SOCIODEMOGRAPHY OF ANDALUSIAN URBAN AGGLOMERATIONS AT THE BEGINNING OF THE 21ST CENTURY

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ACKNOWLEDGEMENTS

This work is the fruit of a research work that has been developed over several years, and that I began thanks to the teaching provided by Dr. Carmen Ocaña Ocaña to whom I show my gratitude for these years of patience, for her wise advice and for her understanding of the difficulties inherent in a work of this magnitude.

I would like to thank the Department of Education and Science of the Regional Government of Andalusia for granting me a scholarship for the training of teaching and research staff from 1995 to 1999, which enabled me to carry out my research tasks in the Department of Geography of the University of Malaga.

Finally, my gratitude to all those people who believed in me, giving me words of encouragement at times that were not always easy for the conclusion of my research work.

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PREFACE

Our work was born with the aim of analysing the process of population growth induced from the centres towards the peripheries of the main Andalusian urban agglomerations produced since the end of the last century. This starting point was justified by the appreciation of an acceleration in the rate of demographic growth of certain sectors of the Andalusian periurban areas and the simultaneous stagnation and even retreat of the Andalusian metropolises from the mid-1980s to the peak of suburbanization, shortly before the current systemic crisis. Suburbanization prospered thanks to the supply of quality housing at affordable prices through mortgages. Once the marketing product was designed, the idea was to "sell" the product to a population of a certain social status that began to demand housing on the periphery in the face of the permissiveness and lack of control of some public authorities. The young middle class, thanks to the very expensive investments in ring roads that were created to facilitate mobility, saw the opportunity to avoid the socially discredited spaces of the central cities, to move, by urban exodus, to the peri-urban areas surrounding the central cities of the Andalusian agglomerations. The false idea of "indefinite progress" stimulated the interest of these middle classes who fell into the nets of real estate developers to fulfill their dream of "happy Arcadia". With this demand, and with the existence of mortgages to pay for these houses, the middle class got into debt but, while there was credit there were no problems, the growth could be indefinite in a sign of irresponsibility that made the "culture of the brick", speculation and corruption grow. As can be supposed, no one could even remotely consider the possibility that dispersed urban growth was going to be interrupted and suffer a sudden slowdown, with the onset of the *subprime* mortgage crisis, popularly known as "garbage mortgages" in the United States, a crisis that spread, due to financial globalization, to the European countries most exposed to the brick, including Spain.

The bursting of the real estate bubble truncated a model of economic growth envied all over Europe that was actually settled under feet of mud and nobody saw this, or rather it seems; they didn't want to see it, something very similar to what H. C. Andersen told in a very well-known story.

As they say, we have to learn from the lessons of the past and, although in this work I am not going to refer to the present era, but to the past, it is important to know the origins of suburbanization, the genesis of its epistemological conception; to look for the causes that led to the importation of a foreign model (the American model of a dispersed city), as opposed to the discredited Mediterranean compact city, instead of improving its living conditions to make it a "habitable" place. It is convenient to mention the protagonists of this suburbanization, an exurban middle class population seeking the solace, greenery and tranquility of the countryside, with the advantages provided by living near the city without its drawbacks, is the so-called "culture of chlorophyll". The Neo-Rural, or new inhabitant of exurban origin of these spaces, does not mind travelling daily to the central city to work and consume, since with the taxes of all, they have paid for a cheap displacement through fast roads that have been appearing in our cities to facilitate the pendulum mobility that the dissociation between place of work and residence generates.

This reflection has led me to be very critical of the model of urban growth that is also strange in our community, does not enjoy any tradition in history, other than as nuclei, or country houses, for the recreation of the wealthiest classes of the country, but was certainly a minority phenomenon and not "mass" as has occurred in the recent history of Spain and Andalusia. The consequence is obvious: the "urban waste", which has led to the loss of a part of the traditional residential function of the metropolis to the benefit of the middle cities of the periurban belts, turning the compact city, more and more, into an "empty metropolis".

INTRODUCTION

The basic objective of our research is to analyse the process of population growth induced from the centres towards the peripheries of the main Andalusian urban agglomerations. This analysis is justified by the appreciation of an acceleration of the demographic growth of the peripheries and the simultaneous stagnation or, in some cases, loss of population of the largest Andalusian cities due to processes of suburbanization, as a result of migratory flows with origin or destination in the main Andalusian urban agglomerations.

The choice of the time interval at the end of the 20th century is due to the fact that it is during this period that the processes of suburbanization in Andalusian urban agglomerations reach their maximum intensity. We decided to focus on the main Andalusian agglomerations and not on all of them because, as F. Zoido points out, only some of them deserve the qualifier of metropolitan fact *stricto sensu* (Florencio Zoido, 1996).

Our objective is not only to try to describe and explain the causes of the demographic phenomena affecting Andalusian metropolitan areas[1], but also to show the social change induced by this growth in the social fabric of the peripheries due to the emigration of population of urban origin and certain social status to the peri-urban areas.

This set of transformations takes place in a space of transition between the countryside and the city in developed countries. Faced with the dichotomous vision between rural and urban space, which places limits on both, an interpretation arises that considers that spaces are not static but dynamic and that no borders can be placed on the urban fact or the countryside. O. Nel-lo points out that "neither from a legal, morphological nor economic point of view is it possible to differentiate between urban and rural" (O. Nel-lo, 1998), which is why it is necessary to overcome the outdated traditional approaches that separate rural from urban to arrive at a much more dynamic conception, and to conclude that the separation between the two responds more to a deep-rooted conception but, not for that reason, it ceases to constitute a fallacy.

Alongside these basic objectives, we have set ourselves no less important ones:

In the first place, our objective is to know the origin of this urban emigration. There are several theories about the origin of this change of residence: one is that of regional restructuring, which defends that it is the economic changes that have driven the emigration process. Thus, the deindustrialisation of urban centres and the new post-Fordist processes that have altered the patterns of concentration of traditional industry, favouring the dispersion and fragmentation of the new industry in the periphery, where the costs are lower than in the central cities; it would have favoured the relocation of part of the population in the periphery. In contrast to the theory of regional restructuring, the theory of deconcentration defends the freedom of the individual to choose his residence, thanks to new technologies and improvements in communications in the metropolitan environment.

A second objective starts from a sociological perspective: we tried to verify if the incorporation of population coming from the metropolises or central cities, would have contributed to the social segregation of spaces in the suburban areas that, until not long ago, were characterized by their social uniformity that, due to the selective character in the social thing of this emigration, preferably of people of middle class; would produce an induced or exogenous social change and a segregation between the autochthonous population of the former peoples, of lower social status, and the foreign population of higher status, in a process of invasion and appropriation of suburban spaces of greater environmental or landscape quality.

[1] The concept of metropolitan area was introduced in Europe in the 1970s, originally applied in the United States in 1959. From a territorial point of view, it comprises a metropolitan centre, with at least 50,000 inhabitants, and an urban periphery defined by socio-labour and demographic density criteria that forms the suburban area. Both units, the metropolitan center and the suburban area, would form the metropolitan area itself (Precedo Ledo, A., 1996: p: 238).

A final objective would be to confirm or not the differentiated character of the social homogeneity of the *suburbs* of North American cities as opposed to the *suburbs* in Spain, in which the social fabric of the natives and the emigrant population of urban origin is opposed, with which an image of social heterogeneity of the rural spaces in transformation and, with it, of differentiation with respect to the Anglo-Saxon model would be imposed.

For the above purposes, we have compiled the following sources with the following intentions:

-Direct sources:

The bibliographical sources have been diverse, using the historical method, both from French and Anglo-Saxon geography, to know the antecedents of suburbanization; secondly, with a view to clarifying the use and abuse of multiple terms to refer, sometimes not precisely enough, to a confusing geographical reality. Finally, bibliographical sources have played a fundamental role in the description or geographical approximation of the agglomerations and in the delimitation of the different areas in which we have used the proposal of the Regional Government of Andalusia for the initial Subregional Scope Management Plans.

Another type of source that will have great relevance in our research work will be statistical methods. To this end, we have used several types of scales: the regional scale, the municipal scale and the infra-municipal scale.

a) The statistics at municipal level have been specified in the following sources:

-Statistics of the Natural Movement of the Population (MNP), from 1975 to 2000, extracted from the Institute of Statistics and Cartography of Andalusia. The use of this source has had the purpose of studying the components of the demographic growth of the municipalities that comprise the centres and their peripheries and to elucidate to what extent the growth comes from a natural or migratory component.

-Residential Variations Statistics from 1991 to 2000 of the Andalusian Institute of Statistics and Cartography. The use of this source is justified because it provides us with exhaustive information, not only on the aggregate volume of migratory mobility, but also on their characteristics, in order to deduce whether suburbanization has a selective character from the biological and social point of view. We justify the use of this time interval because it is the period that coincides with the boom in suburbanization processes in the largest Andalusian urban agglomerations.

