

**CONJUNCTURE AND MIGRATION IN THE  
METROPOLITAN REGION OF BARCELONA**

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**105**

Aquest treball es va presentar com a Comunicació al *3rd.  
European Population Conference*, Milà, 1995.

**Centre d'Estudis Demogràfics**

**1995**

## **ABSTRACT**

### **CONJUNCTURE AND MIGRATION IN THE METROPOLITAN REGION OF BARCELONA**

Migration in developed societies is still one of the more sensitive indicators of conjuncture, considered this as how people react in demographical terms to the whole set of economic and social conditions in a concrete moment. Although the analysis of internal migration seems to have lost its avant-garde role in demographic studies, it is still outstanding as long as it puts into relation, as it is intended in this communication, demographic events with the underlying features which characterize the society where they are produced. This relationship is significant in order to understand the population dynamics of a region.

This communication has two well differentiated parts. In the first one (sections 1 and 2), general, internal migration in Catalonia, specially within the Metropolitan Region of Barcelona (MRB), is characterized. In the second part (section 3), internal migration is connected with some associated features following a macroeconomic approach. The analysis has been carried out with aggregate data, basically from 1991 population census.

## **RÉSUMÉ**

### **CONJONCTURE ET MIGRATION DANS LA RÉGION METROPOLITAINE DE BARCELONE**

La migration dans les sociétés développées est encore un des indicateurs les plus sensibles à la conjoncture, si on la considère comme la réaction en termes démographiques de la population aux conditions économiques et sociales d'un moment concret. Malgré que les analyses des migrations semblent avoir perdu leur rôle d'avant-garde dans les études démographiques, il est encore remarquable pourvu qu'elles rattachent, comme on a essayé de faire en cette communication, les événements démographiques avec les traits subjacents qui caractérisent la société où elles ont lieu. Cette relation est significative pour comprendre la dynamique régionale d'une population.

Cette communication a deux parties bien marquées. Dans la première partie (sections 1 et 2), générale, la migration interne en Catalogne, spécialement dans la Région Metropolitaine de Barcelone (MRB), est caractérisée. Dans la deuxième part (section 3), cette migration interne est rattachée avec quelques traits associés suivant une approximation macroéconomique. L'analyse a été réalisée avec des données agrégées venant du recensement de 1991.

## **RESUM**

### **CONJUNTURA I MIGRACIÓ A LA REGIÓ METROPOLITANA DE BARCELONA**

En les societats "desenvolupades" les migracions són uns dels indicadors més sensibles a la conjuntura -les condicions econòmiques i socials d'un moment concret-. Podem considerar les migracions com una resposta demogràfica a aquesta conjuntura. Si bé l'anàlisi de les migracions interiors sembla haver perdut el seu caire de frontera en els estudis demogràfics, el seu estudi continua essent rellevant atès que permet posar en contacte els esdeveniments demogràfics i els trets socio-econòmics d'una societat. Aquesta relació és significativa per entendre la dinàmica regional d'una població.

Aquesta comunicació té dues parts ben definides. En la primera (seccions 1 i 2), general, es perfila la migració interior a Catalunya, especialment dins de la Regió Metropolitana de Barcelona (RMB). En la segona (secció 3) la migració interior es relaciona amb algunes variables, tot seguint una aproximació macro-econòmica. L'anàlisi s'ha dut a terme amb dades agregades, provinents en la seva majoria del Cens de població de 1991.

## **RESUMEN**

### **COYUNTURA Y MIGRACIÓN EN LA REGIÓN METROPOLITANA DE BARCELONA**

En las sociedades "desarrolladas" la migración es uno de los indicadores más sensibles a la coyuntura, entendida como las condiciones económicas y sociales de un momento concreto. La migración puede ser considerada como una respuesta demográfica a una coyuntura. El análisis de las migraciones internas parece haber perdido su carácter fronterizo en los estudios demográficos; sin embargo, su estudio continua siendo relevante porque relaciona acontecimientos demográficos y características socioeconómicas de una sociedad. Esta relación es significativa para entender la dinámica regional de una población.

