AN OVERVIEW OF INTERNAL MIGRATION: A CASE STUDY IN PERAK STATE FROM 1970 TO 2000

by

HOW KOK SENG

Thesis submitted in partial fulfillment
of the requirements for the degree
of Master of Science

Mac 2004

ABSTRAK

Peralihan migrasi dalaman bagi 30 tahun yang lepas di Malaysia telah mencerminkan tren pertumbuhan ekonomi. Mobiliti migrasi ini cenderung ke arah pusat pertumbuhan yang tertentu dari wilayah yang kurang membangun. Kajian ini bertujuan untuk melakarkan interaksi di antara peralihan migrasi dalaman dengan pertumbuhan ekonomi yang berlaku di Perak dengan negeri lain di Malaysia. Di samping itu, ia turut menjustifikasikan aliran migrasi dalam konteks model migrasi dalaman dengan mengambilkira penyebab-penyebab yang tertentu. Kajian ini telah diimplementasikan dengan aplikasi pemerhatian longitud bagi data sekunder yang selama 30 tahun lalu dijalankan analisis regresi. Hasil pencarian memaparkan pertumbuhan ekonomi khasnya industri sekunder dan tertieri seperti sektor pembuatan dan perkhidmatan telah menjanakan momentum kepada migrasi dalaman yang yang berada dalam progres perubahan struktur ekonomi. Ia turut mendedahkan ketidakstabilan model anggaran fungsi makro dalam menjelaskan variasi migrasi dalaman di kajian kes Perak. Ini telah membawa kepada sebilangan lanjutan pemerhatian yang merangkumi keanjalan gaji dan pekerjaan, pendidikan serta agihan pendapatan perlu diambilkira dalam masa depan agar melengkapkan lagi model yang sedia wujud.

ABSTRACT

Internal migration transition for the last 30 years in Malaysia has reflected the trend of economic growth. The mobility tends to focus on certain growth poles from those less developed region. This study is mainly to depict the interaction between the transition of internal migration and economics growth taken place in Perak with other states in Malaysia. Furthermore, it justified the migration flows in terms of internal migration model by incorporates certain determinants. This study is conducted by applying the longitudinal observations of 30 years secondary data, which was collected and later reconciling with the regression analysis. The findings showed that the economics growth especially in the secondary and tertiary industries such as manufacturing and services sectors initiated the momentum of internal migration due to structural change in this period. It also revealed the inconsistency of macro function estimation in explaining the variations of internal migration in the case study of Perak. This resulted a number of further observations regarding the wages and jobs elasticity, education as well as income distribution should be carried out.

ACKNOWLEDGEMENT

First of all, a particular word of appreciation is due to my supervisor Dr.,
Kausar Hj. Ali who has rendered substantive content and invaluable
supervision throughout the length of this study. Besides that,
acknowledgement is due to Profesor Abdul Ghani Salleh as the second reader
who associated with this study.

List of Graph

List of Figures

List of Tables

1.0 GENERAL

1.1 Introduction

Internal migration, which has no direct effect on a country's total population size and growth, but is intimately related to population distribution within a country, particularly to the process of urbanisation, demographic features such as labour force, working age group and per capita income is discussed in the following chapters. Internal migration has important demographic consequences, as well as having social economic effects on the sending and receiving areas. Apart from its obvious effect on the population size of sending and receiving areas, migration affects the age distribution of the population in these areas and through this natural increase arising from births and deaths, this is because the younger persons are more likely to migrate than older persons.

In shorts, what level of mobilization of human within a country's border can be a significant indicator of life styles and national character? Under some circumstances, a high rate of geographical mobility can indicate a strong commitment of the population to occupational mobility and personal career advancement. Extensive movement can boost a nation's economic output and productivity as the labour force rapidly responds to technological change by moving to areas where deficiencies of specific skills develop. This may resulted in the encouragement of economic growth in the migrate destination while decline in migrate origin region.

1.2   Objectives

The underlying objectives to be achieved from this study are stated as below,

     i.   To identify the patterns of migration flow in the study area

    ii.   To describe the relation of migration and urbanization

   iii.   To synthesis a model from the above mentioned

1.3   Framework

This research framework involves the deductive approach or 'top-down' approach from the more general to the more specific (Refer to Figure 1.1). It is begin with a existing model, 'macro' function estimation which initiated by Todaro. It is then narrowed down to collect observations to address the model. The observations involved a series of background description in order to provide a clear view of the internal migration taken place in study area. This ultimately leads to the testing of the model with specific data, as a conformation (or not) of the original theory.