-Statistics of the Structure of the Population, of the characteristics of the population, both from the 1991 Census and the 2001 Census, in order to analyse the traces that suburbanization has produced in the structure of the population insofar as it has led to an ageing of the population in the capitals, due to the emigration of young people, and a rejuvenation in the periurban municipalities, due to the immigration of this group.

-Statistics of Social Security Registrations, according to system and economic activity, from a public archive of the Social Security Treasury as of December 2000, as well as from the 1990 Census of premises of the Andalusian Institute of Statistics and Cartography of Andalusia. This information will allow us to elucidate whether there has been a productive decentralization of the same entity as residential decentralization.

b) Statistics at the infra-municipal level:

-Statistics of the Population Entities of the Nomenclature of Censuses from 1950 to 2001 of the National Statistics Institute. We justify its use for one reason: to differentiate, on a local scale, the processes of urban growth according to population entities, the reality, with a geographical sense, smaller than that of which we have statistical information.

- Statistics of the Census Division of 2001 of the Institute of Statistics and Cartography of Andalusia: we have extracted character information from the population of the Census Division of 2001, in order to extract the social areas.

Likewise, we have used, as an indirect source, and using the empirical method, a Survey carried out in 1997:

The fieldwork for this Survey was conducted in 1997, and covered a sample of 401 respondents, selected from the simple random sampling technique. The basic objective we set ourselves when proposing to carry out this survey was to arrive at information that was not available through indirect sources, such as the causes of urban emigration or the characteristics of the emigrant population, differentiated according to origin. The survey was designed as a questionnaire. In this questionnaire, the population was asked about various aspects such as they are:

1. The status or family situation. (Questions 1 to 10).
2. Status or residence status: reasons that influence the municipality's choice of residence. (Questions 11-19).
3. The status of housing. (Questions 20 to 30).
4. The degree of urban autonomy: daily mobility for work reasons. (Questions 32 to 40).
5. The degree of autonomy/urban dependency: other types of mobility. (Questions 41-45).
6. Assessment of the municipality's environment: perception of the advantages and disadvantages of choosing the municipality's place of residence. (Questions 46 to 47).

Another basic objective of our survey was to discern which were the motives or motivations that had impelled this population to choose as a permanent place of residence a municipality on the periphery as opposed to a residence in the metropolis or mother city. We are considering two types of possible motives: economic and non-economic. Among the economic ones, we took into account, among the most plausible, those related to housing and employment; while, in the non-economic ones, we focused on elements such as proximity to the capital -resumable under the concept of accessibility-, tranquillity or landscape. In short, we are considering two hypotheses: one economic and the other basically non-economic, behavioural or behaviourist, which meant a change in the framework of life but not in the urban way of life of the new population coming from the central cities that choose the rural milieu as their new, henceforth neo-rural, place of residence.

However, together with the motives or motivations of the urban population, we were interested in identifying the differences according to the origin of the population and, if the different origin explained differences in aspects such as income level, profession or level of education, in short, social status.

Until then, the sketch of the survey dealt with the characterisation of the population, both foreign and native, but it was also necessary to deal with aspects such as the time of incorporation into the municipality: whether it had been recent or not, and to know the habits or habitual behaviour of the population, whether they were satisfied in the new municipality of residence or not, that is, the degree of daily mobility of the population, an expressive indicator of the degree of dependence or urban autonomy of rural areas in transformation.

A secondary objective that we set ourselves was to know the perception that the population had of these places: the evaluation, both positive and negative, of general aspects that also have a direct relationship with the motives that induced this population to emigrate from the metropolis.

After the design of the survey, it was necessary to determine the sample size, starting from the population registered in the Register in 1996 in these municipalities, which was 66,503 inhabitants. It was decided that the survey should have a 95% confidence margin and a ±5% margin of error, from which it was deduced that the number of surveys should be 398. Finally, 401 interviews were conducted.

This theoretical value was distributed among five municipalities, so that it covered all the population entities of these municipalities, resulting in the following distribution of questionnaires to be distributed: in the municipalities of Albolote and Ogíjares in Granada, a total of 112 surveys; in Tomares, in Seville, a total of 97 surveys and in Málaga, in the municipalities of Alhaurín de la Torre and Rincón de la Victoria, a total of 192 surveys.

For the selection of the sample, simple random sampling was used, and its application was made by means of a table of random numbers that guaranteed the total randomness of the selections (RA. Fisher and F. Yates, 1954).

A delicate issue was undoubtedly the selection of municipalities, so we opted for a synthetic indicator through the normalization of variables (index Z). We start from a series of previous studies (Ocaña Ocaña, 1993; R. Méndez, 1987; CETU, 1990). J. Gutiérrez Puebla and A. Guerra Zaballos participated in the work directed by R. Méndez. These researchers propose, in the collective work directed by R. Méndez, some indicators to establish the study area of the periurban region of Madrid, in which they considered a series of variables that were normalized. In relation to the variables, we selected a series of those that were significant to appreciate the degree of urbanization of a territory.

Firstly, demographic variables, that is, under the hypothesis that a metropolitan municipality with urban transformation processes is a municipality that is experiencing great population growth. For this, demographic size has been used as variables, the only variable that we have conserved to discriminate sizes, since we were not interested in small processes, but those that are clearly discernible in space. We also use, as a significant demographic variable, the population growth rate between 1991 and 2001. In order to further refine the analysis, we use, finally, the volume of immigrants from the capital in the period, starting from the registrations by immigration, since it is a first-order variable to detect processes of induced urban growth.

With regard to the economic variables, we have selected as variables the jobs coming from Mobility for work reasons in Andalusia, from the Junta de Andalucía, where the total number of jobs is expressed, that is, those of employed persons who work in the same place of residence: the Localized Work Posts or LWP (Natera Rivas, 2001). The Localized Jobs allude to jobs, both resident and non-resident in the municipality and bring us closer to the productive capacity of the municipality. Finally, we have considered the percentage of employed persons by activity sectors provided by the Andalusian Institute of Statistics and Cartography, in such a way that we have applied a coefficient to the LWPs, which has given us a volume, albeit theoretical, of jobs generated in the activities of industry, construction and services. We could have maintained the primary activities to differentiate urbanization processes linked to the development of agricultural activities, as in the case of urbanization processes associated with intensive agriculture in Almeria, however, we prefer to use the variables of industry and services, because they are activities specifically linked to an urban environment. In this way, we deduct the value of the PTLs by activity

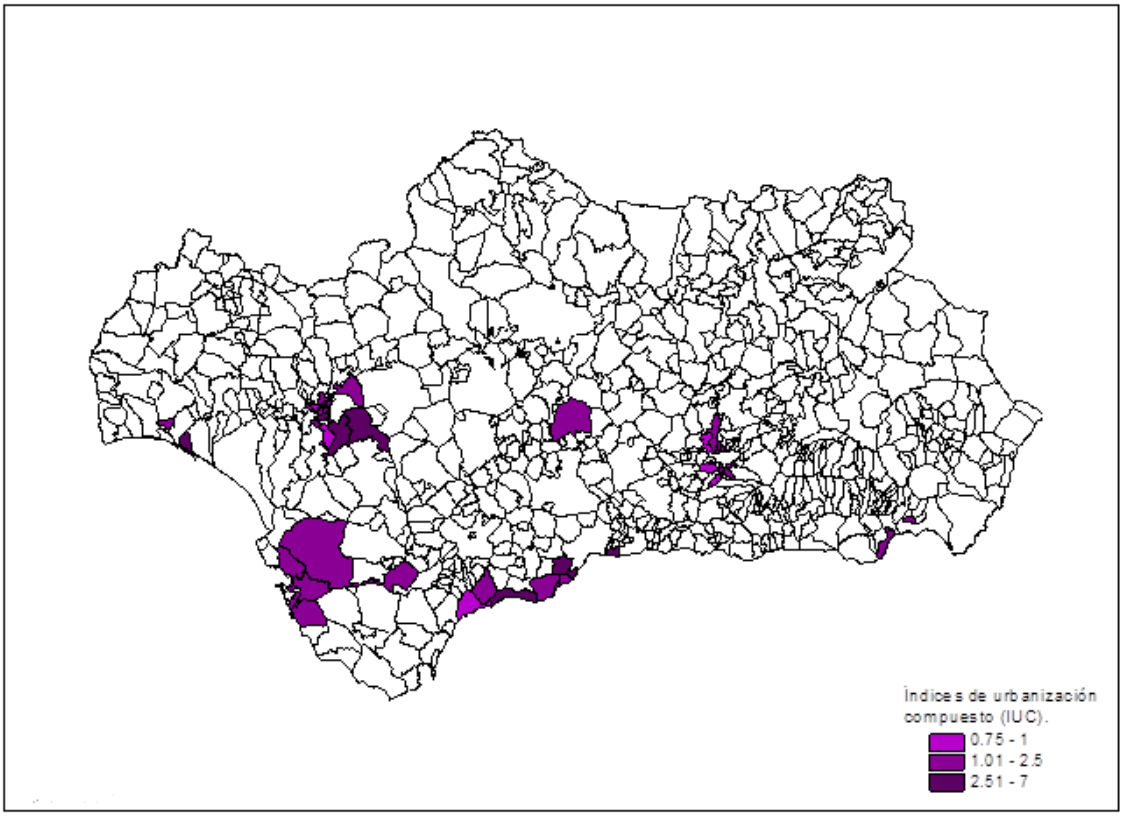
sectors from the jobs of the Social Security registrations in 2000 provided by the Ministry of Labour. The aim was to determine whether population growth had led to job growth in parallel, in order to refute or confirm the thesis of restructuring as an inducer of the suburbanisation processes of the municipalities in the metropolitan belt.

