INTERNAL MIGRATION IN SPAIN: A GEOGRAPHICAL INTERPRETATION

BY

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Thesis submitted for the Degree Doctor of Philosophy,

University of Keele, 1976.
To my wife, my late father and my son Robert; and in memory of the seven hundred and fiftieth anniversary of the death of St. Francis of Assisi.
DECLARATION

I declare that this thesis is an account of my own original research into internal migration in Spain. I am indebted to my supervisor Dr. John Haylen and the students of the Department of Geography under his charge for undertaking the distribution and completion of approximately 20% of the questionnaires prepared. The compilation of the three questionnaires concerned, the processing of the information contained and the computation of the final results was my own individual work. I further declare that the seventy original maps and diagrams were drawn by me, although I acknowledge my debt to the technical staff in the Department of Geography for reducing them in size.

Signed.

Mr. Robert Philip Jones.
NOTE

This thesis was typed on a typewriter with a Spanish keyboard which was technically incapable of being used for placing double inverted commas in their correct elevated position. A further disadvantage was the lack of single inverted commas which could not be used where appropriate - necessitating the use of double commas.
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ABSTRACT

After a general review of migration theory and a historical résumé of internal migration in Spain, three modern migration phases were identified - each coinciding with important socio-economic changes.

Despite the serious under-estimation of recent internal migration and the difficulty of "marring" net balance statistics and directly-recorded data, it was shown that the errors of one method effectively cancelled out the errors of the other, so that migration patterns produced by either were comparable. An original description of the patterns followed.

Through an analysis at national, regional and individual levels, it was shown that migration-decision was a three-stage process - socio-economic, normative and psycho-social. "Pull" factors were more important than "push" - especially personal "pull" - but poorer correlations were produced at "macro- and micro-regional" levels than at national level. Changing rural normative attitudes, especially stress resulting from the inability of the young to conform to two behaviour patterns (traditional and modern), resulted in quarrels at the individual level triggering off migration - especially in the more "violent" South where people moved for more immediate reasons.

Despite the important social-distance space separating shantytown-dwellers from the host society which made assimilation impossible, migrants achieved their main aim of upward social mobility - although their continual geographical mobility implied some continued dissatisfaction (more so in Madrid than Barcelona).

Migration has had important social consequences. It is correcting rural socio-economic structures and enabling the growth of a new urban middle class which may yet have important peaceful social-political consequences.
The intermediate position of Spain in the early 1960s between that of a developed and developing nation was confirmed, internal migration displaying characteristics of both development types.

The justification of geographical patterns originally noted was subsequently substantiated, emphasizing the validity of the geographical approach to migration studies.
ACKNOWLEDGEMENT

The author wishes to thank the following for the assistance they gave him - solicited and unsolicited - in the writing of this thesis:

Carmen Arribas (Instituto Nacional de Estadística); Pablo de Carrión y Mañu (Banco Español de Crédito); Fernando Ignacio (Cámara Oficial de Comercio Industrial y Navegación de Bilbao); L. Dragüía (Ayuntamiento de Madrid); Isidro Fernández Verduzco (Caja de Ahorros del Plan de Desarrollo Económico y Social); Jordi Porta (Fundación Jaime Bollí); José María Calpe Táur and Álvaro Cayuel (Cámara Oficial de Comercio, Industria y Navegación de Barcelona); José Antonio Contreras (Ayuntamiento de Barcelona); Julián Aliñán (Caja de Ahorros); José L. García Arias (Banco Español de Crédito); Ángel Varela García (Cámara Oficial de Comercio e Industria de Madrid); José María Lesano Irusté (Caja de Ahorros del Plan de Desarrollo Económico y Social); Jorge Parri y Luna (Círculo Diocesano de Barcelona); María Melena (Círculo Diocesano de Madrid-Alcalá); M. Ruiz-Salvés (Ministerio de Trabajo); Miguel Bueno (Ministerio de Agricultura); Pedro Carraca, Marqués de Espinardo (Cámara Oficial de Comercio, Industria y Navegación de Barcelona); Offi ciales in the Ministerio de Vivienda, Trabajo, Agricultura, Planificación del Desarrollo and Turismo; and the Servicio de Estudios of the Banco de Bilbao; Jorge Xadial Oller (Autonomous University of Barcelona); José María Vilá Vilà (Department of Geography, University of Barcelona); R. Ridge (International Catholic Migration Commission); The International Bank for Reconstruction and Development, Development Economics Department; Staff at the International Labour Office, Central Library and Documentation Branch; the Chester Public Library; Royal Geographical Society; Geographical Association and many University Libraries; the Spanish and British National Libraries; Neil A. Bruce (of the Department of Politics, University of Keele); Patrick O’Flanagan (Department of Geography, University College Dublin); R. Kendall Proctor (Department of Geography, University of Liverpool); Melvyn G. Low (Department of Geography, University of Strathclyde); Harold Carter (Department of Geography, University College of Wales, Aberystwyth); Roy P. Bradshaw (Department of Geography, University of Nottingham); Numerous Alcalde de Ayuntamientos and Parish Priests; the students of the Department of Geography, of the University of Keele, for helping me with my questionnaires; Technical Staff in the Department of Geography, University of Keele, for advice and assistance in reducing the maps; Isabel Sánchez Sáez, my willing research assistant in Spain. Special thanks are due to: His Excellency Manuel Frota Iribarne (ex-Spanish Ambassador to the United Kingdom); John Maylon (Department of Geography, University of Keele) for helpful encouragement, advice and the personal punishment of reading the manuscript in long hand; my wife for patiently and conscientiously deciphering my handwriting and typing the manuscript (despite ill-health and two major operations) no mean feat for someone not British by birth; and to the people of Spain who willingly answered my questions in eternal friendship and respect.
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THE CASE FOR MIGRATION GEOGRAPHY: A DECLARATION OF INTENT

"Geographers start from the soil, not from the society" (1). Certainly a deterministic obsession with the physical landscape, and an over-eagerness to explain distribution patterns in terms of physical geographical reasons, has done much to retard the progress of social geography towards academic respectability. Wrigley (2), Beaujeu-Garnier (3), Clarke (4) and Zelinsky (5), however, have argued the case for beginning with society and making population geography the "master thread" (6) of our discipline - "the point of reference from which all other elements are observed" (7). While population geography has achieved acceptance, social geography has been slow to develop. Sociologists continue to denounce "that science with great ambitions which calls itself human geography" (8), while geographers still, in the words of Febvre, "claim to explain too many manifestations by geography, and by geography alone... ignoring the science of sociology with its modest views and cautious methods" (9).

The overlapping of geography with other disciplines should be a source of strength not weakness (10). The author agrees with Dickinson that at University level "we need broader programmes of study and new avenues of effective inter-disciplinary co-operation in teaching and research" (11). This thesis is an attempt, in the Keele tradition, to bridge the gap between sociology and geography. Where better to begin than in the field of internal migration, for "it is precisely the problems of internal migration which demand more inter-disciplinary orientation and above all, more co-operation" (12). Moreover, internal migration is the Cinderella not only of geographers but of sociologists and even demographers (13), so all can contribute to the development of sophisticated migration models.

Geographers have, in the past, occupied themselves with nomadic and
transhumant migrations, with the history and the pre-history of migrations of peoples. They have generally avoided modern internal migrations, considering such movements so complicated and so tied up with contemporary social relations or with economic processes that their investigations belong rather to the fields of sociology, economics or statistics (14). Yet there is a crying need for a more geographical approach to the problems of internal migration. Ravenstein's hypothesis (15) of stage by stage migrations has still to be proved or disproved (16). Internal migration often involves occupational mobility, sometimes social mobility, but always geographical mobility. The geographer should have much to contribute, therefore, to the study of patterns of migration - to the volume, direction and distance of moves; to problems of stream and counterstream. Even motivation in migration and assimilation have geographical implications. In developing a theory of migration geography, however, geographers would do well to beware of the latent danger which always exists in geographical writings: the danger that geographical factors will be exaggerated because other factors are lost sight of.

"The geographer should, according to Clarke, "find himself at home in the study of migrations, for there are no laws" (17). Nevertheless so-called "laws of migration" have existed, at least since the days of Ravenstein (1885 and 1889). What is more, statisticians, demographers, economists and sociologists have all, since then, invented "deterministic models" describing the migration process although varying in the emphasis they give to economic, behavioural and communications factors" (18). The temptation for geographers, sub-consciously "determinists" at heart, to join in is overwhelming - especially since mathematics, claim Campbell and Wood, "has given the subject new and more effective methods for analysing complex patterns and relationships... methods which can often demonstrate the otherwise unrecognized existence of order in geographical
distributions" (19). Rigorous quantitative methods are fashionable in geography, but "only a weak social science, intent on becoming weaker" (20) would welcome statistics as a master. Environmental determinism is being replaced by mathematical determinism. We should never forget Fevra's plea that "there are no necessities but everywhere possibilities, and man as master of these possibilities is the judge of their use" (21). Certainly both Hobbs (22) and Swaine-Thomas (23) in their researches into internal migration found diverse and often contradictory generalizations. It is not the purpose of this thesis, therefore, consciously to search for a new migration model. If, by chance, one should emerge that suits Spanish conditions, it must never "be made to fit all societies and places at all periods of time" (24).

Part One of this thesis is concerned with general migration theories: with motivation; volume, direction and distance of moves; differential migration; assimilation. This section will be illustrated by selected examples taken from as many countries as possible, but excluding Spain.

Part Two will contain as an aperitif brief historical résumés of internal migration in selected "economically advanced" nations. There follows, as the main course, a more detailed account of migration in Spain up to 1960. While the emphasis will be mainly on internal Spanish migration patterns, historical comparisons and contrasts with selected European and North American examples will be made where applicable.

Part Three will consist of a detailed account of Spanish migration patterns since 1960. Emphasis will be on changes in rates, trends and patterns of internal migration (25), with special reference to the 1961-1965 period of the great Spanish "migration boom".

Part Four is an attempt to explain the patterns, trends and rates of migration noted in Part Three with reference to the socio-economic factors operative, the effect of communications, and the influence of past
migrations on present patterns. In this section the author will draw heavily on the researches of authorities on the motivation of migration and differential migration in Spain. Original contributions will consist of a two-pronged attack on migration problems as listed above. This will be done through case-studies of selected villages in out-migration areas and selected cities within in-migration zones. A statistical approach will also be adopted in the out-migration studies with a view to testing gravity (26), communications (27), and opportunity models (28). A sociological, random sample-survey method (outlined in detail in Appendix I and II) will be adopted in both the in- and out-migration studies, with a view to testing Ravenstein's migration by stages theory, as well as supplying the answers to motivation, differential migration and assimilation queries. It is hoped that the urban studies will throw more light upon the "peasantization of certain city areas, a process about which we are all too ignorant in Spain" (29).

While both Parts Three and Four will be mainly concerned with interprovincial migration, specific attention will be given in Part Four to intra-provincial migration, which will be illustrated by reference to Madrid.

Part Five will deal with assimilation problems in Spain, including the socio-political implications of migration.

Part Six will be a summary of the main conclusions reached. Emphasis will be on those conclusions of universal significance. It is hoped to show that Ravenstein's "laws of migration" although applicable (30) during the era of the first industrial and agricultural revolutions which affected England during the nineteenth century, have been out-dated by the communications revolution which has preceded the agricultural revolution in many parts of Spain (31). Perhaps it will be possible to propose a new migration model which, with adaptations, will be applicable to the emergent
nations of Africa, Asia and Latin America, where migration is on more mass-
ive a scale than ever it was in Europe or North America (32).

"Piecemeal and unco-ordinated" (33) "trivial and inept" (34), these
are criticisms which have been levelled against recent empirical research
on migration. It is hoped that an inter-disciplinary approach will help to
avoid these pitfalls. Sociological, random sample-surveys carried out in
depth in the field in both in-migrant and out-migrant areas should indicate
the main socio-economic and socio-geographic variables. Armed with this
essential information gleaned from original Spanish sources it is hoped to
introduce these variables into existing mathematical migration models (35).
In this sense the thesis will be an original contribution to knowledge; the
basis of the conceptual models being *acquired facts not tentative hypoth­
eses* (36) which on testing are no more than 75 to 80% accurate on average
(37). Moreover, "geographers have a special part to play in directing
attention to the way in which spatial scale affects the analysis of any
problem" (38). This thesis will deal with the Spanish migration problem at
selected local, regional and national levels since "conclusions based on
evidence at one geographical scale may not be necessarily applicable
at any other" (39). In these ways it is hoped that this research will not
be trivial, piecemeal and unco-ordinated and will offer a meaningful con-
tribution to knowledge.

"In the annuals, reports and studies produced by international org-
anizations", note Amando de Miguel and others, "we have found a conspic­
uous and stubborn absence of Spanish statistics. The Spanish case does not
appear to interest anyone in international circles.... It is our impression,
nevertheless, that certain aspects of the economic development and social
change which our country has experienced in recent decades may be of enorm­
ous assistance for the study of problems which affect development in many
countries which have still not attained the industrial stage" (40). Above
all else, these heart-rending words form the raison d'être of this thesis.
It is hoped that this treatise will not only provide a satisfactory answer to de Miguel's plea but at the same time the, in many ways unique, Spanish case will provide an effective bridge of theoretical knowledge between the developing and developed worlds.
PART ONE

THE SOCIOLOGY AND GEOGRAPHY OF MIGRATION

I. DEFINITIONS

Any consideration of the sociological and other aspects of migration should begin with a definition of what is meant by migrant and by migration.

Migration has been called a "process of population adjustment within a society" (1) representing "merely the difference between total population growth and natural increase during a period of time" (2). Migration so defined is a function of socio-economic and demographic gradients or imbalances (3). Migration, according to a more personal definition by Theodorson and Theodorson, is "a relatively permanent movement of a person or population across a political boundary to a new residential area or community" (4), while the same authors define internal migration as "migration within a single nation or political unit". To Mangalam migration is also "a relatively permanent movement but preceded by decision making on the part of the migrants" (5). Hobbs has a more severely restricted definition of migration. He excludes epiphenomenal short-distance migration (which is often inspired by personal reasons like marriage), as not constituting migration "in any sociologically significant sense" (6).

For the purpose of this thesis, internal migration in Spain involves a relatively permanent movement across a municipal boundary and the settling of a person or persons in a new municipio.

II. THE SOCIOLOGICAL ASPECTS OF MIGRATION

The sociological aspects of migration will be considered under the following headings:

1. Motivation in migration.

2. Differential migration and migrant differentials.
3. Assimilation of migrants.

1. Motivation in migration

Motivation is the least understood of all migration problems (7). At least three reasons make it difficult to give convincing answers to the question "why do people move?" (8) Firstly, in the vast majority of cases, migrants themselves do not know the real answer and give vague or noncommittal answers to sample-survey questions. Secondly, migrants, especially international ones, are extremely suspicious of interrogators and give the answers to questions which they think are expected of them (9). Thirdly, motivational decisions are often made at three different levels - objective, normative and psycho-social (10) - probably at three different points in time. Moreover, in the ultimate resort a "fossilized migration decision" (11) taken at the normative level may sometimes be triggered off at the psycho-social level by "last-straw causes" (12). To complicate the issue still further, the decision to migrate in other instances may be aborted for no apparent reason at the last moment.

(a) Motivation at the objective level

At the objective level, any discussion of motivating factors should include an account of conditions in the areas of origin and destination, as well as the intervening obstacles which lie between them (13). Such an objective study of the operative socio-economic factors enables sociologists or economists (14) to infer migrant motives. Although there is in some quarters a somewhat general unease with the too narrowly materialist basis of the push-pull model (15), it has the advantage that the sociologist escapes the problem of distinguishing between migrants' "real and stated motives" (16). The "push-pull" hypothesis is that migration is due to socio-economic regional imbalances. Unfortunately, social factors are not always measurable (17). The "push" factors expelling persons from their areas of origin include rural over-popula-
tion, traditional systems of land tenure and the mechanization of agriculture (18). Factors: "pulling" people towards urban areas include increased opportunities of employment in services and industry, better working and living conditions, social security, and so on (19). Manpower is attracted by better social opportunities as well as economic ones (20).

There is a demographic aspect to the socio-economic "push-pull" hypothesis. Very high rates of natural increase in some rural areas, and the failure of economic opportunities to develop at a similar rate, represent demographic "push" factors. The "pull" is supplied by migration filling the gap created by the low birth rates (21) in many urban areas.

The "push-pull" model best fits rural-to-urban migrations. Inter-urban migration of skilled or professional persons obviously does not usually obey any "push" at source (22). The hypothesis can, however, be applied equally to internal and international migrations (23).

The decision to migrate is a complex one. Bogue (24) lists fifty migration-inducing factors. To reduce such a complex decision, therefore, "to a kind of mechanical balance of external and impersonal forces" (25) is a deterministic failure because it does not take emigrants' aspirations into account (26). "A proper study of migration according to Sauvy, would also have to show the causes of non-migration" (27). "Predictable economic man," notes Herbert, "is complicated by the vagaries of social values" (28). Macdonald (29), for example, found very strong "push" factors operating in some parts of Italy, yet most of the rural population did not migrate. Similar findings by Zeegers (30) were made for the Netherlands where, however, the social climate was favourable (31). The "push-pull" thesis is thus seen to be an incomplete answer to the question "why do people move?" It is an attractive deterministic concept but it fails to work in every case. It is the easy way out and as such is often used by economists and others to camouflage the real principal motives (32)."
The empirical evidence is that migration responds to many factors, some of which are only incidentally economic (33). Rural migrants often regard the presence of relatives or friends in a particular locality as the greatest attraction of all and may be completely ignorant of better socio-economic opportunities in other localities (34). Another basic weakness of the "push-pull" model is that it implies a universal sedentary tendency which has little empirical basis in either history or psychology (35). We must, therefore, pursue the motivation problem afresh at a higher normative level.

(b) Motivation at the normative level

Germann's (36) approach to migrant decision making at the normative (37) level is a description of the way in which the community, as opposed to the individual, perceives migration as an alternative solution to its problems. The spread of information is made possible partly because of greater contacts with the outside world (38), although a growing awareness also stems from higher general levels of education than in the past (39). Much informal discussion of the advantages and disadvantages of migration in the marketplace, the taverns and above all the home, results occasionally in what Rossi calls a "climate of mobility" (40).

There is some evidence that the climate of mobility is an important variable at family level. Girard and others (41) found that the probability for individuals to migrate increased with the mobility of the family of origin. Yet, the fact that south Italian migrants amongst others regroup within in-migrant zones in extended family or village groups (42), indicates that the climate of mobility has a somewhat broader foundation than the family. There is much evidence also that motivation at the normative level can be influenced from outside the village, mainly due to the persuasiveness of prior emigrants (43). In this context, the "principal cause of emigration", notes Peterson (44), "is prior emigration". Even the
undecided, faint-hearted and the elderly are eventually drawn into the migration vortex once the scale of migration is large enough to leave villages half empty and dismal. « We must consider the exodus not only physiological but pathological,» states Rossi-Doria (45), «for it leads to the rapid collapse of entire rural societies... to villages without men which I have lost all signs of life and are rapidly becoming a sort of concentration camp for women and children, for the old and the weak». Mass migration is thus brought about partly by a general change in rural mentality and partly by the chain reaction which this unleashes (46). Alberoni (47) speaks of "the upsurge of a new social perspective in the Italian countryside which eventually leads to the individual feeling estranged from his own community". The rural worker feels he is unable to satisfy the desire for economic or social advancement for himself or, more often, his children, as long as he remains in a rural backwater (48). «The urge to leave stems not so much from a rejection of one's own place in the community as it very often is when an individual decision to migrate is made as from a rejection of the community and its structure» (49).

There is no doubt that once emigration is "set as a social pattern, it is no longer relevant to speak of individual motivations" (50), or so it seems at first sight.

(c) Motivation at the psycho-social level

At the normative level, the potential migrant is in an "unstable state of equilibrium" (51). In such circumstances the individual is at the mercy of chance factors which can influence him in either direction. As far as the future migrant is concerned the precipitating or "trigger" factors (52) at the personal level are too numerous and too varied to catalogue. Unlike socio-economic "push" factors which "dull the spirit of reaction" (53), they can strike with lightning rapidity. Migrants often leave
impulsively — for example after a sudden violent quarrel. There must, however, be a «pull» real or imaginary to attract migrants before they leave — or what Frijda calls «longings which already contain the germ of somewhere else»(54). It is unlikely that such trivial, although important, motivational factors will be mentioned at all by migrants, unless they are questioned sympathetically and in depth by interviewers (55).

Towards a motivational migration model

It is possible to develop the concept of a motivational migration model. This model can be likened to a three-stage rocket. The theory of the model can be summarized as follows:

1) Migration decision-making is a three-stage process — objective, normative, psycho-social.

2) Very powerful «push-pull» factors are responsible for lift-off enabling certain sections of a population to counteract the very strong, gravitational force of human inertia (56), which conspires with social and economic bonds to enmesh people in a space web from which escape is both difficult and undesired (57), and consider migration as an alternative to pressing problems (58).

3) The second and third stages affect successively less people but the decision-making process probably becomes more rapid at each succeeding stage.

4) The whole process of decision-making is a chain reaction although each individual has a chance to abort at every stage. Migration will only become a reality if all three motors ignite in turn.

The model suggests that socio-economic «push-pull» factors are the most universal and important forces inducing eventual migration but they alone are not sufficient to bring it about. At each stage successively less important factors gain greater import than would normally be expected of them because of the momentum already generated.
This model best fits rural-to-urban migration where "push-pull" factors are important. An ordered theoretical model of migration cannot, however, be achieved (59). Migration is a "complex behavioural problem. If social scientists are ever able to explain migration behaviour fully, they will at the same time have gone a long way towards understanding human behaviour in general" (60). Wolpert (61), abandons the economic determinism and therefore somewhat limited predictive skills of gravity and intervening opportunity models, and instead proposes a migration model which incorporates three concepts of migration behaviour: 1. the notion of place utility, 2. the field theory approach to search behaviour and 3. the life-cycle approach to threshold formation" (62). While it will be suggested later that there are important differentials in migrant motivation, the tentative model we have proposed is, nevertheless, an attractive hypothesis combining deterministic socio-economic "push-pull" factors with more possibilistic concepts of migrant behaviour.

**Dissention about migrant motivation**

Authorities beg to differ about migrant motivation. From what has been previously stated in this thesis it will be realized:

1) Migration is a complex behavioural problem.

2) There is difficulty in obtaining migrants' true motives and even greater difficulty in interpreting their implied or stated motives by either indirect or direct means.

3) Some learned authorities have axes to grind (63), even geographical ones: (64).

4) There are different types of migrant (65) and different types of migration (66). As a consequence therefore there are motivational differentials. Lee (67) has noted that we must take into account factors in the areas of origin and destination, intervening obstacles, and the selection or decision factors, each of which can be negatively or positively assessed (68).
It is for these and other reasons that an examination of the studies which deal with internal migration shows that the findings are diverse and often contradictory (69).

Bogue (70) lists twenty-five migration stimulating situations ten of which can be tentatively interpreted as personal factors and fifteen as "push-pull" factors (ten "push" and five "pull"). Then there are ten socio-economic conditions affecting or retarding population mobility, some of which defy simple classification as either "push" or "pull" conditions.

Burkinall and Bauder (71) emphasize personal reasons for both "voluntary" and "involuntary" moves. Eight reasons are listed in all, few of which can be called "push" factors in any sense of the term and none "pull" factors.

Petersen (72) considers motivation under three headings - resultant (or socio-economic), epiphenomenal (or personal), and other reasons. Both resultant and epiphenomenal headings are simply subdivided, the former into three "push-pull" and the latter into four personal reasons.

A United States Bureau of Census publication (1947) estimated 71.8% of internal migrants in the United States moving for epiphenomenal and 28.2% for resultant reasons (73).

Pourcher (74) gives a more detailed breakdown of the reasons migrants gave for migrating to Paris. The salient points of his survey are that 35.3% of migrants were attracted to the metropolis by "pull" factors; 20.5% gravitated there due to "push" factors; while the remaining 44.2% came for personal reasons.

Touraine and Ragazzi (75) have three simple motivations - "push" ("départ"), "pull" ("mobilité") and fortuitous ("déplacement") (76).

Wentholt (77) applies the concept of "motivational structure" to international migrations. His nine categories of migration include ori-
original motives like liberation from responsibility and wife's initiative and impetus.

Innovations, exceptions, contradictions and diverse findings abound in migration studies. Petersen (78) believes that migration begets migration. Lawton (79), in contrast, believes that the high rates of natural increase of young migrants results, in the long-term, in centres of heavy in-migration "increasingly meeting their labour requirements by natural increase".

Galpin (80) in a study of 2,745 farmers who migrated from their farms showed only 37.8% giving economic reasons for their migration. Webb and Brown (81) in a sample of 4,247 inter-state migrant families gave 69% moving for economic reasons.

Harris and Lausen (82) found that the main reason for moving in the United Kingdom during the 1953-1963 period was to obtain better or more suitable housing accommodation, only one in six moving for economic reasons.

Clearly there are important motivational variables which relate to migration differentials.

2. Differential migration and migrant differentials

Differential migration and migrant differentials are by no means the same thing. Migrant differentials are qualities which differentiate or fail to differentiate migrants from non-migrants. Differential migration implies that migrant streams acquire different migrant differentials at separate points in time.

(a) Differential migration

According to Bogus (83) the development of any major migration stream is characterized by a series of stages. At the initial invasion stage Bogus argues that men will outnumber women (84). Furthermore, migration at this stage will be "highly selective of young but mature adults and persons"
who are single, divorced or widowed« (85). At the settlement phase sex selectivity « tends to disappear or even to favour women« (86), and there is probably less selectivity as regards marital status or even, perhaps, age (87).

Bogue was concerned in this paper with in-migration, Hobbs in another paper was able to tackle the problem of out-migration and show that where industrial decline was gradual « the socio-economic pressures... were exerted gradually enough to allow selective factors to operate in the migrational process« (88).

The problems of differential migration are further complicated by the fact that there are different types of migration or migration streams. Migration stimulated by technological change and economic expansion attracts the better educated. Rural or old industrial areas tending to stagnate lose their skilled and better educated people first. Selectivity, in other words, will be at a maximum where the « pull» factor is strong and at a minimum where the « push» factor is appreciable (89). Moreover, inter-urban migration streams in this technological age tend to be non-selective.

(b) Migrant differentials

The main migrant differentials as listed by Swaine\ Thomas (90) are age, sex, family status, economic status, occupation and income level, intellectual ability and performance, psycho-physical status, personality qualities, commission of crime etc. Hobbs (91) has a modified and abbreviated list which includes age, sex, nativity, marital status, educational attainment, educational ability, occupation and occupational inheritance. It is difficult to obtain data on some of these differentials. For this reason it is not proposed to go into the matter in any depth but only to deal with generalizations which have been made about some of the more common variables. There are two schools of thought regarding migrant differentials; the first maintains that migration is selective the second
that there are no easily detectable differentials between migrants and non-migrants.

(1) Migration is selective

Lee is of the opinion that "migrants are not a random sample of the population at origin nor can they be since people respond differently to the sets of plus and minus factors at origin and at destination, have different abilities to overcome the intervening sets of obstacles." (92).

Lee's hypotheses may be summarized as follows:

1) "Migration is selective."

