

CONCEPTUALISING TERRITORIAL MOBILITY IN  
LOW-INCOME COUNTRIES

by

Guy Standing

This study was carried out with  
the financial support of the  
United Nations Fund for Population Activities  
(Project No. GLO/75/PO2)

International Labour Office  
Geneva

July 1982

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ISBN 92-2-102929-8

*First published 1982*

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Printed in Switzerland

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## I. Introduction\*

The human species is not a migratory species, but it is a restless one, moving as part of a process of adaptation to its social, economic, cultural and ecological environment. But such migration in its numerous guises has rarely reflected adaptation in any simple sense. It has reflected change in life styles, change in social relationships, change in the structure of production and distribution, and change in the ability of forms of family and kinship structures to reproduce modes of subsistence. Migration has also induced change in each of these aspects of human life, and in one sense or another has been "functional" for change.

Yet population mobility has taken so many forms that even descriptive definitions have proved hard to make or retain. All migration involves movement, but not all movement involves migration. As for explaining migration, various "levels" of explanation have been proffered, often somewhat artificially posed as alternative hypothetical models when actually they have been focusing on different aspects of an inherently complex process. Some social scientists have explained migration in terms of psychological differences between movers and non-movers, some have tried to explain movements in terms of individual migrant's expressed or apparent "reasons", some have concentrated on socio-economic structural characteristics of different areas, and others have focused on geographical or natural resource factors. Too often reasons have been interpreted as causes, and sufficient reason taken as adequate cause. Even worse, a number of explanations have verged on the tautological - people move because they perceive it is better for them to move, and we know that they perceive it to be better because they move. All that can be stated with conviction is that analysts of migration must focus on the objective factors that shape perceptions and opportunities - the social

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\* For useful discussion, I am grateful to Richard Bilborrow and Frans Willekens. This is a contribution to a larger study designed to provide guidelines for migration surveys.

and economic constraints to mobility and immobility and the facilitating conditions for different forms of migration. But in doing so it is attendant on the social scientist to maintain a rigorous theoretical framework, depicting the process of migration in terms of a general process of socio-economic change and development. A "shopping list" of "push" and "pull" factors based on an ad hoc inductive reasoning is a recipe for theoretical chaos and analytical confusion. Moreover, explanations based on "push-pull" formulations presume people are inherently sedentary, which is no more justified than the presumption that they are by nature migratory.

In the context of such competing "confusion", we have to clarify five sets of conceptual issues. First, we must define territorial mobility. Second, we must agree on a taxonomy of mobility status categories and on a typology of migration patterns. Third, a classification of levels of causes of territorial mobility must be attempted. Fourth, the psychological factors should be considered and an attempt made to integrate the process of individual reasoning with socio-economic explanations of mobility. And fifth, we must delineate the impact and the functions of mobility and immobility, at the individual, community and "national-international" levels.

The following is addressed to the first and second of these conceptual issues. After reviewing the principal criteria used to define or characterise territorial mobility, and pointing to the conceptual ambiguities in most approaches based on them, an attempt is made to provide a typology of mobility statuses. Such a typology does not rule out the use of other, more specific classification schema, and the subsequent part of the section considers what are regarded as the main analytical classifications of migrants that have been proposed. It should be stressed at the outset that no attempt will be made to translate abstract categories into an operational form, though this must of course be the next task.<sup>1</sup>

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<sup>1</sup> Elsewhere, a module of questions defining types of migrant and non-migrant for inclusion in migration surveys in low-income countries is being outlined.

## II. Conceptualising Migration

Conceptualising territorial mobility is complex primarily because it embraces four crucial dimensions - space, residence, time and activity changes. Conceptually, analytically and empirically, understanding the process of population mobility has been hindered by the tendency to collapse important distinctions in each of these dimensions, treating an inherently heterogeneous process as a homogenous one and calling it migration.

### 1. Spatial criteria

First, the notion of mobility implies a movement from one place to another, which means a change of "area" and a movement over some "distance". What constitutes an area? To a large extent the limits placed on a local area are arbitrary or a matter of expediency, determined by the administrative unit identified in censuses or surveys. Somewhat remarkably, most demographers and other social scientists have let statisticians and survey administrators determine the areas between which moves are classified as "migration". This surely cannot be generally acceptable. Indeed, it has been said that areas between which moves count as migration are first defined by bureaucrats and later rationalised by social scientist researchers.

From an analytical and policy perspective the ideal would involve defining areas by reference to specific variables of analytical interest, or by the characteristics of areas. Defining particular types of area is extremely difficult. Areas that may be similar or distinguishable on the basis of economic criteria (income levels, production structure, etc.) may not be similar or may not be easily distinguishable on the basis of demographic, cultural, linguistic or political criteria. That aside, one of the difficulties of comparing migration rates and patterns internationally is that the national division of the country into areas is so variable, in some being measured as movement between large states or regional units, some between much smaller geographical units, even enumeration or administrative districts in some surveys. Clearly, ceteris paribus, the smaller the unit the greater the extent of measured population mobility.

The other aspect of the notion of moving space is the concept of distance. This too is not a straightforward matter of miles and kilometres. There seem to be three principal elements in the concept - geographical, economic and social. Geographical approaches sometimes stipulate that a move of more than so many miles constitutes migration, and that shorter-distance moves are merely "residence" changes. There are particular statistical problems with taking a short distance as the criterion for defining migration; it seems that localised mobility is more likely to be poorly reported, especially where survey respondents are not those who have moved.<sup>1</sup> Some analysts have divided migrants into short-distance and long-distance movers by criteria that are difficult to operationalise. Thus in a study of migration in Peru it was stated:

"For the purposes of this paper, short-distance migration is a movement within the sphere of influence of the nearest departmental capital, and long-distance movements are to points outside that area, ..." [2]

Even more vague on the specification of distance are those data that measure migration as movements from rural to urban areas, or vice-versa, or those between two rural or urban areas. Of course, that procedure means that many long-distance movers will be disregarded, whereas some very short-distance movements will be counted. The selection of types of area between which moves are classifiable as migration may also have profound implications for the observed incidence or patterns of migration. For example, many Indian national migration data measure only inter-state movements, and these suggest that, as well as low over-all migration - India often being cited as a country with low rural out-migration rates - female migration is very limited in the country and on a much smaller scale

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<sup>1</sup> S. Goldstein and A. Goldstein: "The use of the multiplicity survey to identify migrants", in Demography, Feb. 1981, Vol. 18, No. 1 pp. 67-83.

<sup>2</sup> R. Skeldon: "The evolution of migration patterns during urbanisation in Peru", in The Geographical Review, Oct. 1977, Vol. 67, No. 4, p. 395.



than male migration. However, it is known that intra-state and particularly intra-rural migration is heavily dominated by women, in large part because of local moves for marriage. Thus, according to the 1971 Indian Census, of the 106 million intra-state, intra-rural lifetime migrants, no less than 78 per cent were women.<sup>1</sup>

A concept of economic distance would embrace movements between market centres or between centres of production or the centres of particular types of industry or occupational specialisation. In many cases economists have couched their analyses in terms of movements between labour markets.<sup>2</sup> But those doing so would surely have to admit that the criteria distinguishing the boundary lines of such markets are conceptually weak and empirically somewhat arbitrary. In the abstract, a concept of economic distance should be based on costs and availability of communication, information, and transport networks.

A concept of social distance is also liable to be empirically difficult to develop, though analytically quite important. In perhaps its most celebrated use, Stouffer stressed social distance through arguing that the volume of inter-area migration was a function of intervening opportunities, the number of people in each area and the number of competing migrants.<sup>3</sup> More specifically, social distance could be used to categorise types of move in terms of physical "separations". The first involves the separation from an accustomed circle of family

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<sup>1</sup> R. Skeldon: Migration in South Asia: An overview (Bangkok, Mindanao, 1981), p. 9.

<sup>2</sup> See, for example, J.B. Lansing and E. Mueller: The geographical mobility of labor (Ann Arbor, University of Michigan, 1967), p. 7.

<sup>3</sup> S.A. Stouffer: Social research to test ideas (New York, The Free Press of Glencoe, 1962); idem: "Intervening opportunities: A theory relating mobility and distance", in American Sociological Review, 1940, Vol. 4, pp. 845-867; idem: "Intervening opportunities and competing migrants", in Journal of Regional Science, 1960, Vol. 2, pp. 1-26.

and neighbours.<sup>1</sup> Most moves would entail that type of separation. A second separation is from a particular ethnic group, or from other particularistic social groupings, to which the mover belongs. Sociologically and psychologically, distinctions should be made between those moves that preserve some social homogeneities and those that involve some sort of cultural break for the mover. Clearly, there are moves that involve only the first type of separation and there are those that involve both the first and second types. In addition, there are moves across national boundaries, which in most but by no means all cases involve the greatest social distance in the migration process.

The notion of social distance has a bearing on the use of distance as a defining characteristic of moves to be counted as migration. If some minimum geographical distance is selected, it will generally mean that some socially significant shorter-distance moves will be excluded, even though they include moves of greater social distance. For example, a move from a slum neighbourhood into a nearby vicinity mainly inhabited by one or more other racial groups will involve sociological and possibly economic implications that are far greater than some longer-distance moves between ethnically similar areas. In effect, the notion of social distance can be used to pinpoint the definite limitations of simple distance-related measures of migration. But that does not mean that distance should not be a criterion for distinguishing types of migration and types of migrants.