Another variable used was the percentage of industrial land in the total surface. In this case, the source was the Instituto de Fomento de Andalucía (IFA, 1995). We also had the data from the 1991 IFA, but, given the scant relevance of contrasting the 1991 to 1995 data, we opted to use an index that illustrated, rather than an urban dynamic, a degree of transformation, in this industrial case, of a municipal territory.

In obtaining the synthetic indicator, we also selected urban growth variables. Specifically, the evolution of new housing construction in the decade from 1991 to 2000. It was an indicator of obligatory presence, since despite the fact that there are different rhythms between demographic growth and housing growth (there is usually a lag caused by the presence of a stock of second homes or temporary residences that are converted into permanent dwellings), it is a contrasting fact that every human being requires a home, regardless of whether it is permanent or secondary, which, provided that a series of favourable circumstances are present, can turn it into the main home.

After normalizing this series of variables that were relevant indicators of high urban dynamics, without specifying whether it is endogenous or exogenous in nature; the normalized indices were added together and an average index was obtained, called the composite urbanization index. Finally, we obtained a value, the sum of the typified variables: the synthetic index of urban dynamics or compound urbanization index that we have represented in the map.

MAP 1



Source Own elaboration.

The choice of intervals had an intention: to show only the most intense urbanization processes. Starting from the previous analysis, we could have selected all the municipalities whose synthetic index[2] was significant, but this would have raised an unapproachable survey, so we carried out a selection of municipalities in diverse Andalusian areas that simultaneously met two conditions: one that was a peri-urban municipality and a second condition that possessed a high synthetic index and a strong degree of urban transformation.

In Malaga, because of its high demographic and urban growth dynamics, we selected the municipalities of Rincón de la Victoria and Alhaurín de la Torre; in Granada, the municipalities of Albolote, because of its high functional dynamics, and Ogíjares, because it is representative of the municipalities of the southern sector of the Vega; and, in Seville, in El Aljarafe, the municipality of Tomares, because of its high demographic and urban growth dynamics. We excluded from the selection for the Survey, municipalities that were as populous as Mairena del Aljarafe or Dos Hermanas or as functional as Alcalá de Guadaira or Puerto Real, because their demographic size would have made it impracticable, due to their high economic cost, to carry out the survey.

After the selection of the municipalities and the writing of the questionnaire, which can be consulted in the appendix of this work, the fieldwork was carried out[3] and the results were transferred to a database, differentiating several aspects:

-Population by origin:

It was obtained from the responses provided to question 12 on the place of residence of the respondent, which contained the following options:

-Previous residence in...
-In the same municipality.
-In the provincial capital.
-Remainder of the province.
-Rest of Andalusia.
-Rest of Spain
-Foreigner.

-Population by municipality:

It could be determined through field 2 of the database, with the following options:

-Rincón de la Victoria.
-Alhaurin de la Torre.
-Albolote.
-Ogíjares.
-Tomares.

Afterwards, we crossed both fields, through a database program, and obtained the autochthonous population, the immigrants from the capital and the rest of the immigrants from each of the municipalities selected in the Survey, whose tabulation can be consulted in the documentary appendix.

[2] The typing was carried out according to the classical formulation: the difference of each of the values of the variable with respect to the mean of the distribution and with the standard deviation as denominator. The set of values are summed and divided by the number of variables, with the particularity that if the variables have a negative influence, it is necessary to change the sign.

[3] The field work was carried out by geographers César Luis Miralles Pastor and David Hidalgo García.

Once we had the population defined by origin, we got a huge amount of information from the database, such as:

-Differentiation of the population according to place of work:

It provided us with valuable information on data that are not always affordable, such as daily mobility for work and other reasons. This could be determined through question 34, which asked the population where they went to go to work, with the following answers:

-To the provincial capital.
-To other municipalities in the province.
-To other municipalities in Andalusia.
-I don't move.
-I don't work.

The daily mobility for work reasons was also completed with indirect sources: that elaborated by the Institute of Statistics and Cartography of Andalusia through the exploitation of the census data of 1991 (Institute of Statistics of Andalusia, 1996) and the mobility data for work reasons of the Census of 2001 (Institute of Statistics of Andalusia, 2005).

These sources constitute the basis for a methodology based on statistics, whether descriptive, predictive or inferential.

Within the descriptive statistics, we have used the instruments that Geography provides us for the analysis of the populations:

In the evolution of the population, we have included another indicator such as the *rank-size rule*. The foundation of the method is based on the relationship between the range and size of a theoretical model. Populations would experience a decrease consistent with the rank of each settlement within the urban system. The distribution has been carried out by linear adjustment and its purpose was to compare the evolution of the distribution of the more than 750 Andalusian municipalities between two moments: 1981 and 2001. The choice of such years has been intended to mark milestones in the beginning and consolidation of the process of suburbanization in the autonomous community of Andalusia. The distribution was based on the evolution of the hierarchical location of each of the municipalities, which was later transferred to cartography. This method has led to the conclusion that the greatest hierarchical leaps in the period observed occur in suburban or metropolitan spaces, with a striking accumulation, in point clouds, of the nuclei of the agglomerations of Seville and Granada.

Other indexes of a more demographic nature are birth rates, mortality rates, net migration rates, and calculations of natural growth or natural balance, real growth and migratory balance[4], in absolute and relative values.

[4] The crude birth rate relates the average number of births with the average population of the period, represented in as many per thousand. The crude death rate relates the average number of deaths to the average population of the period in as many per thousand. The vegetative growth rate is the result of subtracting the crude birth rate from the mortality rate. The real growth rate relates the difference between two moments: a final one and an initial one that are subtracted, related to the initial population. The migratory balance is obtained by subtracting the real growth (total population difference of a final moment and another initial moment) from the natural balance (difference between births and deaths). The net migration rate relates the migratory balance to the average population in points per thousand and divided by the number of years in which it covers the period.

Based on the observed dynamics and the current demographic structure, a prognosis can be made on the evolution of the population in the metropolises and their metropolitan belts in the short term, considering the maintenance of fertility and migratory patterns with respect to an initial period of departure, is what is known as simple projection[5]. The first step was to calculate the probability of passing from each age group (five-yearly) between 1991 and 2001 and to apply this relation of passing from one age group to the next age group of 2001, in order to deduce the population of 2006. The operation was then repeated between 2001 and 2006 to establish that of 2011 and, finally, that of 2016. For the cohort in the 0-4 age group, the observed relationship between boys and girls and women of childbearing age has been calculated by projecting the new contingents of women at these ages (see method in Ocaña Ocaña, 1995: 126-159).

-In the biological structure of the population, we have used, together with statistical methods (indices relating to the biological structure of the population: young, adult and elderly population; rates of youth, dependency and old age; and the sex ratio[6]) and graphical methods. Among the graphic methods, a prominent role has been played by pie charts, histograms and, within these, a two-dimensional variant: the age and sex pyramids, both simple and compound.

The information provided by the age and sex pyramids is vital, not only to know the demographic history, or the patterns of birth and mortality, but also to elucidate whether there was a selection of the population of the centers and an immigration of the peripheries in which we have used, as a graphical method, the composite pyramids.

For the elaboration of the composite pyramids it was necessary to use a predictive or inferential methodology. They have been represented through the method of survivors (D. Courgeau, 1988) and, by means of mortality tables, we have made simple and complex projections, and quantified, by this method, the volume of net migration by age and sex. First, I have obtained the age structure in the absence of migrations, considering the values of birth rate for the first two census age groups, and of mortality for all age groups. For the age-specific mortality statistics, we have used as a source the one provided by the National Statistics Institute (INE): deaths by age in provinces between 1991 and 2000, since we did not have municipal data. The estimated mortality for each municipality in 1991 has been calculated by multiplying the mortality rate by the values recorded in the age structure of 1991. For births, we have used the birth rate data between 1991 and 1995 to obtain the groups of 5 to 9 years in 2001, and those of 1996 to 2000 for the groups of 0 to 4 years. Subsequently, we have deduced the theoretical mortality for each age group. Having obtained the series of each age interval in 1991, deducting the mortality between 1991 and 2001 from each age interval, the aim was to subtract this distribution from the cohorts of each age group in 2001. Thus we obtained the net migration by age groups and sex, which we have graphically represented in the composite pyramids.

[5] Do not confuse the perspective probability of passage with the probability of survival. The first includes migratory movements and the second serves to elaborate complex projections, given natural mobility patterns without considering migratory movements.

