

# **A Rationale for the Use of Family Networks to Gather Migration Data in Latin America**

**Luis E. Aragón**

*Universidade Federal do Pará, Brazil, and  
Population Studies and Training Center Brown University  
Providence, Rhode Island 02912*

Scholarly interest in the phenomenon of migration has increased greatly during the past three decades; yet many have concluded that an adequate conceptual framework for the study of population movement is still in the early stages of formation. Though progress has been made in the past twenty years in developing theories on rural-urban movement and migration patterns in general, laws of migration with universal validity and applicability have yet to be found. Demographic theorist Sidney Goldstein lists the obstacles to migration theory formulation as the following: (1) it is difficult to conceive a general theory that is valid for both developed and developing regions; (2) it is difficult to relate those models used to predict migration flows to those models used to explain the causes of migration; (3) it is difficult to integrate both structural and psychosocial components in a single model; and (4) there may not yet be enough data to test the theories that are formulated (Goldstein 1976, 4277428).

Migration has now become an important topic of scholarly research in several disciplines, including geography. This broadening concern has generated not only an extensive bibliography, but also serious theoretical and methodological challenges to research techniques. Concepts and relationships that were widely accepted a decade ago are today considered variable in time and space at best, and erroneous or spurious at worst. For example, the simplistic concept that migration constitutes a permanent or semi-permanent change of residence means that data have been collected, organized, and analyzed in such a manner that many important geographic movements have been ignored or only summarily recorded. This is especially true in Third World countries where migration is considerably more complicated, as is indicated by the numerous terms coined to describe aspects of this complexity: repeat migration, circular migration, seasonal migration, sojourner movements, transhumance, and commuting (Chapman 1978).

In this paper<sup>1</sup> I discuss some current problems in migration research in Latin America and propose the use of family networks as sources of special data that will contribute to a more accurate picture of what is actually happening.

The great majority of studies in Latin America today still follow Lee's (1966) interpretation of Ravenstein's concept of migration (1885, 1889). Ravenstein says migration is a permanent or semipermanent geographical movement of economically rational individuals. The movement results from a decision made by those individuals after weighing push and pull factors existing at two places--Origin and destination--and positive and negative intervening obstacles between those two places (Lee 1966). This concept hides the social process of migration phenomena, and it describes the mechanics of just one movement. Furthermore, this concept attributes to individuals absolute freedom and autonomy in their migratory decisions. Controversy has been growing over definitions of this type, over generalizations about the universality of models developed for industrialized nations, and over the efficiency of policies to control migration flows in developing countries (Findley 1977). The following are examples of the issues being raised. Gray (1975) argues that the behavioral interpretation of the decision-making process has erroneously perpetuated the idea that people are really free to choose and control their own destinies. Sjöberg (1966) suggests that in order to understand rural-urban migration, it is first necessary to analyze the changes in society as a whole instead of centering attention on single displacements of individuals. Singer (1976) sees migration as the mechanism for the redistribution of groups in the spatial organization

of the economy. He considers migration streams to deserve the central focus of migration research. This theoretical position is shared by Gaudemar (1977), who sees migration, independent of other forms of mobility, as the spatial form that the labor force takes. Saint and Goldsmith (1980, 260) summarize the controversy by saying that the classical view of migration as an individual decision-making process obscures the fact that migration is also a social process affected by structural changes in the economy and in the society as a whole.

On the other hand, those interested in identifying and explaining migration selectivity have found structural explanations for migration wanting. As Arizpe (1978, 38) points out, if structural conditions determine rural-urban migration, it is fair to ask why does not everybody leave? Personal decisions depend on the individual's condition in society and on his or her relation to others and to the environment. This fact makes migration a selective rather than a random process. People respond differently to the same structural factors, and their strategies to overcome adversities are likewise different.

Migratory decisions are among those that are subordinated to collective action. That is, individuals may be technically responsible for the phenomena but not decisionally accountable for them (Stark 1983). Thus individuals may be quantitative migration units, but in the decision-making process, other people--not migrants themselves--are involved. Recently, microeconomic models have integrated the family as the migration decision-making unit, arguing that net family gains, rather than individual gains, motivate the movement (Mincer 1978). Individuals weigh their own advantages and risks in relation to the possible collective actions of their family. By adopting a joint decision, the collective outcome could secure mutual advantages for all members of the family. As individuals, some members would have "to give up" their personal gains and tie their decisions to someone else's to increase the collective gain (unless the individual breaks up with his or her family, or the decision is made under some special form of authority).