Figure 1.1 :   Research Framework


```
┌─────────────────────────────────────┐
│              Theory                  │
│  Todaro's 'Macro' Function Estimation│
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│           Observations               │
│            Descriptive               │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│           Confirmation               │
│            Analytical                │
└─────────────────────────────────────┘
```
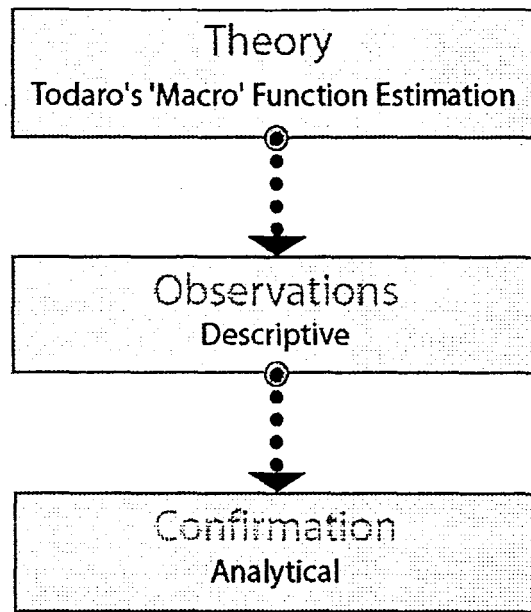
1.4   Methodology

The research methodology comprise of five stages as shown in Figure 1.2.

i.   Research questions

There are numerous reasons why scholars from various disciplines devote attention to the study of migration. The territorial redistribution of population is an attractive subject for spatially orientated discipline. Dynamic aspects have drawn more attention and at the present time in interest in spatial processes and with spatial patterns. This results in greater interest in migration studies. Among the curiosities, or interests of this research can be generalized as follows,

a)   Is there a geographical pattern to movement?

b)   What are the characteristics of migrants?

c) What are the causes and consequences of individual moves?

d) Do theories explain movement?

ii. Research objectives

In accordance with the research questions above, this study will achieved the objectives stated as below,

a) To identify the patterns of migration flow in the study area

b) To describe the relation of migration and urbanization

c) To synthesis a model from the above mentioned

iii. Data collection

The data collection conducted in this study refers to secondary data available from national housing and population census, migration survey reports, Malaysia Plan and other statistical releases.

iv. Data analyses

Secondary analysis was applied in this research to make use of already existing sources of data. The analysis method carried out includes regression as a repeated measure for 4 times (or known as waves) in 40 years period. This analysis concludes the explanation of variation in each wave.

v.   Findings

The findings will conclude the adaptability of the model study with the current internal migration transition in Malaysia, particularly to Perak state. Lastly, a brief conclusion about the research will be presented in the form of priorities for future research.

Figure 1.2 :   Research Methodology

Research Question/Problem
- Is there a geographical pattern to movement?
- What are the characteristics of migrants?
- What are the causes and consequences of individual moves?
- Do theories explain movement?

Research Objectives
- To identify the patterns of migration flow in the study area
- To describe the relation of migration and economic
- To synthesis a model from the above mentioned

Data Collection
- Secondary Data Collection
  - Housing and Population Census
  - Migration Survey Report
  - Malaysia Plan
  - Other Statistical Releases

Data Analysis
- Regression
- Repeated Measures
- Cross Tabulation

Findings
Migration Model Reformulate from Case Study

1.5   Scope of Study

The scope of study is mainly comprises of two sections due to the deductive approach utilized in this study (Refer to Figure 1.3).

Figure 1.3 :   Scope of Study
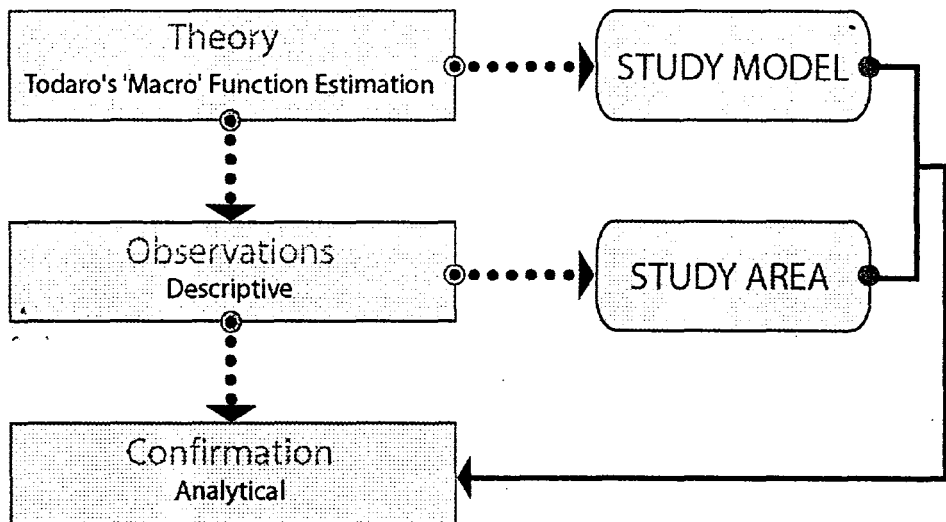
1.5.1   Study Area