## 2. Residence criteria

The notion of migration implies a movement to stay somewhere else, which of course raises the conceptual ambiguity of what constitutes "staying" and the matter of "duration of stay". The latter issue will be taken up in the next section; but the issue of changes in residence is not as easy as commonly assumed and has been brought out most forcefully in census data on migration; in many

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<sup>1</sup> G.J. Hugo: Population mobility in West Java (Yogyakarta (Indonesia), Gadjah Mada University Press, 1978), p. 6.

censuses a de jure approach has meant a chronic underestimation of population mobility, as will be argued later.

Some migration authorities have hinged their definition of population mobility simply on changes of residence. Thus Bogue claimed:

"Theoretically, the term "migration" is reserved for those changes of residence that involve the complete change and readjustment of the community affiliation of the individual." [1]

A more convoluted definition along the same lines was that given by Smith:

"...the term migration seems that generally to be employed to refer to all movements in physical space with the assumption more or less implicit that a change of residence or domicile is involved." [2]

And Shyrock, Siegel et al. stated:

"...not all geographic movements qualify as migration. First, we require a change in usual place of residence...the usual procedure, then, is to define a migrant as a mover who changed the political area of his usual residence." [3]

This perspective is highly restrictive in two ways. First, it effectively limits migrants to those who have moved "permanently" or for a prolonged period, excluding altogether those who have moved for limited periods - such as target migrants, circular migrants and other short-term sojourners. Second, it restricts migrants to those who actually make a change of residence, implicitly ignoring those circumstances in which individuals or families retain several places of

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<sup>1</sup> D.J. Bogue: "Internal migration", in P.M. Hauser and O.D. Duncan (eds.): The study of population: An inventory and appraisal (Chicago, University of Chicago Press, 1959), p. 489.

<sup>2</sup> T.L. Smith: Fundamentals of population study (Philadelphia, Lippincott, 1960), p. 420.

<sup>3</sup> H.S. Shyrock, J.S. Siegel and Associates: The methods and materials of demography (New York, Academic Press; condensed edition edited by E.G. Stockwell), p. 373.

residence as well as those who do not have any "usual" place of residence, such as nomads or "permanent migrants" or migratory labourers as defined in the next section. More generally still, the notion of "usual" is at best hazy. Does it refer only to a relative amount of time spent in one place rather than another, or does it mean a place an individual considers to be his or her "home"? Even if the former is taken as the yardstick it is necessary to consider a clearly-specified reference period, either retrospectively or in anticipation. Clearly, asking where someone lived "most of the time" over the past six months or past year is not necessarily the same as asking where they regard as their "home".

One major feature of identifying migrants by reference to residence is that censuses and surveys have been inclined to use a de jure approach, getting people to record their "usual" place of residence regardless of their "current" place of residence. The latter de facto approach would record many more short-term movements, especially if the surveys enumerate people where they are staying on the survey date. The use of the de jure notion has led to massive understatements of mobility in many low-income countries where seasonal and other circular migration has been widespread. Interestingly, in the 1980 round of censuses in Asian countries eight used a de jure approach (Afghanistan, Indonesia, Japan, Republic of Korea, the Philippines, Thailand and Tonga), while 10 adopted the de facto method (Australia, Hong Kong, Malaysia, Maldives, Nepal Niue, Papua New Guinea, Samoa, Singapore and Sri Lanka); India adopted a compromise variant, an "extended de facto" approach. No doubt this diversity would be reflected in other parts of the world, making cross-national comparisons of levels and incidence of migration peculiarly hazardous. It is perhaps of some interest that the World Fertility Survey made an attempt to identify both de jure and de facto populations, though rather crudely.

Distinctions drawn between population mobility, which encompasses all forms of geographical movement, and migration, which is supposedly restricted to longer-distance moves and "more permanent" changes of residence, are fraught with arbitrariness and

empirical complications. For that reason alone it is surely preferable to draw no such a priori distinction, in effect treating migration and population mobility as synonymous. If the information collected is broad in scope it should be possible to identify a set of recurrent patterns of mobility after the data are assembled; by that means the diversity of population mobility can be appreciated, as well as the over-all extent of movement. Erecting a a priori descriptive barriers is a regrettable outcome of wishing to impose an artificial simplicity on an inherently complex and multidimensional process.

### 3. Temporal criteria

The third aspect of population movement is the temporal dimension. First, how long should someone be away from one place to be counted as having migrated? The answer at one level is that it is an arbitrary decision. According to one student of the phenomenon, migration should be defined as a change of residence over the pre-defined boundaries of an area for a period of one or more years.<sup>1</sup> There is simply no theoretical justification for such a procedure. But whatever practical definition is adopted, there are analytical implications. Clearly, if someone has to be away from a place for, say, at least six months, two groups will be unrecorded - those short-term migrants who stay away for less than the period chosen and those who have been away for less than six months at the time of the survey, whether or not they were intending to stay away for much longer or permanently. Thus, a study of 14 West Java villages revealed that only one-third of all moves met the census criterion that to be defined as a migrant a mover had to be at the destination for at least six months.<sup>2</sup>

At the other extreme, some have used an overnight stay away as the lower limit or defined migrants as those away for more than 24

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<sup>1</sup> J.J. Mangalam: Human migration: A guide to migration literature in English, 1955-62 (Lexington, D.C. Heath and Co., 1968), p. 8.

<sup>2</sup> Hugo, 1978, op. cit., pp. 2, 37.

hours, as was done in studies of population mobility in Indonesia and the Solomon Islands, for instance.<sup>1</sup> But this excludes those who move on a daily basis, commuters principally. Again, this may or may not matter, depending on the prevalence of such short-term movements or the analytical interest of the survey. But equally there is no need to exclude such forms of mobility. Either all moves can be recorded and analytical distinctions made after the moves have been completed, or separate questions can be included about very short-term movements that are of analytical interest. The latter would have the advantage of being relatively parsimonious, allowing the data to be relatively focused on specific types of mobility.

Another temporal dimension is the reference period. It is possible to categorise migrants by whether or not they have moved within some specified period. Thus, many censuses effectively define migrants as those who moved in the intercensal period and who at the time of the second census were living in an area which was not the same as the area in which they were living at the time of the first census. In temporal terms, that effectively excludes two groups - those who had migrated before the first census and those who had moved within the intercensal period but also had returned to the area in which they were living at the time of the first census.

Some definitions regard as migrants all those who had moved at any time "since birth". In a UN survey of national government statistics on internal migration, 24 of the 53 countries reporting use of a concept of migration interval had used only the concept of "lifetime" migration, 12 indicated exclusive use of a fixed time interval, and 17 had used both concepts.<sup>2</sup> Others had imposed some restriction such as "since adulthood", defined by some conventional age

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<sup>1</sup> M. Chapman: "Mobility in a non-literate society: Method and analysis for two Guadalcanal communities", in L.A. Kosinski and R.M. Prothero (eds.): People on the move: Studies on internal migration (London, Methuen, 1975), p. 131; Hugo, 1978, op. cit.

<sup>2</sup> United Nations: Statistics on internal migration: A technical report (New York, Department of International Economic and Social Affairs, 1978), Studies on Methods, ST/ESA/STAT/SER.F/23, p. 11.

such as 14, 16 or 18. All such definitions are essentially arbitrary and probably unnecessary if the full process of mobility is to be adequately reflected in the data. The usual pragmatic reason for restrictive temporal definitions is that it makes questionnaire design and data presentation more manageable. That is not a very satisfactory justification.

The other temporal dimension concerns the notion of "permanence", which involves consideration of "intended time". Many migration analysts have actually stipulated that migration

"...in its most general sense, is ordinarily defined as the relatively permanent movement of persons over a significant distance."<sup>[1]</sup>

Earlier we discussed the issue of permanence in terms of changes of residence. But the very notion of "permanent" in this context is hazy, which is perhaps why so many writers on the subject express their unease by adding "or quasi-permanent" or "relatively" when mentioning it. There are essentially three ways of defining "permanent" migration. One way is to rely on the subjective response of the identified migrant, focusing on the person's stated intentions. The basic drawback of this approach is that such intentions are like aspirations in general, rather flexible and liable to be rationalisations of one kind or another. And how should we deal with those who move intending to stay away permanently but who subsequently return, perhaps having failed in their particular pursuit? Conversely, there are many who move intending to return but never do so. In short, subjective approaches are not likely to be reliable, even though they may indicate general patterns and identify the general balance of preferences.

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<sup>1</sup> R.P. Shaw: Migration theory and fact: A review and bibliography of current literature (Philadelphia, Regional Science Research Institute, 1975), p. 6; W. Petersen: "Migration: Social aspects", in International Encyclopedia of the Social Sciences (New York, Macmillan and The Free Press, 1968), pp. 286-292.

The second approach is reliance on legal or statistical definitions determined by a government body or survey designer. Quite clearly, this approach is arbitrary, since such boundaries were not designed with such objectives in mind; as such, it is certainly no more reliable than the subjective approach.

