforce a rather partial land reform of 1.7 million hectares in the States of Ceará, Paraiba and Pernambuco. In 1974 two programmes were created: an Agro-industrial Development Programme and the Programa do Tropico Semi-Arído, which proposes to exploit the natural potentialities of the semi-arid Northeast. POLONORDESTE, a development programme for integrated areas of the Northeast, was established in 1975: it is an ambitious endeavour to promote an overall development strategy in priority areas of the highlands and humid valleys. In 1976, Projeto Sertanejo was launched to revive the old idea of making the agricultural units of the drought-prone Sertão less vulnerable to the climatic uncertainties, by building small dams and wells.

It is too early to evaluate most of these programmes, but lamentably, there does not seem to be much cause for optimism as regards their efficacy:[81] the history of the action of federal agencies and programmes operating in the Northeast is sadly rich in failures. There is no assurance that the characteristically excessive bureaucracy, resource inadequacy, and lack of coordination and integration among related programmes and agencies will not be repeated in these new approaches to regional development. Above all, there is no certainty that the fertile imagination employed in creating programmes will lead to real commitment and determination to fulfil the prescribed objectives.

Schematically, the regional experience of industrialization can be divided into two phases: an initial period that spans from the

early experiments until SUDENE's creation, and another starting in the early 1960s with the establishment of fiscal incentives. The first period was characterized by three basic factors: a) a consumer market protected by the high transportation costs derived from an inadequate communications system, which favoured the regional production of manufactured goods such as food, textiles, footwear, tobacco; b) abundant and growing labour supply; c) availability of raw materials suitable to the regional demand of traditional consumer goods.

The advent of SUDENE coincided with the period in which the regional industry was already suffering the competition of the recently modernized and diversified industrial sector of the Centre-South.[82] The 34/18 industrialization scheme,[83] described earlier, constitutes an anomaly in terms of the role that the industrial sector should have as an employment generator. Indeed, its "emphasis on subsidies for fixed capital formation gives a bias towards capital intensity both in choice of technique and choice of product".[84] In other words, it artificially reduces the relative cost of capital, thus the use of labour, the relatively abundant factor in the Northeast. This is still more paradoxical in view of the low social opportunity cost of labour transfer to the modern sectors of the economy. To reduce even further the private opportunity cost of capital, there are several other incentives provided by the federal and State governments and official development banks in the form of fiscal exemptions and capital financing, as well as services of industrial parks.[85]

Between 1960 and 1976 SUDENE approved 2,255 new industrial projects which involved a total investment of Cr$97,592.1 million (U.S.$7,299.3 million) at 1976 prices. When fully operating, these projects were expected to create 277,841 new jobs, which would

represent only 6.0 per cent of the urban labour force in 1976. On the other hand, there were indications that the net employment effect of projects approved for 34/18 financing might be over-estimated.[86] Industrial projects also exhibit high density of capital per worker, so that the capital-labour ratio during the 1960-76 period was U.S.$ 26,270 at 1976 prices: somewhat lower than the agricultural projects, but still extremely high by any standard.

Despite the 34/18 - FINOR emphasis on capital formation and output growth, the Northeast remains a region of relatively low levels of industrialization. In 1970 its contribution to the Brazilian industrial output was only 10.0 per cent and the coefficient of industrialization (ratio of the value of industrial transformation to the internal income) was 15.8 as compared to the figure of 32.2 for all Brazil.[87]

High rates of population growth, labour-saving industries and an inflated tertiary sector compose the employment scenario facing an urban immigrant. Open unemployment in the Northeast, however, is low and mostly restricted to the urban areas. The rate of open unemployment in non-agricultural activities in the region was 5.8 per cent in 1970. However, the employment problem in the Northeast is more a question of the type of occupation than lack of occupations per se. That is why urban under-employment has been so prominent in the region. According to the GTDN, there were approximately half a million urban under-employed workers in the Northeast by the late 1950s.[88] In 1970 the figure had increased to 740,000 workers[89] and the rate of open plus disguised unemployment was 41.6 per cent of the urban work force.[90] Different estimates of rates of urban under-employment between 1956 and 1970 present results that range from 21.4 per cent to 31.3 per cent of the EAP.[91] A more recent calculation revealed that total urban under-employment in 1972 was 29.3 per cent of the EAP. This number was composed of 9.5 per cent of visible

under-employment, i.e., involuntary occupation for periods under 40 hours weekly, and 19.7 per cent of invisible under-employment, i.e., occupations where remuneration was equal or less than half the official minimum salary.[92] Therefore, under-employment in terms of poor earnings is far more general than the problem of too few working hours. The extent of the problem facing the urban working poor in the Northeast can be perceived by noting that the total employed population working full or partial time, but earning half the minimum wage or less in 1970, was 42.0 per cent.[93] This is the result of the rigidity of the industrial sector to absorb labour and also evidence for the easy entry to the informal, non-instutionalized labour market,[94] which predominates in the tertiary sector. Indeed, the "tertiarization" of the urban economy is confirmed by the rates of growth of the urban EAP between 1950 and 1970: 43.3 per cent in the tertiary, against only 16.3 per cent in the secondary sector,[95] which led to a situation by which 71.0 per cent of the urban employment in 1970 was provided by the tertiary sector.[96] Self-employment explains a large part of the poor earnings in the urban Northeast. Within the tertiary sector, as much as 59.0 per cent of workers in trading activities were self-employed, of which 22.0 per cent were peddlers. Also, 37.2 per cent of those engaged in services were self-employed in 1970. The per capita income was U.S.$ 318.2 in the urban Northeast in 1970.[97]

Labour absorption by economic sectors as indicated in table IX is typical of an underdeveloped economy which relies mostly on the primary sector as a source of labour. It confirms also that the tertiary sector is responsible for a large proportion of urban employment, evidence which suggests that a considerable part of the expansion in the sector's employment capacity initiated during the 1960s is likely to have been self-generated. In other words, although

the sector may have received some inducement from the primary and secondary sectors, it seems that it was mostly inflated by the appearance of informal activities performed by self-employed workers. One expected consequence of this "tertiarization" of the urban economy is to depress the income levels of under-employed workers even further.

Table IX

Employment Distribution by Sectors in the Northeast.

(%)

	SECTOR			
Year	Primary	Secondary	Tertiary	Total
1940	74.3	7.3	18.4	100.0
1950	73.8	8.0	18.2	100.0
1960	69.6	8.0	22.4	100.0
1970	61.7	10.8	27.5	100.0

Source: FIBGE. Demographic Censuses.

A more general observation is that structural change in the composition of labour employment by sectors has been very slow over the past four decades. Furthermore, the decline in the participation of primary activities was not followed by increasing employment in the industrial sector, except in recent years.

Natural and man-created factors have transformed Northeast Brazil into one of the most acute cases of underdevelopment in the western World. The unfavourable environmental conditions, mainly soil poverty and irregular rainfall constitute physical limitations to agricultural development. However, unequal land distribution has turned the majority of the rural population into landless farmers who cultivate others' land under quasi-feudal tenure arrangements. In years of climatic normality, these farmers produce merely for their

subsistence, thus remaining at the margin of the cash economy. When a drought occurs, they are deprived of their very means of subsistence. Therefore, for many rural labourers, once their situation and that of their families has become insupportable, they have no alternative for survival but emigration.

In the urban areas, the destination of increasing numbers of migrants, the incomers add to the growing reserve army of under-employed workers who are not absorbed by the highly capital-intensive modern sectors of the urban economy. They are funneled into the already swollen informal labour market. In this primitive capitalist subsector they will be dedicated to low-income activities which require little capital and skills and which are based mostly on the intensive use of labour power.

Therefore, urban immigration has been only a limited solution for the destitute majority of nordestinos victimized by the harsh conditions of low-earning employment, income inequalities and severe poverty in rural areas. Migration has been, however, a safety valve for an economic system which has emphasized economic efficiency at the expense of social equity and which has been, above all, so adamant in the preservation of the privileges of its dominant classes.

The achievements of the official policies allegedly devised to solve the problems facing the poor have been so insignificant that they leave the impression of lack of commitment and even disregard for the suffering of a high proportion of the population.

The next chapter will describe the objectives of the research and the areas surveyed. Chapters III, IV and V will follow the itinerary of some of those who have chosen emigration as a means of escape from their misery.

NOTES. - Chapter I

1. These data are provided by FIBGE, the institution responsible for the elaboration of the national statistics.

2. Brasil - Conselho de Desenvolvimento. Grupo de Trabalho para o Desenvolvimento do Nordeste (GTDN). Uma Política de Desenvolvimento Econômico para o Nordeste. Recife, SUDENE, 1967, p.9.

3. Langoni, Carlos G. Distribuição da Renda e Desenvolvimento Econômico do Brasil. São Paulo, Editora Expressão e Cultura, 1973.

4. Freire, Marcos. Decálogo para o Nordeste. Brasília, Senado Federal - Centro Gráfico, 1975, table 10.

5. Williamson, Jeffrey G. "Regional Inequality and the Process of National Development : a Description of the Patterns". Economic Development and Cultural Change, 13 (4), July 1965, pp. 10-18.

6. Simonsen, Roberto C. História Econômica do Brasil. São Paulo, Companhia Editora Nacional, 1962, pp.375-80.

7. GTDN, Ibidem.

8. For an objective analysis of the character, purposes and action of these institutions see Hirschman, Albert O., Journeys Toward Progress. New York, The Twentieth Century Fund, 1963, pp. 11-91.

9. The most illuminating contributions are: Furtado, Celso M. Formação Econômica do Brasil. Rio de Janeiro, Editora Fundo de Cultura, 1961; Castro, Antonio B. Sete Ensaios sobre a Economia Brasileira, Vol.2. Rio de Janeiro, Editora Forense, 1972; Leff, Nathaniel H. "Economic Development and Regional Inequality: Origins of the Brazilian Case". Quarterly Journal of Economics, 86, May 1972, pp.273-62; Denslow, David. "As Origens da Desigualdade Regional no Brasil". Revista de Estudos Econômicos. IPE-USP, 3 (1), 1973, pp.65-88; and Albuquerque, Roberto C. and Cavalcanti, Clóvis V. Desenvolvimento Regional no Brasil, Brasília, IPEA/IPLAN, 1976.; Oliveira, Francisco de. Elegias para uma Re(li)gião. São Paulo, Editora Paz e Terra, 1977.

10. Brasil - Ministério do Interior. II Plano Nacional de Desenvolvimento - Programa de Ação do Governo para o Nordeste. Recife, SUDENE, 1975, p.33.

11. Published in the capital of Pernambuco, Recife, it is Latin America's oldest daily newspaper in circulation.

12. Brasil. Ministério do Interior, op.cit., p.33.

13. FIBGE. Geografia do Brasil - Nordeste. Rio de Janeiro, 1976, p.169.

14. Moura, Hélio A. "As Variações Migratórias no Nordeste - 1940/70". Revista Econômica do Nordeste, No. 14, October/December, 1972, p.40.

15. VEJA, April 12, 1978, p.88.

16. Goodman, David E. and Albuquerque, Roberto C. Incentivos à Industrialização e Desenvolvimento do Nordeste. Rio de Janeiro, IPEA/INPES, 1974, p.8.

17. Moura, Hélio A. and Coelho, Jose Olímpio M. Migrações para as Grandes Cidades do Nordeste: Intensidade e Características Demográficas, Fortaleza, BNB, 1975, p.19.

18. Compiled from Moura, Hélio A. and Moura, Herber, J. Ibidem.

19. Neto, Leonardo G. O Emprego Urbano no Nordeste: Situação Atual e Evolução Recente - 1950/1970. Fortaleza, BNB, 1976, p.46.

20. Cavalcanti, Clóvis V. and Albuquerque, Roberto C., op.cit., p.32.

21. FIBGE. O Brasil em Números. Rio de Janeiro, 1960, p.11.

22. Balán, George "Migrações e Desenvolvimento Capitalista no Brasil" Estudos CEBRAP 5, July/September 1973, p.52.

23. Costa, Rubens V. "O Fantasma de Malthus no Crescimento Regional". Nordeste Confidencial, October 1975, p.11.

24. Brasil. Ministério do Interior. op.cit. p.58. The methodology for this calculation will be explained later on.

25. Brasil. Ministério do Interior. Plano de Desenvolvimento Regional - 1972/74, Vol.1, Recife, SUDENE, 1971, pp. 54-55.

26. Brasil. Ministério do Interior, Idem, pp. 15-31.

27. Data for area and population shares of each zone of the region's totals are from Brasil. Ministério do Interior. SUDENE Dez Anos. Recife, SUDENE, 1969, p.22.

28. The degree of population pressure in the Northeast will be perceived as the issues of population growth, environmental conditions and patterns of land tenancy are discussed.

29. Because the different types of land tenancy arrangements are a characteristic of the whole semi-arid interior, they will be more extensively examined in the context of the Sertao's rural sector.

30. Hall, Anthony R. Drought and Irrigation in Northeast Brazil. Ph.D. thesis presented to the University of Glasgow, Glasgow, 1976, p.55.

31. The area most likely to be struck is the "Drought Polygon", an area of 860,000 km^2 (52.0 per cent of the area under SUDENE's jurisdiction), officially delimited in 1968. Brasil. Ministério do Interior. Plano Integrado para o Combate Preventivo aos Efeitos das Secas no Nordeste. Brasília, MINTER, 1973, p.81.

32. All data refer to net domestic product at factor prices, except that for 1970, which is for the gross domestic product at factor prices. Pessoa, Dirceu and Cavalcanti, Clóvis V. Caráter e Efeitos da Seca Nordestina de 1970. Recife, SUDENE/SIRAC, 1973, p.74.

33. Idem, p.43.

34. Brasil. Ministério do Interior. Plano de Ação para Emergência Contra Calamidades de Seca e Enchentes. Recife, SUDENE, 1972, p.46

35. Hall, Anthony R. op.cit., pp.22-23. There was a drought of less proportion in 1976 and the number of workers enrolled in the work fronts was 279,000. VEJA, March 2, 1977. p.30.

36. Pessoa, D. and Cavalcanti, C. op.cit., pp. 111-114.

37. GTDN, op.cit., p.67.

38. Pessoa, D. and Cavalcanti, C., Ibidem

39. GTDN, op.cit., p.70.

40. For a schematic and informative description of these policies and institutions see Hirschman, Albert O. op.cit., pp. 66-91.

41. Castro, Antonio B. op.cit., p.195.

42. Patrick George F. Desenvolvimento Agrícola do Nordeste. Rio de Janeiro, IPEA/INPES, 1972, pp.169-72.

43. Cavalcanti, Clóvis V. and Albuquerque, Roberto C., op.cit.,p.39.

44. Brasil. Ministerio de Interior. II Plano Nacional ..... p.53.

45. Idem, p.57

46. Idem, pp.58-60.

47. About U.S.$ 110 at the average exchange rate in 1972.

48. SUDENE admits a reduction in the number of excedent families to 1.7 million if an alternative "module" size of 32.7 hectares is considered. Idem, Ibidem.

49. SUDENE, Idem, p.59.

50. VEJA, April 12, 1978, p.89.

51. IBRD, op.cit., table 5.

52. Brasil. Ministério do Interior. A Economia Agrícola do Nordeste - Diagnóstico Parcial e Perspectivas (Versão Preliminar), Recife, SUDENE, 1976, p.68.

53. Idem, p.202.

54. IBRD, op.cit., p.10. It should be stressed now that this document is important because it was officially submitted to the Brazilian government as a contribution for the rural development of the Northeast. Among other recommendations, it suggests that a partial land reform would lead to an increase in agricultural production by 4.0 per cent in the Sertão and by 171.4 per cent in the humid eastern coast. Idem, p.37.

55. Brasil. Ministério do Interior. Primeiro Plano Diretor ....., p.131.

56. Brasil. Ministério do Interior. II Plano Nacional ....., p.49.

57. Idem, Ibidem.

58. This can be gauged through a monthly publication by EIBGE, Inquérito Nacional de Preços, which contains lists of prices of 54 of the most common items in the typical diet of the Brazilian population, by regions and States.

59. Neto, Leonardo G. op.cit., p.45.

60. DNOCS's history has been permeated with bureaucratic muddles, political interferences, technical errors and fund misappropriations. Hirschman, Albert O. op.cit., pp.42-66.

61. Brasil. Ministério do Interior. Plano de Ação para Emergência ....., p. 74-112.

62. This constrasted with the 520,000 hectares of irrigated land in all Brazil. Hall, Anthony R., op.cit., p.93.

63. Brasil. Ministério do Interior/GEIDA. Programa Pluriamual de Irrigação, 10 Vols. Brasília, 1971.

64. Idem, Vol.1. pp.6-9.

65. Hall, Anthony R. op.cit., p.96.

66. Idem, p.112.

67. Idem, p.170.

68. Idem, pp.113-14 and 135.

69. GTDN, op.cit, pp.60-87.

70. The idea of colonizing the humid lands of Southern Bahia was abandoned even before starting, for unstated reasons.

71. Brasil. Ministério do Interior. Projeto de Povoamento do Maranhão, Vol.1. Recife, 1968, pp.8-10.

72. Brasil. Ministério do Interior. Primeiro Plano Diretor ...., p.272.

73. Brasil. Ministério do Interior. Segundo Plano Diretor de Desenvolvimento Econômico e Social do Nordeste 1963/65. Recife, SUDENE, 1961, p.34.

74. Dornas, Helvécio and Trujillo, Alfonso. Dinâmica de Ocupação do Meio Rural do Noroeste Maranhense. Recife, SUDENE/DAA, 1974, p.12.

75. In 1972 the area of the project was expanded to 9.7 km^2 and a fixed target of settling 5,200 families between 1973 and 1976 was established. COLONE. Projeto de Colonização do Alto Turi. São Luis, December 1973, p.4 and 73.

76. Andrade, Gilberto O. Projeto de Colonização do Alto Turi (Maranhão). Recife, SUDENE, 1972, p.46.

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78. Campello, Sebastião B. "A Descapitalização do Nordeste". Confidencial Econômico, Recife. June 1975, p.24.

79. IBRD. Rural Development Issues ....., p.126.

80. Coelho, Jorge. Considerações em Torno do Programa de Agricultura Irrigada na Zona Semi-árida do Nordeste. Recife, CETREINO, 1975, p.29, and Tavares, Vania P. et.al. Colonização Dirigida no Brasil. Rio de Janeiro, IPEA/INPES, 1972, pp. 114-16.

81. An evaluation made by the IBRD in 1974 maintained that the results of the programme, then, were rather limited and the prospects unclear. IBRD. Rural Development Issues ....., p.33.

82. GTDN, op.cit., pp.57-60.

83. The administration of the funds under the Article 34/18 was not part of SUDENE's initial attributions, but was initiated in 1962 and was inspired by a similar scheme operated by SUDENE's counterpart in Southern Italy, Cassa per il Mezzogiorno.

84. Goodman, David E. op.cit, p.6.

85. IBRD. Rural Development Issues ....., p.115.

86. Idem, p.116.

87. Data from the 1970 Demographic and Industrial Censuses.

88. GTDN, op.cit.,p.12.

89. Goodman, D.E. and Albuquerque, R.C. op.cit., pp.57-63.

90. Governo do Estado de Pernambuco - FIDEM. Região Metropolitana do Recife - Plano de Desenvolvimento Integrado, Recife, 1976, p.37.

91. Neto, Leonardo G. op.cit., p.18.

92. Cr$ 182,00 for all urban areas in the Northeast, except Recife and Salvador, for which the minimum salary in May 1972 was Cr$ 206.00. The average exchange rate in 1972 was U.S.$ 1.00 = Cr.$ 5.94. The minimum salary is regarded by Brazilian authorities as a "poverty line".

93. Tolosa, Hamilton C. "Dualismo no Mercado de Trabalho Urbano." Pesquisa e Planejamento Econômico. 5 (1), junho 1945, p.13.

94. The concept of informal labour market in the Brazilian context is discussed by Machado da Silva, L.A. Mercados Metropolitanos de Trabalho e Marginalidade. Rio de Janeiro, Master's thesis - Programme of Social anthropology, Museu Nacional, 1971, and Merrick, I.W. and Brito, F.A. "Informal Sector Employment in Brazil: A Case Study of Belo Horizonte" (mimeographed paper) CEDEPLAR/UFMG, 1974.

95. Neto, Leonardo G. op.cit, p.48.

96. Idem; p.49.

97. Idem, p.45.

CHAPTER II

OBJECTIVES AND AREAS SURVEYED

1. Theoretical Considerations

Because they are based on census data, the existing studies on migration within Northeast Brazil are limited in their scope and fail to examine the phenomenon extensively or deeply. Aiming at a more thorough scrutiny of intra-regional population movements, we decided to make an empirical study of poor urban migrants, which constitute the bulk of the region's internal migrant population. To achieve that purpose, the questionnaire, the basic instrument for the survey, was designed with two general guidelines.

Firstly, we decided that the areas surveyed should be selected slums, (mocambos) of different sizes in the State of Pernambuco. In doing so, we expected to find empirical evidence for the assumptions that urban centres of different population size, economic structure and location have distinctive functions in the migratory process. This examination had as a background Ravenstein's[1] hypothesis that migration is predominantly a process made by stages of short distances, initially from rural areas to small towns and then progressively from an urban centre to a larger and economically more advanced one. The idea was, therefore, that a small town should be expected to play the role of an intermediate stopping place in the migratory process, where the migrant would remain until he had acquired the confidence and urban experience necessary for the continuation of his journey towards a larger locality. On the other hand, considering the population size of a town as a proxy for the size and diversification of its labour market, as pointed out by Greenwood[2], a larger urban centre should be expected to be

the final destination for a large number of migrants.

The second guideline was that the field research should investigate the individual migrant's case history in a longitudinal perspective covering three distinctive phases: a) his situation before leaving the first place of residence; b) his adjustment period in the destination; c) his present situation as compared with a controlled group of non-migrants. The questionnaire was divided into three parts, each related to one of the three phases. The formulation of the questions followed a sequence dictated by various hypotheses and assumptions which we hoped to test.

A set of questions were designed to investigate who are the people who migrate. The intention was to investigate the personal characteristics such as sex, age and education, in order to test some suggestions of selectivity made by various authors. In this aspect, are Becker's[3] and Gallaway's[4] ideas that the probability to move decreases as age increases confirmed in the case of Northeast Brazil? Does better education reduce the risks and uncertainties of emigration as concluded by Saben[5]? Is there any correlation between education, employment information and job opportunity? Are there a predominance of certain social and occupational groups in the Northeast who are more migration-prone? Are any of the occupational groups in the rural Northeast, as described in Chapter I, more likely to emigrate than others, as suggested by Singer?[6]

A following logical step was to enquire why people migrate. Because the literature on migration has given great emphasis to the study of the determinants of population movements, there exist a considerable number of hypotheses as to what motivates migration. In Chapter III we investigate the reasons for nordestinos migration, trying to answer the following questions. Is the decision to emigrate a response to the pressures of poverty or employment in the place of origin? Are push factors predominant among migrant

nordestinos? Or is migration, on the contrary, the result of attraction to the destination through the expectation of maximization of utility, such as income or employment, as proposed by Hicks?[7] Or is it the result of intervening push and pull factors, as suggested by Lee[8] and Herrick[9]? Is the decision to emigrate a rational act from the economic point of view, in which the person ponders about differentials between sending and receiving areas, namely, wage differences and job opportunities, as proposed by Raimon[10]? Does the decision to move comply with Todaro's[11] view that, in less developed areas, despite the knowledge of the existing high rates of un- and under-employment in urban areas, rural emigrants act rationally, as they have in mind not the present but the future income differentials? To what extent are poor migrants attracted, as Glantz suggests, to localities where they expect to receive higher welfare benefits and access to more abundant public goods and services[12]? How can the "job vacancies" thesis[13] be adopted to the Northeastern situation, whereby under-employment, rather than job opportunities is the reality which the prospective emigrant has to consider, rather than income differentials?

Another aspect to examine was the choice of destination and the distance of movement. How far do nordestinos move within the region? To what extent is Sjaastad's[14] idea of money costs in moving relevant in the context of population movements within the Northeast? Are transfer expenditures sufficiently offset by benefits resulting from migration, as Gallaway, Sjaastad and Nelson found in the United States[15]? What accounts for the choice of destination: preference for the locality, distance, presence of relatives, or job offers? How are these variables inter-related so as to minimize risks and uncertainties for the person moving? How relevant is the minimization of psychic costs and other general

non-monetary costs for the choice of destination? Are these costs more important than the money expenditure of transfer, as Greenwood[16] claims? How does the presence of relatives and friends account for the lowering of psychic costs, as suggested by several studies[17]? How relevant is the information provided by kin and friends for the potential migrant's choice of his destination, as proposed by Nelson? How significant is "chain migration"[18] within Northeast Brazil? Is there evidence of Hägerstrand's[19] hypothesis that current allocation of migrants is a consequence of the allocation of past migrants?

The following questions, related to the adaptation of the migrant in his destination, are the subject of Chapter IV. How relevant are kin and friends for reducing money and non-monetary costs by their providing food and shelter and employment information for recently arrived migrants? How rapid is the assimilation of migrants by the labour market at their destination? To what extent is the presence of past migrants a pre-determinant of the type of occupation taken up by the migrant, as remarked on by Singer? How will the migrant's origin, his age and educational level influence his absorption into the labour market? Does the rural immigrant suffer from the disadvantage of lack of familiarity and skill for urban occupations, as suggested by Todaro? Is the newcomer's assimilation into the labour market a two-phased process, as proposed by Todaro? Does the migrant initially engage himself in activities which are typical of the traditional sector, i.e. casual or low productivity occupations? Does he eventually manage to secure a permanent occupation in the modern sector? Is the migrant's adaptation a process of long-term occupational mobility, or is it a more problematic phenomenon as suggested by Germani[20]? The first phase, as described by Todaro, will be considered in the context of the transition stage, the subject matter of Chapter IV.

The evaluation of the economic fortunes of both migrants and non-migrants will be the subject of Chapter V and will consist of two aspects: a) the assessment of employment using the ILO's[21] criteria for measuring labour under-utilization; b) the investigation of the living conditions of migrants and non-migrants through material indicators such as the quality of accommodation and urban services and the possession of consumer durables. The principal objective of the comparison between migrants and non-migrants is to assess the relevance of the individual's geographic origin, his skill, his familiarity with his place of residence and the labour market and his personal contacts, for his economic situation. We intended, in short, to investigate how poverty, employment and origin are related, by examining the comparative fortunes of migrants and non-migrants.[22]

2. The Three Urban Centres

The State of Pernambuco is for various reasons a particularly appropriate area in which to undertake a case study on urban immigration in Northeastern Brazil. Firstly, its ecology and economic characteristics make it a microcosmic example of the Northeastern region at large. Secondly, its location in the centre and east portions of the Northeast contributes to its strong economic and cultural influence upon most of the States which comprise the region. Thirdly, its relatively high level of industrialization and the importance of its major business centre, Recife, the State capital and the region's principal metropolitan area, contribute to its pre-eminent position within the regional economy. Fourthly, it has one of the region's highest rates of emigration and immigration, both intra- and inter-regional. Indeed, Pernambuco contributed 20.0 per cent and 19.0 per cent, respectively, of the total number of intra-regional emigrants and immigrants during the 1960/70 decade.

It also produced respectively 18.4% and 18% of the total population which emigrated from or immigrated into the region during the same period.[23]

The area of the State of Pernambuco is 98,281 km^2, which corresponds to 6% of the Northeast. Its population in 1970 was 5,166,554, 18.7% of the region's total. Its demographic density was 52.6 inhabitants per square kilometre and the urban population corresponded to 54.4% of the State's total in 1970. Table I reproduces Pernambuco's area, population and densities by natural zones.

Table I

Area, Population and Population Density of Pernambuco, by Natural Zones, 1970.

Natural Zones	Area (%)	Population (%) Urban/Total	Rural/Total	Density*
Mata-Litoral	11.1	75.2	24.8	246.6
Agreste	19.5	32.6	67.4	77.5
Sertão	69.4	30.4	69.6	14.4
Pernambuco	100.0	54.5	45.5	52.6

* Inhabitants per square kilometre.

Source: FIBGE. Demographic Census - 1970.

In order to attain a representative picture in a sample study on urban immigration in the State of Pernambuco, we thought that each of the three towns should be located in one of the State's natural zones. Recife, Caruaru and Petrolina, respectively located in zones Mata-Litoral, Agreste and Sertão of Pernambuco, were the urban centres selected. Besides being the most populated urban conglomerates in their respective sub-regions, each one has particular characteristics which make them natural choices for case studies on migration.

For centuries Recife has maintained a prominent position within

the Northeast as its largest urban industrial and commercial centre. Historically, it has also been a place of destination for migrants from all over the Northeast.[24] In addition, the city is strategically located within a relatively short distance, about 200 kilometres from Pernambuco's two major emigration zones, Mata-Litoral and Agreste.[25] Its location also makes it an alternative stop and eventual terminal place for those in transit from the region's Northeastern portion to the Centre-South region. Furthermore, Recife's regional influence has increased considerably as a result of the expansion of the regional transportation infrastructure in the past two decades.

According to the 1970 Demographic Census, Recife's population was 1,060,701 inhabitants, 38.% of Pernambuco's total urban population, and its demographic density was as high as 5,075 inhabitants per square kilometre. BNB's classification of microregions[26] based on the intensities of migration flows to and from urban and rural areas during the 1960/70 decade shows the metropolitan area of Recife as one of intense urban immigration and intense rural emigration.[27] The 315,835 immigrants[28] living in Recife in 1970, according to the Demographic Census, constituted approximately 34% of the city's total population. Of these, as many as 203,353 (67%) came from other parts of Pernambuco itself and 82,077 (25%) immigrated from the neighbouring States of Ceará, Rio Grande do Norte, Paraiba, and from Alagoas. Congruent with regional patterns, the majority (91%) of the immigrants had lived in at least one urban area before.

With regard to labour occupation, the distribution of the economically active population (EAP) in Recife (29% of the total population) in the productive sectors show great similarity to the patterns presented by other underdeveloped large urban concentrations. While the industrial sector absorbed only 21% of workers in 1970, the tertiary sector was responsible for the occupation of 88% of the remaining manpower. A closer look into the sub-categories by which

FIBGE divides the tertiary sector gives an idea of the magnitude of under-employment in Recife: in virtually all of the six occupational sub-categories shown in table IA in the appendix, several activities are identifiable as informal. Moreover, 42% of the workers were engaged in trade and services, activities in which most self-employed labourers are to be found.

Recife is a metropolis situated in a micro-region which has been experiencing a considerable increase in its labour force and population pressure on its inflated labour market. The rate of urban unemployment in Recife's micro-region in 1970 was 4.3% and under-employment as measured by the percentage of the EAP working less than 40 hours per week or earning less than Cr$ 200,00 (about U.S.$ 44.00) per month was, respectively, 14.9% and 46.7%.[29]

The statistics on <u>per capita</u> income in the urban areas of the Northeast are, unfortunately, not up-to-date. The only figures are those from budget surveys made by BNB in the largest towns during the late 1960s and early 1970s. According to the results of the study made in the area of Greater Recife[30], the annual <u>per capita</u> income of that urban area was Cr$ 859,81 in 1968,[31] about (U.S.$226.00). This appallingly low level of income is aggravated by a very unequal profile of income distribution, as shown in table IIA in the appendix. Indeed, if one considers the two lower and higher ends of the income distribution, one observes that, whereas 28% of the poorer population controlled only 7% of the total income, the share of the richest 3% was 17%. A further examination of the three lower income intervals show that roughly 56% of Recife's population secured only 19% of the total income generated in that city in 1967. These income inequalities are responsible for the alarming contrasts in all aspects of life in that city: the opulence of middle and upper class suburbs, and the misery of extensive slums and shanty towns; the sophisticated shopping

centres and the squalor of open markets; exclusive private clinics and too few primitive public hospitals; expensive imported cars and overcrowded public transport.

Caruaru, with a population of 101,862 (3.6% of the State's total urban population)in 1970 and a density of 123 inhabitants per square kilometre, is Pernambuco's largest town outside Recife's metropolitan area. Its location as a crossroad connecting different areas of the interior has transformed it into an active commercial centre and a natural migratory corridor leading to Recife and to the Centre-South. Appropriately known as the Agreste's capital and the gateway to the Sertão, Caruaru is a typical commercial entrepot, acting both as a purchasing and distribution centre of primary goods and as a sales and distribution centre of industrial products. Examples of the town's commercial dynamism are its three weekly fairs. The largest one takes place each Saturday and brings over 10,000 salesmen who trade in a vast range of goods in what is the Northeast's biggest open market. The cattle trading fair on Tuesdays is also one of the largest in Northeast Brazil. The third market held on Wednesdays is a smaller but similar type to that held on Saturday. Caruaru is also the biggest handicraft producing area in the region; the production of artistic and utilitarian objects made of clay, leather, wood, straw and tin give occupation to a large number of people.

Migratory movements in the micro-region of Caruaru were not very intense during the 1960s; according to BNB's findings, there were moderate flows both of urban inmigration and rural emigration, given the normal standards of population movements in the Northeast.[32] Nevertheless, the migrant population living in Caruaru in 1970 totalled 37,162, which corresponded to more than one third of the town's population.[33] As in Recife, most immigrants (31,837 which corresponded to 86% of the total) living in Caruaru in 1970 came from other parts of Pernambuco. The neighbouring States of Ceará, Paraiba,.

Alagoas plus Rio Grande do Norte, contributed 3,806 people (11%). Following Recife's pattern, 88% of immigrants had lived in at least one town before moving to Caruaru.