The case study involved all the states in Malaysia. However, the main focus will zero in the internal migration flows of Perak with all the other states in Malaysia. The state of Perak has an area of 8,110 sq miles ranked among the most populated state in Malaysia and is the fourth largest in terms of size. Perak is divided into 9 administrative districts, namely Krian, Larut & Matang, Dinding, Hulu Perak, Kuala Kangsar, Perak Tengah, Kinta, Hilir Perak and Batang Padang (Refer to Figure 1.4).

1.5.2 Study Model

The 'macro' function estimation, which presented by Michael P. Todaro, is selected to fit in the explanation of internal migration transition taken place in Perak state with the others in Malaysia. The adaptability this selected internal migration model will then be examined by the secondary data analysis by making uses the data available in the study area. The econometric equation of the independent variables may be written as below,

$$\frac{M_{ij}}{P_i} = f(Y_i, Y_j; U_i, U_j; Z_i, Z_j; P_i, P_j; C_i, C_j; d_{ij})$$

Independent variables in macro functions include wage or income levels (Y) in i and j; employment (E) or unemployment rates (U) in j and sometimes i as well; the degree of urbanisation (Z) for the population in areas i and j; the distance between i and j (d_{ij}); friends and relatives of residents of source area i in the destination area j (C_{ij}); and perhaps also the size of the population (P) in areas i and j, although Z and P are likely to be correlated[1].

[1]Todaro, M.P., (1976), *Internal Migration in Developing Countries: A Review of Theory, Evidence, Methodology, and Research Priorities*, Geneva: International Labour Organisation. pp. 47-51.
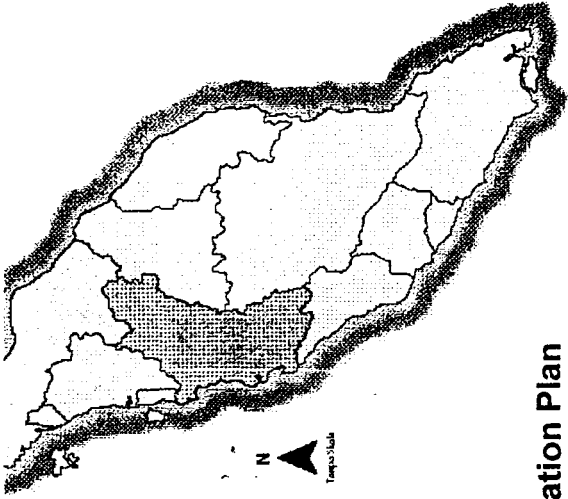
Location Plan