A third approach has been suggested which is more complex:

"Movement that is "permanent" involves a sense of shifting for some period of time social structural attachments and activities from one location to another." [1]

In this case, no reference is made to actual or intended duration. This approach may have much to recommend it in that it leads to the exclusion of such movers as tourists, visitors and even commuters. But linguistically it is a mess. If the word "permanent" does not refer to a prolonged period, or at least a proxy for its real meaning, then surely it is simply misleading to use it.

Once again, we are driven back to an eclectic approach, that of imposing no a priori distinctions, thereby creating a whole mobility profile according to intervals since moved - from birthplace, from last area of residence, and so on - and according to time so far in present place of "usual" residence and in present place of current activity. This eclecticism is itself intrinsically messy, and the only saving grace is that it leaves it open to the researcher to devise a manageably small number of categories according to the perceived importance of specific types of mobility status.

#### 4. Activity criteria

Population mobility encompasses moves of current residence and moves of activity space, and this implicit duality must be taken into account in any operational set of definitions. A person can move activity place without changing current or usual place of residence, as in the case of daily or weekly commuting, just as one can move area of residence without changing area of activity. And such a

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<sup>1</sup> C. Goldscheider: Population, modernisation and social structure (Boston, Little, Brown and Co., 1971), p. 64.



distinction may be analytically important, particularly in analysing the impact of industrial location strategy or identification of catchment areas for schools, for example. Consistent with that perspective, it has been suggested that migration should include all residence changes and that the "only exclusions" should be those

"...moves (travelling, touring and commuting) that do not involve detachment from the organisation of activities at one place and the movement of the total round of activities to another place."<sup>[1]</sup>

By corollary, migration should include all moves involving a change in activity space, and in that context commuting should not be excluded. Staying away from a place of residence for 10 hours is not really very different conceptually from staying away for 24 hours, while those who commute for a "working week", returning to their "home" at weekends, can only be excluded from migration arbitrarily. But of course, if a cut-off is made at a week, including those who migrate for seasonal periods is also somewhat arbitrary. Once again, we are forced back into the position that wherever possible the richness and heterogeneity of population mobility should be fully recorded and types of movements separated only after information is collected. No a priori decisions on who is and who is not involved in migration should be made, unless the analytical interest is with particular types of migration, when specific types of migrant need to be identified in the actual survey work.

There is another point to be considered, which is that mobility should be assessed in terms of changes in activity. Some moves of residence will imply retaining an activity done before a move, some will be done because of a forced or chosen change in activity, some will be done in the hope of changing or acquiring an activity, some changes of residence will necessitate a change in activity, and in each case the activity changes may mean changing a type of activity or pursuing a similar type. Finally, there are those moves that will be done for, or will allow, a combination of activities, complementing an

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<sup>1</sup> Ibid.

activity with a non-competitive one, the classic case being seasonal migratory labourers.

Such distinctions as presented in this section may seem pedantic, but for some purposes they will help clarify analysis, which is the primary rationale for any taxonomic exercise.

### III. Mobility Status Categories

Numerous terms have been used to describe the numerous types of population mobility. This has contributed to the confusion associated with migration analysis. But the very heterogeneity of the mobility process makes such terminological confusion easily understandable, especially as forms of movement combine different forms of change in space, time, residence and activity. It is to be hoped that researchers will be able to adopt one mobility status typology, a classification system of people according to their pattern of movement of residence and activity. Unless something like that is done, the analysis of migration will continue to be confusing and disjointed.

The following is an attempt to identify various categories of individuals by their mobility status, before considering a few terms found scattered in the literature that overlap any more systematic typology. Five principal categories will be presented. As should become clear, there are an almost bewildering number and range of terms co-existing, without any apparent tendency for a commonly accepted terminology to emerge.

#### 1. Permanent migrants, or transilients

The first group consists of those who change their activity space but who could not be validly classified as having changed their residence space because they do not have any "usual" residence. Thus nomads persistently change their activity space; they may move at regular intervals, perhaps seasonally or in some cyclical pattern, or they may move irregularly without necessarily retracing any traditional route. Petersen classified such movement as "primitive

migration", perhaps a rather loaded term.<sup>1</sup> Strictly, nomads should be restricted to those who move as a collective group in the interest of grazing, as this is the meaning of the term's Greek derivation (βοσκειν to pasture). Following Petersen, nomads can be distinguished from gatherers, those who also persistently move in response to ecological pressure but do so for the purpose of food-gathering or hunting. Both these forms of mobility are collective, social movements rather than individual acts of migration. But there is no reason to exclude them from definitions of migrants, as Lee recommended. According to him, nomads should be excluded because they have "no long-term residence".<sup>2</sup> However, any definition of "long-term" is arbitrary, whereas of course the implied conceptualisation of migration means classifying nomads either as outside the population altogether (a non-people) or as non-migrants, both of which would be ridiculous. Besides being group movements, both these subcategories experience ecological pressures arising from an inability to cope with natural resources due to either a deterioration of the physical environment or an exhaustion of such resources. A third subcategory epitomises that process, and can be described aptly as wanderers, those who do not have the regular and definable characteristics of nomads or gatherers but who are otherwise similar, without having any definite destination or route.

A fourth subcategory consists of migratory labourers, perhaps most appropriately described as permanent migrants.<sup>3</sup> These include well-established groups such as the torrantes in Chile, who generally adopt an annual route in following a job trail. In nineteenth century Britain there was a large group of labourers who went "tramping",

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<sup>1</sup> W. Petersen: "A general typology of migration", in American Sociological Review, June 1958, Vol. 23, No. 2, p. 259. Under primitive migration, Petersen included "flight from the land".

<sup>2</sup> E. Lee: "A theory of migration", in Demography, 1966, Vol. 3, No. 1, p. 49.

<sup>3</sup> Note that the implicit meaning usually ascribed to that term is semantically quite misleading.

being put up in various places by workers' organisations who sometimes supplemented the migrants' erratic wages with food and clothing. Some observers have described such groups as "transilient" migrants, denoting a lack of permanent settlement in any location.<sup>1</sup> Analytically and for policy formulation, this category raises major questions about changes in the tempo of movement and increases or decreases in the propensity to move. But there is also the question of changing directions of movement and patterns of activities pursued by them.

## 2. Temporary migrants, or sojourners

The second mobility status category consists of those who move activity but not "usual" residence. The first subcategory here consists of circular migrants, who have been blessed with a rich array of names. These have included "turnover migrants",<sup>2</sup> "pendular migrants",<sup>3</sup> "target migrants"<sup>4</sup> and more simply and more generally "short-term" migrants. The essence of this type of mover is that a move is made for a short period with the intention of returning to a place of usual residence; it should not be defined by expected duration, though for some purposes it may be desirable to divide the category by duration of stay. An important group of circular migrants consists of seasonal migrants, those who combine activities in several places according to the seasonal requirements of

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<sup>1</sup> A.H. Richmond: "Sociology of migration in industrial and post-industrial societies", in J.A. Jackson (ed.): Migration (Cambridge, Cambridge University Press, 1969), p. 278.

<sup>2</sup> A. Bose: India's urbanisation: 1901-2001 (New Delhi, Tata McGraw Hill, 1980), p. 190.

<sup>3</sup> Skeldon, 1977, op. cit., p. 395. According to Skeldon, "Pendular migration involves short absences from the community of origin, usually for no more than three months and often for much less."

<sup>4</sup> This is often used with reference to African migrants. Mitchell used the terms "labour circulation" and "cyclic migration" seemingly interchangeably. J.C. Mitchell: "Structural plurality, urbanization and labour circulation in Southern Rhodesia", in Jackson, 1969, op. cit., pp. 156-180.

their labour and the availability of seasonal opportunities. These should perhaps be distinguished from compensatory migrants, those who go elsewhere in search of income when the need arises but not necessarily at regular intervals or at particular times in the calendar.

A second subcategory of those who change activity but not usual residence consists of life-cycle stage migrants. In many pre-industrial societies youths leave their home village on approaching adulthood in order to gain experience and to ensure their social status in the village after they return. Such migration has been done as a rite de passage. Unlike circular migrants, such movers are unlikely to leave their home area for more than one period, and that may last a relatively long time.

A third subcategory consists of commuters who move to take up a specific activity, usually their economic activity, but who retain their residence elsewhere. It has been correctly noted that commuting may be a substitute for residential movement or it may be a complement to another form of migration. Indeed a threefold schema has been outlined:<sup>1</sup>

- I. Commuting as a pure substitute for migration
  - commuting from place B to place A, reducing migration from B to A accordingly
- II. Commuting as a complement of migration
  - (a) commuting from B to A by previous residents of A
  - (b) commuting from B to A by previous residents of C who would otherwise have remained stationary
  - (c) commuting from B to A by previous residents of C who would otherwise have migrated to A

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<sup>1</sup> M. Termote: "The measurement of commuting", in S. Goldstein and D.F. Sly (eds.): The measurement of urbanization and projection of urban population (Liège, Ordina for IUSSP, 1975), p. 212. Termote noted in his review the ambiguity in the notion of "periodic" moves, in that it is unclear how regular a move between place of residence and place of work should be to represent a commuting flow (p. 214). And should a move taking a few minutes be considered as commuting?

### III. Commuting with neutral effect on migration

- commuting from B to A by residents of B who would not have migrated in any case.

