migration, urban marginality and ecological stratification

Introduction

Despite a vast body of literature dealing with 'marginality', 'shantytowns', 'squatter settlements' and the like, interpretations of the nexus between migration and marginality are as divergent as are the variegated inferences derived from the concept of marginality itself. At the present time, it is possible to contrast statements attributing all of urban marginal growth to migration with others affirming that migrants constitute but a small minority of the entire urban marginal population. Yet, in light of the fact that a geometrically-ascending proportion of the rapid growth of Latin American cities is being ascribed to the concentration of population in marginal sectors, analysis of the dynamics and components of urban marginal growth has come to represent a matter of considerable urgency.

The primary purpose of the present paper is to evaluate available evidence, formulate hypotheses and indicate needed research and sources of data with reference to the specific problem of the relationship between migration, urban marginality and ecological stratification.

Migration and Marginality: Definitional Problems

The first problem encountered in any proposed analysis of the interplay between migration and marginality derives from the vagaries of establishing a cogent analytic and operational definition of the term 'marginality'.

For instance, Turner asserts that while Latin American cities have grown at an annual rate of 5 to 7 per cent in recent decades, marginal barrios have grown at a rate of 10 to 15 per cent. Consequently, marginal populations today represent some 25 per cent or more of all urban populations. Turner presents the case of Lima as a typical example. In 1940, Lima had some 5 per cent of its population in marginal sectors; this has now reached one-quarter of the total population. Should present rates of growth persist, Turner affirms that in twenty years time, no less than 65 per cent of Lima's inhabitants will live in marginal sectors. (Cf. J.C. Turner - "La marginalidad urbana: calamidad o solución?" Desarrollo Económico, 3 (3-4): 9, 1966.)
Although it is not our purpose to present a formal discussion of the multiple definitions of marginality and their respective problems, it nevertheless becomes imperative, in light of significantly distinct possibilities, to specify which brand of marginality we will be dealing with in this context. To this end, we will review briefly the various alternatives and clarify the particular focus of the present analysis.

Originally introduced into the social sciences to denote an attribute of the individual person - the marginal man or, the marginal personality - the term was subsequently transformed and extended to characterize attributes of the social group. But, even if we disregard the earlier psychological interpretations and concentrate on marginality as a social situation, the variety of possible interpretations is extensive. For instance, Quijano distinguishes no less than seven more-or-less divergent approaches to the definition of social marginality and finds their common denominator to lie in a shared notion that marginality is a lack of integration into something which something varies with the nature of proposed solutions to the problem of marginality. He proposes the adoption of still another, more generalized approach, one which views marginality as the end-product of a historical process of conflictive and discontinuous integration within and between global societies.2/

The proliferation of conceptual definitions obviously finds an echo in the anarchy reigning over the domain of operational indices of marginality. Indeed, the analytic difficulties derive from the fact that existing formulations were largely elaborated belatedly in response to the problems created by the ad-hoc empirical approaches which were first applied to the phenomenon of marginality. As matters stand now, according to the criteria employed in the localization and delimitation of marginal populations, the absolute size, composition, characteristics and dynamics of the latter vary enormously.

Why is it that, despite the reams of material on 'marginality' in recent years, acceptable information on the size and dynamics of the urban marginal population in a given city or country remains scarce? The answer

2/ Aníbal Quijano - "Notas sobre el concepto de marginalidad social", CEPAL, Octubre, 1966 (mimeo). /would appear
would appear to lie in the continuing discrepancy between theoretical and operational research which still plagues the field of marginality. In capsule form, it can be stated that systematic theoretical frameworks increasingly consider marginality to be fundamentally a structural phenomenon; it is expressed in the social, political and economic institutional sectors of society since these give form to the central framework within which various modes of participation in all societal institutions will be defined.

By contrast, most of the field research on 'marginality' basically deals with partial areal clusters defined on an a priori basis as marginal when in fact they could more accurately be denominated as ecologically-delimited lower socio-economic strata. This procedure is justified on the basis that the ecological sector represents a convenient domain within which marginality is given a concrete form of expression. Ecologically-identifiable lower-strata nuclei are assumed to incorporate most of the social groups who share the conditions associated with marginality in other more systematic analytic approaches.

Is such an assumption justifiable? It would appear that the analytical and operational linkages between 'structural' and 'ecological' marginality are insufficiently defined for this assumption to be made. The problem ultimately resolves itself in the following dilemma: on the one hand, the ecological perspective has to assume that the inhabitants of given residential clusters are all marginal with respect to whichever institutional sectors are being considered. The structural approach, however, defines social groups as marginal, not in terms of residential clustering, but in terms of their participation and belonging into basic societal institutions.

Such ambiguities are evidently not conducive to the successful unravelling of substantive research questions. With respect to our particular problem of the interplay between migration and marginality,

for example, we are faced with a situation wherein the absolute and proportionate numbers of marginal population in a given city or group of cities is subject to question simply because no viable consensus has as yet been reached on what constitutes a marginal group. What we do possess is partial information from various cities on ecologically-delimited lower strata clusters and we will address ourselves to this restricted domain in the subsequent presentation.

Indeed, for better or for worse, most of the research which provides information relevant to the present objectives has actually utilized an explicit or implicit ecological framework. By this is generally meant, a focus on the physical presence of nuclei of sub-standard dwellings in which reside the lowest socio-economic strata of the urban population. Beyond this basic though indefinite characterization, additional criteria vary but generally include something about housing conditions, location, accessibility, and absence of basic communal services.

Cognizant of the multi-dimensional nature of structural marginality and of the discrepancy between "ecological" and "structural" marginality, the following pages will focus primarily on the role of migration in the growth of lower strata residential clusters. In a first section, we will draw on partial evidence from several countries and attempt to organize these materials in terms of their findings. A second section will present a more thoroughgoing case study of migration's effect on lower strata growth in Rio de Janeiro; the nature and quality of available data in this city permit a more exhaustive examination of the questions raised in the initial section. For clarity's sake, it should be mentioned throughout the subsequent discussion, when we are forced to utilize the term 'marginality' we are in fact dealing with ecologically-delimited lower strata populations.

/I. MIGRATION
I. MIGRATION AND ECOLOGICAL STRATIFICATION: TWO PERSPECTIVES

The concept of ecological marginality has undergone internal modifications over time and with these evolutions, the role which migration has been accorded in the spread of urban shantytowns has simultaneously been altered.

In tracing the role played by migration in these growth processes, it will be heuristically useful to distinguish between two chronologically-sequential perspectives which have been put forth. Because the perspectives tend to overlap in the matter of both timing and exponents, this dichotomy represents something of an ideal-typical oversimplification, yet it is useful to distinguish between the two positions since each embodies an assemblage of characteristic views towards urban marginality and its origins.

1. Migration and peripheral shantytowns

Earlier analysts, prompted by the mushrooming of shantytowns in Latin American cities immediately following World War II, tended to equate urban marginality with peripheral belts of shantytowns on the edge of major cities. Peripheral lands were seen to be more accessible in the competition for residential space and consequently, could more easily be bought or invaded by people of meager resources. These shacktowns were basically envisaged as an anomalous form of urban growth thereby giving rise to the concepts of 'urban cancers', 'misery belts', 'incubators of disease and social disorganization', etc. Lastly (and more relevantly for the purposes of the present paper), peripheral misery belts were believed to be populated largely through the mass influx of rural-to-urban migrants, whose characteristic migratory trek consisted of a move from the farms directly to the urban periphery.