Legend

⊚ Capital City

▬▬ State Boundary

▬▬▬▬ National Boundary

THAILAND

KEDAH

Larut Matang & Selama

Kerian

Hulu Perak

Kuala Kangsar

Ipoh

KELANTAN

PAHANG

Batang Padang

SELANGOR

Figure 1.4

District of Perak State
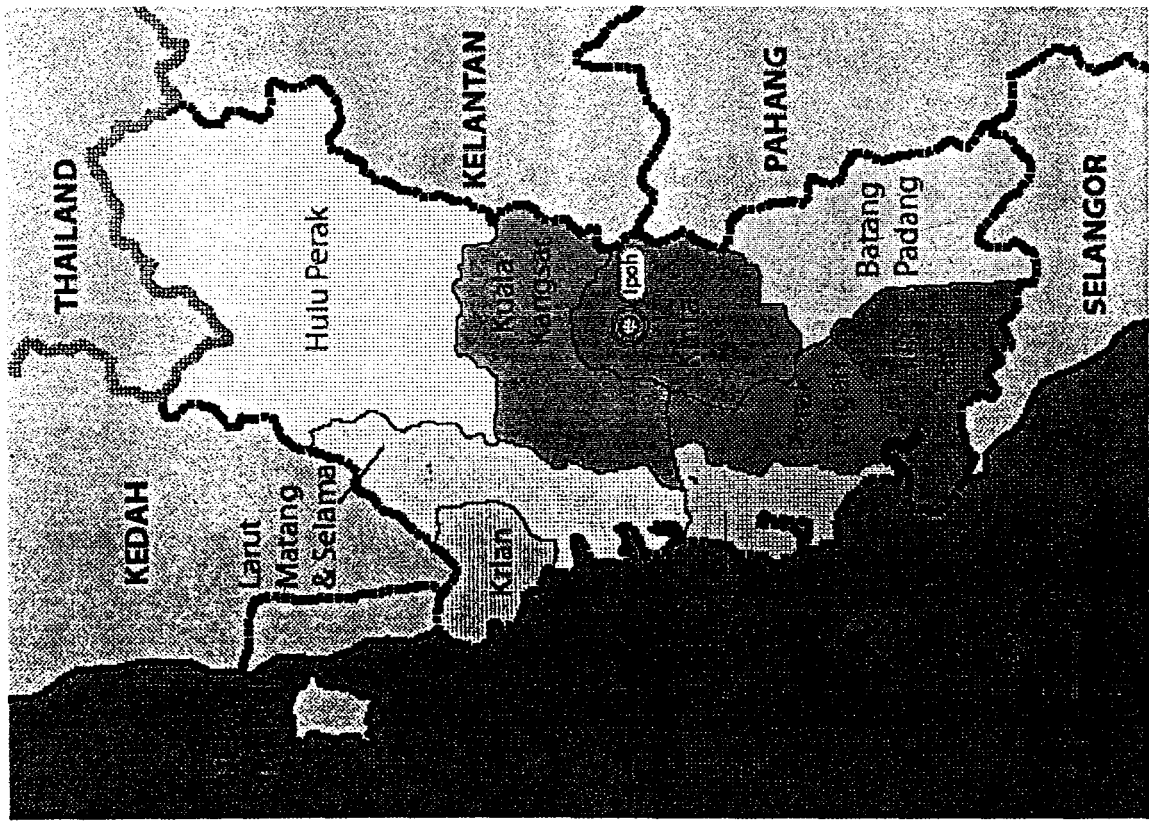
1.5.3 Time Frame

Detailed time frame is shown in the Figure 1.5. There are five stages in the whole research process, namely,

i.   Preliminary studies

ii.   Literature Review

iii.   Data Collection

iv.   Analysis and Synthesis

v.   Write-up

The stages mentioned above however will overlap in terms of time frame due to the integration of task with one another. Preliminary study is the first to be launched in order to get a clearer illustration of the research topic selection. This stage is then followed by literature review for further understanding of the subject studied that will last for nine months. The stage of analysis and synthesis will get started after data collection. The stage of write-up will continue for six months, which began from the third month of research.

Figure 1.5 :   Research Time Frame

CONTENTS	MONTH								
	1	2	3	4	5	6	7	8	9
1 Preliminary studies	◆----➤								
2 Literature Review	◆---------------------------➤								
3 Data Collection			◆--------------➤					
4 Analysis & Synthesis			◆-----------------------➤				
5 Write-up			◆-----------------------➤				
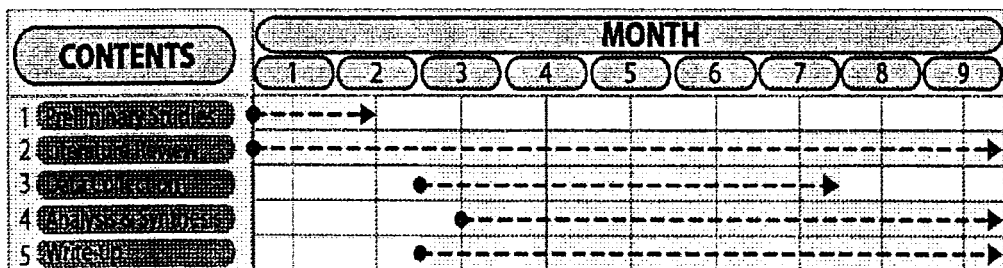
1.5.4 Limitation

The foremost limitation in this research is the analysis will solely depend on secondary data obtained from survey reports, censuses and other statistical releases. Though the degree of data invalidity or deviation of data might be low, there will be restriction to the analysis framework, which needed to be carried out. As mentioned earlier in the study framework, the model validation will be more difficult due to limitations of available data. Furthermore, the inconsistency of data breakdown presented in different period will cause certain level of constraints to the research framework. Thus this will by some means affect the flexibility of research analysis, which further restraint the research findings. In addition, there are a few assumption incorporated in this study where the migration referred to is purely on economic as a push factor, although there are a ton of reasons to cause the migration from other aspects such as nature or human disasters.

2.0   AN INTRODUCTION TO MIGRATION

2.1   Definition

Mobility is the general concept in migration studies. People are not homogeneous with respect to mobility, and the redistribution of the population is largely a result of some people, habitual movers, changing residence repeatedly. The probability of migration can differ according to three mobility profiles (Shaw, 1975),

    i.   Chronic moves with a high degree of frequent and repeated mobility,

    ii.   Movers with a low degree of mobility over time, and

    iii.   Stagers with little or no mobility over time

This mover-stayer concept has been developed using the methods of matrix algebra, with matrix-transition models that project the redistribution of a population over a period of time.