The distribution by economic sectors of the EAP (30% of the total population in 1970) reveals a predominance of the tertiary (52%), followed by the primary (30%) and the industrial sector (18%). As in the case of Recife, the industrial sector fails to employ labour adequately, while trade and services account for 63.5% of employment in the tertiary sector, as seen in Table IA in the appendix. The comparatively high share of the primary sector in the employment distribution shows that Caruaru maintains strong ties with the agricultural sector.

Caruaru's micro-region has experienced moderate growth of the labour force and intense pressure on its saturated labour market. Urban unemployment in the micro-region was 1.1% and the percentage of the EAP working less than 40 hours per week or earning less than Cr$200,00 monthly was, respectively, 25.7% and 72.1%.[34]

Caruaru's *per capita* income in 1968, the year when the BNB budget survey was conducted, was Cr$608,40,[35] (approximately U.S.$160.00). In addition to the evidence that Caruaru's *per capita* income was slightly lower than Recife's, Table IIA in the appendix shows that its income distribution was also more unequal: 37% of the poorer population retained only 11% of the income, while the top 2% richest earned 18%. Considering the three lower income intervals, the evidence is that as much as 63% of the population controlled only 26% of the income created in Caruaru in 1968. Although these figures reveal strong socio-economic contrasts among the town's population, they are less immediately perceptible than they are in Recife: the rich are too few and the town is too little developed.

Petrolina is the largest town in Pernambuco's *Sertão*. With a population of 37,156 (1.3% of the State's urban population) in 1970,

its demographic density of 10 inhabitants per square kilometre is the lowest of the three urban areas surveyed. It is located practically in the geometric centre of the Northeast's Sertão, on the left bank of the São Francisco, the largest river in the region and an important waterway for transport and as a source of hydro-electric power and irrigation. On the other side of the São Francisco is Juazeiro, in the State of Bahia. Petrolina/Juazeiro together constitute the largest urban conglomerate in the interior of the Northeast.[36] The two towns form a nodal point in an active and diversified transportation system of highways and railways which makes them an intermediate reception centre for migrants moving from the Northeastern interior to the Centre-South. Petrolina/Juazeiro have a similar commercial role to that of Caruaru; they serve as a distribution centre of goods produced and consumed by the large area they influence. The area has been experiencing an industral boom for over a decade and several projects to process non-metalic minerals and to produce food, beverages and furniture (approved by SUDENE under the 34/18 - FINOR Scheme) are located there. During the 1960/70 decade, the micro-region experienced intensive urban immigration and rural emigration.[37]

The immigrants living in Petrolina in 1970 numbered 18,087, corresponding to 29% of the total population. Though in a smaller proportion than in Caruaru and Recife, Pernambuco contributed the highest percentage (37%) of the immigrants. Bahia's large contribution (28%) is due to Petrolina's location on the border of the State with Pernambuco. The States of Ceará, Paraiba and Piauí also contributed 28% of the non-native population. The majority (91%) of immigrants had also experienced at least one urban period before settling in Petrolina.

The EAP corresponded to 26% of the town's population in 1970 and the primary sector absorbed as much as 45% of the working

population followed by the tertiary(38%) and the secondary (17%) sectors. Petrolina, even more than Caruaru, is an example of an urban area which has an accentuated rural character, as revealed by the high proportion of the EAP devoted to agricultural activities.

Petrolina's micro-region has experienced high growth of its labour force and moderate pressure on its swollen labour market. In 1970, Petrolina's micro-region had a rate of urban unemployment of 0.6%. The percentage of the EAP working less than 40 hours weekly or earning less than Cr$ 200,00 per month was, respectively, 22.5% and 61.1%.[38]

The per capita income of Petrolina/Juazeiro in 1968 was Cr$ 616,44[39](about U.S.$ 162.00). Although the income level of the urban centre is not dissimilar to Caruaru's, the profile of income distribution has more similarity to Recife's (table IIA in the appendix). Indeed, whereas 28% of the poorer population earned only 7% of the total income, the richest two strata,constituted of 2% of the inhabitants, obtained 17% of the income. On the other hand, the 60% people at the bottom of the pyramid secured only 24% of the income produced in Petrolina/Juazeiro in 1968. As in Caruaru, the enormous socio-economic disparities among Petrolina's population are less apparent than in Recife.

3. The Selected Marginal Districts

The slums, known as mocambos, that proliferate in and around the urban centres of the Northeast are the appropriate settings for a survey designed to investigate the conditions of integration of poor migrants into urban areas. Because it is in the mocambos that most migrants tend to settle, sharing the poor living conditions with earlier immigrants and with the dispossessed native population, the criterion for selection of the urban districts to be surveyed was

based on the type of existing dwellings. All the areas had poor housing built with cheap materials and all enjoyed inadequate urban facilities. The choice of each district within each of the three towns was made so as to include different mocambos as regards their size and location in reference to the commercial, industrial and higher class residential areas. It was thought that demographic densities and location might have some influence on the nature of the most common occupations in each district. The expectation was, therefore, that a link might be found between the "geography" of the district, the diversification of the occupations and urban poverty. Three shanty bairros were chosen in Recife: Coelhos, Santo Amaro and Casa Amarela.

Coelhos is a fairly small slum area situated in one edge of Recife's business centre and near a middle class residential district. Most buildings in the slum are of wood and tin, built on the swampy shores of the river Capibaribe. Its population was estimated to be about 10,000 people in 1975,[40] and it is taken by the prefecture to be part of Boa Vista district, whose total population was 31,500 in the same year.

Santo Amaro is a mocambo built in swampland near low and middle class residential areas and not very distant from the city centre. It is an extremely poor bairro with a population living in small huts made of mud, straw and wood. Its population was estimated to be 11,000 people in 1975 and the district's total population to be 41,000.

Casa Amarela is situated in the Northern hilly outskirts of Recife, some 15 kilometres distant from the city centre. On the tops and slopes of the hills is a large shanty town composed of brick, mud and wooden huts. At the foot of the hills lies one of Recife's largest middle class residential areas, an active

commercial sector and one of the city's largest open markets. The population, estimated to be 117,000 in 1975 and the district's overall population at 165,000.

In Caruaru two shanty areas were chosen: Bom Jesus and Salgado. The first is located near the commercial and middle class residential areas. It is one of the town's poorest sub-districts and its population was estimated at 10,000 people in 1975.[41] Salgado is situated on the periphery of the town and near an agricultural area. There are also some small and medium size industries in its vicinity, as well as a commercial quarter. Its population was approximately 25,000 in 1975.

Similarly, two slum bairros were selected in Petrolina: Vila Eduardo and Cinzeiro. The first is sited near the town's commercial and residential quarters and in the neighbourhood of the main industrial concentration. Its population was estimated at 11,000 people in 1975.[42] Cinzeiro is located in the borders of an extensive agricultural area on the banks of the river São Francisco and is crossed by the highway that connects Petrolina with the interior of Pernambuco. Its population was approximately 8,000 in 1975.

4. The Field Work

In November 1974 a pilot survey was made in a slum area of Recife. The field work started in December 1974 and ended in February 1975. The interviews, made by students of Social Sciences at the Federal University of Pernambuco, followed a pre-determined itinerary for each sub-district. The choice of the household as well as the interviewee within it was based on sample procedures by which a member of the family, aged 14 or over was selected.

The procedure was such that the head of the household initially

answered some questions about the personal characteristics of all members of the household, such as sex, age, education and occupation. The respondent representing the household was then chosen by a random process.

Because the length of the migratory process is likely to vary among individual migrants, there was a possibility that some of the selected interviewees had migrated at a very early age and, therefore, would have been unable to answer some of the questions related to the pre-migration stage, specially those regarding the decision to emigrate and choice of destination. Thus, we decided that, when this situation occurred, the head of the household should be asked to answer that part of the questionnaire. We believed that this was the best solution in order to avoid the bias which might arise within the sample had we considered only respondents who had migrated at mature ages.

A total of 658 questionnaires were answered: 439 in Recife, 119 in Caruaru and 100 in Petrolina. The individual samples corresponded to roughly 1% of Recife's 50,300 'sub-standard' dwellings, to 2.6% of Caruaru's 4,670 and to 2.7% of Petrolina's 3,720 'sub-normal'[43] dwellings. The distribution of households selected by mocambo is shown in Table II.

TABLE II

The Sample

RECIFE

Slum Bairro	Number of Questionnaires	Percentage of the Bairro's Population
Coelhos	20	0.20
Santo Amaro	50	0.29
Casa Amarela	369	0.31
TOTAL	439	-

CARUARU

Slum Bairro	Number of Questionnaires	Percentage of the Bairro's Population
Bom Jesus	40	0.40
Salgado	79	0.32
TOTAL	119	-

PETROLINA

Slum Bairro	Number of Questionnaires	Percentage of the Bairro's Population
Vila Eduardo	64	0.58
Cinzeiro	36	0.45
TOTAL	100	-

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17. Fabricant, Ruth A. "An Exceptional Model of Migration". Journal of Regional Sciences, 10 (1), April 1970, pp. 13-24; Greenwood, M.J. "An Analysis of the Determinants of Geographic Labor Mobility in the United States". Review of Economic Statistics, 51 (2), May 1969, pp.189-94; Nelson, P. op.cit.

18. This term refers to the effect that the presence of migrants in one locality will have on migration of persons from their place of origin towards their present residence.

19. Hägerstrand, T. "Migration and Area", in Migration in Sweden: A Symposium. Lund Studies in Geography. Series B, Human Geography, No. 13, Lund, Sweden, C.W.K. Gleerup, 1957.

20. Germani, Gino. "Enquêtes sur les Effects Sociaux de L'Urbanization dans un District Ouvrier du Grand Buenos Aires", in Hauser, Philip M. L'Urbanization en Amerique Latine. Paris, Unesco, pp.206-33.

21. As examined by Lederman, Esteban. "Los Recursos Humanos en el Desarrollo de America Latina". Cuadernos del ILPES, Serie II, Santiago, Chile, 1971.

22. The issue of who fares better, migrants or non-migrants, is uncertain because of contradictory results which have been found in several studies. This subject will be more thoroughly examined in Chapter V.

23. Moura, Hélio A. et.al. Nordeste: Migrações Inter e Intra-regionais - 1960/1970. Recife, BNB/SUDENE, 1976, pp.7-24.

24. As a consequence of the inflow of migrants to Recife, it was estimated that the town's population increased at an average of 50 inhabitants per diem during the 1940s, over 60 p.d. in the 1950s, and 40 p.d. during the 1960s. Visão, June 23, 1975, pp. 87-89.

25. Governo do Estado de Pernambuco. Região Metropolitana do Recife....., p. 17.

26. Terminology adopted by FIBGE to designate the more detailed sub-division of the Northeast into 118 areas, based on criteria of economic and geographic homogeneity. FIBGE. Censo Demográfico - 1970. Serie Regional, Pernambuco. Vol.I. Tomo X, Rio, 1970, p. XVI. This will be the source for the demographic statistics presented in the remaining part of this chapter.

27. Moura, Hélio A. et.al., op.cit., tables 11 and 11A.

28. The concept of immigrant here is the same as adopted by FIBGE and corresponds to what is known as "lifetime migrant", i.e., a person living in an area different from that of his birth. FIBGE, op.cit., p. XXXIII.

29. Neto, Leonardo G., op.cit., pp. 90-91 and 138-39.

30. Included the towns of Olinda, Paulista and Jaboatão.

31. BNB-ETENE. Revista Economica do Nordeste, 6, (4), Fortaleza, October/December 1975, p. 625.

32. Moura, Hélio A. et.al. op.cit., tables 11 and 11A.

33. This is an important fact specially when considered that it is believed that the migrant population's contribution to the high levels of urban poverty in the Northeast is more accentuated in some medium-size towns that serve as passages in the migratory flows within and from the region. Goodman, D.E., op.cit., p.24

34. Neto, Leonardo G., op.cit., pp.90-91 and 138-39.

35. BNB-ETENE, op.cit., p.625.

36. Although it seemed convenient, for the purpose of this thesis, to study Petrolina separately, it is common to find studies which take the two towns jointly.

37. Moura, Hélio A. et.al. op.cit., tables 11 and 11A.

38. Neto, Leonardo G., op.cit., pp. 90-91 and 138-39.

39. BNB-ETENE, op.cit., p.625.

40. The data on population were provided by Recife's City Hall.

41. The information on Caruaru was provided by the City Hall and by the Diocese.

42. Data for Petrolina were made available by the City Hall and by FIBGE's local representative.

CHAPTER III

THE PRE-MIGRATION STAGE

This chapter focuses upon the first phase of the migratory process, i.e. the migrant's situation prior to his decision to move, and upon other aspects of the movement itself. The analysis will first be concerned with the questions of who are the people who migrate and why they do so. Another section of this Chapter will be devoted to the migratory process itself with an investigation of the migrant's destination and the pace and timing of the movement. The last part of the chapter will attempt to identify the functions of the three towns in the migratory process within the Northeast.

From the total of 658 persons interviewed in the three areas, 54.9% were migrants, i.e. they were born in other localities. Immigrants among the population surveyed were distributed as follows: 45.3% in Recife, 66.7% in Caruaru and 83% in Petrolina. These findings are congruent with official statistics on the high proportion of migrants in Northeastern cities. The relatively lower percentage for Recife may be explained by the tendency for new migrants to settle at the peripheries of the larger cities where the shanty towns grow more rapidly owing to the relative availability of cheap, or free, public land.[1]

The migrant's history begins with the tracing of his origins. We decided to employ three categories as regards the origin of migrants: a) rural areas, composed of farms, sugar plantations and sugar factories; b) quasi-rural areas, encompassing hamlets and villages; c) urban areas, towns[2] of different sizes. This categorization appeared to be the most suitable for two reasons. Firstly, because it would permit a partial check of Ravenstein's postulate that migration occurs by progressive stages from rural areas to

increasingly larger urban centres. Secondly, it avoids the conceptual problem of classifying hamlets and villages as either rural or urban areas. Hamlets and villages in Northeast Brazil are residential nuclei within agricultural areas but exhibit primitive forms of urban economy, specially in commercial activities. Therefore, these semi-rural conglomerates would be expected to represent a first stage in the acclimatization of rural migrants to a cash economy and trade.

The answer to the question of who migrates is given by the following set of tables. Table I shows that 44.2% of migrants in Recife were born in urban areas, whereas 37.7% and 18.1 had their birth, respectively, in rural and quasi-rural areas. The data for Caruaru shows a somewhat different situation as 56.9% of immigrants originated from rural areas, 32.9% from urban areas and 10.2 from quasi-rural localities. Petrolina appears as an intermediary case between Recife and Caruaru, as 48.2% of the migrants were born in urban centres, 38.6% in rural areas and 13.2% in quasi-rural areas.

Table I

Place of Birth

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Farm	27	13.6	40	50.6	40	48.2
Sugar Plantation (Engenho)	35	17.6	5	6.3	0	0.0
Sugar Factory (Usina)	13	6.5	0	0.0	0	0.0
Hamlet	23	11.6	7	8.9	8	9.6
Village	13	6.5	1	1.3	3	3.6
Town	88	44.2	26	32.9	32	38.6
Total	199	100.0	79	100.0	83	100.0

In order to give more precise information on the movement of migrants, Table II reproduces the distribution of the interviewees according to the places where they spent their childhood, i.e., their residence until the age of 12. The results present a pronounced resemblance with the ones shown in Table I and produce clear evidence of movements towards larger urban areas during the early ages of migrants in Recife and Petrolina. In those two towns urban immigrants distinctly predominate over rural or quasi-rural migrants.

Table II

Place in which Childhood was Spent

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Farm	27	13.6	36	45.5	38	45.8
Sugar Plantation (Engenho)	34	17.1	7	8.9	0	0.0
Sugar Factory (Usina)	12	6.0	0	0.0	0	0.0
Hamlet	21	10.6	7	8.9	8	9.6
Village	11	5.5	3	3.8	3	3.6
Town	94	47.2	26	32.9	34	50.0
Total	199	100.0	79	100.0	83	100.0

A more general interpretation of the two Tables reveals that some reservation is necessary as regards the relatively high contingent of migrants in Recife. Given the fact that the three slum bairros surveyed are located well within the limits of that city, if the research had been done in more peripheral shanty towns, a higher percentage of rural immigrants might have been detected.[3] On the other hand, the higher percentage of urban immigrants to Petrolina is consistent with the data provided by the 1970 Census which shows that 69.2% of migrants living in that town proceeded

from urban areas.[4] The high incidence of rural immigrants into Caruaru, as compared with the other two towns, may be explained by the existence of the three weekly fairs and the extensive handicraft industry; both activities require commercial links with the rural areas, specially for the supply of agricultural goods and raw materials. The origin of migrants by sex appear more evenly distributed also in Caruaru, where 44.5% of male immigrants came from urban areas, as compared to 54.7% of females. In Recife and Petrolina females of urban origin predominated, as they accounted for, respectively, 70% and 60% compared with 58.1% and 50% of males, who moved from other urban areas into the two towns.

Males predominate over females among the migrant population in the three urban areas. Indeed, males account for, respectively, 64.8%, 57% and 82% of the samples in Recife, Caruaru and Petrolina. Although these figures are not congruent with the results of studies on the Northeast based on census data, which found higher percentages of female migrants in intra-regional movements,[5] it confirms the evidence that in cases of high incidence of urban-urban movements in Latin America, male migrants predominate.[6] It must be stressed, incidentally, that the fact that the survey was made in poor bairros may have resulted in a sub-estimation of the relative number of female migrants. As a large proportion of these immigrants become domestic servants, normally resident in middle class areas, they were not included in the sample, but there were also those who certainly commuted between their jobs and their homes.

Table III provides information which is congruent with other empirical studies, which have found that nordestinos migrate at young ages.[7] Indeed, as many as 45.2% of the non-natives interviewed in Recife had migrated at ages ranging between 15 and 24 years, the percentage rising to 54.2% and to 74.4% respectively, when the 15-29 and 10-29 year age groups are considered. Similar patterns are found in Caruaru, though the percentages are

Table III

Age at Point of Migration

Age Groups	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
0 - 9	15	7.5	7	8.9	4	4.8
10 - 14	40	20.2	16	20.3	8	9.6
15 - 19	55	27.6	14	17.7	14	16.9
20 - 24	35	17.6	11	13.9	17	20.6
25 - 29	18	9.0	10	12.7	10	12.0
30 - 34	11	5.6	7	8.8	10	12.0
35 - 39	12	6.0	3	3.8	10	12.0
40 - 44	4	2.0	5	6.3	5	6.0
45 - 49	4	2.0	2	2.5	1	1.3
Over 50	5	2.5	4	5.1	4	4.8
Total	199	100.0	79	100.0	83	100.0

substantially smaller: 31.6%, 44.3% and 64.6% respectively. In Petrolina, the percentages of 35.5, 49.5, and 59.1 are slightly higher than in Caruaru in the first two age groups, and smaller in the third. On the other hand, the relatively high proportion of migrants under the age of 14 (26.9% in Recife, 29% in Caruaru and 14.8% in Petrolina) reveal high dependency ratios, specially in the first two towns, which may have helped to increase the monetary costs of migration both during the transfer and the adaptation to the new life. It may also be suggested that premature entry of the young into the labour market, in order to complement the family income, pre-empts the possibility of formal education or professional training.

The educational level of migrants at the time of their move was very low, as seen in Table IV. Therefore, as regards education, one could say that there was a negative selectivity of poorly educated

migrants. Primary schooling was the most frequent educational level in Recife, Caruaru and Petrolina: respectively, 47.8%, 39.2% and 51.8% Illiteracy, however, was the next category,

Table IV

Education

Educational Level	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Illiterate	62	31.2	28	35.4	18	21.7
Literate *	12	6.0	13	16.5	3	3.6
Incomplete Primary **	10	5.0	3	3.8	11	13.3
Primary	95	47.8	31	39.2	43	51.8
Secondary	18	9.0	3	3.8	6	7.2
Teacher	1	0.5	1	1.3	1	1.2
Professional Training	0	0.0	0	0.0	0	0.0
Accounting	1	0.5	0	0.0	1	1.2
University	0	0.0	0	0.0	0	0.0
Total	199	100.0	79	100.0	83	100.0

* writes and/or reads

** less than four years of school attendance

respectively, 31.2%, 35.4% and 21.7%. The percentages of informants with no formal education, or poorly educated, i.e., with incomplete or complete primary schooling, were alarmingly high: 90% in Recife, 94.9% in Caruaru and 90.4% in Petrolina. These figures suggest, on the one hand, the poor socio-economic conditions of those migrants; on the other, they allow one to infer that migrants are extremely vulnerable in the face of their new urban conditions. In this dismal picture, migrants in Petrolina are slightly better off, because the percentages of thosehaving a complete (or incomplete)

primary education is higher in that town than in the other two.

Additional information on the migrant's origins is provided by table V, which shows that most of the migrants came from rural families. Indeed, 59.8% in Recife, 77.2% in Caruaru and 71.1% in Petrolina, among the respondents, said that their parents were agricultural workers. The comparing of these results with those of tables I and II leads to the conclusion that the majority of the interviewees were second generation rural migrants, i.e., they were descended from rural immigrants. This indicates, therefore, that the process of migration by stages from rural to urban areas is made by different generations. Furthermore, if one considers the plausible hypothesis that the previous generation was made up of poor immigrants, one may only conclude that their mobility did not prevent them transmitting their misfortunes to their descendants. Table V shows also that the interviewees descend from three occupational groups: agriculturalists, urban employees and self-employed workers.

Table V.

Father's Occupation

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Agricultural Worker	119	59.8	61	77.2	59	71.1
Employee	40	20.1	8	11.1	6	7.2
Self-employed	40	20.1	10	12.7	18	21.7
Total	199	100.0	79	100.0	83	100.0

As seen earlier, most migrants in the samples for Recife, Caruaru and Petrolina are descended from rural families. Table VI offers information on the occupational groups to which these families belonged. An immediate and revealing observation is that the occupational groups to which the respondents belonged seem to reflect

the working conditions of the natural zones in which Recife, Caruaru and Petrolina are located. The higher proportion of salaried workers (37%) in Recife is probably due to the type of working relationships prevailing in the sugar cane agriculture which dominates the neighbouring Mata-Litoral zone. The relative participation of the other groups closely reflects the conditions of tenure arrangements which prevail in the Mata-Litoral, Agreste, and Sertão of Pernambuco and Northeast Brazil. Among migrants in Recife, smallholders are the next most frequent group, a confirmation of the data on land distribution for all the Northeast as presented in Chapter I. It also corroborates, not only in Recife, but also in Caruaru and Petrolina, the tendency mentioned in Chapter I of a substitution of sharecropping by renting agreements.

Table VI

Father's Occupational Status in Agriculture

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Smallholder	40	33.6	34	55.7	32	54.2
Wage Labourer	44	37.0	13	21.3	14	23.7
Sharecropper	15	12.6	3	4.9	3	5.1
Renter	18	15.1	8	13.2	10	17.0
Morador *	2	1.7	3	4.9	0	0.0
Total	119	100.0	61	100.0	59	100.0

* resident worker

Caruaru and Petrolina also provide evidence for the understanding of the origin of migrants who choose to settle in those towns. Probably because incomers move relatively short distances, their social origins are indicative of the labour arrangements in the Agreste and Sertão of both Pernambuco and neighbouring States. In

these two towns smallholders predominate: 57.7% in Caruaru and 54.2% in Petrolina. The relative participation of other groups is consistent with the various forms of access to the land in the Northeastern region. The figures relative to Caruaru and Petrolina demonstrate, moreover, the lamentable inadequacy of the agricultural organisation prevailing in the semi-arid interior of the region. Indeed, the high proportion of children of smallholders who migrated to Caruaru and Petrolina shows that ownership of a minifundium in areas of unfavourable climate and inadequate agricultural services is not sufficient for the maintenance of a rural family. It is also legitimate to assume that at least some of these smallholders were induced to sell their land to the large-scale, relatively labour-saving, cattle breeding ranches which have been established in the Agreste and Sertão zones of the Northeast in recent year.

Information on the first occupation the migrant had in his life is congruent with the results of Tables I and II, as 38.8% of respondents in Recife, 57% in Caruaru and 66.3% in Petrolina were dedicated earlier to agricultural activities. In the cases of Recife and Caruaru, those percentages are crudely similar to the percentages of migrants born or raised in rural areas. In Petrolina, the percentage of migrants dedicated previously to agricultural activities match the figures in Tables I and II related to migrants of rural or quasi-rural origin. This finding suggests that hamlets and villages in the Sertão have a more rural character, performing the function of residences for rural labourers, than those of the more densely populated Agreste and Mata-Litoral zones. Migrants who had their occupation in non-agricultural activities

were mostly unskilled labourers employed in petty trade, domestic services or casual work. Skilled occupations such as that of joiner, electrician, teacher, mechanic, shoemaker, plumber, carpenter, solderer, mason and writing clerk, represented only 12% of migrants in Recife, 7.8% in Caruaru and 10% in Petrolina. This information allows us to conclude that, unless most migrants had acquired a skill before their arrival in the urban areas surveyed, the conditions of their entry into the labour market were very unfavourable.

Migrants in the three towns moved short distances, as seen in Table VII.[9] The majority of informants (75.9% in Recife, 81.1% in Caruaru and 61.4% in Petrolina) were born in the State of Pernambuco itself. Furthermore, migration is predominantly an intra-regional phenomenon in which the neighbouring States contribute the higher percentages, except for the very few inter-regional immigrants, who are likely to be return migrants. Intra-regional migration seems to have a peculiar intra-zone character. Incidentally, Tables I and II throw some light on this issue, as most rural migrants in Recife were born or spent their childhood in Engenhos or Usinas, which are typical of Zona da Mata, the sub-region in which Recife is sited. A small percentage of migrants in Caruaru moved from Engenhos, revealing a few cases of inter-zone movement. As regards Petrolina, the data do not permit us to conclude that rural migrants from the Zona da Mata moved to that town. The data indicate, on the other hand, that inter-zone migration flows within the State of Pernambuco take the west-east direction towards Recife, as expected. Although Recife, as a metropolitan centre, attracts immigrants

from less local surroundings, Caruaru and Petrolina appear to be destinations for migrants from the immediate vicinities. It is interesting to observe that Caruaru is sited a relatively short distance of under 100 kilometres from Pernambuco's borders with the States of Paraiba and Alagoas. Petrolina is not only situated on the banks of the River São Francisco, which separates the States of Pernambuco and Bahia, but is also near the borders of Ceará and Piauí, and not very distant from Paraiba's south-western frontier with the State of Pernambuco. These States' proximity and their effects on the geographic origin of migrants in Petrolina may be seen in table VII. However, because of Petrolina's location, a higher percentage of immigrants from Bahia should be expected, as they would merely have to cross the bridge on the river. Why they do not do so is an interesting question which calls for further investigation. It should be stressed, on the other hand, that short-distance movements of intra-regional migrants are intensive in a region which also supplies migrants to other regions: to the Centre-South, to fast-growing Brasilia or to the agricultural frontier of the Amazon.

Migration by steps, judging from the sample, does not appear to be common among migrants in Recife and Caruaru, although its incidence is higher among those in Petrolina. As shown in Table VIII, the percentages of immigrants living in Recife (22.1%), Caruaru (36.7%) and Petrolina (51.8%) who had had a previous intermediary residence before settling in those towns are considerably lower than FIBGE's figures presented in Chapter II. They are, however, consistent with the results of some surveys made in other urban areas outside Northeast Brazil.[10] On the other hand, considering those figures in the context of the results and interpretations made so far, they bear a congruence with the type

Table VII

State in which born

State	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Piauí	0	0.0	0	0.0	8	9.6
Ceará	5	2.5	0	0.0	10	12.0
Rio Grande do Norte	5	2.5	0	0.0	2	2.4
Paraiba	29	14.6	4	2.0	4	4.8
Pernambuco	150	75.4	73	92.4	52	62.7
Alagoas	9	4.5	1	1.3	0	0.0
Bahia	0	0.0	0	0.0	7	8.4
Others *	3	1.5	1	1.3	1	1.2
Total	199	100.0	79	100.0	83	100.0

* includes one immigrant from Maranhão, rio de Janeiro and Amapá in Recife, one from Minas Gerais in Caruaru and one from São Paulo in Petrolina.

Table VIII

Those Living in one
Intermediary Residence Before Settlement

State	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Piauí	0	0.0	0	0.0	4	9.3
Ceará	1	2.3	0	0.0	2	4.7
Rio Grande do Norte	2	4.7	0	0.0	1	1.3
Paraiba	12	27.9	0	0.0	2	4.7
Pernambuco	20	46.5	24	82.8	22	51.2
Alagoas	6	14.0	0	0.0	0	0.0
Bahia	0	0.0	0	0.0	10	23.3
São Paulo	2	4.7	4	13.8	0	0.0
Others *	0	0.0	1	3.4	2	4.5
Total	43	100.0	29	100.0	43	100.0

* includes one immigrant from Rio de Janeiro in Caruaru, one from Maranhão and another from Brasilia in Petrolina.

of migrants which predominate in the samples of the three towns. Indeed, it is plausible that in cases of short-distance, predominantly urban-urban movements, the frequency of intermediary stops is less than when long distance or distinctively rural-urban migration occurs. Recife's smallest percentage can be explained, partly, by the considerable proportion of migrants (24.1%) who were born in sugar plantations (engenhos) and sugar factories (usinas), which are located in the Mata-Litoral zone, in which the city is sited. (see table I). Moreover, Recife's and, to a certain extent, Caruaru's size, its urban economy and infrastructure must certainly work as attracting forces to the people living in the densely populated surrounding areas. In the case of Petrolina, the theory of migration by steps would be more distinctively applicable, if it were not for the rather surprising evidence that most migrants (79.1%) to that town had their intermediate residence in urban areas, as compared to Recife's 76.7% and Caruaru's 62.1%. A possible explanation for this finding is the fact that Petrolina/ Juazeiro is the largest and most developed urban centre within a large and sparsely populated area, in which other urban areas are small and undeveloped.

Cases of migrants who had two or three intermediary residences between the places of origin and the three urban areas are still rarer: 9% in Recife, 21.5% in Caruaru and 30.1% in Petrolina. The second stops were mostly in urban areas, as 77.3%, 70.6% and 80% of migrants in Recife, Caruaru and Petrolina had their second dwellings in towns, mostly within the State of Pernambuco, which accounted for respectively 50%, 70.6% and 56%. A small percentage of migrants had three stops before settlement: 4.5% in Recife, 18.1% in Caruaru and 11.4% in Petrolina. Once again, most dwellings were in urban areas, respectively 77.8%, 44.4% and 93.3%. Residence within Pernambuco was even less frequent during the third stop:

22.2%, 66.7% and 53.3%, suggesting that these were cases of multiple stop, long distance movements.

Nor was the duration of the intermediary residence very long. Table IX shows that 46.6% of the migrants who made on stop before moving to Recife spent three years or less in the intermediary residence. In the case of Caruaru the percentage, 27.1%, of time spent in the previous stop was considerably lower, increasing to 51.7%, however, when the period of permanence is extended to five years or less, the figure for Recife being 53.6%. In Petrolina, 51.1% of migrants had stayed in intermediary residence for three years

Table IX

The Time Spent in First Intermediary Residence

Years	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Under 1	10	23.3	3	10.3	9	20.9
1 - 2	4	9.3	2	6.9	9	20.9
2 - 3	6	14.0	2	6.9	4	9.3
3 - 5	3	7.0	8	27.6	9	20.9
5 - 10	7	16.3	4	13.8	4	9.3
Over 10	9	20.8	8	27.6	5	11.7
Don't know	4	9.3	2	6.9	3	7.0
Total	43	100.0	29	100.0	43	100.0

or less, the figure rising to 72% when a period of five or less years is considered. The percentages of people who lived for less than three years in the second intermediary places are still higher: 55.6%, 58.9% and 60% of migrants respectively in Recife, Caruaru and Petrolina. Similar patterns occur for those few who had experienced three previous stops. As many as 66.6% of immigrants to Recife had stayed less than two years in the third stop, whereas the figure for Caruaru

was 33.3% and 53.3% for Petrolina. These results are consistent with other studies, which demonstrated that the duration of the intermediary residences decline as the frequency of the stops increase.[11] As a whole, Petrolina appears as a place where assumptions about step migration are confirmed, both in terms of the number of intermediary stops and duration of residence.

The following tables contain information which allow some interpretation of the migrant's situation prior to his departure from the place of origin, the reasons for emigration and his expectations about the conditions at destination. The immediate conclusion drawn from table X is that the reasons why the migrants left their first place of residence demonstrate a predominance of 'push' or expelling factors,[12] although some sort of 'pull' or attraction forces may also be identified.[13] Among the informants in Recife, the most frequent motives for emigration were dissatisfaction with earnings (39.2%) and unemployment (38.2%). In Caruaru, unemployment (38%) was the most frequent cause for emigration, followed by rather smaller proportions of people who had emigrated because of dissatisfaction with earnings, for health reasons and poor agricultural conditions. As regards Petrolina, unemployment (71.2%) is undisputably the main cause for emigration; only 10.8% of interviewees mentioned dissatisfaction with earnings as the motive for their exodus. Recife's metropolitan status must account for what should be interpreted as a combination of push and pull factors. Indeed, while unemployment is clearly a compelling cause for emigration, dissatisfaction with earnings may be regarded as embodying both pull and push forces as it presupposes some hope of earnings differentials between the place of origin and the destination. As regards Caruaru, if one consider dissatisfaction with earnings, dissatisfaction with job and health problems, as combinations of 'push' and 'pull' factors, even so, they account

for 28%, still a smaller percentage than the category unemployment. Expulsion by unemployment is, as mentioned earlier, a distinctive characteristic of migrants in Petrolina. It is clear that Petrolina (and Juazeiro) is in a peculiar situation as a relatively developed urban centre serving a large area and a place in which agricultural development is hindered by natural and institutional obstacles, and where industries enjoy very limited locational advantages.