Data on the rate and incidence of commuting are remarkably scarce, except in a few industrialised countries where it is accepted as a normal way of industrial life. There are a few exceptions. One Indonesian study defined commuting as a move with an absence of more than six hours and less than one day.<sup>1</sup> Another, set in Hawaii defined commuting as a daily absence for five to six hours for work or education.<sup>2</sup> But this lack of uniformity in the definition is best illustrated by a Thai study that used a period of between six hours and five months to define commuting.<sup>3</sup>

In most censuses and surveys in both low-income and industrialised countries journey-to-work data are absent.<sup>4</sup> This may change, for commuting may be occurring on a vast scale in many low-income countries, making the de facto, daytime or weekday size of urban populations considerably larger than that recorded in census statistics. Recent censuses in Australia and Sri Lanka have attempted to measure the extent of commuting by including questions on place of work and mode of transport to work. This should surely be a more widely used practice. Thus it is well known that because of permit controls on long-term migration into Jakarta imposed by the Indonesian authorities, commuting and circular migration have greatly

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<sup>1</sup> I.B. Mantra: Population movement in wet-rice communities (Yogyakarta (Indonesia), Gadjah Mada University Press, 1981).

<sup>2</sup> S. Mukherji: "A spatio-temporal model of the mobility patterns in a multi-ethnic population, Hawaii", in Kosinski and Prothero, 1975, op. cit., pp. 324-346.

<sup>3</sup> A. Singhametra-Renard: "Mobility in north Thailand: A view from within", in G.W. Jones and H.V. Richter (eds.): Population mobility and development: South-east Asia and the Pacific, Development Studies Centre Monograph No. 27 (Canberra, Australian National University, 1981).

<sup>4</sup> S. Goldstein: "Facets of redistribution: Research challenges and opportunities", in Demography, Nov. 1975, Vol. 13, No. 4, p. 427.

increased. And the slowdown in the growth of a few large cities elsewhere, such as Bombay, may have been due to increased commuting.<sup>1</sup>

### 3. Transfers

The third main mobility status category consists of those who move residence but do not change activity. In particular, there are transfer migrants, who are all too rarely separately distinguished but who constitute a numerically important group in many countries. They have implications for labour market analysis; in many cases workers who can be transferred flexibly enable enterprises, government departments and other employers to expand and adjust production reasonably efficiently; in the absence of a transferable labour supply such changes would be impossible or too costly.

### 4. Long-term migrants

The fourth main category consists of those who, in moving, change both their "usual" residence and activity for a prolonged period. This is the group most commonly regarded as migrants. It is here that the notion of "permanence" or "semi-permanence" is critical; it would be preferable to use the term "quasi-permanent" migration. A first subcategory is working-life migrants. In many places people leave an area to spend their adult working life elsewhere but retain some link with their "home" area, perhaps a piece of land or a share in a farm or business or merely a network of kin or friends. These migrants intend to return but clearly have changed their "usual" place of residence. In terms of the impact on the area of origin the implications of such moves are likely to be quite different from the implications of those who sever all such links, who can perhaps be described best as lifetime migrants.

Within both subcategories one can distinguish between first-time migrants, multiple-move migrants - sometimes called "new" or "primary"

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<sup>1</sup> K.C. Zachariah: "Bombay migration study: A pilot analysis of migration to an Asian metropolis", in Demography, 1966, Vol. 3, pp. 378-391.

migrants and "repeat" migrants respectively - and return-migrants. Some use the terms "primary" and "repeat" moves, where primary refers to "first-time" moves and where repeat includes both "return" and "onward" (non-return) moves.<sup>1</sup> Sometimes, multiple-move migrants have been called "chronic migrants", which seems implicitly pejorative.<sup>2</sup> If one were interested in the migratability of the population it would be useful to identify the proportion who moved just once, the proportion of moves that were made by multiple-move migrants and the ratio of return-migrants to out-migrants.<sup>3</sup> Otherwise, for example, an impression of high mobility might be gained from a reality of a small proportion of a population indulging in multiple moves.

Return-migrants are commonly identified in analyses and surveys, but are usually defined rather arbitrarily. Commonly they are defined as such if they had returned from living somewhere else for a continuous period of at least six months.<sup>4</sup> But the stipulated period away has varied from one month to one year.

One component of multiple-move migrants consists of step-migrants, who should not be confused with circular migrants even though they may stay for a short time in the area to which they move from their area of origin. Unlike circular migrants these do not have the intention of returning to their area of origin, at least not in the foreseeable future. Step-migrants are those who have been

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<sup>1</sup> J. DaVanzo and P.A. Morrison: "Return and other sequences of migration in the United States", in Demography, Feb. 1981, Vol. 18, No. 1, p. 89.

<sup>2</sup> P.A. Morrison: "Chronic movers and the future distribution of population", in Demography, May 1971, Vol. 8, No. 2.

<sup>3</sup> See, for example, S. Goldstein: "Repeated migration as a factor in high mobility rates", in American Sociological Review, Oct. 1954, Vol. 10, pp. 536-541.

<sup>4</sup> See, for example, D.K. Kothasi: "Residence history analysis: Rajasthan, India", in R.J. Pryor (ed.): Residence history analysis (Canberra, Australian National University, Department of Demography, 1979), p. 67.



depicted as moving from a rural area to a small urban area and thence to a larger urban area and ultimately a city, making in effect two or more moves before they settle in their long-term destination.<sup>1</sup> One difficulty with the concept of a step-migrant is that the person may not be able to identify himself or herself as such until the process is completed or nearly completed. He or she may intend to remain in each area to which they move, only subsequently being enticed to a larger or another area. However, in some cases the migrant may indulge in step-migration quite consciously, perhaps moving to a small local town to work to save for a longer journey or to acquire inputs for some economic venture elsewhere.

#### 5. Non-migrants

The fifth and final category of mobility status consists of those who have changed neither area of residence nor of activity. Such non-migrants can be analytically divided into three subcategories - committed residents, undecided residents and potential migrants. Again, in each case questions about intentions would be required to make the differentiation, which must blur the distinctions. Non-migrants may be identified as those who have never moved or who have not moved either area of residence or activity within a specified period.

#### 6. Miscellaneous classifications

This completes what is at least a mutually inclusive categorisation procedure. However, overlaying any such schema are various other conceptual distinctions that have emerged in the literature. These have typically introduced other dimensions to the mobility categories, notably characteristics of the migrants or aspects of their behaviour.

##### (i) Active vs. passive migrants

Many social scientists have referred to this distinction, based on whether or not the individual "initiated" the move. This is the word

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<sup>1</sup> Step-migrants were first identified by Ravenstein in his classic paper. E.G. Ravenstein: "The laws of migration", in Journal of the Royal Statistical Society, June 1885, Vol. 47, pp. 167-227.

used in one study, though it must be stressed that the notion is, at best, hazy; active migrants were defined operationally as those who moved for wage labour, schooling, to visit kinsmen, to take "permanent" employment, or for medical reasons, whereas passive migrants were those who moved to "accompany other persons" or who were "born outside the village".<sup>1</sup> Others have treated the distinction rather differently. Thus, Hägerstrand defined active migrants as pioneer movers, those whose locational behaviour is not co-ordinated with that of other migrants.<sup>2</sup> A passive migrant is one who "in selecting a destination is dependent on earlier migrants". There are several implicit differences between these definitions. The first approach focuses on the maker of the decision whether or not to move, the second on the determinant of the choice of destination, implicitly accepting that a decision to move has been made. The first stresses the underlying reasons for moving, the latter does not. The second approach is the micro-analogue of the process of chain migration, which will be discussed later. As Eichenbaum expressed it:

"The active migrant is distinguished by his pioneering characteristics. This pioneering can be absolute; that is, he can be the first settler in uninhabited territory, but more likely it is relative; he is the first settler of a particular cultural group to settle in territory already occupied by a different cultural group. In either case, the active migrant may be considered as the source of the voluntary chain migration process which frequently, but not always, ensues. In this sense he is identifiable with an unprecedented event which is the genesis of a deviation amplifying process resulting in the concentration of a social group in a particular area." [3]

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<sup>1</sup> Chapman, 1975, op. cit., pp. 134-135.

<sup>2</sup> T. Hägerstrand: "Migration and area", in D. Hannesberg, et al. (eds.): Migration in Sweden (Lund, Gleerup, 1957), pp. 27-158.

<sup>3</sup> J. Eichenbaum: "A matrix of human movement", in International Migration, 1975, Vol. XIII, Nos. 1/2, p. 27.

Such a perspective is analytically interesting, but the former approach is more useful in the mundane way of determining the proportion of any given migration stream that is autonomous, at least in principle. The prime difficulty with it is that it oversimplifies the decision-making process. If a husband and wife migrate, it cannot be presumed that only one initiated the move or that both did because they both subsequently cite job search as their reason for moving.

(ii) Innovative vs. defensive migrants

Many people move in order to alter a lifestyle or change economic or social status. These have been classified as innovative migrants.<sup>1</sup> In contrast, others move in order to retain a lifestyle or status or to re-obtain what they have lost, and as such can be described as defensive or conservative migrants. This distinction may be seen as similar to that between passive and active migrants, and certainly this would be the case if the second version of the latter distinction is accepted. However, analytically it makes sense to maintain the two sets of distinctions, for combinations exist. Thus, slaves sent to clear new territory for settlement could be described as passive innovative migrants, whereas a peasant who loses his land and moves elsewhere to establish a similar farm could be described as an active defensive migrant.