According to Weinberg (1977) explained the human migration as the changing of the place of abode permanently or, when temporarily, for an appreciable duration. Migration is a relatively permanent moving away of a collectivity, called migrants, from one geographical location to another preceded by decision-making on the part of the migrants on the basis of a hierarchically

ordered set of values or valued ends and resulting in changes in the interaction system of the migrants (Mangalam, 1968).

The migration defined by United Nation (1973) as "a change of residence from one civil division to another, and the volume of migration is to a considerable degree a function of the size of areas chosen for comparison. A migrant is a person who has changed his usual place of residence from one migration-defining area to another (or who has moved some specified distance)".

However, the scope of migration data presented by Department of Statistics is confined to "fixed-term migration". The migration survey asks for the respondent's usual place of residence on two specific dates, which are exactly one term apart. A change in the usual place of residence at these two reference dates is not considered as migration (Department of Statistics, 2001).

Internal migration refers to the residential mobility from one unit to another within the same country. In particular, a demographic definition of internal migration in terms of change of residence across boundaries of administrative areas has various advantages and disadvantages. Among the advantages is the risk of non-comparability over time due to changes in the boundaries of the areas and the distortion introduced into measures of migration because of great differences in size and shape among these areal units[2].

---

[2] United Nations, Manual IV. Methods of Measuring Internal Migration (1970); Thomlinson, "Methodological needs in migration research" (1962), p.60.

2.2   Types of Migration

It is only during the last two decades or so that migration studies have focused on the importance of non-permanent forms of movement in the Third World, spawning a plethora of new terminologies. These are explained by Rusell[3] in diagrammatic form in Figure 2.1. The term *permanent migration is* used where the mover has no intention of returning to the place of origin, and where a lot of the migrant's energy is put into becoming established in the new location. It does not necessarily follow that all forms of contact with the migrant's natal area will be severed, however.

Whilst in the majority of cases the migration will consist of a single, unidirectional move to a chosen destination, *step migration* refers to instances where the mover arrives at a destination after a series of short term moves to other locations, typically moving up the urban hierarchy from village to capital city. The term *emigration is* used where the mover leaves one country to settle in another.

What distinguishes other forms of migration, collectively termed *circulation,* from the above is that the migrant will, at some stage, either temporarily or permanently returns to the place of origin. As we shall see shortly, the time-span between outward and return migration may range from a matter of hours to the entire working lifetime of the migrant. Shorter-term movements include *commuting,* such as occurs between home and one's place of work or education, and *oscillation,* where people move regularly to a variety of places but always

---

[3] Refer to King, Rusell ed. (1986), *Return Migration and Regional Economic Problems,* London: Croom Helm. p.4

return to the place of origin. 'Circulation', or *circular migration,* is generally used to refer to longer-term movements between places of origin and destination, which may involve one or more cycles of outward and return movement. *Return migration* refers to the stage in the migration cycle when the migrant leaves the destination to return to his or her natal area, and *counter-stream migration* constitutes movements in the opposite direction to the predominant streams of migration (typically from city to village or from centres of economic activity to economically depressed regions), and may consist primarily of return movements.

A feature which all the above forms of movement have in common is that the mover generally has a free choice as to whether to move or stay. There are other forms of movement where the movement may be enforced by prevailing political, environmental or developmental circumstances. Terms, which are used in association with such forms of involuntary movement, include refugee, evacuee and resettlement.

A *refugee is* defined by the United Nations as someone who 'owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his for her nationality and is unable or, owing to such fear, is unwilling to avail himself or herself of the protection of that country.'

Evacuees are people who have been displaced from their homes by such phenomena as natural disasters (volcanic eruptions, earthquakes, typhoons) and various infrastructural projects (such as the flooding of land to form a reservoir or the clearance of land to construct an air terminal).

Resettlement is the process whereby such displaced people are moved to a new location and, generally, given assistance by government in order to establish them therein. As Figure 2.1 shows, in the majority of cases these involuntary movements will involve a permanent change in the place of residence, although for many there may be a great deal of uncertainty concerning their final destination. Many might cling to what is for most the forlorn hope of eventually returning to their original homes.