With the possibility of more than one intervening cause for emigration, the interviewees were asked to give a second reason for their decision to emigrate, if there was one. Only 17.5% of the respondents in Recife, 6% in Petrolina and none in Caruaru answered the second question. The results leave no doubt as to the pre-eminence of push factors for emigration in the areas surveyed, as in Recife more than one-third of the second answers were 'unemployment' and one-fifth were 'dissatisfaction with earnings'. In Petrolina, there was an even distribution of the interviewees among the first five reasons listed in table X.

Male and female migrants in the three towns do not differ substantially in their motives for emigration. The only differences worth mentioning are the higher percentages of females in Recife who came because of a job offer, or for family reasons. The first of these two reasons is likely to be explained by the high demand for domestic servants in that city. In Caruaru, females predominate in the categories 'dissatisfaction with earnings' and 'search for better educational conditions', two motives which may be regarded as combining push and pull factors; the alternative dissatisfaction with job was more frequent among males, a clear example of forced move. In Petrolina there is a more balanced distribution of answers by sex, the only difference lying in the higher percentage of females who mentioned unemployment as a cause

Table X.

Reasons for Leaving the First Place of Residence

Reason	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Dissatisfaction with earnings	78	39.2	9	11.4	9	10.8
Dissatisfaction with job	5	2.5	6	7.6	0	0.0
Unemployment	76	38.2	30	38.0	59	71.2
Health Problems	4	2.0	7	9.0	1	1.2
Search of Better Opportunities	5	2.5	2	2.5	2	2.4
Search for Better Education	3	1.5	2	2.5	1	1.2
Desire to Live in a Bigger City	6	3.0	5	6.3	2	2.4
Job Offer	9	4.6	6	7.6	2	2.4
Transferred	3	1.5	2	2.5	3	3.6
Family Reasons	5	2.5	6	7.6	1	1.2
Poor Agricultural Conditions	5	2.5	4	5.0	2	2.4
Drought	0	0.0	0	0.0	1	1.2
Total	199	100.0	79	100.0	83	100.0

for emigration. Immigration into Petrolina is a more recent phenomenon than in Recife and Caruaru. Indeed, of the population surveyed, as many as 82% had arrived in Petrolina between 1960 and 1974,[14] whereas only 34.2% and 50.6% had settled in Recife and Caruaru during the same period. It is possible, therefore, that the higher proportion of females who migrated to Petrolina because of unemployment is evidence of their lagged response to the lack of employment opportunities in the surrounding areas where they lived. That is, whereas the male work force reacted earlier to unemployment, only more recently have the females been responding to the rigidities

of the labour markets in their places of origin.

Another aspect worth considering in table X concerns the small proportion of informants who referred to 'poor agricultural conditions' and 'drought', as reasons for migration. A first explanation stems from the relatively high incidence of urban migrants in the samples for Recife and Petrolina. Secondly, it should be expected that, for rural migrants, such problems as unemployment or dissatisfaction with job or earnings are more perceptible and immediate than the identification of a decline in soil fertility, unfavourable terms of trade or the occurrence of diminishing returns on the land they farm. Thirdly, there is evidence that the government-sponsored work fronts have been effective in preventing mass emigration from rural areas during the droughts.

It seems convenient at this point to make some general observations in order to situate the results of table X in the context of the Northeastern situation. When poverty, here identified with unemployment and dissatisfaction with earnings,[15] is the real cause for emigration, the theoretical assumptions of economic rationalization or maximizing behaviour appear to have little relevance. When survival is what really counts in a situation of chronic unemployment or earnings at subsistence level, emigration becomes an imperative. In a region where urban under-employment reaches appalling rates, low educational levels and lack of skill do not constitute real obstacles to labour absorption. Urban immigration can, in other words, hardly be regarded as anything other than an ultimate attempt to escape from extreme poverty and as a solution to survival. Urban overcrowding and under-employment have not acted as a deterrent to urban immigration in Northeast Brazil.[16] On the other hand, one can only guess that inter-area earning differentials may have some bearing on allocation of migrants within the region. As explained in Chapter I, the income level of the urban Northeast is four times

higher than that of the rural sector. Furthermore, the income distribution in non-agricultural activities in 1970 was less unequal than that of the agricultural sector. As many as 62% of agricultural workers, as opposed to 36.3% of urban labourers, had monthly earnings equal to or less than Cr$ 100,00 Similarly, whereas 77.3% of workers in the rural sector had earnings equal to or below Cr$ 200,00, urban labourers in the same earnings interval represented 69.1% of the working population in the sector.[17]

Unfortunately, the information on per capita incomes of urban areas of different population sizes in the Northeast are not recent and refer only to the large and medium-size towns. Nevertheless, a comparison of the per capita incomes, at constant price of 1968, of 27 towns surveyed by BNB show no discernible pattern of distribution, except that the metropolitan areas of Recife, Salvador and Fortaleza had per capita incomes above the average, although the same was also true of other towns of different sizes.[18] Rates of open unemployment and under-employment[19] in 21 towns of different sizes in the Northeast are random, making it difficult to discern any pattern in un- or under-employment differentials.[20]

Given that income and employment differentials are far from clear cut, and that push factors are considerable, it would seem that the decision to move is not dictated by a calculated maximizing of chances. But one should bear in mind that there are migrants and migrants: for those to whom poverty is not the determinant for moving, some kind of maximizing behaviour may occur. For these, migration from a smaller to a larger urban area, regardless of urban under-employment and marginality, may result individually in gains due to the wider range of occupational opportunities, amenities and personal contacts available in the larger urban centres.

Table XI reveals that for most migrants, moving was a group rather than individual decision, as 66.3% of the interviewees in Recife,

Table XI

Migrated with Whom

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Nuclear Family	47	35.6	26	45.6	29	52.7
Extended Family	70	53.0	29	50.9	20	36.4
Friends	6	4.5	2	3.5	6	10.9
Boss	8	6.1	0	0.0	0	0.0
Others	1	0.8	0	0.0	0	0.0
Total	132	100.0	57	100.0	55	100.0

72.2% in Caruaru and 66.3% in Petrolina migrated in the company of someone else. The company was either the nuclear or the extended family, which prompts two conclusions. Firstly, the larger the moving group, the higher the money costs of transport and accommodation at the initial period. Secondly, the maintenance of family cohesion reduces the psychological strain of the move, a point of significance in a strongly family-oriented society like Brazil.[21]

Table XII shows that the majority of the migrants intended to settle permanently in the areas of their destination. The high percentages for Recife (82.4%), Caruaru (76%) and Petrolina (67.5%) reveal, first of all, that the choice of the destination was a conscious and deliberate act, more so in Recife and Caruaru than in Petrolina. It was in this town where the highest percentage of informants (20.5%) whose stay was only temporary, for reasons such as health treatment, search for experience of urban life, and attempt to earn extra income, was found. Furthermore, only in Petrolina were there cases of migrants who, though being originally en route to other places, decided to settle there. The almost total absence of in-transit migrants among the population surveyed does not constitute

Table XII

Intentions at point of Migration

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Observe the situation and decide later	23	11.6	13	16.4	6	7.2
Stay Permanently	164	82.4	60	76.0	56	67.5
Stay Temporarily	11	5.4	6	7.6	17	20.5
In Transit to Other Localities	1	0.6	0	0.0	4	4.8
Total	199	100.0	79	100.0	83	100.0

evidence that Recife and Caruaru have no capacity to retain migrants. These results may suggest, on the other hand, that: a) the migrants who succeeded in acquiring what they sought during their intermediate stopping place, might have already resumed their journey towards other localities; b) the more recently arrived transient migrants, specially in Recife and Caruaru, may have settled in the peripheries of those towns and therefore were not included in the samples. A more general conclusion that emerges from table XI is that the decision to emigrate is a definitive and ultimate act and not a temporary solution for a temporary difficulty. Therefore, for most nordestino migrants, the decision to move involves the pursuit of a new livelihood in a new environment.

While the decision to emigrate is largely influenced by poverty, the choice of destination appears to be, at least in part, a rational one. Table XIII supports this view by confirming familiar findings on the role of kinship in the choice of destination.[22] The presence of relatives in Recife and Caruaru was for many the reason for the choice of those towns as destinations. Relatives and friends together accounted for, respectively, 56.8% and 49.4% of those who

selected Recife and Caruaru as their new residences. If to these figures are added the percentages of respondents whose moving to the two towns was due to the availability of concrete jobs, the percentages of migrants whose choice was rational in terms of material and psychological support provided by kin or employers, rise to 72.4% and 59.5% respectively. These figures are consistent with the results of table XII, since the presence of acquaintances and the offer of a job are certainly influential in the decision to settle permanently in Recife and Caruaru. It also may help to account for the smaller incidence of step migration in those two towns as compared with Petrolina. The higher proportion (33.7%)

Table XIII

Reason for Choosing Destination

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Prospect of Job	17	8.6	3	3.8	28	33.7
Concrete Job	31	15.6	8	10.1	5	6.0
Try for a Job	12	6.0	10	12.7	3	3.6
Transferred	3	1.5	2	2.5	3	3.6
Presence of relatives	96	48.2	35	44.3	18	21.7
Presence of Friends	17	8.6	4	5.1	5	6.0
Possibility of Education	3	1.5	0	0.0	2	2.4
Health Treatment	4	2.0	6	7.5	1	1.2
Larger Town	6	3.0	4	5.1	4	4.9
Preference for the Place	5	2.5	4	4.1	5	6.0
Proximity to Original Home	4	2.0	3	3.8	5	6.0
In Transit to Other Locality	1	0.5	0	0.0	4	4.9
Total	199	100.0	79	100.0	83	100.0

of migrants who chose the latter because of a mere prospect of a job may also be associated with the higher percentage of migrants who intended to settle temporarily there, as shown in table XII. The interviewees were allowed to give another answer if a second reason existed for their choosing of the destination. It was expected that this second question would work as a cross check to table X, i.e., it could corroborate the evidence that pull factors are not relevant among the population in the samples. Indeed, the presence of relatives was the most frequent among those who gave a second answer in Recife (31.1%) and Petrolina (48.1%), whereas the presence of friends (28.1%) was the highest percentage in Caruaru. It appears, therefore, that the specific characteristics of the towns, such as their location, sizes or urban facilities are not the primary attracting factors in themselves. Kinsmen and friends, on the other hand, are highly significant in determining the migrant's choice as to destination.[23]

Given the evidence of two primary push factors for emigration, poverty and unemployment, it would be expected that migrants would carry few belongings with them. Table XIV shows, in fact, that most migrants took a minimum amount, simply their clothes. Only in Caruaru a higher percentage (29.1%) of informants carried some furniture from their places of origin. This finding adds some evidence to the interpretation that migrants to Caruaru originated from not very distant places. Nor did the migrants in the samples carry much money with them. Only 30.2% of the migrants who settled in Recife claimed to have brought some money with them. However, 78.3% of them indicated that they had brought an amount of money that was on average under Cr$ 100,00,[24] as seen in table XV. This figure corresponds to approximately one-third of the official monthly minimum salary of Cr$ 295,20 for the Northeast in 1974. Only 30.4% of the interviewees in Caruaru mentioned that they had carried some

Table XIV

Belongings Brought When Migrating

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Clothes	116	58.3	47	59.5	75	90.7
Furniture	22	11.1	23	29.1	15	18.2
Domestic Utensils	4	2.0	5	6.3	1	1.2
Working Instruments	2	1.0	1	1.3	2	2.7
Others	4	2.0	3	3.8	4	4.8
Nothing	51	25.6	0	0.0	0	0.0
Total	199	100.0	79	100.0	83	100.0

Table XV

Money Brought When Migrating

Money Intervals (Cr$)	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Under 50	41	68.3	12	50.0	22	50.0
50 - 99	6	10.0	2	8.3	7	15.9
100 - 149	5	8.3	2	8.3	2	4.5
150 - 199	0	0.0	1	4.2	1	2.3
200 - 299	2	3.3	1	4.2	6	13.6
300 - 499	3	5.0	1	4.2	3	6.8
500 - 999	1	1.7	2	8.3	1	2.3
1,000 - 2,999	1	1.7	2	8.3	2	4.5
Over 3,000	1	1.7	1	4.2	0	0.0
Total	60	100.0	24	100.0	44	100.0

money with them and 58.3% of these were included among those who had brought along a quantity of money which corresponded to one-third or less the minimum salary of 1974. Among the 53% of migrants in Petrolina, who had carried money with them, as many as 65.9% possessed amounts equal or less than one-third the minimum wage, which in itself is regarded as the "poverty threshold". These pitiably small amounts of money were certainly far less than would be needed to support a family for even a brief period.

On the other hand, the percentages of dispossessed migrants who had no money at all when they arrived in Recife, Caruaru and Petrolina were very high: respectively 30.6%, 41.8% and 36.3%. There were even two migrants in Recife and one in Petrolina who claimed to have moved on foot. The remaining respondents preferred not to answer the question, as they were unable to recollect with any accuracy the amount of money they had brought. It must be stressed, incidentally, that the figures from table XV must be regarded as highly approximate estimates. Understandably, the time lag between the period of the survey and the time of arrival of many of the interviewees will have affected their recollection, thus creating inevitable biases in some of the answers. An attempt was made to minimize this problem by urging the informant to make an effort to calculate what the amount of money mentioned represented in terms of 1974 purchasing power.[25]

Each of the three towns surveyed appeared to have different functions as destinations for migrants. People who moved to Recife, according to the survey, were young, poorly educated, mostly males and second generation rural immigrants coming mostly from neighbouring urban or quasi-rural areas. They moved short distances, going straight to that city, intending their transfer to be permanent. Poverty caused by insufficient employment or poor earnings was the main driving motive for emigration. Newcomers moved in family

groups and the counted on the assistance of relatives or the security of employment. Their economic situation upon arrival was in most cases extreme as they carried almost no money or valuables with them.

Some of the general conclusions for Recife are also applicable to Caruaru, the most noticeable distinction being, however, the higher percentage of rural immigrants to the latter. On the other hand, the data do not suggest that Caruaru is successfully retaining migrants en route to other places. Being a medium-sized town sited on a crossroad leading to Recife, Caruaru was expected by Brazilian planners to work as a deterrent against migratory flows to the State capital and other major urban centres.[26] There is no indication from the survey that this is happening[27] as no migrant claimed to have stopped while he was in transit to other places. Caruaru's locational and potential economic and commercial conditions should allow it to play that role and there is a challenge for planners to exploit these conditions. However, an artificial development of the urban economy, based on heavy financial subsidies and incentives, and the expansion of the basic infrastructure could create an apparently prosperous enclave with at least two negative consequences: a) the intra-area development differentials generated might provoke large-scale immigration and overcrowding; b) there would be no guarantee that the economic growth process would become self-sustaining after a certain stage. This is a pessimistic observation directed to the proponents of migration policies which emphasize the effects rather than the causes of the phenomenon, neglecting the blatant evidence that the crux of the problem is poverty motivated by insufficient employment and income inequalities.

Petrolina provides an interesting case to compare with the other two urban areas surveyed. Its recent economic growth based on agro-industrial schemes, on irrigation projects and public

investment in infrastructure must certainly have been an attraction to migrants. Petrolina was (during the 1960s, according to the 1970 Demographic Census) one of Brazil's fastest growing areas. Furthermore, Petrolina/Juazeiro constitute the only large urban conglomerate a considerable distance (over 500 and 700 kilometres) from the metropolitan areas of Salvador and Recife. A distinction between Petrolina and the other two areas surveyed is that migrants in the former migrated at a more mature age. A link can be detected between this finding and other results which enhance Petrolina's peculiarity as a destination for migrants. The unfavourable ecologic conditions and patterns of access to the land in the Sertão have long been forcing hordes of rural workers to move to near-by villages and towns. This can be seen clearly by comparing the percentages of migrants in Petrolina who were born and raised in urban or quasi-rural areas. Tables I and II show a clear process of migration to urban areas during the childhood of many of the migrants. Step migration is more pronounced in Petrolina than in the other two towns, and the improvements of communications within the area where Petrolina is sited as well as the town's industrialization drive over the past decade is certainly responsible for part of its attraction for migrants from their intermediate staging posts. The fact that approximately half Petrolina's immigrants had lived previously in towns may also explain their slightly higher educational levels as compared to Recife and Caruaru. On the other hand, recent immigration explains why the incomers had so little personal contacts in the town. This, in turn, clarifies why they moved at more mature ages and also why a relatively larger proportion of them had settled only temporarily in Petrolina. Unemployment as a major reason for emigration, then, re-affirms the economic backwardness of the Northeastern interior as compared to the eastern and coastal zones.

By and large, the decision to migrate to Petrolina appears to have a higher degree of uncertainty and risk than to the other two towns surveyed, as shown by the comparatively higher percentages of migrants who moved only temporarily, or relies upon the mere prospect of a job, and also by the relatively lower proportion of those who had relatives and friends in that town.

An assessment of the results of the chapter in the light of the hypotheses and questions presented in Chapter II lead to one relevant conclusion which forms the basis for other conclusions. It emerges clearly, from what has been discussed, that migration of very poor people within an underdeveloped region must be contextualized and interpreted within the reality imposed by poverty.

When deprivation caused by un- or under-employment forces people to emigrate, people's moves are dictated by a spontaneous impulse to survive, rather than on rational, calculated decisions aiming at maximization of utility. In cases in which push factors so clearly predominate, inter-area earnings or employment differentials[28] seem to be of little relevance as a determinant for migration. We are not implying that future expectations are irrelevant; our contention is merely that necessity rather than expectation is the primary cause for emigration among poor nordestinos.

In a situation of extreme and widespread poverty such as in Northeast Brazil it is ironic to conceive of migration as an investment in human capital in which returns surpass costs. It is possible that, in the long run, urban immigrants in the region will be less poor than they would be had they remained in their places of origin. However, minimal improvement in a situation of deprivation hardly corresponds to the concept of investment in human capital. We hope that Chapters IV and V will throw some light on this issue.

Money costs of transfer are directly proportional to distance between origin and destination as well as to family size. In the Northeast there is no evidence that monetary cost has great relevance as to the choice of destination within the region. For long distance, inter-regional migration, however, dislocation costs may be a more decisive factor.[29] Even so, the problem has been considerably minimized for nordestinos moving to other regions or to distant parts of the Northeast itself, by transport known locally as pau-de-arara (parrot's perch), lorries which are transformed for makeshift collective transport to carry hordes of migrants at reduced fares. They are organized either by middle-men seeking profits from individual migrants, or by people recruiting labour under specific agreements which, in some cases, result in migrants being subjected to debt servitude.

The presence of relatives and friends is undoubtedly a significant element in the choice of destination of nordestino migrants. Their likely contribution to lowering both monetary and non-monetary costs of migration, in addition to lowering transfer costs, seems to be a key element in explaining why migration occurs among impoverished and desperate people. The presence of kin and acquaintances is crucial for those migrants who are so poor that without someone's assistance they would be literally helpless.

For the regional economic system, migration in this situation constitutes labour transfer at no social opportunity cost. For the economies of the cities of their destination, the addition of workers to the reserve army of already un- or under-employed people represents a convenient assurance of a permanent highly elastic supply of labour. We hope that the next chapter will throw some light on this issue, by examining the process of assimilation of the migrant in his new environment.

NOTES. - Chapter III.

1. Moura, Hélio A. et al., op.cit., p.25.

2. A town is the seat of a municipality and a village is the seat of a district, according to the political sub-division of the Brazilian States. A district is part of a municipality. FIBGE. Censo Demográfico - 1970, Vol.I, p. XI.

3. The population of Recife's periphery grew more rapidly than that of the town itself during the 1960s. Governo do Estado de Pernambuco - FIDEM, op.cit., p.11.

4. Moura, Hélio et al., op.cit., p.55.

5. Moura, Hélio A. and Coelho, José Olímpio M., op.cit., p.24

6. Muñoz, Humberto and Oliveira, Orlandina de. "Migraciones Internas en America Latina: Exposición y Critica de Algunos Análisis", in Migración y Desarrollo: Consideraciones Téoricas, Santiago, Consejo Latinoamericano de Ciencias Sociales, 1972, p.20

7. Moura, Hélio A. et al., op.cit., p.27. This finding corroborates the results found for other Latin American countries. Brigg, Pamela H. "Migración a las Areas Urbanas", in America Latina: Distribución Espacial de la Población. Ramiro Cordona, editor, Bogotá, Corporación Centro Regional de Población, 1975, p.178.

8. These results are somewhat lower than the 1970 Demographic Census. See Moura, Hélio A. et al., op.cit., p.29.

9. Distance is not a deterrent to internal migration in Brazil, as found by Sahota, Gian. "An Economic Analysis of Internal Migration in Brazil". Journal of Political Economy, 72(2), part I, March-April 1968, p.237. Similar results were found for several Latin American countries. Brigg, Pamela H., op.cit., p.185.

10. Martine, George., Adaptação de Migrantes ou Sobrevivência dos Mais Fortes? Brasilia, PNDU - Relatório Técnico No.30, 1975, pp. 14-15.

11. Willis, Kenneth G. Problems in Migration Analysis. Westmead, Saxon House, 1974, p.80.

12. Recent studies in Brazil demonstrate the existence of a preponderance of push factors over pull factors. Tolosa, Hamilton C. Dimensão e Causas de Pobreza Urbana. Rio de Janeiro, IPEA/IPLAN (mimeographed paper), 1976, p.59.

13. Because of inadequate conditions in the place of origin, the individual's (or his family's) aspirations for better opportunities may be concealed by the more obvious push factors. Therefore, the hypothesis of push and pull factors can be combined in such a way that the decision to migrate is ultimately the result of an assessment of what one has and what one could have. For a more extensive discussion of this issue, see Herrick, Bruce, op.cit., p.72.

14. This finding is supported by the 1970 Demographic Census which found that 74% of migrants living in Petrolina had arrived during the 1960s. Moura, Hélio A. et al, op.cit., p.54.

15. Similar results were found in a study made in central Brazil during the 1960s. Wilkening, E.A. "Comparison of Migrants in Two Rural and Urban Areas of Central Brazil". University of Wisconsin, Land Tenure Center Research Paper, No. 35, p.14.

16. The apparent insensitivity by the migrant to chronic employment problems in the urban areas is, almost certainly, a measure of the unsupportable conditions he faces in his place of origin.

17. FIBGE. Tabulações Especiais do Censo Demográfico de 1970. (Série Estadual).

18. The research was conducted in two different periods: 18 towns were surveyed between 1966 and 1968 and 9 towns in the period 1970-72. BNB. Revista Econômica do Nordeste, op.cit., p.625.

19. Under-employment here is considered as both the percentage of families earning less than Cr$ 100,00 per month and the percentage of the EAP working less than 40 hours weekly.

20. Neto, Leonardo G. op.cit., p.33.

21. Wilkening, E.A. et al. "Role of the Extended Family in Migration and Adaptation in Brazil". University of Wisconsin, Land Tenure Centre Research Paper No. 53, p.691.

22. There is an extensive literature on this aspect of migration. Inter allii : Wilkening, E.A., Idem; Willis, Kenneth G. op.cit.; Greenwood, Michael J. op.cit., 1975; Brigg, Pamela H. op.cit.

23. Wilkening E.A. et al., op.cit., p.691.

24. Approximately U.S.$ 14.50 at the average exchange rate in 1974.

25. Although the reliability of this information is not wholly satisfactory, the survey procedure seemed to be the least imprecise technique to learn what the financial situation of the migrants was at the moment of their arrival.

26. Caruaru is included among the 21 medium-size towns which, according to Brazil's commission for urban policy should act as deterrents to migratory flows to the larger cities. CNPU. "Política Urbana: Programa para Cidades de Porte Medio". Planejamento e Desenvolvimento, May, 1976. pp. 20-25.

27. It is true also that some medium-size towns in the Northeast, particularly the State capitals, were having an increasing role in the retention of migrants over the 1960s. Moura et al, op.cit., pp. 26-27.

28. In saturated labour markets such as those of Northeastern towns these differentials are difficult to disentangle, let alone the comparisons between urban and rural areas. Furthermore, the capacity of people with low educational levels to grasp the intricacies of such differentials is certainly limited.

29. Transfer costs are not a considerable obstacle for internal movements of population within Brazil, as found by Sahota, Gian., op.cit., p.237.

CHAPTER IV

THE TRANSITION STAGE

This chapter deals with a subject to which the studies on migration usually fail to give enough attention, the migrant's initial contact with the new and often unfamiliar environment of his destination. This is a crucial phase in the migratory process and a significant element in understanding the dynamics of migration.[1] What occurs in the period of adjustment may influence the migrant's decision as to whether to settle permanently, to proceed to somewhere else, or even to return to his original place of residence. The timing of and circumstances in which the migrant is absorbed in the labour market also contribute to the understanding of the nature of urban employment, specially the roles of both formal and informal sectors, as well as the effect that migration has on the problem of urban marginality.

Table I demonstrates that the overwhelming majority of migrants (198 out of 199 in Recife, 78 out of 79 in Caruaru and 79 out of 83 in Petrolina) found an occupation shortly after arrival in the three urban centres.[2] There is no substantial difference as regards the timing of migrants finding employment in Recife, Caruaru and Petrolina, although migrants to Petrolina appeared to have found jobs rather more quickly that in the other two towns. These findings are corroborated by Table IIIA to Table VIIIA in the appendix, which show the timing of assimilation of workers in the three towns, by age and educational level. Those tables confirm that as many as 78.9% of migrants in Petrolina were occupied within three months of their arrival, as compared to 61.6% in Recife and 66.7% in Caruaru. The more mature age and slightly higher educational level of migrants in Petrolina seem to explain the rapid responsiveness of that town's employment

structure to migrant labour. Indeed, table IIIA to table VIIIA show higher percentages of adult migrants who had a job assured in Petrolina than in the other two urban areas. The tables also show that migrants with complete primary or secondary education in Petrolina who were employed within one month after arrival appeared in higher proportion than in Recife and Caruaru.

Table I

Period of time before starting First Occupation

Time	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Job Assured	38	19.2	13	16.7	15	19.0
Under 1 week	41	20.7	12	15.4	17	21.5
1 week - 1 month	28	14.1	14	17.9	19	24.0
1 - 3 months	15	7.6	13	16.7	12	15.2
4 - 6 months	46	23.2	15	19.2	10	12.7
Over 6 months	30	15.2	11	14.1	6	7.6
Total *	198	100.0	78	100.0	79	100.0

* There were 6 interviewees - 1 in Recife, 1 in Caruaru and 4 in Petrolina - who had never worked.

The immediate conclusion to draw from the surprising speed with which migrants found themselves occupied is that money costs of adaptation must be very low. Having this conclusion as a background, several observations can be made. Firstly, Todaro's suggestion that the rate of absorption of migrants is a significant element for the decision to move to a certain locality appears to be confirmed, specially in the case of Petrolina. Secondly, the personal characteristics of many migrants, being young or middle-aged and having had previous urban experience, may be an explanatory factor for newcomers' ready absorption into the labour markets of the three

towns. Thirdly, the informal sector, recognized to be the easiest sector of entry for migrants[3] appears to be highly elastic and have an expanding potential to absorb new arrivals. Therefore, either the time required for learning some of the occupations was very short, or the previous occupation or skill was readily applied at the migrant's destination.[4] We hope that this chapter will throw some light on this matter.

Having seen in chapter III that the migrants had little money and very few material possessions when moving, one question that arises is how they survived during the period, however short, between arrival and the finding of a job. Table II provides the answer, as most migrants (96% in Recife, 93.7% in Caruaru and 91.2% in Petrolina) relied on the assistance from people already living in the three towns.

Table II

Source of Assistance Before Finding a Job

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Parents	34	17.8	25	33.8	17	22.4
Spouse	16	8.4	10	13.5	3	3.9
Children	1	0.5	1	1.3	1	1.3
Other relatives	77	40.4	18	24.3	16	21.1
Friends	21	11.0	6	8.1	9	11.3
Savings	19	9.9	9	12.2	17	22.4
Loans	21	11.0	3	4.0	8	10.5
Others *	2	1.0	2	2.8	5	6.6
Total	191	100.0	74	100.0	76	100.0

* Includes Boss, sale of belongings and money from indemnization.

Support from relatives was by far the most frequent case. Indeed, considering the nuclear and extended families jointly, the percentages

of migrants assisted were 67.1% in Recife, 72.9% in Caruaru and 48.7% in Petrolina. These results are congruent with the findings of chapter III in which the presence of kin was less significant for the choice of destination in Petrolina than in the other two towns. The contribution of parents is due to the relatively high proportion of migrants who moved at young ages, particularly in Recife and Caruaru. The incidence of migrants in Petrolina who relied on their own savings is consistent with the conclusions of the previous chapter that migration to that town meant a higher degree of uncertainty and risk; the presence of relatives was a less decisive motive for the choice of destination and migrants carried more money than those moving to Recife and Caruaru. Aid from a spouse is fairly significant in Caruaru, and is probably best explained by the larger proportion of female migrants who moved there compared with Recife and Petrolina. Categorization by sex has not been discussed here in order to avoid unnecessary repetition. However, it must be stressed that all the informants in Caruaru who mentioned support from spouse were females, as against 87.5% in Recife and 66.7% in Petrolina.

For the recently arrived migrant, the access to information about jobs is of paramount importance. As seen in table III, the three urban areas show similar patterns as regards the most frequent source of information on employment. Friends appear to be the most significant, with 34.8% in Recife, 34.6% in Caruaru and 26.6% in Petrolina. Next come relatives, with 26.8%, 28.2% and 21.5% respectively. Taken together, friends and relations are by far the most significant source of information on employment for migrants in Recife and Caruaru. These findings reinforce the evidence that family ties are of great relevance for the adjustment of migrants in other parts of Brazil.[5] They also confirm the supposition that kin and friends play a decisive role in the reducing of money costs

Table III

Source of Information for First Occupation

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Relatives	53	26.8	22	28.2	17	21.5
Friends	69	34.8	27	37.6	21	26.6
Employment Agency	2	1.0	0	0.0	0	0.0
Newspaper Advertisement	1	0.5	1	1.3	0	0.0
Advertising Placards on Site	2	1.0	2	2.6	0	0.0
Direct Contact by Employer	18	9.1	2	2.6	9	11.4
Personal Enquiries	10	5.1	4	5.1	8	10.2
Own Initiative	38	19.2	18	23.0	19	24.0
Transferred	3	1.5	2	2.6	3	3.8
Others	2	1.0	0	0.0	2	2.5
Total	198	100.0	78	100.0	79	100.0

of adaptation, and strengthen the contention that the greater the differences in environment between origin and destination, the higher the tendency for maintaining family ties.[6] This can be perceived in table III by the higher proportions of relatives and friends' assistance in Recife than in Caruaru and more in the latter than in Petrolina.

Those who counted on their own initiative to find an occupation appeared in relatively high proportions: 19.2% in Recife, 23% in Caruaru and 24% in Petrolina. This finding suggests that a substantial number of migrants who did not rely on the advice from acquaintances, or on other sources of information, established themselves in self-employed occupations. Personal enquiry was another way of gaining information about work opportunities, more in

Petrolina than in the other two towns. By and large, migrants in Petrolina, by not having personal contacts on which to rely, were more dependent on their own means to find a job.

Another conclusion derived from Table III is that personal or informal channels of information on jobs are very relevant. This is an expected result owing to the overall low educational level of most migrants. In contrast, more direct and formal means of obtaining information on employment such as newspaper advertisements and employment agencies are virtually unused; it was only in Recife, with a more extensive and diversified labour market, that a few cases appeared.

Table IV contains details on who acted as intermediary for the migrant's access to his first occupation in each town. In this matter, the influence of relatives and friends is noticeable, more in Recife (61.6%) and Caruaru (51.3%) than in Petrolina (20.1%). This finding, besides confirming the information from Table III, shows also that relatives and friends play a role as middle-men for job placement. Moreover, the relatively high proportion of migrants in Petrolina who gained employment through an employer's offer, or by taking a test, are indicative of that town's recent economic boom and its positive effects on the employment structure. The substantial proportion of migrants who started to work on their own initiative suggests a high incidence of self-employed work, specially in Caruaru (30.8%) and Petrolina (33%). This is in fact what Table V reveals: although there is a predominance of employers for wage in the three areas, the percentages of self-employed in Petrolina and Caruaru are high (40.5% and 35.9% respectively, compared with the 28.3% for Recife). A possible explanation for this finding is that Petrolina and Caruaru are undergoing a process of tertiarization, with the increases in each town's labour force outnumbering the employment opportunities created in the industrial sector.

Table IV

Intermediary used for obtaining First Occupation

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Relatives	58	29.3	17	21.8	5	6.3
Friends	64	32.3	23	29.5	11	13.8
Employer's Contact	25	12.6	6	7.7	29	36.7
Test	6	3.0	0	0.0	4	5.1
Own Initiative	38	19.3	24	30.8	26	33.0
Transferred	3	1.5	2	2.5	3	3.8
Others	4	2.0	6	7.7	1	1.3
Total	198	100.0	78	100.0	79	100.0

Table V

Occupational Status

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Employee	141	71.2	49	62.8	47	59.5
Employer	1	0.5	1	1.3	0	0.0
Self-employed	56*	28.3	28	35.9	32	40.5
Total	198	100.0	78	100.0	79	100.0

* Includes 4 helpers in family concerns.