More specifically, it was generally agreed that intensive rural to urban migration (variously fomented by technological advances in agriculture, deteriorating agricultural production, the population explosion, leftist agitation, or, to all of these, depending on the observer's viewpoints and platform) resulted in an overcrowding of available urban housing. The recent arrivals to the city were transposed rural dwellers who lacked the
financial resources, the aptitudes and inclination to compete for housing space in the established urban areas. Prodded by these circumstances, migrants set up their own rural-type makeshift dwellings on the urban fringes wherein their assimilation into the urban culture and economy could be more gradual and therefore less disruptive.\footnote{4}{For instance, one of the earlier DESAI publications defined the poblador (who was implicitly identified with the urban fringe) as "a marginal element in society who has migrated from rural areas to the city and who wages a constant struggle to integrate himself into society."} Several investigations of the marginal clusters' composition in larger cities during the 1950's provided an objective basis for the attribution of urban marginal growth to migration. For instance, the 1950 census of favelas in Rio de Janeiro showed that migrants represented 61 per cent of the entire favela population; moreover, more than half of the native Carioca favelados were less than 10 years of age thereby suggesting that most natives were actually born to migrants after the latter's arrival in Rio and that therefore marginal growth was indeed traceable almost solely to migration.\footnote{5}{Similarly, a comprehensive social and economic census of Lima's barriadas was undertaken in 1956. At first glance, the results of this survey would appear to detract from the argument that marginal populations are largely composed of migrants since of all barriada residents, 52 per cent were born}


\footnote{5}{Quoted in G. Rosenbluth - "La participación de las poblaciones marginales en el crecimiento urbano" CEPAL, p. 11.}

\footnote{6}{Alberto Passos Guimarães - "As favelas do Distrito Federal", Revista Brasileira de Estadística, 14 (55): 247-260, 1953.}
were born in Lima. Closer scrutiny, however, revealed that most of these natives were under ten years of age and hence the children of migrants. Indeed, when analyzed in terms of heads of families, data on migratory status showed that 89 per cent were actually born in the provinces, most of them in the mountain region.\(^7\)

A number of other studies around this time followed the same lines of reasoning and consistently arrived at the conclusion that migrants constitute the great majority of marginal populations. From this premise, it was but a short logical step to the conclusion that the ultimate solution to the problem of urban marginality lay in: a) preventing further migration, b) 'eradicating' existing marginal settlements and replacing them with centrally-organized housing projects.\(^8\)

2. *Indirect migration to peripheral shantytowns*

In a more recent period, the concept of ecological marginality has evolved from its primitive connotations of peripheral shacktowns populated by migrants to include the socio-economic characteristics of shacktown residents and the specifics of their housing situation in which predominate sub-standard dwellings and the deprivation of basic urban services and amenities. By simple extension, the socio-economic conditions typically noted in peripheral areas were discovered in other city zones - running the gamut from central city areas to interstitial zones, city dumps, riverbanks, hillsides and otherwise undesirable, inaccessible or unused land areas.

From such developments, the concept of marginality became more inclusive and, paradoxically, somewhat more ambiguous; that is, by expanding the notion of marginality to include the residential and socio-economic characteristics of marginal people, greater scope was posited without a concomitant clarification of operational definitions. With respect to our

\(^7\) José Matos Nár - "Migration and urbanization: the barriadas of Lima - an example of integration into urban life", in P.M. Hauser (ed) - Urbanization in Latin America, UNESCO, 1961.


/particular problem
particular problem area, the causal nexus between migration and marginality has undergone re-examination. Closer attention to two independent variables—duration of residence and rural-urban origin of migrants—has gradually led to the realization that marginal settlements, particularly those on the periphery, are not necessarily populated by recent arrivals from the farms.

Indeed, examination of the process by which peripheral shantytowns arise suggested that a great many of them had sprung up through highly organized invasions of terrain. Moreover, it was realized that peripheral residents first established their much-decried makeshift dwellings not as a transitional step towards eventual re-integration into the recognized city but as a necessary first step towards the goal of gradual housing improvement and residential permanency. Lastly, it was accorded that, in order to participate in an invasion of this type and to resist the multi-faceted attempts at dislodging them from secured terrain, individuals must have attained an appreciable level of urban sophistication.

In accordance with these perspectives, when the relationship between migration and peripheral shantytowns was re-investigated, it was found that although most of the adult population continued to be constituted by migrants, very few of them had come directly to these marginal settlements from rural areas. Indeed, in most cases, a significant proportion of these residents were migrants from other towns and cities and most had been living in the city for upwards of ten years.

For instance, in a 1962 survey of the callampas in Santiago reported by Rosenbluth, it was found that 70 per cent of the entire callampa population had been born in Santiago; as in the other previously-mentioned surveys, it was found that more than half of the natives were children under 15 years of age but, by controlling for duration of residence, this survey was able to demonstrate why migrants had so many native children simply because they had been living in Santiago for considerable time periods. Indeed, of the migrants, only 6 per cent had arrived in Santiago in the three year period preceding the 1962 survey; another 29 per cent had arrived at some time between 1950-59 and the remaining 65 per cent had been living in Santiago for more than thirteen years.²

² Guillermo Rosenbluth — "Problemas socio-económicos de la marginalidad y la integración urbana", CEPAL, pp. 48-54.
Corroborating and explicating this evidence, a national investigation of "marginality" carried out in Chile by the Consejería Nacional de Promoción Popular in 1968 showed that not only were Santiago's peripheral marginal settlements populated either by natives or by migrants who were long-time residents of the city, but also that most of the resident migrants had originally come from an urban area; in the 35 surveyed poblaciones of Santiago, the minimal percentage of migrants who had come to the marginal settlements from urban areas was 68 per cent. In most cases, this proportion ran well over 80 per cent and in one población, 98 per cent of resident migrants had previously lived in an urban area. Unfortunately, no further specifications by origin are provided in these tabulations so that one can only surmise that a substantial segment of this previous urban residence was in other districts of Santiago itself. In any case, this would not detract from the central conclusion that "marginal residents" are not recently-arrived rural migrants.

Although comprehensive studies of marginal populations' composition in a given city are difficult to find, evidence on this point from partial investigations in several other cities would tend to corroborate the Santiago evidence. For instance, in Bogotá, Cardona reports that a recent survey of two peripheral marginal settlements revealed that: 1) some 85 per cent of the migrant population had previously resided in an urban area prior to coming to Bogotá, 2) only one-tenth of these migrants came to the shantytowns under consideration within a year of their arrival in Bogotá, 3) one-half had lived in Bogotá at least four years before taking up residence in the two settlements.


11/ This conclusion is further corroborated by Portes' study of four poblaciones in Santiago which showed a high proportion of natives complemented by a high proportion of long-time residents who had migrated to Santiago in the distant past. Cf. Alejandro Portes — (op. cit.) pp. 16-20.


/In Guatemala
In Guatemala City, Cuevas notes that the residents of marginal settlements comprise some 10 per cent of the city's population and that three-quarters of them have previously resided in other parts of the city.\(^{13}\)

In Venezuela, shantytowns are reported to comprise about 35 per cent of the population of Caracas and 50 per cent of that of Maracaibo. Ray demonstrates that most rancho residents are migrants but that practically all of them came from barrios within the city itself, not from the countryside.\(^{14}\) Corroborative evidence on this point is reported by Mangin for such a wide range of cities as Rio de Janeiro, Barranquilla, Panama City, and Montevideo.\(^{15}\)

In short, whereas earlier studies emphasized a one-to-one relationship between a mass rural exodus and the origin and growth of urban marginal settlements on the periphery, several investigations in the last decade would portray a significantly different situation.

Beginning with a more encompassing definition of marginality and controlling for such independent variables as rural-urban origin and duration of residence, available data would point to the following patterns. Firstly, peripheral shantytowns continue to be populated in large part by migrants but their proportions are decreasing. Secondly, the migrants living in peripheral shantytowns do not came directly from rural areas but rather a great majority have had prior experience in urban living both in other towns and cities and in different sectors of their present city of residence. Concomitantly, the migrants living in outlying marginal settlements had been living in the city for some time prior to taking up residence on the fringe.


\(^{14}\) Talton Ray — "The political life of a Venezuelan barrio", (mimeo) cited in Mangin (op.cit.) p. 68.