Figure 2.1   A Terminological Clarification of Some Forms of Population Movement
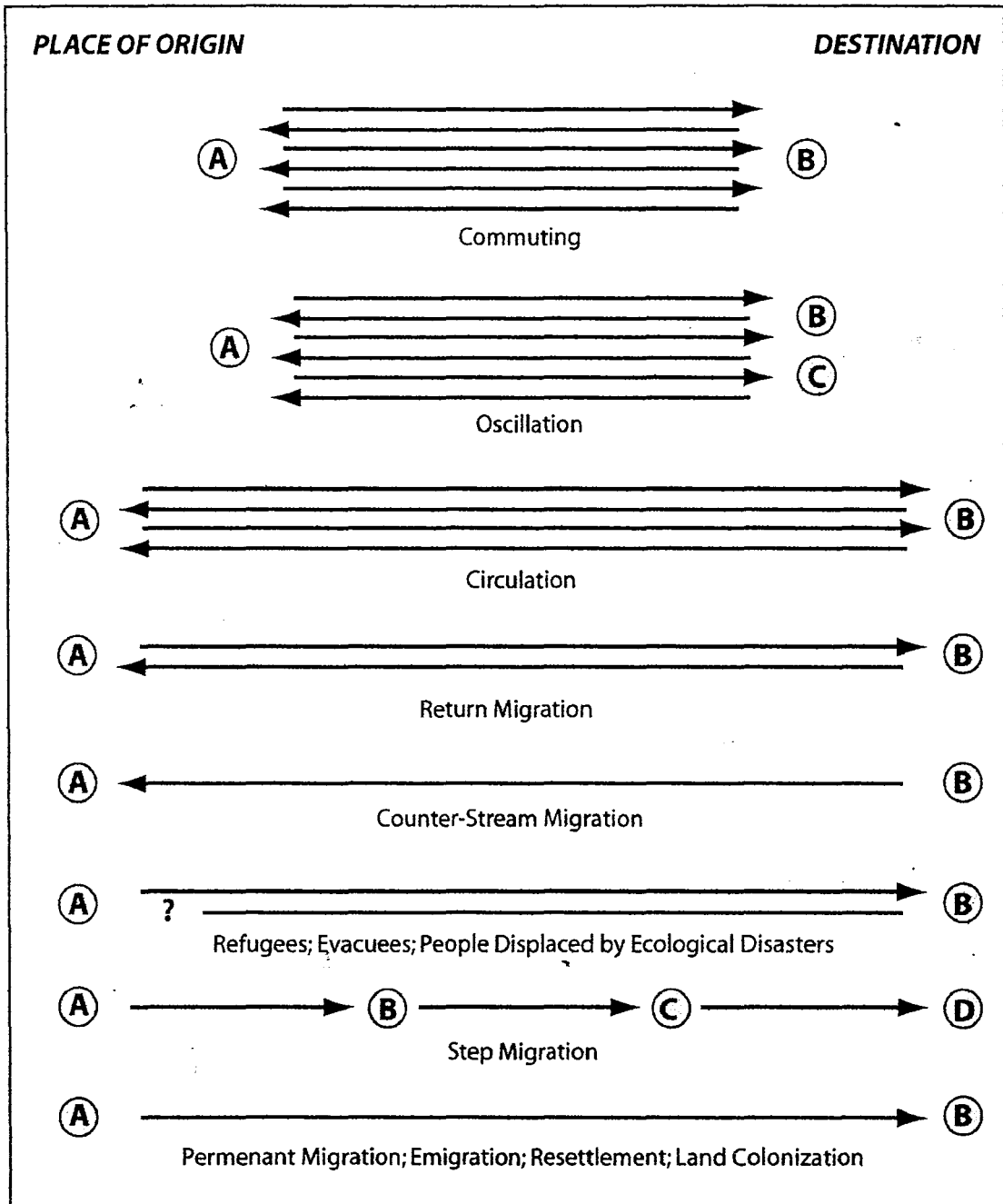
PLACE OF ORIGIN   **DESTINATION**

(A) ⇄ (B)

Commuting

(A) ⇄ (B) (C)

Oscillation

(A) ⇄ (B)

Circulation

(A) ⇄ (B)

Return Migration

(A) ← (B)

Counter-Stream Migration

(A) ? → (B)

Refugees; Evacuees; People Displaced by Ecological Disasters

(A) → (B) → (C) → (D)

Step Migration

(A) → (B)

Permenant Migration; Emigration; Resettlement; Land Colonization

2.3   Motivation of Migration

A related idea is expressed as the "law of cumulative inertia" (McGinnis, 1968), an assumption that the propensity to move declines as duration of residence increases. Because the probability of moving also varies with age, sex, life-cycle stage, and home ownership, the size of such models can become quite cumbersome. Individual propensity to move may also be related to "place utility" (costs and benefits derived from a location), the stress experienced there, and the individual's "stress threshold" (Wolpert, 1966). The decision to move or stay may be conditioned by "awareness space," a term used to refer to the potential migrant's knowledge of opportunities available at other locations.

The process of decision-making in three stages (development of desire to consider moving, search for an alternative location, and evaluation and decision to move) has been elaborated and mathematically specified (Speare, Goldenstein, and Frey, 1975). This model combines stress-threshold and cost-benefit concepts to express the decision to move as a function of the relative satisfaction with residence at the place of origin, the expected level of satisfaction at the destination, and the anticipated costs of moving. Each of these variables is determined by characteristics of the individual, the household, and the location.