[6] The young population is 0-14 years old, the adult population is 15-64 years old, and the elderly population is 65 years old and over. These groups are normally calculated in percentages to compare spaces of different populations. The youth rate relates the young population to the elderly population in percent. The rate of old age is the inverse, the elderly population among the young population in so many percent. Finally, the dependency ratio relates the dependent population (young and old) to the adult population in percentage terms. Finally, the sex ratio relates the male population to the female population in so many percent.

-In relation to the socioeconomic structure of the population, together with various data tables, in absolute numbers and percentages, of the population according to economic activity, we have used relative indices. Specifically, the matrix of Sargent Florence[7] through the jobs by branches of activity grouped to two digits according to the CNAE 93[8], provided by the registrations of the Social Security to December 2000. Sargent Florence's matrix provides valuable information for comparing the values of a distribution by reference to other units of a larger order, in this case the different urban agglomerations. In the matrix, each of the location ratios was represented.

The location quotients make it possible to explain the weight of a sector in a municipality in relation to the rest of the agglomeration, and oscillates between 0, the unit and greater than the unit[9]. Subsequently, we have cartographically represented the values of these quotients in maps of couplings for the most relevant sectors of activity.

At the same time, the matrix allows the calculation of the location coefficient of each of the sectors of activity according to the distribution of jobs in 2000. The location coefficient is defined as the sum of the existing differences between the percentage of each sector in relation to the total number of jobs in all sectors. In this coefficient, only positive values are taken into account, not negative values. The location coefficient oscillates from 0 to the unit, but does not reach the unit. A value close to the unit indicates the maximum concentration of a sector in relation to the total number of sectors, while a value close to 0 indicates, on the other hand, a lower degree of spatial concentration of that sector. The matrix also considers the specialization coefficient. As with the location coefficient, only positive values are taken into account in the sum of the differences, never negative values. A value close to the unit indicates that the municipality has a high degree of specialization. A value of around 0.5 indicates that the municipality has an average specialisation. Finally, a coefficient of less than 0.5 indicates little specialization.

-In relation to housing, together with the 1997 Survey, another statistical source was the figures provided by the 1991 and 2001 Housing Census. Based on the inspiration of the ideas put forward by J. Leal Maldonado and Cortés Alcalá (1998), we elaborated an indicator to know the entity of the conversion of secondary housing into permanent housing. Knowing the volume of main dwellings in 2001, the volume of main dwellings in 1991, the volume of new dwellings between 1991 and 2000 it is possible to clear in an equation of a single unknown, the volume of secondary dwellings converted into permanent. The volume of main dwellings in 2001 is known, as is the volume of dwellings in 1991. The volume of new main dwellings is obtained from the calculation of the ratio of main dwellings with respect to the total of new dwellings in 1991, from which a coefficient is extracted which is then multiplied by the volume of new dwellings between 1991 and 2000.

Finally, we proceeded to differentiate the periurban space from the analysis of the social areas of Shevky and Bell, traditionally used in the intra-urban space of cities, to a space in transformation: the Andalusian periurban spaces. Traditionally, the differentiation of urban space according to social classes has led to the idea that there is social separation or segregation as a result of social inequality. This inequality materializes in a competition and in an appropriation of

[7] On the matrix of Sargent Florence, we refer, for consultation, to the work of Carrera, C., *et al.* (1998): *Op. cit*: pp. 80-91.

[8] National Classification of Economic Activities.

[9] A quotient equal to 1 must be considered a similar situation in that sector to the whole of the agglomeration. A quotient greater than 1 indicates a concentration, a greater weight of the sector in relation to the agglomeration as a whole. Finally, a location quotient less than 1 indicates a low degree of specialisation: the weight of this sector in the municipality in relation to the agglomeration as a whole is small.

the geographical space of more quality by the wealthiest social class, relegating the lowest social classes to a space of worse environmental quality or worse valued, which ends up being classist, once it is occupied by housing according to the status of the population. The selection of the place of residence is therefore the most direct expression of social inequality, of the social segregation of the intra-urban space. As far as peri-urban space is concerned, "the city of post-fordism has hatched towards outer space and has generated an intense urbanisation in the rural environment that is not exclusive to the great metropolises alone" (C. Ocaña, 2005, p.18). The result is that the scale has changed and competition scenarios have been moved towards a space of greater environmental quality, to periurban spaces, giving rise to a new type of "more decentralized city" (Monclús, 1998).

At the same time, we demonstrated that multivariate analysis (exploratory factorial analysis and cluster analysis) can be used with a high degree of adaptation to spaces that suffer suburbanization. By selecting the appropriate variables for analysis, it is possible to obtain an optimal factorial structure at the level of spatial microanalysis or urban sections, the smallest units with official statistical information in Spain. As a continuation, the cluster analysis identifies, in specific clusters, where suburbanisation occurs and which urban sections have a high degree of suburbanisation. From the research we can deduce the elitist character of urban expansion, carried out by middle and upper-middle class population of urban origin (social status), spatially segregated from the native population, -population born and resident in the same municipality-, (origin status). Secondly, it can be deduced that this is not a generalized phenomenon in the periurban Andalusian space, but that it is essentially scattered in the different scales of analysis used, with the exception of the Aljarafe, in the urban agglomeration of Seville (Andalusia, Spain).

In short, it is an emergence of the city that implies that the residential structure has overflowed its physical and administrative limits to reproduce the same unsupportive and segregated spaces that had previously been generated in the intra-urban space.

CHAPTER 1

CONCEPTUAL FRAMEWORK

1.1. THE CONCEPT OF THE RURAL AND THE URBAN: FROM ITS DICHOTOMOUS PERSPECTIVE TO THE CURRENT ONE.

As a first approach to the state of the question, which we will address under the heading of conceptual framework, I would like to mention the terms rural and urban. A first difficulty, according to J. Estébanez, is that many specialists define the rural space of urban space in a negative way, that is to say, rural space does not belong to urban space, but we believe that this approach, as J. Estébanez mentions, "is unsatisfactory"[10]. Others strive to define the rural space by the functions it supports, with the predominance of the agrarian component but, nowadays, is it possible, given the degree of transformation of certain rural spaces, to delimit them as urban only by a change in the base of their activity, when in fact we continue to qualify them as rural? From the field of Sociology, it was L. Wirth who, in his classic article, consecrated this differentiation of rural as opposed to urban, distinguishing a specifically rural way of life from an urban way of life[11]. However, J. Estébanez criticizes L. Wirth, stressing that in certain cities, old relationships of kinship, neighbourhood and treatment subsist, which are even stronger than in the rural milieu of origin; at the same time, in the countryside (specifically in the surroundings of certain cities), there is a mobile middle class, the *metropolitan villagers*, with a clearly defined mental attitude, with clearly urban patterns of conduct, despite living in a rural milieu. Therefore, J. Estébanez concludes:

> In our society there are people who are in the city, and are not from the city (*urban villagers*), and others who are from the city, but are not in it, since they live in metropolitan residential villages (*metropolitan villagers*).

J. Estébanez believes that this dichotomous conception of rural and urban from the perspective of a specifically rural and urban *modus vivendi* is a fallacy[12].

In short, J. Estébanez criticizes the dichotomous conception of the city countryside, as well as the root of this bipolar conception. As opposed to sociological conceptions, which oppose the countryside to the city, according to a certain way of life, Geography provides a light by differentiating ways of life and spaces. It is possible to find an urban way of life in a rural space, which is defined as one that "by virtue of its visual components can be called a field" (Clout, 1984). Similarly, in the city there may be non-urban patterns of behaviour, i.e. typical of a non-urban way of life, but still morphologically remain a city.

1.2. URBANIZATION IN RURAL AREAS.

On the other hand, the adoption of an urban *modus vivendi*, by people who live in a space that, because of its visual components, is identifiable as the countryside, leads us to the concept of urbanization defined by Estébanez:

> Such as the concentration of the population in relatively small spaces, where social forms and economic structure are destroyed, which were suitable for rural life and life in small settlements, and are replaced by other forms and other relationships more appropriate to the needs of the city.

[10] ESTÉBANEZ ÁLVAREZ, J. (1981): "El proceso de urbanización del medio rural madrileño". *Geography studies*. Tribute to Alfredo Floristán. Pamplona: Gobierno de Navarra, Institución Príncipe de Viana, pp. 149-168.

[11] WIRTH, L. (1938): «Urbanism as a way of life», *The American Journal of Sociology*. Vol. XLIV, no.1 (July 1938), pp. 1-24.

[12] ESTÉBANEZ ÁLVAREZ, J. (1981): *Op. cit.*

Initially, these transformations are practically confined to city dwellers but are later widely disseminated and adopted by the rural population, so that society as a whole tends to be dominated by urban values and styles. Therefore, urbanization, which is often confused with urban growth, imposes urban styles and values on the entire population, affecting human behaviour and relationships.