Esta comunicación se divide en dos partes. En la primera (secciones 1 y 2), general, se analiza la migración interna en Cataluña, especialmente dentro de la Región Metropolitana de Barcelona. En la segunda parte (sección 3), la migración interna se relaciona con algunas variables, dentro de una aproximación macroeconómica. El análisis se realiza con datos agregados, procedentes del Censo de población de 1991 en su mayor parte.

## CONJUNCTURE AND MIGRATION IN THE METROPOLITAN REGION OF BARCELONA <sup>1</sup>

Migration in developed societies is still one of the more sensitive indicators of conjuncture, considered this as how people react in demographical terms to the whole set of economic and social conditions in a concrete moment. Although the analysis of internal migration seems to have lost its avant-garde role in demographic studies, it is still outstanding as long as it puts into relation, as it is intended in this communication, demographic events with the underlying features which characterize the society where they are produced. This relationship is significant in order to understand the population dynamics of a region.

This communication has two well differentiated parts. In the first one (sections 1 and 2), general, internal migration in Catalonia, specially within the Metropolitan Region of Barcelona (MRB), is characterized. In the second part (section 3), internal migration is connected with some associated features following a macroeconomic approach. The analysis has been carried out with aggregate data, basically from 1991 population census.

## **1. Internal migration**

Internal migration is a field where all sorts of social scientists run in order to seize reality. Demographers, geographers, economists, sociologists have intended to study the field with various results. Some have identified the growth areas, characterized the phases of evolution of urban phenomena (urbanisation, suburbanisation, counterurbanisation) and described its spatial structure. Champion (1985) and Marksoo (1985) are good examples of this research. Others, mostly economists, have focused on trying to explain migration by socio-economic characteristics of territory. Gordon (1982) and Quigley and Weiberg (1977) has synthesised the many approaches willing to establish the so-called push and pull factors of migration. Open calls for a greater integration of approaches and results are also common (see Huff and Clark, 1982; Gordon and Vickerman, 1982, and Graham, 1985).

Limits to studies of internal migration come from many places. First, territory and scale become important conditions. As Courgeau (1973) clearly demonstrated, the size and the shape of the territorial units considered in the research can notably change the results. Delauny (1995) has recently deepened in the limits to spatially-based data. Second, limitations come from difficulties in analysis, as long as macroeconomic approaches often forget that social phenomena can not be intended to explain only by means of formula. The results obtained in those approaches can only be considered as tendencies which need to be reinforced by more microeconomic-shifted analysis. Biographic surveys where territory is related with social and demographic events become necessary as recent claims have stated (Courgeau and Lelièvre, 1989; Bloosfeld, Hamerle and Mayer, 1989; Mulder and Wagner, 1993).

As Gordon (1982) stated, macroeconomic internal migration research should concentrate on separating the different flows which simultaneously exist over territory: flows with different origin and destination, flows of different types of migrant (sex, age, race, income, profession) and flows of different motivation for moving. These separated flows can therefore be analysed and related to the characteristics of the population (migrant and non-migrant). Gordon and Vickerman (1982) obtained good results in their research based upon macroeconomic assumptions. It is necessary to recognize that this communication has many debts to that research, as well as its application to Spanish provinces (see Roig, 1992). In spite of that, availability of basic data (and subsequent results) were not as rich in this case.

## 2. Migration in Catalonia and the Metropolitan Region of Barcelona

Migration is the demographic component with a stronger influence in catalan society during this XXth century. In fact, immigration has to be seen as a structural characteristic of the modern *catalan reproduction system*, as it has been called by Cabré (1989, 283-294). The region, accounting a population of 1,9 million at the beginning of this century, obtained 6.059.494 inhabitants in 1991. Very few European regions can account for a such a striking growth. Immigration can explain (directly or indirectly) more than 75% of this growth (Cabré, 1989), which was specially sharp in the period 1960-1975 where Catalonia grew at 2,5%. The most important part of this positive net migration settled in the area of Barcelona, shaping its metropolitan rings.