2) Migrants responding primarily to plus factors at destination tend to be positively selected (93).

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

4) Taking all migrants together, selection tends to be bimodal.

5) The degree of positive selection increases with the difficulty of the intervening obstacles (94).

6) The heightened propensity to migrate at certain stages of the life-cycle is also important in the selection of migrants (95).

7) The characteristics of migrants tend to be intermediate between the characteristics of the population at origin and the population at destination." (96).

Migration is bound to be selective since "the evaluation of opportunities", according to Lively and Taeuber, "is essentially a subjective matter" (97). Taylor (98) believes in "resultant", "aspiring", "dis-located" and "epiphenomenal" differentials related to four different migrant types who evaluate opportunities distinctively (99).

Migrants are not only differentiated from each other but also from non-migrants (100). As a category migrants are characterized by "a sense
of dislocation compared with non-migrants' sense of belonging. The migrants may claim to aspire, while the non-migrants are satisfied" (101).

"The propensity to migrate", according to Taylor, "may be a family rather than an individual characteristic" (102). There is evidence to show that migrants not only belong to geographically mobile families but are likely to have travelled more extensively than non-migrants. Goldstein's (103) researches on Morristown and Copenhagen led him to make a distinction between long-term city "residents" who were much less likely to leave than "nomads" (or new arrivals).

According to Taylor (104) the relationship between a wife and her parents is the deciding factor in many migrant schemes. Migrant wives (but not husbands) compared with non-migrants often suffer from a sense of "dislocation" since they are more likely to have lost at least one parent.

Galtung's research on potential migrants in three Sicilian villages found them better educated than average and having more dynamic personalities (105). Hill also favours the idea of a rural élite leaving the Essex countryside during the 1850-1900 period (106). The present drift in population from north to south of the United Kingdom is also selective in terms of education and ability (107). Similar findings were made by Hobbs for a declining American town (108). Sanford (109) in a study of a rural community in Alabama agrees that migration is selective of intelligence but found that both the best and the least qualified left, leaving the middle range.

One of the most important differentials between migrants and non-migrants grows out of choice of occupation. The higher educated generally go further and leave sooner (110).

Newton and Jeffrey (111), Hill (112), Dennison (113) and many others note that it is mainly young adults who migrate. Isaac (114), for example,
cites two-thirds of the net outward balance of migration from South Wales: 1921-1931 as being under thirty years of age, and 87% under forty-five. Age is undoubtedly the most important differential between migrants and non-migrants. In the opinion of Bogus apart from age further differentials do not exist and should not be expected to exist (115).

There is much evidence that the female is more migratory than the male (116). The greater selectivity of females decreases or disappears as distance increases, and as social and economic forces become more important than personal factors other than status or ability (117). Wendel (118) found that women migrated at earlier ages than men - usually at "key ages" (119).

Migration is usually selective of single persons to a greater extent than married ones, children being formidable intervening obstacles (120).

Migration is selective in a number of other ways including geographical ones. Freedman (121), for example, notes that migrants have certain characteristics which give them a tendency to concentrate in distinctive "mobile areas" or "migrant zones" in cities. A further geographical differential is the probability of migrants having relatives at the new destination - which increases proportionally with the increasing size of the in-migrant centre (122). There is also some evidence that migration is "age differentiated as to destination" (123) and, according to Gessner, intelligence differentiated as well (124).

(ii) Migration is non-selective

Sorokin and Zimmerman (125) doubt whether rural-urban migration is selective except with regards to age and a lesser extent sex.

Jansen cites papers by Lee (126) and Hutchinson (127) as evidence that there is "very little support for a law of differential sex migration" (128); while Clarke (129) considers that migration, because of improved transportation, is less sex-selective than in the past.
Swaine and Thomas (130) notes that under certain circumstances migration can be quite unselective with reference to intelligence. Klineberg (131) confirms these findings for unskilled negro migrants in the United States, Davies (132) for rural migrants in England and Wales, Gesner (133) and Gee and Runk (134) for rural migrants in the United States. Hofstee (135) considers that the intelligent or better educated are more likely to have a motive for migration than the less intelligent or worse educated. His hypothesis is that circumstances rather than intelligence result in migration of the better educated to seek better opportunities elsewhere.

It may be that resultant migrants are a more passive group than is often considered. Those who happened to be in the proper group at the proper time were more likely to migrate than those who were not (136), although as Taylor notes (137), resultant migrants are different from non-migrants in actively considering a move.

In summary, although migration differentials exist, so much confusingly contradictory research evidence has been produced with regards to time (133) and place, that differentials other than age appear to cancel each other out. Sociologists and others looking for universal laws of migration having left the motivational maze are now confronted by differential deceptions.

If the gordian knot is to be cut, it is suggested that different types of migration must be treated separately, with models expounded and tested for each type. From the motivational point of view, what can "innovating" and "conservative", "forced" or "free" types of migration (139), or for that matter "resultant", "aspiring", "dislocated" or "epiphenomenal" migrant types (140) have in common? Comparisons of case-studies of each migration or migrant motivational type should then throw more light on confused problems of differential migration and migrant differentials (141). The greatest variable of all is migration itself. Sociologists would do
well to remember this.

3. Assimilation of migrants

Taylor argues that "migration being perceived differently, and ful-
filling a different function for the three migrant types (142), it follows.
that once in the new area, they react differently to its consequences" (143).

Migrant assimilation (144) differentials, however, are related to vari-
ables other than motivational decisions and levels of aspiration. Assim-
ilation is much influenced, for example, by the number of immigrants in-
volved and by the "nature of the receiving society" (145).

Burchinall and Bauder (146) note that adjustment is related to the so-
cial status of the migrant. It is a relatively easy matter for highly ed-
ucated inter-urban migrants to adjust, while rural-to-urban migrants might
take five to ten years or even more (147). The "cultural shock", as Kenny
puts it (148), is greatest in a country still undergoing its first agricul-
tural and industrial revolutions, although in the opinion of Bresse (149)
the occurrence of "rural transplants" or survivals of rural practices in
urban areas may be common enough to mitigate much of the cultural shock
experienced. Although each new arrival reacts according to his own tem-
perament in his own way (150) time is an important factor in the adjust-
ment process in every case (151). Girard (152) emphasizes that migration
by stages may facilitate the adjustment of rural folk to city life. Other
authorities (153) believe that acculturation (154) begins in the country-
side. This can be brought about either by mass media associated with city
culture invading the countryside (155) or by the countryside invading the
city through the mechanism of temporary seasonal migrations (156). Pinkney,
for example, in a study of migration from Limousin to Paris found that be-
cause of "long experience of seasonal migration, the thought of going to
the city was neither strange nor frightening" (157). Acculturation in the
countryside is readily measureable. Keyfitz (158), for example, has shown
that there is a correlation between family size in rural areas and proximity to urban areas.

Beige (159) lists ten permanent and seven non-permanent factors which influence migrant adjustment. Brepohl and others (160) list seven adjustments factors and mention four stages of adjustment. Sauvy (161) sees assimilation being achieved either through the adaptation of the individual to the new environment or through the rebuilding of the old environment. Greeley (162) sees acculturation as a six-stage process. Gordon (163) goes a step further in correlating seven basic sub-processes which take place in the assimilation of a migrant group with seven stages of assimilation:

<table>
<thead>
<tr>
<th>Sub-processes</th>
<th>Stages of assimilation</th>
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<tbody>
<tr>
<td>1) Change in cultural patterns.</td>
<td>1) Cultural or behavioural.</td>
</tr>
<tr>
<td>2) Complete entry into the social networks of groups and institutions or societal structure through large-scale primary group relations with the host society.</td>
<td>2) Structural.</td>
</tr>
<tr>
<td>3) Inter-marriage.</td>
<td>3) Marital.</td>
</tr>
<tr>
<td>4) Development of the host society's sense of peoplehood or ethnicity.</td>
<td>4) Identification.</td>
</tr>
<tr>
<td>5) Lack of discriminatory behaviour by the hosts to the new group.</td>
<td>5) Attitude receptional.</td>
</tr>
<tr>
<td>6) Lack of prejudiced attitudes towards the new group.</td>
<td>6) Behaviour receptional.</td>
</tr>
<tr>
<td>7) Lack of conflict with the</td>
<td>7) Civic.</td>
</tr>
</tbody>
</table>
Benyei (165) postulates the theory of an economic sequential classification for international migration, with assimilation being made more difficult through social unrest following economic depressions, developing into hardening of the host society's attitude towards migrants and finalizing in xenophobia (166).

Generally speaking, the more massive migration, the more prolonged its duration, the more difficult is the assimilation of a migrant group (167). There are two aspects of the problem of delay in assimilation. Firstly, as Breese suggests (168), traditional peasant culture can be preserved more easily if the whole family move together, especially to an urban zone peopled by other recent rural immigrants. Chain migration can have the same effect, the arrival of womenfolk discouraging inter-marriage and inter-relations (169). Still more massive migration can attract the very young, the elderly and young women of marriageable age. The migrant group in the urban area then becomes fully representative of the community of the region of origin and as such is capable of setting up folk institutions such as clubs, societies, churches, schools and newspapers. Secondly, delay in assimilation is due to hostility shown by the host society towards the migrant group. Child (170), writing about recent inter-European migration (171), notes that the degree of hostility shown towards migrants varies considerably. Such factors as the number and degree of concentration of migrants, scarcity of housing, extent of cultural and linguistic differences, and the degree to which governments have attempted to organize and control migration are important. Extreme hostility is experienced in countries where the host nation fears loss of national identity (172).

Hostility leads not only to friction between diverse sub-groups within
the city but also to biased judgements being passed on rural immigrants
(173). The writings of Malzberg (174), Lee (175), Rex and Moore (176) con-
firm that migrants are not carriers of social diseases: and problems as has
oft been stated, although there is some evidence that the feeling of "non-
belongingness" in which the immigrant child or adolescent strives to
conform to two conflicting standards and finds himself torn apart by oppos­
ing loyalties (177) can lead to anti-social behaviour. Much of the hostil­
ity, friction and misinterpretation of migrant characteristics stems from
the fact that migrants compete for housing and other facilities in city
"transition zones" which are already centres of festering social diseases
and problems (178). The predominantly male, young adult migrant group is:
not untainted by sin (179). Such social conditions encourage marital in-
fidelity, prostitution, and the transmission of venereal and other socially
mobile diseases (180). The classical North American gradient by which crime
rates decline from central "urban slum" (181) to periphery is not typical
of many cities in lesser developed countries (182). High indices of dev­
iance are found sometimes in peripheral shanty-towns, sometimes in central
slums, sometimes in both (183).

Hostility, to a greater or lesser extent, is encountered in all envir­
onments, and it is to overcome this hostility that migrants tend to con-
centrate in certain areas and to group in certain ways (184). Kiser (185),
Smith (186), and Simon (187) amongst others, show the importance of friend­
and relatives in spreading information about job opportunities in urban
areas. The kinship linkage thus tends to guide migrants to those areas
where the kin group is already entrenched (188). "The kinship structure
also serves a protective function for new migrants to an area - a form of
social insurance and a mechanism for smoother adaptation during the transi­
tional phase of adjustment" (189). It is found even in highly indus­
trialized societies where there is no problem of learning new cultural
ways and adjustment is easy (190). "Migration", in the opinion of Girard and others (191), "is less a rupture with the original location than it is a rejoining with relatives in the new location".

Zimmerman and Frampton (192) note that the stem (or parent household) in the village serves the function of aiding assimilation of return migrants, acting as "havens of safety to which they may return" (193) in periods of economic depression or times of personal failure (194). Assimilation becomes particularly difficult where there is this irregular going back and forth of a marginal group with a "transient psychology" (195).

The kinship link is not the only factor accounting for concentration of migrants in "mobile areas". In-group ties carried over from the community of origin are also important (196). In West Africa, migrants regroup in urban areas in voluntary associations along tribal lines (197); while in Boston and other North American cities one finds the paesani - Italians from the same village of origin who tend to re-group in the same street in immigrant ghettos (198). Carter (199) distinguishes between the temporary ghetto "through which populations become adjusted to new ways of life" and then move out, and the permanent ghetto by which a cultural group resists assimilation and thereby preserves its identity. Ecological factors also account for migrant concentrations (200). These concentrations are usually in areas of "minimum choice" (201) because migrants are unable to compete economically for more advantageous sites (202).

Much has been written of the function of the primary group acting as a bridge between two behaviour patterns (203). The city-dweller may choose to be cosmopolitan or parochial in his outlook and tastes (204). In the author's opinion it is more a case of the migrant alternating between participation in the industrial or service sectors of the city and "the urban village" (205) where he has his family and friends. Dualism of this kind involves a danger of misinterpretation by sociologists.
The degree of acculturation or social integration is displayed in the levels of living, educational and cultural characteristics, and fertility patterns of migrants when compared with non-migrants (206). While such aspects of adjustment are eminently measureable (207), they are undoubtedly urban-orientated to "the prevailing values, normative structure and social needs of the receiving society" (208). Burchinald and Bauder make the valid point that the rural migrant "may not... fully accept the urban standard in evaluating his own performance" (209). While by urban standards he may be relatively unsuccessful, "from a rural frame of reference he may have improved his lot immensely" (210). To a greater or lesser extent the successful rural-to-urban migrant will feel that he has escaped from the rigid social structure of the village (211). Moreover, a higher income overall will enable him ostentatiously to display the outward signs of his higher socio-economic status whenever he returns to his native village (212).

With regard to the non-adjustment and lack of assimilation of many rural-to-urban migrants Lewis advances the hypothesis of a "sub-culture of poverty" (213). The main characteristics of this sub-culture may be summarized as follows:

1) At national or regional level, there is a "lack of effective participation and integration of the poor in the major institutions of the larger society..." (214).

2) At local community level, the chief distinguishing features are "poor housing conditions, crowding, gregariousness, but above all a minimum of organization beyond the level of the nuclear and extended family" (215). There is "a sense of community and esprit de corps". Moreover, "a sense of territoriality results from the unavailability of low-income housing outside the slum areas" (216).

3) At the family level, the main characteristics are "absence of childhood as a specially prolonged and protected stage in life, early..."
initiation into sex, free unions or consensual marriages, a relatively high incidence of the abandonment of wives and children, a trend towards female- or mother-centred families...* (217).

4) At the individual level, there is a strong feeling of marginality, of helplessness, of dependence and of inferiorityum (218).

Rural-to-urban migrants are also characterized by having a strong present-time orientation with relatively little ability to plan for the future, a sense of resignation and fatalism... (219).

People with a sub-culture of poverty are, according to Lewis, a provincial and locally orientated... (220). Although they may continue to be desperately poor, assimilation begins with a change in outlook. In Lewis's words, any movement, be it religious, pacifist or revolutionary, which organizes and gives hope to the poor and effectively promotes solidarity and a sense of identification with larger groups destroys the psychological and social core of the culture of poverty* (221). In our opinion, although the sub-culture of poverty is so obviously an attempt at adaptation through rebuilding much of the old social environment in a new locale (222), assimilation can be brought about in many other ways, organized and unorganized. In the first place even illiterate slum dwellers pick up advanced ideas and terminology from T.V., radio and movies... (223). Moreover, National Service, the mixed education of children (224), and (especially in the second and third generations) mixed marriages, all lead towards total assimilation. Bühlöing believes that target workers proceeding from lesser developed to post-industrial countries experience a complete secondary socialization (225) resulting in a superficial absorption of the norms and values of a consumer society which causes them to raise their materialistic goals and consequently stay longer in the host country.

Failure to adapt often occurs, resulting in constant suffering or in
return to the region of origin. In the past, it was frequently held by sociologists that short-term return migrants were failures who had been unable to adjust economically or socially. Richmond (226) believes that there are sound socio-psychological reasons against return in the vast majority of failure cases (227). Those who return, rather than being failures, are often likely to have achieved their short-term objectives as "target workers" (228) and probably achieved a degree of assimilation in the process (229).

Petersen (230) notes that in every migrational move there is an economic, social and cultural distance to be traversed by migrants. Generally speaking, the greater the distance of gradient between the former and present way of life of the immigrant the greater the problems of assimilation. According to Pahl (231), distance - physical, economic and social - is a geographical factor. Certainly there is a geographical aspect of assimilation. Geographic dispersion of migrants favours adaptation and assimilation while geographic concentration has an opposite effect (232). A further geographical aspect of assimilation is the movement of second generation Italians from the ghettos of certain North American cities. "Emigration from the district", notes Firey (233), "signifies assimilation into American values and is so construed by the people themselves". A still further geographical aspect of assimilation is furnished by the transportation factor - which reveals yet again dual aspects of migration problems (234). Ease of modern transportation enables greater contact between town and country and the beginning of acculturation in the countryside. Paradoxically, this also enables the migrant to return more easily and more often to his place of origin, thus making full assimilation more difficult to achieve.

Throughout this discussion of the sociology of migration geographical concepts have crept in from time to time. While it is true that "demog-
raphers and sociologists can treat population as devoid of spatial context... geographers who treat population as some arithmetic expression, unrelated to place or space, do so at the peril of losing contact with their discipline (235). Whereas there is now a much greater interest shown by geographers in the inter-relationships of man and man (236), this interest must still take place in a spatial context (237).

III. THE GEOGRAPHICAL ASPECTS OF MIGRATION

In the past, the geographical aspects of migration have been mainly dealt with by non-geographers. This is hardly surprising in view of the fact that migration statistics even now remain the most unobtainable and the least accurate of all demographic data (238). The only satisfactory methods of calculating direction and volume of migration streams are censuses where migration questions are asked, or systems of residence registration. Due to the general lack of direct information of this kind it is nearly always necessary to calculate measurements of internal migration by indirect means (239).

"Migration is mobility and as such it is dynamic" (240). Indeed it is one of the three dynamic aspects of population (241). The problem is the real lack of a dynamic, continuous, film-like method of measuring population movements and the reliance, therefore, on static, "snapshot" methods. Such static methods are not, however, new to geography. Darby (242) has used the concept of "period-pictures" to great effect in the field of historical geography. The geographer should, therefore, be able to make some relevant contributions to certain aspects of migration study now that the groundwork has been prepared by demographers and statisticians.

Ravenstein's papers (1885 and 1889), having stood the test of time, are a useful starting point for geographical work in the field of migration.
studies. Ravenstein, while maintaining that "laws of population, and economic laws generally have not the rigidity of physical laws" (243), nevertheless tentatively proposed the following "geographical" (244) laws:

1. Migration and distance

"The great body of our migrants only proceed a short distance... migrants enumerated in a certain centre of absorption will grow less as distance from the centre increases." (245).

"Migrants proceeding long distances generally go by preference to one of the great centres of commerce and industry." (246).

2. Migration by stages

"There takes place consequently a universal shifting and displacement of the population, which produces currents of migration, settling in the direction of the great centres of commerce and industry which absorb the migrants." (247).

"The inhabitants of the country immediately surrounding a town of rapid growth flock into it; the gaps thus left in the rural population are filled up by migrants from more remote districts, until the attractive force of one of our rapidly growing cities makes its influence felt, step by step, to the most remote corner of the kingdom." (248).

"The process of dispersion is the inverse of that of absorption, and exhibits similar features." (249).

3. Stream and counterstream

"Each main current of migration produces a compensating counter-current." (250).

4. Volume of migration

"Does migration increase? I believe so.... Wherever I was able to make a comparison I found that an increase in the means of locomo-
tion and a development of manufactures and commerce have led to an increase of migration" (251).

Ravenstein has been much quoted but only occasionally challenged. Generally speaking his laws have either been accepted or confirmed by other researches. The main findings will be summarized here:

1. Migration and distance

Many authorities including Weber (252), Hill (253), Brinley Thomas(254), and Redford (255) confirm Ravenstein's hypothesis that most migration is short-distance. Schumann (256), for example, found that the percentage of in-migrants whose birth-place was within two miles of Oldenburg, Germany, was 95.6, 60.1, 85.5, 78.2, 88.1 and 80.2 respectively for six randomly selected rural townships. Lawton (257), in a study of rural depopulation in nineteenth-century England, found that distance from growth-points was more important than soils or types of farming. Official censuses in Germany (1925) and the United States (1940) reveal "persistent predominance of short-distance moves" (258).

That migration should be short-distance is logical, especially in the case of epiphenomenal female migrants who move short-distances for personal reasons like marriage (259). Short-distance moves predominated for men also - moving into and out of the Tyneside conurbation during 1960-1961 (260). The apparent logic of such short-distance moves led Zipf (261) to postulate the theory of the "principle of least effort", where the number of people travelling or for that matter migrating between two cities should be a function of the distance separating them, since the effort required to cover greater distances would increase as did the distance. Likewise, Stewart (262), has put forward the "inverse distance law which when applied to migration... stated that migration between two centres was proportional to the square of the distance between them" (263). Young (264) and Carey (265) have made somewhat similar attempts to measure
migration distances, while Hägerstrand has put forward the concept of "distance decay" (266).

Redford is of the opinion that there are "two processes of short-distance migration, opposite in tendency but similar in form" (267). The process of absorption is centripetal, the process of dispersion is centrifugal. These conclusions were in fact shown by Llewelyn Smith (268) to be true for both in-migration to and out-migration from London in the late nineteenth century. Dyos saw "two social gradients" (269) in late nineteenth century London, "one leading upwards and outwards", according to Kellett, "the other leading downwards if not inwards" (270). At the present time, centripetal movements are characteristic of "industrial cities" (271), while conurbations and "metropolitan cities" are more likely to be associated with centrifugal movements (272) - or what Kelsall calls "urban dispersal" (273). Car-ownership may be a relevant contemporary factor in "urban dispersal" (274), although Scott (275) believes that industry also migrates short-distances outside conurbations along lines of "least transport effort". Even the movement out of negro ghettos in North American cities is mainly short-distance, by what Morrill calls the "spatial diffusion process" or "block by block substitution" (276). Nor are such short-distance intra-urban moves a factor of ethnicity. All city residents have rather limited mental maps (277). Boyce in a study of residential mobility in Seattle found that 16% moved less than a half-mile and that the average distance moved was less than three miles (278).

Llewelyn Smith also confirms Ravenstein's theory that there is a second long-distance aspect to internal migration (279). Movement through physical space of persons and more particularly of news has become much easier and quicker since Llewelyn Smith's day (280). Bracey found that "two groups, single individuals and young married couples, are prepared to move considerable distances" (281) at the present time. Lövgren argues that "commun-
ication of information decreases with distance" (282), and although Dodd has shown that "message communication decreases inversely to distance" (283), such arguments do not necessarily apply to migration. Price, in an analysis of internal migration in the United States during the 1935-1940 period (284), did in fact find that migration eastwards decreased with distance. His main conclusion, however, is that "the pull of certain areas of the west nullifies the effects of distance of travel" (285). The empirical evidence seems to suggest, as Edigerstrand notes, that for migration generally "the migration distances were in general shorter in former times than at present" (286). This has led Stouffer to challenge the whole concept of distance. It is Stouffer's hypothesis that "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities" (287). In the author's opinion, attractive though Stouffer's hypothesis of intervening opportunities is (288), the model stems from a lack of recognition of the dual nature of internal migration distance-wise. No allowance is made in the model for the directional factor (289) - a state of affairs which must be denigrated by geographers (290).

2. Migration by stages

Bavenstein's theory of migration by stages has been likened by Redford to "a wave-like motion; the movement of population persisted over a wide area, even though most of the migrants did not make any long journey" (291). There may be, as Bickel has suggested, a connection between migration by stages and short-distance migration - the short-distance moves being "stopovers for longer distances" (292). This theory is substantiated by Oscar Lewis in a study of fifty migrant families from Puerto Rico in New York. He found that for the majority of migrants, migration was a three step process - from rural birthplace, to San Juan slum, to New York (293). Deahmikh refers to an extreme form of this type of migration which he terms "float-
ing migration (294). His sample-survey of developing world migration conditions (where perhaps knowledge of job opportunities is more imperfect than elsewhere) found that 65% of the migrants questioned had moved at least six to fifteen times. While migration by stages (or "step-fashion") (295) is held to be true by many authorities (296), Browning for one believes in the gospel of direct migration (297).

It may be that there are dual migration types. Pourcher (298) found that 41% of the migrants in his sample-survey moved direct to Paris, the rest moving by stages. Jansen (299) similarly found that less than 50% of internal migrants to Bristol had come direct. Dualism is not apparently a recent phenomenon. Bleicher (300), in a survey of 39,420 migrants into Frankfurt conducted in 1891, found that 37.2% moved direct, the remainder by stages.

To complicate the issue still further, there is a temporary seasonal "circulation of labour" (301) from rural areas (made possible by seasonal underemployment between planting and harvesting seasons) (302) which is a special hybrid type of migration by stages (303) - the final permanent move being possibly made direct; possibly not.

Saville (304), amongst others, believes the hypothesis of migration by stages to be not proven. Certainly there is a need for much further direct research into this aspect of population movements. The almost exclusive dependence on indirect methods of calculating migration statistics in many countries is a great hindrance. "Statistics of birth-place", for example, do not in Weber's words "entirely disprove the hypothesis of migration by stages through village, town, city and metropolis, in as much as a man's previous place of residence does not always coincide with his birth-place" (305).

3. **Stream and counterstream**

Ravenstein's hypothesis of stream and counterstream is supported by
Taeuber and Taeuber (306). Brown and others (307), in their study of east Kentucky mountain migration between 1940 and 1960 find, moreover, that "the pattern of the streams of migration has been remarkably consistent". To understand this phenomenon we must appreciate the mechanics of migration. Migrants tend to follow well-defined routes for a number of reasons. Firstly, because of the highly localized nature of job opportunities. Secondly, because migrants use established transportation routes (308). Thirdly, because of the flow of information back from prior emigrants. In this context, the "overcoming of a set of intervening obstacles by early migrants lessens the difficulty of the passage for later migrants" (309).

Although migrants follow well-defined transportation routes, direct information regarding choice of routes is not usually available to the researcher. Thornthwaite has worked out convincing migration-stream maps for the United States using "birth-residence indices of population movement" (310), but if migration took place by stages a misleading impression of migration routes would be gained (311).

The hypothesis that labour tends to flow in the direction of greatest economic opportunity is well-documented (312). Stouffer's theory of "intervening opportunities" is not opposed to this hypothesis; it helps in fact to explain deviations from expected patterns. While Hunter and Reid agree that "net migration is generally in the right direction (away from locations of high unemployment and low income opportunity)... movement in the wrong direction (towards low income opportunity areas) continues" (313), the relationship between migration streams and economic opportunities is thus not perfect. A migration stream between two very highly localized points tends to be "self-perpetuating" (314) and dependent on the "chance occurrence of some previous migration" (315). Chain migration of this type is more often or not restricted to the conditions in one particular district. There is general ignorance of better opportunities in other dis-
Each stream has its counterstream. Isaac (317) and Thistlethwaite (318) have shown that return migration was a continuous process - even from overseas in nineteenth-century conditions. In normal times, the counterstream current to rural areas of heavy out-migration is slight. In times of depression, labour tends to flow away from the centres of former opportunity along well-worn pathways, as migrants return to regions of origin. Between 1930 and 1933 there was a return of over one million migrants to agriculture in the United States (319). A similar return to the land took place in Japan at the end of the Second World War (320). It may be that some return migration (321) takes place for psychological reasons - in the sense that inadequate or inaccurate information will lead to the non-fulfilment of expectations, and perhaps the return of disillusioned migrants who might, with better knowledge, have moved elsewhere, or even better not moved at all (322).