Some analysts have attempted to make a somewhat related distinction between traditional migrants and non-traditional migrants. The former, according to one user of the distinction, makes moves only according to the dictates of traditional custom, an example being women moving on getting married, whereas non-traditional migrants are "those who had made moves of a type which developed through colonial contact".<sup>2</sup>

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<sup>1</sup> Petersen, 1958, op. cit., p. 261.

<sup>2</sup> E.A. Young: "Residence history analysis: Papua New Guinea", in Pryor, 1979, op. cit., p. 45.

(iii) Reversible vs. non-reversible migrants

One interesting type of dichotomy is that based on the distinction between reversible migrants and non-reversible migrants. An example of this approach is a study of village out-migration in western Nepal, which also made a pragmatic but theoretically reasonable distinction between short-term and long-term labour migration - the latter being "labour done outside the village of origin for a period which keeps the migrant out of the village for at least one entire yearly agricultural cycle".<sup>1</sup> Reversible migrants were defined as those who owned land in the village, even though they may have owned land elsewhere as well. They leave the village to make up a deficit or to earn extra income and their options are to (i) return to the village; (ii) reside elsewhere; or (iii) shuttle between the new area and their village of origin. Non-reversible migrants own no village land and have little option other than to reside elsewhere. This distinction may be useful in particular village-type contexts, but of course is a less generalisable categorisation than that outlined earlier.

(iv) Voluntary vs. involuntary migration

Without wishing to delve into the philosophical problems of "free will", it is clear that sharp distinctions can be made between voluntary movements and those that are involuntary as far as the migrant is concerned. Yet boundary lines are blurred. Many movers may feel obliged to move but not be strictly under any overpowering force to do so.

One cannot fully surmount this difficulty, but can take either of two practical options. First, the notion of voluntary could be taken to mean that the decision to migrate is taken by the individual considering the move. This could be termed the inclusion approach. Several difficulties arise. If a family unit moves it is not clear who

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<sup>1</sup> D.R. Dahal, N.K. Rai and A. Manzardo: Land and migration in far-western Nepal (Kirtipur (Nepal), Institute of Nepal and Asian Studies, Tribhuvan University, 1977), p. 68.

is the decision-maker, as noted with respect to the distinction between passive and active migrants. That could be taken into account by including family decision-making as voluntary. The other major difficulty is simply that the approach takes no account of the restrictions placed on the "decision-maker" which might be ecological, social or economic. This opens up numerous complications.

The alternative option is to consider various forms of involuntary movement as distinct from basically voluntary moves. That could be termed the exclusion approach. This is more manageable, even if more disaggregative. In essence, it hinges on two criteria. First, it is necessary to recognise the distinction between impelled and forced moves. In the former, the individual retains some power to decide whether or not to leave, whereas those forced to move do not have that power.<sup>1</sup> The second point to be borne in mind is that "influences" can be placed on the propensity to move or not, the type of move and on the selection of destination. Some forms of involuntary migration are not restrictive in all three aspects, others are so. Three groups of forced movers can be identified.

The first group consists of slaves, who are forced to move and have no control over the move, type of move or destination. In many cases, as in the African slave trade, different individuals or groups determined the movement, the type of move, and the choice of destination. Thus in Africa the initial move resulted from enslavement through inter-tribal wars; merchants - mainly either native or Arab - determined initial moves, then companies decided on a broad selection of destinations, such as the American south, the Caribbean colonies or the Atlantic coast of Latin America, and finally the choice of residence was determined by their purchase in slave markets. Thus there were four separate forced moves in slave migration.

The second group consists of allocatees.<sup>2</sup> In this case the initial decision to move is not forced, though it has usually been

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<sup>1</sup> Petersen, 1958, op. cit., p. 261.

<sup>2</sup> Eichenbaum, 1975, op. cit., p. 30.

impelled, as the decision hardly represents a very desirable option. However, force is involved in the selection of destination and the type of move made, over which the mover has very little control. A classic case here is indentured labour, in which an individual signs away his or her freedom for a certain period, being transported to a place only vaguely determined at the time of indenture. In the nineteenth century many Indians indentured themselves, often lured by the prospect of making savings and escaping from crushing poverty. Many were transported to the Caribbean or parts of Latin America or South-east Asia, but once embarked had no control over the destination at which they would reside and work, and very often no control over the exact term they were obliged to serve. A variant is debt-bonded labour, whereby the worker is obliged to move to work for a creditor until such time as the debt is paid, an example being the *enganche* system in Peru, another being "pledging" in India, where a dependent relative is obliged to move to work until the debt has been paid.

The third group of involuntary migrants consists of refugees. This term can be narrowly defined as those deprived of their countries on grounds of persecution or fear of persecution, which is the basic feature of the definition accepted by the United Nations. Or it could be very broadly defined, as by Eichenbaum:

"Here I broaden the term into a concept applicable to all forced moves brought about through social actions. Thus, persons moving because of religious or political persecution or the ravages of war are placed in the same category as those moving because of highway construction, river valley development, or eviction." [1]

This definition has the virtue of embracing those who are forced to move by state action or inaction but who are not forced to make a particular type of move or go to a particular destination. It encompasses flight. However, it seems too embracing, putting too many groups into one category, groups that really differ in important respects. They should be divided into political refugees, those

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<sup>1</sup> Eichenbaum, 1975, op. cit., p. 28.

fleeing from social or political persecution either because of state action or because of an absence of state protection, and displaced persons, those who have been forced to move by government action or inaction - or by the consequences of it - without that being an objective of the action or inaction. The latter group could be further disaggregated into socially displaced and ecologically displaced persons. The former would constitute those forced to move by social actions or inactions, the latter those forced to do so by such "natural" events as a flood, drought or famine.

Another aspect of the refugee category concerns their intentions, or their type of move. Some will see their move as a temporary one, until the circumstances precipitating their move have changed; others will regard the move as irreversible, intentionally at least.

These various classifications are analytically useful and can be used in conjunction with the broader typology outlined earlier. But in addition to categorising individuals according to mobility status, aggregate patterns of mobility should be distinguished, corresponding to the micro-categories in the sense that the two are compatible but differing to a certain extent to reflect different analytical perspectives.

#### IV. Types of Migration

The social sciences abound with such statements as "the rate of migration was x per cent" which on closer inspection are something like "the proportion of those living in rural areas aged 15 to 64 now who moved to urban areas in the past five years and who remained there until the date on which the information was gathered was x per cent". This pedantic point may serve to highlight the complexity of the mobility process. In that context, before considering typologies of migration it should be useful to review some basic concepts as presented by demographers and others.

##### 1. Rate and incidence of migration

A first conceptual distinction should be drawn between a rate of migration and the incidence of migration. The former refers to the ratio of migrants to the total population, where the moves have

occurred in a specified period. Determinants of a rate of migration from one area to another may be quite different from those that determine the incidence of migration, the latter term referring to the differential rate of migration across identifiable demographic or social groups. In that context, "migratability" should be distinguished from migrant status or migration per se. A group may be more migratable than another, based on their relative attachment to the area, but whether or not migration will occur will depend on socio-economic influences. For example, wage labourers are more migratable than serfs, but whether they move more or less than serfs may depend on relative incomes in various areas, fluctuations in area living conditions, or in changes in living conditions.

## 2. Gross and net migration

Gross in-migration or gross out-migration refers to the number of people who enter or leave an area in a given period. The sum of in-migrants and out-migrants is the population turnover, expressed as a rate if divided by the population at risk at the beginning or end of the period.<sup>1</sup>

Net in-migration or net out-migration is the balance after out-migrants or in-migrants respectively have been deducted from the gross flow.

In addition, it has been proposed to distinguish between an inflow rate and an in-migration rate as follows:<sup>2</sup>

$$\text{Inflow rate} = \frac{\text{Number of in-migrants}}{\text{Population in area at beginning of period}}$$

$$\text{In-migration rate} = \frac{\text{Number of in-migrants}}{\text{Population in area at end of period}}$$

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<sup>1</sup> Unlike other demographic vital events (fertility, mortality) it is not practicable to calculate an in-migration rate with the denominator as the "population at risk".

<sup>2</sup> J. Matras: Populations and societies (Englewood Cliffs (New Jersey), Prentice-Hall, 1973).



An over-all outflow rate could be estimated analogously, but it is more usual to create an outflow table or matrix, which displays how certain areas grow at the expense of others.<sup>1</sup> Clearly, an outflow matrix could be used to analyse the over-all pattern of migration.