In last recent years (1975-1991) Catalonia observed a dramatic change in migration tendencies, as the migratory balance was negative during the period 1981-1986 and slightly positive during 1976-1981 and 1986-1991, with low underlying flows. In general, migration observed a strong association with economic conjuncture: the first years of the eighties were the worst in terms of economic adjustments whereas there was a weak recovery in the last eighties. In all the decade, for instance, unemployment was never lower than 15% of active population with a peak of 22% at the beginning of the decade. A fact is of most importance: the drop of intensity in immigration from the rest of Spain (gross flows and net balance) and the low intensity of outer immigration has been accompanied by the growing importance of internal migration in Catalonia and in the MRB.

Several researchs have undertaken the analysis of the demographic conjuncture in Catalonia during this 15 years period (see Pujadas and Mendizàbal, 1991, and Centre d'Estudis Demogràfics, 1993), characterized by a tendency to zero-natural growth, with low fertility (TFR was 1,35 in 1991). The study of internal migration has also been the object of several researchs, being all Catalonia the object of analysis (Cabré, Módenes and Pascual, 1994) or the MRB itself (see Pujadas et al., 1991, and Módenes and Pascual, 1994).

The main territorial characteristics of internal migration in Catalonia during these last 15 years were suburbanization and counterurbanization (Centre d'Estudis Demogràfics, 1993; Arribas and Pascual, 1994), in a similar process of structural change suffered by European regions containing a large metropolitan

area during the seventies and the eighties. The first concept is related with the growth of some areas of the metropolitan rings (growth is not geometrically defined, as Bruyelle pointed out in 1991) and the second one has to be with the global redistribution of the population in Catalonia, being the coastal area and the Pyrenees axe the growing zones. Both phenomena have their principal roots in migration from MRB as differences in natural component of growth are negligible. A third characteristic related with catalan migratory conjuncture of these last years is seasonal population (Mendizàbal and Sánchez, 1995), that is, the analysis of the distribution of permanent inhabitants and non-permanent inhabitants (tourism accounts for a high percentage of catalan GNP) through a year (weekends, vacation periods), analysis that show some outstanding consequences in social service policy and urban management. This global redistribution has to be related to the structural change from an industrialized into a service-shifted society which characterizes actual conjuncture of many European regions.

The structure of internal migration in MRB has been analysed in Módenes (1995). This author found a correspondence between metropolitan migration and complexity. Migration seemed to be organized in two levels, the first being the relations between Barcelona and the rest of the territory whereas the second joined medium-sized cities with their own peripheries. Another characteristic of the migratory structure of the MRB is distance, as the influence of any municipality (except from the ones in the core of the MRB) found to be limited to a radius of 5-10 km. Finally, during the eighties internal migration in the MRB became younger and more intense, although levels were substantially lower than in other regional contexts of European societies.

### **3. Analysing migration in the MRB and their associated phenomena**

The research intended to separate five migration flows<sup>2</sup> for each municipality (immigration and emigration from and to any other MRB municipality, migration from and to the rest of Catalonia and immigration from Spain) by means of an equation defined by the association of migratory rates and eight variables. Each one of these five flows were analysed by age (eight categories: 0-14, 15-24, 25-34, 35-44, 45-54, 55-64 and 65 and plus) and by socio-economic condition (four categories: active population, highly qualified, industrial workers and medium and low-qualified services workers). The aim was the association of each flow with a set of phenomena. In some cases the

research has focused in some specific municipalities of the MRB, being those assembled by their distance to the regional core (establishing three rings: less than 10 km, 10 to 30 km and more than 30 km) or by their population size (grouping the municipalities with more than 50.000 inhabitants) although these results are not shown in this communication.

### *Structure of migration*

The analysis of the migratory rates revealed the following results (see maps 1 to 4):

a) Internal MRB migration rates are strongly higher than the flows between the MRB and the rest of Catalonia, being the intensity of the internal moves four to five times higher than the regional flows. Internal migration has turned to be the most outstanding flow in the actual conjuncture.

b) Emigration rates of the internal MRB flow tend to be higher in the first ring (less than 10 km of distance from Barcelona) than they are in the municipality of Barcelona and in the rest of rings, whereas immigration rates of the internal MRB flow are clearly high in distant municipalities. The intensity of migration between the MRB and the rest of Catalonia is higher as the distance to the core (the municipality of Barcelona) increases.

c) The group 25-34 is the one with higher migratory rates in all five flows of migration and in almost all distance cuts of the MRB. The aged groups did not obtained significant rates. Life cycle factors seem to underlie the most of migratory moves in the metropolitan and the regional levels.