\(^{15}\) W. Mangin — (op.cit.) p. 68.
3. Problems in the two perspectives

The two contrasting approaches outlined here are decidedly oversimplified yet correspond, on the important issues, with verifiable trends in the investigation of marginality and migration. Yet, this second (and presumably more accurate) vision of the problem immediately begs the question - if peripheral shantytowns include but a very small proportion of recent arrivals in the city, where do the incoming waves of migrants establish themselves? Obviously, no one would hazard the assertion that migrations to large cities are at a standstill nor that the latest arrivals are not somehow being accommodated in the cities. Hence, one of the problems raised by the more recent formulation of the migration – marginality relation is that of establishing the initial urban foothold of migrants while they are supposedly acquiring the means and the degree of urban know-how which will permit them to eventually set up residence on the periphery.

One answer to this question which has been put forth is that recent arrivals are funnelled directly to the deteriorating and therefore least-expensive residential sections of the central city. Such a move purportedly permits the recent migrant to find lodgings in keeping with his meager resources while at the same time providing easy access to the centrally-located sources of unskilled transitory employment.

Dietz notes, for instance, that in Lima, the most readily-available menial and unskilled jobs are to be found in the center of the city, especially around La Parada, the sprawling downtown wholesale market. "Living in such a locale allows a migrant to become acculturated to an urban way of life. Such acculturation may include many necessary and profound steps if the individual is to succeed and survive in the city: he may have to learn what it means to live in a money economy when his previous experiences have been largely with subsistence agriculture. He may have to learn, or at least to improve, his Spanish, change his dress, and become accustomed to what is likely to be an entirely new way of working, living and thinking".16/

In such a perspective, the answer that recent arrivals are customarily channelled to inexpensive centrally-located housing makes considerable logical sense. Unfortunately, empirical evidence is too sketchy to permit verification of this plausible argument. Peripheral shantytowns and squatter settlements have ever been a more attractive site for investigation and scant attention has been paid to other types of lower-strata settlements. Several impressionistic statements would bear out the pattern of direct migration to the decaying central city and Cardona reports that three-quarters of the peripheral shantytown resident migrants which he surveyed in Bogotá had established their first residence upon arrival in the city in rented central city rooms or houses. Asides from this investigation, however, satisfactory data are altogether lacking.

In light of the foregoing, we can state that the most plausible hypothesis now available concerning marginality and migration is that recent lower-strata migrants, particularly if they proceed from small towns and rural areas, establish their residence in the low-rent central city areas where they will have access to the most readily-available unskilled jobs; several years thereafter, having become accustomed to the ways of city life, to the vagaries of bureaucratic procedure or to the merits of group organization, they become candidates for a move to the peripheral shantytowns where they hope to set up a permanent rent-free home.

The assumption underlying this perspective of course is that in the competition for residential space, the least-equipped inhabitants are shunted off towards the least desirable areas. Consequently, peripheral shantytowns are implicitly rated above other marginal residential sectors. Is this assumption readily justifiable or is it merely a convenient explanatory instrument?

In Santiago, Rosenbluth made an extensive listing and classification of marginal populations, and pointed to three principal categories of marginal nuclei – the conventillos, the callampas and the población sub-urbana (or, semi-segregated urban nuclei). The conventillos are centrally-located

17/ Cardona - (op. cit.), pp. 69-72.
in the oldest proletarian residential areas of the city while the two other types of marginal settlement are located on the periphery. In this particular instance, accounting for such factors as type of housing, availability of urban services, overcrowding, access to place of work and stability, Rosenbluth actually finds that one type of peripheral settlement, the *callampas* are a decidedly inferior residential habitat, by comparison to the central *conventillos*.

To what extent does this relative ecological sealing prevail in other Latin American cities? Again, available data are deficient in this respect. In a recent survey of Lima, the entire city was subdivided into five more or less homogeneous strata and considerable use has been made of this scale for analytic purposes. However, both the lowest two levels, which are commonly-identified with marginal residential sectors, include peripheral as well as centrally-located sectors; moreover, neither provides the fine type of discrimination which the present objectives would require. In Rio de Janeiro, one can find special tabulations on the favelas both in census and other survey materials but again no distinctions are made between type and location by comparative composition of the constituent sub-groups.

To be sure, various investigations have reported the existence of a hierarchy among marginal settlements as well as among the inhabitants of these settlements. On Rio's *morros*, for instance, the authors of the SAGMAGS study indicated a gradient in the socio-economic level of favela-dwellers from the bottom to the top of the hills; more accessible and more amenable-to-construction terrains at lower levels resulted in higher land values and, on the basis of the same criteria, the uppermost favela shacks were inhabited by the poorest favelados. Martins and Cardoso also indicate a clearly-visible stratification system in the favelas of Rio and Sao Paulo.

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18/ Rosenbluth — "Problemas ..." *(op.cit.)*, chapters 3 and 4.


20/ SAGMAGS — "Aspectos humanos da favela carioca", *O Estado de Sao Paulo*, special supplements 1 and 2, April 13 and 15, Sao Paulo, 1960.
which result in differential behavioural and attitudinal patterns among the various strata.\textsuperscript{21}

Turner, generalizing from his experiences in several Latin American cities on the west coast distinguishes between marginal settlements in terms of their potentialities for growth and improvement (incipient vs. semi-provisional and provisional, and, improving vs. stagnating and deteriorating) as well as in terms of the functions they perform for their inhabitants (bridgehead vs. consolidation).\textsuperscript{22} DESAL formulated a typology of poblaciones in Chile grouping them in ascendent order according to the socio-economic characteristics of their inhabitants; the scale ranges from the callampas at the lowest level to the residential clusters constructed by CORVI and other institutions.\textsuperscript{23}

All of these criteria and their resulting classificatory schemes have an obvious utility but from our point of view in trying to assess the nature and direction of migratory flow to the urban marginal population, the main problem is that precious little information is available concerning the relative composition of the various classes of marginal populations. We attempted verifying the commonly-held notion that recent migrants are more likely to be directed towards the least desirable residential areas in the central city while acquiring the urban savoir-faire for an eventual move to the supposedly superior housing on the periphery. But, upon examining available evidence, it was found that in at least one city, Santiago, the central city marginal clusters are at the lowest rung on the residential scale by zones. Comparable city-wide information for other cities was not uncovered by the present research.

Hence, in the absence of further systematic evidence concerning the residential distribution of migrants by origin and by duration of residence,


\textsuperscript{23} Cited in Rosenbluth — "La participación..." (op.cit.), pp. 11-14.
the notion of a central city clustering of recent migrants and of a gradual shifting of these same migrants towards the outskirts over time remains a plausible explanation but nothing more tangible. Moreover, with respect to our central problem of the contribution of migrants to shantytown growth, the data limitations are even more blatant if we attempt analysis on a large scale.

Given these circumstances, we will concentrate on the relationships between migration and the growth of lower-strata residential nuclei in one city where available data sources are in many ways exceptional. As a result of the heated public debate generated by the rapid growth of favelas in Rio during the years immediately following World War II, the Instituto Brasileiro de Geografia e Estatística (IBGE) undertook, as part of its 1950 census programme, the preparation of extensive special tabulations relating solely to the favela population. This procedure was repeated in 1960 (and presumably in 1970) and the extensive information contained therein can further be complemented by a special survey carried out in 1965. The nature of these data, coupled with the importance of Rio de Janeiro among Latin American cities plus the prominence of its favela population, lend particular interest to a case study of migration's relation to favela growth in that city.

To be sure, the Rio data cannot be considered as representative of other cities. Topographical peculiarities have dictated that the expansion of the city be restricted to growth within a 90 degree radius. Moreover, within this limit, a major mountain range, the Serra da Carioca, divides the city into two unequal parts and further impedes normal development. These features have obvious implications for our study. For instance, it becomes less meaningful to discuss 'center' and 'periphery' than in a city which has the potential of expanding in ever-increasing circles around a basic nucleus.