Various indirect methods of estimating net migration have been adopted in the absence of actual migration data. The first is the vital statistics residual method. Simply, in any area i,

Net in-migration = Population growth - Natural increase

$$m = (P_{t+1} - P_t) - (B - D)_{(t+1)-(t)}$$

where P is population, t refers to the beginning of the period, t+1 to the end of the period, B refers to births, D to deaths. This method requires complete and accurate registration of fertility and mortality, and the questionable accuracy of this method has been widely stressed.<sup>2</sup>

A second and cruder approach is the natural growth rate method. For any area population growth will be more or less than the national average. It is assumed that natural increase is at the same rate in all areas, and that if the population growth rate in any area is greater than the average rate there has been net in-migration in the period, if less than that average then there has been net out-migration. Quite simply, the net migration rate, m, of area i is estimated from the following, where n refers to the national figure:

$$m_i = \left( \frac{(P_t^i - P_{t+1}^i)}{P_{t+1}^n} - \frac{(P_t^n - P_{t+1}^n)}{P_{t+1}^n} \right) \times 1000$$

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<sup>1</sup> J.J. Zuiches: "Migration methods and models: A demographic perspective", in R.N. Thomas and J.M. Hunter (eds.): Internal migration systems in the developing world (Boston (Mass.), Hall and Co., 1980), pp. 6-7.

<sup>2</sup> See, for example, C.H. Hamilton: "Effects of census errors on the measurement of net migration", in Demography, 1966, Vol. 3, No. 2, pp. 393-415.

While this method requires no vital statistics at all, its crucial assumption that natural increase is identical in all areas is a major weakness.

A third approach is the survival-rate residual method, which is commonly used in countries where reasonably accurate vital statistics are not available. It has the virtue of simplicity. The basic principle is that the expected number of survivors of any age-sex cohort - or any group of interest - in some period is subtracted from the observed number of survivors of that cohort. There are two variants of this approach. One is the forward survival rate. If  $a$  refers to any age group,  $m$  to the period between the two dates of observation (typically time between successive censuses), and  $S$  the survival rate estimated from a life table, then net migration is estimated as follows:

$$m_{a+m} = P_{a+m}^{t+m} - S(P_a^t)$$

The survival rate may be estimated from an area-specific life table or as a census survival rate, i.e. the ratio of the numbers in the same national cohort at successive censuses.

It has been observed that even when vital statistics are reasonably free of errors the survival rate method does not accurately measure net migration because the number of deaths in the area is not necessarily the same as the number of deaths of non-migrants and of in-migrants.<sup>1</sup>

The alternative variant is the reverse survival rate method, calculated thus:

$$m_{a+m}^i = \frac{P_{a+m}^{t+m}}{S} - P_a^t$$

As this gives a different result from the forward survival rate method, it has been common to use an average of the two methods as

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<sup>1</sup> Shyrock, et al., 1973, op. cit., p. 379.

the estimated net migration.<sup>1</sup>

### 3. Migration streams and counter-streams

Derived from Ravenstein's seminal articles, a migration stream consists of a group who have a common area of origin and of destination in a given period. An analogous movement in the opposite direction between the same two areas is called a counter-stream. As Ravenstein and Lee have stressed, for every migration stream there is a counter-stream and each should be divided into out-migrants and return-migrants.<sup>2</sup> Strictly speaking, even that is insufficient, for they included under "first-time moves" all those moving, except return-migrants, regardless of whether or not the move in question was actually the migrant's first move.

Streams and counter-streams are often taken to refer to flows between two types of place, notably rural and urban areas. A net stream is the difference between a stream and its corresponding counter-stream, sometimes called a net interchange.<sup>3</sup> Conversely, a gross interchange is the sum of the corresponding stream and counter-stream.

### 4. Types of migration streams

It is common to distinguish between individual migration streams, consisting of individuals or groups of individuals, and those consisting predominantly of family migration.<sup>4</sup> Another approach divides streams into pioneer movement, group migration, and mass migration.<sup>5</sup> Pioneer movement is relatively small and generally precedes other types of movement, being pathbreaking and innovative. Group migration occurs when all or a large proportion of an identifiable

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<sup>1</sup> These methods are discussed at length in United Nations: Methods of measuring internal migration, Manuals on Methods of Estimating Population, No. VI (New York, 1980).

<sup>2</sup> See, for example, Lee, 1966, op. cit., pp. 47-48.

<sup>3</sup> Shyrock, et al., 1973, op. cit. p. 375.

<sup>4</sup> Goldscheider, 1971, op. cit., p. 71.

<sup>5</sup> Petersen, 1958, op. cit., p. 263.

group migrates at about the same time and in the same direction, usually for similar purposes.

Mass migration occurs when whole communities participate in migration, which becomes a social pattern of behaviour. In those circumstances individual motivations become peripheral. As Petersen expressed it:

"Migration becomes a style, an established pattern, an example of collective behaviour. Once it is well begun, the growth of such a movement is semi-automatic: so long as there are people to emigrate, the principal cause of emigration is prior emigration."<sup>1</sup>

Too few empirical studies have attempted to distinguish between mass, group and individual migration, and it is quite evident that most analysts have perceived migration as an individualistic phenomenon, most notably those economists who rely on "human capital" insights.

#### 5. Lifetime vs. fixed-period migration

These terms actually refer to in-migration to an area between the time of the census or survey and either the individual's birth or some moment such as five or ten years before the date of enumeration. These are the usual measures used in censuses and have been the principal indices of population mobility. As argued extensively in section II, both approaches are unsatisfactory and seriously underestimate population mobility, especially circular migration and return-migration. A recent fixed period does have the analytical advantage that the identified migrants will have moved at about the same time, and it makes it easier to get detailed personal, household and area-specific characteristics that relate to the period when decisions on movement or non-movement were made. But clearly it limits the observed number of migrants. A variant of the fixed-period criterion is adult migration, where an individual is classified as a migrant if he or she moved since reaching some age such as 15, or since he or she finished full-time schooling. That has the advantage

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<sup>1</sup> Petersen, 1958, op. cit., p. 263.

of attempting to focus on those who could be expected to have made a decision relatively independently; but even that will not be true in many instances.

Some analyses have combined a lifetime approach and a multiple fixed-period approach. One distinguished 15 mobility status categories on the basis of the 1970 Census of Population and Housing in the Philippines.<sup>1</sup> This is illustrated in table 1. The province of birth was known and if the person was living in his or her birthplace it is marked by X; if the place of residence in 1960 was different from the birthplace it is marked by Y; if the place of residence in 1965 was the same as in 1960 it is also marked by Y, but if the place of residence in 1965 was different from that of 1960 and not the birthplace it is marked by Z; if in 1970 the person was a "tertiary" migrant, living in a place that was not the birthplace, or the place of residence in 1960 or 1965, it is marked by W.

By such methods there is a substantial increase in the number of "migrations" identified, and some mobile persons are identified as such whereas they would be counted as non-migrants by a single fixed-period approach or a lifetime-mover approach. However, some short-term movers within any of the periods would be missed, and a selection of a different set of residence dates might give a very different distribution of people in the various mobility statuses. Yet most importantly, such refinements highlight the rather arbitrary nature of any fixed-period approach. Moreover, so-called transition data generated from questions on residence at some date cannot be used to compute migration rates directly. Some sophisticated demographic techniques have been proposed.<sup>2</sup> However, the difficulties remain, that neither the age at which a move was made nor the initial population at risk is identified.

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<sup>1</sup> M.L.R. Juan and Y. Kim: Migration differentials by migration types in the Philippines: A study of migration typology and differentials, UNFPA-NCSO Population Research Project Monograph No. 8 (Manila, National Census and Statistics Office).

<sup>2</sup> See, for example, J. Ledent and P.H. Rees: Choices in the construction of multiregional life tables, Working Paper WP-80-173 (Laxenburg (Austria), IIASA, 1980).

Table 1: Typology of mover-stayer migration patterns

Status	Migration code	Province of residence			
		Birth	1960	1965	1970
Non-migrant	1	X	X	X	X
Primary migrant	2	X	X	X	Y
	3	X	X	Y	Y
	4	X	Y	Y	Y
	5	X	X	Y	Z
Secondary migrant	6	X	Y	Y	Z
	7	X	Y	Z	Z
	8	X	Y	Z	W
Tertiary migrant	9	X	Y	X	X
Return-migrant	10	X	Y	Y	X
	11	X	Y	Z	X
	12	X	X	Y	X
	13	X	Y	X	Y
	14	X	Y	X	Z
	15	X	Y	Z	Y
	Circular migrant	15	X	Y	Z

Source: Juan and Kim, 1977, p. 4.

## 6. Circulation and oscillation

Circulation, as noted earlier, refers to short-term, repetitive movement without any intention of permanent or long-lasting change of residence. It differs from commuting in that the absence extends over full days rather than merely working hours. Some have used a more restrictive definition. Bedford placed a lower limit of one month's absence to qualify as circulation; any absence for less than one month he called oscillation.<sup>1</sup> Others have used the words circulation and oscillation synonymously.<sup>2</sup> Hugo argued that any such

<sup>1</sup> R.D. Bedford: New Hebridean mobility: A study of circular migration (Canberra, Australian National University, Department of Human Geography, 1973), publication HG/9, p. 3.

<sup>2</sup> J.B. Riddell: "African migration and regional disparities", in R.N. Thomas and J.M. Hunter (eds.): Internal migration systems in the developing world (Boston (Mass.), Hall and Co., 1980), p. 122.

distinction had limited relevance in West Java, believing that moves involving an absence of two weeks were similar to those lasting two months, and that

"...the periodicity of circulation is regulated by the type of job which the mover holds, his net income and the travel costs of returning to his home." [1]

This view has the merit of discouraging the development of a plethora of terms to describe essentially similar phenomena. However, there may be circumstances in which a floating or oscillating population group should be distinguished from those who indulge in a regular pattern of labour-related circulation. The usefulness of the distinction will depend on local circumstances and the analytical focus.