A. Berger and J. Estébanez expose their nuances to the concept. A. Berger considers that the concept refers both to its physical dimension, i.e. the conversion of rustic land into urban land through building, and to its sociological dimension, in which an urban way of life is introduced into an environment, until then dominated by the rural way of life, so that the countryside becomes a framework of life rather than a way of life. J. Estébanez, following A. Berger, believes that the term urbanization is a meaning that is inserted in the concept of urban development since, within urban development, two processes can be distinguished: urban growth, which is a "spatial and demographic process" and the term urbanization, *stricto sensu,* which has an "aespacial and social component[13]*,* referring to "changes in behavior, and in social relations, which occur as a result of living a growing number of people in cities". In this way, it considers urban growth and urbanization as different processes. What's more, he says, "they can go separately." Thus, he continues to assert:

> At the present time, and especially in developed countries, the two concepts can be given separately: people who are from the countryside, live in the countryside, and, thanks to mass communication and transport, identify with urban culture, and vice versa, people who live in the city can remain rooted in the traditional values apprehended in the countryside.

In turn, A. Berger points out the existence of two types of urbanization: by domination or by urban diffusion (Bailly, 1978).

> Urbanisation is understood as domination, the urbanisation that takes place in the absence of country-city interrelationships, or the domination of an urban center over its area of influence or hinterland. The result is the emergence of a rentier city, prior to industrialisation, in which landowners live off their rents in the city, producing a transfer of rents from the countryside to the city, without exchanges of any kind; and the island city, traditionally related to urbanisation processes driven by tourist activity, which generates a rural and backward backwardness, where synergies from the city are not generated. In contrast to urbanization by domination, which gives us back the dichotomous conception and the absence of relations between the countryside and the city, A. Berger opposes urbanisation by urban diffusion, where there are interrelations between a central city and its hinterland or area of influence.

These interrelations become that, from a bipolar field-city vision, it derives to a dynamic conception, of interrelations, or flows, defined by A. Berger and J. Rouzier "as the relation between a point of space and its field of action"[14]. In the face of domination, from which a polarized vision is deduced, based on relations of dependence *versus* domination, diffusion becomes an evolutionary process: the city evolves and the countryside evolves, in a relationship of symbiosis that does not hide, however, the subordination of the countryside to the processes that reach it under the influence of the city.

Various theories have been proposed regarding urbanization. J. Estébanez cites the theories of contrast*, which are* based on the existence of a supposedly small, intrinsically good human community that is being lost to the impact of the city, which is the cause of lamentation on the part

[13] Ibid.

[14] BERGER, A., ROUZIER, J. (1977) : *Ville et campagne, la fin d'un dualisme.* Paris: Editions Economica, 276 p.

of many thinkers and writers. Referring to the theories of contrast, J. Estébanez goes back to its origins[15]:

> The notion of community is due to Tönnies, whose *Gemeinschaft* (community) and *Gessellschaft* (society) appeared at the end of the 19th century. In the *Gemeinschaft*, the community, the people; human relations are intimate and lasting, opposed to the impersonal and contractual relations imposed by the society or association that is the *Gessellschalft*.

Advancing in contrast theories, L. Wirth considers that the urban environment, due to its strong demographic concentrations, determines specific behaviours characterised by secondary relationships that are "impersonal, segmental, superficial and transitory", turning man into an anonymous individual isolated from the community, delving into the *Gessellschaft*. It is the increase in the population of a nucleus, above a certain level, which generates segregation, rivalry and competitiveness. As density increases, urbanization or urban way of life is generated, hence the title of its article. But L. Wirth introduced the idea that in the process of urbanization there is no rupture, but rather a progression between the urban and the rural. The theory of the rural-urban continuum arises, in which, at one extreme, is the central sector of a metropolis, at the other extreme appears the traditional society, or rural deep. Between the two, there would be a gradation, at the base, there would be a *folk* society (J. Estébanez, 1988):

> *Folk* societies are small communities in their composition, with a strong solidarity of the group, where lifestyles are conventional and consistent with their culture. The behavior is traditional, spontaneous and uncritical. Relationships, their relationships and institutions are types of experiential categories, and the family group is their unit of action. The sacred prevails over the secular and the economy is more prestigious than market-oriented.

But these ideas were soon to be criticized, specifically by O. Lewis, who considered Wirth's theory of a rural-urban continuum not entirely valid, because neither folk society is so homogeneous, nor is the old completely replaced by the modern in the city[16]. O. Lewis cites a "culture of poverty" that makes lifestyles equal in both the countryside and the city. For H. Gans, too, the ideas of L. Wirth were not entirely correct, for whom there was no proof that size, density and heterogeneity originated the passage from a community to a society or *Gesellschalft*. What's more, H. Gans argues that it means falling into an ecological determinism, the fruit of studies based on sources that were out of date for the time. For H. Gans, in the central areas of the city five small communities are differentiated, joined together by many primary ties and contacts, characteristic of a *Gemeinschaft* or community rather than a *Gesellschalft* or society, are the cosmopolitans, or people dedicated to study and the arts, as well as to other liberal professions; singles or couples without children and *ethnic villagers*, or ethnic groups that are in the cities and live preserving the forms and customs of their previous life, isolating themselves in the city. These, despite being in the city, do not live in a certain urban form, there is no urbanization or acculturation of supposedly urban values[17].

Regarding the city's periphery and suburban ring, L. Wirth noted that the second effect produced by size, density and number was segregation into districts or residential neighbourhoods. One would expect that in these neighborhoods the relations would be "secondary, anonymous or impersonal" but, once again, this author considers that this is not entirely true. The most common element that best describes these suburban residential neighbourhoods is the quasiprimary

15 BAILLY, A. (1978): Op. cit.

16 LEWIS, O. (1951): Life in a Mexican Village: Tepoztlan Restudied. (quoted in ESTÉBANEZ ÁLVAREZ, J. (1988): "Los espacios urbanos". Geografía Humana. Madrid: Cátedra).

17 GANS, H.J. (1962): «Urbanism and suburbanism as ways of life» in Rose, AM (ed.): Human behaviour as social process. London: Routledge & Kegan Paul, pp. 625-648.

character of interpersonal relationships. The term quasiprimary describes a more intimate and intense relationship than secondary relationships, though more reserved and cautious than primary relationships. The ecological determinism of L. Wirth is thus breached.

Finally, L. Wirth's theory is not corroborated either in the suburban strip, farther from the suburban area, since the population living in these strips, affected by pendulum migratory movements, should have an intermediate lifestyle between the city and the rural milieu, according to the theory of the rural-urban continuum, and this does not happen as J. Estébanez (J. Estébanez, 1989) points out:

> In these localities clearly differentiated social groups coexist that do not have the same way of life and move in different social worlds. Thus, there are people who live in an urbanized environment, and are not from the city, *(ethnic villagers)*, while others are from the city but are not in it (mobile middle class that lives in the rurban rings.

In short, L. Wirth's ecological determinism is called into question because, as Pahl points out, quoted in turn by J. Estébanez:

> People reflect in their way of life plus the class, the phase of the life cycle and the cultural values of their social group, rather than the supposedly determinant characteristics granted to them by residing in a given territory.

Justifying the existence of a differentiation, from the point of view of *modus vivendi,* between the countryside and the city is thus called into question: there is no rural way of life and an urban way that are specific to certain spaces, there can be a rural way of life in an urban space, despite the fact that due to their size and density they are not strictly rural, and vice versa.

1.3. THE CITY AND THE GENESIS OF THE CONCEPT OF THE RURBAN BELT.

The term city comes from the Latin word *civitas* or place where the inhabitants who had the right of Roman citizenship lived. Faced with the difficulty of a precise conceptual definition, descriptive characters have been used for some time in an attempt to overcome merely subjective ones. Within these criteria, statistical and spatial criteria can be distinguished. The first, focused on measurement, and the second, on delimitation. In both cases, the underlying mental structure rests on the theories of contrast, that is, to define the urban as the opposite of the rural. But its application is not simple, because although it is true that, in past periods, the city had a closed perimeter that materialized historically in the wall, more and more the transition from urban to rural takes place according to a different spatial pattern, without rigid limits or spatial discontinuities.

The progressive dissolution of the boundaries between the urban and the rural makes an operational definition of the urban difficult, since it is not possible to define what does not have borders or limits. It could be said that, since there are no boundaries between rural and urban, it cannot be said that in a given place the urban ends and the rural begins and vice versa. It would be necessary to speak, with more property, of an urban continuum to refer to a transitional geographic space where the components of the urban complex decrease in inverse reason to the distance. On the other hand, we insist, there is no point in this continuum where it can be said, with rigour, that the urban begins and the rural disappears. Therefore, any definition is somehow arbitrary or, at best, involves a large dose of subjectivity (A. Precedo, 1990).

In the rural-urban continuum, in its strictly morphological aspect, there is a transition space that has come to be called a strip and that was already mentioned in the mid-twentieth century (GS. Wehrwein, 1959).

> It is an area of particular characteristics, which has only been partially assimilated in the growing urban complex and which is still partly rural, since many of its residents live in the countryside, but do not depend on it socially or economically.