/II. MIGRATION
II. MIGRATION AND THE GROWTH OF FAVELAS IN RIO DE JANEIRO

As early as the 1880's, the proliferation of slums within the city of Rio de Janeiro gave rise to urgent public debate. At that time, the poorest population was sheltered in sprawling collective dwellings in the very center of the city. During the early years of the 20th century, the opening of the Avenida Central (later, Avenida Rio Branco) in the heart of the central business district caused the demolition of some two to three thousand buildings and forced former central slum residents to relocate on the periphery. The suburban movement of population in the early decades of this century was favoured by a relatively well-organized and inexpensive transportation system.

This system, however, was unable to accommodate the great increase of suburban population which began in the 1930's, nourished by an influx of migrants into the city as a result of a depressed agricultural economy and the development of urban-industrial industry. Faced with an aggravated housing and transportation problem in a city which by nature of its location and topography, could only expand unidimensionally within a 90 degree radius, the growing lower strata population chose the only expedient which provided inexpensive housing and accessibility to place of work, that is, vertical expansion on hills and mountains and, invasion of vacant lowlands.

This complex of interrelated economic difficulties gave rise to the modern favelas and our concern here will be with their recent growth dynamics. More specifically, we will examine the size and location of favela populations, their differential growth by geographical sectors, the residential distribution of migrants and the contribution of migration to favela growth.

1. Size and location of favelas

Despite the superiority of available information on Rio's favelas, the exact size of the favela population at any one time cannot be affirmed. At least twelve surveys proposing to investigate the number of favelas and favelados in the city were carried out between 1948 and 1965; starting out with varying
with varying operational definitions, these surveys often arrived at incompatible findings.\textsuperscript{25/}

Evaluating these various data sources, it can be asserted that the three primary surveys to be utilized in this section represent only the minimum number of readily-visible and readily-identifiable favelas which exist in Rio. Nevertheless, the survey criteria adopted for the delimitation of favelas in these investigations have the merit of being uniform over time; moreover, if we assume, as is reasonable, that the characteristics of the non-enumerated population do not differ systematically from those of favelados who were included in the tabulations, the resulting information is worthy of credit.

a) Favela growth 1950-65

The criteria defining a favela in the IBGE's 1950 census of favelas were fivefold:

i) size: the agglomeration to be considered as a favela normally exceeds 50 buildings or dwellings.

ii) type of dwelling: the predominance of shacks and rustic dwellings usually constructed of galvanized sheets, planks or similar materials.

iii) juridical condition: construction carried out without benefit of licenses or inspections, on land belonging to third parties or whose ownership is unknown.

iv) public improvements: absence in part or in whole of lighting, telephones, sewers, and running water.

v) urbanization: lacking proper division of streets, numbering, feering or rating system.\textsuperscript{26/}

Using these criteria, the IBGE in 1950 recorded the presence of 58 favelas sheltering 169,305 inhabitants corresponding to 7.1 per cent of the city's total population. According to an admission made by the census directors, these results, because of methodological problems,

\textsuperscript{25/} For further details on these surveys, their methodology and results, cf. George Martine - \textit{Internal Migration and its consequences: the case of Guanabara State}, University Microfilms, Ann Arbor Michigan, pp. 217-225.

\textsuperscript{26/} Cf. Guimarães (op.cit.), pp. 250-251.
cannot be considered as referring to the totality of the city's favela population; they include only those inhabitants of the 58 favelas which could be located and investigated.\textsuperscript{27}

In 1960, the IBGE adopted the same criteria as before, with the exception that the minimum requisite number of dwellings was omitted.\textsuperscript{28} Partly as a result of this modified classificatory system, the IBGE noted the existence of 147 favelas; these included 337,400 inhabitants or, an increase of almost 100 per cent over the number of favelados enumerated in 1950. In comparison, the population of the entire city increased by only 39 per cent in the interim; as a result of these differential rates of growth "official" favelados increased their proportion of the total population from 7.1 per cent in 1950 to 12.1 per cent in 1960.\textsuperscript{29}

Our latest source of information on the favelas at the present time is a sample survey carried out by the State of Guanabara in 1965. Therein, the 1960 census classification of favelas was adopted and, as a consequence, the total number of favelados was probably underestimated in proportions similar to those omitted in 1960. In any case, this survey reported 327,800 favelados, an increase of 11 per cent over 1960.\textsuperscript{30} This, however, should not be interpreted as necessarily indicating a decreasing rate of favela growth since methodological considerations certainly decreed the obtention of this minimal figure.

\textsuperscript{27} Ibid, p. 251.
\textsuperscript{28} IBGE - Sinopse Preliminar do Censo Demográfico, 1960, Estado da Guanabara, 1960, p. v.
b) Location of favelas

Although the figures quoted above probably underestimate the true population of the favelas, the important definitions and data collection procedures utilized therein remain unchanged. Consequently, the geographical distribution of favelas, and particularly the growth of favelas in the intercensal period in the various census regions should be coherent from one date to another.

In 1950, as shown in table 1 and figure 1, the majority of favelados were located in three census zones; Tijuca, Litoral and Orla Norte of Guanabara Bay. The first two census zones are primarily residential areas while the third is a zone of industrial expansion traversed by most of the main railroads and thoroughfares. On the basis of information relating to the ecological function of each zone, it is fair to assume that the favelas of the southern Litoral and Orla Sul generally provided housing for domestic employees catering to the needs of the high and middle class population of these residential areas, as well as laborers for the construction boom being experienced by these zones. The smaller favelas of the central region likely provided shelter for lower class workers in service and commerce activities of the central business district as well as for dock-workers in the nearby port facilities. The numerous favelados installed in the more remote zones of Tijuca, Meier and Orla Norte were, in all probability, largely employed in the industrial and manufacturing concerns proliferating in the northern section of the city.

As in evident from table 1 and figure 1, the favela population did not grow at the same rate throughout the city during the 1950-60 decade. Generally, growth was much more rapid in the northern part of the state than in the more traditional favela zones of the south and center. In absolute terms, the increase was highest in Orla Norte where about 72,000 new favelados were enumerated by the 1960 census. Next came the Tijuca zone with an increase of 25,600, followed by the Litoral with an increase of 20,700. In relative terms, Madureira, a
mixed industrial and lower-class residential area, had the highest percentage growth (214 %) followed by Orla Norte, Campe Grande and Tijuca – all of these being located to the north of the central business district. Moreover, important new growth was registered in the northern peripheral areas of Irajá and Anchieta as well as on the Ilha do Governador.

Thus, decennial growth rates show that favela development is preponderantly taking place on the northern periphery of the state. This notable increase in the northern areas can tentatively be attributed to the saturation of the favelas in the southern and central zones and by the exhaustion of all open lands and accessible hills in that part of the city. Additionally, northern favela development was probably enhanced by the concentration of manufacturing and industrial concerns in that area.

The trend towards peripheral expansion of favelas in the northern zone is confirmed by a recent map provided by COHAB which is reproduced in figure 2. Although not strictly comparable to the 1950 and 1960 censuses, the information shown therein again illustrates accentuated northern expansion. According to this map, in 1967, 51 per cent of all favelados were established in the Orla Norte and in the distant zones of Campe Grande, Madureira and Irapá while the Tijuca zone sheltered another 9 per cent. In contrast, the Litoral, Orla Sul and Center altogether contained only 16 per cent of the total favela population.