Whatever the reasons, patterns of in- and out-migration are almost identical. One must assume that returning migrants are former residents (323). "No one," argues Hollingsworth, "is more likely to come to a given place than someone who has lived there before" (324). Moore and Lloyd (325) in a sample of 374 families who had migrated to 19 rural townships in southern Indiana between 1930 and 1934, showed that 40% had returned to their county of origin while a further 20% had relatives there. An O.E.C.D. survey noted a similar return movement for Sweden and commented that "about a third of those who have moved, and obtained grants towards the expenses thereby incurred, return to their home country within a year or two, usually to their home county or village (326).

It is possible that over a long period of time the ebb and flow of migration currents will compensate each other. Such were the findings of Hyvönen (327) for migration in Sweden between 1895 and 1933. Nor need the
compensatory mechanism be confined to long periods of time. Inter-urban migration streams tend to cancel each other out (328). Newton and Jeffery (329) found that for the 1948-1949 period most regions in the United Kingdom had a net migration of less than 5% of the gross. Jansen (330) cites Ministry of Labour statistics for the south-western region of the United Kingdom between 1954 and 1963. Rather spectacularly, in this instance, net migration was only 0.85% of the gross movement.

Throughout this discussion of stream and counterstream it has been seen that economic and personal factors are inseparably interwoven. Some such migrational movements are undoubtedly related to the family life cycle (331) with its tendency for some backflow at the beginning and the end of the career cycle (332).

4. Volume of migration

Volume has been defined as the amount of space that a given quantity of a substance will fill (333). Volume thus has geographical significance and in this context three relevant points may be made. Firstly, that "the volume of migration within a given territory varies with the degree of diversity of areas included in that territory" (334). Secondly, that inter-regional mobility of this type depends on the size of areas involved (335). Thirdly, that more cross-boundary, short-range population movements will be recorded in regions with an eccentric distribution of population than in ones with an even distribution (336).

The volume (337) of migration has, however, non-geographical aspects which are related to sociological, economic and technological factors. These may be summarized as follows:

1) "The volume and rate of migration varies with the diversity of people" (338).

2) "The volume and rate of migration varies with fluctuations in the economy" (339). The relationship between migration and the
business cycle in countries of immigration has been substantiated by a number of authorities (340). Similar findings have been made for internal migration. Ahlberg has argued that "significant variations in the release of excessive manpower from the countryside have an obvious connection with business cycles" (341). Makower and others (342), in a United Kingdom labour study, found inter-regional labour movements sensitive to changes in unemployment in in-migration areas. Oliver (343), in a later United Kingdom labour study, found a tendency for employees in regions with above average unemployment rates to migrate to regions with below average unemployment. Likewise, Schultz has shown for the United States that the "rate of off-farm migration is highly sensitive to changes in unemployment" (344).

Wolpert, however, is of the opinion that "the defenders of the wage theory of economic determinism (345) find some validity for their constructs, only as long as net, and not gross, migration figures are used and regional disaggregation does not proceed below the state level, thereby neglecting much of the interstate heterogeneity" (346). Brown and others have suggested that this sensitive and rapid response of out-migration rates to fluctuations in the rate of unemployment in "migratory target areas" is due to "the effective line of communication among kin" (347).

3) "Unless severe checks are imposed, both volume and rate of migration tend to increase with time" (349). Although the farm population of the United States in 1950 was only about two-thirds that of 1920, more migrants left the land during the 1950-1960 period than in any decade since 1920 (349). Ravenstein's hypothesis (350), that improving technology alone (including better and cheaper means of transport) (351) should result in an increase in the volume of migration, has stood the test of time.
4) "The volume and rate of migration vary with the state of progress in a country or area" (552). All the empirical evidence suggests that inter-regional labour mobility is higher in the United States than in Europe (555). Lee suggests that "a high rate of progress establishes a population which is continually in a state of flux, responding quickly to new opportunities and reacting swiftly to diminishing opportunities" (554). Over a period of time, he argues, the socio-economic differences between developed and developing countries and between areas in countries become heightened, leading to increased migration (555). Newton and Jeffery found that areas of net in-migration in England and Wales in the ten year period before the Second World War, experienced higher total mobility (i.e. in- and out-migration) in 1947-1949 than areas which had been losing migrants in the pre-war period (556). In the United States, it has been calculated that one in five of the population changes his place of residence each year (557); while the 1961 census gives about one in ten of the population of England and Wales as having changed residence between April 1960 and April 1961 (558). Not all changes can be classified as migrational moves, however, nor are all such moves in industrial countries related to labour market conditions (559) as Heberle would have us believe (560). Herbert estimates that two-thirds of all moves in North America are intra-urban ones and finds confirmation in the 1966 census of similar residential mobility in British cities (561).

It must never be assumed that pre-industrial societies are "static," modern societies "dynamic" (562). Migration affects all societies. The illusion of immobility — especially in the case of pre-industrial societies — stems from the fact that at a given moment migration "mostly sets in motion only a small part of each population..."
Throughout this thesis we have been concerned mainly with free migrations. The recent (1971) East Pakistan tragedy has reinforced in the public mind the devastating hurricane effect of impelled migrations. Nor is this a single instance. "It is a sobering thought", comments Beijer, "that the number of people expelled from one country to another in the decade after the Second World War was about the same as the entire overseas migration from Europe in the nineteenth and the first decade of the twentieth century" (364). Pre-industrial societies often display greater volumes and more rapid rates of migration than modern societies due to factors like drought, flood, crop failure, epidemics, war and persecution - factors which are "external to the economic order" (365).

5) "The volume $I$ and rate $I$ of migration is related to the difficulty of surmounting the intervening obstacles" (366). Intervening obstacles include personal, psychological, socio-economic, geographical, technological and even political barriers to be surmounted.

Personal obstacles are associated with stages in the life-cycle. The inter-state mobility rate for married men in the United States in 1963-1964, for example, was only 3.1% compared with 5.1% for single men in the same age group (367). Young children are an important obstacle to migration.

The psychological costs (368) of migration are likely to be lowest for a single person in his twenties (369). However, "it is clear that there is a mobile fringe in all age groups who display a higher than normal propensity to migrate (370). It is equally clear that while some personalities welcome change others are equally resistant to change, regardless of age (371).

Money costs of migration are also likely to be lowest for a single person in his twenties. Socio-economic obstacles to migration
include house-ownership (372), and lack of social security institutions or welfare facilities available to immigrants or in-migrants (373). Unemployment on the other hand is an incentive to overcome intervening obstacles of all kinds. A United Kingdom Ministry of Labour study in 1961 found that 13.7% of the men and 5.5% of the single women wholly unemployed were prepared to take work beyond daily travelling distance (374). Evidence exists for believing that the longer a potential migrant is unemployed, the more likely he is to consider a geographical move (375).

Geographical obstacles to movement include physical barriers, distance, and area attachment. Both money and psychological costs are less for short-distance intra-regional movements than for inter-regional ones (376). Lansing and others found area attachment stronger in depressed areas when compared with other areas (377); while Kahn in a survey of redundant unemployed workers in a British Midlands city found that only 11% had looked for work over twenty-five miles away (378).

Technological obstacles to migration are related to the limit of technological knowledge (or the failure to apply it) in any society at a given time. In modern societies, increasing technology has played a vital role in diminishing the importance of intervening obstacles. Travel has become both easier and cheaper (379).

The imposition or removal of immigration restrictions has had dramatic effects on international migration flows (380). Political obstacles to reduce or reverse internal migrant flows have been less effective (381), even in fascist states (382) and closed communist societies (383).

In conclusion, it would be wrong to assume, as Petersen does (384), that the volume, rate and direction of migration is due to economic "pull"
factors. Rowling (385), and Southall (386) have similarly over-emphasized "push" factors in West and East Africa respectively. In fact, economic and personal factors are — as we have seen in our discussion of intervening obstacles — intricately interlocked. The United States Census Bureau, for example, shows that both migration rates and distance moved are related to occupation (387), and occupation is a personal choice. "Geographical mobility is thus", according to Girard and others, "directly related to professional mobility" (388). Illsley and others believe that both in- and out-migration rates are higher in "upper occupational groups" (389), where presumably socio-economic "push-pull" factors are at their weakest. A safer generalization would be that the volume, rate and direction of migration in advanced societies is related to conditions in the labour market; but the timing of migration is an eminently personal matter dependent on the overcoming of formidable intervening obstacles. Many more people would like to migrate (or even to change houses) than actually do so. In Rossi's sample (390), 48% of families had reached the normative phase of decision-making by expressing a desire to move, but only 22% gave themselves as much as a 50-50 chance of changing residence within a year, and presumably an even smaller percentage actually achieved their objective within that time.

Migration growth-points

Ravenstein paid special attention to "centres of absorption" within the British Isles in a study of sixty-seven towns: characterized by in-migration. He concluded that the "increase in the population of large towns, irrespective of the natural increase resulting from an excess of births over deaths, is primarily due to an inflow of the inhabitants from the surrounding rural districts... Although towns increasing at a more rapid rate than the rural population of the county, or increasing at a moderate rate, whilst the latter decreases, attract immigrants from longer distances" (391).
Ravenstein's hypothesis of the attractive force of large cities was restated in more scientific terms by Levasseur. "The force of attraction in human groups like that of matter is in general proportional to the mass" (392). Weber, another nineteenth-century statistician, notes too that "the distance travelled by migrants varies in the same ratio as the magnitude of the city which is their destination. The larger the town, the wider its circle of influence in attracting immigrants" (393). The scientific climate of the late nineteenth century made the establishment of universal laws of migration seem a real possibility. Von Mayr's law was yet another attempt to bring reason and order to migration studies, although in this case the law refers not to individual cities but to groups or classes of settlement. The law states that "the percentage of immigrants increases in the same ratio as the magnitude of cities, but in inverse ratio with the magnitude of rural communities" (394).

Recent case-studies have confirmed these nineteenth-century findings, although social scientists are more skeptical now about the existence of universal laws. Hiller found that the attractive force of cities for the young adult group varied considerably according to the size of the city (395). Olsson (396) notes that "migration distances decrease both with the size of the place of out-migration and with the size of the destination". Isbell found that the "opportunities in a capital city have a distinctive character of attracting migrants regardless of intervening opportunities" (397). Such was the attractive force of Paris, according to Gravier (398), that it consistently absorbed all of the natural increase of the whole French nation throughout the nineteenth century. According to Chevalier (399), the proportion of Parisians born in Paris remained at about one third of the total population throughout that century. "The hope that prosperity will spread outwards from growth-poles in concentric ripples" (400) is thus seen not to be a modern phenomenon.
Conclusion

Throughout this discussion of the sociological and geographical aspects of migration, one central theme emerges - the complexity of the subject. There is a common body of knowledge, imperfectly perceived in the muddy waters of migration studies, that can be approached equally by sociologists, geographers, economists, psychologists, demographers and others. Certainly since the quantitative revolution geographers can contribute convincingly to the interpretation of problems concerning migration (401). Now the interconnexions between numerous factors can be examined statistically, notes Edwards, and a proper measure of correlation can be made to test their validity (402). Wrigley is right to note that "while the existence of a correlation may put out of count one explanation it cannot of itself establish another" (403), but the ability of the computer rapidly to process statistical data enables the geographer to test the relationship of variables whose relevance may have hitherto been unsuspected. Even assuming the correct variables have been selected, there is often a large geographical range for each one. A Moser and Scott survey (404) of 157 British towns found that no less than 125 of them "appeared among the extremes in one table or another" (405).

The geographer is concerned with the "spatial context" of population. Answers to certain migration questions can only be obtained by the use of direct methods. Unfortunately, "few samples are large enough", according to Festinger and Katz (406), "to permit regional analysis on any but the broadest basis. A sample-survey designed to represent a population dispersed over a wide geographical area is likely not to give an adequate representation to any population characteristic which is highly localized" - therein lies the rub.
I. THE STATISTICAL DILEMMA

Internal migration statistics are generally regarded as one of the least accurate of all demographic data (1). "The act of migration cannot be defined in the precise terms that are associated with acts of birth and death. Because of this", notes Masser, "it presents problems of definition and measurement...." (2). Migrants are difficult to enumerate when they do not cross administrative boundaries of any significance, and often reluctant to register even when they do so. The only satisfactory methods of calculating direction and volume of migration streams are censuses where the migration question is asked or systems of residence registration (3). Yet, in few censuses are such questions asked (4); and there are few systems of residence registration - let alone accurate ones. Registration in the mind of the migrant is conned with control. Systems of registration thus encourage clandestine migration - as in Italy between 1926 and 1961 when there were statutory restraints placed on internal migration (5). It is thus nearly always necessary to calculate measurements of internal migration by indirect means (6).

1. Indirect measurements of internal migration

The two most commonly employed techniques of indirectly measuring internal migration are:

(a) Place-of-birth method.

(b) Net migration balance method.

(a) Place-of-birth method

Ravenstein (7) based his "laws of migration" on the lifetime movement of population. The method was later used by Thornthwaite (8) to calculate the volume and direction of inter-state migration streams in the United States.
The place-of-birth method consists of comparing place-of-birth statistics with present residence. The disadvantages of this technique are many. It records cumulative migrations over a period of time (9), without showing when the migrations occurred or the number of moves made by each migrant. Migration is certainly not a "once and once only phenomenon" (10). Two further disadvantages of this method are firstly, the failure to record the effect that mortality has on migration movements; secondly the under-registration of births in some countries (11). While place-of-birth statistics do "give valuable regional detail of the effects of lifetime movements of population" (12), it needs highly sophisticated methods of analysis (13) to derive estimates (14) of current as opposed to earlier "lifetime" migrations.

(b) Net migration balance method

The "vital statistics method" (15) has been much used by statisticians to measure internal migration (16). Briefly the method consists of comparing actual population figures (as given in Census Reports) with natural population increases (as calculated from Civil Registers). Any differences between the "actual" and the "natural" (or theoretical) can be attributed to migratory movements. A positive figure shows that an area has experienced net in-migration. A negative figure indicates net out-migration. "It should be borne in mind", notes Benjamin, "that we are dealing here with differences between quantities that are themselves subject to substantial error; the net balances themselves therefore will be subject to even greater margins of error" (17). Moreover, as Lawton remarks, "figures of net migration conceal the complex ebb and flow of actual population movements" (18). A ten per cent sample-survey of emigration and immigration of males from and to the Tyneside conurbation during 1960-1961 (19), shows that there was a substantial movement into the conurbation although there was a net loss. Net migration balances thus give no indication of the "gross move-
ments in opposite directions which the residual net movement represents (20) and at best can only give minimum migration volumes (21).

Despite these short-comings of the net balance method, indirect methods of this type must continue to be used to explain historical population movements.

2. Direct measurements of internal migration

Direct methods of calculating the volume and direction of migration streams are obviously to be preferred to indirect ones. Censuses where meaningful migration questions are asked are the exception rather than the rule (22).

The two most commonly employed techniques of directly measuring internal migration are:

(a) Sample-survey method.

(b) Residence registration method.

(a) Sample-survey method

Sample-surveys have only a limited value in migration studies. Few samples can be large enough to allow regional analysis on any but the broadest basis, although the method has been successfully used by Pourcher (23), and Girard and others (24). A further problem is that answers must be collected within as short a time as possible otherwise external factors connected with the time-lag will render the data invalid (25). Unfortunately postal inquiries are not the answer to problems of either space or time (26). In order to obtain a "random" or "quota sample" of any population a complete list of that population must be obtained. It may be very difficult to find a suitable "sample frame" (27) especially when dealing with in-migrants (28) or transient areas. It is even more difficult to obtain a representative national or regional out-migrant sample (29).

(b) Residence registration method

Residence registration statistics have been used by Newton and Jeff-
ery (30), and Rowntree (31) to calculate migration movements in the United Kingdom (32). The value of such statistics is perhaps somewhat limited in countries like Italy or Spain where there is a recent history of statutory restraints being placed on internal migration (33). Some authorities (34) believe that official internal migration statistics as issued by Instituto Nacional de Estadística from 1961 (35) are serious underestimations of true migration figures.

Despite the shortcomings of Spanish official statistics - one needs only to be reminded of Richard Ford's advice:

»... one safe rule in Spanish official numbers is to deduct two noughts sometimes even three« (36)

- it will be shown presently (37) that »actual« migration statistics (post 1960) are, in a special sense (38), a true sample of total migration figures, and accurately reflect the trends noted by García Barbancho (using the net balance method) for the 1900-1960 period (39).

II. INTERNAL MIGRATION: SPAIN AND THE WESTERN WORLD

There is evidence from many countries that cityward migration is not an economic phenomenon peculiar to the nineteenth and twentieth centuries (40).

It is clear that at least from mediaeval times many urban populations only held their own due to in-migration (41). Even so, towns were much more vulnerable to plagues and famines than the countryside and might lose between one quarter and one sixth of their populations after one visitation (42). Moreover, before the Industrial Revolution and advances in medicine and public health, urban expectancy of life was low. Farr postulated that the »mortality of population in towns varied as the sixth root of the population densities« (43), and gave an expectancy of life in mid-nineteenth century England of only 24.2 for Manchester, compared with
a national average of 40.2 (44). Such high mortality rates were caused, in Wrigley's opinion (45), by urbanization rather than by industrialization.

Graunt (46), in early researches into the population of London during the 1603-1644 period, calculated that there were 363,935 burials but only 330,747 christenings. That the total population showed an increase over the period was entirely due to in-migration. London continued to show an excess of deaths over births until the beginning of the nineteenth century (47). Dunant (48) has shown for thirty great cities in Europe, that twenty-three owed more than 50% of their growth in the nineteenth century to in-migration, and that seven without it would have decreased in population (49). According to one source although Madrid (50) had a small natural increase between 1858-1862 it was not maintained (see Table I) (51). The increase in population throughout nearly all of the nineteenth century was thus nearly all due to in-migration (52).

Table I

<table>
<thead>
<tr>
<th>Period/year</th>
<th>Natural increase (per thousand pop.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1858-1862</td>
<td>1.3</td>
</tr>
<tr>
<td>1863-1870</td>
<td>-2.4</td>
</tr>
<tr>
<td>1878-1884</td>
<td>-2.9</td>
</tr>
<tr>
<td>1886-1892</td>
<td>-2.8</td>
</tr>
<tr>
<td>1900</td>
<td>-3.27</td>
</tr>
<tr>
<td>1910</td>
<td>3.41</td>
</tr>
<tr>
<td>1920</td>
<td>-0.25</td>
</tr>
<tr>
<td>1930</td>
<td>8.10</td>
</tr>
<tr>
<td>1940</td>
<td>7.50</td>
</tr>
<tr>
<td>1950</td>
<td>7.83</td>
</tr>
<tr>
<td>1960</td>
<td>18.50</td>
</tr>
</tbody>
</table>

Although internal migration is not a recent phenomenon little is known of the volume of pre-industrial migrations. London in the late seventeenth to early eighteenth centuries probably received 8,000 new in-migrants annually according to Wrigley (53). Graunt estimated a figure of 6,000 for the early seventeenth century (54). London probably absorbed the entire natural increase of the English nation during this period. Gravier has shown that Paris occupied a similar role for the French nation between 1851 and 1946 (55). Madrid, although not as an important a national immigration centre as London or Paris, must have received a maximum of between 5,000 and 6,000 in-migrants annually between 1857 and 1877 (56).

While little is known of the volume of pre-industrial migrations into all but major national urban centres, still less is known of out-migration streams from rural areas in pre-census days.

According to Rostow (57), "economic take-off" for the following western countries occurred during the undermentioned periods:

- United Kingdom (1783-1802),
- France (1830-1860),
- United States (1843-1860),
- Germany (Prussia) (1850-1875).

In these countries there was a close correlation between urbanization and industrialization (58). Economic "take-off" was very quickly followed (59) by those nations' periods of most rapid urban growth:

- United Kingdom (1820-1830),
- France (1850-1860),
- United States (1840-1850),
- Germany (Prussia) (1870-1880) (60).

In Spain, as in Latin America, the urban revolution preceded the industrial revolution (61). In such circumstances, urban growth was rather slower and cityward migration rather less startling - as we have seen for Madrid -
than in some other western countries. Spain had an urban population (62) of only 27.89% in 1888 (63), and the maximum period of urban growth was in fact not reached until the 1901-1910 decade (see Table II).

### Table II

**URBAN POPULATION GROWTH, SPAIN (1888-1960)**

<table>
<thead>
<tr>
<th>Period</th>
<th>Urban population at beginning of period *</th>
<th>Increase in urban population over period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1888-1900</td>
<td>27.89 per cent</td>
<td>4.25 per cent</td>
</tr>
<tr>
<td>1900-1910</td>
<td>32.14 per cent</td>
<td>6.71 per cent</td>
</tr>
<tr>
<td>1910-1920</td>
<td>34.85 per cent</td>
<td>0.85 per cent</td>
</tr>
<tr>
<td>1920-1930</td>
<td>39.70 per cent</td>
<td>2.91 per cent</td>
</tr>
<tr>
<td>1930-1940</td>
<td>42.61 per cent</td>
<td>5.63 per cent</td>
</tr>
<tr>
<td>1940-1950</td>
<td>48.24 per cent</td>
<td>3.52 per cent</td>
</tr>
<tr>
<td>1950-1960</td>
<td>51.76 per cent</td>
<td>4.82 per cent</td>
</tr>
<tr>
<td>1960</td>
<td>56.58 per cent</td>
<td>—</td>
</tr>
</tbody>
</table>

* Expressed as a percentage of the total population.


At some point between 1821 and 1851 many villages and parishes in England and Wales reached their population peaks (64). Since then they have been characterized by continuous population decline due to shrinking employment opportunities in the countryside (65). Rural depopulation in Western Europe, although later (66), followed a similar pattern. In Spain, however, rural municipios generally did not reach their population peaks until at least the 1901-1910 period (67); and for some – especially in Andalucia (68) – it was much later (69), for Cataluña often much sooner (70).

The process of rural depopulation followed a depressingly similar pattern everywhere. In England and Wales, for example, a steady decline in rural
population in the first half of the nineteenth century reached flood proportions in the 1870s and 1880s (71). Ogle, in a sample-survey of farms of over 100 acres, has shown that there was a decline of 17% in the hired labour force between 1871 and 1881 (72). Eversley (73), and Bowley (74) estimate a decline of at least 40% in the agricultural labour force of England and Wales between 1861 and 1901. One of the main reasons for this decline was the "crude wage ratio" between agriculture and industry. This ratio stood at about 50% throughout most of the second half of the nineteenth century (75), and according to Bellery (76), was a mere 44% during the 1850-1857 period. Rural depopulation in Spain, a constant factor at least since accurate census records have been kept (77), did not reach flood proportions until 1911-1920 (78). An estimated decline of 42.4% in the agricultural labour force occurred between 1900 and 1960 (79). Crude wage ratios between agriculture and industry are less relevant in Spain than in England and Wales (80). The crude wage ratio of only 40.5% in 1955 (and all the empirical evidence suggests that it was no better in the 1930s) (81) did rise to 57% in 1964 (82) due to increasing scarcity of labour in the countryside forcing up agricultural wages (83).

In Western Europe generally there was a tendency between 1800 and 1880 for agriculture and industry to expand together (84), competing increasingly in the same labour market (85). All the available evidence suggests that agriculture was unable to compete with industry as far as wage-rates were concerned. Grain production expanded (86) while supplies of harvest labour declined (87). After 1870, the introduction of mechanization (where possible) (88) became an inevitability in West European agriculture because of recurring harvest crises (89). A similar expansion of agriculture and industry occurred in Spain especially between 1911-1920 (90). Mechanization of Spanish agriculture only became significant from the late 1950s (91).

Step by step with a reduction in the permanent agricultural labour force
in Western Europe there had been a decline in cottage crafts (92). Rural craftsmen were forced to join the migrant flood, partly because of declining demand in the countryside due to rural depopulation, partly because of the rural isolation of the countryside by the mass-produced articles of a factory age. The migration of rural craftsmen undoubtedly contributed in no small way towards the introduction of mechanization in the countryside since they supplied a fair proportion of the occasional harvest labour (93). Especially important was the loss of occasional female labour due to the very rapid decline of female, rural craft industries, like glove and lace-making (94). Spanish statistics relating to the agriculturally-active population are unreliable (95). Nevertheless, there is some evidence that as the total agricultural population declines there is a temporary rise in the proportion of females employed in agriculture (96). There is some evidence also that rural depopulation in Spain is more selective of non-agricultural elements in the labour force (97). Rural-urban migration, as in the western world generally, was by no means confined, therefore, to the ranks of agricultural labourers and small artisans. Previously prosperous minor industrialists, business-men, shopkeepers and the like, suffered in the general economic decline of the countryside (98). In Spain, there was a time-lag of close on a hundred years in some localities, nevertheless the twin processes of internal migration and rural depopulation followed the European norm in most respects.

III. INTERNAL MIGRATION PATTERNS IN SPAIN: HISTORICAL AND MODERN

1. Historical migration patterns in Spain

A recurring theme in world history has been the constant to and fro movements of population linked to the political or economic fortunes of nation-states or great empires.

The hypothesis proposed here is that over a long period of time there is
often a complete reversal in migration directions for either political or economic reasons. From the sixteenth to the middle of the twentieth centuries, the primary direction of trans-oceanic migrations in the world was from Europe outwards. In recent years, the centrifugal movements of the past have been replaced by the powerful centripetal movements of the present. In the nineteenth century there was a drift of population in England and Wales from south to north; in the mid-twentieth century the drift has been reversed. Historical population movements in Spain were characterized first by a drift to the north and the centre, then by a drift to the south and coast.

(a) The drift to the north (eighth to tenth centuries)

The first large-scale movement of population in Spain probably came about with the setting up of Spanish Islam (99). One must assume from the fragmentary evidence left to us, that the depopulated plateaux (100) of León and Burgos were abandoned to seasonal raids (101) as the christianized Hispano-Roman inhabitants of the Meseta fled northwards before the scimatars of the advancing Berber-Taria invaders (circa. 711), taking refuge in the mountainous strongholds of Northern Castile, Asturias, Galicia and the Pyrenees. Presumably as a result of strong in-migration these mountain refuges remained particularly densely populated between the eighth and tenth centuries (102). In contrast, a vast desert several hundreds of kilometres wide separated the Christian Kingdoms from Muslim Spain (103) with the Douro valley being very sparsely populated throughout the eighth and ninth centuries (104). The Islamic conquest had been rapidly concluded between 711 and 713 by no more than 25,000 men (105), the Muslims coming "as conquerors not as migrating peoples" (106). According to Jackson (107), the "vacuum" which separated Christian and Islamic Spain was to some extent deliberately created, Alfonso I of Asturias (739-757) withdrawing the urban populations of Tuy, Astorga and León to the north of the Cantabrian moun-
tains. Be this as it may, population growth in the constantly moving frontier region between Islam and Christianity was not helped by the almost continuous warfare which raged from the eighth to the fifteenth centuries (108), although both sides hastened to protect their own frontiers from time to time by founding or repopulating towns (109). Successive Moorish invasions by the Almoravids (circa. 1086) and the Almohada (circa. 1172), which must have involved some movement of Moorish elements northwards (110), did no more than stem the tide of Christian reconquest which flowed strongly southwards, at least from 1080 when Toledo fell to the Faith. According to Vicens Vives, « the winning of the first great struggle against the death-rate » (111) resulted in the population of Spain almost doubling between 1130 and 1340. « The pressure of necessity in a poor country with a rising population », notes Vilar, « made the Reconquista everywhere into a continuous process of colonization as well as a Holy War » (112).