### *Methodology*

The method chosen in order to connect migration with other socio-economic phenomena was multiple regression. This method, although quite simple, offered good results in estimating an explicative model in which a dependent variable, in this case immigration or emigration rates, is studied according to a series of explicative or independent variables. The aim was to quantify the relationship between the so-called dependent and independent variables, and to establish the confidence degree which define each one of the relations. The form of the multiple regression analysis are equations like:



$$y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n$$

where  $y$  is the dependent variable,  $x_1, x_2 \dots x_n$  are the independent ones,  $\alpha$  is the constant of the equation and  $\beta_1, \beta_2, \dots, \beta_n$  define the parameters, also called *standard coefficients* or *beta coefficients*, measuring the change (in units) of the dependent variable due to the shift in one unit in the independent variable considering that the other independent variables remain constant. The sign of the coefficient shows the sign of the association: direct or inverse. The second parameter obtained is the regression coefficient or  $R^2$ . This statistic measures the percentage of variation in the dependent variable which is explained by the independent ones jointly considered. The regression technique chosen was stepwise, with a T-test of 95% in order to allow any independent variable to enter in the equation. The F-test was also applied in order to ensure the  $R^2$  is not 0 with a 95% probability. Finally, there has been an evaluation if the possible collinearity problems among the independent variables included in the regression equation with the VIF and the eigenvalues tests. The program used in all the analysis was SPSS.

### *Variables*

All the variables made reference to each of the 162 municipalities of the MRB. The variables included accounted for localized jobs, unemployment, housing, secondary residences, local dynamism, urban density and income. An eighth variable was included in the analysis of the immigration flow from Spain, being the origin of the inhabitants of the municipality (see table). All these variables were defined for the 162 municipalities of the MRB. Variables measuring conjuncture in the municipalities outside the MRB (that is, the rest of Catalonia and the rest of Spain) were not included in the model. Thus, the equations defined by the association of migratory rates and the eight variables are particularly reliable in the internal MRB flows.

### *Immigration in the MRB*

The analysis of the immigration between municipalities in the MRB offers a strong association with four variables. The most important one is the construction of new housing, which is the responsible of the high regression coefficients obtained. New housing appears in all age groups equations (except for the aged 65 and plus), but specially in the equations for the groups 25-34 and 35-44. The equations obtained for active population show also a strong scope of

explanation to this variable. One demographic reason is outstanding: the stock of young population belonging to the Spanish baby-boom of the sixties.

Two other factors, one structural and one conjunctural, are concerned with the role of housing in immigration: the traditional Spanish owner-tenancy of dwellings and the property speculation of the period 1985-1992. On the one hand, tenancy of dwellings is very biased towards possession, as 90% of families live in this tenancy system, being this proportion a structural characteristic in Spain. National governments have always fostered this tenancy although there are some evidences of a modification in next years (Urban Rental Law of 1995). On the other hand, economic conjuncture and speculation associated (Olympic Games of 1992) led to a sharp rise in soil prices which rebounded in a rise in housing prices, being the national public policy close to neoliberalism (public promotion dwellings dropped from 24% in 1981-1985 to 13% in 1986-1989; see AMB, 1992). The combined action of the structural owner-tenancy demand and the conjunctural sharp rise in prices, together with the non-existent national public policy turned out in a consistent flow of immigrants to non-central municipalities where new housing promotions for possession were moderate in prices. Local urban policies of municipalities with more inhabitants willing to reduce the urban density and the policies of municipalities with less inhabitants which implemented expansive housing urban plans and tried to attract more population also played an important role (see Muñoz Ramírez, 1995).