In brief, from our study of the growth and location of favelas, we conclude to intensified shanty-town expansion in the whole of Rio de Janeiro; this expansion is particularly noticeable in the northern regions of the state as a consequence of the saturation of older sites in the southern zone and intensification of industrial growth attracting low-wage workers to the northern sector.
Table 1
LOCATION OF FAVELAS AND GROWTH RATES BY CENSUS ZONES, 1950-1960

<table>
<thead>
<tr>
<th>Census Zones</th>
<th>1960</th>
<th>1950</th>
<th>Absolute increase 1950-60</th>
<th>% Increase 1950-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Litoral</td>
<td>55906</td>
<td>35222</td>
<td>20684</td>
<td>59</td>
</tr>
<tr>
<td>2. Orla Norte</td>
<td>111540</td>
<td>39679</td>
<td>71861</td>
<td>181</td>
</tr>
<tr>
<td>3. Orla Central</td>
<td>12177</td>
<td>10230</td>
<td>1947</td>
<td>19</td>
</tr>
<tr>
<td>4. Orla Sul</td>
<td>11215</td>
<td>7876</td>
<td>3339</td>
<td>43</td>
</tr>
<tr>
<td>5. Tijuca</td>
<td>63567</td>
<td>37930</td>
<td>25637</td>
<td>68</td>
</tr>
<tr>
<td>6. Meier</td>
<td>43722</td>
<td>30559</td>
<td>13163</td>
<td>43</td>
</tr>
<tr>
<td>7. Madureira</td>
<td>6497</td>
<td>2071</td>
<td>4426</td>
<td>214</td>
</tr>
<tr>
<td>8. Campo Grande</td>
<td>14353</td>
<td>5938</td>
<td>8415</td>
<td>142</td>
</tr>
<tr>
<td>9. Irajá</td>
<td>8950</td>
<td>-</td>
<td>8950</td>
<td>-</td>
</tr>
<tr>
<td>10. Anchieta</td>
<td>3077</td>
<td>-</td>
<td>3077</td>
<td>-</td>
</tr>
<tr>
<td>11. Ilhas</td>
<td>6408</td>
<td>-</td>
<td>6408</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>337412</td>
<td>169505</td>
<td>167907</td>
<td>22</td>
</tr>
</tbody>
</table>

Figure 2 - LOCATION OF FAVELAS CLUSTERS, 1967

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>No. of Favelas</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3</td>
<td>Litoral and Orla Sul</td>
<td>51</td>
<td>190,800</td>
</tr>
<tr>
<td>4,5</td>
<td>Orla Central and I. Governad.</td>
<td>14</td>
<td>27,400</td>
</tr>
<tr>
<td>6,7,8</td>
<td>Orla Norte</td>
<td>48</td>
<td>281,700</td>
</tr>
<tr>
<td>9,10</td>
<td>Tijuca, Meier</td>
<td>28</td>
<td>85,000</td>
</tr>
<tr>
<td>11</td>
<td>Medureira, Irajá, Anchieta</td>
<td>23</td>
<td>85,600</td>
</tr>
<tr>
<td>12,13</td>
<td>Jacarepaguá and Campo Grande</td>
<td>17</td>
<td>36,700</td>
</tr>
<tr>
<td>14,15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: COHAB, Map of Favelas, 1967
2. Migration, favela composition and favela growth

Whatever the relative merits of previously-cited figures on total size of the favela population, one fact is unquestionable, namely that the number of people living in Rio’s lower strata sectors is growing rapidly. In demographic terms, what accounts for the increment of favela population? Because of the imprecise and changing nature of favela boundaries, it is evidently impossible to formulate intercensal migration estimates, nevertheless pertinent information on the role played by migration in favela growth can be gained by comparing data on the state of birth of favelados at various dates.

In 1950, more than 61 per cent of Rio’s favelados were born elsewhere than in Rio. By contrast, in the city of Rio de Janeiro, migrants made up only 40 per cent of the total population.21/ In terms of origin, as shown in table 2, migrants from the neighboring states of Rio de Janeiro and Minas Gerais constituted 28 per cent and 17 per cent, respectively, of enumerated favelados in 1950. The relatively small but adjacent state of Espirito Santo at this time contributed as much as did the entire Northeastern region, both yielding in the vicinity of 6 to 7 per cent of all favelados. The larger but more distant state of Bahia contributed some 2 per cent of all favelados while all the other states of Brazil together yielded another 2 per cent.

As can be seen from table 2, two significant changes occurred between 1950 and 1960 in the composition by birthplace of the favela population. Firstly, by 1960, the proportion of all favelados born elsewhere than in Rio had dropped nine percentage points; nevertheless the migrants again constituted a much larger proportion of favelados than of the city’s population at the same date since only 38 per cent of all Rio’s residents were migrants as of 1960, as compared to 53 per cent of all favelados.

21/ The background information on the total population of Rio de Janeiro which is presented here and in subsequent pages is taken from Martine (op. cit.) especially chapters 3 and 5.
Table 2

PLACE OF BIRTH OF THE FAVELA POPULATION, 1950, 1960 and 1965

<table>
<thead>
<tr>
<th>Place of Birth</th>
<th>1950</th>
<th>1960</th>
<th>1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio de Janeiro (city)</td>
<td>38.7</td>
<td>47.2</td>
<td>51.4</td>
</tr>
<tr>
<td>All Others</td>
<td>61.3</td>
<td>52.8</td>
<td>48.6</td>
</tr>
<tr>
<td>Bahia</td>
<td>1.8</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Minas Gerais</td>
<td>16.5</td>
<td>11.4</td>
<td>9.0</td>
</tr>
<tr>
<td>Espirito Santo</td>
<td>7.1</td>
<td>4.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Rio de Janeiro (state)</td>
<td>27.5</td>
<td>16.8</td>
<td>14.9</td>
</tr>
<tr>
<td>Northeast</td>
<td>5.9</td>
<td>14.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Other states</td>
<td>2.4</td>
<td>2.2</td>
<td>2.5</td>
</tr>
<tr>
<td>Foreigners</td>
<td>-</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>


/Secondly, important
Secondly, important alterations were registered in the relative contribution of various states and regions to Rio's favelas between 1950-60; while the proportion of all favelados constituted by migrants from the nearby states of Rio de Janeiro, Minas Gerais and Espírito Santo decreased importantly, that constituted by Northeasterns rose from 6 to 14 per cent, testifying to the sweeping social, demographic and economic changes which shook the Northeast during the 1950's. These modifications by migrant origin are again reflective of changing migration patterns at the city level.

These same two trends persisted to 1965 when native Cariocas constituted, for the first time, the majority of all favelados. According to table 2, 51.4 per cent of the total favela population were natives of Rio as of 1965. Since this change is of considerable significance, the increasingly preponderant role of Cariocas in favela growth receive more detailed attention below. For the present, looking at the composition of the migrant population in 1965, it can be noted that, in conformity with 1950-60 trends, the proportion of all favelados constituted by migrants from the Northeast continued to increase; hence, by 1965, this contingent represented the largest of all migrant groups in the favelas.

Concomitantly, the proportion of favelados from the adjacent states of Rio de Janeiro, Minas Gerais and Espírito Santo continued to decrease. It is important to note, however, that in absolute terms, the number of favelados from each of these states was still rising. Yet, the absolute increase in the number of favelados from the Northeast was greater than that from all other states combined during the 1950-65 period. Interestingly enough, the increase in the proportion of favelados from the Northeast runs counter to the trend noted in the examination of migration streams to the city of Rio; this would thus indicate that a growing proportion of Northeasterners are finding their way into the favelas.

Thus, over the 1950-65 period, the predominant trend evident in the demographic composition of favela population related to the increasing predominance of native Cariocas. How can this steady rise be interpreted? Is it due to the worsening of living conditions among native Cariocas?
and hence, either to the reclassification of other residential areas as favelas or, to mass movements of Cariocas from other residential areas into the favelas? Or is it due to internal changes in the demographic structure of the favela population?

The answer appears to be in the second alternative, more specifically from the fact that a substantial proportion of all native favelados are, in all likelihood, born to migrant parents but registered as native Cariocas because born after their parents' arrival in the state. Indeed, the mere scrutiny of the comparative age structure of migrants and non-migrants in Table 3 would tend to confirm this explanation since it reveals that the great majority of Carioca favelados are in the youngest age groups, while migrants are disproportionately found in the central age categories. Thus, for instance, in each of the 1950, 1960 and 1965 surveys, close to 70 per cent of all favelados born in Rio were less than fifteen years old. By contrast, the great majority of favelados born elsewhere than in Rio were in the 15-39 age groups.