Furthermore, as pointed out earlier, the informal sector, which does not discriminate against new entrants[7], is the most obvious option for those migrants who do not count on others' assistance, as is the case of many informants in Petrolina and Caruaru.

Table VI provides a list of the first occupations held by each migrant in the three towns. The immediate observation to be made

Table VI

First Occupation

Occupation	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Maid	21	10.6	4	5.1	2	2.6
Washer Woman	16	8.1	3	3.8	3	3.8
Mason	14	7.1	9	11.5	13	16.7
Retailer	10	5.1	7	9.0	2	2.6
Shop Assistant	9	4.5	1	1.3	0	0.0
Dress Maker	9	4.5	8	10.3	3	3.8
Nanny	8	4.0	1	1.3	0	0.0
Workman	7	3.5	6	7.7	7	9.0
Watchman	6	3.0	1	1.3	0	0.0
Stevedor	6	3.0	4	5.1	3	3.8
Delivery Man	5	2.5	1	1.3	1	1.3
Hod Carrier	5	2.5	0	0.0	1	1.3
Cook	4	2.0	1	1.3	0	0.0
Tailor	4	2.0	0	0.0	0	0.0
Joiner	3	1.5	1	1.3	4	5.1
Peddler	3	1.5	1	1.3	0	0.0
Retail Assistant	3	1.5	2	2.6	1	1.3
Charcoal Seller	3	1.5	0	0.0	0	0.0
Mechanic	3	1.5	2	2.6	7	9.0
Packer	3	1.5	1	1.3	0	0.0
Char Woman	3	1.5	0	0.0	0	0.0
Water Carrier	3	1.5	2	2.6	0	0.0
Boot Black	2	1.0	0	0.0	0	0.0
Driver	2	1.0	0	0.0	1	1.3
Soldier	2	1.0	1	1.3	3	3.8
Sweet Seller	2	1.0	1	1.3	1	1.3
Nurse	2	1.0	0	0.0	0	0.0
Green Grocer	2	1.0	0	0.0	0	0.0
Seller of Trinkets	2	1.0	0	0.0	0	0.0
Snack Seller	2	1.0	0	0.0	1	1.3
Weaver	2	1.0	0	0.0	0	0.0
Artisan	2	1.0	1	1.3	2	2.6
Solderer	2	1.0	0	0.0	0	0.0
Errand Boy	1	0.5	1	1.3	0	0.0
Electrician	1	0.5	1	1.3	0	0.0
Plumber	1	0.5	0	0.0	1	1.3
Teacher	1	0.5	2	2.6	0	0.0
Street Cleaner	1	0.5	0	0.0	0	0.0
Car Washer	1	0.5	0	0.0	1	1.3
Ice Cream Seller	1	0.5	0	0.0	2	2.6
Odd-job Man	1	0.5	0.	0.0	1	1.3
Shoemaker	1	0.5	1	1.3	0	0.0
Baker	1	0.5	1	1.3	0	0.0
Foreman	1	0.5	0	0.0	0	0.0
Money Collector	1	0.5	0	0.0	0	0.0
Waiter	1	0.5	1	1.3	0	0.0
Painter	1	0.5	0	0.0	1	1.3
Caretaker	1	0.5	0	0.0	2	2.6
Receptionist	1	0.5	0	0.0	0	0.0
Seamstress	1	0.5	0	0.0	0	0.0
Sheet Metal Worker	1	0.5	1	1.3	1	1.3
Sales Manager	1	0.5	0	0.0	0	0.0

Cont.....

cont'd .... Table VI

Occupation	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Writing Clerk	1	0.5	0	0.0	0	0.0
Gardener	1	0.5	0	0.0	0	0.0
Greaser	1	0.5	0	0.0	0	0.0
Agriculturalist	1	0.5	3	3.8	0	0.0
Carter	1	0.5	0	0.0	2	2.6
Book Keeper	1	0.5	0	0.0	0	0.0
Sanitary Worker	1	0.5	0	0.0	1	1.3
Canning Factory Worker	1	0.5	0	0.0	0	0.0
Piano Tuner	1	0.5	0	0.0	0	0.0
Brick Maker	0	0.0	3	3.8	1	1.3
Tyre Repairer	0	0.0	1	1.3	0	0.0
Cobbler	0	0.0	1	1.3	0	0.0
Embroiderer	0	0.0	1	1.3	0	0.0
Small Hotel Owner	0	0.0	1	1.3	0	0.0
Garment Knitter	0	0.0	1	1.3	0	0.0
General Salesman	0	0.0	1	1.3	0	0.0
Carpenter	0	0.0	0	0.0	2	2.6
Digger	0	0.0	0	0.0	1	1.3
Clothes Seller	0	0.0	0	0.0	1	1.3
Cigar Seller	0	0.0	0	0.0	1	1.3
Presser	0	0.0	0	0.0	1	1.3
Machine Seller	0	0.0	0	0.0	1	1.3
Small Trader	0	0.0	0	0.0	1	1.3
Slaughter Man	0	0.0	0	0.0	1	1.3
Stone Breaker	0	0.0	0	0.0	1	1.3
Total	198	100.0	78	100.0	79	100.0

is the striking similarity in the types of occupations and their frequency in each urban area. So much so that, although the relative frequencies of some occupations vary from one town to another, they appear basically in all the three. The relevance of this finding is that urban areas of different population size, economic structure and location do not differ in terms of their work opportunities available for migrants. This may be explained by another conclusion drawn from table VI, that a large number of the occupations may be regarded as informal activities. Besides confirming Todaro's suggestion that migrants engage initially in traditional occupations, table VI provides an interesting typology of activities undertaken by poor migrants in urban centres of a developing area. Reflecting the differentiations[8] such as personal characteristics, origin, contacts, skills and resources among migrants, the occupations shown in table VI

present wide variations as regards entry requirements, stability, training, physical effort and remuneration. It must be stressed, incidentally, that the migrant's origin, whether urban, quasi-rural or rural, apparently does not constitute an obstacle to his performing many of the occupations listed.[9] Tables IXA, XA and XIA in the appendix show the distribution of occupation by employment status, employer,[10] employee or self-employed. An examination of those tables permits us to classify the occupations in five aggregate categories of employment status: a) wage-employing activities, such as packer, watchman, teacher, baker, waiter, delivery man, soldier; b) employed resident workers, such as maid, nanny, charwoman, cook; c) personal services which can be provided either on a wage employment or self-employed basis, such as dressmaking or clothes washing; d) small trade which tends to include both employment for wage and self-employment, with a higher incidence of the latter, as is the case of retailers and greengrocers; e) crafts which require some skills, such as joiner, mason, mechanic, tailor, plumber, which concentrate more employee than self-employed workers. By and large, these five broad categories reveal a predominance of traditional or informal activities, and confirms the suggestion we have made earlier that a process of tertiarization is occurring in the three areas. This conclusion comes as little surprise given the general situation in Northeast Brazil. As mentioned in chapter I, the industrial sector in the region has failed to provide enough employment to keep pace with the steadily growing urban labour force. Hence, the self-generating character of many activities shown in tables IXA, XA and XIA in the appendix.

Considering the characteristics of the occupations in each town, Recife emerges with a more diversified employment structure, a result consistent with the city's size and also with the absolute size of the sample in that town, which allowed for a larger coverage of the

occupational spectrum. The migrant's assimilation into Recife's working structure can be aggregated in the following patterns: a) a high proportion of wage employment in domestic and personal services, mostly by females; b) some skilled crafts such as masons, tailors, joiners, mechanics, solderers, etc; c) unskilled activities, watchmen, hod carriers, stevedors, packers, etc; d) regular petty trade, retailers, shop assistants, greengrocers; e) street peddling, boot blacks, snack and sweet sellers; f) casual activities, car washers, and odd-job men; g) a few formal professions which require training such as nurse, teacher, soldier, writing clerk and book keeper.

Caruaru appears to offer the same working opportunities to the incoming migrant as Recife, except for street peddling, which is probably explained by the weekly fairs which render this kind of activity redundant. The presence of three agricultural workers is due to the existence of farming areas in the outskirts of Caruaru, with agriculturalists working in the fields and residing in the town.[11]

Although Petrolina exhibits a more diversified occupational spectrum than Caruaru, it is to be noted that it has a higher proportion of skilled and semi-skilled workers than in the latter; this may be explained by the working opportunities created during the setting up of new industries and construction work. The nature of the most frequent jobs in Petrolina allow one to conclude that immigrant workers in that town enjoyed more stable occupations in a dismal picture than their counterparts in Caruaru.

Indeed, turning to table VII we see that most migrants (82.3% in Recife, 91% in Caruaru and 75.9% in Petrolina) had no stability[12] in their first occupations in those towns. Such high percentages are explained, as shown in table XIIA in the appendix, by the large proportion of salaried employees who had no working security and also by the relatively high percentages of self-employed workers in the three towns, as seen in table V. For a wage employee, stability is assured by the signing of a formal contract of employment[13]

Table VII

Degree of Working Stability

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Formal Contract of Employment	31	15.7	6	7.7	16	20.3
Affiliated to the National Insurance System	4	2.0	1	1.3	3	3.8
No Stability	163	82.3	71	91.0	60	75.9
Total	198	100.0	78	100.0	79	100.0

and by paying a contribution to INAMPS, the institution responsible for the health service and social security.[14] For employees and self-employed labourers, stability is partly assured by contribution to INAMPS, allowing access to the services of the national health system and being entitled to pension benefits. The conditions of lamentable instability facing most migrants in the three towns are a measure of the plight of the working poor in Northeast Brazil. The failure of the self-employed to become affiliated to INAMPS is not likely to be explained by ignorance, but by poverty; for the working poor, survival has more urgent priority than provision for the future. Also, in a region of chronic under-employment, with a highly elastic supply of labour, the bargaining power of poorly educated, unskilled or semi-skilled workers is very weak.[15] Hence, they are very often faced with no alternative other than to accept illegal working conditions imposed by the employers. For the Brazilian authorities, the most convenient attitude has been to ignore this situation because their interference might have negative effect by provoking large-scale dismissals. An example of this pragmatic attitude is the regulation regarding domestic and personal services, whereby the signing of an employment contract or the contribution to INAMPS is optional.

As regards the legal conditions of work by age, tables XIIIA, XIVA and XVA in the appendix, show that the highest percentages of migrants (32.2% in Recife, 33.2% in Caruaru and 25% in Petrolina) who had a signed employment contract were those in the 15-19 age groups. Then, the percentages decrease slightly from one group to another, and beyond the 35-39 age range the frequencies become small or nil. This direct correlation between youth and degree of job security allows one to conclude that maturity and years of working experience are not considered requirements for stable jobs in the three towns; as a corrolary of this conclusion, one can infer that physical vigour may be a significant factor as regards working stability. On the other hand, the number of migrants who had no stability also decreases with age in Recife, Caruaru and Petrolina; the most unstably employed are workers under 25 years of age, respectively 69.3%, 54.9% and 48.3%.

Tables XVIA, XVIIA and XVIIIA in the appendix show that there is a direct correlation between educational level and employment stability in the three towns. The lower the education, the less stability the migrants had in their occupations.[16] Indeed, as many as 91.8% of illiterate migrants in Recife, 96.6% in Caruaru and 83.3% in Petrolina had no security in their work. The situation of those with a complete primary education was slightly better, as 81.3%, 90.3% and 74.4%, respectively, had no working or health security. The percentages decrease even further when secondary education is considered: 53.3% in Recife and 66.7% in Petrolina and the only migrant in Caruaru who had secondary education, had no stability in their work. Nevertheless, it was among the migrants with complete primary education that the highest proportions of unstable workers were found: 47.5% in Recife, 38.8% in Caruaru and 50% in Petrolina. Illiterate migrants accounted for, respectively, 39.6%, 38.8% and 25% of workers with no job security in the three towns. On the

other hand, the few informants who had formal contracts of employment were mostly migrants with complete primary education.

Occupational instability was more common among females than among males in the three urban centres. The percentages of females who had no stability in Recife, Caruaru and Petrolina were respectively 87%, 97% and 91.7%, as compared with 80.6%, 86.7% and 73.1% males. This comes as no surprise due to the high incidence of self-employment and employment in domestic services among females in the three towns.

Among migrants who had no stability in the first job, 57.1% in Recife, 50.7% in Caruaru and 45% in Petrolina claimed to have sought a more stable occupation. Of these, 69.5% in Recife, 47.3% in Caruaru and 65.6% in Petrolina said that they had actually succeeded in finding the job they looked for. This suggests that, in the longer term, stability is not a wholly unattainable goal, and being a migrant is not an unsurmountable handicap to gaining employment stability. Taking this finding as evidence of occupational mobility, Todaro's thesis of a two-phased process for the migrant's assimilation into the urban labour market appears to be confirmed, particularly in Recife and Petrolina. We hope to present more conclusive results on this issue when we examine the present occupation of the interviewees in Chapter V. The time needed for getting a stable job was not a very long one, as seen in table VIII. Indeed, the vast majority of migrants found the new occupation during a period ranging between 4 and 12 months.

For those who did not seek a more stable job, table IX provides a listing of the more frequent motives. More than half of the respondents in Recife and Caruaru, and over 40% of those in Petrolina declared themselves to be satisfied with their first occupations. Another motive which appeared as a high percentage was 'lack of orientation', i.e., the informants did not know how and where to look for a more stable employment. Those in this situation accounted

Table VIII

Time Needed to Find More Stable Occupation

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Under 1 month	6	8.2	0	0.0	2	9.5
1 - 3 months	6	8.2	0	0.0	2	9.5
4 - 6 months	24	32.9	8	30.8	4	19.0
7 - 12 months	35	47.9	18	69.2	12	57.2
Over 12 months	2	2.8	0	0.0	1	4.8
Total	73	100.0	26	100.0	21	100.0

Table IX

Motive for not Trying for More Stable Occupation

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Satisfactory Occupation	39	55.7	19	53.3	14	72.5
Lack of Orientation	15	21.4	7	20.0	11	33.3
Lack of Skill	2	2.9	2	5.7	1	3.0
Shortage of Stable Occupations	7	10.0	2	5.7	3	9.1
Lack of Documentation	4	5.7	3	8.6	3	9.1
Unsuitable Age	3	4.3	2	5.7	1	3.0
Total	70	100.0	35	100.0	33	100.0

for 21.4% in Recife, 20% in Caruaru and 33.3% in Petrolina. Other reasons such as lack of skill or preparation, lack of documentation or unavailability of stable occupations did not have much significance for those who did not try for a more stable job. Tables XVIA, XVIIA and XVIIIA throw some light on the motives presented in table IX.

In Recife and Petrolina 66.7% and 60% of those who claimed to be satisfied with their occupations were wage-earning employees, indicating the importance of a job for migrants, regardless of the conditions of stability. In Caruaru, the highest percentage (60%) of those who expressed satisfaction, was among the self-employed. This result suggests a lack of option in employment and lack of hope for occupational mobility. It is also possibly the case that a labourer used to unconstrained working conditions in agriculture may feel more adjusted to self-employment in urban areas. Lack of orientation was more frequent among employees in Recife (60%) and Caruaru (57.1%), although the proportions of self-employed were also high. In Petrolina the self-employed (58.3%) outnumbered the employees among those who did not seek a more stable occupation because of 'lack of orientation'. This is a predictable result, as Petrolina had a higher proportion of self-employed migrants than Recife and Caruaru. On the other hand, the comparatively high number of respondents in Petrolina who did not count on some orientation to find a more stable occupation is almost certainly due to the fact that the presence of relatives in that town was less significant than in the other two areas. Lack of orientation on stable occupations is also explained by the migrant's origin: 60% of those in Recife, 71.4% in Caruaru and 58.3% in Petrolina who did not pursue a more stable employment were rural immigrants. The percentages rise to respectively 80%, 85.7% and 74.9% when rural and quasi-rural immigrants are considered.

For most migrants their situation improved after migration,[17] as demonstrated in table X. As many as 72.4% of informants in Recife, 73.4% in Caruaru and 66.3% in Petrolina conceded that their situation was better than that in their original place of residence. The reasons given for this improvement (table XI) in Recife were the finding of an occupation (36.8%), income increase (36.8%) and more

Table X

Evaluation of Situation at Destination

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Better	144	72.4	58	73.4	55	66.3
Worse	27	13.6	8	10.1	12	14.4
Same	28	14.1	13	16.5	16	19.3
Total	199	100.0	79	100.0	83	100.0

Table XI

Reason Why Situation Improved

	Recife		Caruaru		Petrolina	
	No.	%	No.	%	No.	%
Found Occupation	53	36.8	23	39.7	17	30.9
Stable Occupation	17	11.8	0	0.0	3	5.5
Better Job	2	1.4	1	1.7	1	1.8
Higher Earnings	53	36.8	19	32.8	23	41.8
Better Living Conditions	4	2.8	4	6.9	2	3.6
Access to Better Education	2	1.4	1	1.7	1	1.8
Bought a House	7	4.8	8	13.8	3	5.5
No longer starving	4	2.8	3	5.1	6	10.9
No Boss	1	0.7	0	0.0	0	0.0
Total	144	100.0	58	100.0	55	100.0

stable occupation (11.8%). Of the 13.6% interviewees who said that their situation had worsened, as many as 46.2% pointed to their unstable occupation as the reason. As for migrants in Caruaru, the finding of a job was for 39.7% of them an indication of improvement, a rise in income was a reason for 32.8% and the purchase

of a house for 13.8% Among the 8.9% of those who thought that their situation had worsened, 57.1% mentioned unstable occupation as the major cause. In Petrolina, having a job accounted for 30.9% of improvement, income rise for 41.8% and having enough to eat for 10.9%. Among the 14.4% who thought that their situation was worse off, 50% gave unstable occupation as the main reason and 33.3% claimed that their work was harsher than previously.

As regards the assessment of their situation according to the sex of the interviewee, more males than females in the three towns regarded their situation as better off. This result is consistent with an earlier finding that there were more females engaged in unstable occupations than males. Furthermore, as also mentioned earlier, most females in the three towns were domestic servants, not a popular occupation because of the unfavourable working conditions, low wages and poor status.

Having seen that the majority of migrants in the three towns had no occupations or social security, it seems surprising that so many respondents considered themselves to be better off after migration. However, if these personal evaluations are regarded within the context of migration of the poor people in an underdeveloped area, the logicality of the answers emerge. For those pushed from their places of origin by unemployment or insufficient earnings, the finding of an occupation at their destination is a most significant attainment. Furthermore, for a poorly educated person who has never experienced occupational stability or benefited from health care, the situation at destination is merely a continuation of previous experience. Therefore, simply having employment, whether stable or not, is an improvement. As discussed in chapter III and earlier in this chapter, money costs incurred in transfer and for initial survival at destination appear to be low. Also, given that most migrants find jobs and many increased their earnings

compared with those gained in their previous residence it may be assumed that returns largely offset the money costs of migration. The list of first occupations held by migrants reveals that very few migrants are absorbed by the so-called formal sector; the bulk of them are assimilated by the informal labour market. This is a confirmation of Todaro's suggestion that the migrant's assimilation is a two-phased process, whereby the worker engages initially in traditional, informal activities.[18] The list of migrants' first occupation shows also that only a small number of interviewees in the three towns were engaged in occupations which required basic skills.[19] Skilled workers constituted approximately 21% of migrants in Recife, 27% in Caruaru and 33% in Petrolina. As seen in Chapter III, the first occupation of most migrants was either in the agricultural sector or in unskilled non-agricultural jobs. The findings of this chapter show a higher proportion of skilled workers among migrants, indicating that there was some degree of occupational mobility. The learning of a skill may have occurred either at the staging posts, for those who did not move straight to the three towns, or after their arrival. For the majority of migrants who did not have any skill or education, finding a job in a saturated labour market such as Recife's, or in smaller urban areas like Caruaru and Petrolina, demonstrates very considerable ingenuity and resilience.

For the economies of the urban areas surveyed, as well as for the Northeastern economic system at large, the ready assimilation of migrants into the labour market appears to have several latent functions. First, the very finding of occupations, however poorly paid and unprotected, by migrants prevents the occurrence of political and social unrest which could result from mass unemployment. Secondly, the poor income and unstable tenure of jobs ensure the existence of a reserve army of under-employed workers available for employment on conditions imposed by

the employers. Thirdly, these workers and their families constitute a sizeable market for mass consumption goods such as food, clothes and footwear. Fourthly, some informal activities complement the formal commercial sector by distributing goods and services to lower-income classes.[20] Fifthly, the working materials and tools of most of the informal activities are produced by the formal sector. Lastly, a large number of informal occupations by applying labour intensive methods and techniques, alleviate the economic system from capital investments in certain types of services.

The information gathered in this chapter does not suggest marked differentiation among the three towns. Nevertheless, Recife's population size and metropolitan status is reflected in the diversification of its informal labour market. Caruaru appears as a case of extensive tertiarization which is explained by its commercial role. Petrolina emerges as a less saturated labour market which is undergoing a rapid process of tertiarization. The intensive inflow of migrants, mature and relatively educated by Northeastern standards, seems to be well above the absorbtion capacity of the industries and public works in that town over the past decade.

We have seen that, despite their highly unfavourable working conditions, most interviewees regarded their new situation as better than that at their place of origin. It remains to be seen now whether the comparing of the fortunes of migrants and non-migrants contributes to our understanding of how the individual's origin affects his working conditions and standard of living. This will be the subject matter of the next chapter.

NOTES. Chapter IV

1. Todaro suggests that the probability of getting a job as well as the timing before employment has a great relevance on the Migration decision-making process. Todaro, op.cit., pp.139-40.

2. This is a common phenomenon in Latin America, according to Brigg, Pamela, op.cit., p.139

3. A very suggestive synthesis of the characteristics of the informal activities is the following presented by the ILO: a) ease of entry; b) reliance on indigenous resources; c) family ownership of enterprises; d) small scale of operation; e) labour-intensive and adapted technology; f) skills acquired outside the formal school system; and g) unregulated and competitive markets. ILO. Employment Income and Equality: a Strategy for Increasing Productive Employment in Kenya. Geneva, International Labour Office, 1972. p.6.

4. We are not taking into consideration, by making this suggestion, the question of the efficiency and desirability of the occupation. The process of assimilation of migrants into their new environment has been a matter of contoversy among writers. See for example, Slavinski, Zygmundt. "Structural Changes in Development within the Context of Latin America's Economic Development". Economic Bulletin of Latin America, 10(2), October 1965, p.164; and Herrick, Bruce, op.cit., p.77.

5. Wilkening, E.A. et al, op.cit., p.691.

6. Matthews, Elmora. Neighbours and Kin, Nashville, Vanderbilt University Press, 1965, pp.58-59.

7. As pointed out by Fields, Gary S. "Rural-urban Migration, Urban Unemployment and Under-employment, and Job Search Activity in Less Developed Countries", Journal of Development Economics, 2(2), June 1975, p.168-72; this point is also discussed by Reynolds, L.G. "Economic Development with Surplus Labour: Some Complications". Oxford Economic Papers, 21, 1969, pp.89-108.

8. The issue of differentiations of entry conditions into the informal sector is discussed at considerable length by Peattie, Lisa R. "Tertiarization and Urban Poverty in Latin America", Latin America Urban Research, Vol.5, 1975, pp.117-118.

9. This is a point discussed by Fields, Gary S. op.cit., p.168.

10. The only two employers were a charcoal seller in Recife and a small hotel owner in Caruaru.

11. This is consistent with FIBGE's finding that 30% of Caruaru's labour force worked in agricultural occupations in 1970, as was mentioned in chapter II.

12. No stability in the sense of having no working security or social benefits.

13. The employment contract contains provision for salary and working hours, and is guided by the regulations regarding paid holidays, conditions of severance, indemnity funds and safety conditions.

14. INAMPS provides benefits in cash and medical assistance to urban employees and to unattached workers and their dependants. Employees and unattached workers contribute 8% of their actual wages, or of a basic wage, and the employer contributes an equal amount.

15. The convenience of an excess supply of industrial and service workers for keeping down the wage and salary costs to employers in Brazil is pointed out by Harrigan, John J. "Political Economy and the Management of Urban Development in Brazil". Latin American Urban Research, Vol 5, 1975, p.211.

16. United Nations/ECLA. "Geographic Distribution of the Population of Latin America and Regional Development Priorities". Economic Bulletin for Latin America, 1 March, 1963, p.52.

17. This result is congruent with the findings of several studies made in Latin America, as demonstrated by Nelson, Joan A. Migrants, Urban Poverty and Instability in New Nations. University of Harvard, Center for Internal Affairs, 1969, pp.18.

18. Although Todaro's model refers specifically to rural-urban migration, the model is general enough to apply also to cases of urban-urban migration.

19. The high incidence of unskilled occupations is a generalized phenomenon in Latin American urban areas, as pointed out by Morse, Richard, "Recent Research on Latin American Urbanization". Latin American Research Review, 1(1), 1965, pp.35-37.

20. This point is more thoroughly discussed by Frankenhoff, Charles A. "Elements of an Economic Model for Slums in a Developing Economy", Economic Development and Cultural Change, 16(1), October, 1967, pp. 27-36.

CHAPTER V.

THE POST-TRANSITION STAGE

This chapter concentrates upon the third phase of the migration process, particularly upon the occupational and living conditions of migrants and non-migrants living in the slum bairros of the three towns surveyed. Migrants are defined as non-natives of the three towns. However, because length of residence might influence the migrant's integration into their place of settlement, the category migrants was sub-divided into two: a) the old migrants, i.e., those who had been living in the town for more than 10 years; b) the recent migrants, who had been in the area for 10 years or less.[1] The non-migrants or native-born will be considered as a control group for comparative purposes in this chapter. By comparing the occupations of migrants and non-migrants we expect to throw some light upon the nature of the relationship between the individual's origin and his working and living conditions. To achieve this purpose, we will compare working conditions, earnings and standards of living among old migrants, recent migrants and non-migrants in the three towns.

The distribution, by origin, of the population surveyed is shown in Table I. In Recife, the non-migrants represent more than half of the interviewees and the old migrants outnumber the recent immigrants. This distribution most probably reflects the phenomenon, earlier discussed, of intra-city migration, the new arrivals tending to settle initially at the periphery of Recife's metropolitan area. The distribution of the respondents in Caruaru show a higher percentage of migrants than non-migrants, the old migrants, however, being in higher proportion than those recently immigrated. This result

seems to agree with the evidence from chapters III and IV on the declining function played by Caruaru as an attractive destination for migrants. In Petrolina, the non-natives represented a small proportion of those interviewed and, contrary to Recife and Caruaru, the recent migrants predominated. This confirms the conclusions of the previous two chapters as regards the effect that the recent economic boom experienced by Petrolina has had on immigration. The distribution of respondents by origin and sex shows that males predominate both among migrants and non-migrants in the three towns.

Table I

Distribution of Interviewees

by Origin and by Town

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Recife	158	36.0	41	9.3	240	54.7	439	100.0
Caruaru	53	44.5	26	21.9	40	33.6	119	100.0
Petrolina	28	28.0	54	54.0	17	17.0	99	100.0

Table II shows that the majority of the informants in Recife, Caruaru and Petrolina had an occupation either as an employee, or self-employed, or in rare cases as an employer, at the time the field research was conducted. In Recife and Petrolina, the wage-earning employees appear in higher proportion than the self-employed, which follows from the situation pictured in Table V of chapter IV. Incidentally, the comparison of this table with Table II reveals that in the three towns there was a reduction of wage employment and an increase in self-employment among migrants over the period between their arrival and the making of the survey. This movement towards tertiarization may be explained by a preference for informal-sector

Table II

Distribution of Interviewees by Origin and Occupational Status

Recife

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Employee	80	50.6	23	56.1	128	53.3	231	52.6
Employer	0	0.0	2	4.9	2	0.8	4	0.9
Self-employed	62	39.3	14	34.1	65	27.1	141	32.1
Unemployed	16	10.1	2	4.9	45	18.8	63	14.4
Total	158	100.0	41	100.0	240	100.0	439	100.0

Caruaru

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Employee	21	39.6	7	26.9	19	47.5	47	39.5
Employer	1	1.9	1	3.9	0	0.0	2	1.7
Self-employed	25	47.2	11	42.3	13	32.5	49	41.2
Unemployed	6	11.3	7	26.9	8	20.0	21	17.6
Total	53	100.0	26	100.0	40	100.0	119	100.0

Petrolina

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Employee	14	50.0	26	47.3	7	41.2	47	47.0
Employer	0	0.0	2	3.6	0	0.0	2	2.0
Self-employed	13	46.4	21	38.2	6	35.3	40	40.0
Unemployed	1	3.6	6	10.9	4	23.5	11	11.0
Total	28	100.0	55	100.0	17	100.0	100	100.0

entrepreneurship, specially if wages and working opportunities in larger firms are not available. We hope that the remaining part of this chapter will throw some light on this issue.

Table II shows that in Caruaru self-employment predominates among migrants whereas the employees constitute a higher proportion among the native informants. One central conclusion drawn from the three Tables is that unemployment among the interviewees is relatively high: 13.9% in Recife, 16% in Caruaru and 11% in Petrolina.[2] Of these unemployed workers, as many as 84.2% in Recife, 92% in Caruaru and 81.9% in Petrolina were looking for a job for less than six months, an indication that unemployment in urban Northeast Brazil is not only relatively low, but also that it does not take long for the unemployed to find themselves occupations. Table II reveals also that the percentages are particularly high among the non-migrants in the three urban areas. This is certainly explained by the larger number of informants with better education among the natives of the three towns, as seen in Tables XIXA, XXA and XXIA in the appendix. The linkage is evident between better education, low incidence of self-employment and high unemployment among non-migrants. The situation indicates a lack of working opportunities for the better educated who almost certainly do not wish to subject themselves to the uncertain and harsh working conditions often facing the self-employed. Tables XIXA, XXA and XXIA also show that recent migrants are better educated than the old migrants and that the non-migrants have the highest educational levels among the interviewees.[3] These are predictable results, given the improvement in educational facilities in Northeast Brazil over the past two decades and also the greater availability of schools in the region's larger urban centres. The comparing of those tables with Table IV in chapter III reveals that very little educational improvement occurred between

the time of the migrants' arrival and their present situation in the three towns. From information in the previous chapter it seems that most migrants found themselves occupied shortly after arrival at their destinations; it is not, therefore, surprising that they have not been able to improve their formal education.

Tables XXIIA, XXIIIA and XXIVA in the appendix show that there is no clear differentiation between migrants and non-migrants, as regards age and occupational status (employee or self-employed), in the three towns. One conclusion from these three tables, however, is that in Recife and Petrolina employees, irrespective of their origin, are younger than the self-employed. This finding may be explained by the evidence that it was in those two towns where the number of employees exceeded the self-employed, indicative of Recife and Petrolina's more dynamic labour market as compared to Caruaru's.

As seen in Tables III, IV and V, a large majority of wage-earning employees in the three towns worked in very small establishments. As many as 70.2% in Recife, 75.5% in Caruaru and 69.4% in Petrolina were employed in firms which had less than 5 employees, i.e., quasi-domestic enterprises. Small-scale enterprises are almost always characterized by the use of simple technology and do not benefit from the economies of scale and external economies available to larger companies. These adverse conditions naturally have an influence upon occupational stability and wages. Not surprisingly, a slightly higher proportion of interviewees in Recife were employed in medium-size or large companies than in the other two towns, a predictable result, since most of the Northeast's big enterprises are sited in that city.

Tables VI, VII and VIII show the distribution by intervals, of the weekly earnings of the interviewees in the three areas.

Table III

Number of Employees in the Firm

Recife

Number of Employees	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Less than 5	59	73.8	17	68.0	89	68.5	165	70.2
6 - 10	6	7.5	3	12.0	15	11.5	24	10.2
11 - 20	4	5.0	1	4.0	10	7.7	15	6.4
21 - 100	3	3.7	4	16.0	5	3.8	12	5.1
101 - 300	2	2.5	0	0.0	3	2.3	5	2.1
Over 300	6	7.5	0	0.0	8	6.2	14	6.0
Total	80	100.0	25	100.0	130	100.0	235	100.0

Table IV

Number of Employees in the Firm

Caruaru

Number of Employees	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Less than 5	17	77.3	6	75.0	14	73.6	37	75.5
6 - 10	2	9.1	1	12.5	2	10.5	5	10.2
11 - 20	2	9.1	0	0.0	1	5.4	3	6.1
21 - 100	1	4.5	1	12.5	2	10.5	4	8.2
101 - 300	0	0.0	0	0.0	0	0.0	0	0.0
Over 300	0	0.0	0	0.0	0	0.0	0	0.0
Total	22	100.0	8	100.0	19	100.0	49	100.0

Table V

Number of Employees in the Firm

Petrolina

Number of Employees	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Less than 5	10	71.4	19	68.0	5	71.4	34	69.4
6 - 10	2	14.4	2	7.1	1	14.3	5	10.2
11 - 20	1	7.1	0	0.0	0	0.0	1	2.0
21 - 100	0	0.0	2	7.1	0	0.0	2	4.1
101 - 300	0	0.0	3	10.7	1	14.3	4	8.2
Over 300	1	7.1	2	7.1	0	0.0	3	6.1
Total	14	100.0	28	100.0	7	100.0	49	100.0

Table VI

Weekly Earnings by Origin

Recife

Income Intervals	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 049	31	21.7	10	25.6	40	20.6	81	21.5
050 - 100	61	42.7	21	53.8	89	45.9	171	45.5
101 - 200	43	30.0	5	12.8	49	25.4	97	25.8
201 - 300	5	3.5	2	5.1	9	4.6	16	4.3
301 - 400	2	1.4	0	0.0	2	1.0	4	1.1
Over 400	1	0.7	1	2.6	5	2.5	7	1.8
Total	143	100.0	39	100.0	194	100.0	376	100.0

Table VII

Weekly Earnings by Origin

Caruaru

Income Intervals	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 049	18	38.3	6	31.6	10	31.3	34	34.7
050 - 100	21	44.7	9	47.4	17	53.1	47	48.0
101 - 200	4	8.5	3	15.8	4	12.5	11	11.2
201 - 300	2	4.3	1	5.2	0	0.0	3	3.1
301 - 400	1	2.1	0	0.0	0	0.0	1	1.0
Over 400	1	2.1	0	0.0	1	3.1	2	2.0
Total	47	100.0	19	100.0	32	100.0	98	100.0

Table VIII

Weekly Earnings by Origin

Petrolina

Income Intervals	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 049	5	18.5	12	25.0	4	28.6	21	23.6
050 - 100	11	40.7	22	45.8	5	35.7	38	42.7
101 - 200	9	33.3	10	20.8	4	28.6	23	25.8
201 - 300	1	3.7	2	4.2	1	7.1	4	4.5
301 - 400	1	3.7	2	4.2	0	0.0	3	3.4
Over 400	0	0.0	0	0.0	0	0.0	0	0.0
Total	27	100.0	48	100.0	14	100.0	89	100.0

One remarkable finding is that about two thirds of the population surveyed in Recife and Petrolina (64.4% and 66.5%, respectively) and over three-fourths in Caruaru (79.4%) earned less than Cr$100,00 per week.[4] As regards the distribution of earnings by origin, there is a higher concentration of recent migrants in Recife and Petrolina whose weekly earnings were Cr$100,00 or less; conversely, the recent migrants in Caruaru appeared with the smallest percentages in the two lower income intervals. A central conclusion from the three Tables is that earnings among most workers surveyed are alarmingly low, regardless of their origins.