(b) The drift to the south (thirteenth to seventeenth centuries)

The drift to the south of Moorish and Christian population alike gathered force with the opening of the flood-gates of Andalucía after the battle of las Navas de Tolosa in 1212. Córdoba fell to the Christians in 1236, Sevilla in 1248, Valencia fell by another hand in 1233 — so that by 1270 only the old Kingdom of Granada was left to the Moors. The largest influx of Castilian settlers into Andalucía (113), however, followed the fall of Granada in 1492 and the expulsion of Muslims of recent immigration by Isabel of Castile (114). Much has been made of the roles played by the Orders of Calatrava, Alcántara, and Santiago in the colonization of rural Andalucía (115). In the opinion of Vicens Vives (116), the drift to the south was not uniform and in fact mainly benefited the towns and cities of Andalucía. According to Jackson (117), captured cities were almost immediately emptied of their Muslim inhabitants (partly as a measure of security) and refilled with more trustworthy non-Muslim elements. Moorish refugees expelled from
the towns helped to swell the ranks of the discontented in the countryside who suffered great economic hardship. During the 1260s it became necessary for both James I of Aragón and Alfonso X of Castile to put down revolts in Murcia and Andalucía respectively, obliging most of the Muslim agricultural workers to emigrate to North Africa or to Granada (118).

Out-migration patterns from the northern mountain-cantons were by no means uniform. The core of the Catalan nation had been but sparsely populated in comparison with its counterparts in northern Castile and León (119). This "vacuum" in the Pyrenean zone proved to be a strong attractive force for immigration by Gascon peasants and shepherds, who by the end of the sixteenth century represented 20% of the entire Catalan population (120).

The fifteenth century saw not only the drift of population to the south but also cityward migration, especially in Castile where the first signs of rural depopulation were beginning to show (121). The urban population at the beginning of the fifteenth century was, however, probably no more than 10-12% (122). Trends already apparent in the fifteenth century became more obvious in the sixteenth. Hamilton estimated an increase of about 15% in the total population of Castile between 1530 and 1594 (123), with annual increases, according to Lynch (124), of about 65,000 before 1540 and 40,000 afterwards. By 1550 the value of real wages was approximately 20% lower than the average for the 1501-1520 period, and there was a further 12% fall by the end of the century (125). It is quite clear that the countryside could not support such population increases, against this background of rural poverty (126) and declining demand for labour due to the expansion of the Mestia (127). Lynch is of the opinion that a reversal of the demographic trend in Castile began as early as 1575-1580 (128). Certainly rural depopulation was quite common by 1600, out-migration streams being intensified due to the sale of common grazing lands (tierras baldías) to the Church and the Nobility (129). Such was the flight to the towns that
Segovia had acquired a population of 25,000 by 1591, Toledo about 60,000 by 1600, and even Cuenca 1,500 (130). The growth of Madrid, the capital from 1561, doubled in population in twenty years (see Table III). (131).

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td>circa. 2,000 - 3,000</td>
</tr>
<tr>
<td>1300</td>
<td>circa. 3,000 - 5,000</td>
</tr>
<tr>
<td>1400</td>
<td>circa. 5,000 - 10,000</td>
</tr>
<tr>
<td>1500</td>
<td>15,000</td>
</tr>
<tr>
<td>1546</td>
<td>30,000</td>
</tr>
<tr>
<td>1594</td>
<td>55,000</td>
</tr>
<tr>
<td>1625</td>
<td>70,000</td>
</tr>
</tbody>
</table>


Many other Castilian and Andalucian towns and cities doubled their populations in the last sixty years of the sixteenth century (132). Elliott is of the opinion that "what passed for depopulation in Castile during the second half of the sixteenth century may often have been a redistribution of population as a result of internal migrations" (133). Only eleven Castilian towns out of thirty-one lost population between 1530 and 1594 and nine of these were in Northern Castile. The movement of population to the towns, Elliott concludes, was thus part of a general drift of population southwards (134).

Dominguez Ortíz conceives the picture of "agro-towns" with populations of many thousands, separated from each other by fifteen or twenty kilometres of despoblado, as being a characteristic feature of the demography of Castile in the seventeenth century (135). Depopulation reached such a point that whole communities had to request a lowering of the exorbitant tax quotas which they had been allocated in the registers of 1591-1594.
We have evidence that at least 167 communities declared themselves to be despoblados during the seventeenth century with a view to procuring tax reductions (136). Despite the tendency for King's ministers (137), chroniclers (138), and the inhabitants of despoblados alike to exaggerate there is a correlation between Domínguez Ortiz's despoblados (139) and geographic factors (see Fig. 1). One hundred and forty eight of the 167 listed despoblados fall within Arid Spain - mainly within North and South Castile, Extremadura and Andalucía. The zone of maximum rural depopulation is in Guadalajara and Toledo provinces in the eastern part of New Castile. Twenty despoblados are listed by Domínguez Ortiz in Guadalajara, although according to the researches of Otto Quelle there are at least 90 in the province - mainly in the more arid area of Tertiary rocks in the west (see Fig. 2)(140).

The sixteenth and seventeenth centuries were an era of contrasts in more ways than one. Not only was there the contrast between rural despoblados and urban superpoblados, but also real regional differences in urban growth-rates (141) which in part were related to different internal migration rates. Many of the textile towns of the Meseta actually lost population. Toledo in 1691 had a mere 20,000 inhabitants, Segovia and Cuenca 25,000 and 5,000 respectively at the end of the century (142). Flourishing fairs towns like Medina del Campo and Valladolid suffered population losses too during the second half of the sixteenth century due to the loss of trade with North European centres (143). Urban retrocession thus spread southwards on the Meseta (see Table IV) but was counterbalanced, however, by steady growth in Andalucía. It is suggested that much of the growth in Andalucía was related to inter-urban migration from the declining urban centres of the central plateau. Sevilla and Cádiz became the twin focal points for Castilian in-migration in virtue of their monopoly of trade with the Indies (144). Sevilla in only sixty years between 1530 and 1590 doubled its population from 45,000 to 90,000 (145). The flight to the towns was particularly great
Fig. 1 The Location of 'Despoblados' (1591-1594)
Fig. 2 Despoblados in Guadalajara c.1594
between 1677 and 1687 when Spain was struck by calamity after calamity -
drought, floods, earthquakes, famine and plague. Nowhere was the plight
greater than in rural Andalucía in 1683 when no rain fell at all until
November. The cityward migration of peasants in Andalucía reached epidemic
proportions in that year (146).

Table IV
THE DECLINE OF MESETAN URBAN CENTRES, 1594-1646

<table>
<thead>
<tr>
<th>Urban centre</th>
<th>Population (heads of families)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1594</td>
</tr>
<tr>
<td>Toledo</td>
<td>10,933</td>
</tr>
<tr>
<td>Valladolid</td>
<td>8,112</td>
</tr>
<tr>
<td>Segovia</td>
<td>5,548</td>
</tr>
<tr>
<td>Salamanca</td>
<td>4,953</td>
</tr>
<tr>
<td>Cuenca</td>
<td>3,095</td>
</tr>
<tr>
<td>Palencia</td>
<td>3,063</td>
</tr>
<tr>
<td>Ávila</td>
<td>2,926</td>
</tr>
<tr>
<td>Burgos</td>
<td>2,665</td>
</tr>
</tbody>
</table>

* 1694.
SOURCE: J. Larraz, La Epoca del Mercantilismo en Castilla (1500-1700),
Madrid, 1943. Adapted from J. Vicens Vives, An Economic History

The sixteenth and seventeenth centuries were characterized by violent
and abrupt population movements: both natural and migrational. It is the
purpose of this thesis to study migrational movements, but it must be
emphasized that the greatest movements of all during the period were na­
tural ones (147). Spain lost 1,500,000 people during the seventeenth cen­
tury - or approximately 25% of its total population (148). Nearly all this
loss was confined to the Meseta (149). The provincial population of Ávila
fell from 37,756 vecinos (150) in 1591 to 13,542 in 1646 and 10,061 in 1710.
Guadalajara province followed a similar pattern with 37,901 vecinos in 1591
and only 16,974 in 1710 (151). Domínguez Ortiz rightly emphasizes that the
vast majority of the souls lost to the Meseta were not "redistributed elsewhere, they did not colonize the spaces left empty by the Moriscos in Levante...most died of hunger, of illness, or injuries received in the interminable wars..." (152). Changes in Castilian population at a generalized level are summarized in Fig.3.

It has already been shown that during times of hardship, famine and plague migrational movements of population took place. There was a tendency for the rural population of the interior to move not only to the cities swelling the ranks of adventurers and beggars (153), but also to the coasts. This tendency was observed during the plagues of 1590-1600 (154) and 1647-1656 (155). In times of great economic hardship coastal centres could supplement their food supplies by fishing or imports of grain (156). The detailed breakdown of such migration streams is complicated, however, by two factors - geographical compartmentalism (157) and "economic cantonalism" (158). One aspect of geographical compartmentalism was particularly bad communications. "The greatest abundance", writes Kolb, "often exists in one province while in the next, which lies 10, 15 or 20 miles distant, the other side of a mountain range, famine may prevail" (159). An example of economic cantonalism was the distinct reluctance of Castilians to migrate to Valencia - a foreign country with different customs and language from their own.

Regional contrasts in the sixteenth and seventeenth centuries were also related to the enforced expulsion of the Moriscos (160). The 1609-1611 period especially must be looked upon as the second act of the Reconquista (161). Economic necessity had dictated policy on the Moriscos for a century after the first expulsion of dissident Muslims in 1492, "too few productive workers being prepared to move southwards to work in the fields or in industry" (162). By 1609, when the Moriscos were found to be in collusion with the Sultan of Turkey, the King of Morocco, and Henry IV of France,
Fig. 3 Population
in Castile 1596-1700
there was no longer a shortage of labour and since they were no longer essential to the economy of Granada their expulsion was decreed on security grounds (163). Over 250,000 (or 3% of the total Spanish population) were expelled (164), and their enforced emigration resulted in sharp regional contrasts in rural out- and in-migration streams. In the Kingdom of Valencia the expulsion affected 23-25% of its inhabitants, in Aragón 16-20%, in Cataluña only a little over 1%, and in Castile less than 1% (165). There was a large inflow (as in the days of the Reconquista) of farmers from Galicia and Castile into the vacant lands of Valencia, Aragón and to a lesser extent Andalucía. The gaps left by the outgoing Moriscos were never, however, completely or successfully filled (166). The problem of Moorish depopulation was particularly serious in Aragón and Levante. Here one in three of the population had been Moorish in origin. Here the Moorish elements of the suburban slums, scrub, hill and highland country, with their faster rates of natural increase (167), had (before the expulsion) been in danger of engulfing Christian urban and rural settlements alike. In 1646 Valencia was still depopulated (168). In 1653, according to a contemporary source, 205 of the 453 hamlets occupied by the Moriscos up to 1609 were still abandoned (169). These lay mainly in the arid highland, hill and plateau country. The resettlement of the remaining 248 hamlets had required the mainly short-distance (170) transfer of 13,000 Christian households—between 45,000 and 52,000 souls—in all (171). Even the fertile huertas of Játiva and Gandía were underpopulated (172).

Each major period of internal migration, historical and modern, has been associated with strong external migration. The thirteenth to the seventeenth century period was no exception. We have already alluded to French immigration into Cataluña (173), and the expulsion of the Moriscos from the peninsula. Small but important contingents of Spaniards emigrated to the Americas in the sixteenth century, to be succeeded by much larger contingents in the
seventeenth (174), the vast majority coming from Andalucía and Extremadura (175). Perhaps between 20,000 and 25,000 Genoese immigrants were attracted to the flourishing ports of Barcelona, Valencia, Sevilla and Cádiz by the beginning of the seventeenth century, attracted by the flow of treasures from the Americas.

(c) The drift to the periphery (eighteenth century)

Between 1708 and 1808 the population of Spain increased by about 4,000,000, or approximately 50% (176). Population increase during the century was neither uniform in time nor space. It was only after 1770 that rates of natural increase approached the European norm at last (177), after a thousand years of vicissitudes (178) and the last hundred years of continuous misfortune. The geographical distribution of population increase was most uneven. Just as Cataluña had lost her biological impetus as a result of plagues in the fourteenth and fifteenth centuries (179), so Castile was laid low by the plagues, famines and migrations of the sixteenth and seventeenth centuries (180). The centripetal tendencies noted by Ruiz Almanza for the beginning of the seventeenth century (181), had been completely reversed. Valencia trebled its population in the course of the eighteenth century; Asturias, Galicia, the Basque provinces, Cataluña, Andalucía and Murcia all either doubled or just failed to double their populations. Only Aragón in the interior did well. Population in Extremadura was stationary and in Castile even declining (182). The peripheral regions of economic progress could afford better nutrition (183). Grain prices in Barcelona remained more or less constant due to the levelling effect of imports; those in Castile fluctuated wildly in response to local market and climatic conditions (184). According to Vilar (185), wages in Barcelona rose 66 to 100% between 1774 and the end of the century while in Madrid they rose only 14 to 30%. Such changes in economic fortunes could not but be reflected in population movements both natural and migrationary. Madrid capital increased
from 130,000 in 1723 to 167,000 in 1797; Barcelona from 37,000 in 1714 to 111,000 in 1787 and 115,000 in 1802 (186). The Kingdom of Castile had over 73% of the total population circa. 1600 (187), but by the beginning of the eighteenth century the twenty-six provinces of the interior had only 60% of the total population (188), and by the mid-nineteenth century only about 49% (189).

"Farming in Spain carried on under such difficult natural conditions", according to Slicher Van Bath, "is specially sensitive to economic changes" (190). In the sixteenth and seventeenth centuries villages had been depopulated by great landowners when cereal prices were low and it was more profitable to keep sheep (191). In the eighteenth century the growth of population had the effect of raising wheat prices (192). The demand for arable land and agricultural labour thus acted to some extent as a brake on migration streams to the periphery. Nevertheless, there were still despoblados and of the 932 recorded in the census of 1797 at least 800 were in the arid interior of Spain (193).

Little concrete is known of the migratory movements of the eighteenth century (194), although there is little doubt that (as in previous centuries) the Spanish population was extremely mobile. The freedom of Spaniards to migrate (195) contrasted with the situation in England and Wales, where the Law of Settlement of 1795 allowed parish authorities to eject any new arrival "under the pretence that he might become chargeable to the local poor rates" (196). The main migratory trends in eighteenth century Spain appear to have been as follows:

1) A continued drift southwards from the over-populated Cantabrian and Pyrenean regions (197). It is significant perhaps that 17 of the 40 urban centres with more than 10,000 population in 1787 lay in Andalucía (193). The movement was partly a natural process, partly politically inspired. Various attempts were made to resettle depopulated areas of the Sierra Morena using both Gallegos and fo-
reign immigrants (199).

2) A continued drift citywards which was mainly short-distance and regional at most (200). As in previous centuries the towns were essentially parasitic growths of an agrarian economy (201) whose growth was nurtured by increasing numbers of beggars and vagabonds (202). There is evidence that the craft guilds of Barcelona took advantage of cheap short-distance in-migrant labour, while the migrants themselves retaliated by making the most of the free board and lodging provided until they could perhaps move to better jobs (203).

3) Stronger migration streams than in previous centuries towards the periphery. There was, however, also a counterstream from the periphery southwards - mainly of commercial elements from Cataluña, artisans and tradesmen from Santander, day labourers from Asturias and Galicia (204).

4) A drift southwards of seasonal rural migrants. There has been a tradition of seasonal migration in Spain dating back at least to the sixteenth century (205). Ruiz Almansa refers to the emigración golondrina from Galicia to the harvests of Castile, Extremadura and Andalucía during the 1590-1640 period (206). Such seasonal migrations increased in the eighteenth century due to the population explosion and the lack of sufficient harvest labourers in the great wheatlands of the interior.

5) Internal migration (as in the past) was accompanied by emigration to the Americas (207), and by continued French and foreign immigration to cosmopolitan centres like Cádiz, located mainly along the periphery (208).

2. Modern migration patterns in Spain

According to Habakkuk and Postan (209) and the International Bank for
Reconstruction and Development (210), an absolute fall in the active (and dependent) agricultural population is a sure indication of economic growth and structural change taking place within a nation's affairs (211). In most of Western Europe this phase ended in the second half of the nineteenth century (212). In Spain the number of people employed in agriculture continued to grow. There was considerable unemployment and underemployment of the agricultural labour force. Expansion of the industrial and service sectors could not keep up with rates of overall population growth. Overseas emigration lessened the problem, but there was no absolute decline in the number employed in the agricultural sector in Spain until the 1910-1920 period (213).

It is suggested in this thesis that there have been at least three internal migration phases in Spain during modern times, and that each of these phases was connected with significant changes in the agricultural and industrial landscapes. These phases can be approximately dated as follows:

(a) First migration phase (1830-1910).
(b) Second migration phase (1910-1939).
(c) Third migration phase (1945 to the present day) (214).

(a) The first migration phase (1830-1910)

The 1830-1840 period saw the first shy appearance of the Industrial Revolution in Cataluña and the Basque provinces (215). Important agricultural changes also took place with large estates being bought by rich city people attracted by the high prices for agricultural products due to the continued rise in population within the peninsula (216). The 1833-1860 period saw an annual average increase in population of 110,000 (217). The population explosion first made its mark in Cataluña. Nadal has related the decline in child mortality in the first years of the nineteenth century to widespread vaccination against smallpox (218). Cataluña (the site of the first victory over normal mortality in Spain) (219) increased its share of the total population of Spain from 8.1% in 1797 to 10.5% in 1857 (220).
Meanwhile the two Castiles, León, Extremadura, Navarra and Aragón declined from 41.6% to 37.4% (221).

In the opinion of Vicens Vives, "until 1880 - the Spanish peasant had few prospects of solving his two great problems - work and food - by migration..." (222). Migration from the centre to the periphery was to some extent hindered by two factors. Firstly, by the new roturaciones in many villages of the interior which allowed new mouths to be fed - albeit at the bare subsistence level (223). Secondly, by the higher rates of natural increase in the periphery (224), which reduced job opportunities for prospective migrants from the interior. Despite the fact that Vicens Vives and other authorities consider migration in Spain to be unimportant before 1880 (225), significant migration there was (226). "The quickening of social change - economic, political, and cultural - began clearly only after 1840, when population pressure began to be felt. It was then", notes Giner, "that internal migrations were spurred by sheer population pressure in the rural areas, and not merely by the attraction of the industrial and mining centres" (227).

Habakkuk has pointed out that the possibilities of subdividing plots or extending the cultivated zone within a rigid social framework is not unlimited (228). It is unlikely, therefore, that the rapid growth of the Spanish population in the 1833-1860 period (229) could have taken place unaccompanied by significant migration streams - especially after 1850 when the first "products" of the population explosion began to appear in the labour market. One quarter of the track of the rail network existing in 1900 was laid down between 1848 and 1865 (230), thus making migration easier than ever before. Other great public works like highway construction also attracted migrant labour, but the main migrant foci were urban centres. The fifteen largest cities in Spain (231) grew by 50.9% between 1800 and 1857, and by 43% between the latter date and 1877 (232). Growth was mainly achieved
thanks to in-migration, and migration was greater after 1857 than before it. Madrid, for example, with a natural increase averaging only 1.47 per thousand in the 1855-1890 period (233), grew by 62% between 1857 and 1877 (234). The city of Granada, with no natural increase, grew by 20% over the same twenty year period (235). In 1871, 23% of the population of Getafe (near Madrid) was born outside the municipio (236). Eight per cent of the lifetime migrants to Getafe had arrived between 1850 and 1857 and 87% between 1856 and 1871 (237). According to the 1877 census, 45.4%, 19.5% and 13.7% of the provincial populations of Madrid, Barcelona and Vizcaya respectively were born outside the provinces where they were censored (238) - proof indeed of migration in the pre-1880 period.

In what, for many cities in Spain was a pre-industrial phase, urbanization encouraged internal migration (239). Levasseur's law - that "the force of attraction in human groups like that of matter is in general proportional to the mass" (240) - did not, however, operate with precision. On all but a few occasions since accurate census records have been kept (241), the most important provincial "growth-centre" for population has been the capital. Here in the "pre-industrial" city (242) many mainly short-distance migrants could find a useful place in society, providing small personal services (243) within what Dwyer calls "a shared poverty system" (244). Madrid, where the opportunities for this type of service were greatest, was surpassed only by Barcelona in absolute population increase between 1857 and 1900. Yet, as a percentage of the 1857 population, this was a mere 92% compared with Barcelona's 196%. Seven provincial capitals had growth rates greater than that of Barcelona, and fifteen (including Barcelona) greater than that of Madrid. A crude interpretation of Fig. 4, ignoring fertility and mortality differentials, suggests the importance of the peripheral provinces as in-migration centres (245). The drift to the coast, in some instances inspired by industrialization, in both the north-west and the south-east was mainly to ports.
Fig 4 Growth of Capitals of Provinces 1857-1900

More than Madrid

Percentage Increase

Less

Over 370

278-370

185-277

92-184
of embarkation for the Americas and North Africa respectively. In the interior, the importance of the service function is mirrored in the growth of provincial capitals along the main axes of communication (246).

The empirical evidence suggests that urbanization was encouraged (or discouraged) by such factors as adequate transport facilities and water-supplies – the introduction of improved urban services varying considerably on the human time-scale. Igualada (in the Catalan Interior Depression) declined from 14,000 in 1357 to 10,000 in 1900 due to the lack of adequate rail connections (247). Calatayud gained population at the expense of Daroca after 1826 due to improved road and (later) rail communications (248). Medina del Campo grew from the 1860s when it became an important rail centre (249); Venta de Baños remained more or less static until the upgrading of the railway station in 1922 (250). Water-supply was the limiting factor in the growth of Albacete until 1905 (251), and for León until 1950 (252). The rapid growth of population in Madrid during the 1860-1877 period was partly consequent on the capital becoming a national rail centre, and partly due to improved urban water-supply following the construction of the Canal de Isabel II (1851-1858) (253). At least sixteen provincial capitals expanded during the 1857-1887 period partly due to the incorporation of adjoining rural and semi-urban areas (254). Urbanization often implied the pulling down of ancient city walls – Barcelona (1854) (255), Madrid (1868) (256), Cartagena (in the 1890s) (257) – and urban redevelopment schemes (258) which attracted rural migrants. The Plan Castro envisaged for Madrid in 1857 was not fully implemented until 1891 (259), but the planned ensanche (260) began to materialize from the early 1860s (261). In other instances major exhibitions resulted in a construction boom and rapid rates of immigration for a few years – for example the great exhibitions of Barcelona (1888), Zaragoza (1908) and Sevilla (1924) (262).

Out-migration from the rural areas was associated with strong "push"
factors (263). These are often highly localized in nature, but include negative "push" factors of more general application at regional level. For example, the ravages of the Carlist Wars which affected the north-east in the 1857-1877 period, the hambre Andaluz of 1882 which affected the south-east, cholera in 1885 which cast the shadow of death over Teruel and Soria provinces, and phylloxera which was widespread in Spain between 1878 and 1903 (264). "Pull" factors undoubtedly played their part, and it is tempting to read into Fig. 5 the "pull" of the expanding industrial regions of Barcelona and Bilbao, of Madrid the capital, and the attraction of overseas magnets acting on Galicia and Eastern Andalucía. Such a simple interpretation, ignoring the "push" factors mentioned above, would imply short-distance migration. When dealing with the phenomenon of in-migration into the city of Barcelona - which grew rapidly from 1836 (265) as a result of industrialization - it is customary to note that the first immigrants came from the rural areas of Cataluña (266), and to assume (following Nadal) that up to 1880 in-migration was mainly from the Catalan provinces of Huesca, Lérida and Gerona (267). In actual fact, from at least 1850 (268) many migrants had come from further afield - from Valencia and Aragón. Bolós shows that the 1860 population of the city included 12.5% life-time migrants from the rest of Cataluña as well as, significantly, 25.4% from the rest of Spain (269). In similar fashion, Madrid attracted both short and long-distance migrants. A study of the residents of Calle de Alcalá in 1890 revealed that only 32.8% of those living in the famous Madrileñan street were born in the city, while a further 4.4% came from the rest of the province (270). Guadalajara, Toledo, Cuenca and Ciudad Real provinces collectively supplied 10%: Galicia, Asturias, Santander and the three Basque provinces 20.5% altogether (271); the eight Andalucian provinces a mere 5.2%. Getafe (being a much smaller settlement than Madrid in 1871 and largely rural in character) (272) mainly attracted short-distance migrants from the provinces of Madrid, Cuenca, Guadalajara, Segovia and Valladolid (273). Leganés (another dormitory settlement for the
capital) (274) had 14.6% of its population in 1855 born outside the village; mainly attracting short-distance migration from the rest of the province and Toledo, but including important male minority elements from Lugo and Oviedo provinces (275).

In summary, the overall pattern of migration which emerges during the first migration phase (1830-1910) is of a general quickening of the migration process after 1857, partly aided by increasing urbanization and industrialization, partly by improved methods of communication. Rapid demographic developments after 1833 combined with strong "push" factors in the countryside after 1878 (276) to expel surplus rural population, economic and political changes taking place in an atmosphere of great social tension which affected rural areas and towns alike (277). The empirical evidence seems to support the hypothesis: that after 1870 the cities could only absorb a part of the potential influx (278). The Spanish contribution to European transoceanic migrations rose significantly in the second half of the nineteenth century from 0.1% in the 1846-1850 period to 13.4% between 1896 and 1900 (279). According to Ruiz Almansa (280), 724,000 left rural municipios between 1901 and 1910, but only 311,000 were absorbed by provincial capitals; the rest emigrated to America (281). Out-migration patterns are obscured by the lack of direct statistical evidence and the concealing effect of high rural birth-rates. Depopulation of provinces (282) or a fall in the rural density of provincial populations (283) give only extreme examples of out-migration. In-migration patterns, although mainly short-distance in character to provincial capitals, include long-distance movements mainly to Barcelona and Madrid from the traditional areas of Catalan and Castilian regional influence (284).