These figures, taken by themselves, would already suggest that a substantial proportion of Cariocas in the favelas are, in all probability, the children of migrants. To test this hypothesis, some simple calculations can be performed. The various steps involved in this technique can be summarized as follows:

1) It is first necessary to assume that the fertility rate (in this case, the Child-Woman Ratio) of migrant and non-migrant favela women in the childbearing age groups will be approximately equal. Since we are trying to demonstrate that migrants account for the majority of native births in the favelas, this assumption is essentially conservative since in actuality, the Child-Woman Ratio of migrants is likely to be higher than that of natives. This latter affirmation is based not so much on the expectation that the usual native-migrant differential will hold true in the favelas, but rather on the easily-verifiable fact that migrant women in the age group 15-49 are predominant in the central childbearing ages i.e. — in the age groups normally associated with high fertility.
Table 3


<table>
<thead>
<tr>
<th>Age</th>
<th>1950</th>
<th>1960</th>
<th>1965</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rio</td>
<td>all</td>
<td>Rio</td>
</tr>
<tr>
<td></td>
<td>others</td>
<td>others</td>
<td>others</td>
</tr>
<tr>
<td>0 - 14</td>
<td>67.1</td>
<td>17.4</td>
<td>73.4</td>
</tr>
<tr>
<td>15 - 39</td>
<td>26.2</td>
<td>60.2</td>
<td>22.2</td>
</tr>
<tr>
<td>40+</td>
<td>6.7</td>
<td>22.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

2) Calculate the Child-Woman Ratio for the total favela population. For instance, in 1950, a total of 46,115 women in the childbearing ages had borne a total of 26,850 children aged 0-4, for a Child-Woman Ratio of 583. Of these 26,850 favela children, 3,997 were migrants and 22,853 were natives of Rio.

3) Assuming that the Child-Woman Ratio of native women is equal to that of favela women (cf. No 1 above), the number of children aged 0-4 born to native women as of 1950 can be calculated. Thus, if 1,000 favela women had 583 children, then 9,460 native favela women had 5,515 children. This is equal to 24.1 per cent of the 22,853 native children aged 0-4 and present in the favelas as of 1950.

4) The remainder of all favela children aged 0-4 (26,850 minus 5,515 or, 21,335) were therefore born to migrant women. But of these 21,335, some 3,997 children were themselves migrants, that is, they were born prior to their parents' arrival in Rio. Hence, 17,338 (i.e., 21,335 minus 3,997) native children aged 0-4 in 1950 were born to migrant parents after their arrival in the city. This represents 75.9 per cent of the 22,853 native children aged 0-4 and living in the favelas as of 1950.

From these calculations, we thus conclude that at least 75.9 per cent of all 0-4 favela children reported as natives of Rio in 1950 were actually born to migrant parents. Performing similar calculations on 1960 data, we find that migrants account for 75.2 per cent of all native children aged 0-4 in 1960. Were we to possess information on the age-specific fertility of migrant and native women, it is certain that, given the older median age of migrant women, this proportion could well be ever 80 per cent.

Although these computations cannot be performed for 1955 and 1965, the proportions computed for 1950 and 1960 are so similar (i.e., 75.9 per cent and 75.2 per cent) that we can safely assume that at least 75 per cent of the native children aged 0-4 in 1955 and 1965 were also born to migrant parents. In short, given the essentially conservative assumptions on which these computations are based, it can be deduced
that at least 75 per cent of all native children born in the favelas between 1945 and 1965 were in fact born to migrant parents.

These findings thus indicate that the increasing proportion of native Cariocas is attributable, not to the mass movement of Cariocas from other residential areas into the favelas or to the reclassification of other sites as favelas, but rather to the fertility of migrant favelados after their arrival in Rio. Indeed, if we consider the fact that native Cariocas aged 0-4 in 1950 will be aged 15-19 in 1965, and that similarly, the 0-4 age group in 1955 and in 1960 will be aged 10-14 and 5-9, respectively, in 1965, then it can be deduced from the above computations that some 75 per cent of the 0-4, 5-9, 10-14 and 15-19 natives present in the favelas as of 1965 were the children of migrant women. Thus, of the 149,341 native favelados aged 0-19 enumerated in the 1965 survey, at least 112,000 were born to migrant parents; this represents almost 60 per cent of all native favelados living in Rio at that date. In short, even without considering the migrant offspring aged 20 and over, migrants and their children made up some 80 per cent of all Rio's favelados in 1965.

Paradoxically, however, population growth in the favelas is increasingly attributable to natural increase among present favelados rather than to in-movement from other states. Although it is impossible to calculate the relative contribution of migration and natural increase in the total growth of the favela population, it is nevertheless interesting to compare the growth rates of the native and migrant favela population. For instance, it is of some significance that during the 1950-60 period, the native population grew by 150 per cent while that of migrant favelados grew by only 74 per cent; similarly in the 1960-65 period, the increase of native favelados was eleven times greater than that of migrants. Moreover, the role of migrations per se in favela growth can be expected to decrease rapidly in coming years as native favelados born to migrants in earlier years now reach the childbearing age groups in larger numbers and produce a second generation of native favelados.

/3. Marginality
3. Marginality and the residential distribution of migrants

The previous section has demonstrated that migrants are disproportionately represented in the favelas of Rio de Janeiro by comparison to the entire city population. Nevertheless, it was also established that the favelas are progressively being populated by native-born residents although migrants have, in the past, been responsible for the greater share of favela growth. Within a larger perspective of the migration process, it is now of some interest to ask - is the absorption of migrants into marginal residential areas characteristic of the majority of migrants? Do migrants tend to cluster in other areas as well? What proportion of all migrants end up in the favelas? How does duration of residence affect the migrants’ ability to compete for more desirable residential space?

In effect, the analysis of the interplay between migration and ecological stratification cannot be adequately investigated by referring solely to information on the favela population since the latter procedure throws no light on the relative adjustment of migrants to urban life. Available information on Rio de Janeiro, though less complete than would be desired (since they do not permit discrimination of differences between various classes of favelas) are nevertheless of unusual breadth and quality in this matter.

For purposes of the aforementioned 1965 survey, the city of Rio was sub-divided into twelve zones: eleven of these correspond to fairly well delineated ecological areas while the twelfth is comprised by all of the city’s favelas, regardless of their location. Table 4 computed from the survey’s information, shows the percentage of the total population and of migrants and non-migrants in each of the zones.

These census zones are, evidently, less than homogeneous, yet taking each as a unit, a ranking order valid for the global population of each can nevertheless be established. In order to gauge the relative "residential desirability" of each census zone, a rough index was
### Table 4