For most person, migration is spurred by a search for better economic prospects. But family and cultural consideration also play major roles in determining who migrates and where. What may be economically optimal for one type of person

will be inappropriate for someone of a different family, educational history, or cultural group.

Todaro (1976) demonstrated that of all the conclusion of migration studies, both descriptive and econometric, people migrate primarily for economic reasons, for instance the studies that carried out by Barnum and Sabot in 1975, Schultz in 1975 and Lipton in 1976. The greater difference in economic opportunities, the greater the flow of migrants between the regions. While distance is usually a significant intervening obstacle, its negative impact can be largely offset by sizable income differentials, especially for the more educated migrants.

Todaro also pointed out that the non-economic motivation of migration includes,

a) to improve their educational or skill level (also an ultimately economic motive);

b) to escape social and cultural imprisonment in homogenous rural areas;

c) to escape from rural violence and political instability; and

d) to join family and friends who had previously migrated to urban areas.

2.4   Models of Migration

Models of internal migration express theories of causation, usually in quantitative terms, in order to estimate and predict volume and other characteristics of migration flows. Models may apply to groups of people, to individual migrants, or to a dimension of migration such as net migration or in-migration. Some models incorporate change in operating characteristics over time and others are static. A model maybe deterministic, in that conditions or events are defined, it may be probabilistic and deal with likelihood of migration for specified populations, or it may combine these perspectives.

2.4.1   E.G. Ravenstein

The migration models in the early stage were generally influenced by Ravenstein's pioneering work in the nineteenth century, relating migration to the size of the population at two geographical points and to the distance between them (Ravenstein, 1976). This conception was later formulated as below,

$$\frac{P_1 P_2}{D}$$

Where P_1 and P_2 representing population size and D representing distance. It was assumed that people move as if drawn by a gravitational force that diminishes with distance; the number of persons who move between any two areas is directly proportional to the product of the two populations and inversely

proportional to the distance between them. The model is symmetrical, assuming equal flow in both directions. It does not specify why there is such an interaction and it ignores characteristics of places of origin and destination, or of migrants, that could influence both the volume and direction of movements.

2.4.2   Ira S. Lowry

The basic model proposed by Ira S. Lowry (1966) expands the concept of jobs as opportunities with three variables that indicate their relative number - the size of the non-agricultural labor force, unemployment rates, and manufacturing wages. The gravity model has also been elaborated to include the size and geometric shape of areas of origin and destination, the distribution of the population within these areas, and "attractiveness factors" such as the degree of urbanization, per capita income, and social distance as measured by religious differences. The function on migration is elaborated as migration from i to j is directly related to high wages at j, low relative unemployment at j and a large civilian labour force at either origin and/or destination. It is inversely related to high wages at i, low unemployment at i and increasing distance between i and j.

$$M_{ij} = k \left[\frac{U_i}{U_j} \times \frac{W_j}{W_i} \times \frac{L_i L_j}{D_{ij}} \right] e_{ij}$$

|					
M	=	number of migrants;	**D**	=	airline distance;
L	=	persons in labour force;	**k**	=	gravitational constant;
U	=	unemployment in percentage;	**e**	=	error term;
W	=	hourly wage in manufacturing.			

2.4.3 Everett S. Lee

Some recent models focus on individual behaviors and on the perceptions and decision-making process of the migrant. Everett S. Lee (1966) proposed a category of personal elements that includes age, education, sex, and race, added to the factors that are associated with the area of origin, the area of destination, and intervening obstacles. In Figure 2.2, pluses represent factors that hold and draw people, minuses factors that repel or push people from the area, and zeros characteristics toward which people are indifferent. The effects of these forces vary according to personal qualities of the potential migrant. Lee's Model can be summarized as follows,

On the volume of migration:

    i.   The volume of migration within a given territory varies with the degree of diversity in areas included in that territory.

    ii.   The volume of migration varies with the diversity of people.

    iii.   The volume of migration is related to the difficulty of surmounting the intervening obstacles.

    iv.   The volume of migration varies with fluctuations in the economy.

    v.   Unless severe checks are imposed, both volume and rate of migration tend to increase with time.

    vi.   The volume and rate of migration vary with state of progress in a country or in an area.