A second variable with capacity of explanation of immigration rates in the MRB is urban density, and it is correlated inversely. The "saturation" of a municipality, whether this saturation is real or perceived by the potential migrants, operates as a restraint for the reception of immigrants coming from the rest of the MRB. It is possible to say that there exists a structural demand for dwellings in low-density areas, particularly associated with medium and high-income groups that has already become apparent.

A set of two variables complete the explanation of immigration in the MRB. These variables are local dynamism and the evolution in the number of jobs, both being associated in positive with immigration rates. It is important to note that the importance of these variables grew with the distance to the metropolitan core; this affirmation being specially true for the youngest age groups (15-24 and 25-34). Therefore, it is possible to assert that the migration strategy of some inhabitants of the MRB still take into account distances between place of residence and place of activity in order to avoid or reduce commuting. This strategy can account, following the results of the 1990 Metropolitan Survey

(Mendizàbal, 1992, 13), for 16% of moves in the MRB; this percentage is rather high in a metropolitan context but is coherent with the structure of the MRB, where the public transport systems are not completely developed. This fact is often neglected in the analysis of migration in metropolitan areas but it appears to be outstanding in the region of Barcelona. Thus, there seems to be an association of both processes (deconcentration of jobs and deconcentration of population), being simultaneous on time and, sometimes, on space.

In short, the association of new housing with urban density and the moderate influence of local dynamism and jobs explain more than 60% of the variation of the immigration rates in the MRB coming from the municipalities from the same MRB.

### *Emigration in the MRB*

The analysis of emigration from a municipality to another inside the MRB is associated with unemployment; being this association rather weak, the results are only an expression of a tendency which deserves some comment.

This association has a quite logical explanation: in a metropolitan context internal migration can only be undertaken by people with a certain economic level in order to pay the cost of acquisition of the new dwelling. This feature seems to be rather structural in metropolitan areas. Moreover, inhabitants of municipalities with higher unemployment rates will have a tendency to preserve their day-to-day human networks (based on families) as a strategy to cope with economic difficulties. Thus, the tendency of municipalities with high unemployment rates will have the low emigration rates.

This statement gains coherence as the analysis trickles down to age groups. The coefficient in equations for 15-24 and 25-34 groups, the ones that suffered the highest unemployment rates, showed a moderate association with low emigration.

Furthermore, the analysis of socio-economic condition shows an association of emigration with income. The relation is interesting as it is possible to relate it with segregation processes. Thus, the equations of the more qualified show an inverse association with income: emigration of qualified workers is higher when income is low. This result can be related with the ones obtained for this group in

the immigration analysis and reinforce the hypothesis of the spatial segregation as a process that characterizes the MRB.

Urban density, a variable which in theory could have been associated with emigration, appears only in positive association in the equation for the municipalities between 10.000 and 50.000 inhabitants and in the equations of ages 35-44.

The results for emigration in the MRB were not satisfying because of the low coefficients obtained and the lack of apparition of variables such as urban density and income in positive and negative association, respectively, with emigration rates. Nevertheless, unemployment gives some scope to the explanation.

#### *Immigration from the rest of Catalonia*

The associations found in these analysis of the flow coming from the rest of 781 municipalities of Catalonia are slightly different than the ones obtained in the MRB internal migration, having some scope the variables related with local economic dynamism. In general, the economic variables acquire some importance, although urban density appears also with a moderate incidence. This urban density association with immigration is inverse, as the immigrants tend to localize in the less saturated municipalities. The association is stronger in the groups 25-34 and 35-44 and also for the active population.

In the analysis of these flows there are also some evidences of consolidating segregation as a result of differential immigration of qualified workers from the rest of Catalonia establishing in the municipalities in the MRB with the lowest unemployment rates. Moreover, there exists the association of this flow with distance to the metropolitan core and income: the highest the income and the less the distance to the municipality of Barcelona, the higher the immigration rates.

Some economic variables appear to have a place in explaining immigration. Unemployment and location of jobs have an inverse and a direct association with immigration in some age groups, specially in the equations for the groups 35-44 and 45-54.