**Residential Distribution of Rio de Janeiro’s Population, by Place of Birth, 1964**

<table>
<thead>
<tr>
<th>Place of Birth</th>
<th>Litoral</th>
<th>Orla Sul</th>
<th>Tijuca</th>
<th>Ilhas</th>
<th>Meier</th>
<th>Orla Norte</th>
<th>Orla Central</th>
<th>Jacarepaguá</th>
<th>Madureira</th>
<th>Campo Grande</th>
<th>Irajá</th>
<th>Pavanas</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio de Janeiro</td>
<td>7.8</td>
<td>4.6</td>
<td>10.7</td>
<td>1.9</td>
<td>12.7</td>
<td>12.4</td>
<td>2.4</td>
<td>5.7</td>
<td>9.8</td>
<td>16.4</td>
<td>7.0</td>
<td>8.6</td>
<td>100.0</td>
</tr>
<tr>
<td>All others</td>
<td>13.3</td>
<td>9.0</td>
<td>11.5</td>
<td>2.5</td>
<td>9.4</td>
<td>10.4</td>
<td>2.7</td>
<td>4.1</td>
<td>7.4</td>
<td>10.6</td>
<td>5.2</td>
<td>13.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Bahia</td>
<td>10.1</td>
<td>11.0</td>
<td>15.8</td>
<td>1.5</td>
<td>8.1</td>
<td>10.4</td>
<td>3.9</td>
<td>3.8</td>
<td>10.2</td>
<td>7.3</td>
<td>4.5</td>
<td>13.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Ilhas Gerais</td>
<td>16.2</td>
<td>9.1</td>
<td>11.2</td>
<td>1.6</td>
<td>9.9</td>
<td>9.6</td>
<td>2.2</td>
<td>3.6</td>
<td>6.1</td>
<td>11.1</td>
<td>4.6</td>
<td>14.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Espírito Santo</td>
<td>11.2</td>
<td>5.2</td>
<td>10.5</td>
<td>2.0</td>
<td>5.5</td>
<td>10.8</td>
<td>2.4</td>
<td>2.2</td>
<td>8.1</td>
<td>9.2</td>
<td>13.4</td>
<td>19.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>9.8</td>
<td>6.8</td>
<td>9.4</td>
<td>2.4</td>
<td>11.2</td>
<td>11.2</td>
<td>1.8</td>
<td>4.9</td>
<td>8.6</td>
<td>12.3</td>
<td>6.8</td>
<td>14.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Northeast</td>
<td>10.9</td>
<td>8.2</td>
<td>10.5</td>
<td>3.2</td>
<td>7.3</td>
<td>10.9</td>
<td>3.5</td>
<td>2.6</td>
<td>7.4</td>
<td>12.7</td>
<td>4.4</td>
<td>18.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Others</td>
<td>20.8</td>
<td>13.9</td>
<td>15.3</td>
<td>3.1</td>
<td>10.2</td>
<td>8.8</td>
<td>3.1</td>
<td>5.8</td>
<td>5.7</td>
<td>6.1</td>
<td>3.3</td>
<td>4.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>23.8</td>
<td>6.2</td>
<td>11.0</td>
<td>2.1</td>
<td>11.5</td>
<td>11.6</td>
<td>2.5</td>
<td>5.1</td>
<td>8.2</td>
<td>14.3</td>
<td>6.4</td>
<td>10.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>


a/ Table refers to native Brazilians only.

b/ The residential zones are in rank order from best (extreme left) to worst (extreme right).
formulated based on residents' average income.\footnote{This information on residents' average income was taken from the \footnote{\begin{Latin}\footnote{\begin{Latin}}1965 Guanabara State Survey.\footnote{\begin{Latin}}\end{Latin}}\footnote{\begin{Latin}}\end{Latin}Endnote 33, above.}} According to this index, the best residential area is formed by the Litoral zone (which includes the beach area centered on Copacabana, Leblon, Ipanema, etc.), followed by Orla Sul (Botafogo, Catete, Flamengo, Laranjeiras, Urca) and Tijuca. The poorest residential areas are formed by Campo Grande, Irajá and lastly, the favelas. This ranking order, reproduced in table 4, is necessarily approximative, yet it corresponds quite closely with a popularly-acknowledge hierarchy of residential desirability and with the average advertised rental values in each zone.

Pairing first the migrant and non-migrant blocs and comparing their residential distribution across various zones, we make the discovery that migrants are, on the whole, apparently better off than native Cariocas. Indeed, migrants have higher proportions of their population living in each of the four 'most desirable' residential areas and their numerical superiority is particularly great in the two most exclusive residential zones. Native Cariocas in turn have higher proportions of their population than migrants in each of the intermediary and lower level residential areas, except in the Central zone and the favelas. Interestingly enough, however, the migrants' preponderance in the favelas is as large as it was in the most exclusive residential areas. As a matter of fact, more migrants live in the favelas than in any other single census district.

Turning now to the residential distribution of migrants from each of the several states and regions, we find one group enjoying a distinct advantage over both native Cariocas and fellow-migrants; this privileged group is constituted by the residual "Others" category which is largely made up of migrants from the more developed Southern states, particularly from the state of São Paulo. This group has better than one-third of its total living in the two foremost residential areas and by far the lowest proportion in the four least desirable areas.

Of the remaining five migrant groups shown in table 4, four have their largest contingents residing in the favelas and the fifth (migrants from Minas Gerais) has a slightly higher proportion in the better residential areas.
area than in the favelas. But at the same time, all five groups have a higher proportion of their respective totals living in the two most exclusive residential areas than do native Cariocas. In general terms, migrants from adjacent Espírito Santo appear to have the least favorable residential situation in that they have the largest proportions living in the favelas and in the low-class residential areas.

Overall, the analysis of residential distribution would thus suggest that migrants are more likely to be accommodated in the two extreme residential categories with non-migrants predominating in all of the intermediary positions. To be sure, this conclusion is subject to the classic criticisms of the ecological approach; more specifically, it is possible that some of the migrants' residential pre-eminence in better areas is due to the employment of migrants as domestic employees in these districts.

Nevertheless, by the very magnitude of the migrant contingent in the better residential areas, it is possible to assert that the proportion of such low-status migrant residents has to be small — or else we would encounter more live-in domestic employees than other categories of residents in the area. Moreover, the disproportionate representation of migrants at both extremes of the residential scale is consonant with data on the relative income and education of migrants in Rio which indicate that migration is selective of the highest and lowest socio-economic strata.22/ How does the migrants' length of residence in Rio de Janeiro affect their residential adaptation? On the assumption that, all other things being equal, the longer migrants have resided in the city, the greater their level of skills and resources and thus the more satisfactory their socio-economic adaptations, we would expect earlier migrants to be residing predominantly in the better residential areas. Computations based on duration of residence data from the 1960 census were used to test this hypothesis. These tabulations showed the length of residence.

22/ Cf. Martine (op. cit.) chapter 5.
of migrants to Rio in each of the census zones as of 1960. Unfortunately, the IBGE did not consider the favelas as a separate entity in these particular tabulations and hence favela-dwellers are included as part of the population of each of the other census zones. Hence the data presented in table 5 are not strictly comparable to those presented in the previous table. Nevertheless, favela-dwellers constitute but a minor segment of each zone's population and consequently the previously-elaborated ranking order of residential zones, when regrouped into broader categories, should remain generally valid when using 1960 census information.

To test the hypothesis that earlier migrants will predominate in the better residential areas, census zones were delimited into three broad categories following the ranking order elaborated above. The first category consists of the four best residential areas - Litoral, Orla Sul, Tijuca, and the Ilhas. The second intermediate category is made up of the districts of Meier, Orla Norte and Orla Central, while the lowest level is made up of the districts of Jacarepaguá, Rural, Nadureira, Campo Grande, Anchieta and Irajá. As shown in table 5, altogether 37 per cent of Rio's migrant population lives in the first group of districts, 34.1 per cent in the second, and, 29.0 per cent in the third cluster.

If our hypothesis was to be born out, we would expect that the proportions of recent arrivals (i.e., those with less than two years of residence in Rio) would be small in the first group and larger in the other two. As length of residence increased, the proportion in the first group should increase to the detriment of proportions in the other two groups. Contrary to our expectations, however, exactly the opposite patterns hold true. As of 1960, 43 per cent of all recent arrivals lived in the first group; the proportion dropped to 39 per cent for those with 3 to 5 years of residence and to 36 per cent among migrants residing in Rio for six or more years. Conversely, the intermediate group included 30 per cent of recent arrivals, 33 per cent of migrants having 3 to 5 years of residence, 34 per cent of those with six or more years of residence and 35 per cent of those with 11 or more years of residence in Rio. Similarly, the least desirable residential
Table 5

DISTRIBUTION OF MIGRANTS AMONG THE BETTER, INTERMEDIATE AND WORST RESIDENTIAL ZONES OF RIO DE JANEIRO, BY DURATION OF RESIDENCE IN THE CITY

(Percentages)

<table>
<thead>
<tr>
<th>Residential Zones</th>
<th>Duration of Residence in Rio</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to 2 years</td>
<td>3-5 years</td>
<td>6-10 years</td>
<td>11+ years</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>Better</td>
<td>42.8</td>
<td>39.0</td>
<td>35.6</td>
<td>35.6</td>
<td>36.9</td>
<td>36.9</td>
</tr>
<tr>
<td>Intermediate</td>
<td>30.4</td>
<td>32.5</td>
<td>34.2</td>
<td>34.8</td>
<td>38.2</td>
<td>34.1</td>
</tr>
<tr>
<td>Worst</td>
<td>26.7</td>
<td>28.5</td>
<td>30.2</td>
<td>29.6</td>
<td>24.8</td>
<td>29.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

areas included 27 per cent of recent arrivals as compared to 29 per cent, 30 per cent and 30 per cent, respectively, of the other three groups. In short, the data presented in table 5 reveal patterns in exact contradiction to our hypothesis.