(b) The second migration phase (1910-1959)

There were little signs of modern economic development in Spain at the turn of the twentieth century (285). The fifty provincial capitals increased
their percentage of the total Spanish population by only 0.60% between 1901 and 1910 compared with an increase of 1.69% in the 1911-1920 period (286). Industrial expansion was rapid during the second decade of the twentieth century, and a considerable expansion in electricity production took place between 1915 and 1922 (287). The changes in economic structure which took place in Spain mainly as a result of the First World War, not only resulted in an industrial boom but also in an agricultural crisis (288). There was a significant increase in the percentage of the agricultural active population expelled from the countryside during the 1911-1920 period (289), but after 1914 it became increasingly difficult to emigrate to the Americas (290). Those expelled from the countryside found their way in increasing numbers to the towns, where because of the inability of industrialization to keep pace with the rate of rural-to-urban migration too many were still forced to seek employment in the service sector (291). In keeping with the economic changes taking place, the second decade of the century saw also a dramatic increase in extra-provincial migration (292). If different authorities are consulted (293), up to sixteen provinces were affected by depopulation in the decade (see Fig. 6), compared with only two between 1901 and 1910. The development of mining activities in Oviedo and León (294) as a result of the First World War drew rural population from the provinces of Palencia, Salamanca, Valladolid, Zamora and Lugo, according to Melón Ruiz de Gordejuela (295). Zaragoza, according to the same source, acted as a magnet for in-migration from Huesca and Soria; Madrid depopulated Guadalajara, Segovia and Cáceres; while Bilbao drew on surplus rural population from Álava and Burgos. Almerians mainly emigrated overseas to Oran, while natives of Teruel and Castellón went chiefly to Valencia. Barcelona was the only important in-migrant centre to depopulate its own rural areas in a massive way.

The evidence suggested by Fig. 6 is that this first great modern example
of internal migration on a massive scale (296) in Spain affected the more advanced parts of the country. Spain, it could be argued, was doing no more than following the European pattern (297). Massive emigration overseas from Europe first began in the United Kingdom (298), the first country to experience the economic, social and demographic changes ushered in by the Industrial Revolution. Mass emigration from Italy first affected the more advanced northern part of the country and only later spread to the south (299). The north central provinces of Old Castile, León and the upper Ebro basin - as of yore - have been the "demographic heart of Spain" (300) supplying "the congested industrial districts of the peripheral zones" (301) with migrant labour. While there is no reason to challenge Houston's arguments (302), Melón Ruiz de Gordejuela's interpretation of migration patterns based on the evidence of rural depopulation needs major modifications (303). According to evidence supplied by García Barbancho (304), thirty-eight provinces showed a net migration loss in the 1911-1920 period - including León and Valencia. All the available evidence suggests that Andalucía lay beyond the pale, a world apart (305). There was some overseas emigration from Almería and Málaga; some short-distance movements to Sevilla and Cádiz provinces and the main mining zones of the Sierra Morena; some movements also from eastern to western Andalucía; but before 1930 there was no mass migration to other parts of Spain (306).

The picture presented by García Barbancho is of a slight slowing down of the out-migration process with partidos judiciales (307) showing a net loss due to migration of 878,000 between 1911 and 1920 compared with 949,000 in the previous decade (308). As Ruiz Almansa has noted (309), close on 60% of those expelled from the countryside between 1901 and 1910 emigrated overseas. What is more significant, therefore, is the evidence supplied by in-migration. There was a dramatic increase in partidos judiciales showing a net increase of population due to migration from 371,000 (1901-1910)
to 823,000 (1911-1920) (310) - an increase of 44.7% in in-migration. Provincial capitals, the chief centres for in-migration, increased their percentage share of the total from 69.3% (1901-1910) to 75.9% (1911-1920) (311).

The evidence from Barcelona suggests that internal migration in the 1911-1920 period was still mainly short-distance or regional character. The number of lifetime migrants from the rest of Cataluña increased during the decade from 11.9 to 20.5% of the total population of the city (312), although this was achieved partly through annexation (313). According to García Barbancho (314), only 17% of the net in-migration into the North-Eastern region (315) for the whole of the 1901-1930 period was intra-regional. Bolds has noted that non-Catalan migration into the city was mainly from Valencia, Murcia, Aragón and Castellón, the rest of Spain accounting for less than 1% of Barcelonans annual increase during the 1901-1940 period (316). In-migration into the Cantabrian and Levantine industrial regions was almost entirely regional in character between 1901 and 1930 (317).

Madrid, however, only drew 10% of its in-migrants during the same period from its province (318). Despite some evidence that Madrid lost ground relatively in the 1911-1920 period as an in-migration centre due to the expansion of industrial centres in other parts of Spain (319), its function as capital made in-migration more national in character. No less than 46.7% of life-time migrants to the city in 1920 came from outside the traditional in-migration regions of Old and New Castile and Extremadura (320). Western Andalucía, in contrast, obtained 68% of its in-migrants between 1901 and 1930 from within the region (321), and most of the rest from Eastern Andalucía.

Trends begun in earlier decades became more evident between 1921 and 1930. The agricultural active population fell by 7.72% compared with 2.14% in the previous decade (322), although rural depopulation was less widespread (323). Net out-migration losses increased to 1,169,000 (324) of
which 1,079,000 was absorbed within Spanish frontiers (325) - 809,000 of net in-migration being to provincial capitals (326). New trends became apparent also, especially a polarization of in-migration patterns. Madrid and Barcelona showed increases of 7.0 and 6.7 between 1921 and 1930 in the percentage of persons born outside the respective provinces where censored, compared with a national average increase of only 2.0% (327). Ten selected partidos judiciales increased their intake of all in-migrants from 35% (1901-1910) to 56% (1921-1930) (328). Polarization was partly related to improved communications - especially the provision of village bus services (329) - and partly due to the decline of mining centres as in-migrant foci (330). The non-Catalan population of Barcelona city leapt from 29.6% in 1920 to 34.3% in 1930 (331). Between 1920 and 1930 there was an increase of 47.6% in the migrants arriving in the city from Levante, but 67% from Galicia, 71% from New Castile, 72.5% from Aragón, and a massive 115% increase of migrants from Andalucía (332). Madrid increased its share of in-migrants from 26.1% of the national total in 1920 to 28.7% in 1930 (333), although in this instance in-migration became a less important factor in the growth of the city than in previous decades (334).

The third migration phase is separated from the second by the sharp economic and political divide of the Civil War (1936-1939). As in the United States during the depression of the 1930s there was a return movement to the land (335). This has been substantiated for Cataluña by Llobet (336), but it can be detected throughout Spain by a careful comparison of the 1930 and 1940 census figures (337). This return movement to the land was most strong in the main in-migrant areas. The percentage of "native-born" residents within the cities of Madrid and Barcelona increased for the first time this century between 1931 and 1940 - with huge increases of 12.65% and 7.91% respectively (338). There is, however, conflicting evidence of much short-distance in-migration to urban areas (339) and to
provincial capitals especially (340) - "the fleeing of population from the countryside" motivated, according to Gavira (341), by the effects of the Civil War.

The seeds of the third migration phase, however, had already been planted before the Civil War. The first migrant from Castellar de Santistebein in the province of Jaén had settled in the Barrio de Jesús y María (Barcelona) (342); the first native of Martos, also in Jaén, had arrived in Pozo del Tío Raimundo (Madrid) (343). In the immediate post-war era the first "aspiring" young migrant (344) had left the villages of rural Spain during the rigorous famine years of 1940-1945 (345), unable perhaps to sink back into the rural morass after having seen the outside world through the medium of military service (346).

(c) The third migration phase (1945 to the present day)

The 1941-1950 period saw a fall of 6.1% in the agricultural population (347) although rural depopulation only affected three provinces (348). In-migration was greater than during the 1921-1930 period (349), yet a smaller number of migrants found their way to provincial capitals (350). The trend already apparent from the 1921-1930 decade (351) to migrate longer distances became more apparent after 1940 (352), especially in the southern half of Spain. Cabo Alonso has shown that between 1945 and 1955 twenty-three Spanish provinces had net migration losses with respect to their urban population (353). These provinces form a huge almost "windowless" block covering the southern two-thirds of the country (see Fig. 7). Significantly as a trend-setter for the next decade, thirty-four provincial capitals showed a decline in net in-migration compared with the 1931-1940 period (see Fig. 7) (354), although only two showed an actual loss of population as a result of out-migration (355). Despite the apparent decline of provincial capitals as centres for in-migration they increased their percentage share of the total population by 3.08% compared with 2.82% in the previous decade (356).
The empirical evidence suggests a further polarization of in-migration streams, although paradoxically industry in the main Catalan and Basque migration zones spread outwards along lines of "least transport effort" (357) in a semi-circle 50-70 miles from the main in-migrant centres due to what Myrdal calls "circular and cumulative causation" (358). Cities like Madrid and Barcelona had already reached saturation point (359) but were able to absorb further in-migrant hordes through the annexation after 1943 of low-density semi-urban contiguous zones (360). Despite the increase of long-distance extra-provincial migration during the 1940s the dual character of Spanish migration remains. Iglésias has shown that in Cataluña between 1860 and 1950 short-distance Catalan migration from the litoral and pre-litoral zones increased from 59.03% to 76.85%, while the influx from the Catalan Pyrenean and pre-Pyrenean zones declined from 10.64% to 4.85% (361). In a similar fashion Madrid depopulated most of the rural hinterland of its province (362). The deserted caseríos in the vicinity of Eibar were all part of the same process (363).

The third migration phase began in earnest in 1945 after the relatively slack years of 1935-1944 (364). Available evidence suggests that as a first migration wave subsided another migrant wave hit the main in-migrant centres in 1947 or 1948 (365). The procedure was repeated with a still stronger wave - varying in its time of arrival from 1953 to 1957 according to local in-migrant centre conditions (366) - building up its force until it crashed against the rocks of stabilization in 1959 (367). Periodic in-migration is matched by periodic out-migration waves in the countryside (368). By the use of indirect methods García Barbancho has been able to show how both in- and out-migration streams increased in intensity between 1951 and 1955 when compared with the 1946-1950 period (369), giving 1,583,000 net in-migrants for the 1950s compared with 1,138,000 for the previous decade (370).
Intensification was the main characteristic of the 1950s. Between 1951 and 1960 the agricultural population fell by 9.16% (371). Intensification of net in-migration was matched by an intensification of net out-migration with 2,295,000 net out-migrants leaving the countryside compared with 1,054,000 in the 1940s (372). Rural depopulation became much more intense affecting eighteen provinces (covering 44.2% of the national area) which showed a population loss of 24.9% (373). It is not uncommon from 1950 (374) for municipios and whole provinces to lose 1% of their 1950 populations annually, (see Figs.8 and 9) and then, hemophilia having set in, to continue to lose 1% of their 1960 populations annually.

Intensification of extra-provincial, long-distance migration streams is indicated by the fact that thirty-nine or forty provincial capitals exhibited reduced net in-migration gains (375), sixteen according to García Barbancho showing net migration losses for the decade (see Fig.10) (376). Internal migration becomes truly national in character as is substantiated by many case-studies (377). Distance is no object. Sabiñánigo in the Aragonese Pyrenees attracted migrants from distant provinces like Córdoba and Jaén (378). Valladolid (only 192 kilometres from Madrid) sent the greater proportion of its extra-provincial migrants during the 1945-1956 period to the industrial regions of Asturias and the Basque provinces (379). Houston has shown that in 1950 the least mobile populations were found in Galicia, New Castile, Extremadura and Andalucía (380). Traditional provinces for life-time in-migration up to 1950 are shown in Fig.11 (381). The greater mobility of population in out-migration regions like Old Castile and Aragón is reflected in two "migration axes" linking up the main in-migrant zones. The lack of similar "intervening opportunities" on a provincial scale in other out-migration zones may be a factor explaining the lower mobility of population in Galicia, New Castile (excluding Madrid), Extremadura and Andalucía (382). Post 1945 it was these less mobile migrant elements which
were unleashed on in-migration centres large and small. In 1940, for example, there were only two Gallegos resident in Eibar, but between 1947 and 1957 an estimated 3,000 more arrived (383). The Andalucian element in the population of Madrid rose from 10.06% in 1920 to 17.07% in 1960, while the Extremadian contingent escalated from 2.62% to 7.60% (384). Over the same period, the Andalucian percentage of the population of Barcelona rose from 2.82% to 7.01% (385), the Galician-Asturian from 0.85% to 2.15%, and the Extremadian from 0.23% to 0.53% (386). In short, intensification of both in- and out-migration streams resulted in internal migration becoming everywhere more national in character. The mechanics of chain migration are seen in operation, the pied pipers who had gone before attracting countless others in their wake. During this period in Spain there is very rapid industrial and urban development, and as a result the rural landscape is depopulated on a scale never before seen in modern times. Massive migration is now nation-wide, with Andalucía the main launching platform for rural migrants. Differential erosion is at work, however; irrigated and non-irrigated areas are depopulated but not on the same scale. (387). The existence of civil engineering works as at Aldeadávila (388), or some other local circumstance (389), leads to infinite variations in the pattern.

According to Ros Jimeno (390), about one third of all internal migration in Spain is intra-provincial. Díez Nicolás has shown that an intensification of short-distance movements in both directions into provincial capitals (the direction of movement being broadly related to the size of capital) also took place between 1951 and 1960 (391).

An intensification in the process of polarization also occurred. Madrid which had received 28.7% of all in-migrants in Spain between 1921 and 1930 increased its percentage share in the 1950s to 39.4% (392). Of all the migrants who moved to Bilbao in the last one hundred years 41% arrived between 1951 and 1960 (393). During the 1951-1960 period Barcelona province
received 43% of national net in-migrants, the province of Madrid 39%, the Basque provinces 14%, and all the remaining provinces of Spain a mere 4% (394). Polarization had resulted in 4% of national territory absorbing 96% of all internal (extra-provincial) migration (395). Six thousand seven hundred and thirty two of Spain's 9,200 municipios (or 73.2% of the total) lost population between 1951 and 1960. The rectangle in Fig.12 is drawn to scale to represent the 44.27% of national territory depopulated during the decade (396). One hundred and sixty-seven urban centres showed net migration gains for the decade (see Fig.13) (397). Six zones of population increase are indicated - Cataluña, the Basque provinces, Asturias, Levante, the Guadalquivir valley, and the Madrid oasis. Migration is giving a greater logic to the demographic map of Spain destroying the artificial uniformity of population patterns which characterized the beginning of the century (398). Polarization in all three sectors of the economy is producing an in-migration pattern oft concealed in the anonymity of extra-provincial net-migration balances. "The rivers and their most important tributaries, the coasts and the litoral zones", according to Ugarte, "appear to constitute in Spain a series of development axes along which are being situated the centres and zones of attraction" (399).

Internal migration during the second phase (1910-1939) was accompanied by massive overseas emigration (400). Habakkuk, writing of nineteenth-century Europe, has noted that the "single-heir system tended to retard population growth and the system of equal division to promote it" (401). Moreover, equal sub-division of land tended to promote long-distance migrations for seasons or short periods, such migrations being "not an escape from the peasant family but a condition of its survival" (402). Massive overseas emigration from Spain during this phase was, therefore, mainly a Galician enterprise, for it was only in this part of the peninsula that Habakkuk's hat really fitted. There is much evidence that after the Civil and Second World Wars economic dislocation did much to divert external
Fig. 12 The Extent of Depopulation

- at a Municipal scale
- at a provincial scale
migration flows (as at the end of the First World War) towards Spanish towns and cities. There is further evidence that from 1949 transoceanic emigration was beginning to escalate once more within the limits imposed upon it by fixed quota systems within the immigrant countries. Small-scale emigration to Europe became a flood after stabilization in 1959-1960 (403). Internal migration during the third migration phase is thus accompanied by massive intra-European emigration after 1961 (404). Each major period of internal migration, historical and modern, has thus been associated with strong external migration. The pattern repeated again and again in modern times is of an economy expanding, but not developing sufficiently quickly to mop up all the surplus agricultural population.

Conclusion

It is possible to recognize three stages in the evolution of the Spanish electricity system up to 1959 (405). It is suggested in this thesis that, if the complicating factor of international migrations is ignored, there is a correlation between technology, the diffusion of information and the internal migration of peoples. We have seen that in modern times there have been three internal migration waves. With the use of relevant maps and statistics it can be shown that each of those waves was characterized by local, regional and national migrations respectively (see Figs.14-16).

The first migration phase was accompanied by urbanization. Industrialization became a further characteristic of the second phase, polarization of the third (406). If one compares the distribution of partidos judiciales with net in-migration gains 1901-1930 and 1931-1960, polarization in the second period becomes immediately apparent (see Fig.17) (407). Fig.18 reveals the outward spread of the main in-migrant zones and the decline in the economic fortunes of the "Andalucian-Manchegan axis" (408).

The author has shown through an analysis of net-migration indices per
Pattern of Internal Migration: Barcelona

Life-Time In-Migrants — Inter-Provincial — In-Migrants

Regions with Provincial average more than 2%

Provinces with more than 2% share

Fig. 16 The Evolving Pattern of Internal Migration: Barcelona
Fig. 17 Partidos Judiciales with Net In-Migration 1901-30 and 1931-60
Fig. 18 Internal Migration Zones 1901-1960, By Partidos Judiciales
thousand population for both the 1901-1930 and 1931-1960 periods (409),
that the out-migration pattern has evolved through two stages. In the 1901-
1930 period massive out-migration was concentrated in a continuous northern
block of eleven provinces each with net migration losses of over 200 per
thousand population (see Fig. 19) (410). During the 1931-1960 period massive
out-migration spread southwards like a contagious plague. The block now
consists of seventeen contiguous provinces with at least four adjoining
ones sickening (see Fig. 20) (411). The "Andalucian-Manchegan" corridor is
converted into the main migration axis in Spain. As one moves southwards or
eastwards so do migration indices increase. No "intervening opportunities"
on a provincial scale other than Madrid have the effect of diverting Extreme-
manian, New Castilian and Andalucian migrants from attractive destinations
in Cataluña and the Basque provinces. Table V is visible proof of long-
distance migration having increased in Spain.

Table V
INCREASES IN NET OUT-MIGRATION INDICES FOR SELECTED PROVINCES, 1931-1960

<table>
<thead>
<tr>
<th>Province</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soria (-68.4)</td>
<td></td>
</tr>
<tr>
<td>Guadalajara (-77.7)</td>
<td>Teruel (-84.4)</td>
</tr>
<tr>
<td>Toledo (-97.7)</td>
<td>Cuenca (-191.7)</td>
</tr>
<tr>
<td>Ciudad Real (-197.1)</td>
<td>Albacete (-267.3)</td>
</tr>
<tr>
<td>Córdoba (-239.1)</td>
<td>Jaén (-267.9)</td>
</tr>
</tbody>
</table>

* Indices are given per thousand population in each case.


Excellent studies of internal migration in Spain have been made (412),
but the use of indirect statistical methods of necessity produces a decade by decade approach and a fragmented picture. If the 1901-1960 period is viewed as a whole, however, and Webb’s (413) approach adopted, five migration zones become apparent:

- Zone I: Permanent losses.
- Zone II: Gains converted to losses.
- Zone III: Permanent gains.
- Zone IV: Losses converted to gains.
- Zone V: Fluctuating.

Zone I subdivides into two compact blocks on either side of the "Andalucian-Manchegan migration axis"—twenty-three to the north and five to the south-east (see Fig. 21). Zone II consists of three provinces—Córdoba, Ciudad Real and Albacete—form a compact block, which is the missing piece in the jigsaw puzzle; the "Andalucian-Manchegan migration axis" which unites the two blocks of permanent loss. Zone III includes traditional national "growth-pole" provinces like Barcelona, Madrid and Vizcaya. Zone IV consists of recent industrial and tourist boom provinces like Alava and Alicante. Zone V consists of nine provinces arranged in four geographical groups which in the past have enjoyed fickle economic prosperity. That this five-fold sub-division of Spain during the 1901-1960 period is valid, will be justified in Part Three by evidence extracted from the 1961-1970 data (414).
I. THE STATISTICAL DIVIDE

The 'sixties was a period of economic liberalization and of social and political adjustment within Spain (1). One aspect of these changes has been the keeping of internal migration statistics by the Instituto Nacional de Estadística since 1961 (2). From this date it should be possible to speak with greater conviction about Spanish migration patterns. Unfortunately, comparison of internal migration statistics for the last two decades is far from easy, since all available evidence on a national scale for the 1951-1960 period is concerned with migration balances while from 1961 "directly-recorded data" (3) becomes available. The switch from the indirect to the direct measurement of internal migration makes it difficult to evaluate the effect of economic, social and political changes upon migration patterns.

One of the main disadvantages of the net balance method is its inaccuracy (4). In Spain, it would appear that inaccuracies creep in not only because of the crude tools employed but also because of the varying skills of the craftsmen who use them. There is, for example, a 4.64% difference between national net out-migration figures (5) for 1961-1965 given by two much respected authorities (6). Despite the fact that directly-recorded data for the 1962-1965 period from two distinct sources reveal a difference of only 0.58% in gross internal migration totals (7), it would be wrong at this stage to assume that this implies greater accuracy in estimating the true volume of internal migration.

Statistics exist for the 1961-1965 period which make it possible to compare both methods (in so far as they can be compared). If García Barbancho's figures (8) for national net in- and out-migration are compared with gross statistics issued by the Instituto Nacional de Estadística (9), then
"migration efficiencies" (10) of 96.37% and 73.55% respectively are revealed (11). The difference of 26.45% between net and gross in-migration figures is partly related to a major exaggeration of urban rates of natural increase. Bradshaw has noted that this type of error "has been due to the practice of registering births in the municipio where the birth occurs. In the last thirty years", he explains, "many women have moved into the larger towns and cities to have their children in government-sponsored maternity clinics" (12). Logically, the other side of the coin is the underestimation of rural rates of natural increase and a corresponding exaggeration of out-migration rates (13). In any event, conclusions based on use of 1965 Civil Register population figures are unreliable, since those statistics themselves are unreliable (14). Comparison of national net and gross in- and out-migration statistics for the 1961-1970 period (15) reveal migration efficiency indices of 58.77% and 69.00% respectively (16). Taking the mean of 1961-1965 and 1961-1970 internal migration efficiency indices (17), it is probably safe to say that in the recent past net internal migration has near enough matched gross internal migration. It is perhaps rather disconcerting that this should be so in view of the fact that the net balance method reveals only minimum migration movements (18). There is some evidence that both the net balance and directly-recorded data methods under-estimate internal migration volumes. García Barbancho's net balance method is based upon the partido judicial as its statistical unit. While this results in greater accuracy than with calculations made at provincial (19) and regional level (see Table VI) it is still very inaccurate. It can be mathematically (20) shown that the percentage error which results from using the partido judicial instead of the municipio as the areal unit of calculation is in the region of 51.56% (21). Were this correct it would result in 3,580,291 net out-migrants and 2,732,521 net in-migrants for the 1961-1965 period (22).
Table VI
NET IN-MIGRANTS AND OUT-MIGRANTS BY REGION, PROVINCE AND PARTIDO JUDICIAL, 1961-1965

<table>
<thead>
<tr>
<th>National total</th>
<th>Scale of calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Partido judicial</td>
</tr>
<tr>
<td>Net out-migrants</td>
<td>1,845,998</td>
</tr>
<tr>
<td>Net in-migrants</td>
<td>1,408,888</td>
</tr>
</tbody>
</table>


It is more difficult to use directly-recorded data to "guestimate" the under-estimation of gross internal migration although one method suggests itself. Every five years, each person in Spain is asked to record his present residence for Census or Civil Register rectification purposes. It can be shown that in the case of the city of Madrid, for example, a considerable number of in-migrants from other municipios (who had not previously registered their arrival) record themselves as residents of the capital. This results in an artificial fall in recorded in-migration in every year beginning with a one or a six. Comparison of artificial in-migration statistics for these years with the previous year, or the average of the four previous years, should give us, therefore, a measure of clandestine in-migration. In the case of the city of Madrid (23), there was an apparent fall of 57.87% in 1961 when compared with the average for 1957-1960, and of 50.95% in 1966 when compared with the average for 1962-1965 (24). Again there is a "fall" of 57.58% in recorded in-migration in 1956 when compared with 1955, 62.37% between 1960 and 1961, and 53.62% in 1966 when compared with 1965 (25). Taking the mean of these five percentages the directly-recorded data method would appear to have under-estimated gross
in-migration into the city by 56.48% (26). Were this correct it would mean that 307,024 migrants (27) arrived in the capital during the 1961-1965 period when only 173,407 were officially recorded (28).

It has been tentatively suggested that the under-estimation of net internal migration by García Barbancho for the 1961-1965 period is about 51.56%; a figure conveniently comparable with the 56.48% under-estimation of directly-recorded in-migration into the city of Madrid (29). Indeed, it would appear from this that the errors of one method effectively cancel out the errors of the other method (30). If this is so, then it is indeed possible that in the recent past net internal migration has closely matched gross internal migration (31).

A word of warning at this stage would not be inappropriate. Sets of figures dealing with net balances and directly-recorded data are not strictly comparable (32). Even if correlations exist at national level due to reasonable migration efficiencies (33), there are few at provincial level. It is quite impossible to translate directly with any degree of confidence from the net balance language into the directly-recorded data one, or vice-versa. Where better to illustrate this point than with reference to the problem province of Madrid for here, according to Bradshaw, "there has been a serious amount of under-registering of migrants" (34). At a national level the relationship between net and gross in-migration showed a migration efficiency of 73.55% for the 1961-1965 period. It has been suggested that errors of scale exist for both net and gross figures, so that when these are adjusted the migration efficiency becomes as high perhaps as 80.57% (35). According to García Barbancho 361,479 net in-migrants were received by the province between 1961-1965 (36), while only 201,934 gross in-migrants were registered according to the Instituto Nacional de Estadística (37). These figures give a migration efficiency of 179.00% without correction for scale errors (38) and perhaps 228.38% with
correction (39). In both instances net in-migration exceeds gross in-migration, a thing which can never happen in reality. The serious under-registration of migrants in the province is thus proven.

If it is assumed that the population figures for the province of Madrid as given in the Census of 1960 and the Padrón of 1965 are correct (40), and if it can be shown that the natural increase as calculated by García Barbancho and the Instituto Nacional de Estadística is a constant (41), then it can be demonstrated that gross in-migration has been under-estimated by at least 79.00% (42). If errors of scale are taken into account then the under-estimation could be as much as 128.38% (43). If similar calculations are made for every other province in Spain, it will be seen that the directly-recorded data method under-estimates gross out-migration from twenty-six provinces with a pattern of net out-migration during the 1961-1965 period by an average of 51.27% (44). In a further seven out-migrant provinces gross out-migration exceeds net out-migration, the average migration efficiency being 71.49%. The seventeen provinces with a pattern of net in-migration during the same period (45), subdivide into eight with an average under-estimation of gross in-migration of 140.88% (46), and nine with an average migration efficiency of 64.98%. While there appears to be no common adjusting mechanism which can be applied, the unknown variables responsible for these errors are not random ones. A clear geographical pattern emerges which cannot be an accidental one. Gross in- and out-migration is under-estimated in the western two-thirds of the peninsula, while thirteen of the sixteen migration efficiency provinces form a territorial block in the east and north-east (see Fig. 22).

We have seen that statistics dealing with net balances and directly-recorded data are not comparable, yet Spaniards continue to compare them (47). Mixing one's statistical drinks in this way is an extremely dangerous pastime. Direct comparison if not resulting in one actually seeing double
Fig 22 The Under-Registration of Internal Migration 1961-1965

- Migration efficiency
- In-Migration
- Out-Migration
- Statistically Suspect
- Spain

0 20 40 60 80 100 120 MILES
0 40 80 120 160 200 KILOMETRES
has the effect of seriously under-estimating internal migration volumes
(see Tables VII and VIII).