Nevertheless, little research has been devoted to the decision-making process within the family as a unit. Most studies group individual decisions at the household level, as if households were unique entities in complete harmony with and agreement on objectives among their members (Schmink 1984). Migration is part of the whole family life and is not a "one-day-and-forever" decision. Migration, varying with the family life cycle, and including in and out movements, may be one strategy out of an array of household survival strategies used to accomplish a balance between consumption needs, available labor power, and alternatives to produce enough resources for the socioeconomic and biological reproduction of the group (Wood 1981, 1982).<sup>2</sup> As the household represents the link between individual and structural levels of analysis, the concept of household survival strategies permits the study of migration in a more integrated way by incorporating structural and individual factors in a single unit (Findley 1982a). A clear distinction between household and family is required, however, to assure the applicability of that approach to gather migration data in Latin America.

A household is usually defined as a group of individuals sharing a residence, resources, and domestic function (Yanagisako 1979). The household does not necessarily include just kin members and may even be made up entirely of nonkin members (Bender 1971). The family, defined according to blood, marriage, or adoption relationships, and not by coresidence criteria, does not necessarily coincide with the household. Members of the same family can be located in different households, and a household can include more than one family (Bender 1967). For most Latin American censuses, a household can contain more than one family, but a family can never be distributed in more than one household (Torrado 1981b, 70). Migration research is particularly difficult with such units of analysis, because the process often involves and affects family members who do not live in the same house (non-coresidential). Thus the family, taken as a network of kinship rather than as a group of persons living together (Laslett 1972, 1), should represent a more efficient research unit (analytically speaking) on which to gather migration data.

The adoption of migration as a successful family strategy implies the existence of social networks able to bind together households in several locations where relatives may reside. When migration occurs, these networks function as psychological, social, and economic supports (Carlos and Sellers 1972).

Relatives tend to follow relatives in the migration channels, so the household locations serve as sites of continuous entrance and exit of people. When considering those places simply as origins ("beginnings") or destinations ("ends") in the migration process, surveys conducted at anyone of those places will collect information only about those present. Depending on the place, informants may represent just a selective residue of the total flow that passes through the place (Martine 1979). It is necessary to redefine migration as a continuous movement (Aragon 1980, 55) to better understand migration flows and streams and to explain why people stay at or leave some places and not others. In the total route followed by a specific group at a particular time, origin and destination are just two stopping places or simply places with varying capacity to retain their own populations and those that pass through.

The concept of migrant retention—that proportion of a migrant population that stays in a given place during a specific period of time relative to the total flow that passes through that place during same period of time (Mougeot 1980)—has permitted Martine and Peliano (1978) to refine their understanding of internal migration patterns in Brazil. They concluded that the traditionally accepted positive relationship between time of residence and social mobility of migrants may be a reflection of the tendency of less-qualified migrants to remigrate. Other studies show that the Amazon region presents a chronic circulation of labor without significant social improvement (Mougeot and Aragon 1983; Hebette and Acevedo 1979).

Attempts to put the concept of migrant retention into [end p. 40] operation using census data emphasize the need for information about out-migrants.<sup>3</sup> After his study of migrant adaptation in the metropolitan areas of Brazil, Martine concluded that although the correct interpretation of migrant differentials in a given area requires the evaluation of the dimension and characteristics of the re-migration from the area, data on re-migrants rarely exist (Martine 1979,32). The lack of adequate data to study migration in developing countries has also been documented by Goldstein and Goldstein (1981a), Bilsborrow (1981), and Findley (1982b).

The idea that in Latin America migration becomes a strategy for social reproduction of the family suggests the use of kin networks as sources for gathering information about total migration flows. If the tendency is for relatives to follow relatives in the migration process, it stands to reason that families would constitute the best unit for data collection. This is especially true in Brazil. For example, in Northern Goiás, with rare exceptions, the residential preferences of heads of households who intended to leave the places of interview coincided with the current residence of their adult children (Aragon 1978). Ridley (1979, for Brazil) and Lomnitz (1977) and Kemper (1975, for Mexico), found that migrants tend to go where relatives are located. Hugo (1981) argues that throughout the Third World, communication and mutual aid are active among family members, independent of physical contact or proximity. Hence, it should be possible to develop research techniques that obtain surrogate data by surveying heads of households about the spatial mobility of their relatives, making possible the reconstruction of part of the total flow to which the informants themselves belong.