### *Emigration to the rest of Catalonia*

Housing and urban density are the variables with the higher explanation power for this flow, although the results are the poorer of all the research. Housing is inversely correlated with emigration (as it was hoped and it was found in the metropolitan emigration equations) but urban density is correlated also inversely (and not directly as in some metropolitan flows). The possible explanation has to be with the character of this flow: metropolitan reasons lose their application as more "regional" gain in importance. Thus, it is to be considered the spatial structure drawn by migration rates (see maps 3 and 4), where the municipalities closer to the borders of the MRB are the ones with higher rates in this flow; these municipalities have all few inhabitants and participate in housing and labour markets that extend beyond the MRB.

These possible more "regional" explanations can also be related with the appearance of the unemployment as a variable with positive correlation with emigration in the equations for some age groups (25-34 and 45-54) and for the active population. This association is the classical one, which relates unemployment with emigration in broad contexts in the analysis of interregional and international migration flows, whereas the opposite associate was found in the internal metropolitan flows of the MRB. Nevertheless the results are not showing a strong correlation between unemployment and emigration neither in the metropolitan context nor in the regional one; the results obtained, fairly coherent, must be taken as estimates of tendencies.

Housing appears to have its highest importance for younger groups and for active population, industrial workers and medium and low-qualified services workers, whereas qualified workers flow correlates directly with unemployment, as another sign of growing spatial segregation.

### *Immigration from the rest of Spain*

In this analysis it was incorporated an eighth variable which intended to measure the scope of family networks in immigration from the rest of Spain. This variable, however, does not appear in the general equation. The variable measuring origin obtained some significance in the equations adjusting immigration flows of population aged 65 and plus, active population and industrial workers.

The variables with higher explanation scope were again housing and the ones measuring local economic dynamism, although their global potential for explanation was not very high.

#### **4. Conclusions**

a) Internal migration in the MRB accounted for more than 70% of moves in the period 1981-1990, with a tendency to increase its significance in the last five years. This intensity contrasts with the levels obtained in the period 1960-1975, where immigration from the rest of Spain was responsible of a larger proportion of moves. Economic recession, with high unemployment rates in the eighties and moderate growth in welfare expenses led to a freeze of migration from the rest of Spain and to a growing importance of internal migration, generating a need for its analysis.

b) Housing appears to be the most outstanding variable in the analysis of migration flows of municipalities as a result of conjunctural and structural reasons. The association is positive in the three immigration flows analyzed. The housing variable had to develop an important role in these analysis because of an important demographic reason: the stock of young people belonging to the Spanish baby-boom of the sixties. Another reasons helped housing in obtaining such an outstanding role, mainly the Spanish tradition for owner-tenancy of housing, the soil speculation of the period, the nearly lack of a national public policy in this field and the local policies of municipalities. Housing, thus, accounts not only for the immediate construction of dwellings but is also measuring national and local urban policies.

Moreover, housing association with migration has to be related to events in life cycle of the inhabitants of the MRB, being these events emancipation, mating and marriage, birth of children, retirement or death. The structure of the age rates to migration, as well as the results of the Metropolitan Survey (30% of all changes of district of residence) confirm the important weight of marriage and fertility in the process.

c) Flows considered (internal migration in the MRB, migration among MRB and the rest of Catalonia, immigration from the rest of Spain) showed a tendency to be associated with different variables. Equations of internal MRB migration give strong importance to housing and urban density whereas local economic dynamism had little impact; in the other hand, economic variables gained

importance in the flows between the MRB and the rest of Catalonia, and, finally, origin appeared in the immigration flow from the rest of Spain.

d) Association between unemployment and emigration developed a two-faced role. In the internal MRB migration the association was inverse whereas in some flows between the MRB and the rest of Catalonia the association was direct. Thus, there exists the tendency for unemployment to play its "neo-classical" role in a regional context and a braking one in the metropolitan one. Results in equations of some age groups and, mostly, active population reinforce these different association.

e) Some migration flows take into account distances between place of residence and place of activity in order to avoid (or reduce) commuting. The Metropolitan Survey accounts that more than 16% of internal moves were related to this strategy.

f) Spatial segregation appears as a clear result of migration flows and is becoming a structural feature of the MRB. This result was clear as far as the analysis of socio-economic condition shows some association of emigration with income and unemployment, appearing clearly in the case of qualified workers.