Table VII

<table>
<thead>
<tr>
<th>Absolute Maximum Net In-migrants and Out-migrants, by Net Balance and Directly-Recorded Data Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941-1960 (net-balances)</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Jaén -11,334</td>
</tr>
<tr>
<td>Granada -11,325</td>
</tr>
<tr>
<td>Córdoba -8,270</td>
</tr>
<tr>
<td>Granada -12,623</td>
</tr>
</tbody>
</table>

(a) Average annual net losses

(b) Average annual net gains

Table VIII

<table>
<thead>
<tr>
<th>Absolute Maximum Net In-migrants and Out-migrants, by Constant Net Balance Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Jaén -11,335</td>
</tr>
<tr>
<td>Granada -8,674</td>
</tr>
<tr>
<td>Córdoba -8,670</td>
</tr>
<tr>
<td>Granada -20,653</td>
</tr>
</tbody>
</table>

(a) Average annual net losses

(b) Average annual net gains

* These are net figures in that they represent the difference between gross out- and in-migration.

† Provinces with lower absolute gains like Guipúzcoa and Valencia had greater proportional increases.


In Table VIII net balance figures are used throughout resulting in much higher indices.
cause García Barbancho's statistics are used in both periods here for the sake of consistency.


Even if internal migration statistics produced by the net balance and directly-recorded data methods do not bear direct comparison the patterns associated with these alternative methods do. The procedure adopted here is to separate the provinces of Spain into those displaying patterns of net out- and in-migration respectively (43) according to both statistical methods (49). Each province is then allocated its percentage share of total net and gross in- or out-migration for the 1961-1965 period (50). The respective patterns are shown in Figs. 23-26 and then compared in Figs. 27 and 28. The difference between net and gross out-migration for the thirty-five out-migrant provinces (51) is statistically insignificant and does not materially effect patterns of out-migration (see Fig. 27). Twenty-five provinces have a difference of less than 1% between their share of total net and gross out-migration, while a further seven have differences of between 1% and 2%. Only in three provinces are differences sufficiently large to cause concern although they do not alter out-migration patterns. In Oviedo with an "error" of 2.04% internal migration is invariably a complex process (52). Jaén with an "error" of 2.06% and Badajoz with a difference of 3.29% are in fact among the first three most important out-migrant provinces according to both net balance and directly-recorded data methods. In a similar way, the difference between net and gross in-migration for the seventeen in-migrant provinces is statistically insignificant and hardly effects in-migration patterns (see Fig. 29). Eight provinces have a difference of less than 1% between their share of total net and gross in-migration, while a further six have differences of between 1% and 2%. Again, only three prov-
Fig. 27  Spain: Difference between Net and Gross Out-Migration (1961-1965)

- 0-19.9%
- Over 2%

MILES
0 20 40 60 80 100 120
KILOMETRES
0 40 80 120 160 200
Inces give cause for concern. In Madrid with an "error" of 15.12% and in Barcelona with a difference of 7.3%, as with Badajoz and Jaén for out-migration, the errors are in part related to the massive scale of internal migration. These "errors" do not materially effect the roles of Madrid and Barcelona as the main national in-migration centres, only to reverse their respective positions as first or second depending upon the statistical method employed. Sevilla with a difference of 3.57% between its share of total net and gross in-migration is an enigma, and only according to the net balance method a net in-migrant province (53).

In summary, we have seen that Spanish internal migration statistics, whatever their source, are thoroughly unreliable. While net balance figures are not strictly comparable with those of directly-recorded data both sets of statistics reveal serious under-estimates of internal migration. There appears to be sufficient proof that during the last decade net internal migration at a national level has approximated to gross internal migration, the errors of the net balance method broadly cancelling out the errors of the directly-recorded data method. This high degree of correlation between net and gross internal migration suggests that mobility is largely confined to a to-and-fro movement between the same source and destination with a minimal number of recorded moves being made by the average internal migrant (54).

"The scale of demographic analysis" (55) has a considerable bearing upon results. Conclusions derived at one scale are not always applicable at another (56). In the Spanish case there are "scale-linkage problems" (57) which are not easily resolved. The direct comparison of provincial (58) net balance and directly-recorded statistics results in an artificial lowering of internal migration volumes (59), although the under-estimation of migration appears to be variable in both time and space. Despite the fact that the scale-linkage barrier is all but unsurmountable, Fig. 22 demonstrates
quite conclusively that statistically there are two Spains. In the western
two-thirds migration statistics are most inaccurate, but in the more
advanced eastern and north-eastern block migration efficiencies at prov-
incial level are comparable with conclusions derived at national level.

Careful manipulation of net and gross internal migration statistics at
provincial level proved that patterns of in- and out-migration produced by
seemingly incompatible methods were comparable (60). Moreover, comparison
of Figs. 27 and 23 confirmed findings made in Fig. 22 that statistical
errors were greatest in the case of in-migrant provinces. It is hardly
surprising, therefore, that the two greatest problem provinces of Madrid
and Sevilla are the two main in-migrant centres within statistically
suspect Spain.

It has been shown that Spanish official and semi-official (61) internal
migration statistics can be used, despite their various shortcomings, so
long as they are handled cautiously. The fact that gross internal migration
statistics have been under-estimated may turn out to be a blessing in
disguise. Had gross figures been over-estimated migration streams would
have literally overflowed their banks making the location of true courses
a matter of conjecture. Since major movements of population are likely to
follow well-worn "river courses", directly-recorded data may be profit-
ably used for interpreting migration streams and counterstreams. The study
of directly-recorded data will thus fill in the finer details of a pattern
the broad outlines of which have been suggested by net balance figures.

II. RECENT CHANGES IN INTERNAL MIGRATION

1. Migration rates

Uncorrected figures suggest that 3,719,725 Spaniards changed their
municipios of residence between 1961 and 1970 according to directly-
recorded data (62), compared with 2,566,608 net out-migrants and 2,138,155
net in-migrants (63). Empirical evidence would suggest that the volume of internal migration was greater even than in the 1951-1960 period (64). That evidence is supplied by Estudio Sobre la Población Española, the only authoritative work to appear as yet which includes internal migration statistics for the last two decades obtained by constant method. As such it provides the only yardstick by which changes in migration rates can be measured. The intimate relationship between external and internal migration in Spain is revealed when net migration statistics for the 1961-1970 period are compared with those for the previous decade. Net in-migration increased by 109.41% between 1961-1970 when compared with 1951-1960, while net out-migration increased by only 33.80%. This massive increase in net in-migration is related to a 56.47% fall in net external migration (65), with an increasing number of net out-migrants being confined within national frontiers (66).

Analysing net migration statistics in greater detail, we find that Barcelona, Madrid, Vizcaya and Guipúzcoa, the four chief in-migrant provinces in 1951-1960, absorbed 96.41% of national net in-migration in that decade. While these four experienced substantially increased rates of immigration between 1961-1970, they all recorded significant falls in their percentage share of national net in-migration both individually and collectively (see Table IX) now absorbing only 70.89% of national net in-migration. Percentage falls varied considerably and this allowed Madrid to surpass Barcelona as the chief reception zone for net in-migrants; Valencia to overtake Vizcaya; Alicante and Baleares to intervene between Vizcaya and Guipúzcoa. Ten net in-migrant provinces in 1951-1960 become seventeen in 1961-1970 (67). The nine provinces with a pattern of net in-migration in both the last two decades subdivide into major in-migrant provinces which show evidence of approaching saturation in 1961-1970 (68) and lesser or newer in-migrant provinces which increase their migrant intake enormously. This differential is further emphasized in Table X.
### Table IX

**CHANGES IN NET IN-MIGRATION BY PROVINCE**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona</td>
<td>43.07</td>
<td>29.71</td>
<td>-13.36</td>
<td>+ 44.45</td>
</tr>
<tr>
<td>Madrid</td>
<td>39.44</td>
<td>31.40</td>
<td>- 8.04</td>
<td>+ 66.73</td>
</tr>
<tr>
<td>Vizcaya</td>
<td>9.23</td>
<td>6.81</td>
<td>- 2.42</td>
<td>+ 54.36</td>
</tr>
<tr>
<td>Guipúzcoa</td>
<td>4.67</td>
<td>2.97</td>
<td>- 1.70</td>
<td>+ 33.00</td>
</tr>
<tr>
<td>Alicante</td>
<td>1.34</td>
<td>4.83</td>
<td>+ 3.49</td>
<td>+ 653.93</td>
</tr>
<tr>
<td>Gerona</td>
<td>0.99</td>
<td>1.79</td>
<td>+ 0.80</td>
<td>+ 366.73</td>
</tr>
<tr>
<td>Alava</td>
<td>0.68</td>
<td>1.95</td>
<td>+ 1.27</td>
<td>+ 501.54</td>
</tr>
<tr>
<td>Baleares</td>
<td>0.24</td>
<td>3.36</td>
<td>+ 3.12</td>
<td>+ 2,786.05</td>
</tr>
<tr>
<td>Oviedo</td>
<td>0.21</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Sta. C. de Tenerife</td>
<td>0.13</td>
<td>0.44</td>
<td>+ 0.31</td>
<td>+ 627.83</td>
</tr>
<tr>
<td>Valencia</td>
<td>—</td>
<td>7.88</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Crescente</td>
<td>—</td>
<td>2.54</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Tarragona</td>
<td>—</td>
<td>2.00</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Zaragoza</td>
<td>—</td>
<td>1.76</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Castellón</td>
<td>—</td>
<td>1.14</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Navarra</td>
<td>—</td>
<td>0.83</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Les Palmas</td>
<td>—</td>
<td>0.44</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Valladolid</td>
<td>—</td>
<td>0.15</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**SOURCE:** Presidencia del Gobierno, Comisión del Plan de Desarrollo Económico y Social, III Plan de Desarrollo Económico y Social. Estudio sobre la Población Española. Madrid, 1972, Tables 1.5.2.1 and 5.1.1.11, pp. 120 and 229.

### Table X

**CHANGES IN NET IN-MIGRATION RATES BY MAJOR AND MINOR IN-MIGRATION PROVINCES**

<table>
<thead>
<tr>
<th>Net in-migration provinces (1951-1970)</th>
<th>Migration rate per 1000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Major provinces</td>
<td></td>
</tr>
<tr>
<td>Barcelona</td>
<td>+372.6</td>
</tr>
<tr>
<td>Madrid</td>
<td>+426.6</td>
</tr>
<tr>
<td>Vizcaya</td>
<td>+196.6</td>
</tr>
<tr>
<td>Guipúzcoa</td>
<td>+187.2</td>
</tr>
<tr>
<td>(b) Minor provinces</td>
<td></td>
</tr>
<tr>
<td>Alicante</td>
<td>+ 42.4</td>
</tr>
<tr>
<td>Gerona</td>
<td>+ 30.7</td>
</tr>
<tr>
<td>Alava</td>
<td>+ 50.4</td>
</tr>
<tr>
<td>Baleares</td>
<td>+ 68.2</td>
</tr>
<tr>
<td>Santa Cruz de Tenerife</td>
<td>- 12.1</td>
</tr>
</tbody>
</table>
Nine provinces with net in-migration during only one of the last two decades are excluded here (see Note 69, pp. 90-94).


Despite the fact that Jaén, Granada, Córdoba and Badajoz were the four chief out-migrant provinces in both the last two decades, increasing their share of total net out-migration from 25.62% to 29.52%, the analysis of changes in net out-migration rates is far from simple. Badajoz and Jaén, for example, are included among seventeen provinces whose percentage share of national net out-migration increased in 1961-1970 when compared with 1951-1960, the migration rate increasing in every instance by more than the national average of 33.80% for net out-migration (see Table XI). Granada and Jaén, on the other hand, are included in a group of fourteen provinces whose percentage share of total national net out-migration decreased. In eight instances increases in the net out-migration rate are below the national average; in six instances decreases are recorded. Major provinces of net in-migration, we have seen, show evidence of saturation; traditional provinces of massive net out-migration show little sign of exhaustion. Fig. 29 shows that despite certain peripheral contractions in some directions the moving frontier of massive net out-migration (70) spread southwards and westwards between 1961 and 1970 to engulf Ciudad Real, Córdoba and Badajoz provinces. While not yet centres of massive net out-migration, if percentage changes in migration rates are anything to go by (see Table XI), Sevilla, Cádiz and Huelva in the south-west and León in the north-west will be the next to fall.
Table XI

CHANGES IN NET OUT-MIGRATION BY PROVINCE

Provinces with increased percentage net out-migration (1961-1970) *

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Percentage increase</th>
<th>Percentage change in mig. rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badajoz</td>
<td>4.26</td>
<td>150.99</td>
</tr>
<tr>
<td>Càdiz</td>
<td>3.06</td>
<td>765.46</td>
</tr>
<tr>
<td>Sevilla</td>
<td>2.67</td>
<td>236.20</td>
</tr>
<tr>
<td>Ciudad Real</td>
<td>2.25</td>
<td>125.01</td>
</tr>
<tr>
<td>Córdoba</td>
<td>1.76</td>
<td>77.59</td>
</tr>
<tr>
<td>León</td>
<td>1.72</td>
<td>160.76</td>
</tr>
<tr>
<td>Cáceres</td>
<td>1.37</td>
<td>77.13</td>
</tr>
<tr>
<td>Huelva</td>
<td>1.25</td>
<td>399.56</td>
</tr>
<tr>
<td>Cuenca</td>
<td>0.56</td>
<td>58.87</td>
</tr>
<tr>
<td>Palencia</td>
<td>0.37</td>
<td>65.01</td>
</tr>
<tr>
<td>Segovia</td>
<td>0.37</td>
<td>65.97</td>
</tr>
<tr>
<td>Toledo</td>
<td>0.25</td>
<td>43.59</td>
</tr>
<tr>
<td>Murcia</td>
<td>0.22</td>
<td>41.79</td>
</tr>
<tr>
<td>Zamora</td>
<td>0.20</td>
<td>44.86</td>
</tr>
<tr>
<td>Teruel</td>
<td>0.11</td>
<td>41.13</td>
</tr>
<tr>
<td>Soria</td>
<td>0.10</td>
<td>43.46</td>
</tr>
<tr>
<td>Huesca</td>
<td>0.08</td>
<td>48.82</td>
</tr>
</tbody>
</table>

Provinces with decreased percentage net out-migration (1961-1970)

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Percentage decrease</th>
<th>Percentage change in mig. rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pontevedra</td>
<td>-3.13</td>
<td>-409.11</td>
</tr>
<tr>
<td>Málaga</td>
<td>-2.89</td>
<td>-194.72</td>
</tr>
<tr>
<td>Granada</td>
<td>-1.32</td>
<td>-9.99</td>
</tr>
<tr>
<td>Almería</td>
<td>-1.31</td>
<td>-32.90</td>
</tr>
<tr>
<td>Burgos</td>
<td>-1.05</td>
<td>-13.42</td>
</tr>
<tr>
<td>Albacete</td>
<td>-0.91</td>
<td>4.49</td>
</tr>
<tr>
<td>Santander</td>
<td>-0.81</td>
<td>-82.28</td>
</tr>
<tr>
<td>Jaén</td>
<td>-0.80</td>
<td>20.32</td>
</tr>
<tr>
<td>Logroño</td>
<td>-0.61</td>
<td>-68.69</td>
</tr>
<tr>
<td>Avila</td>
<td>-0.14</td>
<td>25.11</td>
</tr>
<tr>
<td>Lérida</td>
<td>-0.14</td>
<td>1.59</td>
</tr>
<tr>
<td>Guadalajara</td>
<td>-0.12</td>
<td>24.48</td>
</tr>
<tr>
<td>Salamanca</td>
<td>-0.10</td>
<td>29.16</td>
</tr>
<tr>
<td>Lugo</td>
<td>-0.04</td>
<td>32.08</td>
</tr>
</tbody>
</table>

* La Coruña's share of national net out-migration remained a constant 3.09% in both 1951-1960 and 1961-1970, its migration rate showing an increase of 33.60% which was close to the national average of 33.80%.

SOURCE: Presidencia del Gobierno, Comisaría del Plan de Desarrollo Económico y Social, III Plan de Desarrollo Económico y Social. Estudio Sobre la Población Española, Madrid, 1972, Tables 1.5.2.1 and 5.1.1.11, pp. 120 and 229.

2. Migration patterns

Before we can speak of changes in the pattern of internal migration during the last decade, we must establish the details of the pattern which existed in 1951-1960. In the absence of directly-recorded data, net balance statistics must be used. Ideally the existence of a particular pattern should be supported by evidence from at least one other independent authority.
With reference to the 1951-1960 period four different sources list the same ten net in-migrant and forty net out-migrant provinces (71). According to another source Valencia was also a net in-migrant province in this decade (72). That the net balance method fails to recognize it as one is due to the fact that it draws heavily upon 1950 Census figures which in this instance are obviously false (73). Certainly it is unusual that Valencia should have the only provincial capital to lose population during 1951-1960 (74), and on the basis that the province has been a net in-migrant one every decade since 1921-1930 (75) and that the migration rate for the 1931-1960 period is comparable with that of 1961-1970 (76), we may safely conclude that it was a net in-migrant province also during the 1951-1960 period. So García Barbancho calculates and his corrected figures for the city prove it to be so (77). Since García Barbancho concurs with reference to the other ten in-migrant provinces (78), it would probably be safe to say that in 1951-1960 there were eleven net in-migrant and thirty-nine net out-migrant provinces, the distribution of which are shown in Fig. 30. The Instituto Nacional de Estadística's directly-recorded data give sixteen in-migrant provinces for 1961-1970 (79). Ten of the eleven net in-migrant provinces of the previous decade are included, Oviedo being the exception to the rule (80). The six new in-migrant provinces are Navarra, Zaragoza, Castellón, Tarragona, Las Palmas and Valladolid (81). These same sixteen provinces are shown to be net in-migrant ones by the net balance method (82), together with Orense. The latter is obviously a mistake, the province having been a net out-migrant one for every other decade of this century (83), the province having lost 37,741 population between 1961 and 1970, the capital only having gained 9,226 (84). Moreover, it is hardly likely that the province of Orense would have acquired more net in-migrants in the decade than say Alava or Gerona; yet this is what the Estudio Sobre la Población Española would have us believe (85)! There are clearly, therefore, sixteen
in-migrant provinces in 1961-1970 (86), which are shown in Fig. 31 together with thirty-four out-migrant provinces.

Comparison of Figs. 30 and 31 shows that the demographic map of Spain continues to be made more logical and related to econo-geographical factors rather than to historo-geographical ones as in the past (87). Peripheral Spain, with a more or less constant 52% share of the national population up to 1960 (88), had as a result of intense in-migration acquired 56.25% of the total by 1970 (89). The three coastal "natural growth-centres" (90) of 1951-1960 - namely Vizcaya-Gipuzcoa, Barcelona-Girona and Valencia-Alicante - are linked up in a T-square shaped in-migrant area in 1961-1970 via the economic and demographic axis of the Ebro basin (91). Madrid, the only "intervening opportunity" in 1951-1960 in an otherwise windowless out-migrant zone, is joined after 1960 by Zaragoza and after 1968 by Valladolid (92). Fig. 32 suggests the sub-division of Spain in the 1951-1970 period into five demographic zones. From this map it is possible to see that even at provincial level population growth and in-migration are by no means constant in peripheral Spain (93). It is possible to see also the result that massive out-migration moving southwards and westwards is having on the demographic map of Spain. To the eighteen provinces which lost population in 1951-1960 are added León in the north-west, Ciudad Real, Córdoba, Badajoz and Huelva in the south and west (94). Fig. 32 also shows the "spread effects" (95) of economic growth in the three coastal "natural growth-poles" reflected in the changing in-migrant patterns of 1961-1970 in Navarra, Castellón, Tarragona and perhaps Zaragoza (96).

Despite important changes in migration patterns in the last decade Fig. 33 emphasizes continuity. It confirms the justification of our sub-division of Spain during the 1901-1960 period into five migration zones (see Fig. 21) (97). The provinces of Zones I (permanent losses) and II (gains converted to losses) continue to be out-migrant ones, with the
Fig. 31 Spain: Net Internal Migration (1961-1970)
exceptions of Valladolid and Navarra noted above. The provinces of Zones III (permanent gains) and IV (losses converted to gains) continue to be in-migrant ones. The validity of Zone V (fluctuating) is indicated by the fact that Castellón, Tarragona, Zaragoza, Las Palmas and Oviedo have changed signs once more; reminding us of the brittle nature of the economic miracle in the new boom provinces, especially those based on the fickle fortunes of international tourism (98). Four further fluctuating provinces, having been out-migrant ones for two continuous decades, now incorporate themselves in Zone II. These are Lérida in the north-east suffering "backwash effects" (99) from the Barcelona growth-region, and Sevilla, Cádiz and Huelva in the south-west - three new additions to earlier losses experienced in the "Andalucian-Manchegan migration axis" (100). The remaining fluctuating province - Santa Cruz de Tenerife - having been an in-migrant one for two continuous decades, now incorporates itself in Zone IV.

Urbanization, industrialization and polarization (101) continued to characterize internal migration in Spain after 1960 (102). Yet, within an overall pattern of continuity important changes took place. There was, we have seen, a significant increase in the rate of internal migration after 1960 (103), which was selective in that it affected in-migrant areas to a greater extent than out-migrant ones (104). Above all, there were almost half as many in-migrant provinces again in 1961-1970 as there were in 1951-1960 - sixteen as against eleven (105). The changing pattern of internal migration is related to the decline of "autarchy" (106) in post-1960 Spain, and the final "shedding of every bit of fascist rhetoric and paraphernalia" and the substitution for these of the hedonistic and technocratic doctrine embodied in the idea of desarrollismo..." (107). For "developmentism" we might in a sense substitute "internationalism" (108); and it is developmentism or internationalism which is a new characteristic of internal migration patterns in the last decade. The solving of the bal-
The decline of "economic nationalism" (111) after 1959 led to the decline of uneconomic mining centres. Most of the partidos judiciales which failed to attract net in-migrants in 1961-1965 (after having done so in 1951-1960) come within this category. They include Ponferrada in León, Laviana, Mieres and Oviedo in Asturias, Almodovár del Campo (Puertollano) in Ciudad Real, La Unión in Murcia, Valverde del Camino (Río Tinto) in Huelva and Berga in Barcelona (112).

2) Internationalism is reflected in the expansion of tourist boom regions. They include new additions to the net in-migrant areas of 1961-1965 like Laredo in Santander, Veléz Málaga in Málaga, Almería and Cuevas de Almanzora in Almería, Denia in Alicante, and above all the three provinces of extra-peninsular Spain (see Fig. 34) (113).

3) Developmentism saw the continued growth outwards of the three national growth-centres, especially along the main road-links connecting them. The Basque industrial region spread its tentacles inland to Pamplona, Guernica, Azpeitia and Miranda de Ebro. The Barcelona conurbation grew towards Igualada. The Madrid region expanded northwards in the direction of Burgos to incorporate Colmenar Viejo and eastwards to make Guadalajara city an in-migrant zone (114).

4) Developmentism finally shattered Perpiñán y Grau's theory regarding the evolution of the distribution of population in Spain (115). The simple geometric pattern with a central region (Madrid) and six
Fig. 34  Partidos Judiciales with Net In-Migration 1951-60 and 1961-65

Net In-Migration

1951-1960

1961-1965
(seven if we include Portugal) densely populated peripheral nuclei or "basicorás" (116) with their less densely-populated hinterlands or "aerocorás" (117) never really fitted into an era of industrialization and national migration fields (118). Desarrollismo finally destroys the myth with the appearance of the "intercorás" (119) of Zaragoza and Valladolid (120) before 1960, and Burgos after that date (121); each equidistant between two national growth-centres, each one a major route centre. Not all of the first generation of "development poles" were successful in attracting net in-migration (122). Just as "trade follow the flag" in a bygone era so "industrial development and population congregated along the power lines" (123). Industrial growth in Valladolid can be traced back to the 1950s and the convergence on the city of high-voltage transmission lines from the "international Douro" (124) and the Sil (125). During the 1961-1965 period Salamanca, Palencia and Burgos joined Valladolid, Miranda de Ebro and Vitoria as net in-migrant centres (126). Fig. 34 shows that these centres are arranged in a straight line. With the exception of Salamanca (127), they are in fact aligned along an energy axis - "a dense network of parallel transmission lines" (128) linking major areas of production and consumption of electricity in the "international Douro" and Basque industrial provinces respectively.

5) Almost all of the partidos judiciales which attracted net in-migrants in 1951-1960 but which failed to do so in 1961-1965 lie to the west of Madrid. There is no interior in-migrant centre on this scale in the whole of Extremadura and Andalucía other than Sevilla. An earlier impression of the southward and westward march of massive out-migration is thus sadly confirmed (129).

3. Migration streams

Any geographical discussion of migration streams and counterstreams
should take account* some function of the physical distance separating points of origin and destination (130). Migration streams and counter-streams will accordingly here be classified as:

1) Intra-municipal.
2) Intra-provincial.
3) Inter-provincial.
4) Intra-regional.
5) Inter-regional.
6) International.

1) Intra-municipal migration

Most short-distance migrations take place within small administrative units and as such are "inadequately revealed by migration statistics" (131) of any kind. This is particularly true in Spain where the smallest administrative unit for the recording of population movements is usually the municipio which is generally much larger than equivalent administrative units in other West European countries (132). It is possible, for example, for a migrant to move thirty-six kilometres from Lobosillo to the municipal capital of Murcia with the change of residence being unrecorded in official statistics since no change of municipio is involved (133).

The empirical evidence for many rural municipios is of a centripetal movement of population taking place in Spain. Moreno Sánchez (134) has been able to detect Redford's "wave-like motion" (135), stage-by-stage, short-distance migration operating at a micro-scale. Out-migration from the largest centres of population in the municipio (136) results in "migraciones de sustitución" (137), with population flowing into the gaps created from adjoining hamlets or aldeas. These in turn are replenished by movements from outlying cortijos (138) which are eventually abandoned (139). Pitt-Rivers was able to recognize a similar centripetal movement towards Alcalá de la Sierra from nearby villages (140), with the floating popula-
tion marginal to the close-knit, highly centralized life of the pueblo (141) and most strongly represented in the peripheral rural fringe. Nor is this type of movement confined to inhospitable mountainous areas. Ortega Cantero has commented on the abandonment of dispersed habitat (belonging to colonos) (142) on the fringes of relatively recent villages set up by the Instituto Nacional de Colonización in newly-irrigated lowland areas (143). Not all intra-municipal rural migrations are centripetal in character. Gil Crespo has investigated the short-distance centrifugal movement of population from the hill-top site of Moya (144), which was abandoned when the defensive factor lost its former dominating influence on the location of population.