In this way, the socioeconomic criterion acquires relevance in the concept of strip, since pendular movements take place within it, led by a mobile middle class that works in the city but lives in the countryside. The morphological and also social criteria is proposed by J. Johnson, for whom the urban strip is a mixed land use zone, in which changes occur in land use, not only residential, but also commercial, educational, recreational, etc[18]. . In short, a mixture of urban and rural components, which explain why this strip is called the urban strip, or sometimes the suburban strip, and its ruralurbanisation processes (M. Castells, 1990). It is in this strip, according to J. Johnson, that a middle-class population is inserted that lives in the countryside but works in the city, and that is the protagonist of an urban growth process based on a type of housing, preferably single-family, more frequent in Anglo-Saxon countries than in Latin countries, that introduces the so-called suburban *ethos*:

> Soulless places, where people are bored, alone or unoccupied, where individuals lack roots and have no sense of belonging to a community, and where relationships are window to window rather than face to face.

Thus, J. Johnson introduces another characteristic of these fringes: the spatial, social and behavioural segregation between *newcomers* or Neo-Rurals, population coming from the city and the autochthonous or *ethnic villagers.*

Three authors should be cited as precursors of the strip concept: Von Thünen, B. Mackaye and W. Christaller.

Von Thünen, in the 19th century, mentioned a central space around which appear some rural rings that supply the city. Already in the 20th century, specifically in 1928, Benton Mackaye mentioned the penetration of the city in the surrounding area through the diffusion of the automobile which, according to him, allowed the diffusion or decentralization of industries. Therefore, for him, there is an invasion of the metropolis, more or less parallel to the extension of communication routes, with the emergence of satellite cities or what would be the edge cities. Finally, W. Christaller, in his theory of central places enunciated in 1933, referred to the city as "a center that supplies goods and services to an area in a hexagonal manner.

But the study of this area carries two implicit terms that were already delimited shortly before the end of World War II. Thus, different authors differentiated, at that time, the urban fringe from the rural-urban fringe. The urban fringe would belong to the compact city, where suburbanization takes place, while the rural-urban or rurban fringe would be on the periphery, which was identified as a rurbanization area or as a rurban belt. These terms were assimilated as the suburb and the rural-urban strip[19], clearly differentiated areas. The suburb would be a continuous area to the city, while the strip would be located behind the administrative boundaries of the local city, and often beyond. The difference between the *suburb* and the strip was interviewed at the end of the fifties: while in the suburb there is physical continuity with the city, in the suburban strip there is no such contiguity, although there is proximity to it.

In short, the suburb, suburbia or *suburb* is located "beyond the limits of the central city, contiguous to it, with a use of urban land and with urban occupations". Opposite the suburb, the strip is located "beyond the central city, in the rural hinterland, with mixed characteristics in land use, rural and urban, with intermediate density, and with residents engaged in rural and urban occupations. This differentiation between strip and suburb has, on the other hand, a deep tradition

18 JOHNSON, J.H. (Ed.) (1978): Suburban growth. Geographical processes at the edge of the western city. London: John Wiley and Sons.

19 KURTZ, R.A. y EICHER, J.B. (1958): «Fringe and suburb: a confusion of concepts». Social Forces, 37, pp. 32-37.

in Anglo-Saxon literature that began in the post-war period, and enjoyed great diffusion at the end of the 1950s and 1960s. Even then, several authors distinguished an *inner fringe* from an *outer fringe*. This delimitation culminates with R.J. Pryor at the end of the sixties, for whom the strip can be divided into two: the urban strip, with a higher density of inhabitants than the average density of the urban rural strip, greater population density, greater intensity of conversion of rustic land into urban and pendular mobility that forms with the central city. In contrast, the rural-urban or rurban strip shows lower density and weaker rates of population increase[20]. In this line, F. Molinero distinguishes, within the urban structure, the city and the strip, which he breaks down into two: the suburban strip and the periurban or rurban strip; the urban shadow, the limit area of conmuting, and finally the rural umland or hinterland, where the secondary residences acquire diffusion (F. Molinero, 1990). This scheme was later modified (A. Precedo, 1996), for whom, between the suburban and the suburban strip, it would be necessary to insert a periurban area corresponding to an outer ring of the agglomeration, defined, in turn, "as the sum of the central city plus the outer or suburban strip"[21]. That is, the central city and the *outer fringe* or urban suburbs, both workers and middle class, constitute the edges or limits of the periurban strip, which is defined in terms of area that supplies workers to the central city, via pendulum mobility.

The scheme, as we see, is not simple, to which its essentially dynamic character is added, to the extent that A. Berger and J.M. Fruit stressed that, more than a type of space, "it is a discontinuous and transitory form of occupation of space, it is more a process of urban growth than a type of space[22]", in which rural and urban characteristics converge, which has been called in various ways, such as *rururbano*, *periurbano*, *banlieue*, *rural urban fringe*, and so on.Thus, while something may characterize these spaces of transition, it is in that of being seats of the ephemeral and the perishable, so they are spaces easy to distinguish, but difficult to define.

1.4. MODELS OF THE URBAN GROWTH PROCESS: FROM CONCENTRATION TO THE SEARCH FOR NEW ALTERNATIVE MODELS TO THE CLASSIC PARADIGM OF URBAN GROWTH.

Más Hernández believes that the process of urbanization or urban growth *sensu stricto*, goes through several phases: a first stage is metropolization, in which the central city agglutinates population and resources. A second stage would be suburbanization, marked by a demographic decline of the central city and an increase in the role of the peripheries. Thirdly, desurbanisation, also known as counterurbanisation, would consist of a decrease in metropolitan areas to the benefit of neighbouring rural areas or medium-sized cities further away from the metropolis (Mas Hernández, 1999).

This model evidences the crisis of the model of metropolitan growth that starts with the theory of the central places of W. Christaller (1933), according to which, the growth of a central place is a function of transport, which guarantees the threshold of demand, or level of demand that guarantees, in turn, the profitability of the location of a good or service, and increases the reach or scope of this good or service (the maximum distance to be covered in order to acquire it). For W. Christaller, the central place, by improving communications, necessarily increases its centrality, its attractiveness. The area of influence of this central city takes the form of a hexagonal mesh, and in its vertices, smaller places than the central place are located, which provide fewer services than the central place, and have, in turn, an area of influence, smaller than the central place of first rank. Thus, an entire hierarchy of large, medium and small cities is structured in a theoretical space, without orographic incidences, which is the seat of the classic model of concentration where

20 PRYOR, ROBIN J. (1969): "Defining the rural-urban fringe". Social Forces, pp. 202-210.

21 VAN DER HAEGEN, H. (1991): "Les franges périurbaines en Belgique: quelques éléments de recherche concernant leur délimitation, leur population et leus caractéristiques sociales". Space, Populations, Societies, pp. 259-269.

22 BERGER, M., FRUIT, J.P. (1980): "Rurbanisation et analyse des espaces ruraux périurbains". L´Espace Geographic, no. 4, pp. 303-313.

hierarchical relations of a vertical type are established, while horizontal ones are meaningless. We observed an element that W. Christaller did not consider, and that is that the improvement in communications, in *practice, does* not necessarily increase the centrality or attractiveness of the central place, there is a threshold, a turning point or critical level of saturation; in which the city collapses, by processes of agglomeration diseconomies (aspects that diminish the centrality or attractiveness of the central city as higher taxes than the surrounding area of influence, pollution, traffic congestion, high property prices, etc.). In this way, centrality is maintained or decreased slightly, with improved accessibility, while centrality increases in the peripheral nuclei due to the relocation of the population and, with them, with the diffusion of the production and distribution of goods and services (dispersion model).

At first, it would be necessary to distinguish a process of apparently indefinite urban growth, which coincides with the tendency to the concentration of population and resources in the metropolis (Muguruza Cañas and Santos Preciado, 1990):

> In this phase, the metropolis monopolized for a time most of the population growth and activities of its natural area, with an intensive occupation of its free space and the consequent elevation of its population density.

This period was the stage of systole or centripetal growth. It's the so-called metropolization stage. In a second phase, the beginning towards a phase of maturity is already evident: it is the phase of suburbanization or rapid expansive growth towards the metropolitan periphery, which hides, in reality, a stage of metropolization of the peripheries. The result coincides with the territorial model cited by J. M. Santos and C. Muguruza Cañas: it is the metropolitan model characterized, broadly speaking, by the concentration of the population in large metropolises, the separation of places of residence and work, the concentration of the tertiary sector in the centre of the city, the expulsion towards the periphery of residential or industrial functions and the sectoral segregation of housing according to social classes. In the maturity phase, the metropolitan model found its main support in transport by car, one of the basic pillars of its maintenance, allowing the progressive functional differentiation of the modern city. The model of metropolitan growth found the obstacle of the diseconomies of agglomeration which led to the crisis of the model and its substitution by another way of conceiving the city.

Since the 1970s, first in a slow and particular way, then more generally, a new phase of urban development has appeared, characterized by the slow or negative growth of many metropolitan areas, accompanied by an increase in the growth rates of medium-sized and small cities and even rural areas. This phenomenon, described as a clear break with the previous model, underlines the fundamental difference with the suburbanization phase, with counterurbanization or desurbanization appearing as a new phase of urban growth.