Two alternate explanations can be entertained concerning the discrepancy between expected and actual residential patterns. First, the patterns shown in table 5 might be attributable to methodological problems. In effect, it was noted above that none of the three zones represented in this table is completely homogeneous and consequently, it is possible that recent arrivals are settling in the poorer areas of the 'Better Residential Zones'. But, this could only occur if either: a) new inferior residences are being erected within the 'Better Residential Zones', thus providing housing for lower strata recent arrivals, or, b) the more established residents of the poorer areas within this zone are yielding their places to recent arrivals in order to take up residence in Zones II and III.

In actuality, neither of these alternatives merits much credit. First, new lower-class housing is being erected almost exclusively in Zones II and III, and second, even favela housing is more prized in Zone I than elsewhere. Hence, to state that recent arrivals are replacing more established residents in Zone I would still imply that the former dispose of greater resources in the competition for space.

A second explanation which merits more serious attention is that recent migrants to Rio de Janeiro are progressively being selected more from the middle and upper strata than were their predecessors. It is interesting to note, for instance, that migrants with six to ten years of residence in the city have residential patterns which are very similar to those with 11 or more years of residence in Rio. But the three to five year residents have a significantly larger proportion in Zone I than did their predecessors and the difference becomes even more accentuated among the recent arrivals.

/This finding
This finding in turn has a logical explanation related to the ecological expansion of the city of Rio into the adjacent State of Rio de Janeiro and thus into coterminous urban areas not covered by present census data. It is quite possible in this sense that recent migrants from higher socio-economic levels do tend to take up residence in the better areas of the city while lower strata arrivals are being increasingly channelled out towards peripheral sections of the Greater Rio Area, that is, to residential areas located outside the scope of the present data. Such an explanation would be consonant with the previously-elaborated information on patterns of favela growth by sectors (which showed that those sectors located on the edge of the city have undergone greatest favela expansion), if it is assumed that this peripheral growth is overflowing into the adjacent state.

Summary and conclusions

The primary purpose of the present paper was to discriminate the proportion of urban marginal growth which is attributable to migration. Preliminary examination of available materials pointed to a substantial gap between empirical and theoretical approaches to the problem of marginality. The latter, with increasing frequency, deal with marginality at the level of societal structures, defining the phenomenon as an incomplete integration of social groups into the central framework of the society. To this "structural marginality", empirical studies contrast an approach marked by the focus on ecologically-delimited clusters of lower-strata population which are defined a priori as "marginal".

The discrepancies between these two frameworks evidently hinder the investigation of substantive research questions such as the one posed here. Our only alternative was to concentrate on ecological strata and attempt to appraise the role of migration in the growth of shantytowns in Latin American cities. In this respect, available studies pointed to the existence of two distinct currents of thoughts, expressed in two distinguishable chronological periods. Initially, attention was directed to peripheral shanty towns (thus giving rise to the first usage of the term 'marginal' in the Latin American urban context);
therein, observers generally concluded that the rise and persistence of these shanty-towns was attributable almost solely to the influx of rural migrants. In accordance, the ultimate solution to shanty-town growth was held to rest in the prevention of further migration and eradication of existing 'misery belts'.

In a more recent perspective, the characteristics of the inhabitants of peripheral shanty-towns were duly noted in other areas of Latin American cities and hence the role of migration in the growth of lower strata clusters had to be re-examined. Controlling for duration of residence and rural-urban origin, several studies indicated that peripheral shanty-towns were not composed of recently-arrived rural migrants; that most of these peripheral populations did in fact come from other urban areas or from other districts within the same city; that those migrants who did live in the peripheral shanty-towns had considerable experience in city living and that settlement on the outskirts represented, not a temporary shelter, but a move towards permanency in urban life.

Such a formulation raises the question - what happens to recently arrived migrants, particularly those from rural areas? A current hypothesis would have it that recent arrivals generally find their way into the deteriorating and crowded residential areas in the center of the city. This central location permits them easy access to centrally-located sources of manual and transitory employment while socializing the migrants into the folkways of city life. Presumably, after several years in this condition, the migrant obtains the means and forges the ability to establish a more permanent residence on the periphery.

In the absence of adequate information relating to the size and composition of lower-strata clusters in various areas of the city, however, this explanation must remain in the form of a tentative hypothesis. Moreover, the contribution of migration to the growth of urban lower-strata clusters cannot be satisfactorily answered as of the present in most cities. Nevertheless, in an effort to assess the role of migration in lower-strata growth in at least one city where information is more complete, the case study of favela growth in Rio de Janeiro was presented.

/The main
The main conclusion reached on the basis of Rio information can be summarized as follows. First, with respect to the growth of favelas, recent years have seen an intensified development of shanty-towns in the northern regions of the city; this is occurring as a result of the saturation of older sites in the southern zone and intensification of industrial growth attracting low-wage workers to the northern sector. Next, in examining the demographic components of favela growth it was demonstrated that until the early 1960's, migrants made up the majority of favelados. The proportion of migrants in the favela population has been decreasing steadily, however, such that by 1965, native Cariocas represented more than half of all favela-dwellers.

Nevertheless, this finding cannot be interpreted simply as a decreased rate of migratory flow to the favelas. Indeed, when trends in demographic composition of the favela population are analyzed in greater detail, then it is discovered that the great majority of native favelados, who now make up more than half of the favela population are, in effect, the children of migrants. We can thus conclude that migrants continue to be responsible for the larger part of favela growth either directly (through the influx of new migrants) or indirectly (through natural increase among earlier migrants).

Finally, given the preponderant role of migrants in favela development, the question was asked - how do migrants in general fare in the residential distribution across various ecological strata? Does residence in the favelas constitute the typical pattern of migrant adjustment? Actually, migrants are at least as well off as native residents in terms of residential distribution. That is, although they are over-represented in the favelas, they are also disproportionately found in the best residential areas of the city. In short, migrants are more likely to be accommodated in the two extreme residential categories of Rio while natives predominate in all of the intermediary positions. This disproportionate representation of migrants at both extremes of the residential scale is consonant with data on the relative income and education of migrants in Rio which indicate that migration is selective of the highest and lowest socio-economic strata.

/Analysis of
Analysis of residential distribution by length of residence in the city would indicate that the better residential areas include an increasing proportion of recent migrants to the city. This can be interpreted as signifying that the lower strata recent migrants are progressively being shunted off towards peripheral sectors of the Greater Rio Area.

Taken collectively, these data on the favelas and on the residential distribution of migrants in Rio demonstrate the value of collecting separate information on the size, composition and characteristics of the lower strata population in any given city. Not only do they provide some indication of the significance of lower strata clusters in the overall population but also they permit us to assess the relative growth dynamics of favelas in comparison to that of the general population. Yet, coming back to our original point, it should be stressed that these data do not touch upon the question of marginality, if we understand this phenomenon to be defined in structural terms.

For the future, it would appear that if empirical data of this nature is to be utilized in the complementation and verification of existing theoretical frameworks (and thereby lend a greater sense of reality to the former), then research would have to proceed at two levels.

In a first approach, it can be considered that ecologically-identifiable lower-strata clusters constitute a useful starting point for the study of marginality because they incorporate most of the social groups who share the conditions associated with marginality in other analytic approaches. Hence, data on Rio's favelas, for instance, constitute a useful starting point for the analysis of the dimensions and dynamics of marginality since it can be assumed that they include most marginal individuals and groups in that city. But, since not all residents of such clusters are marginal from the perspective of some or all existing structural definitions of marginality, the identification of marginal individuals and groups within the lower ecological strata becomes a second stage operation requiring empirical information relating to the operational indices of whichever analytic framework is being utilized.