The recognition of intra-urban migration is made difficult because of the existence of much stronger extra-municipal migration streams and counter-streams. There can be little doubt, however, that most intra-urban moves are short, the location of new residences being influenced particularly by the location of existing residences, especially as city residents have only a limited mental map of the city" (145). Where only a small percentage of the surface of the municipio is urbanized (146), movement of population (including intra-urban) is mainly centripetal in character. Movement is initially towards the centre and, when this shows signs of becoming saturated, towards the periphery (147). In the case of large metropolitan areas there is much evidence (both historical and recent) of centrifugal movements of population (143). Such areas have traditionally grown outwards by the practice of the "política de ensanche" (149) and the annexation and integration of peripheral suburbs (150). These movements of population include both intra- and extra-municipal migrations. A sociological survey conducted in 1969 by Urbis (a major construction company) in their modern, middle-class, residential development zone of Moratalaz, found that 39% of the heads of families interviewed had always lived in the capital of Madrid (151).
class. Alonso Hinojal found that 28% of the heads of families (152) in Poblado Dirigido de Orcasitas (153) had been born in other parts of the city of Madrid (154). Since at least 1965 the emphasis has been on extra-municipal migration. Madrid, for example, is in the process of acquiring a "super periphery" (155). Alcorcón grew by 1,372% between 1961 and 1970, while a further eight municipios grew by more than 200% (156). We can even speak of the concept of the "dispersed city" (157) with recent propaganda in the press extolling the virtues of life in rich, suburban residential zones near the "Mar de Castilla" (158). The empirical evidence suggests that the car is making population more mobile as in other industrialized countries (159). The centrifugal movement of population will continue but with less intra-urban and more extra-municipal migrations (160), and with a growing tendency for "adventitious" (161) population to move to commuter settlements within a thirty kilometre radius of large towns (162). From 1951-1960, and only for provincial capitals of over 100,000 population, Díez Nicolás has found that the periphery has expanded more than the nucleus (163), although the residual net effect of both centrifugal and centripetal migrations resulted in increased population densities up to thirty kilometres from the centre (164).

2) Intra-provincial migration

According to García Barbancho (165), 30.5% of all net migrants during the 1901-1930 period were intra-provincial ones (166) compared with 33.5% between 1931 and 1960. The percentage of net intra-provincial migrants during the 1961-1965 period fell to 16.7%, which to García Barbancho would indicate a great increase in long-distance, extra-provincial migration (167). Table XII demonstrates quite conclusively that where net out-migration indices are highest intra-provincial attractions on a regional scale are lowest. García Barbancho is able to show how Western and Eastern Andalucía and the two Tajo-Guadianas (168) have consistently lost their attractive
force as centres of intra-provincial net migration (169).

Table XII
THE RELATIONSHIP BETWEEN INTRA-PROVINCIAL MIGRATION
AND NET MIGRATION INDICES, BY REGION (1961-1965)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Intra-provincial net migrants</th>
<th>Net migration index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid</td>
<td>100.0</td>
<td>136.1</td>
</tr>
<tr>
<td>Nordeste</td>
<td>100.0</td>
<td>98.0</td>
</tr>
<tr>
<td>Canarias</td>
<td>100.0</td>
<td>33.9</td>
</tr>
<tr>
<td>Ebro occidental</td>
<td>73.6</td>
<td>28.0</td>
</tr>
<tr>
<td>Levante</td>
<td>45.8</td>
<td>25.0</td>
</tr>
<tr>
<td>Ebro oriental</td>
<td>44.3</td>
<td>- 29.3</td>
</tr>
<tr>
<td>Cantábrico</td>
<td>43.3</td>
<td>34.6</td>
</tr>
<tr>
<td>Andalucía occidental</td>
<td>28.4</td>
<td>50.0</td>
</tr>
<tr>
<td>Galicia</td>
<td>15.8</td>
<td>35.0</td>
</tr>
<tr>
<td>Duero occidental</td>
<td>10.4</td>
<td>- 97.2</td>
</tr>
<tr>
<td>Andalucía oriental</td>
<td>4.9</td>
<td>-104.7</td>
</tr>
<tr>
<td>Tajo-Guadiana oriental</td>
<td>1.9</td>
<td>-173.3</td>
</tr>
<tr>
<td>Duero oriental</td>
<td>1.3</td>
<td>-125.2</td>
</tr>
<tr>
<td>Tajo-Guadiana occidental</td>
<td>0.0</td>
<td>-155.4</td>
</tr>
</tbody>
</table>

* Expressed as a percentage of total net migrants.  † Expressed as the number of net migrants per thousand population.


Some of García Barbancho's findings are confirmed from the evidence of directly-recorded data after 1961. For example, intra-provincial migration in Western and Eastern Andalucía and the two Tajo-Guadianas was relatively weak in the 1961-1965 period (170). No province in these regions proved to be the main destination for its own out-migrants during that period. For twenty-five provinces in other parts of Spain the main destination for out-migrants was the province itself. These included the sixteen in-migrant provinces of 1961-1970 together with nine others, the distribution of which are shown on Fig. 35. In sixteen other instances during the 1961-1965 per-
Fig. 35 Intra- and Inter-Provincial Migration (1961-1965)
iod the province was the second most important destination for its own migrants. In nine further instances the province was only the third or fourth most important destination for its own departees. Fig. 35 shows that, with the exception of Iugo, intra-provincial migration was weakest in a continuous belt of provinces extending from Cáceres and Badajoz in the west to Teruel, Cuenca, Albacete and Murcia in the east. The geographical pattern of intra-provincial migration not only approximates with that of inter-provincial migration (compare Figs. 31 and 35), but it also confirms the subdivision of the peninsula into northern and southern halves characterized by short and long-distance migration respectively (171).

According to the directly-recorded data of the Instituto Nacional de Estadística, 35.1% of gross migrants during the 1962-1965 period were intra-provincial ones (172). When compared with the net figure of 16.7% for the 1961-1965 period this gives a migration efficiency of 47.58%, which is not unlike that for the whole of migration during the period in question (173). While the percentage of intra-provincial migrants remains remarkably constant during 1962, 1963, 1964 and 1965, from 1966 there has been a marked tendency for more and more migrants to remain within the limits of their own provincial boundaries (174). There is some proof that this recent trend was related to improved economic conditions in some provinces (175). Significantly, there is also a connection with massive out-migration. Between 1963 and 1965 when massive out-migration was heaviest (and mainly from provinces where intra-provincial migration was weakest) intra-provincial migration on a national scale was at its lowest ebb (176). This decline in massive out-migration is in fact related to improved economic conditions. Albacete, for example, with its countryside plastered in 1972 with advertisements imploring its natives to save through its own Provincial Caja de Ahorros (Savings Banks) and its capital in a state of turmoil as if it had suffered a recent earthquake, saw its
number of out-migrants fall from 8,426 in 1962 to 5,357 in 1969 and its percentage of intra-provincial migrants almost double itself from 9.57% to 13.85% (177). The relationship between the patterns of intra- and inter-provincial migration is thus proven to have more than geographical significance.

3) Inter-provincial migration

Various attempts have been made in the past to map inter-provincial migration flows. Siguan in 1959 noted the tendency to migrate to either Barcelona or Madrid (179); Migración y Estructura Regional in 1968 to these two provinces and Vizcaya (179); Bradshaw in 1972 to these three and Valencia (180). It is our intention here to consider migration flows into all sixteen in-migrant provinces of the 1961-1970 period; and then logically to consider out-migration flows – the other side of the coin – afterwards.

It is proposed to measure in-migration through the percentage of out-migrants flowing out of each province in Spain. Since there are fifty provinces theoretically each in-migrant province should receive 2% of each other province's out-migrants (including 2% of its own, intra-provincial migrants). Where a province receives more than 2% of another province's out-migrants it is effectively considered to be an in-migrant attraction for the latter; where it receives less than 2% it is assumed to have no in-migrant attraction. Maps are prepared for each of the sixteen in-migrant provinces on this basis and “effective migration fields” delimited (131). Furthermore, maps are shaded to show three categories of attraction intensity for the provinces within each “effective migration field” (132).

Analyzing the “effective migration fields” for each of the sixteen in-migrant provinces of 1961-1970 the following points emerge:

(i) Five different migration field patterns can be recognized. Madrid and Barcelona have national fields; Vizcaya, Guipúzcoa and Valencia half-national fields; Alicante, Castellón, Navarra, Valladolid and
Zaragoza regional fields; Alava, Gerona and Tarragona discontinuous fields; Baleares, Las Palmas and Santa Cruz de Tenerife extra-ordinary fields (see Figs. 49-51).

(ii) Migration intensity is seen to be some factor of physical distance. In the case of Madrid, the zone of maximum migration intensity is an inner ring of five provinces consisting of Avila, Segovia, Toledo, Guadalajara and the province itself (see Fig. 36). For a further three provinces Madrid is the second most important destination for their out-migrants. Cáceres, Badajoz and Ciudad Real are not only contiguous with the inner zone but historically connected with the capital.

(iii) Anomalies within the pattern of migration intensity can perhaps be related to either ancient, historical or modern, economic factors. In the case of Madrid, for example, the outer zone of lesser migration intensity is almost nation-wide but does not extend to Navarra nor a compact block of seven north-eastern provinces, perhaps because of ancient, historical prejudices which die hard (183). Within the zone of lesser migration intensity are surprising migration anomalies. Oviedo in the north and Cádiz in the south send appreciably higher percentages of their out-migrants to Madrid than neighbouring provinces. Can we not see here too evidence of historical factors, of well-charted migration pathways (184) and long-established migration chains (185)? In contrast, some other provinces send a surprisingly small percentage of their out-migrants to Madrid. Despite the fact that it has been emphasized that the populations of the provinces of Granada and Almería would increase by over 2% if "life-time migrants" to the capital were to return to their native province (186), both provinces sent more migrants to Alicante and Gerona.
Fig. 36: Madrid: Effective In-Migration Field

- Main InMigrant
- Province Concerned
- 1st Destination
- 2nd Destination
- More than 2%
- Less than 2%

Legend:
- 1st Destination
- 2nd Destination
- More than 2%
- Less than 2%
during the 1962-1965 period than to Madrid (187).

(iv) Barcelona's migration field is even more national in character than Madrid's, only Vizcaya and Guipúzcoa lying without the pale (see Fig. 37). Nevertheless, it draws less heavily on its inner ring than Madrid since intra-provincial migration is more firmly established in the economically more advanced north-eastern provinces.

(v) It is impossible to explain in geographical terms the fact that Barcelona is the main destination for the out-migrants of its own province and seventeen others. It is the main focus for migrants from a continuous block of twelve provinces in the south and west where massive out-migration, we have seen, is of relatively recent growth. As with all pioneering migrations (188), and in a sense migrations from Extremadura and Andalucía still come into this category, "the process of settlement tends to be a leapfrogging operation in which military outposts or trading centres become the focus of migration streams and the filling-up of the passed over territory is left to a later stage of development" (189). Madrid or Valencia are no intervening opportunities for a peasantry whose life-dream of a factory job in Barcelona (190) is a "mythical earthly paradise seen as the solution to all problems and the highest summit that could possibly be attained" (191).

In the second half of the twentieth century physical distance is of less consequence; "emotional distance" (192) is of greater import. "In Madrid", notes Michener (193), "there's not much hope for an Andalusian peasant. In Barcelona all things are possible...".

(vi) Major in-migrant provinces display a two-fold pattern. Short-distance, centripetal movements are probably traditional; long-
distance drifts of population as represented by migration flows may or may not be. In the case of Barcelona, Girona and Tarragona drift is mainly to the north-east (see Figs. 37-39); with Valencia, Alicante and Castellón mainly to the east (see Figs. 40-42); in the case of Vizcaya, Guipúzcoa and Alava mainly to the north (see Figs. 43-45).

(vii) Regional patterns of in-migration exist where the migration fields of newer, in-migrant patterns are sometimes inexplicable without reference to the older, parent prototype. This is particularly so in the cases of Gerona, Tarragona and Alava with their discontinuous "effective migration fields".

(viii) Newer in-migrant provinces generally have weaker "effective migration fields" than older ones, as well as geographically more restricted ones. Compare, for example, Vizcaya, Guipúzcoa and Alava or Valencia, Alicante and Castellón.

(ix) Migration intensity zones probably evolve over a long period of time. Navarra, Valladolid and Zaragoza have only weak migration fields (see Figs. 46-48) and show only centrifugal migration flows. Drifts of population probably come much later when in-migrant centres are well-established.

(x) The mapping of "effective migration fields" is a realistic compromise between Siguan's meaningless national migration fields and Bradshaw's restricted "main migration flow" concept (194).

Turning to out-migration flows, theoretically each province in Spain should send 2% of its out-migrants to every other province. In actual fact, each province sends an average quota in excess of 2% of its out-migrants to only six provinces. Since these six include the province itself and two, three or four of the main national in-migrant provinces (195), mapping out-migration flows on a province by province basis would result in monotonous
Fig. 42 Castellón: Effective In-Migration Field

- Main In-Migrant Province Concerned
- 1st Destination
- 2nd Destination
- More than 2% of Provincial Out-Migrants
- Less than 2% of Provincial Out-Migrants
repetition. The method used here is to classify each province into one of four main categories on the basis of its out-migrant characteristics. For this purpose two variables are used - indices of intra-provincial (IP) and short-distance inter-provincial migration to contiguous provinces (CP).

The four categories are arrived at through deciding whether each province was superior (+) or inferior (-) to the national average indices for 1962-1965:

The four categories are shown in Fig. 52; three of the groupings, it will be seen, having regional significance:

**Type A** consists of a continuous block of sixteen provinces in the south and west together with Palencia, which is characterized by both weak intra-provincial and short-distance inter-provincial migration to contiguous provinces. These provinces are the main ones for long-distance migration, which we have seen is often massive in character and mainly to Barcelona. Long-distance migration flows from Salamanca, Zamora and Palencia are mainly to Vizcaya.

**Type B** consists of a continuous block of ten provinces running northwest to south-east through Madrid, which forms the only window in the block. Intra-provincial out-migration flows are still weak, but short-distance, inter-provincial migration (as defined above) much stronger. With the exception of Soria and Teruel,
Fig. 52 Peninsular Spain: Out-Migration Patterns (1962-1965)

- A: Intraprovincial Migration above or below National Level
- B: Intraprovincial Migration above or below National Level
- C: Intraprovincial Migration above or below National Level
- D: Intraprovincial Migration above or below National Level

MILES
0 20 40 60 80 100 120

KILOMETRES
0 40 80 120 160 200
each one of the provinces of this type is contiguous to a major, national, in-migrant province - five to Madrid, two to Valencia and two to Vizcaya (196). The short-distance character of inter-provincial migration flows is one of the characteristic "backwash" effects resulting from geographical proximity to national growth-centres (197).

**Type C** is the antithesis of Type B just described. Intra-provincial out-migration flows are strong, but short-distance, inter-provincial migration quite weak. The twelve provinces of this category do not form a continuous block, and in fact at first glance contain some strange bedfellows. Migration flow characteristics for eight of the provinces of this group were quite explicable since they were in-migrant centres during the 1961-1970 period. Strong intra-provincial flows in Oviedo and La Coruña were partly to the coast and from there overseas. For the other two out-migration provinces of this group one can only assume that Logroño is developing as an intervening opportunity and therefore retaining a high percentage of its own out-migrants, while in León - a province of recent massive out-migration - strong intra-provincial flows are part of a two-stage migration process to provincial capital and from thence to distant in-migration centres.

**Type D** is characterized by both strong intra-provincial out-migration flows and short-distance inter-provincial migration. The provinces of this group include five more of the in-migrant ones for 1961-1970. The remaining three are Santander, Huesca and Lérida. Seven of the eight provinces within this category are contiguous to three of the four national growth-centres (which are included in Type C), Huesca being the exception. Regardless
of the fact whether they were in- or out-migrant provinces during the last decade, these seven are obviously gaining from the "spread" effects resulting from geographical proximity to national growth-centres (198), although their migration flow characteristics suggest a highly mobile population displaying both centripetal and centrifugal tendencies.

Badajoz, the most important out-migrant province during the 1961-1970 period (199), has been chosen to show the difficulty of mapping continuous migration streams by conventional means. Fig. 53 shows that intra-provincial and short-distance, inter-provincial out-migration to the inner ring of contiguous provinces was weak. The most important destinations for the province's out-migrants during the 1962-1965 period were Barcelona 31.17% (five functional units-distance away) (200), Madrid 18.07% (two functional units-distance away), Vizcaya 9.85% (six functional units-distance away), and Valencia 5.04% (three functional units-distance away). Out-migration from Badajoz, therefore, was mainly long-distance. We know that nearly one in three of the province's out-migrants went to Barcelona but there is no direct map evidence to indicate the route that they chose. Indirect evidence is available, however, through the mapping of inter-provincial out-migration from Barcelona (see Fig. 54) (201). Comparing Figs. 54 and 37 it is quite clear that we are dealing here with migration counterstreams. Moreover, since stream and counterstream are movements in opposite directions which flow along the same routeways (202), as far as migration from Badajoz to Barcelona is concerned, it would be reasonable to assume from Fig. 54 that there is a movement of population from western to eastern Andalucia and then up the Mediterranean coast towards Barcelona. If this is so, migrants follow well-worn pathways used for generations by seasonal harvest workers (203). If this hypothesis is correct, then Madrid becomes not a tempting intervening opportunity for migrants en-route to Barcelona.
Fig. 5.4 Barcelona: Inter-Provincial Out-Migration (1962-1965) Effective Field

- Over 2% Inter-Provincial Out-Migrants
but an alternative migration stream. Movement from Badajoz to Vizcaya forms a third migration stream probably following a traditional western routeway avoiding Madrid. Bradshaw has shown that a migration stream flows from the border provinces of Salamanca and Zamora through Valladolid, Palencia and Burgos to the Basque provinces (204). It is hypothesized here, that migrants to Vizcaya from Badajoz channel in to this major migration-axis via a traditional routeway (used at least since the times of the Order of Alcántara) (205) passing northwards through Salamanca. We have tentative supporting evidence from Fig. 43, and more conclusive proof from the number of out-migrants from Badajoz settling in Cáceres, Salamanca, and Valladolid during the 1962-1965 period, when compared with adjoining provinces (206).

Between 1962 and 1967 out-migration from Badajoz to Barcelona was on average the eight most important migration stream in Spain (207). It was surpassed during this period by four other inter-provincial streams linking the Andalucian provinces of Granada, Córdoba, Sevilla and Jaén with Barcelona; migration streams which in their directional component could have differed little from that in Fig. 54. Intra-provincial migration streams are much stronger, however, partly because of the statistical manner in which they are tabulated, which results in exaggeration through counting gross movements in both directions (i.e. stream and counter-stream). Seventeen migration streams have been in the top ten between 1962 and 1969 and ten of these were intra-provincial ones. It is only logical that discharge should increase downstream as with real rivers, for the most important intra-provincial migration streams are in the main in-migrant provinces - Barcelona, Valencia, Vizcaya and Zaragoza in 1962; the first three together with Madrid, Guipúzcoa, Navarra, Alicante and Gerona in 1969 (208). These in-migrant provinces obviously serve as "centres of re-classification" (209) for rural migrants from other provinces who make frequent short-distance, intra-provincial moves in search of adequate work
and accommodation (210). The relationship between inter-provincial and
intra-provincial migration streams is thus shown to be a close and in-
timate one.

An analysis of the ten most important inter-provincial migration streams
in and out of Madrid and Barcelona during the 1962-1965 period is most
instructive (see Tables XIII and XIV). In the case of both provinces all
ten major in-migration streams were from out-migrant provinces (see Table
XIII).

Table XIII

THE TEN MOST IMPORTANT INTER-PROVINCIAL IN-MIGRATION STREAMS
INTO MADRID AND BARCELONA PROVINCES (1962-1965)

<table>
<thead>
<tr>
<th>Movements to Madrid</th>
<th>Gross in-migrants</th>
<th>Movements to Barcelona</th>
<th>Gross in-migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toledo</td>
<td>25,378</td>
<td>Córdoba</td>
<td>40,920</td>
</tr>
<tr>
<td>Badajoz</td>
<td>14,389</td>
<td>Granada</td>
<td>37,360</td>
</tr>
<tr>
<td>Ciudad Real</td>
<td>13,740</td>
<td>Sevilla</td>
<td>30,832</td>
</tr>
<tr>
<td>Guadalajara</td>
<td>8,914</td>
<td>Badajoz</td>
<td>29,590</td>
</tr>
<tr>
<td>Cuenca</td>
<td>8,437</td>
<td>Almería</td>
<td>15,819</td>
</tr>
<tr>
<td>Segovia</td>
<td>7,876</td>
<td>Ciudad Real</td>
<td>15,533</td>
</tr>
<tr>
<td>Jaén</td>
<td>7,759</td>
<td>Málaga</td>
<td>14,954</td>
</tr>
<tr>
<td>Córdoba</td>
<td>7,585</td>
<td>Cáceres</td>
<td>12,835</td>
</tr>
<tr>
<td>Alava</td>
<td>7,393</td>
<td>Lérida</td>
<td>10,844</td>
</tr>
<tr>
<td>Salamanca</td>
<td>4,399</td>
<td>Huelva</td>
<td>10,357</td>
</tr>
</tbody>
</table>

SOURCE: Presidencia del Gobierno, Instituto Nacional de Estadística, Mi-
tración y Estructura Regional, Madrid, 1968, Table 1.2.3.1, pp. 43-47.

In the case of major out-migration streams, in only one instance could move-
ment out of Madrid be deemed a counterstream in any sense of the term -
namely to Toledo. Barcelona had four counterstreams among its ten main out-
migration streams - to Lérida, Granada, Córdoba and Sevilla. The nine other
most important inter-provincial migration streams out of Madrid were to in-
migrant provinces, Madrid clearly serving as an important temporary
intervening opportunity for the seven mainland provinces in this group (211). Barcelona, in contrast, has major inter-provincial, out-migration streams connecting it with a continuous block of five in-migrant provinces within its economic hinterland, as well as another stream to Madrid (see Table XIV).

Table XIV

THE TEN MOST IMPORTANT INTER-PROVINCIAL OUT-MIGRATION STREAMS FROM MADRID AND BARCELONA PROVINCES (1962-1965)

<table>
<thead>
<tr>
<th>Movements from Madrid</th>
<th>Gross out-migrants</th>
<th>Movements from Barcelona</th>
<th>Gross out-migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona</td>
<td>4,679</td>
<td>Gerona</td>
<td>3,554</td>
</tr>
<tr>
<td>Valencia</td>
<td>2,233</td>
<td>Tarragona</td>
<td>2,856</td>
</tr>
<tr>
<td>Toledo</td>
<td>1,093</td>
<td>Madrid</td>
<td>2,832</td>
</tr>
<tr>
<td>Vizcaya</td>
<td>886</td>
<td>Valencia</td>
<td>2,543</td>
</tr>
<tr>
<td>Las Palmas</td>
<td>877</td>
<td>Lérida</td>
<td>2,053</td>
</tr>
<tr>
<td>Santa Cruz Tenerife</td>
<td>752</td>
<td>Zaragoza</td>
<td>1,299</td>
</tr>
<tr>
<td>Alicante</td>
<td>682</td>
<td>Granada</td>
<td>1,183</td>
</tr>
<tr>
<td>Valladolid</td>
<td>614</td>
<td>Córdoba</td>
<td>1,069</td>
</tr>
<tr>
<td>Guipúzcoa</td>
<td>588</td>
<td>Sevilla</td>
<td>992</td>
</tr>
<tr>
<td>Zaragoza</td>
<td>578</td>
<td>Castellón</td>
<td>991</td>
</tr>
</tbody>
</table>

SOURCE: Presidencia del Gobierno, Instituto Nacional de Estadística, Migración y Estructura Regional, Madrid, 1968, Table 1.2.3.1, pp. 43-47.

During the 1962-1965 period of maximum internal migration Madrid and Barcelona were the main in-migrant provinces. Movements in to those provinces were, therefore, "main currents of migration" while generally smaller movements out were "compensating counter currents" (212). Inter-provincial migration streams and counterstreams for Madrid and Barcelona respectively are shown in Figs. 55 and 56. Comparison of these maps reveals the following points:

1. Both Madrid and Barcelona experienced net losses of migrants to Baleares, Las Palmas and Santa Cruz de Tenerife, no doubt partly because they proved to be attractive centres for retirement as
as well as to a certain extent tax-havens for city-dwellers. Madrid showed a further net loss to Barcelona and Valencia as part of the pattern of the constant exchange of migrants between major industrial regions (215).

(ii) The efficiency of stream and counterstream (214) is low in the exchanges of population between Madrid and Barcelona respectively and the other fifteen in-migrant provinces of the recent decade, averaging 98.32% for Madrid and 60.25% for Barcelona. Efficiency was highest in both instances with reference to migration streams and counterstreams between Madrid and Barcelona on the one hand, Zaragoza and Valladolid on the other hand, thus confirming the weakness of the latter pair as yet as in-migration centres (215).

(iii) Efficiency of stream and counterstream is much higher for Madrid than Barcelona in almost every instance (216), averaging 12.66% for the former and 8.11% for the latter (217). Proportionally less migrants return from Barcelona than Madrid. There is no map evidence that physical distance is an awe-inspiring intervening obstacle for return migrants from Barcelona (which is unorthodoxically located with reference to the national labour market) to, say, Andalucía. Rather it would appear that migrants have more difficulty "fitting-in" (218) in the case of Madrid, and either move on to other in-migrant centres (219) or return to their point of departure. Perhaps this would explain the greater under-registration of migrants in Madrid than Barcelona, who find it a harsh, administrative, bureaucratic world (220);

"...an extension of what they already have. Landed power. The Church. Feudalism intensified." (221).

who do not look upon it as a final "earthly paradise" (222) and fail to give their names in at the gates. It would also explain
why Madrid is avoided as an intervening opportunity by so many southern migrants.

(iv) There are important regional differences in efficiency of stream and counterstream which apply equally to Madrid and Barcelona. Old Castile is more economically advanced than New Castile (excluding Madrid) and Andalucía, has a more mobile population and stronger counterstreams from both Madrid and Barcelona. There are not only differences between regions but also within regions. Counterstreams are weaker to the interior provinces of Galicia than the more advanced coastal ones.

An over-concentration on the problems of stream and counterstream and of the routes followed by migrants has blinded our eyes to the fact that migration is often a discontinuous process which takes place stage-by-stage. If it can be shown that the "index of non-natives" (223) has increased in the out-migrant provinces of a recent period, then it is conclusively demonstrated that migration is a "wave-like motion" (224). Between the Census of 1960 and the Padrón of 1965 no less than twenty-nine of the thirty-five out-migrant provinces of the 1961-1965 period increased their indices of non-natives (225). The only exceptions were Ávila, Ciudad Real, Lérida, Sevilla and Zamora - a preponderance of western provinces indicating once more that netmovements of population in Spain in the recent past have been not only from south to north but increasingly from west to east.

4) Intra-regional migration

Any conclusions regarding internal migration on a regional scale obviously revolve around the central problem of regional definition - never an easy problem in Spain with differing concepts of natural, hydraulic (226), economic and historical regions (227). Table XV shows the percentage of each historical region's internal migrants retained within the region.
Nine regions retained more than the national average of 41.37% during the 1962-1965 period, and of these seven were in-migration regions. The exceptions were Asturias and Aragón.