Frey offers us a theoretical perspective from which to focus the analysis of the process of deceleration of metropolitan concentration. According to the author, there are two theories to explain population loss in these areas: the theory of regional restructuring, and the theory of deconcentration (1988). According to the restructuring theory, the metropolitan growth model is replaced by a new model, which considers that only those cities that become control and management centers, or as carriers of high-level services or research and development centers, will increase the demographic concentration, to the detriment of those anchored in the more traditional industry, more affected by the structural crisis of the industry. Not all the authors who defend this new theoretical framework adopt a homogeneous position with regard to the driving force behind the crisis of the model of metropolitan concentration. While some put the accent on post-industrialization: on technological innovations and new discoveries of new technologies; others would do so on deindustrialization or industrial crisis, which in the 1970s motivated capitalism to divest in certain sectors and in the areas where these traditional industries were located. This model of restructuring foresees a gradual and sustained depopulation of large cities in

a generalized manner, but does not agree on its causes: For some, it is due to technological innovations and improvements in communications, as well as to the residential preferences of the workers that a relocation of jobs towards the periphery would motivate; rather than a disappearance of the productive fabric, there would be disinvestment, but according to zones of the city, which would generate an industrial relocation towards the peripheries, the privileged zones of population towards which the middle class moves due to the diseconomies of agglomeration generated at the end of the centripetal growth model.

Opposed to this theory is that of deconcentration, which alludes to a diffusion of the population due to the flexibility of location in the face of technological innovations of both entrepreneurs and residents, which would give rise to what B. Kayser called rural renaissance[23]. The theory of deconcentration foresees a gradual, albeit sustained, depopulation of the large metropolitan areas of the developed world. This theory places less emphasis on the new organization of production as the cause of regional redistribution, while at the same time attributing greater prominence to the freedom of the ex-urban to reside wherever they please, without the tyranny of residing in a place close to their workplace, all due to the technological innovations that the new post-industrial or post-fordist era allows. This model is based on the fact that the traditional preferences of both workers and employers to locate businesses and residences in less densely populated areas increasingly encounter fewer institutional and technological barriers, so that counterurbanization trends after the 1970s represent the beginning of a trend towards a more diffuse urbanization process.

The study of models of urban growth, by industrial crisis, or by delocalization, leads us to underline, once again, the dynamic nature of the process of urban growth, which appears in the theory of urban transition (Precedo Ledo, 1990).

According to this theory, urban growth begins with a phase of de-ruralization, in which the increase of the urban population is parallel to that of the rural population, and although there is urban growth, the rate of urbanization remains stabilized, and gives way to a phase of urbanization in which there is a rate of increase of the urban population higher than the rural population, especially because of the rural exodus. In the acceleration phase, the growth of the urban population continues to increase, while the rural population declines and the rate of urbanization increases rapidly. Initially, the decline occurs mainly in rural areas, but subsequently also affects small and medium-sized cities that see their population stagnating or declining in favour of metropolitan areas. It coincides with the concentration phase. In the transition phase, the rate of growth of the urban population stabilizes, because the trend towards concentration in large cities decreases, although the rate of urbanization continues to increase due to rural paralysis. Finally, in the deurbanization phase, large cities lose population in absolute values, while medium-sized cities show the greatest growth, while a "rural renaissance" takes place.

The various theories described show the complexity of the current study of the urban phenomenon, due to the ephemeral nature of many studies since, if any feature can characterise these urban processes, it is their dynamism.

1.5. MAIN PROCESSES OF URBAN DECONCENTRATION.

The neologisms that start from the analysis of urban processes have been tried to explain from evolutionary models, such as the model of urban growth in phases enunciated by P. Hall[24].

According to P. Hall, in the urban growth there would be a first phase, of absolute centralization, in which the urban center grows by the rural exodus of its rural hinterland; a second phase, of relative centralization, in which the metropolis grows and the suburban rings that

23 KAYSER, B. (1990): The Rural Renaissance. Sociology of the countryside of the Western world. Paris: Armand Colin.

24 HALL, P. (1984): The world cities. London: Palgrave Macmillan, p. 247-250.

surround it grow, although the nucleus more than the suburb; a third phase, of relative decentralization, in which the suburban rings grow more than the mother city, and which is typical of the stage in which suburbanization or suburbanization occurs, a fourth phase, of absolute decentralization, in which the mother city loses population, while the suburb still grows, which would correspond to counterurbanization or exurbanization. Finally, in the fifth phase, or decentralization with loss, the growth of the suburb does not become sufficient to prevent the overall growth in the agglomeration from being negative, with greater growth in rural or non-metropolitan areas, corresponds to a more mature phase of counterurbanization and would be identified with the rural renaissance of B. Kayser.

The different models described have revealed the existence of novel concepts that, on many occasions, have contributed to greater confusion in the study of the contemporary city, and which we must mention carefully.

First, the term suburbanization (Estébanez, 1989).

> It is defined as a set of factors that make the growth rate of the metropolitan outer area clearly dominate the growth of the central city, so that the central area begins losing population first, and later, a part of the industrial and commercial activities to the benefit of the outer belt. This centrifugal movement gives rise to a transformation of the urban space: the central cities are enveloped by a belt of suburban dwellings of very varied characteristics, which begin being mostly of a single-family nature and exempt, although they are later intermingled with other types of dwellings: semi-detached houses, apartment blocks. In addition to the morphological transformation, the expansion of the suburb indirectly causes the deterioration of the centre and the formation of physically and socially marginal areas, which causes a deep social division between the centre and the suburb, as well as a deep financial problem.

The consequence, says J. Estébanez, is a functional change, as the central city gradually loses its economic pre-eminence to the benefit of the suburb through the decentralization of industrial and commercial activities.

As for the process of suburbanization, this is relatively recent, is introduced in a massive way after World War II in the United States, associated with the growing motorization of the American white middle class and the supply of affordable housing in the periphery. From the United States it was imported late into Europe, where J. Estébanez indicates it has had a smaller presence, as less than half of the European population lived in metropolitan areas in the early 1980s. It is precisely its low-density urbanization character that distinguishes rurbanization from suburbanization. For L.A. Camarero (Camarero, 1993), in urbanization, the density of construction is lower (predominance of single-family homes or chalets), as opposed to suburbanization, which is dense and compact and continuous to the city, hence the term from which it comes: suburb or, in Anglo-Saxon terminology, *suburbia*. On the other hand, in the European Mediterranean countries, the suburbanisation of single-family housing according to the Anglo-Saxon model occurs with less intensity, with the single-family housing interspersed with blocks of flats. In short, in the words of J. Estébanez (Estébanez, 1989):

> The suburb constitutes a space of great importance in urban areas. It first developed in North America, and later in Western Europe, arriving later in Mediterranean Europe. It begins with some characteristics of morphological, functional and social uniformity, and ends up evolving towards a heterogeneous space morphologically and socially.

But for the middle-class suburb of the United States to succeed, it was necessary to pay a high price in the urban centers of American cities, which become authentic *slums* or *ghettos* of ethnic minorities that are segregated from the rest of the population, of white ethnicity. Suburbanisation has led to social segregation on ethnic grounds, a bipolar division between a discredited and deteriorated centre and a periphery reserved for the white population with the highest social status.

However, mention should be made of the difference between the Anglo-Saxon suburbs and the Latino suburbs. For G. Dematteis, the traditional Latin suburb, is characterized by its compact character, by the clear separation between urban and rural landscape and by a typology of housing preferably multi-family, intended for the working class, to the extent that the appellation "red suburbs" is used to designate these working suburbs differently (Dematteis, 1998). In short, the middle and upper class, single-family, low-density Anglo-Saxon suburb model is totally different from the Latin suburb.

Another neologism that alludes to urban processes is that of rurbanization, a term that spread in France from the work of Bauer and Roux(Bauer, G. & Roux JM, 1976. It comprises a mode of urban development, not only urban growth, but also the adoption of an urban way of life in a rural environment. For Bauer and Roux (1976), rurbanization results "*from the deployment and dissemination of cities in the countryside*. This neologism, in the words of Berger and Fruit (1980), is based on two concepts: the urban (arrival of population of urban origin), and the rural (low-density mode of occupation); and it differs from the urbanization of the suburbs, or periphery close to the cities, in the fact that it is discontinuous, not continuous, as opposed to the suburbs that traditionally were attached to the old city, with which the city appears more and more like the central district of a discontinuous agglomeration, or jumps according to J. Estébanez; or *eparpillée*, scattered, according to Bauer and Roux, around which appear the neighborhoods or dormitory cities. In rurbanization we can differentiate economic and ideological motors. Among the economic engines, the generalization of the automobile in the family unit, due to an increase in the standard of living of families; the demand for scattered, not concentrated housing; and productive decentralization stand out.