Some analysts suggest further refinements. One study proposed what amounted to an index of the intensity of circulation:

"When migrants return home after only one period of residence away, it is very "intense"; when they make many intervening moves before returning home, they still participate in circular migration but it is a less important process." [2]

The proposed index was necessarily based on residence history data:

Index of circular migration =  $\left( \frac{\text{Number of return moves to village} \times 2}{\text{Total number of moves}} \right) \times 100$

This gives values ranging from zero (no circular migration) to 100 per cent (maximum intensity). This index focuses on intermediate residences, stressing intervening moves. There is no intrinsic importance in this emphasis.

An alternative refinement is the development of an index of the velocity of circulation, which analytically seems more useful, as any

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<sup>1</sup> Hugo, 1978, op. cit., p. 107.

<sup>2</sup> Young, 1979, op. cit., p. 46. It is unclear why either should be regarded as more important than the other.

reduction or expansion in the residential stability of a population has implications for social and economic planning and for the flexibility of labour supply, to take just two examples. Such an index could be measured in a straightforward manner:

$$\text{Velocity of circulation} = \left( \frac{\bar{t} \cdot \bar{n}}{T} \times \frac{M}{P} \right) \times 100$$

where  $\bar{t}$  is the average duration of time away for those who circulated,  $\bar{n}$  is the average number of absences among such migrants in the period, T, which itself could be a year expressed in the same units as t (days or weeks). M is the number of those involved in circular migration (however defined) and P is the population "at risk". As M and P should refer to the same moment, it is practicable to take the population as of the end of period T. Such an index is by no means ideal, but should provide a measure of the extent of circulation and be useful to identify trends, as well as to compare circulation in two or more areas.

Finally, one ingenious schematic typology of circulation in tropical Africa has been proposed by Prothero (table 2). This focuses on types of activities associated with different mobility patterns, and the health hazards associated with them. Such typologies can be most useful for identifying groups on which to concentrate scarce medical resources or other social amenities.

#### 7. Chain migration

This is a process commonly identified anecdotally but rarely measured or even rigorously defined for operational use. This is not so surprising considering that on closer inspection it is a rather vague term encompassing a variety of situations in which one individual's move is followed by that of others. It should be recognised that chain migration is not the same as passive migration or mass migration - though all three terms overlap to some extent. Someone following the track established by another is not necessarily obliged to follow that path as a dependent relative or in any other way where the decision to move is taken by someone else. However, chain-like



**Table 2: Typology of circulation in tropical Africa  
(with examples of associated activities and health hazards)**

Space	Daily	Duration		Long-term (12 months-several years)
		Periodic (24 hours-12 months)	Seasonal (one or more)	
Rural-rural	Cultivating, collecting (firewood, water) (1)	Hunting (1)	Pastoralism	Labouring (1) (3)
Rural-urban	Commuting (1)	Pilgrimage (1) (2) (3) (4)	Labouring (1)	Labouring (1) (2) (3) (4)
Urban-rural	Cultivating (1)	Trading (1)	Labouring (1)	Trading (2) (3)
Urban-urban	Intra-urban commuting (1)	Pilgrimage (2) (4)	Trading (2)	Official/commercial transfer (4)

**Note: Code for health hazards:**

(1) Exposure to diseases from changing ecological zones (e.g. malaria, trypanosomiasis, schistosomiasis, onchocerciasis); (2) exposure to disease from contact with other groups (e.g. smallpox, poliomyelitis); (3) physical stress (e.g. fatigue, undernutrition/malnutrition); (4) psychological stress - problems of adjustment.

Source: R.M. Prothero: "Disease and mobility: A neglected factor in epidemiology", in International Journal of Epidemiology, 1977, Vol. 6, No. 3, p. 265.

movements have been taken to describe situations in which an individual migrant "sends for family, kin or community", thereby combining individual and family migration in longitudinal perspective.<sup>1</sup>

A broader definition specifies that chain migration is

"...a process in which migrants move to destinations which they already know and where they have established contacts, or which they have heard of indirectly through relatives and friends."<sup>2</sup>

Such a definition seems too broad in its coverage. How well should they know a place? How are contacts to be defined? And what constitutes "heard of" (let alone "indirectly")? In short, this definition is not precise enough.

Another use of the term has been in connection with "ethnic neighbourhood formation". The emphasis is quite different:

"Chain migration can be defined as that movement in which prospective migrants learn of opportunities, are provided with transportation and employment arranged by means of primary social relationships with previous migrants."<sup>3</sup>

Here, chain migration is regarded as a social process by which successive layers of in-migrants have obligations to subsequent in-migrants.

#### 8. Stage migration and step migration

Occasionally these two terms are used synonymously, which is understandable in that they both conjure up an image of multiple moves. But they are actually quite different. Step migration refers to the process of successive moves by one migrant. Stage migration refers to a social pattern, a process by which some groups

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<sup>1</sup> Goldscheider, 1971, op. cit., p. 71.

<sup>2</sup> Young, 1979, op. cit. p. 47.

<sup>3</sup> J. MacDonald and L. MacDonald: "Chain migration, ethnic neighbourhood formation and social networks", in Milbank Memorial Fund Quarterly, 1964, Vol. 42, pp. 82-97. Emphasis is in the original.

move from the countryside to villages or small towns, others from small towns to large towns, and some from towns to large cities. This image derives from one of Ravenstein's famous "laws of migration":

"...there takes place consequently a universal shifting or displacement of the population which produces "currents of migration", setting in the direction of the great centres of commerce and industry which absorbs the migrants." [1]

Step migration in effect describes a type of move, whereas stage migration refers to a system of migration.<sup>2</sup> What is less clear is the extent of such a pattern of movement, or whether or not there are distinctive variants of the traditionally-defined pattern. In that context, one process that deserves to be specifically identified is what could be called bump migration, whereby some migrate out of one area to another, more prosperous area, in turn being replaced by in-migrants from a third, more depressed area.

#### 9. The hypothesis of mobility transition

While discussing concepts that have featured in research on migration, it is worth mentioning the hypothesis of the mobility transition, which is a spatial process linked to the broader hypothesis of a demographic transition. The gist of the mobility transition, as formulated by its leading advocate, is that

"...there are definite, patterned regularities in the growth of personal mobility through space-time during recent history, and these regularities comprise an essential component of the modernisation process." [3]

In that context, the migration transition supposedly passes through a series of four phases, from a "pre-modern traditional

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1 Ravenstein, 1885, op. cit., p. 198.

2 For one analysis of such a process, see Skeldon, 1977, op. cit.

3 W. Zelinsky: "The hypothesis of the mobility transition", in The Geographical Review, 1971, Vol. 61, No. 2, pp. 220-221.

society" of relatively little long-term migration to an "early transitional", "late transitional" and then "advanced" society, characterised by increasingly long-term rural-urban movements. There is even speculation about a fifth phase, a "future superadvanced" society.

Without going into the precise details of the mobility transition process, the objections to it are similar to those addressed to the demographic transition hypothesis. Most fundamentally, it seems to suggest a unilinear evolution supposedly valid across both time and space.<sup>1</sup> However, in focusing on the concept of territorial mobility it does represent an attempt to combine elements of complementary patterns of circulation and long-term migration involving a "permanent or semi-permanent change of residence", concentrating on people's intentions. As a conceptualisation of a changing "system of migration", it is to be lauded as an advance on the perspective that treats all forms of population mobility as a homogeneous phenomenon called "migration". It should be feasible to construct models of processes which identify the changing composition of population mobility in changing social contexts, without falling into teleological traps such as implied by "stage" theories of evolutionist models. Conversely, critics of the mobility transition hypothesis should beware of falling into the opposite trap, the dogma that social replication is not likely and that today is a "special case" unlike the past.

#### 10. General typologies of population mobility

Quite deliberately, this analysis has refrained from the temptation to formulate a generalised typology of migrants and migration. Instead an attempt has been made to propose a set of mobility-status categories, in the course of reviewing concepts associated with

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<sup>1</sup> Some have gone much further and postulated that "a migration equilibrium may be approached towards the end of the mobility transition as all parts of the settlement system achieve a high level of "modernisation". D.T. Rowland: Equilibrium migration: A model of internal migration in Australia, paper presented at the International Geographical Union Symposium on Population Geography, Minsk (USSR), 1976, p. 11.

migration analysis. But it is worth concluding with a brief examination of three typologies that have been proposed - those presented by Petersen, Eichenbaum and Hugo.

The most abstract is that of Eichenbaum who presented a simple matrix geared to a classification of methodological approaches. It was based on two sets of decisions - the decision to move from a place and the decision on a destination - and on whether the move is totally voluntary, partially voluntary ("influenced by society"), or involuntary ("determined by society"). As shown in table 3, he only classified as migrants those who had a choice to move and could go to a place of their choice. Note that, as it is recognised that no move can be completely "independent of society", or purely voluntary, the first row and the first column of cells are "abstract" or unreal categories, leaving only four "real" categories. The usefulness of this "matrix" is, however, rather limited as it leaves a rather heterogeneous group merely classified as "migrants" and of course scarcely defines the groups refugees, allocatees and slaves very precisely.