Table XV

<table>
<thead>
<tr>
<th>Regions</th>
<th>Intra-regional migrants</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataluña</td>
<td>86.43 per cent</td>
<td></td>
</tr>
<tr>
<td>Basque provinces</td>
<td>81.12 per cent</td>
<td></td>
</tr>
<tr>
<td>Valencia</td>
<td>80.36 per cent</td>
<td></td>
</tr>
<tr>
<td>Canaries</td>
<td>77.83 per cent</td>
<td></td>
</tr>
<tr>
<td>Baleares</td>
<td>76.64 per cent</td>
<td></td>
</tr>
<tr>
<td>Navarra</td>
<td>63.74 per cent</td>
<td></td>
</tr>
<tr>
<td>Aragón</td>
<td>53.77 per cent</td>
<td></td>
</tr>
<tr>
<td>Madrid</td>
<td>43.82 per cent</td>
<td></td>
</tr>
<tr>
<td>Asturias</td>
<td>44.46 per cent</td>
<td></td>
</tr>
<tr>
<td>Old Castile</td>
<td>41.22 per cent</td>
<td></td>
</tr>
<tr>
<td>Galicia</td>
<td>35.36 per cent</td>
<td></td>
</tr>
<tr>
<td>León</td>
<td>30.04 per cent</td>
<td></td>
</tr>
<tr>
<td>Andalucía</td>
<td>17.66 per cent</td>
<td></td>
</tr>
<tr>
<td>New Castile</td>
<td>15.52 per cent</td>
<td></td>
</tr>
<tr>
<td>Extremadura</td>
<td>12.72 per cent</td>
<td></td>
</tr>
<tr>
<td>Murcia</td>
<td>11.67 per cent</td>
<td></td>
</tr>
</tbody>
</table>

* Expressed as a percentage of total internal migrants.

SOURCE: Personal interpretation of statistics in Presidencia del Gobierno, Instituto Nacional de Estadística, Migración y Estructura Regional, Madrid, 1968, Table 1.3.2.2, p. 75.

Figs. 57 and 58 bring out the contrast between weak and strong intra-regional migration streams and counterstreams in Andalucía and Old Castile respectively. These regions have been selected because Andalucía to a considerable extent has taken over Old Castile's role as the dynamic source region supplying Spain's growth regions with their mobile, migrant elements (229).

5) Inter-regional migration

There is obviously a close inter-relationship between intra- and inter-regional migration. García Barbancho, in a comparison of the 1901-1930 and
Fig 57 Old Castile: Intra-Regional Migration Streams and Counterstreams (1962-1965)
1931-1960 periods, found that there was a tendency in the traditional out-migrant regions (except Eastern Andalucía) for the percentage of out-migrants retained within the region to increase (229). Within the new areas of massive out-migration - Eastern and Western Tajo-Guadiana, Western and Eastern Andalucía - out-migrants literally could not find regions far enough away to flee to, such was their abhorrence of the social and economic conditions of their native regions. This increased tendency for southern migrants to "vote with their feet" (230) resulted in increased percentages of inter-regional migrants arriving in the traditional in-migrant regions of the North-East, Madrid and the Basque provinces (231). During the 1962-1965 period there is little doubt that this process not only continued but intensified (232), the regions arranged in Table XV in declining order of intra-provincial migration for that period appearing in reverse order with respect to inter-provincial migration for the same period. Murcia, for example, was first with 88.33% of its out-migrants being inter-regional ones (233).

Not only is there a relationship between intra- and inter-regional migration; Fig. 59 shows the correlations which exist between strong intra-provincial, intra-regional and inter-provincial in-migration streams. All fifteen in-migrant provinces of the 1961-1965 period were affected by each of these migration streams; Oviedo, Logroño, Huesca and Lérida by two of the three streams; La Coruña, León, Valladolid, Santander and Teruel by one. By and large there is a further correlation between the twenty-four provinces characterized by strong, recent, in-migration of one kind or another shown in Fig. 59, and the traditional (234) in-migrant provinces shown in Fig. 60.

Provinces rather than regions are most affected by inter-provincial in-migration. In other words, tributary inter-provincial out-migration streams broaden out into massive inter-regional floods which flow towards
a small number of provincial seas. The main direction of inter-regional flow is northwards and to a lesser extent eastwards (235). Barcelona province, for example, received four hundred and ninety-two out of every thousand of its in-migrants in the 1962-1965 period from Andalucía and one hundred and ten from Extremadura; Valencia three hundred and fifty-one per thousand from New Castile and one hundred and ninety-nine from Andalucía; Vizcaya three hundred and twenty-six per thousand arrivals from Old Castile and one hundred and eighty-six from León (236). In the case of Madrid, the main flow into the province of three hundred and thirty-three per thousand arrivals was intra-regional but northwards from New Castile, while the main inter-regional flow of one hundred and sixty per thousand from Andalucía again had a northerly "directional element" (237).

6) International migration

It lies outside the realm of this thesis to consider international migration except in so far as it affects internal migration. As far as migration streams are concerned there is little relationship between inter-regional, continental and overseas migration streams as Table XVI demonstrates. Still less is there a relationship between the respective counterstreams; between the "indios"

(238) from overseas who wish to return successfully and ostentatiously to their rural origins and the continental "target-workers" (239) who wish to invest modestly their acquired skills or capital in urban surroundings within Spain (240). Urban-to-rural inter-provincial counterstreams are usually weak, overseas or continental counterstreams quite strong (241).
In summary, migration streams have been classified according to some
function of the physical distance separating points of origin and destina-
tion, and the relationship or lack of relationship between the various
types has been discussed. The magnetic attraction of certain large urban
areas between Madrid-Valencia and the French frontier had the effect of
nullifying the distance of travel and introduced a "directional element"
to main migration streams. Movement predominantly northwards and to a
lesser extent eastwards on a macro-scale was from the "most rural, least
populated, least urban and most poor" (242) half of Spain.

4. Migration streams - an alternative classification

Any geographical classification of internal migration streams should
take into account the socio-economic environments of places of origin and
destination of migrants (243), as well as the intervening obstacle of
physical distance which separates such places (244). The alternative class-
ification proposed here is not dissimilar from that suggested by Eger-
strand (245).
1) Rural to rural.

2) Rural to urban.

3) Urban to urban.

1) Rural to rural migration streams

According to Pérez Díaz (246), 20% of the internal movements of population registered in Spain during 1964 occurred between municipios of less than 10,000 population and must thus be considered rural-to-rural migrations (247). The relative constancy of such migration streams can be gauged from the fact that rural-to-rural migrations accounted for 13.95% of the total in 1969 (248). An obsession with the problem of "rural exodus" has blinded many learned authorities to the lesser known phenomenon of rural-to-rural migrations, except for the colonizing activities associated with new irrigation schemes (249). Sancho (250), in a 1971 study of Segovia, found that 44% of his sample interviewees were "life-time migrants" into the rural villages of the province (251). Supporting evidence comes from Fundación ROESSA in 1970 (252), which found that 38% of their national sample of housewives were "life-time migrants" into municipios with less than 2,000 population (253).

Pérez Díaz believes that present-day rural migration in Spain is connected with the disappearance of gangs of itinerant harvest-workers from Galicia, León, Zamora and the south to the wheatlands, coupled with a parallel decline in transhumance (254). Seasonal migration has disappeared, he maintains, only to be replaced by "migración de sustitución" (255). In our opinion, the connection between declining seasonal migration and more permanent migration by substitution is unproven. Many rural areas - the hop-growing regions of León province, for example - have been unable to attract either type of migrant in recent years despite the attraction of high wages at harvest time (256). Emigration from the English countryside between 1851 and 1871 increased the need for more seasonal migration (257).
All the available recent evidence for Spain indicates that seasonal migration is a seriously declining phenomenon (258), at least within the limits set by national frontiers (259).

Pérez Díaz also sees a connection between rural-to-urban migration and migration by substitution, rural-to-rural migrants filling up some of the gaps left by rural-to-urban migrants. He implies that the main areas of attraction for substitute rural migrants are many zones in the North-East, Levante and interior irrigated areas which, in comparison with more backward agricultural regions, are "relatively urbanized" in respect of their economic and social conditions (260). The empirical evidence supports Pérez Díaz's hypothesis. There is recent evidence from Mallorca (261), Valencia (262), and Murcia (263), that local inhabitants of the main tourist areas are attracted to work in the construction industry or in the service sector, with rising wages in the agricultural sector induced through labour shortage acting as a magnet to attract rural migrants from further afield. Mir de la Cruz (264), in a study of internal migration in the province of Castellón in the 1955-1959 period, similarly found an important employment differential between intra- and extra-provincial in-migrants, the latter in almost two cases out of three taking up jobs in the agricultural sector presumably vacated by the former. Rural-to-rural migrations within the province were, however, important. The mountain and secano regions of the western part of the province traditionally send annual contingents of migrants not only to the provincial capital but also rich agricultural zones along the coast (265). Monferrer Barquero (266), in a study of Villahermosa del Río (Castellón), found that rural-to-rural migration to the nearby villages of Alcora, Almazora, Burriana, Onda and Villarreal collectively formed a more important migration stream during the 1961-1967 period than that to the province of Barcelona!

It would be wrong to assume that migration by substitution is entirely
a phenomenon of the more advanced agricultural regions of Spain. Rather it is a phenomenon which is nation-wide. Although there are long-distance rural-to-rural migrants (particularly from Andalucía), substitute migration is essentially short-distance. Redford's "wave-like motion" of population takes place "over a gradient from sparser to denser population concentration by stages" (267). This movement by stages we have seen from the cortijos of parts of Andalucía to the aldeas, the pueblos, and from thence to provincial capital or further afield (268). This movement, moreover, affected irrigated and non-irrigated areas alike (269), but it is a type of migration which is often so short-distance that it is not reflected in official internal migration statistics. In 1965, for example, of three hundred and sixty-nine inhabitants living in Aldea del Puente (León) sixty-four were born elsewhere, but fifty-seven of these came from other parts of the municipio of Valdepolo so that only seven were "life-time migrants" from without (270). There is evidence that rural-to-rural in-migration streams are more short-distance than out-migration ones, mainly due to the epi-phenomenal movement of women as a result of marriage (271). In more general terms, empirical evidence would suggest that the broad lines of movement of these rural-to-rural migration streams are valleywards as well as towards the eastern and north-eastern lowlands (272), with gaps left at higher altitudes (273), in the remoter, dispersed habitat, or the western border regions difficult to fill (274). In contrast, vacancies in the agricultural sector around the Basque and Catalan industrial centres and around Valencia are not hard to fill. Courtot (275), for example, in a study of the movement of workers in the province of Valencia found that over 80% (276) of in-migration and over 50% of out-migration occurred around the provincial capital and its urban region; although as Pérez Díaz points out there is a sinister connection between rural-to-rural and rural-to-urban migrations, the former often being but a "preliminary phase" to a fresh rural-to-urban
migration wave (277). The valleyward movement of population it is hoped will be more permanent in nature. If the "policy of cabezas comarcales" (278) is anything to go by rural population by 1980 will mainly be concentrated in "regional centres" (279) which are "most susceptible to urbanization" (280). The official backing given to this process from 1963 especially in the III Plan's attitude towards "the policy of regional development and the attempt to channel these migratory movements" (281), is no more than recognition of a movement from small rural nuclei to cabeceras de comarca which was already in operation in the 1960s (282). This is testified too by the fact that "the effective level of analysis for the social scientist", as Kenny notes, "has shifted from the pueblo to the comarca (283).

An attempt to measure demographically "progressive" municipios in 1969 (284) found a negative correlation with increasing rurality although there was no perfect positive correlation with urbanization (see Table XVII).

<table>
<thead>
<tr>
<th>Size of municipio</th>
<th>Number of progressive municipios</th>
<th>Total number of municipios</th>
<th>(\frac{A \times 100}{B})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1,000</td>
<td>193</td>
<td>5,306</td>
<td>3.64</td>
</tr>
<tr>
<td>1,001- 3,000</td>
<td>324</td>
<td>1,903</td>
<td>16.47 (rural)</td>
</tr>
<tr>
<td>3,001- 5,000</td>
<td>200</td>
<td>628</td>
<td>31.84 (rural)</td>
</tr>
<tr>
<td>5,001-10,000</td>
<td>236</td>
<td>564</td>
<td>41.84</td>
</tr>
<tr>
<td>Over 10,000</td>
<td>347</td>
<td>484</td>
<td>71.69 (urban)</td>
</tr>
</tbody>
</table>

**Table XVII**

DEMOGRAPHICALLY PROGRESSIVE MUNICIPIOS BY POPULATION GROUPS, SPAIN, 1969.

According to this source, sixteen out of eighteen demographically "progress-
ive provinces\textsuperscript{285} were in fact coastal ones\textsuperscript{286}, so that it would appear that the valleyward movement of people is only of secondary (perhaps transitory) importance, as a movement of population by stages takes place to the coast. Certainly controlled movements of population in Spain have been doomed to failure since at least the times of Ferdinand VI (1746-1759)\textsuperscript{287}. Despite the fact that Instituto Nacional de Colonización's rural colonos\textsuperscript{288} have mainly been drawn from local areas\textsuperscript{289}, this has failed to halt out-migration even of colonos! Ortega Cantero found that the majority of colonos in Vegaviana (Cáceres) were forced to leave the village as they approached sixty years of age "on account of the emigration of their sons, and their own increasing incapacity to maintain the productive régime of the land which had been apportioned to them"\textsuperscript{290}. He also found that newly-married couples were, in general, forced to migrate from the village since there were neither dwellings for them to occupy nor autonomous lands for them to cultivate\textsuperscript{291}. Again there is evidence that the percentage share of colonos in the irrigated lands of Plan Badajoz has steadily fallen as plots have been bought and sold on the open-market, partly as the result of migration by some colonos\textsuperscript{292}.

Most of the empirical evidence suggests that rural-to-rural migration is to many people but a temporary phase prior to "rural exodus", while in many areas it is but a minority movement anyway. Of seventy peticiónes de baja\textsuperscript{293} from Aldea del Puente during the whole of the 1954-1968 period only four (or 5.71\% of the total) gave rural destinations\textsuperscript{294}. Nationally it will be remembered the figure is somewhere between 16\% and 20\%.

2) Rural to urban migration streams

Internal migration in Spain is very largely what German sociologists call \textit{Lendflucht} and Spaniards \textit{éxodo rural}\textsuperscript{295}. Between 1961 and 1965, for example, 1,915,602 Spaniards (or 6.1\% of the total population) re-
gistered themselves as internal migrants (296). As far as rural municipios
were concerned there was a net migration loss of 34.43% which as Table XVIII
demonstrates hit the most rural villages hardest.

Table XVIII

INTERNAL MIGRATION IN SPAIN CLASSIFIED BY POPULATION GROUPS, 1961-1965

<table>
<thead>
<tr>
<th>Size of municipio</th>
<th>Migrant departures</th>
<th>Migrant arrivals</th>
<th>Net migration change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2,000</td>
<td>27.41 per cent</td>
<td>8.42 per cent</td>
<td>-18.99 per cent</td>
</tr>
<tr>
<td>2,000-10,000</td>
<td>36.65 per cent</td>
<td>21.14 per cent</td>
<td>-15.51 per cent</td>
</tr>
<tr>
<td>10,001-20,000</td>
<td>19.99 per cent</td>
<td>10.11 per cent</td>
<td>-0.88 per cent</td>
</tr>
<tr>
<td>20,001-100,000</td>
<td>14.75 per cent</td>
<td>23.50 per cent</td>
<td>+8.75 per cent</td>
</tr>
<tr>
<td>100,001-500,000</td>
<td>5.56 per cent</td>
<td>15.16 per cent</td>
<td>+9.60 per cent</td>
</tr>
<tr>
<td>Over 500,000</td>
<td>4.58 per cent</td>
<td>21.60 per cent</td>
<td>+17.02 per cent</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.00 per cent</strong></td>
<td><strong>100.00 per cent</strong></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: J. Ayuso Orejana, "La población como factor condicional de la
demanda", Información Comercial Española, Revista de Estudios del
Ministerio de Comercio, Madrid, No. 405, May, 1967, p. 44.

Table XIX

POPULATION CHANGES ANALYSED BY POPULATION GROUPS, 1900-1960

<table>
<thead>
<tr>
<th>Size of municipio</th>
<th>Percentage of population # 1900</th>
<th>1960</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2,000</td>
<td>27.53</td>
<td>14.52</td>
<td>-13.01</td>
</tr>
<tr>
<td>2,000-10,000</td>
<td>40.27</td>
<td>28.70</td>
<td>-11.57</td>
</tr>
<tr>
<td>10,001-20,000</td>
<td>10.83</td>
<td>11.15</td>
<td>+0.32</td>
</tr>
<tr>
<td>20,001-100,000</td>
<td>12.37</td>
<td>17.89</td>
<td>+5.52</td>
</tr>
<tr>
<td>100,001-500,000</td>
<td>3.24</td>
<td>15.60</td>
<td>+10.36</td>
</tr>
<tr>
<td>Over 500,000</td>
<td>5.76</td>
<td>14.14</td>
<td>+8.38</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
<td><strong>+64.28</strong></td>
</tr>
</tbody>
</table>

# Población de hecho.
SOURCE: Presidencia del Gobierno, Instituto Nacional de Estadística, Anuario Estadístico de España, 1965 (edición manual), Madrid, 1965,
Table 1.1.5, p. 36.
Analyzing population changes by type of settlement (see Table XIX), the statistics again demonstrate that rural exodus took place between 1900 and 1960, for only municipios with less than 10,000 population lost population during this period.

Yet rural exodus is only one side of the coin. There is a smaller but nevertheless important urban-to-rural migration stream which is not entirely a counterstream. Nor is this the only coin. Rural-to-rural and urban-to-urban migration streams, when taken together, now form over half the registered movements of internal migrants (see Table XX).

Table XX

<table>
<thead>
<tr>
<th>SPANISH INTERNAL MIGRATION STREAMS BY POPULATION GROUPS, 1964 AND 1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of migration stream</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Rural-to-rural</td>
</tr>
<tr>
<td>Rural-to-urban</td>
</tr>
<tr>
<td>Urban-to-rural</td>
</tr>
<tr>
<td>Urban-to-urban</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

Between rural municipios having less than 10,000 population; between urban municipios having more than this population.

SOURCE: Presidencia del Gobierno, Instituto Nacional de Estadística, Anuario Estadístico de España, 1965 (edición manual), Madrid, 1965, Table 3.2.1, p. 54; and Ibid., Anuario Estadístico de España 1970, Madrid, 1970, Table 3.2.6, p. 454.

Table XX shows also that significant declines took place in the volumes of rural-to-urban and rural-to-rural migration streams, with compensatory increases taking place in urban-to-rural and urban-to-urban flows. Rural exodus in 1964 - the peak year for registered internal movements of population in Spain - differed little from the norm for the 1961-1965 period.
(compare Tables XX and XXI); but the figures for 1969 indicate a slowing down of the drift from the land and even a return movement, perhaps temporarily, to the countryside (see Table XXI).

Table XXI

<table>
<thead>
<tr>
<th>Size of municipio</th>
<th>Migrant departures ( \times 10^3 ) 1964</th>
<th>1969</th>
<th>Migrant arrivals ( \times 10^3 ) 1964</th>
<th>1969</th>
<th>Net migration change ( \times 10^3 ) 1964</th>
<th>1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2,000</td>
<td>27.21</td>
<td>21.52</td>
<td>7.39</td>
<td>8.06</td>
<td>-19.82</td>
<td>-13.46</td>
</tr>
<tr>
<td>2,000-10,000</td>
<td>37.28</td>
<td>31.95</td>
<td>20.89</td>
<td>23.98</td>
<td>-16.39</td>
<td>-7.93</td>
</tr>
</tbody>
</table>

\( \times \) Expressed as a percentage of total internal migration.

\( \# \) Expressed as a percentage.

SOURCE: As Table XX.

On the evidence of the percentage of the Spanish population contained in rural municipios with less than 2,000 population, rural exodus actually slowed down in the 1960s when compared with the 1950s. The percentage of the total population contained in this population group fell by 5.5% between 1951 and 1960 but only by 3.49% between 1961 and 1970. In contrast, rural exodus increased within non-urban municipios with between 2,000 and 10,000 population, the percentage of the national population contained within this group falling by 6.20% in the 1960s compared with 2.40% in the 1950s (297). Clearly the centrifugal movements of population from the smaller rural municipios makes rural exodus a one-way ticket (293) and rural depopulation, therefore, a serious problem. Rural exodus is strongest now from the larger non-urban municipios, nurtured by centripetal movements from outlying aldeas, dispersed habitat and the like. This population group is less troubled as yet by rural depopulation, population decline being mitigated to
some extent through substitute migration from outlying entidades and smaller municipios and, on the evidence of 1969 statistics, by stronger counterstreams from urban areas (see Table XXI).

Despite an absolute fall in the volume of internal migration in 1969 compared with 1964, and despite the significant changes in migration streams already referred to, each population group draws a remarkably similar percentage of the out-migrants of each other group (see Table XXII).

The larger non-urban municipios as a group accounted for 37.28% and 31.96% of total registered internal out-migration in 1964 and 1969 respectively (299), in the first year supplying between 29% and 41% of the migrant arrivals to each other population group and in the second year between 29% and 35%. Clearly rural exodus needs to be re-examined in the light not only of annual changes in out-migration volumes and rates related to the see-saw mechanism of "push-pull" factors operating with differential intensity; not only in the light that there appears to be an inverse relationship between volumes and rates of out-migration and size of out-migration centres; but also in the light of the fact that the gravitational pull of each population group appears to operate as a force of equal constancy to capture an equal share of each and every migration stream (300), regardless of changes in rates and volumes of out-migration or of differences in size of out-migration population groups. Clearly we have further proof here of stage-by-stage migration. Elkins has been able to detect similar population movements in France between 1954 and 1962.

He speaks of smaller agglomerations with less than 5,000 inhabitants being "in a whirl of movement" while at the same time noting a "great shuffling up the urban hierarchy" (301). While the Paris region at the peak of the urban hierarchy gained more net migrants from other urban centres in France than from direct rural-to-urban migration (302), this was not the case in Spain. Table XXII shows that the population group with
Table XXII

INTERNAL MIGRATION CLASSIFIED BY TYPES OF POPULATION GROUP OF DEPARTURE AND ARRIVAL OF MIGRANTS, 1964 AND 1969

Migrant departures and arrivals by population group

<table>
<thead>
<tr>
<th>Municipios of arrival</th>
<th>Municipios of departure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2,000</td>
<td>2,001-10,000</td>
</tr>
<tr>
<td>(a) 1964</td>
<td></td>
</tr>
<tr>
<td>Under 2,000</td>
<td>47.68</td>
</tr>
<tr>
<td>2,001-10,000</td>
<td>27.01</td>
</tr>
<tr>
<td>10,001-20,000</td>
<td>23.04</td>
</tr>
<tr>
<td>20,001-100,000</td>
<td>26.68</td>
</tr>
<tr>
<td>100,001-500,000</td>
<td>25.53</td>
</tr>
<tr>
<td>Over 500,000</td>
<td>24.14</td>
</tr>
<tr>
<td>(b) 1969</td>
<td></td>
</tr>
<tr>
<td>Under 2,000</td>
<td>37.01</td>
</tr>
<tr>
<td>2,001-10,000</td>
<td>21.00</td>
</tr>
<tr>
<td>10,001-20,000</td>
<td>16.63</td>
</tr>
<tr>
<td>20,001-100,000</td>
<td>19.73</td>
</tr>
<tr>
<td>100,001-500,000</td>
<td>18.93</td>
</tr>
<tr>
<td>Over 500,000</td>
<td>23.33</td>
</tr>
</tbody>
</table>

SOURCE: As Table XX

over 500,000 inhabitants gained 52.51% of its migrants from rural municipios compared with 47.49% from an urban source.

3) **Urban-to-urban migration streams**

Urban-to-urban migration increased its percentage share of total internal migration in 1969 when compared with 1964, not only collectively (see Table XX) but also (with one exception) (303) between each urban population
group (see Table XXIII). Yet in both 1964 and 1969 urban-to-urban migrations were slightly more important in the categories with 10,001-20,000 and 100,001-500,000 population (304). The reasons for this are not obvious unless we bear in mind that rural-to-urban migration streams are mainly focused on the other two categories of urban population, i.e., provincial capitals (and thirty of these had populations in the range of 20,001-100,000 in 1960) (305) and Madrid and Barcelona (which were in the over 500,000 population group (306). Confirming evidence for our hypothesis comes from rural-to-urban migration streams which, from municipios with less than 2,000 population, were strongest to provincial capitals in 1964 (i.e., the 20,001-100,000 population group) and to national in-migration centres in 1969 (i.e., the over 500,000 population group). It is interesting to note that while the most rural elements of the population appeared to be prepared to migrate further in 1969 than in 1964, migrants from larger non-urban municipios found the provincial capital more attractive in 1969 than in 1964 (307), thus confirming the growing importance of intra-provincial migration (308).

The growing mobility of Spanish urban population is reflected in the fact that migrations between municipios of over 500,000 population almost doubled in 1969 compared with 1964, increasing from 1.97% of total in-migration into that population group to 3.42% (see Table XXII). There was a noticeable increase, too, in the migration streams linking municipios with 100,001-500,000 population with still larger ones of over 500,000 population, increasing from 6.04% of total in-migration into the latter population group in 1964 to 13.44% in 1969.

According to de Miguel and Salcedo, from 1967 the receptive capacity of municipios with more than 100,000 population appears to begin to reach saturation point to the benefit of urban areas with between 10,000 and 100,000 population. (309). The ratio of net in-migration to total national
gross migration for municipios with over 100,000 population falls from 27.41% in 1964 to 12.79% in 1969, while that for all other smaller urban municipios remains more or less constant at 8.30% in 1964 and 8.52% in 1969 (310). In point of fact, municipios with over 500,000 population seem to have the largest turnover of population. Not only did in-migration increase significantly from municipios with 100,001-500,000 population but there was also a large increase in the return movement to the 10,001-20,000 population group, the counterstream linking these two groups increasing from 5.51% of total in-migration in 1964 into these smaller urban municipios to 20.22% in 1969 (see Table XXII). As part of the same pattern, the return movement to the land (which generally increased in intensity in 1969) was strongest from municipios with over 500,000 population to larger non-urban ones, the return movement increasing from 4.30% of total in-migration into municipios with between 2,001 and 10,000 population in 1964 to 12.46% in 1969. This differential of 8.16% was much reduced for smaller rural municipios, return movement only increasing by 2.85% for the same time-span. When return movements from provincial capitals (i.e., municipios with 20,001-100,000 population) are considered this differential between smaller and larger non-urban municipios all but disappears, urban-to-rural migration from provincial capitals to small rural and larger non-urban population groups increasing by 3.35% and 2.36% respectively between 1964 and 1969 (see Table XXII) (311).

This discussion of an alternative classification of migration streams has rightly brought out the complex inter-relationships existing between rural-to-rural, rural-to-urban, urban-to-rural, and urban-to-urban flows. While it has been shown that internal migration in Spain is not now mostly from rural to urban areas, it is not our intention to play down the demoralizing effects of éxodo rural. Between 1963 and 1967 no less than 33% of net out-migration losses fell to municipios with less than 10,000 popula-
tion; 13% was the disproportionate burden which municipios with less than 2,000 population (which had 14% of the Spanish population in 1960) had to bear compared with 15% for those with 2,001-10,000 population (which had 20% of the total population in 1960). (312). But it is the smallest pueblos of all which suffer most from out-migration on a massive scale. The number of municipios with less than 100 inhabitants increased by 0.61% between 1950 and 1960, and by 5.21% between the latter date and 1970 (313). Rural exodus is selective not only of the smaller villages. A study of rural emigration in twelve Castilian comarcas in the 1966-1968 period found that 17% of the active population left, while in terms of agriculturally active population the percentage was about 50 (314).