Migration responds in a sensitive way to demographic and economic conjuncture and leads to a new distribution of population in the territory, as it was shown in the case of Catalonia and the MRB. Its detailed consideration is crucial in order to analyze population dynamics and to separate, as far as possible, the factors more related with conjuncture from the ones that express structural changes. But it is also decisive in order to face the fundamental challenge of European societies: the improvement in living conditions of population.

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<sup>1</sup> Research fellow of the Direcció General d'Universitats, Generalitat de Catalunya, at the Centre d'Estudis Demogràfics. This communication nor the research would not have been possible without the fellowship of the DGU, to whom I am grateful.

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<sup>2</sup> An aggregated analysis (all migrants) of the internal metropolitan flows was carried out in Módenes and Pascual, 1994. I am grateful to Juan Antonio Módenes for allowing to show the results of that analysis in this communication.

ANNEX

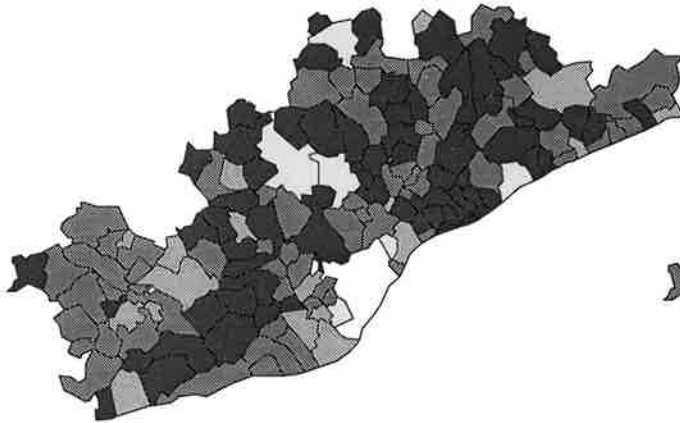
Table. Components of regression analysis for the five flows. Metropolitan Region of Barcelona, 1986-1990.

	Beta coefficients on components							
	Housing	Secondary Residence	Urban Density	Local Dynamism	Income	Unemp.	Location of Jobs	Origin R2
Immigration in MRB								
All migrants	1,3052	--	-0,0952	0,5428	--	--	0,1452	-- 0,62
Active population	1,9561	0,7232	-0,1663	0,9523	0,1582	--	0,3836	-- 0,57
Group 25-34	1,5821	--	-0,0947	0,3878	--	-0,9805	0,2779	-- 0,57
Qualified workers	3,6387	1,4989	-0,2454	1,1328	--	--	0,5611	-- 0,39
Emigration in MRB								
All migrants	--	--	--	--	--	-0,1352	--	-- 0,05
Active population	--	--	--	--	0,0446	--	--	-- 0,07
Group 25-34	--	--	--	--	--	-0,3119	--	-- 0,19
Qualified workers	--	--	--	--	-0,006	--	--	-- 0,23
Immigration from rest of Catalonia								
All migrants	--	--	-0,0625	--	--	--	--	-- 0,06
Active population	--	--	-0,1034	--	--	-0,0649	--	-- 0,14
Group 25-34	--	--	-0,1564	--	--	--	--	-- 0,3
Qualified workers	0,4325	--	--	--	0,0027	-0,0657	--	-- 0,12
Emigration to rest of Catalonia								
All migrants	-0,0023	--	-0,0682	--	--	--	--	-- 0,09
Active population	-0,1192	--	-0,0107	--	--	0,0093	--	-- 0,06
Group 25-34	-0,2167	--	-0,0201	--	--	0,0042	--	-- 0,08
Qualified workers	--	--	--	--	-0,025	0,0198	--	-- 0,12
Immigration from rest of Spain								
All migrants	--	--	--	0,1062	--	--	--	-- 0,08
Active population	--	--	-0,0205	--	--	--	--	0,1529 0,16
Group 25-34	--	--	--	0,1552	--	--	--	-- 0,05
Qualified workers	--	--	--	0,5538	--	--	--	-- 0,19