Indirect data gathering techniques have been useful in collecting information on mortality (Sirken 1973), but only recently have these techniques been experimented with in migration research. Demographers who asked women about the residence of their children and siblings about residence of other siblings (interviewed at the country of origin), estimated the number of emigrants from Colombia, Barbados, and Costa Rica (Somoza 1981a, 1981b; Hill 1981, 1984; Blacker 1984; Zaba 1984). Only a few studies have experimented with surrogate data in internal migration. Okada and Slesinger (1982) improved the estimate of the average number of live births for childbearing-age women in the families of Wisconsin

migrant workers with indirect procedures of data gathering. Somoza (1981 b) estimated the number, sex, and age of out-migrants of the municipality of Licey al Medio (Dominican Republic), by using information collected in Licey al Medio about residence of children and of siblings. Mougeot (1980), Silva (1981), and Oliveira (1983) calculated migrant retention rates for relatives in several places of the Brazilian Amazon. Finally, Goldstein and Goldstein (1981b) used the multiplicity approach to test the accuracy of responses given by informants about their relatives by interviewing the relatives and checking their responses against the responses of the informants.

The technique I am recommending here also follows the multiplicity approach developed in the 1960s by Monnroe G. Sirken of the U.S. Center for Health Statistics, under the specific name of household surveys with multiplicity (Sirken 1970, 1972, 1974; Birnbaum and Sirken 1965). Unlike conventional surveys, which link every event to one and only one research unit--the one where the interview is conducted--multiplicity surveys link events to more than one research unit. In other words, with demographic events, whereas conventional surveys consider only the events occurring to members residing at the particular housing units selected for the survey, multiplicity surveys consider persons who have experienced the events eligible to be reported at more than one housing unit--at those units to which the specified event has been linked. The coverage or the number of additional units to which each unit of the survey is linked is determined by the so-called multiplicity counting rules specified by the survey design (Goldstein and Goldstein 1981b). For instance, a multiplicity survey of housing units at place A might establish the counting rules that the events in-migration to Place A, and out-migration from Place A would be linked to the residents of the sample units, as well as the children and siblings of any of those residents, regardless of where these children or siblings were born or where they resided at the time of the interview. In this example, the counting rules allow each informant to report his own events and the events of two types of individuals (children and siblings). In general, the quantity of events reported depends upon the number of counting rules specified in each particular survey. Of course, the quality of information diminishes and the costs increase with any additional rule.

For the study of migration in Latin America I propose an interview schedule designed to survey randomly selected heads of households at a particular place. The interview schedule registers a detailed migration history of the heads of households and documents part of the migration history of their living relatives: places of birth and present residence of those relatives and their passage (or not) through the place of interview (or reference place), regardless of physical contact with the informants.<sup>4</sup> A sample form of the interview schedule has been published (Aragon 1983, 50), but it consists of two parts (Table I). The first part collects personal information and the migration history from the head of household directly, like any conventional survey. The second part consists of a series of questions to be answered by the head of household about each of his or her living parents, siblings, spouse, and children. Some questions, like sex, age, education, place of birth, and present place of residence, are common for all the relatives (Table 1). For those relatives born outside the place of reference, specific questions are asked as to whether or not they have resided at the place of reference, or are living at that place, and if they are, whether or not they live in the [end p. 41]

<p>1. DIRECT INFORMATION</p> <p>1.1 Personal</p> <p>1.2 Migration history</p>
<p>2. INDIRECT INFORMATION</p> <p>2.1 For all relatives</p> <p>2.2 For relatives born outside place of reference</p> <p>2.2.1 For relatives who never resided at place of reference</p> <p>2.2.2 For relatives who resided at place of reference and left</p> <p>2.2.3 For relatives still residing at place of reference</p> <p>2.3 For relatives born at place of reference</p> <p>2.3.1 For relatives who never resided outside place of reference</p> <p>2.3.2 For relatives who resided outside place of reference and returned</p> <p>2.3.3 For relatives still residing outside place of reference</p>

Table 1. Outline of interview schedule.