A second typology, that of Petersen, is addressed more to analytical issues, focusing on personal and other relationships, social forces and types of migration. The schema is shown in table 4. Clearly this compresses an exceedingly large number of issues into one table, and in doing so overgeneralises and juxtaposes concepts too sharply. For instance, by no means all "flight from the land" is innovating, and certainly some mass movements will reflect a relation between mass and group or societal norms. Similarly, surely not all settlement could be described as "conservative", in the sense meant earlier, and migration in connection with settlement has clearly often reflected a relation between settlers and the state. Despite these shortcomings, Petersen's schema is admirable in that it does manage to include many of the analytical concerns, even if it also omits some crucial dimensions. In particular, it does not really encompass the four criteria distinguishing the mobility status categories identified in sections II and III.

Table 3: A matrix of human movement

Decision to move from origin			
	Independent of society	Influenced by society	Determined by society
Decision to move to destination	Independent of society	Models based only on personal characteristics	Stochastic trends
	Influenced by society	Stochastic trends	Active migrants Passive migrants
	Determined by society	Gravity model of migration	Allocatees Slaves
			Ecological model of mobility rates

Source: Eichenbaum, 1975, op. cit., p. 24.

Table 4: Petersen's general typology of migration

Relation	Migratory force	Class of migration	Type of migration	
			Conservative	Innovating
Nature and man	Ecological push	Primitive	Wandering	Flight from land
			Ranging	
State (or equiv.) and man	Migration policy	Forced	Displacement	Slave trade
		Impelled	Flight	Coolie trade
Man and norms	Higher aspirations	Free	Group	Pioneer
Collective behaviour	Social momentum	Mass	Settlement	Urbanisation

Source: Petersen, 1958, op. cit., p. 266.

Table 5: Rural-to-urban population mobility in a Third World context

Type of spontaneous mover	Characteristics of move
Short-term visitor	Adventitious shoppers, tourists, visitors
Seasonal or shuttle migrant	Search for work to augment meagre agricultural income
Target migrant	Come to city for limited period (though longer than a season) to accomplish a specific purpose (e.g. reach a particular education level)
Life cycle Stage migrant	Short term sojourner Migrants who move to the city at one or more specific stages of life cycle
Working life migrant	Migrants who spend their entire working lives in the city but intend to, and eventually retire to, their home village
Permanent migrant	Migrants committed totally to exchanging a rural for an urban way of life
Undecided migrant	Migrants who have no clear intention to either stay in the city or return to the village

Source: G. Hugo: New conceptual approaches to migration in the context of urbanization: A discussion based on Indonesian experience, paper prepared for IUSSP Committee on Urbanization and Population Redistribution, Bellagio (Italy), 30 June - 3 July 1978.



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Commitment to city	Commitment to village
None	None
<p>Very little financial or social investment in city. Sleep in open, group-rented room or employer-provided barracks. Social interaction almost entirely with other migrants from village. Employment in traditional or day-labouring sectors.</p>	<p>Family of procreation remain in village. Retain all political and social roles in village. Remit bulk of income (after living expenses) to village. Retain village citizenship. Almost total orientation to village.</p>
<p>Moderate. May bring family of procreation. Seek more permanent accommodation, e.g. individually rented room. Have more interaction with settled urban population but retain close contact with fellow villagers in city. Usually employed in traditional sector.</p>	<p>Strong links maintained with family in village through visits and letters, although some roles may be temporarily given up. Remittances remain regular and high. Usually retain village citizenship.</p>
<p>High. Family of procreation always accompanies. Purchase or build individually housing, occupy employer (e.g. government) supplied housing, or rent housing on long-term basis. Often in formal sector occupations. High level of interaction with settled urban population but retain contact with fellow migrants through associations, etc. Always transfer citizenship to city. Assist new arrivals to city from home village.</p>	<p>Sufficient links maintained with village to ensure acceptance on eventual return. Investments in housing and land although unable to maintain most social and political roles. Periodic remittances to family. Return visits made at end of fasting months and for important life cycle ceremonies.</p>
Total	None
Unknown	Unknown

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The third proposed classification schema focuses at a lower level of abstraction through being based on actual categories of migrants. In some respects Hugo's schema is much more restrictive than Petersen's, in that it is only concerned with rural-urban population mobility and only with so-called "spontaneous movers". But it also includes dimensions not raised in the other two typologies - the "characteristics of the move" and the complex issue of "commitment" to the urban and rural areas (table 5). One can quarrel with the classification of migrants and regret the absence of certain groups such as allocatees, transfers, "permanent migrants" (as defined earlier) and perhaps step migrants. But more crucially, it is doubtful whether the behavioural characteristics attributed to the various types of mover are particularly valid in that they will not apply to at least a sizeable minority of the group in question. Thus a seasonal migrant to an urban area may very well stay with relatives who had moved there earlier (and this may be a primary reason for the seasonal migrant going to a particular urban area). Similarly, many seasonal migrants in many social contexts have moved with their "family of procreation". And could a "target migrant" be expected to have a greater commitment to the city than a seasonal migrant? However, these are quibbles, and there is no doubt that the schema is useful for analysing of migrant "assimilation" to urban areas and the links between population mobility, community involvement and social networks. It is a purpose-oriented typology which makes no pretence to be a general conceptualisation of the migration process. This is the type of classification exercise that is likely to be the most useful in future mobility research.

#### 11. The migratory moments

It is appropriate to conclude by considering the migration process in terms of a series of behavioural phases. Seven distinct "moments" can be identified, at least one of which will refer to the present condition of any individual. One can present these moments as a unified sequence, though they will not correspond to the actual situation of any person.

The migratory moments are as follows:

- (i) migration not ever considered
- (ii) migration considered but rejected:
  - for indefinite future, or
  - temporarily, on a contingency basis
- (iii) migration intended/planned, but timing and/or destination uncertain
- (iv) migration in process
- (v) migration completed
- (vi) migration made, and repeated
- (vii) migration made, returned to area of origin or place of previous residence.

Each member of a population will fit into one of these states, and it is the over-all process encompassing all seven moments that needs to be incorporated in behavioural analyses of migration. For instance, it must be persistently stated that immobility needs to be explained as much as mobility in its various forms. Which groups or types of individuals never consider migration, and why? And what are the factors that induce many to reject migration? Another aspect brought out by envisaging the process in terms of behavioural moments is that the decision to move is independent of the choice of intended destination. Various students of migration have highlighted the independence of those two decisions.<sup>1</sup>

In short, conceptualising the mobility process as a series of key moments should help in the refinement of explanatory models and pinpoint the assumptions and points of emphasis of existing models.

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<sup>1</sup> R.B. Ginsberg: "The relationship between timing of moves and choice of destination in stochastic models of migration", in Environment and Planning, 1978, Vol. 10, pp. 667-679; F. Willekens: Identification and measurement of spatial population movements, paper prepared for the Technical Working Group on Migration and Urbanisation (Bangkok, ESCAP, 1-5 December 1981). For a recent empirical study making that distinction, see R. Anker and J.C. Knowles: Population growth, employment and economic-demographic interactions in Kenya: Bahue-Kenya (forthcoming, 1982), Chapter 5.

## V. Concluding Recommendations

This attempt to identify the principal concepts used to depict population mobility has, it is hoped, revealed the unsettled state of the art. Few terms are universally accepted and many concepts have been interpreted quite inconsistently. This reflects the complexity of the demographic phenomenon of population mobility and its multiple dimensions.

An underlying assumption of this essay is that general typologies of migrants and of migration patterns are of limited value, because any comprehensive typology would have to take into account such a broad range of issues. This should have been demonstrated by the discussion of the various concepts that have been proposed in the century of research since Ravenstein's seminal articles. Nevertheless, special purpose typologies geared to particular analytical concerns are surely valuable as means of imposing a sense of discipline on analysis. And such special purpose typologies should be allied to at least a general typology that identifies the full range of mobility status categories. In that context, the typology in section II is designed to fulfil that purpose, drawing as it does on the categories various authors have identified. Table 6 summarises that general typology, which can be used in conjunction with many of the conceptualisations that have been proposed but which do not figure in the table.

At the very least, statistical presentation of mobility should disaggregate the population into the five major categories. But in many environments it will be highly desirable to disaggregate at least one principal category into its components, the category or categories being determined by the types of mobility or immobility predominating in the area.

Because such a typology focuses on the duality of residence and activity changes, it is essential to emphasise that other facets of mobility not covered by these categories should be considered at all stages of the development of analytical frameworks and survey design. In particular, it is essential to recognise that much mobility or immobility is strictly "involuntary" and that much is not analysable in

terms of individualistic behaviour and decision-making. Unless those dimensions are explicitly recognised, the resultant data on population mobility will continue to conceal almost as much as they reveal.

Table 6: A typology of mobility status categories

1. Transients
  - nomads
  - gatherers
  - wanderers
  - migratory labourers
2. Sojourners
  - circular migrants
  - seasonal migrants
  - compensatory migrants
  - life-cycle stage migrants
  - commuters
3. Transfers
4. Long-term migrants
  - working-life migrants
    - first-time movers, multiple movers
  - lifetime migrants
    - first-time movers, multiple movers
  - return-migrants
  - step-migrants
  - other long-term migrants
5. Non-migrants
  - committed residents
  - undecided residents
  - potential migrants