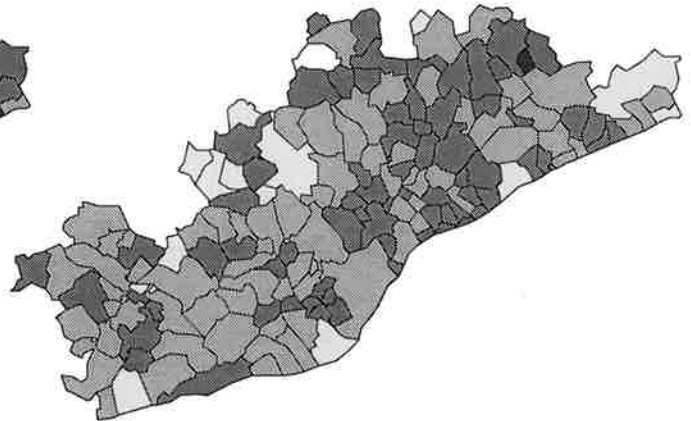
Source: Own elaboration except "all migrants" of two first flows: Módenes and Pascual, 1994.

Migration rates of four flows in the Metropolitan Region of Barcelona, 1986-1990.

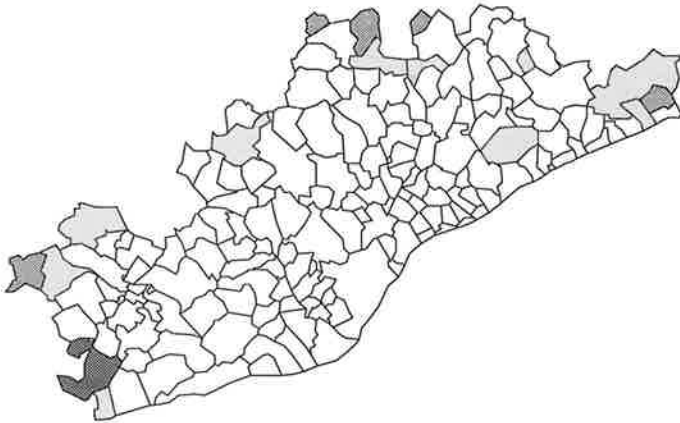
Map 1. Immigration rates (internal at the MRB)



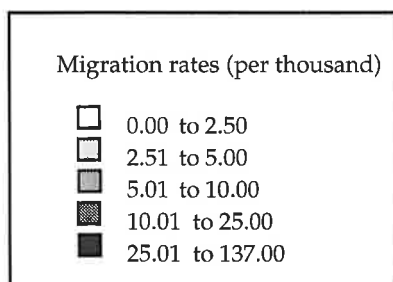
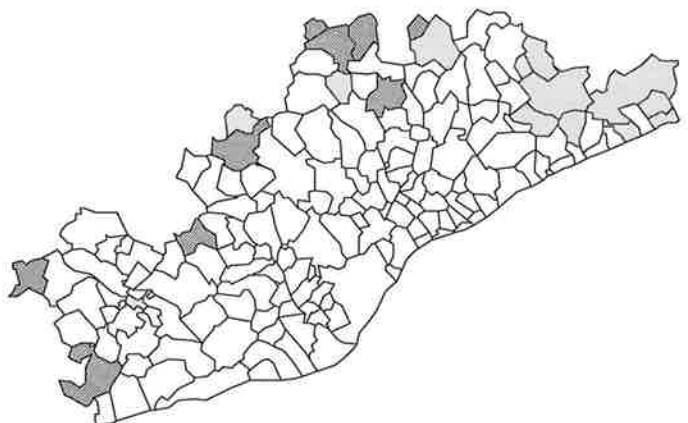
Map 2. Emigration rates (internal at the MRB)



Map 3. Immigration rates (rest of Catalonia to MRB)



Map 4. Emigration rates (MRB to rest of Catalonia)



0 10 20 30 40 Km



Source: Own elaboration from Cabré, Módenes and Pascual (1994).