The choice of a certain income level to serve as a parameter for comparison and also as a boundary between poverty and non-poverty unavoidably involves some degree of arbitrariness.[5] One indicator frequently employed is the minimum salary.[6] Although also subject to restrictions because of the elements of judgment involved in the determination of the minimum salary level, it may at least be considered as a standard of the worker's needs, legitimized by statute as a minimum standard. In Brazil, the minimum wage, which is established by an official decree,[7] has been employed as a tool in stabilization policies by the present regime. There is evidence, moreover, that the minimum salary indices have been manipulated by the authorities in order to favour economic growth and capital accumulation.[8] This manipulation is demonstrated by the fact that the indexing of the minimum salary against inflation has not been maintained at levels which would maintain the purchasing power of wages.[9] However, given the absence of a better yardstick[10] the minimum salary for Recife in 1974[11] is considered as the income norm in this chapter. The results seen in table IX show that 41% in Recife,[12] 53% in Caruaru and 40% in Petrolina, of all the informants, had monthly earnings which were equal or less than the official

minimum salary of Cr$295,20 in 1974.[13] In other words, nearly half the population surveyed in the three urban areas earned incomes which are insufficient for minimum subsistence. Considering the percentages by origin, it is seen that in each town the proportion of workers earning the minimum wage or less fell into each one of the three subdivisions by origin: non-migrants (51.1%) in Recife; old migrants (42.9%) in Caruaru; and recent migrants (57.5%) in Petrolina.

The distribution of the interviewees as regards earnings by occupational status, i.e., employee or self-employed (Tables XXVA, XXVIA and XXVIIA in the appendix) reveals that the highest percentage of the self-employed in Caruaru and Petrolina had weekly earnings under Cr$49,00. In Recife, the self-employed were slightly better off, as they were concentrated mostly in the 050-100 earnings interval.

Table IX

Labourers with Earnings equal or less than the 1974 Minimum Salary

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Recife	65	36.1	23	12.8	92	51.1	180	100.0
Caruaru	27	42.9	14	22.2	22	34.9	63	100.0
Petrolina	12	30.0	23	57.5	5	12.5	40	100.0

It is in this interval, on the other hand, that the highest percentages of employees for wage in the three towns appeared. This is likely to be explained by the widespread practice in Northeast Brazil of paying the minimum salary to unskilled labourers. A significant conclusion from Tables XXVA, XXVIA and XXVIIA is that in Recife the earnings distribution by intervals was less uneven than in the other two towns. In Petrolina, the few cases of earnings above Cr$200,00 per week

occurred among the self-employed. As for Caruaru, earnings were equally low among employees and self-employed workers.

Although there are difficulties in devising an indicator based upon a standard income reflecting the worker and his family's minimum needs, an indicator widely used is the earning during a 'normal' week, for those whose income varies due to the nature of the occupation.[14] Its validity derives from the possibility of comparing the actual earning with the 'normal' one.[15] Tables XXVIIIA to XXXVIA in the appendix present a list of occupations by origin as well as the average actual and 'normal' earnings per week in each occupation. The question on the 'normal' earnings was broadened to apply also to those who had a fixed income, i.e., a salary. In this case, the relevant question was not what the earnings in a 'normal' week were, but rather what was the regular wage paid to those who had similar jobs. Several conclusions emerge from these tables. First, the average actual earnings in the three towns are extremely low. Secondly, the pronounced similarity of the average incomes of migrants and non-migrants when each town is considered separately, indicate that the informants' origin does not appear to affect their incomes. The average earnings in Recife, however, are considerably higher than those in Caruaru and Petrolina. Thirdly, in most cases, the average actual earnings is lower than the average 'normal' income, which suggests that: a) employees may have been paid below the prevailing wages; b) new entrants into the informal sector may be depressing earnings. The consideration of the overall mean of 'normal' earnings as a percentage of the mean of the actual earnings for all occupations shows the highest dispersion in Recife and less so in Caruaru and Petrolina. This is likely to be explained by the higher degree of differentiation among Recife's commercial sub-centres and markets as well as the stronger competition likely to occur in a more inflated informal sector.

Fourthly, the occupations which distinctively yield higher earnings are: a) permanent trade, such as that of retailer and greengrocer; b) the selling of relatively high-priced goods such as clothes and carpets; c) skilled manual occupations of electrician, plumber, designer, tailor, dyer, lens maker, joiner; d) public employees such as teacher and civil servant; e) unskilled occupations in the formal sector like those of foreman, watchman, porter, driver and delivery man.

The comparing of Tables XXVIIIA to XXXVIA with Table VI in Chapter IV reveals considerable occupational mobility among migrants in the three towns, and most intensively in Recife. These changes in occupation, however, do not seem to confirm Todaro's suggestion that migrants, following an initial period of work in traditional occupations, eventually get jobs in the modern sector. Some significant conclusions drawn from these Tables are: a) domestic services like that of maid, cook, charwoman and nanny virtually disappear, a confirmation of what was said earlier about the undesirability of those occupations among female workers; b) an increase in occupations such as washerwoman, dressmaker and retailer, indicating a shift, among females, from domestic employment towards self-employment; c) an increase in some crafts such as joiner and electrician in Recife, but also a growth in some unskilled occupations like workman, odd-job man, hod carrier, watchman and caretaker; d) a reduction in jobs such as workman, stevedor and mason in Caruaru and Petrolina. Another conclusion which emerges from the comparison between Tables XXVIIIA to XXXVIA and Table VI in Chapter IV is that the new occupations undertaken by migrants at the time when the research was conducted can be aggregated into four categories: a) skilled manual jobs such as typographer, blacksmith, metalworker, watch repairer, furniture repairer, plasterer and radio mechanic in

Recife, typographer, writing clerk and shoe repairer in Caruaru, spring maker, glass repairer and baker in Petrolina; b) unskilled occupations like those of weigher, meat cutter, pump man, porter and docker in Recife, butcher, over manager and ground cleaner in Caruaru, watchman, foreman and meat supplier in Petrolina; c) public servants such as port worker and fountain keeper in Recife, civil servant and street cleaner in Petrolina and Caruaru, and policeman in the latter; d) service occupations, such as manicurist and embroiderer in Recife.

Another way of examining the working situation of the urban poor is to consider past training and present occupation.[16] As shown in Table X, 67.7% of respondents in Recife claimed to have a trade, which indicates a relatively high percentage (36.7%) of those who had no specific training. As regards the distribution of those

Table X

Correspondence between Skill and Occupation

Recife

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Yes	60	62.5	18	66.7	107	70.0	185	67.3
No	36	37.5	9	33.3	45	30.0	90	32.7
Total	96	100.0	27	100.0	152	100.0	275	100.0

Caruaru

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Yes	17	60.7	11	52.4	6	85.7	34	60.7
No	11	39.3	10	47.6	1	14.3	22	39.3
Total	28	100.0	21	100.0	7	100.0	56	100.0

Table X (cont'd)

Petrolina

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Yes	15	75.0	6	66.7	21	65.6	42	68.9
No	5	25.0	3	33.3	11	34.4	19	31.1
Total	20	100.0	9	100.0	32	100.0	61	100.0

with a trade, by origin, in Recife, the percentages are fairly similar: old migrants, 60.1%; recent migrants, 61%; non-migrants, 64.3%. Caruaru showed a different situation, as only 47.1% of the informants said to have a profession or qualification; although the figures for the old migrants (51.9%) and the non-migrants (52.5%) were similar, the percentage of the recent migrants (30.8%) was comparatively small. This is consistent with the findings of Chapter III, which showed that Caruaru received the highest percentage of immigrants of rural origin, most of whom are likely to arrive in the urban areas without skills. In Petrolina, 61% of the interviewees said they possessed a skill, which makes their situation comparable with those in Recife. However, the distribution by origin is less even, as the old migrants appeared with the highest percentage (71.4%), followed by the recent migrants (59.3%) and the non-migrants (52.9%). The figures regarding Caruaru and Petrolina may be taken as an explanation for the fact that unemployment was higher among the recent migrants in Caruaru and among the non-migrants in Petrolina (Table II), because it was in these sub-categories, in the two towns, where the highest percentages of workers without a profession were found. Table X confirms these findings because it is among the old migrants in Recife, where the highest percentage (37.5%) of interviewees whose present occupation did not correspond with their previous training appeared. In Caruaru, the recent migrants (47.6%)

and in Petrolina the non-migrants (34.4%) were the categories with higher percentages. The overall figures for Recife (32.7%), Caruaru (39.3%) and Petrolina (31.1%) show that the comparing of occupation and skill among the working poor in those towns is congruent with the indicators based on the minimum salary and on the differentials between actual and 'normal' weekly incomes.

Turning to the question of the number of hours worked by the urban poor, various difficulties of measurement arise. One problem is that of devising a reasonable norm of hours spent working per day or per week. We can see no clear-cut solution to this problem but have taken 8 hours of daily work or 40 hours of weekly work as a yardstick against which to set the working hours of the survey's informants. One cannot affirm that a labourer whose working time exceeds or is less than this time is necessarily over or under utilized.[17] Table XI shows that a considerable proportion of interviewees in Recife (40.6%) and Petrolina (47.7%) worked 8 hours daily, although that was not the case in Caruaru, where only 31.6% were occupied regularly for 8 hours each day. On the other hand, it emerges clearly from Table XI that a large proportion of respondents in Recife (38.3%), Caruaru (53.1%) and Petrolina (34.1%) were engaged in occupations which required more than 8 hours of work daily. In other words, to earn their meager earnings, these respondents had to work from 9 to over 12 hours a day. It is also clear from this Table that in the three towns the recent migrants were those who had to work for longer periods. As regards the number of hours of work by origin and occupational status, Tables XXXVIIA, XXXVIIIA and XXXIXA in the appendix show that although some differences occur in terms of length of work between employees and self-employed, the differences are insignificant. This is an interesting conclusion because, in principle, regular employees might

Table XI

Hours of Daily Work

Recife

Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 8	30	21.0	5	12.8	44	22.7	79	21.1
8	54	37.8	14	35.9	85	43.8	153	40.6
Over 8	59	41.2	20	51.3	65	33.5	144	38.3
Total	143	100.0	39	100.0	194	100.0	376	100.0

Caruaru

Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 8	9	19.2	1	5.3	5	15.6	15	15.3
8	16	34.0	5	26.4	10	31.3	31	31.6
Over 8	22	46.8	13	68.6	17	53.1	52	53.1
Total	47	100.0	19	100.0	32	100.0	98	100.0

Petrolina

Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 8	1	3.7	11	23.4	4	28.6	16	18.0
8	17	63.0	17	36.2	8	57.1	42	47.2
Over 8	9	33.3	20	42.4	2	14.3	31	34.8
Total	27	100.0	48	100.0	14	100.0	89	100.0

be subject to official regulations which determine a daily working time of 8 hours. This lack of observance of the labour regulations suggests that employers are taking advantage of the elastic supply of labour in urban Northeast and are exploiting the workers by

demanding working periods which are lengthier than those stipulated by law. This conclusion, in effect, reinforces the evidence from Chapter IV on the lack of occupational tenure among wage-earning labourers in the three towns. As for the self-employed, the long working hours demonstrate that, for most of those who are forced to rely on their own resources in order to make a living, working long hours is perhaps essential for the gaining of a subsistence or even sub-subsistence income.

As regards the amount of days worked each week, Table XII reveals that, although the highest percentages of informants (52.1% in Recife, 39.8% in Caruaru and 47.1% in Petrolina) work a 6-day week, the percentages of those working more than 5 days a week in the three towns are, respectively, 70.5%, 64.3% and 83.1%. An immediate conclusion, taking hours per day and number of days per week worked, is that the earning of a livelihood, however meager, in Northeast Brazil, requires long periods of work. Another conclusion to be drawn from the data on duration of hours of work among interviewees in the three towns in that unemployment is subtly concealed by a plethora of low productivity occupations.

As regards the distribution of days of work by origin, the pattern varies from one town to another, although the percentages of old migrants working 7 days a week in Recife (21.6%), Caruaru (25.5%) and Petrolina (33.3%) are relatively high. It must be stressed, on the other hand, that in Petrolina the percentage of respondents working 7 days weekly is comparatively high among migrants and non-migrants. With reference to occupational status by origin, Tables XXXXA, XXXXIA and XXXXIIA in the appendix show that the 6-day working period is the most common among both employees and self-employed in the three urban areas; however, very high proportions of self-employed informants had a working week of 7 days.

Table XII

Days of Work per Week

Recife

Days	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 5	23	15.4	26	13.4	2	5.2	50	13.3
5	19	13.3	35	18.0	7	17.9	61	16.2
6	71	49.7	101	52.2	24	61.5	196	52.1
7	31	21.6	32	16.4	6	15.4	69	18.4
Total	143	100.0	194	100.0	39	100.0	376	100.0

Caruaru

Days	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 5	4	8.5	4	21.1	6	18.8	14	14.3
5	7	14.9	8	42.0	6	18.8	21	21.4
6	24	51.1	4	21.1	11	34.4	39	39.8
7	12	25.5	3	15.8	9	28.0	24	24.5
Total	47	100.0	19	100.0	32	100.0	98	100.0

Petrolina

Days	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 5	1	3.7	2	4.2	1	7.1	4	4.5
5	1	3.7	8	16.7	2	14.3	11	12.4
6	16	59.3	21	43.8	5	35.7	42	47.1
7	9	33.3	17	35.3	6	42.9	32	36.0
Total	27	100.0	48	100.0	14	100.0	89	100.0

This clearly points to the conclusion that the amount of time (considered as being the multiplication of the number of hours times the number of days) spent on work per week is higher among the self-employed than the employees in the three towns.

We turn now to an investigation of informants' attitudes to the possibility of working additional hours.[18] As shown in Tables XIII, XIV and XV, among the interviewees who were already working, 54.3% in Recife, 50% in Caruaru and 70.8% in Petrolina said that they wanted to work additional hours. The comparatively high percentage for Petrolina is probably explained by the fact that the lowest percentage of respondents working more than 8 hours a day was in that town. The highest percentages, in the three towns, of interviewees desiring to work additional hours, were for those who wanted to work 4 hours daily. As a whole, the highest percentages of respondents were among those who wanted to work between 2 and 4 additional hours: 65.7% in Recife, 67.4% in Caruaru and 69.9% in Petrolina.

If we take those workers who earned the minimum salary or less per month and who worked 40 hours weekly, we can calculate from Table XVI that 42.6% of informants in this category in Recife, 34.7% in Caruaru and 48.3% in Petrolina answered affirmatively. This comparatively low percentage for Caruaru is rather surprising because that town had the largest number of those self-employed, and the highest number of those who earned only the minimum salary or less. On the other hand, if one considers the information on Table XVI as a rough estimate of the rate of under-employment in the three towns, the conclusion is that the percentages for Recife, Caruaru and Petrolina are very similar to the rate of 41.6% for the Northeast at large, in 1970.[18] This Table also reveals that there was no clear trend as to the number of hours the interviewees wished to

Table XIII

Additional Hours of Work per day wanted by informants

Recife

Additional Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
1	1	1.3	1	5.0	3	2.8	5	2.5
2	13	16.9	4	20.0	16	14.9	33	16.2
3	17	22.0	5	25.0	24	22.4	46	22.5
4	19	24.7	7	35.0	29	27.1	55	27.0
5	4	5.2	1	5.0	11	10.3	16	7.8
6	15	19.5	0	0.0	11	10.3	26	12.7
over 6	8	10.4	2	10.0	13	12.2	23	11.3
Total	77	100.0	20	100.0	107	100.0	204	100.0

Table XIV

Additional Hours of Work per day wanted by informants

Caruaru

Additional Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
1	2	8.7	0	0.0	0	0.0	2	4.1
2	2	8.7	2	22.2	5	29.4	9	18.4
3	7	30.4	1	11.1	3	17.7	11	22.4
4	7	30.4	3	33.4	3	17.7	13	26.6
5	3	13.0	1	11.1	4	23.6	8	16.3
6	1	4.4	1	11.1	1	5.8	3	6.1
over 6	1	4.4	1	11.1	1	5.8	3	6.1
Total	23	100.0	9	100.0	17	100.0	49	100.0

Table XV

Additional Hours of Work per day wanted by informants

Petrolina

Additional Hours.	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
1	0	0.0	0	0.0	0	0.0	0	0.0
2	7	33.3	7	21.9	2	20.0	16	25.5
3	2	9.5	4	12.5	1	10.0	7	11.1
4	7	33.3	10	31.3	4	40.0	21	33.3
5	2	9.5	3	9.4	1	10.0	6	9.5
6	2	9.5	4	12.5	1	10.0	7	11.1
over 6	1	4.9	4	12.5	1	10.0	6	9.5
Total	21	100.0	32	100.0	10	100.0	63	100.0

work, although the highest percentages in the three towns were among those willing to work 4 more hours. Considering the categories by origin, the non-migrants appeared with the highest percentages among those who, in Recife, Caruaru and Petrolina, wished to work additional hours. This is to some extent congruent with the findings in Table XI, which shows that, specially in Recife and Petrolina (and in Caruaru to a lesser extent) the percentages of those working more than 8 hours daily were lower among the non-migrants. This in turn suggests that owing to the low earnings level in the areas surveyed, long working periods are not only a common phenomenon, but also a necessity.

In order to complement this picture on the informants' working time, they were asked if they did the same job throughout the year. The majority of interviewees in Recife (93.5%) and Caruaru (92.7%),

Table XVI

Labourers who work 40 hours weekly and who earn the minimum salary or less and wish to work additional hours daily

Recife

Additional Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 3	11	19.6	5	29.4	13	14.9	29	18.1
3	13	23.2	5	29.4	22	25.4	40	25.0
4	14	25.0	5	29.4	25	28.8	44	27.5
5	3	5.4	1	5.9	9	10.3	13	8.1
Over 5	15	26.8	1	5.9	18	20.6	34	21.3
Total	56	100.0	17	100.0	87	100.0	160	100.0

Caruaru

Additional Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 3	2	13.3	1	14.3	4	33.3	7	20.6
3	3	20.0	1	14.3	2	16.7	6	17.6
4	7	46.7	3	42.8	3	25.0	13	38.3
5	2	13.3	1	14.3	3	25.0	6	17.6
Over 5	1	6.7	1	14.3	0	0.0	2	5.9
Total	15	100.0	7	100.0	12	100.0	34	100.0

Petrolina

Additional Hours	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Under 3	5	33.3	5	25.0	2	25.0	12	27.9
3	1	6.8	1	5.0	1	12.5	3	7.0
4	5	33.3	7	35.0	3	37.5	15	34.9
5	2	13.3	2	10.0	0	0.0	4	9.2
Over 5	2	13.3	5	25.0	2	25.0	9	21.0
Total	15	100.0	20	100.0	8	100.0	43	100.0

and a smaller percentage in Petrolina (65.1%) answered in the affirmative, an indication that multiple occupations are not a common phenomenon in Northeastern towns. In other words, the long working periods undertaken by most informants is concentrated in one rather than in several jobs. Due to the characteristics of the informal sector, this is an expected result, as the working poor certainly lack the training, the resources and the mobility that the dedication to more than one occupation would require.

Informants were also asked if they were satisfied with their present occupation. Of the interviewees who were working at the time of the survey, 74.9% in Recife, 87% in Caruaru and 84.3% in Petrolina said that they were content with their present jobs. The reasons given for this satisfaction were: good working conditions (40.8% in Recife, 31% in Caruaru and 38.7% in Petrolina); satisfactory earnings (31.6% in Recife, 35% in Caruaru and 28% in Petrolina); working stability (8.2% in Recife, 5.7% in Caruaru and 4% in Petrolina); only occupation available (10.2% in Recife, 18.5% in Caruaru and 20% in Petrolina). The examination of these answers in the light of the evidence on the poor working conditions in terms of duration of work, earnings and stability of most informants, leads to the conclusion that there prevails among them a stoical, even fatalistic perception of their own fortunes vis-à-vis the labour market.

So far, the comparison between old and recent migrants with non-migrants has been based on information about employment. By and large, the results are consistent, leading to the conclusion that there is no substantial difference in the work situation of natives and migrants.[20] Length of residence does not appear to influence working conditions. There are several reasons which would appear to explain this situation. First, a large number of occupations do not require high skills or long training. Secondly, the number of migrants

of urban origin or who had one or more intermediate residence was relatively high in Petrolina and, to a lesser extent, in Recife. Thirdly, the presence of kin and friends greatly facilitated the assimilation of migrants into the local labour market. Fourthly, the differences in educational levels among migrants and non-migrants are too small to determine work status differentials between the two groups.

The remaining part of this chapter will be dedicated to the analysis of some indicators of living conditions of the interviewees in the three towns. Several conclusions emerge from Tables XXXXIIIA, XXXXIVA and XXXXVA in the appendix. The most general conclusion is that living conditions in the mocambos of Recife, Caruaru and Petrolina are very poor indeed and there is no evident difference between migrants and non-migrants in this respect. This is scarcely surprising, given the extremely low earnings of most interviewees regardless of their origin. The interpretation of Tables XXXXIIIA, XXXXIVA and XXXXVA shows that the situation as regards property and the quality of the houses was inferior in Recife than that obtaining in Caruaru and Petrolina. This is certainly explained by the more difficult access to cheap land and building material in a big city than in a medium-sized town. The tables on Recife indicate sub-standard housing conditions and primitive sanitary facilities: mud and wood walls, external lavatories, drainage pits instead of a public sewage system, and a relatively small number of houses with running water. This situation may be explained, at least in part, by the relatively higher price of construction materials in Recife. There also seems to be a correlation between poor housing and status of ownership: it was in Recife where the higher percentages of squatters (those who own their house but not the land on which it is built) were found. And it is possible that poor materials are a result of this situation; that those without secure tenure will

not readily invest in domestic improvement. On the other hand, more migrants in Caruaru and Petrolina, because of the easier access to land in the peripheral districts, own both their houses and land. The higher number of brick-walled houses in Caruaru is certainly a consequence of the ceramics factories which, indicentally, constitute one of the town's major industries. As regards the sanitary facilities, however, the conditions in Caruaru and Petrolina are pitiably similar to Recife's.

On the other hand, there is a marked contrast in the three towns between the availability of services which are financially self-supporting or profit-making, such as electricity and water, and those which are not, such as sewage systems or street pavements. As seen in Tables XXXXIIIA, XXXXIVA and XXXXVA, the vast majority of interviewees in Recife, Caruaru and Petrolina had electricity in their houses. Because of its lower installation costs as compared to water and sewage, and also because the relatively short term economic returns it produces, it is a service normally available in poor bairros of Northeastern towns. Moreover, electricity rates in Northeast Brazil are relatively cheap due to the abundance of electric power. Running water is also available in a large number of houses. This situation reflects the policies by the Prefeituras (city authorities) of Northeastern towns as regards investments on services for the mocambos. Because the populations of the slums are politically powerless, the provision of facilities are ironically restricted to electricity and water, services which pay for themselves. Investments which are not self-paying, such as sewage and pavements, do not appear to be given priority by the Prefeituras, or the state and federal authorities, in their policies regarding the poor bairros.

As regards the availability of home appliances, the data reveal some economic and cultural differences between a big city and a

medium-sized town in Northeast Brazil. Although the comparatively higher percentages of people owning TV sets and freezers in Recife may be explained, in part, by the higher average incomes of the informants in that town, they may also derive from the more widespread and diversified selling schemes typical of a highly competitive market of home appliances. A freezer is a very useful item in a tropical climate and, the bigger the city, the more significant is television as a symbol of status. Aspiring owners are also constantly assailed by intensive publicity. The comparing of the figures for Recife, Caruaru and Petrolina, show that the smaller and more remote the town, the more common is the use of radio, whose replacement by television has been slow. A central conclusion from the three tables is that there are not discernible differences among migrants and non-migrants, in the three towns, as regards living conditions; extreme material poverty is suffered by the overwhelming majority of interviewees, regardless of their origin.

Several conclusions arise from this chapter. Lateral occupational mobility among migrants is a widespread phenomenon, but improvement of occupations is very limited indeed. The information in the survey also indicates that employment mobility takes four general directions: a) most migrants changed occupation within the informal sector; b) a small number of migrants were able to acquire new manual skills after their arrival at their destination; c) a few migrants found jobs as unskilled employees in the public sector; d) the number of female migrants employed as domestic servants declined drastically as their length of residence increased. Another conclusion drawn from this chapter is that basically there is no difference in the nature of the occupations held by the poor migrants and non-migrants.

Despite poor salaries and long working hours, wage employment is fairly high among the population surveyed, but more so in Recife

and Petrolina than in Caruaru. Open unemployment is relatively high, although most unemployed labourers found jobs within six months. Earnings are generally low and nearly half the respondents in the three towns had monthly earnings which were equal or less than the official minimum salary. To earn small incomes most interviewees had to work for long hours and, in this aspect, there was no apparent difference between employees and self-employed workers. Nevertheless, a large number of informants were willing to work additional hours in order to raise their incomes. Changes in occupation by migrants during their transition period in the three towns reveal a preference for self-employment, which indicates a tendency for increasing tertiarization of the labour markets of Recife, Caruaru and Petrolina.

Caruaru, among the three towns, appears to have the poorest prospects for migrants. The interviewees in that town experienced the highest rates of unemployment and self-employment, low earnings and lengthier working hours. The expectation, in terms of diversification and expanding capacity of the informal sector in a large city, is confirmed by Recife. Petrolina perhaps demonstrates that carefully planned investment strategy can create a stopping place for poor migrants in the Northeastern interior and can avert large-scale emigration towards the big cities.

A central conclusion which emerges from this chapter is that, for poor migrants who were pushed from their places of origin by lack of employment or low earnings, migration seems to pay off, as most interviewees, migrants and non-migrants alike, claimed to be satisfied with their jobs. Another marked conclusion which arises from this chapter, and is worth reiterating, is that the working poor are compelled to work long hours for very low earnings and that this situation applies to migrants and non-migrants alike.[20]

NOTES. - Chapter V.

1. This sub-division follows the suggestion made by Rodriguez-Spada, in "La Incorporación de los Migrantes a la Estructura Economica y Social de la Ciudad de Bogotá", Las Migraciones Internas, Ramiro Cardona, editor, Bogotá, Asociación Colombiana de Facultades de Medicina, 1969, pp.180-181.

2. These figures include those workers (1 in Recife, 1 in Caruaru and 4 in Petrolina), who had never worked. The rates of unemployment among the population surveyed in the three towns were considerably higher than the 5.8% found for the Northeast at large in 1970, as mentioned in Chapter I.

3. This result corroborates the findings for the Northeast's three metropolitan areas, Recife, Salvador and Fortaleza, in 1970. Moura, Hélio et.al. Regiões Metropolitanas do Nordeste: Diferenciais de Renda e Educação entre Naturais e Migrantes - 1970. Recife, SUDENE/BNB, 1975, pp. 26-35.

4. Less than U.S.$12.50 at the average exchange rate in 1974.

5. PREALC. La Subutilización de la Mano de Obra Urbana en Paises Subdesarrollados, Documento de Trabajo ILO/PREALC/74, Santiago, pp. 13-16; Also ILO. Measurement of Under-employment: Concepts and Methods. Eleventh International Conference of Labour Statisticians, Report 4, Geneva, 1966.

6. Turner, H.A. "Wage Planning, Growth and Employment in Less Developed Countries". International Labour Review, May 1970, pp. 542-43.

7. The legal statute which fixes the minimum salary in Brazil is based upon a monthly working period of 30 days and 240 hours. A mathematical formula is employed which considers the average real wage and the increase in the economy's productivity over the preceding 12 months, along with the anticipated inflationary trends for the following 12 months and the capacity of the economy to support the increases in the minimum salary without generating unemployment. Interview by the Brazilian Minister of Labour, Arnaldo Prieto in VEJA, May 4, 1977. p.91.

8. Goodman, David E. op.cit., p.17.

9. A summary of the evidence is presented by ISTO É, November 22, 1978, pp.108-109. See also Cupertino, Fausto. A Concentração da Renda no Brasil. Rio de Janeiro, Civilização Brasileira, 1976, pp.101-110.

10. Even if the minimum wage was established on the basis of a worker's minimum subsistence needs, it would be of little significance for the comparison of incomes generated by occupations which had different productivity levels. Peattie, Lisa R., op.cit., p.121. See also ILO. Minimum Wage Fixing and Economic Development. Studies and Report, New Series No.2, Geneva 1968, Chapter III.

11. The minimum salary levels established annually vary slightly between regions and between the larger and the smaller towns. We decided to take Recife's 1974 minimum salary of Cr$295,20 as a yardstick or norm against which to calculate deviation of income.

12. This finding is very similar to the 42% of Recife's EAP who earned the minimum salary or less in 1970. Cavalcanti, Clóvis de V. O Recife Eurotropical na Economia Inter-Regional: Um Manifesto do Eco-Desenvolvimento. Recife, 1977 (mimeographed paper), p.16.

13. These results are considerably higher than the findings from the 1970 Census for the 21 largest towns in the Northeast. Goodman, David E., op.cit., pp.21-24.

14. PREALC. La Subutilización ..... p.II - 11

15. This is one of the ways of measuring under-employment suggested by Sen, Amartya. Employment, Technology and Development, London, Oxford Clarendon Press, 1975, pp.38-39. See also ILO. Measurement of Under-employment .....

16. Sen, Amartya, op.cit., pp.39-40

17. This point is extensively discussed by PREALC, La Subutilización ....., p.1-12.

18. Sen, Amartya. op.cit., p.39-40. See also Turnham, David. "The Definition and Measurement of Unemployment in Developing Countries" in The Challenge of Unemployment to Development and the Role of Training and Research Institutes in Development. Paris, OECD, 1971, p.46.

19. Governo do Estado de Pernambuco - FIDEM, op.cit., p.37.

20. Martine, George. op.cit., pp.3-5.

CHAPTER VI

CONCLUSIONS

This thesis had two major objectives. The first was to study internal migration among the poor nordestino population from a longitudinal perspective. This was done by examining the migrants' situation before leaving their place of origin, upon arrival, and after settlement at their destination. We must observe, at this point, that in planning the survey, we were faced with the dilemma of either assembling enough information to trace the migrants' itinerary, or to concentrate in detailed, but static, aspects of the migratory process. We decided to opt for an extensive coverage of the migratory process at the expense of detail. We believed that this approach would counteract the lack of longitudinal studies in the literature on migration in Northeast Brazil and in developing countries in general.[1]

The second central objective of this thesis was to investigate the functions played by towns of different sizes as destinations for poor migrants in Northeast Brazil. We admit that by making surveys in the largest town in each of Pernambuco's physical zones, the Mata-Litoral, Agreste and Sertão, we failed to study the migrant population in small-size towns. Nevertheless, we assumed that, for the comparative purposes of this thesis, Recife, Caruaru and Petrolina, by having sizeable migrant populations, would provide a larger amount of comparable data than smaller towns.

As discussed in Chapter I, migration from and within Northeast Brazil is a long-standing phenomenon. However, the progressive improvement in the transportation and communication networks across

the country has greatly facilitated the territorial mobility of people and the dissemination of information in recent times.[2] An illustration of this improvement is the impressive expansion of the Northeastern highway system after the creation of SUDENE. Whereas the extension of unpaved roads in the region increased from 23,816 kilometres in 1960 to 46,439 kilometres in 1973, the increase in paved roads was from 1,791 kilometres to 14,455 kilometres in the same period.[3] The increase in nordestino migration is also a consequence of a growing rural crisis characterized by the deterioration of the man/land relationship in the region's rural sector. The persistently high natural increase of the rural population has led to high growth rates of the labour supply. Population pressure on land which is naturally poor and subject to distorted patterns of ownership and tenure arrangements, keep earnings near or below subsistence level. The availability of cheap labour, therefore, makes technological changes economically unattractive. On the other hand, due to the high degree of income concentration, the gradual rise in the aggregate demand for foodstuffs and raw-materials is attained merely by the expansion of the cultivated land and not by productivity increases. The distortions of the marketing process do not lead to a situation in which consumer prices act as stimuli to the small and medium farmer. The few attempts at modernizing agriculture via subsidized credit to large-scale rural enterprises have been unrealistic, expensive and conducive to technological disequilibria within the sector.