Figure 2.2   Lee's Model of Origin and Destination Factors and

Intervening Obstacles in Migration
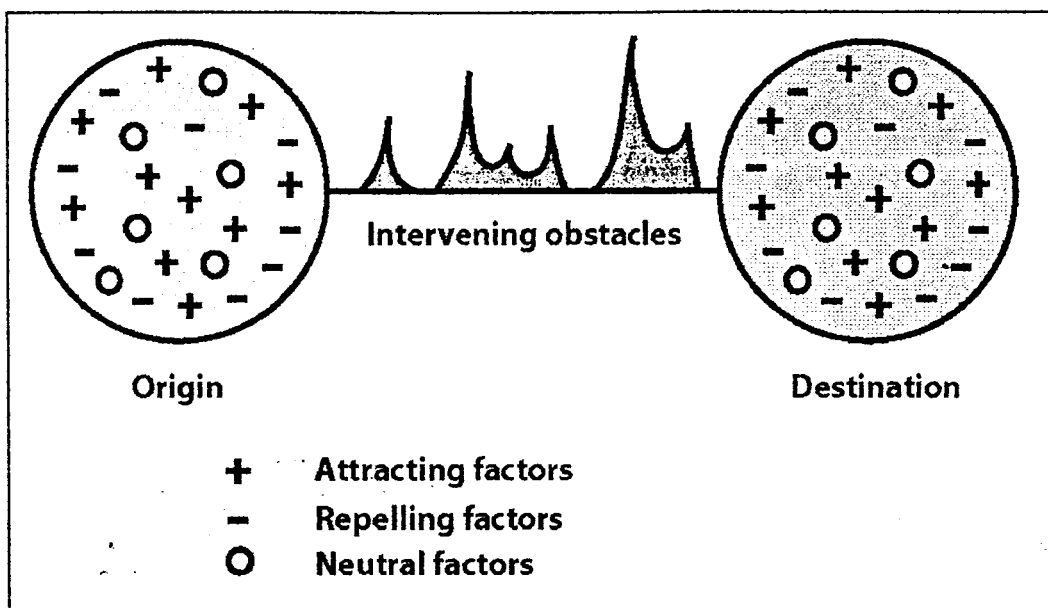
Source: *Adapted from A Theory of Migration, 1966.*

On the stream and counter stream:

i.   Migration tends to take place largely within well-defined streams.

ii.   For every major migration stream, a counter stream develops.

iii.   The efficiency of the stream (ratio of stream to counter stream or the net redistribution of population effected by the opposite flows) is high if the major factors in the development of a migration stream were minus factors at origin.

iv.   The efficiency of stream and counter stream tends to be low if origin and destination are similar.

v.   The efficiency of migration streams will be high if the intervening obstacles are great.

vi.   The efficiency of a migration stream varies with economic conditions, being high in prosperous times and low in times of depression.

On the characteristics of migrants:

    i.   Migration is selective.

    ii.   Migrants responding primarily to plus factors at destination tend to be positively selective.

    iii.   Migrants responding primarily to minus factors at origin tend to be negatively selective; or, where the minus factors are overwhelming to entire population groups, they may not be selected at all.

    iv.   Taking all migrants together, selection tends to be bi-modal.

    v.   The degree of positive selection increases with the difficulty of the intervening obstacles.

    vi.   The heightened propensity to migrate at certain stages of the life cycle is important in the selection of migrants.

    vii. The characteristics of migrants tend to be intermediate between the characteristics of the population at origin and the population at destination.

2.4.4   Wilbur Zelinsky[4]

Zelinsky in the hypothesis of mobility transition suggests 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 modernization process'. Zelinsky deals with mobility in a broad sense including migration and various forms of circulation. Mobility transition in his view parallels vital transitions (in fertility and mortality) since

---

[4] Adapted form: E.G. Ravenstein. *The Laws of Migration:* New York: Arno Press, 1976.

the two processes occurring simultaneously and probably interdependently affect the overall demographic and residential behaviour of society.

Five stages of mobility transition are postulated which are characteristic of five stages of socio-economic development of a society (Refer to Table 2.1). The pre-modern traditional society displays little genuine residential migration and limited circulation, sanctioned by customary practices; population size remains relatively stable. The early transitional society experiences sudden increase in fertility, accompanied by massive rural-urban migration, colonization of domestic and foreign frontier lands, possibly a small immigration of skilled personnel from abroad and increased circulation. In the late transitional society, when rates of natural increase gradually decelerate, traditional types of movement, such as rural-urban migration, colonization of the frontier and emigration, also slacken, but various forms of circulation increase in volume and complexity. In the advanced society, natural increase is limited as a result of reduced fertility and mortality, residential mobility levels off and oscillates at a high level, rural-urban migration continues but its volume and rate are considerably reduced, inter-urban and intra-urban mobility increases.

Settlement frontier is likely to retreat; foreign migration is significant and includes the incoming of unskilled personnel and the exchange of highly trained migrants. Further increase of circulation takes place. The future super-advanced society may be characterized by a decline in residential migration which will be then be almost exclusively of interurban and intra-urban variety, and further