RELATION TO PLACE A	RELATION TO HEADS OF HOUSEHOLDS				
	Informants	Parents	Spouses	Siblings	Children
<i>Born at Place A</i>					
1. Non-migrants	X	X	X	X	X
2. Out-migrants		X	X	X	
3. Return migrants	X	X	X	X	
<i>Born outside Place A</i>					
4. Non-migrants		X	X	X	X
5. Migrants, not to A		X	X	X	X
6. Surviving migrants at A up to survey date	X	X	X	X	X
7. Remigrants from A		X	X	X	X

Table 2. Groups of individuals identified through information given by heads of households residing at place A about themselves and their living relatives. (Source: Table 1).

informant's house or somewhere else (Table 1). For those relatives born at the place of reference, specific questions are asked as to whether or not they have lived outside, or are still living outside that place. If they are living at the place of reference, questions are asked as to whether or not they live in the informant's house or somewhere else (Table 1).

The information, once processed, will identify seven basic groups of individuals related to the households interviewed at the place of reference (Table 2). While conventional surveys would generate only non-migrants (1), return migrants (3), and surviving migrants at A (6; for heads of households only), multiplicity surveys would generate those three, plus out-migrants (2), non-migrants born outside A (4), migrants not to A (5), and re-migrants from A (7). Data gathered through conventional surveys allow analysis only at the individual level; heads of households (informants) can be grouped as in-migrants, return migrants, or non-migrants, and comparisons can be made within or between those groups. Multiplicity surveys link all individuals in the survey (informants and relatives) in complex networks, so data can be organized not only at the individual level but at the household and family levels as well. For example, if data are organized according to families, the distribution of the members of each family in the network would depend on the life cycle of the family and the migratory strategy followed by each family. Some families would include members in each of the seven groups; others in just one group.

The possibility of organizing the data in so many ways will allow comprehensive analysis of the migration system and will facilitate the quantification of total flows. There are, however, the following three basic limitations of the method: (1) the difficulty in checking the accuracy of indirect responses, (2) the lack of informants when all members of a family have left the place of reference, and (3) the multiplicity of respondents when several related heads of households reside at the place of reference.

Pilot studies, now being conducted, are suggesting a number of ways to correct for these limitations such as the inclusion of a larger number of relatives in the surveys and the assignment of appropriate weights to various categories of data.

Although the multiplicity survey technique is complex, the potential utility of the instrument to gather more comprehensive migration data in developing areas warrants special attention among those interested in alternative ways to study migration more rigorously. [end p. 42]

## NOTES

1. Paper presented at the Annual Meeting of the Conference of Latin Americanist Geographers (CLAG), University of Ottawa, Canada, 27-29 September 1984. The paper is part of an ongoing project conducted at the Population Studies and Training Center (PSTC), Brown University, through a postdoctoral fellowship from the Rockefeller Foundation. Special thanks are accorded Professor Sidney Goldstein for his valuable comments on this paper.

2. In Latin America a large number of publications apply the term survival strategies to low-income families, using such terms as sustenance, existence, family life, or reproductive strategies to differentiate such concepts from social mobility strategies (Schmink 1984; ArgUello 1981; Arizpe 1982; Banck 1980; Bilac 1978; Barsotti 1981; Margulis, Rendón, and Pedrero 1981; Rodríguez 1981; Saenz and DiPaula 1981; Torrado 1981 a; Valdés and Acuña 1981; Tienda and Salazar 1982).

3. Martime (1979) estimated migrant retention rates for Brazil's nine metropolitan areas for the period between 1 September 1959 and 1 September 1970, by sex, rural-urban origin, and period of arrival, using data from the 1970 population census. "Assuming a constant average annual rate of inflow during the 11-year span, the difference between the 1967-70 average and that for the periods 1959-64 and 1964-67 would be attributable to the combined effect of re-migration and mortality among earlier arrivals. The retention rates would thus be calculated by dividing the average inflows from 1959-64 and 1964-67, respectively, by that for 1967-70" (p. 41). Using data published in population censuses of 1940, 1960, and 1970 in the United States, Allen (1977) was able to calculate migrant persistence rates for thirty-five selected counties. "A persistence rate for any area is the percentage of the population of the area at the beginning of any time period (the base year) who were still living in that area at the end of the period" (p. 578).

4. Restrictions concerning time, space, types of relatives and intensity of contact between informants and relatives should be specified by each particular survey.

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