Being compelled to leave their place of origin because of lack of unemployment or low earnings, the Northeastern population has been moving to other regions or towards the region's cities, where they have aggravated urban problems. The industrialization in the region, besides being relatively recent, has been improperly planned.

SUDENE's industrialization programme has failed to emphasize inter-sector and inter-industry relationships, locational priorities and employment targets as priorities for granting incentives and subsidies to new industries. As a result, the industries supplied with funds from the 34/18 - FINOR scheme are dependent upon a high quantity of imported inputs from other regions.[4] Industries have also been highly concentrated, as only 116 out of 1,300 plants installed between 1960 and 1977 received 73% of the total investment. Moreover, 75% of those investments were concentrated in the States of Pernambuco, Bahia and Ceará, and 60% of the outlay went to Recife, Salvador and Fortaleza, the capitals of those States.[5] As a consequence, 16 out of 999 Northeastern municípios (the Brazilian equivalent to a county) are responsible for 60% of the region's industrial production. As demonstrated in Chapter I, job creation in the region's industrial sector has been ineffectual and has failed to cope with the steady increase of urban under-employment.[6]

At a national level, the policy aiming at high growth rates of GDP and capital accumulation has focused upon economic efficiency at the expense of social equity. The problems of regional and sectoral inequalities have been neglected, and there is no evidence that the Brazilian government wants to tackle either the agrarian or urban crises, particularly in the Northeast, where they are most acute.

Nor has Brazil a comprehensive migration policy. The problems caused by intensive migration, whenever mentioned in official publications or speeches, appear in vague and indirect form, often as merely one of the justifications for the launching of a new project or programme.[7] The official policies regarding industrial and agricultural development, especially in the Centre-South, and also the construction of Brasilia have clearly had a great impact on

the intensity and direction of migration of nordestinos. The evidence is, however, that these effects have been unintended or were, at least, a secondary objective. The lack of concern for the plight of the hordes of nordestinos who flock into urban areas to be poorly employed, housed and serviced, reveal the anti-social nature of the political economy prevailing in Brazil. It seems, in effect, that, for the instrumental purposes of the present Brazilian economic model, the maintenance of a 'reservoir' of potential migrants is convenient, since it contributes to keeping a reserve army of urban under-employed workers available at minimal social costs. The increase of the urban informal sector, apparently, does not pose any threat to the protected sector; it is complementary to, rather than competitive with that sector. Another consequence of rapid urbanization, the proliferation of slum bairros, and the embrionic level of public services within them, do not seem to elicit any special concern from the Brazilian authorities. Public investment continues to be concentrated on the improvement of facilities in medium and upper class suburbs. For the Brazilian dominant classes the socio-economic inequality has been convenient and the impoverished condition of the Northeast has ensured, besides cheap labour, an additional market for Centre-Southern produced consumer durables and foreign exchange earned from the Northeastern exports of primary goods.

The lack of social responsibility on the part of the dominant groups is the more appalling if one has in mind Brazil's present and potential economic conditions. In this respect, a comparison with other developing countries is unavoidable. Brazil enjoys a very privileged situation in the developing world owing to the vastness of its territory, its largely unexploited natural resources

and its extensive and diversified industrial sector. The remedying of economic inequalities and social injustice in Brazil would be, in principle, a much easier task than it is for most Latin American, African and Asian countries. Yet, owing to the inequalitarian nature of Brazilian society, in which income is highly concentrated among groups and regions, the Northeast has lagged behind the rest of the country, especially the Centre-South. A paradoxical situation exists in which Brazil has one of the most advanced industrial sectors among the developing nations, but possesses at the same time, in the Northeast, one of the largest concentrations of poverty in the Western world. This perverse situation is helped by the dimensions of the country. Brazil's sizeable and diversified consumer market is possible, despite income concentration, because of the absolute size of its middle class. In a population of approximately 93 million in 1970, the 20% of the population at the top of the income distribution, who received 63.2% of the total income,[8] constituted a consumer market of considerable proportion.

The accentuation of regional inequalities in Brazil is largely explained by a regional division of labour which has been unfavourable to the Northeast. Brazil is a major exporter of primary goods, and the economic specialization of its regions has been considerably influenced by external markets. The deterioration of the Northeast's situation vis-à-vis other regions occurred in the course of the 19th century, as mentioned in Chapter I. It was during this period that the Northeast's share of production of primary goods in Brazil's total exports started to decline. Whereas sugar and cotton, which were produced mostly by the Northeast in the early part of the 19th century, constituted respectively 32.2% and 20% of the country's exports between 1821-30, the contribution of coffee was only 18.5%.[9]

In the period 1951-54 the situation was completely changed, with sugar providing a mere 0.7%, cotton 9.9% and coffee, mostly grown in the Centre-South, dominating Brazilian exports at 74.7%.[10]

Brazil's initial industrialization drive took place in the latter part of the 19th century with the installation of light industries. By 1919, textiles, clothing, footwear and food industries alone accounted for over 70% of the industrial output.[11] Following the patterns of agricultural specialization, these industries were concentrated in the urban areas of the major exporting regions. By 1920, the signs of an unbalanced territorial distribution of industries were already emerging: the State of São Paulo contributed 31.5% of Brazil's value of the industrial production, while the State of Rio de Janeiro contributed 20.8%, and the other States 47.7%.[12] Owing also to the lack of an efficient inter-regional transportation system, each region's industrial production was oriented both to the foreign markets and local consumption.

The First World War provided a major impetus for Brazilian industry, as the interruption of international trade halted the imports of industrial products and stimulated the domestic production of goods. The collapse of the world coffee market during the depression of the 1930s led to the structural transformation of the Brazilian economy, due to the reduction in the exports earnings and in imported manufactures. The coffee plantation owners started, then, to divert their investments to the installation of industries in the State of São Paulo. The post-Second World War period brought with it a further industrial transformation with the import substitution of consumer and capital goods, as well as the consolidation of São Paulo as Brazil's major industrial centre. In 1965, the State of São Paulo's participation in the value of the Brazilian industrial production was 57.6%.[13]

Due to its increasingly peripheral situation in the country's economy since the mid-19th century, the Northeastern region did not benefit from the industrial advance which took place especially in São Paulo. As mentioned in Chapter I, the Northeast had its industrialization impetus much later, in the early 1960s. There, industrialization through generous subsidies and fiscal incentives has not contributed to reduce the region's economic dependence from the Centre-South. Besides the import requirements of inputs used in the new Northeastern industries, the tax credit deposits under the Article 34/18 derive mostly from corporations sited in the Centre-South, which means that the depositors themselves have considerable influence upon the management of Northeastern firms.[14] Despite SUDENE's attempt to expand the Northeast's industrial sector, this region's participation in the Brazilian industrial production has been very low, as demonstrated in Chapter I. This is, to a great extent, due to the uneven treatment which the Northeast receives from the Brazilian government, as compared with the Centre-South. One piece of evidence of this neglect is the data on the regional distribution of credit by BNDE, the national bank for economic development, in 1973: while the Northeast received 19.6% of the total financing, the Centre-South's share was 71.7%.[15]

Like most developing countries, Brazil has been relying on foreign technology and equipment for the setting up of its industrial sector. This has been, in part, the consequence of dependence on the direct investments of foreign companies; it is also the result of a choice to import foreign technology and tools in batches, instead of pursuing an otherwise costly and risky goal of technological autonomy. The reliance on imported technology, usually highly capital intensive, has contributed to the low levels of labour absorption by the industrial sector.[16] Moreover, when the major industrialization

impulse occurred in Brazil, the rural sector, particularly in the Northeast, had already been expelling the surplus labour resulting from the pressures of population increases on the land, and urban immigration was growing steadily.

The field research made in Recife, Caruaru and Petrolina offers some insights into the process of migration of poor nordestinos. One conclusion which emerges from the survey is that emigration of the Northeastern population is caused primarily for economic reasons, the people being compelled to leave rural, quasi-rural or small urban areas by unemployment or low earnings. The decision to move also appears to be more a response to the contingencies posed by poverty, than a calculated act aiming at the maximization of utility. Economic need provoked by unemployment or low income is probably the most frequent cause for emigration in the developing world, as demonstrated by several authors.[17] Rural emigration as a major response to population pressure is a common phenomenon in developing countries. High rates of natural increase of population, poor or declining soil fertility, uneven land distribution and technological backwardness are almost universal characteristics of the rural sector of Third World countries.[18] It is conceivable, on the other hand, that, despite their likely knowledge of the prevailing chronic under-employment in Northeastern cities, migrants may also know that it is in urban areas where employment is bound to be increasing as a consequence of the concentration in these areas of public and private investments. It is the hope, rather than certainty of a better future, which draws the people to the town in the Northeast. This hope tends to be kindled by kin and friends, who are the most significant elements in determining the migrants' choice of destination and facilitating their acclimatization in the new millieu. The high significance of relatives and friends for the adjustment of migrants at their destinations is another characteristic of the less

developed areas, as observed by several studies.[19] For a poor and uneducated migrant, the integration into an existing kinship network means an alleviation of the otherwise unaffordable monetary and non-monetary costs of migration.

As expected, the settled migrants in Northeast Brazil do not constitute homogeneous groups, but differ in their personal characteristics. Yet, a substantial number of them are young, male, poorly educated, second generation migrants who had some previous urban experience. The literature on migration in developing areas reveals that migration at a young age is practically a universal phenomenon,[20] although the surveys made in different countries do not present a uniform result as regards selectivity of migrants by sex and skill.[21]

Because nordestinos move short distances within the region step migration is not as common as it is in other developing areas. As seen in Chapter III, the majority of migrants in Recife, Caruaru and Petrolina were born and raised in the State of Pernambuco itself. Had the survey focused upon interregional migration, step migration might have proved more frequent. Besides the relatively low costs of dislocation and the help of relatives and friends for maintenance, migration costs are further reduced by the readiness with which the majority of arrivals in Northeastern cities find a job. For the majority of newly arrived workers, however, these are casual occupations or jobs with no stability, a characteristic which has been observed in countries like Nigeria, India, Indonesia and Colombia,[22] for example. In these countries, in Brazil at large, and in the Northeast in particular, urban immigrants adjust themselves to the insufficiency of jobs in the formal sector, by accepting low-wage employment or by self-employment in the so-called informal sector. The expansion in the

labour market occurs, therefore, through the inflating of the tertiary sector, especially by the multiplication of self-employment, domestic services and unskilled or semi-skilled jobs.

The information on the migrants' first and present occupation at their destinations reveal a trend towards increasing self-employment in Northeastern towns. This movement towards greater 'tertiarization' may be an indication that, in the face of very low-paying, highly insecure wage employment, the migrants prefer unattached occupations which offer independence, flexibility and at least the possibility of higher earnings. This search for independence and earnings improvement through self-employment is practically the only alternative available for the uneducated worker facing a saturated urban labour market. This preference for self-employment was, incidentally, also identified in Kenya and in Guatemala[23] and is, in Lloyd's view, a widespread phenomenon among poor urban labour in less developed areas.[24] The changing of occupations during the transition period in the city takes place usually inside the informal sector, especially among crafts and trade, and entails lateral rather than upward mobility. The findings of the survey, moreover, do not support Todaro's postulate that migrants move from their initial job in the traditional sector towards permanent employment in the modern sector. In Northeastern towns, domestic services tend to disappear as the duration of residence increases and a few migrants get jobs in the public sector, although in occupations which require little or no skills. We know little, unfortunately, about occupational mobility of migrants at their destinations in developing areas. The results of one study made in Mexico and another in India conform only in part with our findings, as those surveys concluded that, as the length of residence increases, unskilled occupations and services tend to diminish, while crafts and

clerical work increase.[25] Because the evidence of occupational changes appear in these two surveys in a highly aggregative form, a comparison with our findings is not possible; only some types of services - that of domestic servants - in Recife, Caruaru and Petrolina, show a clear diminishing tendency, whereas other services, such as that of dressmaker, manicurist, embroiderer and washerwoman seem to replace them. On the other hand, there is no question of an increase in clerical work among the poorly educated nordestino migrants surveyed here.

The comparison of migrants with a control group of natives living in the same mocambos indicates that there are not marked differences as regards the working and living conditions of the two groups, and that these conditions for both are very bad indeed. Moreover, the length of exposure of migrants to the new environment does not seem to affect their fortunes, as demonstrated by the insignificant differences in the socio-economic and working conditions of the old and recent migrants. It emerges from this comparison that, in Northeastern towns, both poor migrants and natives are unfavourably equipped to cope with the exigencies for the gaining of a decent livelihood. By being poorly educated and placed at the bottom of the social structure, they lack the training and the influence which are so necessary for getting a good job or starting a business. The results from surveys on the socio-economic differentials among migrants and non-migrants in some developing areas do not produce unfirm results as to who fares better, whether migrants or their native neighbours.[26] The most usual explanation given in those studies which found that migrants are in a better situation than the non-migrants, is that migrants are positively selected among the most energetic and enterprising people at their origin; those studies suggest also that migrants appear to be

less demanding in terms of wage levels, working conditions and occupational status.[27] Our survey shows distinctively that because poverty and low educational levels affect both migrants and non-migrants living in mocambos, there are not significant differences among these two groups as regards working and living conditions. Indeed, in Recife, Caruaru and Petrolina, poor migrants and non-migrants alike have to work strenuously in order to make a living. For many, under-employment is the only resort to avoid unemployment. Under-employment, then, takes the form of low earnings, abnormal working hours or, generally, both. The structure of the labour market in the urban Northeast, in which the informal sector is prominent, closely resembles that of most developing countries. The compilation of some data on the rates of unemployment in several cities of backward countries show great similarity with the results from our survey. Indeed, the figures for urban unemployment as a percentage of the labour force during the 1960's in Tanzania (12.6%), in Ghana (11.6%), Ceylon (15.0%), the Philippines (11.6%), Colombia (14.0%) and Calcutta (15.0% in the early 70's) are very similar to those found in Recife, Caruaru and Petrolina.[28] These relatively low rates of unemployment reveal that in Northeast Brazil, as in many developing countries, despite the incapacity of the formal sector to generate employment to satisfy the demand for jobs, a large proportion of people find ways of getting themselves an occupation. This is why under-employment is comparatively high, for example, in Latin America at large (30% of the EAP in the late 60's) and in India (30% of the EAP in the late 50's).[29] The expanding capacity of the informal sector in less developed areas reveals the way in which the economic system adjusts itself to the unbalance between demand and supply of labour. It is indicative also of the imagination and resilience of the people who earn a

living under very unfavourable conditions; a look at the conditions faced by self-employed workers in the cities of most developing countries shows how few are the resources they command and how strong the competition in specific occupations can be.

Long working hours, a characteristic of poor migrants and non-migrants in Recife, Caruaru and Petrolina, is also a common phenomenon in other under-developed urban areas. As many as 75.5% of the EAP in Indian cities in the early 1960's worked over 43 hours weekly; those working more than 40 hours weekly in order to earn a poor livelihood in the urban areas of Tanzania in 1965 represented 84% of the EAP.[30] Many of those workers living in mocambos have monthly earnings which are equal to, or below, the statutory minimum salary. Moreover, their earnings are generally less than the remuneration they regard as normal for their occupations. Despite long hours of work, a considerable number of these labourers wish to work additional hours. The typesof occupations held by migrants and natives are very similar and a substantial number of the working poor do not find jobs appropriate to their skills. Nor are there discernible differences between wage employees or self-employed labourers as regards duration of work or earnings.

The living standards of most migrants and natives in mocambos are appalling: jerry-built houses without sanitary facilities are squeezed together in bairros deprived of infrastructure. However, despite these poor living and working conditions, a large number of interviewees reported themselves satisfied with their situation at destination. This positive self-perception of their fortunes is understandable if one bears in mind that, for most migrants in the three towns surveyed, the decision to move was a response to their unemployment or low earnings. Therefore, for poor migrants simply

having a source of livelihood appears to be felt an achievement. It emerges, as a central conclusion from the survey, that, for the individual, migration, however inadequate his and his family's conditions may be, is beneficial. For the poor nordestinos, monetary and non-monetary returns from migration, despite their poverty levels, seem to be positive. In general, given the present situation of economic inequality and social injustice permeating Brazilian society, migration seems to pay off, at least for those who decided to settle at their destinations. It should be stressed that, in conditions of prevalence of low earnings, as is the case of most people in our sample survey, the discussion about monetary and non-monetary costs and returns from migration seems to be of little relevance for an understanding of the causes of migration. The low costs resulting from short-distance movement and from the assistance of relatives and friends, and the returns obtained from quick integration into low-income and insecure occupations can hardly be regarded as evidence that migration is an investment in human capital.

Because the Northeastern rural sector has remained practically stagnant, it is only in the cities that the volume of employment is increasing owing to the concentration of most industries and public investments. Furthermore, the income distribution in urban Northeast is less extreme than that in the rural areas and the per capita income of the latter is considerably lower than that in urban areas.

In general, the survey reveals little differentiation between Recife, Caruaru and Petrolina as regards their function as destinations for poor migrants. Except for the relatively high contingent of rural immigrants in Caruaru and for the more mature age of migrants in Petrolina, there is a considerable uniformity in

the personal characteristics of the people who settled in mocambos of the three towns. The working and living conditions available for the incomers are, broadly speaking, similar, although Caruaru's labour market shows distinctive signs of saturation and less dynamism than the other two cities.

Recife, the Northeast's primate city, is a natural destination for migrants. The survey demonstrates that, despite the evidence of high rates of disguised and open unemployment in Recife's Metropolitan area,[31] incoming migrants are quickly assimilated into the town's extensive and diversified informal sector. In general, the average earnings of the working poor in Recife is slightly higher than in Caruaru and Petrolina. Being, together with Salvador, one of the region's two major industrial poles, and also the site of various public agencies and programmes, Recife is bound to continue playing its role as destination for migrants from Pernambuco itself and from other Northeastern States. This is unfortunate, given the already evident incapacity of that town's economy and its apparent inability to cope with the natural increase of the population and the influx of migrants.[32] Caruaru, despite its location and also being an active commercial entrepot, does not appear to be exerting the function of a deterrent for migratory flows. This conclusion stems from the fact that our survey did not detect any in-transit migrant who had decided to settle in Caruaru. This conclusion is reinforced by the evidence that, despite the weekly fairs and the town's specialization in handicraft industry, jobs and economic opportunities for its poor inhabitants are very limited. This conclusion, incidentally, supports our pessimistic remarks in Chapter III as regards Caruaru's role as a deterrent to migrants. It is our contention that CNPU's propositions for concentration of investments in the region's medium-size towns

should be subject to more thorough studies of the selected urban areas. Caruaru is so close to Recife that migrants in the former town could easily continue their movement towards the State capital. Recife's economic influence is so far-reaching that it would certainly neutralize the attempt to transform Caruaru into a satisfactory settlement area in the Agreste zone.

Petrolina emerges as an interesting case of a medium-size town which has similarities with Recife in its role as destination for migrants. The survey demonstrates distinctively that Petrolina attracts migrants from the neighbouring rural and small urban areas. The town is apparently able to provide occupations, however unfavourable the working and earning conditions, to incoming migrants. Petrolina's function as a medium-size town sited at the centre of the Northeastern backlands is suggestive of some guidelines for a migration policy in the region. The example of Petrolina suggests that the concentration of properly planned and efficiently administered investment in infrastructure, social services and industries in selected secondary towns in the Sertão zone should help to increase the employment and income levels in that relatively backward and sparsely populated sub-region. Petrolina's example indicates that the creation of inter-dependent industrial nuclei in the Northeastern interior would also contribute towards the creation of a hinterland town system which would act as settlement nodes. The industrialization programme should hopefully follow the guidelines proposed by the strategy of 'balanced growth'[33] and emphasize agro-industrial development.[34] The necessity of an industrialization programme as part of a development policy for a region which is poorly endowed with cultivable land and other natural resources has been recognized since the publication of the GTDN study in the late 1950's.[35] The installation of agro-industrial

nuclei, under the guidance of the 'balanced growth' theory should emphasize the production of mass consumption goods such as textiles, footwear, leather products, food and beverages, edible oil, tobacco and furniture. The Sertão has some comparative advantage as its agricultural production is constituted basically of the raw materials for those types of industry. Hence, a scheme of simultaneous, interrelated, plants forming a large ring of industries in a circular area of some 500 kilometres of diameter in the core of the Sertão, should be created. Some towns which are eligible for being the sites of these industries are: Picos (Piauí), Iguatu and Crato/Juazeiro do Norte (Ceará), Cajazeiros and Patos (Paraiba), Arcoverde and Salgueiro (Pernambuco), Paulo Afonso and Senhor do Bonfim (Bahia), besides Petrolina/Juazeiro. The eligibility of these towns derives, first, from their location at the centre of the drought-prone backlands and their relatively short distance from each other is a necessary element for the inter-dependent character of the industries to be created. Secondly, these medium-size towns already enjoy considerable external economies in terms of commercial infrastructure, banking systems, transportation and communication networks. At a second stage, a larger, concentric ring of industries could be created, encompassing other medium-size towns which enjoy comparative advantages as those of the first set of towns. The towns to be included in this second-stage strategy of agro-industrial development are: Caxias and Imperatriz (Maranhão), Parnaiba and Campo Maior (Piauí), Sobral and Crateús (Ceará), Mossoró (Rio Grande do Norte), Arapiraca (Alagoas) and Propiá (Sergipe).

The problems of rapid urbanization, un- and under-employment, poverty and shortage of services in Northeastern urban areas call for solutions which go far beyond our recommendation for creation

of agro-industrial nuclei in the region's Sertão. The remaining part of this chapter will be devoted to discussion of policies for migration in that region. Before making some concrete, general propositions, we should mention some considerations which should underlie any attempt to tackle the migratory problem in the Northeast.

The problema nordestino is a deep-rooted case of regional imbalance which is not self-healing. Any of its symptoms, such as migration, has to be regarded within this context of inter-regional inequalities. Hence, the following prescriptions, directed primarily to the problems caused by intensive migration, should be viewed as part of an overall policy aiming at the removal of the causes of the regional disparities, as well as the establishment of the basis for the Northeast's self-sustaining growth.

Given the present rural-urban differentials in employment and in income levels and distribution, policies oriented towards migration should consider several relevant aspects. First, because population pressure on the land and over-urbanization are elements of the same problem, any attempt at tackling intensive migration has to give priority, simultaneously, to the settlement of potential migrants in the interior and the improvement of the conditions of those living in the urban areas. The apparent dilemma of simultaneously improving life in the cities and discouraging further urban immigration could be conveniently solved, firstly, by making settlement projects attractive for potential colonos. INCRA's original intention of building agro-vilas, containing the basic facilities, in its colonization projects along the Trans-Amazon highway, could be taken as a model for new initiatives. Secondly, a return of migrants to the land, by

inducement or otherwise, would result, for many, in a reduction in their current income. Therefore, a realistic and promising settlement strategy should be directed to attract people from the areas identified as larger 'reservoirs' of potential migrants. Physical restriction to migration, as proposed by Harris and Todaro,[37] seems to be politically and operationally unfeasible in Brazil. Not only is it improbable that the authorities would obtain political support and possess the administrative means to enforce such a policy, but, given Brazil's territorial size and economic resources, a solution of this type would be unjustifiable. Harris and Todaro's concern about the attraction effect to potential migrants of a wage increase in the urban areas could be counteracted by the incentives offered to settlers in the proposed agro-vilas and in the agro-industrial nuclei.

Another factor which planners should consider is the existence of the industrial plants approved by SUDENE under the 34/18-FINOR scheme. Most of these industries have high capital densities per worker, and an industrial policy which encouraged a reversion in the capital/labour ratios would be unrealistic. In effect, it would create unnecessary technological heterogeneity within the Northeast and between this and other regions, particularly the Centre-South, thus making the Northeastern industries still less competitive. In the other extreme of the technological spectrum of the region's urban economy, lies the deeply embedded and ever-expanding informal sector. In order to substantiate this assertion it is worth repeating some figures presented in Chapter I. While the annual growth rate of the Northeastern urban population was 4.6% over the 1960-70 decade and the rate of urban under-employment was 29.3% of the EAP in 1972, only 277,841 new industrial jobs were created under the 34/18 -

FINOR credit mechanism between 1960 and 1976. SUDENE's failure in terms of job creation in the urban Northeast is strikingly manifested by considering that, with an estimated deficit of 800,000 urban occupations at the beginning of the present decade, and with an annual average of 200,000 immigrants added to the urban population, the number of jobs created over 16 years have represented, in effect, what was needed each year to cope with the urban employment deficit. The certainty that the informal sector is bound to keep expanding is another factor to be taken into account in migration policy-making for Northeast Brazil.

The remedying of the causes and effects of migration among poor nordestinos must be found both in the rural and in the urban sectors. Because of an unfavourable ecology and widespread landlessness, the Northeastern region, more than any other part of Brazil, requires agrarian reform. The discussion presented in Chapter I provides evidence for this claim. The existence of the Estatuto da Terra ('Statute of the Land') and the PROTERRA land redistribution programme are indicators that the Brazilian authorities have perceived the necessity of a land reform in the Northeast, although they have shown no sign of real commitment. The implementation of land reform in the Northeast should, ideally, have as a background GTDN's proposition of an interrelated and complementary development strategy for sub-regions and sectors. In other words, the action programmes should be designed with the overall objective of geographic re-allocation of population and economic activities in order to attain the maximum rates of labour absorption and output. This formidable task could be considerably facilitated by the incorporation of those programmes and projects created during the present decade, and mentioned in Chapter I. Given the general consensus on the existence of a

population surplus well above 2 million rural families in the Northeast,[38] GTDN's perception of the relationship between the attempt to reduce subsistence agriculture and the need for population redistribution is still valid, as is the perscription made by that study for the re-settlement of rural families in the emptier peripheries of the Northeast.[39] The failure of SUDENE's colonization project in Northwestern Maranhão and INCRA's settlement nuclei along the Trans-Amazon highway should constitute relevant lessons for fresh attempts of oriented population redistribution in Bahia's, Piauí's and Maranhão's under-populated areas and in the Amazon region.

Considering that shortage of water will continue to affect the semi-arid Sertão, concrete measures should be taken in order to make the existing irrigation projects effective. An effort should be made to exploit the whole irrigated potential of the Sertão and Agreste zones, having in mind GEIDA's objectives of population settlement, rise in the colonos' incomes and increase in the production of high-value crops. CODEVASF, the agency for the development of the river São Francisco, and DNOCS' irrigation programmes should be coordinated with Projeto Sertanejo and Projeto do Nordeste semi-árido.

As regards employment in the formal sector, some effort should be made to stimulate labour absorption in those industries which exhibit some flexibility in their factor proportions. In other words, whenever the industry's capital/labour ratio can be changed in favour of higher labour utilization, this should be encouraged by SUDENE. As wages constitute a relatively high component of the Northeastern industries' operational costs, a fund should be established to subsidize labour employment so that, although the labour costs for the firm would be reduced, the real wages could be maintained or even increased. These ideas should, ideally, help

to minimize the bias towards capital intensity observed in projects financed through the 34/18-FINOR scheme. On the other hand, the potential inflationary focus which could derive from this initiative could be eliminated if the funds were drawn from the existing deposits in BNB to be distributed by SUDENE through FINOR.

The urban informal sector should receive special attention from planners. Apart from being a source of occupation for several thousand nordestinos, informal-sector activities are more labour-using per unit of output than formal-sector operations. The measures we would recommend vis-à-vis the informal sector in the Northeast are in line with those suggested by the ILO and by PREALC.[40] A programme designed to provide systematic support to informal activities should be established. The authorities should induce both public and private enterprises to sub-contract labour-intensive services such as transport, construction, repair, marketing and cleansing. Cooperativism among unattached workers should be stimulated and programmes of credit and technical assistance to the cooperatives should be created. A project designed for planning and building markets near residential areas should also be established. Above all, legal restrictions on informal-sector operations should be abolished and bureaucratic requirements for setting up a business or a craft should be simplified.

Social reform in Brazil would necessarily entail the granting of ownership titles to the poor population who do not own their houses. A subsidized credit scheme for improvement in the houses should also be available, along with the provision of basic urban facilities and public services. Direct housing construction by BNH, the bank responsible for housing credit, should give priority to the homeless poor.

Those policies are feasible, but they depend on the willingness of the decision-makers to give priority to goals of social equity, rather than economic efficiency. Because it is in the Northeast where the bulk of the poverty-stricken population lives, the removal of economic inequalities and social injustices are more urgent there. But making decisions or promises is not all: the past performance of government officials in implementing projects and programmes in the Northeast is not encouraging. The recurrent failures reveal a preoccupation with the creation of institutions, programmes and projects, but a marked lack of determination to carry out programmes. This is a serious and familiar problem: in early 1960, Celso Furtado, SUDENE's founder and first Superintendent, in his inaugural speech at that institution warned that "the problem of development in the Northeast is less one of the formulation of technically acceptable plans, than of a politically correct handling of solutions".[41] The solutions that we prescribe here require an assembly of human and financial resources, competent administration and coordinating capacities at a scale hitherto unapplied in the Northeastern region. Yet, either Brazil faces this challenge, or the Northeast will be condemned to remain an under-developed region and the bulk of its population to suffer from severe poverty. For the country as a whole, the development struggle will be thwarted by the inequality between people, sectors and regions. Migration will continue to be an unsolved problem and the persistent movements of poor nordestinos towards the cities will make life and work in urban Northeast more and more difficult.

NOTES. - Chapter VI

1. This gap in the literature on migration is pointed out by Martine, George, op.cit., pp. 1-2; It is also suggested by Browning, Harley L. "Migration Selectivity and the Growth of Large Cities in Developing Countries", in Rapid Population Growth: Consequences and Policy Implications, Vol.II, Research Papers, Published for the National Academy of Sciences by John Hopkins Press, Baltimore, 1971, p.308.

2. Costa, Manuel Augusto. "Política de Migrações Internas", in Migrações Internas no Brasil. Rio de Janeiro, IPEA/INPES, 1971, pp. 95-99.

3. Brasil. Ministério do Interior. II Plano Nacional ..... , p.68.

4. IBRD, Rural Development Issues ..... , p.121.

5. VEJA, April 2, 1978. p.89.

6. It has been estimated that a 100% increase in capital investment in the Northeastern industrial sector between 1960 and 1967 had provoked an increment of only 15% in employment. Castro, Antônio B., op.cit., p. 204.

7. One example is GEIDA's justification for its irrigation programme, which was expected to reduce rural-urban migration and reduce the pressure on the heavily inflated tertiary sector. Brasil. Ministério do Interior/GEIDA, op.cit., pp.6-9; another example is the assertion made by the Brazilian Minister of Planning, Reis Velloso, that one of the government's motives for constructing the Trans-Amazon Highway and in settling the interior was to dissipate the concentration of hundreds of thousands of under-employed and impoverished people in the Northeast. Velloso, J.P. dos Reis. "A Estratégia de Desenvolvimento e o Programa de Integração Nacional". Revista do Serviço Público, 105, May-August 1970, pp.20-25.

8. Duarte, João Carlos. Aspectos da Distribuição da Renda no Brasil em 1970. Piracicaba, unpublished Master's thesis presented to the Escola Superior de Agronomia Luis de Queiroz, 1971, pp.41-43.

9. FIBGE. Brésil d'Aujourd'hui. Rio de Janeiro, 1956, p.5.

10. Ibidem

11. Baer, Werner and Villela, Anibal V. "Industrial Growth and Industrialization: Revision in the Stages of Brazil's Economic Development". The Journal of Developing Areas, January 1973, p.223.

12. Rattner, Henrique. Localização da Indústria e Concentração Econômica em São Paulo. Rio de Janeiro, Fundação Getúlio Vargas, 1972, p.46.

13. Ibidem

14. IBRD. Rural Development Issues .... p.XII

15. Idem, p.137.

16. For more detailed analysis of Brazil and São Paulo's industrialization see, inter allii: Furtado, Celso M., op.cit., Baer, Werner. Industrialization and Economic Development in Brazil. Homewood, Illinois, Richard D. Irwin Inc., 1965; Dean, Warren. The Industrialization of São Paulo, 1880-1945, Austin and London, University of Texas Press, 1969.

17. Inter allii : Hance, William A. Population, Migration and Urbanization in Africa. New York and London, Columbia University Press, 1970, pp.186-88; ILO. Why Labour Leaves the Land - A Comparative Study. Geneva, 1959, No. 59; Sen, S.N. The City of Calcutta: a Socio-Economic Survey, 1954-55 to 1957-58. Calcutta, Bookland, 1960, pp.209-10; Singh, Tarlok. India's Development Experience. London, Macmillan, 1974, p.101.

18. Browning, Harley L. op.cit., p.281; Hance, William A., op.cit., p.386; Franda, Marcus F. "Introduction and Summary of the Conference", in Franda, M.F., editor, Responses to Population Growth in India: Changes in Sociological, Political and Economic Behaviour. New York, Praeger Publisher, 1975, pp.9-10; Prothero, R. Mansell. "Migration in Tropical Africa", in Caldwell, John C. and Okonjo, Chukuka, editors. The Population of Tropical Africa. London, Longmans, 1968, pp.250-61.

19. For example: Aldous, Joan. "Urbanization, the Extended Family and Kinship Ties in West Africa", in Pierre Van der Berghe, editor. Africa: Social Problems of Change and Conflict. San Francisco, Chandler Publishing Co., 1965, pp.115-16; Caldwell, John C. African Rural-Urban Migration. Canberra, Australian University Press, 1969, p.130; Reserve Bank of India. Survey of Small Units in Hawrah, 1964, pp.36,89; Sen, S.N., op.cit., pp. 76-78; Balán, Jorge et.al. Men in a Developing Society: Geographic and Social Mobility in Monterrey, Mexico. Austin, Texas, University of Texas Press, 1973, p.169.

20. As explained by Browning, Harley L. op.cit., pp.285-86.

21. As observed earlier, by concentrating our survey on slum bairros, we may have created a bias in our sample, which failed to include the resident female servants of middle class suburbs. For a discussion on the sex specificity of the migrant population in developing areas, see Browning, Harley L. op.cit., pp. 286-88. A brief interpretation of the educational level and skill of urban immigrants in Africa is found in Hance, William A. op.cit., p.294; in India, a similar assessment was made by Bogue, Donald J. and Zachariah, K.C. "Urbanization and Migration in India", in Turner, Roy, editor. India's Urban Future. Berkeley and Los Angeles, University of California Press, 1962, pp.29-36.

22. A summary of the ILO's findings for these countries is to be found in Lubell, Harold, "Urban Development and Employment: The Third World Metropolis". International Labour Review, 117 (6), 1978, pp.747-56.

23. King, Kenneth J. The African Artisan: Education and the Informal Sector in Kenya. London, Heinemann, 1977, pp.114-18; Roberts, Bryan R. Organizing Strangers: Poor Families in Guatemala City. Austin, Texas, University of Texas Press, 1973, pp.141-42.

24. Lloyd, Peter. Slums of Hope? Shanty Towns of the Third World. Harmondsworth, Penguin Books Ltd., 1979, pp.150-55.

25. Browning, Harley L., op.cit., p.301; Zachariah, K.C. "Bombay Migration Study: A Pilot Analysis of Migration to an Asian Metropolis". Demography, 3 (2), 1966, p.388.

26. See, for example: Singh, Tarlok, op.cit., p.102; Pernia, Ernesto del Mar. Urbanization, Population Growth and Economic Development in the Philippines. London, Greenwood Press, 1977, pp.116-17; Balán, Jorge. "Migrant-Native Socioeconomic Differences in Latin American Cities: a Structural Analysis". Latin American Research Review, 4 (1), 1969, pp.3-29.

27. Turnham, David. "Empirical Evidence of Open Unemployment in Developing Countries", in Jolly, Richard et.al. editors, Third World Employment - Problems and Strategy. London, Cox and Wyman Ltd., 1973, p.52.

28. The data for Tanzania is taken from Todaro, Michael P. "Income Expectations, Rural-Urban Migration and Employment in Africa", in Jolly, Richard et.al., op.cit., p.95; The figures for Ghana Ceylon and the Philippines are from Turnham, David, op.cit., pp. 45-47; For Colombia, from ILO. Towards Full Employment. Geneva, 1970, p.18; The information on Calcutta is from Lubell, Harold. Urban Development and Employment, The Prospects for Calcutta. International Labour Office, Geneva, 1974, p.95.

29. The data for Latin America is from Touraine, Alain. Les Sociétés Dependentes. Paris, Duculot, 1976, p.120; For India, Singh, Tarlok, op.cit., p.102.

30. Turnham, David. "The Definition and Measurement of Unemployment in Developing Countries" in OECD. The Challenge of Unemployment...., p.56.

31. Approximately 30% in 1970. Governo do Estado de Pernambuco - FIDEM, op.cit., p.37.

32. The total population increase in Recife's metropolitan area during the 1960-70 period was 47%. The natural increase represented 53% of this increment and the immigrant contingent contributed the remaining 47%. Idem, pp.10-15.

33. See Rosenstein-Rodan, Paul. "Problems of Industrialization of Eastern and South-Eastern Europe", in Agarwala, A.N. and Singh, S.P. editors. The Economics of Underdevelopment, London, Oxford University Press, 1958, pp.245-55.

34. Brazil's president for the six-year term starting on March 15, 1979, General João Baptista Figueiredo, has promised to stimulate agro-industries because they are a "viable and intelligent solution to alleviate the pressure of migrants on the structure of services in the cities". Folha de S. Paulo, January 20, 1979, p.5.

35. GTDN, op.cit., pp.12, 61.

36. Idem, pp.9-10.

37. These authors suggest that a policy of wage increase in urban areas can be effective only if combined with physical restrictions on rural-urban migration. Harris, John H. and Todaro, Michael P. "Migration, Unemployment and Development: a Two-Sector Analysis". The American Economic Review, 15, March 1970, pp.135-38.

38. For example, SUDENE's calculation of 2 million surplus families, as mentioned in Chapter I. Another calculation established a surplus of 2,6 million families. VEJA, February 7, 1973, p.63.

39. GTDN, op.cit., pp.72 ff

40. ILO. Employment, Income and Equality ....., pp.223-32, 529 ff; PREALC. Sector Informal - Funcionamiento y Política, Santiago, Chile, International Labour Office, 1978, pp.18-24.

41. O Estado de S.Paulo, January 16, 1960, p.5.

APPENDIX

TABLE IA

Tertiary Occupation by Aggregate Categories in Recife, Caruaru and Petrolina - 1970

Category of Tertiary Occupation	Recife		Caruaru		Petrolina	
	'000	%	'000	%	'000	%
Merchandise Trade *	46.6	19.1	6.8	29.8	1.6	25.0
Personal and Domestic Services **	84.1	34.4	7.9	34.6	1.9	29.7
Transport and Communication	23.2	9.5	2.5	11.0	1.0	15.6
Social Activities ***	29.7	12.2	2.2	9.6	0.8	12.5
Public Administration	31.9	13.0	1.4	6.2	0.6	9.4
Others	28.8	11.8	2.0	8.8	0.5	7.8
Total	244.3	100.0	22.8	100.0	6.4	100.0

Source: FIBGE. Censo Demográfico - 1970.

* Includes occupations such as clerks, peddlers, butchers, delivery-men, etc.

** Maids, dressmakers, embroiderers, cooks, tailors, barbers, etc.

*** Nurses, teachers, street cleaners, etc.

TABLE IIA

Income and Population Distribution by Levels of

Monthly Per Capita Income in Recife, Caruaru and Petrolina/Juazeiro

Levels of Monthly Per Capita Income Cr$	Recife (1967)		Caruaru (1968)		Petrolina/Juazeiro (1968)	
	Income (%)	Population (%)	Income (%)	Population (%)	Income (%)	Population (%)
0 - 10	0.9	7.6	1.6	11.7	0.9	6.8
10 - 20	5.1	20.3	9.2	25.8	5.9	21.3
20 - 40	13.5	27.8	15.0	25.9	17.1	32.2
40 - 80	21.0	22.2	23.5	20.6	23.3	22.6
80 - 160	27.8	14.8	25.8	11.9	26.1	12.3
160 - 240	14.8	4.4	7.0	1.8	10.0	2.9
240 - 400	13.7	2.6	9.3	1.6	6.2	1.1
400 - 640	3.2	0.3	8.6	0.7	10.5	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: BNB - ETENE. Consumo de Produtos Industriais - Cidade de Recife (1968, p.24); Cidade de Caruaru (1969, p.19); Cidades de Petrolina/Juazeiro (Mimeo, p.4).

TABLE IIIA

Time Neccessary to Find the First Occupation, by Age

Recife

Age Groups	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 14	10	26.3	5	12.2	5	17.8	5	33.2	22	37.2	7	41.2
15 - 19	11	28.8	13	31.7	8	28.6	4	26.7	15	25.4	4	23.5
20 - 24	5	13.2	9	22.0	6	21.4	4	26.7	8	13.6	3	17.6
25 - 29	2	5.3	7	17.1	1	3.6	0	0.0	6	10.2	2	11.8
30 - 34	2	5.3	3	7.2	4	14.3	0	0.0	3	5.1	0	0.0
35 - 39	2	5.3	4	9.8	3	10.7	1	6.7	3	5.1	1	5.9
Over 40	6	15.8	0	0.0	1	3.6	1	6.7	2	3.4	0	0.0
Total	38	100.00	41	100.0	28	100.0	15	100.0	59	100.0	17	100.0

TABLE IVA

Time Necessary to Find the First Occupation, by Age

Caruaru

Age Groups	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 14	4	30.7	1	8.3	1	7.1	4	30.7	9	45.0	4	66.6
15 - 19	2	15.4	1	8.3	2	14.2	3	23.1	4	20.0	1	16.7
20 - 24	2	15.4	4	33.3	3	21.6	1	7.7	1	5.0	0	0.0
25 - 29	3	23.1	2	16.8	2	14.2	1	7.7	2	10.0	0	0.0
30 - 34	0	0.0	3	25.0	2	14.2	1	7.7	2	10.0	0	0.0
35 - 39	1	7.7	1	8.3	1	7.1	1	7.7	0	0.0	0	0.0
Over 40	1	7.7	0	0.0	3	21.6	2	15.4	2	10.0	1	16.7
Total	13	100.0	12	100.0	14	100.0	13	100.0	20	100.0	6	100.0

TABLE VA

Time Necessary to Find the First Occupation, by Age

Petrolina

Age Groups	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 14	1	6.7	1	6.2	3	15.8	0	0.0	5	35.7	2	66.7
15 - 19	1	6.7	3	18.8	5	26.2	2	16.7	3	21.5	0	0.0
20 - 24	1	6.7	5	31.3	3	15.8	4	33.3	3	21.5	1	33.3
25 - 29	4	26.7	3	18.8	1	5.3	1	8.3	1	7.1	0	0.0
30 - 34	3	20.0	1	6.2	3	15.8	2	16.7	1	7.1	0	0.0
35 - 39	3	20.0	1	6.2	3	15.8	2	16.7	0	0.0	0	0.0
Over 40	2	13.2	2	12.5	1	5.3	1	8.3	1	7.1	0	0.0
Total	15	100.0	16	100.0	19	100.0	12	100.0	14	100.0	3	100.0

TABLE VIA

Time Necessary to Find the First Occupation, by Educational Level

Recife

Educational Level	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Illiterate	13	34.2	15	36.6	11	39.3	2	13.2	15	25.4	6	35.3
Literate	2	5.3	3	7.3	2	7.1	1	6.7	2	3.4	0	0.0
Incomplete Primary	2	5.3	3	7.3	2	7.1	1	6.7	2	3.4	0	0.0
Primary	17	44.7	19	46.3	11	39.3	9	60.0	31	52.5	9	52.9
Secondary	3	7.9	1	2.5	1	3.6	1	6.7	7	11.9	2	11.8
Teacher	0	0.0	0	0.0	0	0.0	1	6.7	0	0.0	0	0.0
Professional Training	0	0.0	0	0.0	0	0.0	0	0.0	2	3.4	0	0.0
Accounting	1	2.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
University	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	38	100.0	41	100.0	28	100.0	15	100.0	59	100.0	17	100.0

TABLE VIIA

Time Necessary to Find the First Occupation, by Educational Level

Caruaru

Educational Level	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Illiterate	5	38.5	5	41.7	7	50.0	4	30.8	5	25.0	3	50.0
Literate	2	15.4	2	16.7	1	7.1	1	7.7	2	10.0	2	33.3
Incomplete Primary	1	7.7	2	16.7	0	0.0	1	7.7	2	10.0	0	0.0
Primary	5	38.5	3	25.0	5	35.7	7	53.8	10	50.0	1	16.7
Secondary	0	0.0	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0
Teacher	0	0.0	0	0.0	1	7.1	0	0.0	0	0.0	0	0.0
Professional Training	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Accounting	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
University	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	13	100.0	12	100.0	14	100.0	13	100.0	20	100.0	6	100.0

TABLE VIIIA

Time Necessary to Find the First Occupation, by Educational Level

Petrolina

Educational Level	Job Assured		Under 1 Week		1 Week - 1 Month		1 - 3 Months		4 - 6 Months		Over 6 Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Illiterate	3	20.0	4	25.0	4	21.1	4	33.3	2	14.3	1	33.3
Literate	1	6.7	0	0.0	1	5.3	0	0.0	0	0.0	0	0.0
Incomplete Primary	1	6.7	3	18.8	5	26.3	1	8.4	2	14.3	0	0.0
Primary	8	53.3	8	50.0	8	42.0	7	58.3	8	57.2	1	33.3
Secondary	2	13.3	1	6.2	1	5.3	0	0.0	1	7.1	1	33.3
Teacher	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Professional Training	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Accounting	0	0.0	0	0.0	0	0.0	0	0.0	1	7.1	0	0.0
University	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	15	100.0	16	100.0	19	100.0	12	100.0	14	100.0	3	100.0

TABLE IXA

First Occupation, by Occupational Status

Recife

	Employee		Self-employed	
	No.	%	No.	%
Maid	21	14.9	0	0.0
Washer Woman	11	7.8	5	9.3
Mason	12	8.5	2	3.6
Retailer	0	0.0	10	17.9
Shop Assistant	6	4.3	3	5.4
Dressmaker	3	2.1	6	10.7
Nanny	8	5.7	0	0.0
Workman	7	5.0	0	0.0
Stevedor	3	2.1	3	5.4
Delivery Man	5	3.5	0	0.0
Watchman	6	4.3	0	0.0
Hod Carrier	3	2.1	2	3.6
Cook	4	2.8	0	0.0
Tailor	3	2.1	1	1.8
Joiner	1	0.7	2	3.6
Peddler	0	0.0	3	5.4
Retail Assistant	3	2.1	0	0.0
Charcoal Seller *	1	0.7	1	1.8
Mechanic	2	1.4	1	1.8
Packer	3	2.1	0	0.0
Charwoman	3	2.1	0	0.0
Water Carrier	2	1.4	1	1.8
Boot Black	0	0.0	2	3.6
Driver	0	0.0	2	3.6
Soldier	2	1.4	0	0.0
Sweet Seller	1	0.7	1	1.8
Nurse	1	0.7	1	1.8
Green Grocer	1	0.7	1	1.8
Seller of Trinkets	1	0.7	1	1.8
Snack Seller	0	0.0	2	3.6
Weaver	2	1.4	0	0.0
Artisan	1	0.7	1	1.8
Solderer	2	1.4	0	0.0
Errand Boy	1	0.7	0	0.0
Electrician	0	0.0	1	1.8
Plumber	1	0.7	0	0.0
Teacher	1	0.7	0	0.0
Street Cleaner	1	0.7	0	0.0
Car Washer	0	0.0	1	1.8
Ice Cream Seller	1	0.7	0	0.0
Odd Job Man	0	0.0	1	1.8
Shoe Maker	0	0.0	1	1.8
Baker	1	0.7	0	0.0
Foreman	1	0.7	0	0.0
Money Collector	1	0.7	0	0.0
Waiter	1	0.7	0	0.0
Painter	0	0.0	1	1.8
Caretaker	1	0.7	0	0.0

cont/....

cont'd....

TABLE IXA

	Employee		Self-employed	
	No.	%	No.	%
Receptionist	1	0.7	0	0.0
Seamstress	1	0.7	0	0.0
Sheet Metal Worker	1	0.7	0	0.0
Sales Manager	1	0.7	0	0.0
Writing Clerk	1	0.7	0	0.0
Gardener	1	0.7	0	0.0
Greaser	1	0.7	0	0.0
Agriculturalist	1	0.7	0	0.0
Carter	1	0.7	0	0.0
Book-keeper	1	0.7	0	0.0
Sanitary Worker	1	0.7	0	0.0
Canning Factory Worker	1	0.7	0	0.0
Piano Tuner	1	0.7	0	0.0
Total	141	100.0	56	100.0

* Includes 1 employer.

TABLE XA

First Occupation, by Occupational Status

Caruaru

	Employee		Self-employed	
	No.	%	No.	%
Mason	5	10.2	4	14.3
Dressmaker	2	4.1	6	21.4
Retailer	0	0.0	7	25.0
Workman	6	12.2	0	0.0
Stevedor	1	2.0	3	10.7
Maid	4	8.2	0	0.0
Washer Woman	2	4.1	1	3.6
Agriculturalist	1	2.0	2	7.1
Brickmaker	3	6.1	0	0.0
Teacher	2	4.1	0	0.0
Retail Assistant	2	4.1	0	0.0
Mechanic	2	4.1	0.	0.0
Water Carrier	1	2.0	0	0.0
Shop Assistant	1	2.0	0	0.0
Joiner	1	2.0	0	0.0
Watchman	1	2.0	0	0.0
Errand Boy	1	2.0	0	0.0
Peddler	0	0.0	1	3.6
Electrician	1	2.0	0	0.0
Delivery Man	1	2.0	0	0.0
Embroiderer	0	0.0	1	3.6
Soldier	1	2.0	0	0.0
Cook	1	2.0	0	0.0
Sweet Seller	0	0.0	1	3.6
Nanny	1	2.0	0	0.0
Shoe Maker	1	2.0	0	0.0
Baker	1	2.0	0	0.0
Packer	1	2.0	0	0.0
Waiter	1	2.0	0	0.0
Sheet Metal Worker	1	2.0	0	0.0
Tyre Repairer	1	2.0	0	0.0
Artisan	0	0.0	1	3.6
Brickmaker	1	2.0	0	0.0
Cobbler	1	2.0	0	0.0
Small Hotel Owner *	0	0.0	0	0.0
General Salesman	0	0.0	1	0.0
Garment Knitter	1	2.0	0	0.0
Total	49	100.0	28	100.0

* Employer

TABLE XIA

First Occupation, by Occupational Status

Petrolina

	Employee		Self-employed	
	No.	%	No.	%
Mason	9	19.6	4	12.5
Mechanic	4	8.7	3	9.4
Workman	6	13.0	1	3.1
Joiner	1	2.2	3	9.4
Dressmaker	1	2.2	2	6.3
Washer Woman	1	2.2	2	6.3
Soldier	3	6.5	0	0.0
Stevedor	2	4.3	1	3.1
Retailer	0	0.0	2	6.3
Carpenter	2	4.3	0	0.0
Ice Cream Seller	2	4.3	0	0.0
Caretaker	2	4.3	0	0.0
Maid	2	4.3	0	0.0
Artisan	1	2.2	1	3.1
Carter	0	0.0	2	6.3
Driver	1	2.2	0	0.0
Delivery Man	1	2.2	0	0.0
Plumber	0	0.0	1	3.1
Sweet Seller	0	0.0	1	3.1
Hod Carrier	1	2.2	0	0.0
Car Washer	0	0.0	1	3.1
Assistant	1	2.2	0	0.0
Small Trader	0	0.0	1	3.1
Painter	0	0.0	1	3.1
Digger	0	0.0	1	3.1
Snack Seller	0	0.0	1	3.1
Clothes Seller	0	0.0	1	3.1
Sheet Metal Worker	1	2.2	0	0.0
Cigar Seller	0	0.0	1	3.1
Shoe Maker	1	2.2	0	0.0
Machine Presser	1	2.2	0	0.0
Presser	1	2.2	0	0.0
Slaughter Man	0	0.0	1	3.1
Brickmaker	1	2.2	0	0.0
Stone Breaker	0	0.0	1	3.1
Sanitary Inspector	1	2.2	0	0.0
Retail Assistant	1	2.2	0	0.0
Total	47	100.0	32	100.0

TABLE XIIA

Degree of Job Security by Occupational Status

Recife

	Employee		Employer		Self-employed	
	No.	%	No.	%	No.	%
Formal Contract of Employment	31	22.0	0	0.0	0	0.0
Affiliated to the National Insurance System	0	0.0	0	0.0	4	7.1
No Stability	110	78.0	1	100.0	52*	92.9
Total	141	100.0	1	100.0	56	100.0

Caruaru

	Employee		Employer		Self-employed	
	No.	%	No.	%	No.	%
Formal Contract of Employment	6	12.2	0	0.0	0	0.0
Affiliated to the National Insurance System	1	2.0	0	0.0	0	0.0
No Stability	42	85.8	1	100.0	28	100.0
Total	49	100.0	1	100.0	28	100.0

Petrolina

	Employee		Employer		Self-employed	
	No.	%	No.	%	No.	%
Formal Contract of Employment	16	34.0	0	0.0	0	0.0
Affiliated to the National Insurance System	3	6.4	0	0.0	0	0.0
No Stability	28	59.6	0	0.0	32	100.0
Total	47	100.0	0	0.0	32	100.0

* Includes 4 helpers in family concerns.

TABLE XIIIA

Degree of Job Security, by Age

Recife

Age Groups	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Under 15	0	0.0	0	0.0	35	21.5
15 - 19	10	32.3	1	25.0	47	28.8
20 - 24	6	19.4	1	25.0	31	19.0
25 - 29	5	16.0	0	0.0	18	11.0
30 - 34	4	13.0	0	0.0	10	6.1
35 - 39	3	9.7	0	0.0	12	7.4
40 - 44	1	3.2	1	25.0	5	3.1
Over 44	2	6.4	1	25.0	5	3.1
Total	31	100.0	4	100.0	163	100.0

TABLE XIVA

Degree of Job Security, by Age

Caruaru

Age Groups	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Under 15	0	0.0	0	0.0	16	22.5
15 - 19	2	33.2	0	0.0	12	16.9
20 - 24	1	16.7	0	0.0	11	15.5
25 - 29	1	16.7	1	100.0	9	12.7
30 - 34	1	16.7	0	0.0	8	11.3
35 - 39	1	16.7	0	0.0	4	5.6
40 - 44	0	0.0	0	0.0	6	8.5
Over 44	0	0.0	0	0.0	5	7.0
Total	6	100.0	1	100.0	71	100.0

TABLE XVA

Degree of Job Security, by Age

Petrolina

Age Groups	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Under 15	0	0.0	0	0.0	9	15.0
15 - 19	4	25.0	0	0.0	8	13.3
20 - 24	3	18.8	2	66.7	12	20.0
25 - 29	4	25.0	0	0.0	7	11.7
30 - 34	3	18.8	1	33.3	6	10.0
35 - 39	1	6.2	0	0.0	10	16.6
40 - 44	0	0.0	0	0.0	4	6.7
Over 44	1	6.2	0	0.0	4	6.7
Total	16	100.0	3	100.0	60	100.0

TABLE XVIA

Degree of Working Stability, by Educational Level

Recife

	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Illiterate	6	20.0	0	0.0	56	34.1
Literate	0	0.0	0	0.0	10	6.1
Incomplete Primary	1	3.3	0	0.0	9	5.5
Primary	17	56.7	1	25.0	78	47.6
Secondary	4	13.3	3	75.0	8	4.9
Teacher	0	0.0	0	0.0	1	0.6
Professional Training	2	6.7	0	0.0	0	0.0
Accounting	0	0.0	0	0.0	1	0.6
University	0	0.0	0	0.0	0	0.0
Total	30	100.0	4	100.0	164	100.0

TABLE XVIIA

Degree of Working Stability, by Educational Level

Caruaru

	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Illiterate	1	16.7	0	0.0	28	39.4
Literate	1	16.7	1	100.0	8	11.2
Incomplete Primary	0	0.0	0	0.0	6	8.6
Primary	3	50.0	0	0.0	28	39.4
Secondary	0	0.0	0	0.0	1	1.4
Teacher	1	16.7	0	0.0	0	0.0
Professional Training	0	0.0	0	0.0	0	0.0
Accounting	0	0.0	0	0.0	0	0.0
University	0	0.0	0	0.0	0	0.0
Total	6	100.0	1	100.0	71	0.0

TABLE XVIIIA

Degree of Working Stability, by Educational Level

Petrolina

	Formal Contract of Employment		Affiliated to the National Insurance System		No Stability	
	No.	%	No.	%	No.	%
Illiterate	2	12.5	1	33.3	15	25.0
Literate	0	0.0	0	0.0	2	3.3
Incomplete Primary	2	12.5	2	66.7	8	13.3
Primary	10	62.5	0	0.0	30	50.0
Secondary	2	12.5	0	0.0	4	6.7
Teacher	0	0.0	0	0.0	0	0.0
Professional Training	0	0.0	0	0.0	0	0.0
Accounting	0	0.0	0	0.0	1	1.7
University	0	0.0	0	0.0	0	0.0
Total	16	100.0	3	100.0	60	100.0

TABLE XIXA

Educational Level and Origin

Recife

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Illiterate	53	33.6	7	17.1	30	12.5	90	20.6
Literate	12	7.6	0	0.0	6	2.5	18	4.1
Incomplete Primary	6	3.8	4	9.7	6	2.5	16	3.6
Primary	77	48.8	20	48.8	129	53.8	226	51.5
Secondary	7	4.4	9	22.0	50	20.8	66	15.0
Teacher	1	0.6	0	0.0	4	1.7	5	1.1
Professional Training	1	0.6	1	2.4	10	4.2	12	2.7
Accounting	1	0.6	0	0.0	2	0.8	3	0.7
University	0	0.0	0	0.0	2	0.8	2	0.5
Others	0	0.0	0	0.0	1	0.4	1	0.2
Total	158	100.0	41	100.0	240	100.0	439	100.0

TABLE XXA

Educational Level and Origin

Caruaru

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Illiterate	23	43.4	5	19.2	9	22.5	37	31.1
Literate	6	11.3	4	15.4	4	10.0	14	11.8
Incomplete Primary	2	3.8	4	15.3	1	2.5	7	5.9
Primary	19	35.8	12	46.2	15	37.5	46	38.7
Secondary	2	3.8	1	3.8	9	22.5	12	10.0
Teacher	1	1.9	0	0.0	0	0.0	1	0.8
Professional Training	0	0.0	0	0.0	2	5.0	2	1.7
Accounting	0	0.0	0	0.0	0	0.0	0	0.0
University	0	0.0	0	0.0	0	0.0	0	0.0
Total	53	100.0	26	100.0	40	100.0	119	100.0

TABLE XXIA

Educational Level and Origin

Petrolina

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Illiterate	7	25.0	11	20.0	2	11.8	20	20.0
Literate	1	3.6	1	1.8	1	5.9	3	3.0
Incomplete Primary	4	14.2	7	12.7	0	0.0	11	11.0
Primary	14	50.0	30	54.5	11	64.7	55	55.0
Secondary	1	3.6	5	9.0	3	17.6	9	9.0
Teacher	0	0.0	0	0.0	0	0.0	0	0.0
Professional Training	0	0.0	1	1.8	0	0.0	1	1.0
Accounting	1	3.6	0	0.0	0	0.0	1	1.0
University	0	0.0	0	0.0	0	0.0	0	0.0
Total	28	100.0	55	100.0	17	100.0	100	100.0

TABLE XXIIA

Age by Origin and Occupational Status

Recife

Age Groups	Old Migrant				Recent Migrant*				Non-Migrant**				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15 - 19	1	1.3	0	0.0	3	13.0	0	0.0	25	19.6	7	10.7	29	12.6	7	5.0
20 - 24	7	8.8	1	1.6	8	34.8	2	14.3	26	20.3	11	16.9	41	17.7	14	9.9
25 - 29	8	10.0	6	9.7	4	17.4	4	28.6	16	12.5	5	7.7	28	12.1	15	10.6
30 - 34	11	13.8	8	12.9	1	4.3	1	7.1	15	11.7	12	18.5	27	11.7	21	14.9
35 - 39	13	16.3	8	12.9	1	4.3	3	21.4	18	14.1	6	9.2	32	13.9	17	12.2
40 - 44	7	8.8	9	14.5	2	8.7	0	0.0	14	10.9	4	6.1	23	10.0	13	9.2
45 - 49	8	10.0	6	9.7	1	4.3	1	7.1	6	4.7	5	7.9	15	6.5	12	8.5
50 - 54	12	15.0	6	9.7	0	0.0	2	14.3	4	3.1	8	12.3	16	6.8	16	11.3
Over 54	13	16.3	18	29.0	3	13.0	1	7.1	4	3.1	7	10.7	20	8.7	26	18.4
Total	80	100.0	62	100.0	23	100.0	14	100.0	128	100.0	65	100.0	231	100.0	141	100.0

* Includes two employers in the 25-29 years age group.

** Includes one employer in the 30-34 years age group.

TABLE XXIIIA

Age by Origin and Occupational Status

Caruaru

Age Groups	Old Migrant*				Recent Migrant**				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15 - 19	1	4.8	0	0.0	3	42.9	1	9.1	6	31.6	1	7.7	10	21.3	2	4.1
20 - 24	1	4.8	1	4.0	1	14.3	3	27.3	3	15.8	3	23.1	5	10.6	7	14.3
25 - 29	1	4.8	1	4.0	1	14.3	1	9.1	1	5.3	1	7.7	3	6.4	3	6.1
30 - 34	3	14.3	3	12.0	0	0.0	2	18.2	2	10.5	1	7.7	5	10.6	6	12.2
35 - 39	4	19.0	4	16.0	1	14.3	1	9.1	0	0.0	3	23.1	5	10.6	8	16.3
40 - 44	7	33.3	2	8.0	1	14.3	1	9.1	2	10.5	0	0.0	10	21.3	3	6.1
45 - 49	2	9.5	2	8.0	0	0.0	0	0.0	3	15.8	1	7.7	5	10.6	3	6.1
50 - 54	0	0.0	4	16.0	0	0.0	0	0.0	1	5.3	0	0.0	1	2.2	4	8.2
Over 54	2	9.5	8	32.0	0	0.0	2	18.2	1	5.3	3	23.1	3	6.4	13	26.6
Total	21	100.0	25	100.0	7	100.0	11	100.0	19	100.0	13	100.0	47	100.0	49	100.0

* Includes one employer in the 45-49 years age group.

** Includes one employer over 54 years of age.

TABLE XXIVA

Age by Origin and Occupational Status

Petrolina

Age Groups	Old Migrant				Recent Migrant*				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15 - 19	0	0.0	0	0.0	2	7.8	1	4.8	4	57.1	1	16.7	6	12.8	2	5.0
20 - 24	1	7.1	1	7.7	4	15.4	1	4.8	0	0.0	1	16.7	5	10.6	3	7.5
25 - 29	6	42.9	2	15.4	7	26.8	6	28.6	1	14.3	1	16.7	14	29.8	9	22.5
30 - 34	1	7.1	0	0.0	7	26.8	2	9.5	0	0.0	2	33.2	8	17.0	4	10.0
35 - 39	1	7.1	4	30.8	2	7.8	1	4.8	0	0.0	0	0.0	3	6.4	5	12.5
40 - 44	0	0.0	0	0.0	1	3.8	3	14.2	0	0.0	1	16.7	1	2.1	4	10.0
45 - 49	2	14.3	3	23.1	2	7.8	5	23.7	1	14.3	0	0.0	5	10.6	8	20.0
50 - 54	1	7.1	2	15.4	1	3.8	1	4.8	0	0.0	0	0.0	2	4.3	3	7.5
Over 54	2	14.3	1	7.7	0	0.0	1	4.8	1	14.3	0	0.0	3	6.4	2	5.0
Total	14	100.0	13	100.0	26	100.0	21	100.0	7	100.0	6	100.0	47	100.0	40	100.0

*Includes two employers, one in the 20-24 years age group and the other in the 40-44 years age group.

TABLE XXVA

Weekly Earnings by Origin and Occupational Status

Recife

Earnings Cruzeiros	Old Migrant				Recent Migrant*				Non-Migrant**				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 049	12	15.0	19	30.6	6	26.1	4	28.6	23	18.0	18	27.7	41	17.8	41	29.1
050 - 100	34	42.5	27	43.6	14	60.9	7	50.0	60	46.8	28	43.1	108	46.8	62	44.0
101 - 200	29	36.1	13	21.0	2	8.7	2	14.3	34	26.6	16	24.6	65	28.1	31	22.0
201 - 300	3	3.8	2	3.2	1	4.3	1	7.1	8	6.3	1	1.5	12	5.2	4	2.8
301 - 400	1	1.3	1	1.6	0	0.0	0	0.0	1	0.8	0	0.0	2	0.9	1	0.7
Over 400	1	1.3	0	0.0	0	0.0	0	0.0	2	1.5	2	3.1	3	1.2	2	1.4
Total	80	100.0	62	100.0	23	100.0	14	100.0	128	100.0	65	100.0	231	100.0	141	100.0

*Includes two employers, one in the 101-200 cruzeiros category and one in the 901-999 cruzeiros category.

**Includes two employers, one in the 050-100 cruzeiros category and one in the category 401-500 cruzeiros.

TABLE XXVIA

Weekly Earnings by Origin and Occupational Status

Caruaru

Earnings Cruzeiros	Old Migrant*				Recent Migrant**				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 049	6	28.6	13	52.0	3	42.9	4	36.4	7	36.8	3	23.1	16	34.0	20	40.8
050 - 100	14	66.7	8	32.0	4	57.1	4	36.4	11	57.9	6	46.1	29	61.7	18	36.8
101 - 200	1	4.7	3	12.0	0	0.0	3	27.2	1	5.3	3	23.1	2	4.3	9	18.4
201 - 300	0	0.0	1	4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.0
301 - 400	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Over 400	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	0	0.0	1	2.0
Total	21	100.0	25	100.0	7	100.0	11	100.0	19	100.0	13	100.0	47	100.0	49	100.0

* Includes one employer in the 301-400 cruzeiros category.

** Includes one employer in the 050-100 cruzeiros category.

TABLE XXVIIA

Weekly Earnings by Origin and Occupation Status

Petrolina

Earnings Cruzeiros	Old Migrant				Recent Migrant*				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 049	1	7.1	4	30.8	1	4.0	9	45.0	2	28.6	2	33.3	4	8.7	15	38.5
050 - 100	7	50.0	4	30.8	16	64.0	6	30.0	4	57.1	1	16.7	27	58.7	11	28.2
101 - 200	6	42.9	3	23.1	8	32.0	1	5.0	1	14.3	3	50.0	15	32.6	7	17.9
201 - 300	0	0.0	1	7.7	0	0.0	2	10.0	0	0.0	0	0.0	0	0.0	3	7.7
301 - 400	0	0.0	1	7.7	0	0.0	2	10.0	0	0.0	0	0.0	0	0.0	3	7.7
Over 400	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	14	100.0	13	100.0	25	100.0	20	100.0	7	100.0	6	100.0	46	100.0	39	100.0

* Includes two employers in the Under 049 cruzeiros category.

TABLE XXVIIIA

Old Migrants' Weekly Average Earnings

and Average Normal Earnings in Cruzeiros

Recife

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c)= (a):(b)
Washerwoman	23	27,00	45,00	60.0
Driver	9	169,00	253,00	66.8
Mason	9	95,00	162,00	58.6
Dressmaker	9	57,00	68,00	83.8
Watchman	7	108,00	115,00	94.0
Retailer	5	360,00	340,00	105.8
Hod Carrier	4	90,00	83,00	108.4
Odd Job Man	4	125,00	75,00	166.7
Peddler	4	95,00	165,00	57.6
Manicurist	3	36,00	60,00	60.0
Painter	3	128,00	253,00	50.6
Errand Boy	2	95,00	219,00	43.4
Delivery Man	2	58,00	80,00	72.5
Charcoal Seller	2	110,00	50,00	220.0
Packer	2	90,00	350,00	25.7
Caretaker	2	125,00	98,00	127.6
Fountain Keeper	2	70,00	88,00	79.5
Watch Repairer	2	85,00	250,00	34.0
Workman	2	55,00	95,00	57.9
Sales Manager	2	325,00	588,00	55.3
Port Worker	2	122,00	192,00	63.5
Administrative Assistant	2	100,00	150,00	66.7
Shop Assistant	2	85,00	*	
Joiner	2	100.00	60,00	166.6
Electrician	1	200,00	*	
Boot Black	1	31,00	40,00	77.5

Cont/...

Contd/... (Recife)

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Carpenter	1	105,00	200,00	52.5
Embroiderer	1	175,00	325,00	53.8
Plumber	1	75,00	250,00	30.0
Teacher	1	187,00	160,00	117.0
Sweet Seller	1	40,00	*	
Civil Servant	1	130,00	500,00	26.0
Car Washer	1	50,00	50,00	100.0
Cook	1	37,00	75,00	49.3
Typographer	1	60,00	360,00	16.7
Ice Cream Seller	1	87,00	87,00	100.0
Mechanic	1	30,00	30,00	100.0
Shoemaker	1	70,00	150,00	46.7
Greengrocer	1	200,00	200,00	100.0
Blacksmith	1	90,00	450,00	20.0
Foreman	1	375,00	500,00	75.0
Metalworker	1	100,00	100,00	100.0
Tailor	1	100,00	150,00	66.7
Weigher	1	82,00	75,00	109.3
Charwoman	1	30,00	25,00	120.0
Stevedor	1	150,00	125,00	120.0
Meat Cutter	1	80,00	100,00	80.0
Seamstress	1	60,00	60,00	100.0
Clothes Seller	1	150,00	350,00	42.9
Dyer	1	212,00	200,00	106.0
Furniture Repairer	1	50,00	25,00	200.0
Plasterer	1	120,00	120,00	100.0
Small Salesman	1	120,00	*	
Cleaner	1	15,00	15,00	100.0
Porter	1	175,00	120,00	145.8
Food Inspector	1	65,00	300,00	21.7
Pump Attendant	1	150,00	430,00	34.9
Handicraft Worker	1	63,00	60,00	105.0
Sanitary Inspector	1	80,00	85,00	94.1

cont/...

contd/... (Recife)

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Bakery Manager	1	175,00	550,00	31.8
TOTAL	142	-	-	-
Mean	-	103.92	162.22	
Standard Deviation	-	123.63	168.83	

* Informant doesn't know

TABLE XXIXA

Recent Migrants' Weekly Average Earnings and Average Normal Earnings in Cruzeiros

Recife

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Driver	4	194,00	275,00	70.5
Mason	3	62,00	80,00	77.5
Retailer	2	182,00	300,00	61.0
Maid	2	50,00	75,00	66.7
Joiner	2	70,00	275,00	25.5
Hod Carrier	2	32,00	71,00	45.0
Washer Woman	2	17,00	14,00	121.4
Shop Assistant	1	100,00	300,00	33.3
Watchman	1	130,00	130,00	100.0
Dressmaker	1	60,00	100,00	60.0
Electrician	1	200,00	300,00	66.7
Peddler	1	100,00	400,00	25.0
Manicurist	1	45,00	200,00	22.5
Radio Mechanic	1	55,00	200,00	27.5
Soldier	1	52,00	52,00	100.0
Street Cleaner	1	60,00	60,00	100.0
Charcoal Seller	1	100,00	80,00	125.0
Mechanic	1	10,00	70,00	14.3
Greengrocer	1	50,00	70,00	71.4
Docker	1	250,00	*	
Small Trader	1	80,00	*	
Painter	1	55,00	120,00	45.8
Caretaker	1	63,00	150,00	42.0
Charwoman	1	25,00	20,00	125.0
General Salesman	1	100,00	150,00	66.7
Handling Clerk	1	100,00	85,00	117.6
Cocoa Collector	1	36,00	*	

cont/.....

contd/... (Recife)

Occupation	No.	Average Earnings	Average Normal Earnings (b)	(c) = (a):(b)
Workman	1	80,00	60,00	133.3
TOTAL	39	-	-	-
Mean	-	104,49	153,89	-
Standard Deviation	-	147,21	139,33	

* Informant doesn't know

TABLE XXXA

Non-Migrants' Weekly Average Earnings
and Average Normal Earnings in Cruzeiros

Recife

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Dressmaker	12	44,00	82,00	53.7
Washer Woman	10	32,00	58,00	55.2
Electrician	7	130,00	162,00	80.2
Shop Assistant	6	48,00	135,00	35.6
Joiner	6	76,00	93,00	81.7
Painter	6	92,00	136,00	67.6
Driver	5	110,00	205,00	53.7
Carpenter	5	100,00	140,00	71.4
Hod Carrier	5	72,00	129,00	55.8
Mechanic	5	125,00	175,00	71.4
Salesman	5	175,00	189,00	92.6
Retailer	4	182,00	400,00	45.5
Watchman	4	110,00	132,00	83.3
Mason	4	85,00	97,00	87.6
Peddler	4	112,00	103,00	108.7
Docker	4	153,00	228,00	67.1
Waiter	4	120,00	125,00	96.0
Small Trader	4	185,00	245,00	75.5
Embroiderer	3	72,00	53,00	135.8
Radio Mechanic	3	103,00	143,00	72.0
Car Washer	3	40,00	95,00	42.1
Baker	3	95,00	106,00	89.6
Caretaker	3	70,00	132,00	53.0
Water Carrier	3	30,00	28,00	107.1
Errand Boy	3	92,00	150,00	61.3
Manicurist	2	38,00	70,00	54.3
Teacher	2	88,00	70,00	125.7
Soldier	2	254,00	308,00	82.5
Nurse	2	75,00	175,00	42.9
Investigator	2	183,00	350,00	52.3
Money Collector	2	88,00	88,00	100.0

cont/.....

contd/... (Recife)

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Snack Seller	2	46,00	35,00	131.4
Sheet metal Worker	2	125,00	175,00	71.4
Writing Clerk	2	192,00	200,00	96.0
Maid	2	11,00	52,00	21.2
Artist Craftsman	2	90,00	90,00	100.0
Solderer	2	70,00	350,00	20.0
Lens Maker	1	375,00	375,00	100.0
Delivery Man	1	248,00	200,00	124.0
Scribe	1	75,00	100,00	75.0
Plumber	1	185,00	200,00	92.5
Street Cleaner	1	60,00	60,00	100.0
Assistant	1	87,00	87,00	100.0
Ice Cream Seller	1	60,00	60,00	100.0
Odd job Man	1	30,00	200,00	15.0
Shoemaker	1	104,00	125,00	83.2
Greengrocer	1	60,00	70,00	85.7
Foreman	1	250,00	200,00	125.0
Tailor	1	500,00	*	
Bank Clerk	1	240,00	200,00	120.0
Administrative Assistant	1	175,00	120,00	145.8
Photographer	1	150,00	200,00	75.0
Digger	1	90,00	*	
Weigher	1	78,00	100,00	78.0
Watch Repairer	1	150,00	100,00	150.0
Seller	1	175,00	189,00	92.6
Meat Cutter	1	60,00	60,00	100.0
Roadmender	1	130,00	50,00	260.0
Carpet Seller	1	300,00	400,00	75.0
Receptionist	1	55,00	350,00	15.7
Workman	1	60,00	60,00	100.0
Sheetmetal Worker	1	125,00	175.00	71.4
Weaver	1	30,00	50,00	60.0

cont/....

contd/... (Recife)

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Cloth Mender	1	51,00	51,00	100.0
Furniture Repairer	1	80,00	100,00	80.0
Policeman	1	92,00	370,00	24.9
Porter	1	120,00	150,00	80.0
Despatcher	1	80,00	100,00	80.0
Fireman	1	135,00	100,00	135.0
Candlewick Threader	1	50,00	55,00	90.9
Designer	1	150,00	1.000,00	15.0
Parcel Clerk	1	130,00	40,00	325.0
Plastic Supplier	1	60,00	80,00	75.0
Artist Craftsman	1	90,00	90,00	100.0
Scrap Metal Merchant	1	110,00	60,00	183.3
Water Carrier	1	30,00	28,00	107.1
Magazine Seller	1	20,00	25,00	80.0
Lithographer	1	87,00	100,00	87.0
Announcer	1	75,00	60,00	125.0
TOTAL	195	-	-	--
Mean	-	103,66	147,75	-
Standard Deviation	-	97,71	143,77	-

* Informant doesn't know

TABLE XXXIA

Recent Migrants' Weekly Average Earnings and Average Normal Earnings in Cruzeiros

Caruaru

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Retailer	5	82,00	200,00	41.0
Dressmaker	2	30,00	*	
Mechanic	2	65,00	105,00	61.9
Handicraft Worker	2	52,00	67,00	77.6
Electrician	1	120,00	120,00	100.0
Washerwoman	1	20,00	25,00	80.0
Civil Servant	1	25,00	50,00	50.0
Butcher	1	60,00	*	
Stevedor	1	50,00	50,00	100.0
Topographer	1	71,00	*	
Oven Manager	1	70,00	65,00	107.7
Carter	1	100,00	110,00	90.9
Total	19	-	-	-
Mean	-	66,17	87,73	-
Standard Deviation	-	37,09	53,78	-

* Informant doesn't know

TABLE XXXIIA

Old Migrants' Weekly Average Earnings
and Average Normal Earnings in Cruzeiros

Caruaru

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Mason	7	86,00	150,00	57.3
Dressmaker	6	30,00	84,00	35.7
Retailer	5	160,00	250,00	64.0
Embroiderer	4	28,00	100,00	28.0
Retail Assistant	3	74,00	126,00	58.7
Stevedor	2	125,00	175,00	71.4
Shop Assistant	2	40,00	50,00	80.0
Joiner	2	172,00	200,00	86.0
Watchman	2	71,00	319,00	22.3
Teacher	2	80,00	112,00	71.4
Sweet Seller	1	27,00	30,00	90.0
Street Cleaner	1	77,00	53,00	145.0
Charcoal Seller	1	50,00	20,00	250.0
Greengrocer	1	45,00	300,00	15.0
Workman	1	30,00	10,00	300.0
Writing Clerk	1	75,00	300,00	25.0
Tyre Repairer	1	100,00	200,00	50.0
Handicraft Worker	1	100,00	100,00	100.0
Shoe Repairer	1	80,00	125,00	64.0
Ground Cleaner	1	34,00	34,00	100.0
Policeman	1	60,00	*	
Civil Servant	1	74,00	*	
TOTAL	47	-	-	-
Mean		67,93	131,73	-
Standard Deviation	-	61,01	228,13	-

* Informant doesn't know

TABLE XXXIIIA

Non-Migrants' Weekly Average Earnings
and Average Normal Earnings in Cruzeiros

Caruaru

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Retailer	4	72,00	88,00	81.8
Shoemaker	3	76,00	75,00	101.3
Stevedor	3	68,00	85,00	80.0
Watchman	2	62,00	62,00	100.0
Dressmaker	2	54,00	45,00	120.0
Washer Woman	2	15,00	32,00	46.9
Cook	2	.28,00	28,00	100.0
Small Trader	2	120,00	100,00	120.0
Electrician	1	60,00	100,00	60.0
Driver	1	490,00	490,00	100.0
Manicurist	1	90,00	50,00	180.0
Lens Maker	1	55,00	175,00	31.4
Teacher	1	65,00	80,00	81.3
Retail Assistant	1	60,00	140,00	42.9
Baker	1	67,00	67,00	100.0
Snack Seller	1	15,00	20,00	75.0
Clothes Seller	1	14,00	50,00	28.0
Workman	1	15,00	18,00	33.3
TOTAL	32	-	-	-
Mean	-	75,91	89,03	-
Standard Deviation	-	85,13	95,63	-

TABLE XXXIVA

Recent Migrants' Weekly Average Earnings and Average Normal Earnings in Cruzeiros

Petrolina

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Joiner	6	128,00	218,00	58.7
Mason	4	74,00	105,00	70.5
Mechanic	4	110,00	113,00	97.3
Soldier	3	113,00	127,00	112.4
Cleaner	3	12,00	72,00	16.7
Retailer	2	75,00	150,00	50.0
Dressmaker	2	35,00	125,00	28.0
Washer Woman	2	16,00	48,00	33.3
Hod Carrier	2	68,00	83,00	81.9
Ice Cream Seller	2	17,00	10,00	170.0
Workman	2	92,00	125,00	73.6
Watchman	1	79,00	54,00	146.3
Driver	1	130,00	150,00	115.4
Street Cleaner	1	49,00	49,00	100.0
Civil Servant	1	78,00	*	
Foreman	1	87,00	*	
Stevedor	1	120,00	*	
Carter	1	40,00	*	
Baker	1	50,00	115,00	43.5
Small Trader	1	145,00	50,00	290.0
Caretaker	1	65,00	53,00	122.6
Snack Seller	1	33,00	30,00	110.0
Clothes Seller	1	284,00	200,00	142.0
Workman	1	92,00	125,00	74.1
Maid	1	20,00	120,00	16.7
Tyre Repairer	1	50,00	100,00	50.0
Handicraft Worker	1	60,00	60,00	100.0

cont/.....

contd/....

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Slaughterman	1	30,00	30,00	100.0
TOTAL	48	-	-	-
Mean	-	106,75	92,83	-
Standard Deviation	-	82,98	74,79	-

*Informant doesn't know

TABLE XXXVA

Old Migrants' Weekly Average Earnings
and Average Normal Earnings in Cruzeiros

Petrolina

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Mason	3	115,00	130,00	88.5
Retailer	2	225,00	300,00	75.0
Washer Woman	2	37,00	20,00	185.0
Retail Assistant	2	156,00	194,00	80.4
Watchman	1	54,00	54,00	100.0
Carpenter	1	200,00	450,00	44.4
Driver	1	115,00	160,00	71.9
Plumber	1	132,00	200,00	66.0
Spring Maker	1	130,00	200,00	65.0
Mechanic	1	100,00	150,00	66.7
Clothes Seller	1	380,00	*	
Tyre Repairer	1	70,00	*	
Greengrocer	1	50,00	300,00	16.7
Glass Repairer	1	62,00	100,00	62.0
Painter	1	100,00	120,00	83.3
Caretaker	1	42,00	70,00	60.0
Sheet Metal Worker	1	57,00	84,00	67.9
Cleaner	1	53,00	60,00	88.3
Gardener	1	53,00	53,00	100.0
Handicraft Worker	1	44,00	150,00	29.3
Charcoal Seller	1	53,00	53,00	100.0
TOTAL	27	-	-	-
Mean	-	107,44	150,09	-
Standard Deviation	-	83,42	100,87	-

* Informant doesn't know

TABLE XXXVIA

Non-Migrants' Weekly Average Earnings

and Average Normal Earnings in Cruzeiros

Petrolina

Occupation	No.	Average Earnings (a)	Average Normal Earnings (b)	(c) = (a):(b)
Retailer	1	117,00	100,00	117.0
Dressmaker	1	30,00	30,00	100.0
Mason	1	104,00	135,00	77.0
Washer Woman	1	18,00	20,00	90.0
Embroiderer	1	112,00	120,00	93.3
Retail Assistant	1	120,00	60,00	200.0
Collector	1	95,00	63,00	150.8
Stevedor	1	80,00	300,00	26.7
Meat Supplier	1	150,00	150,00	100.0
Spinner	1	57,00	57,00	100.0
Joiner	1	42,00	*	
Weigher	1	75,00	*	
TOTAL	13	-	-	-
Mean	-	75,62	106,36	-
Standard Deviation	-	72,35	78,40	-

*Informant doesn't know

TABLE XXXVIIA

Daily Hours of Work by Origin and Occupational Status

Recife

Hours of Work	Old Migrant				Recent Migrant*				Non-Migrant**				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 4	0	0.0	3	4.8	0	0.0	0	0.0	1	0.8	6	9.2	1	0.4	9	6.4
4	0	0.0	11	17.7	0	0.0	0	0.0	3	2.3	2	3.1	3	1.3	13	9.2
5	1	1.3	5	8.1	1	4.3	1	7.1	5	3.9	8	12.3	7	3.0	14	9.9
6	2	2.4	7	11.3	0	0.0	2	14.3	9	7.0	6	9.2	11	4.8	15	10.6
7	1	1.3	0	0.0	1	4.3	0	0.0	2	1.6	2	3.1	4	1.7	2	1.4
8	39	48.8	15	24.1	9	39.2	4	28.6	61	47.7	21	32.4	109	47.2	40	28.4
9	10	12.5	4	6.5	5	21.8	2	14.3	14	10.9	3	4.6	29	12.6	9	6.4
10	8	10.0	7	11.3	2	8.8	4	28.6	11	8.6	6	9.2	21	9.1	17	12.1
11	0	0.0	0	0.0	1	4.3	0	0.0	5	3.9	1	1.5	6	2.6	1	0.7
12	12	15.0	5	8.1	1	4.3	1	7.1	9	7.0	5	7.7	22	9.5	11	7.8
Over 12	7	8.7	5	8.1	3	13.0	0	0.0	8	6.3	5	7.7	18	7.8	10	7.1
Total	80	100.0	62	100.0	23	100.0	14	100.0	128	100.0	65	100.0	231	100.0	141	100.0

* Includes two employers, one working 8 hours and the other working over 12 hours daily.

** Includes two employers, one working 8 hours and the other working 12 hours daily.

TABLE XXXVIIIA

Daily Hours of Work by Origin and Occupational Status

Caruaru

Hours of Work	Old Migrant*				Recent Migrant**				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 4	0	0.0	4	16.0	0	0.0	0	0.0	0	0.0	1	7.7	0	0.0	5	10.2
4	2	9.5	1	4.0	0	0.0	0	0.0	0	0.0	1	7.7	2	4.3	2	4.1
5	0	0.0	1	4.0	0	0.0	1	9.1	0	0.0	0	0.0	0	0.0	2	4.1
6	0	0.0	1	4.0	0	0.0	0	0.0	1	5.3	0	0.0	1	2.1	1	2.1
7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	15.4	0	0.0	2	4.1
8	9	42.8	7	28.0	4	57.1	1	9.1	8	42.1	2	15.4	21	44.7	10	20.4
9	2	9.5	1	4.0	2	28.6	2	18.1	1	5.3	1	7.7	5	10.6	4	8.1
10	1	4.8	3	12.0	0	0.0	1	9.1	5	26.3	4	30.5	6	12.8	8	16.3
11	0	0.0	2	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	4.1
12	6	28.6	3	12.0	1	14.3	3	27.3	4	21.0	2	15.4	11	23.4	8	16.3
Over 12	1	4.8	2	8.0	0	0.0	3	27.3	0	0.0	0	0.0	1	2.1	5	10.2
Total	21	100.0	25	100.0	7	100.0	11	100.0	19	100.0	13	100.0	47	100.0	49	100.0

*Includes one employer working 10 hours daily.

**Includes one employer working over 12 hours daily.

TABLE XXXIXA

Daily Hours of Work by Origin and Occupational Status

Petrolina

Hours of Work	Old Migrant				Recent Migrant*				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 4	0	0.0	0	0.0	0	0.0	5	25.0	1	14.3	1	16.7	1	2.2	6	15.4
4	0	0.0	0	0.0	0	0.0	2	10.0	1	14.3	0	0.0	1	2.2	2	5.2
5	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	1	16.7	0	0.0	2	5.2
6	0	0.0	1	7.7	1	4.0	1	5.0	0	0.0	0	0.0	1	2.2	2	5.2
7	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	1	2.6
8	9	64.3	8	61.5	14	56.0	2	10.0	5	71.4	3	50.0	28	60.8	13	33.4
9	2	14.3	0	0.0	1	4.0	1	5.0	0	0.0	0	0.0	3	6.5	1	2.1
10	1	7.1	1	7.7	7	28.0	3	15.0	0	0.0	1	16.7	8	17.4	5	12.8
11	0	0.0	1	7.7	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	2	5.2
12	1	7.1	1	7.7	2	8.0	0	0.0	0	0.0	0	0.0	3	6.5	1	2.6
Over 12	1	7.1	1	7.7	0	0.0	3	15.0	0	0.0	0	0.0	1	2.2	4	10.3
Total	14	100.0	13	100.0	25	100.0	20	100.0	7	100.0	6	100.0	46	100.0	39	100.0

* Includes one employer working 8 hours daily.

TABLE XXXXA

Days of Work by Origin and Occupational Status

Recife

Days of Work	Old Migrant				Recent Migrant*				Non-Migrant**				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	1	1.3	3	4.8	0	0.0	0	0.0	1	0.8	1	1.5	2	0.9	4	2.8
2	2	2.5	5	8.1	0	0.0	0	0.0	3	2.3	3	4.6	5	2.2	8	5.7
3	2	2.5	5	8.1	0	0.0	2	14.3	9	7.0	3	4.6	11	4.8	10	7.1
4	4	5.0	3	4.8	0	0.0	0	0.0	3	2.3	5	7.7	7	3.0	8	5.7
5	8	10.0	10	16.1	4	17.4	3	21.4	26	20.3	10	15.4	38	16.4	23	16.3
6	48	60.0	21	33.9	17	73.9	5	35.7	74	57.8	26	40.0	139	60.1	52	36.9
7	15	18.7	15	24.2	2	8.7	4	28.6	12	9.5	17	26.2	29	12.6	36	25.5
Total	80	100.0	62	100.0	23	100.0	14	100.0	128	100.0	65	100.0	231	100.0	141	100.0

* Includes two employers both working 6 days weekly.

** Includes two employers, one working 6 and the other working 7 days weekly.

TABLE XXXXIA

Days of Work by Origin and Occupational Status

Caruaru

Days of Work	Old Migrant*				Recent Migrant**				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	0	0.0	1	4.0	1	14.3	1	9.0	0	0.0	1	7.7	1	2.1	3	6.1
2	2	9.5	0	0.0	0	0.0	2	18.2	0	0.0	2	15.4	2	4.3	4	8.2
3	0	0.0	1	4.0	0	0.0	0	0.0	1	5.3	1	7.7	1	2.1	2	4.1
4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	0	0.0	1	2.0
5	3	14.3	3	12.0	5	71.4	3	27.3	4	21.1	2	15.4	12	25.5	8	16.4
6	13	61.9	13	52.0	1	14.3	2	18.2	8	42.1	3	23.1	22	46.8	18	36.7
7	3	14.3	7	28.0	0	0.0	3	27.3	6	31.6	3	23.1	9	19.1	13	26.5
Total	21	100.0	25	100.0	7	100.0	11	100.0	19	100.0	13	100.0	47	100.0	49	100.0

* Includes one employer working 7 days weekly.

** Includes one employer working 6 days weekly.

TABLE XXXXIIA

Days of Work by Origin and Occupational Status

Petrolina

Days of Work	Old Migrant				Recent Migrant*				Non-Migrant				Total			
	Employee		Self-employed		Employee		Self-employed		Employee		Self-employed		Employee		Self-employed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	1	2.6
2	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	1	2.6
3	0	0.0	1	7.7	0	0.0	0	0.0	1	14.2	0	0.0	1	2.2	1	2.6
4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5	0	0.0	1	7.7	5	20.0	3	15.0	0	0.0	1	16.7	5	10.9	5	12.8
6	10	71.4	6	46.2	13	52.0	7	35.0	3	42.9	2	33.3	26	56.5	15	38.4
7	4	28.6	5	38.4	7	28.0	8	40.0	3	42.9	3	50.0	14	30.4	16	41.0
Total	14	100.0	13	100.0	25	100.0	20	100.0	7	100.0	6	100.0	46	100.0	39	100.0

* Includes two employers, one working 6 days and the other working 7 days weekly.

TABLE XXXXIIIA

Material Indicators

Recife

Status of Property

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Own, excluding land	67	42.4	13	31.7	112	46.7	192	43.7
Own, including land	19	12.1	1	2.5	35	14.6	55	12.5
Relatives	7	4.4	3	7.3	22	9.1	32	7.3
Boss	1	0.6	0	0.0	1	0.4	2	0.6
Rented	64	40.5	24	58.5	70	29.2	158	35.9
Total	158	100.0	41	100.0	240	100.0	439	100.0
Wall								
Brick	24	15.2	4	9.8	50	20.8	78	17.8
Mud	113	71.5	28	68.2	158	65.8	299	68.1
Wood	21	13.3	9	22.0	32	13.4	62	14.1
Total	158	100.0	41	100.0	240	100.0	439	100.0
Sanitary Facilities								
Internal Lavatory	27	17.1	8	19.5	47	19.5	82	18.7
External Lavatory	113	71.5	30	73.2	177	73.8	320	72.9
No Lavatory	18	11.4	3	7.3	16	6.7	37	8.4
Total	158	100.0	41	100.0	240	100.0	439	100.0
Sewage Facilities								
Public System	2	1.3	0	0.0	2	0.8	4	0.9
Drainage Pit	132	33.5	36	87.8	218	90.8	386	87.9
No Sewage	24	15.2	5	12.2	20	8.4	49	11.2
Total	158	100.0	41	100.0	240	100.0	439	100.0

cont/....(Recife)

contd/...(Recife)

			Water					
Public System	77	48.7	8	19.5	131	54.6	216	49.2
Public Fountain	75	47.5	32	78.0	104	43.3	211	48.1
Well	1	0.6	0	0.0	2	0.8	3	0.7
Neighbour	5	3.1	1	2.4	3	1.3	9	2.0
Total	158	100.0	41	100.0	240	100.0	439	100.0
			Illumination					
Electricity	134	84.8	32	78.0	213	88.8	379	86.3
Kerosene	23	14.6	9	22.0	26	10.8	58	13.2
Others	1	0.6	0	0.0	1	0.4	2	0.5
Total	158	100.0	41	100.0	240	100.0	439	100.0
			Radio					
Yes	107	67.7	22	53.7	158	65.8	287	65.4
No	51	32.3	19	46.3	82	34.2	152	34.6
Total	158	100.0	41	100.0	240	100.0	439	100.0
			Refrigerator					
Yes	29	18.4	10	24.4	57	23.8	96	21.9
No	129	81.6	31	75.6	183	76.2	343	78.1
Total	158	100.0	41	100.0	240	100.0	439	100.0
			T.V. Set					
Yes	41	25.9	10	24.4	81	33.8	132	30.1
No	117	74.1	31	75.6	159	66.2	307	69.9
Total	158	100.0	41	100.0	240	100.0	439	100.0
			Street Pavement					
Yes	49	31.0	10	24.4	75	31.3	134	30.5
No	109	69.0	31	75.6	165	68.7	305	69.5
Total	158	100.0	41	100.0	240	100.0	439	100.0

TABLE XXXXIVA

Material Indicators

Caruaru

Status of Property

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Own, excluding land	15	28.3	2	7.7	6	15.0	23	19.3
Own, including land	19	35.8	11	42.3	11	27.5	41	34.5
Relatives	1	1.9	2	7.7	7	17.5	10	8.4
Boss	0	0.0	2	7.7	1	2.5	3	2.5
Rented	18	34.0	9	34.6	15	37.5	42	35.3
Total	53	100.0	26	100.0	40	100.0	119	100.0
Wall								
Brick	52	98.1	25	96.2	40	100.0	117	98.3
Mud	1	1.9	1	3.8	0	0.0	2	1.7
Total	53	100.0	26	100.0	40	100.0	119	100.0
Sanitary Facilities								
Internal Lavatory	6	11.3	2	7.7	6	15.0	14	11.8
External Lavatory	44	83.0	22	84.6	31	77.5	97	81.5
No Lavatory	3	5.7	2	7.7	3	7.5	8	6.7
Total	53	100.0	26	100.0	40	100.0	119	100.0
Sewage Facilities								
Public System	6	11.3	3	11.5	9	22.5	18	15.1
Drainage Pit	43	81.2	21	80.8	29	72.5	93	78.2
No Sewage	4	7.5	2	7.7	2	5.0	8	6.7
Total	53	100.0	26	100.0	40	100.0	119	100.0

cont/... (Caruaru)

contd/...(Caruaru)

Water								
Public System	25	47.2	13	50.0	25	62.5	63	52.9
Public Fountain	14	26.4	4	15.3	6	15.0	24	20.2
Well	6	11.3	2	7.7	0	0.0	8	6.7
Neighbour	8	15.1	7	27.0	9	22.5	24	20.2
Total	53	100.0	26	100.0	40	100.0	119	100.0
Illumination								
Electricity	38	71.7	20	76.9	29	72.5	87	73.1
Kerosene	15	28.3	6	23.1	11	27.5	32	26.9
Total	53	100.0	26	100.0	40	100.0	119	100.0
Radio								
Yes	38	71.7	22	84.6	25	62.5	85	71.4
No	15	28.3	4	15.4	15	37.5	34	28.6
Total	53	100.0	26	100.0	40	100.0	119	100.0
Refrigerator								
Yes	3	5.7	1	3.8	1	2.5	5	4.2
No	50	94.3	25	96.2	39	97.5	114	95.8
Total	53	100.0	26	100.0	40	100.0	119	100.0
T.V. Set								
Yes	10	18.9	3	11.5	8	20.0	21	17.6
No	43	81.1	23	88.5	32	80.0	98	82.4
Total	53	100.0	26	100.0	40	100.0	119	100.0
Street Pavement								
Yes	0	0.0	0	0.0	0	0.0	0	0.0
No	53	100.0	26	100.0	40	100.0	119	100.0
Total	53	100.0	26	100.0	40	100.0	119	100.0

TABLE XXXXVA

Material Indicators

Petrolina

Status of Property

	Old Migrant		Recent Migrant		Non-Migrant		Total	
	No.	%	No.	%	No.	%	No.	%
Own, excluding land	1	3.6	0	0.0	1	5.9	2	2.0
Own, including land	21	75.0	26	47.4	14	82.4	61	61.0
Relatives	1	3.6	2	3.6	0	0.0	3	3.0
Boss	0	0.0	0	0.0	0	0.0	0	0.0
Rented	5	17.9	27	49.0	2	11.8	34	34.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Wall								
Brick	9	32.1	15	27.3	5	29.4	29	29.0
Mud	19	67.9	40	72.7	12	70.6	71	71.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Sanitary Facilities								
Internal Lavatory	2	7.1	3	5.5	4	23.5	9	9.0
External Lavatory	9	32.2	15	27.3	7	41.2	31	31.0
No Lavatory	17	60.7	37	67.2	6	35.3	60	60.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Sewage Facilities								
Public System	0	0.0	0	0.0	1	5.9	1	1.0
Drainage Pit	9	32.1	18	32.7	9	52.9	36	36.0
No Sewage	19	67.9	37	67.3	7	41.2	63	63.0
Total	28	100.0	55	100.0	17	100.0	100	100.0

cont/...(Petrolina)

Contd/...(Petrolina)

Water								
Public System	17	60.7	21	38.2	9	52.9	47	47.0
Public Fountain	10	35.7	25	45.5	8	47.1	43	43.0
River	0	0.0	3	5.4	0	0.0	3	3.0
Neighbour	1	3.6	6	10.9	0	0.0	7	7.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Illumination								
Electricity	8	28.6	16	29.1	8	47.1	32	32.0
Kerosene	20	71.4	39	70.9	9	52.9	68	68.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Radio								
Yes	21	75.0	31	56.4	7	41.2	59	59.0
No	7	25.0	24	43.6	10	58.8	41	41.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Refrigerator								
Yes	1	3.6	5	9.1	0	0.0	6	6.0
No	27	94.4	50	90.9	17	100.0	94	94.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
T.V. Set								
Yes	0	0.0	0	0.0	0	0.0	0	0.0
No	28	100.0	55	100.0	17	100.0	100	100.0
Total	28	100.0	55	100.0	17	100.0	100	100.0
Street Pavement								
Yes	0	0.0	0	0.0	0	0.0	0	0.0
No	28	100.0	55	100.0	17	100.0	100	100.0
Total	28	100.0	55	100.0	17	100.0	100	100.0

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