Among the ideological motors, there are arguments against rurbanization, among which the socialist theses stand out, for whom the "gentrification" of the working class will bring with it a weakening of the demands of the workers; but, in front of the oppressive space that H points out. Lefebvre, that is to say, the collective or typical urban space, what is clear is that there is an escape from the urban promiscuity of the suburbs and from urban problems in general, in order to highlight the individual in an individualistic era that has as its basic reference a single-family dwelling, preferably with a garden. It is precisely the character of low-density urbanization that distinguishes rurbanization from suburbanization, at least in Europe (Camarero, 1993).

> In rurbanization the density of building is lower, with predominance of single-family homes or chalets, as opposed to suburbanization that is dense, compact and continuous to the city, hence the term from where it comes: suburb.

The theory of the urban continuum is therefore taken up again from a morphological point of view: there would be a gradation between the central urban space, the still compact suburban space, the suburban space and the rural space; but more than a suburban space, or even a suburban space, *lato sensu*, one would have to speak of suburban or suburban processes, since it would be a transitory form of occupation of space (Berger and Fruit, 1980). Thus, with time, what used to be suburban becomes urban, and what used to be suburban becomes suburban.

Rurbanisation, also known as rural renaissance, gained importance in France from 1975 onwards; also in Great Britain, where the demographic decline in less accessible rural areas is still continuing; in Germany, where, since 1970, regions with weak demographic concentrations have been growing faster than large metropolitan regions, to the point that B. Kayser observes a significant inverse relationship between regional growth rate and population densities; and even in the United States, where non-metro areas are growing faster than metropolitan areas. However, according to B. Kayser, this rural resurgence did not take place for economic reasons, but for non-economic reasons (B. Kayser, 1990). This awakening of the countryside has been so intense that the author has not hesitated to call it rural *renaissance* (*renaissance rurale*), for whom this change of trend, *turn around*, is not a local phenomenon but rather a solid and structural process that has

been taking place generalized in all developed countries. In this medium, one can distinguish Neo-Rurals or *newcomers*, young people with good education and income, who perform jobs considered, in Anglo-Saxon terminology, as *white-collars*, as opposed to *blue-collars* or manual workers. The highly qualified Neo-Rurals are even considered as *yuppies*, dynamic executives, white, high income, and mostly young, although they constitute a social minority, in front of them, appear the *old timers* or autochthonous, who feel more rooted to the community or *Gemeinschaft*. But divisions are no longer the result of time spent in the place, but in social class, education, and age. The incorporation of a population of medium and high social status is produced, which has repercussions on the rupture of the social homogeneity existing in the fields that suffer from the influence of the city. Faced with this phenomenon, A. Precedo points out that the so-called rural renaissance of Kayser is nothing more than the fruit of a growth of medium-sized cities adjacent to large cities, but that it is not a generalised movement of the countryside, which calls into question the concept of rural renaissance. For Precedo Ledo it could be said that, in reality, more than an anti-metropolitan or rurbanization trend, it is rather an expansion of metropolization or, in other words, an increasingly diffuse suburbanization.

A final neologism is that of desurbanization from an urban perspective, also known as counterurbanization. The term arises in the United States from the hand of B. Berry[25], who proposed the concept of *counterurbanization* to describe the joint processes of demographic growth of non-metropolitan areas, including fields and small cities, and the demographic regression or stagnation of large cities that occur in the United States from the decade of the seventies, coinciding with the economic crisis of 1973. Counterurbanization is a term coming from Sociology rather than from Geography. In reality, counterurbanization and rurbanization are two simultaneous sides of the same coin: rurbanization is the process of urbanization of a rural environment surrounding the city as a result of the counterurbanization of the metropolis, that is, it is the result of the deconcentration or decentralization of population, hence the term counterurbanization, as a process contrary to urbanization. Urbanization is synonymous with the concentration of population, housing and activities; while counterurbanization is the process of deconcentration of population and housing first, and later of activities. In spite of everything, L.A. Waiter nuances:

> It is more than a movement of deconcentration, of a new urban concentration, more regional, more diffuse and less punctual.

In this line it follows the ideas of G. Dematteis, for whom the supposed counterurbanization does not exist, since there is a global growth of the functional urban region (G. Dematteis, 1998).

> Counterurbanization is the result of a mere leap to scale due to the new forms of territorial mobility of families, which means that relevant demographic displacements within a functional urban region have the same meaning as those that in the past occurred between the neighbourhoods of a single urban centre. It is evident that the growth of smaller centres or rural municipalities within such a territorial system is attributed to the urban region as a whole, and cannot be understood as counterurbanization, just as it is also inappropriate to speak of desurbanization only because some centre within this same urban system is in a phase of decadence, even if it is the main centre. If the geographical distribution of the population were limited to these areas, counterurbanisation would then be a sort of optical illusion, due to an error of scale in our observations.

In relation to the concept of desurbanization, we can distinguish a desurbanization of urban centers, which is earlier than the desurbanization of the periphery and of clearly different nature (Precedo Ledo, 1996). The desurbanization of the centers takes place because the population of medium and high social status, before the deterioration of the conditions of life of the city, emigrates to the periphery. The desurbanization of the centers produces the deterioration of the

25BERRY, B. (Ed.) (1976): Urbanization and counterurbanization. Beverly Hills: Sage Publications, p. 7-15.

centers that are occupied by population of smaller social status than the one that occupied it previously, demographic and social change, and goes accompanied by a terciarización of the buildings, functional change. The desurbanization of centers is not irreparable, since the processes of urban rehabilitation and conditioning, the urban ecodevelopment, favor the redevelopment of the centers that run parallel often to the desurbanization of the peripheries by processes linked to the industrial crisis and to the dismantling of the productive fabric of the urban peripheries, which explains why the counter-urbanization of the peripheries is detected in cities that have suffered from industrial reconversion (Vigo, Bilbao, Pamplona), a phenomenon that has been detected since the eighties in Spanish industrial cities.

We have cited the consequences or effects, but what are the explanatory elements that have led to the crisis of the centripetal urban growth model?

1.6. THE DRIVERS OF THE URBAN GROWTH PARADIGM SHIFT.

There are two interpretations that attempt to explain the decline of the city's concentrated growth model and the supposed "rural renaissance" to which Kayser refers: an interpretation in which economic factors predominate and an interpretation in which ideological factors prevail, but, as we shall see, there is no incompatibility between the two.

In economic interpretation, the economy plays a fundamental role in terms of work and access to the housing market. There are authors who consider that urban change or transformation must be conceived from the point of view of economic restructuring, typical of the post-Fordist, post-modern or post-industrial era.

The regional restructuring hypothesis cites deindustrialization as the cause of urban decentralization, which, on the other hand, coincides in time with counterurbanization. By far the worst affected areas were the central cities, and the most rapid period of decline occurred coinciding with the economic crisis of 1973. Unlike the central city, the periphery offered more land and cheaper, and was also accessible by modern means of communication. At the same time, the capital gains obtained from the land rents of the relocated factories allowed for an even more affordable location on the periphery.

Thus, deindustrialization and deurbanization according to this economic explanation would go hand in hand. The relocation of industries would bring with it the urban migration that counterurbanization entails. The phenomenon was concentrated in the seventies and early eighties, coinciding in effect with the so-called turn around or counterurbanization. This process had a broader dimension in the wealthier urban sectors, which emigrated towards the suburbs or even beyond the suburban rings of the central city and opened a gulf between those who "stayed in the city", those with less purchasing power, and those who could not emigrate because they had no income to change their residence.

But the exclusively economic hypothesis did not explain all the cases of urban emigration, not all cities have a developed industrial fabric, and, despite everything, there were cities where employment was no longer concentrated in industry, but more and more in a new type of industry: technology and in an increasingly complex and specialized service sector. Thus, the hypothesis based on the crisis of traditional industry is only valid to explain the processes in industrial cities, but it does not explain, for example, why it was stronger in certain peripheral areas that previously did not have a powerful industrial fabric similar to the cities of the Northeast of the United States. This thesis does not explain, in fact, why Los Angeles would become the new paradigm of the city *eparpillée,* or dispersed. Therefore, more than the crisis itself, it would be the economic readjustment with decentralization of industrial activities towards peripheral environments, the role of new technologies, as well as a change in the economic base that tends towards the tertiarization of cities the factors that would explain why the processes of rurbanization took place in a generalized way in the developed world since the seventies.

To the crisis of the Fordist model and the advent of the post-Fordist economic model that advocates decentralization as a process of readjustment in the face of the crisis, we should add another type of economic factor that seems fundamental and that has been described by Horacio Capel (Capel Sáez, 1975) and is the housing deficit in metropolises due to space problems and land price problems that makes the benefits for construction companies more reduced because only the wealthiest classes can have access to these homes. Consequently, the less wealthy will be forced to look for other spaces with fiscal pressure and cheaper prices for their homes and this is found in the periphery.

Along with economic factors, we cite ideological factors, which maintain that it is the individual and the importance that the individual acquires in today's society, the one who decides to emigrate, and does so of his own free will, without apparent external coercion. The search for a more natural and less artificial environment than the urban one, and, above all, the flight from the diseconomies of urban congestion would impel emigration. It is the ideology of chlorophyll (Gaviria Lavarta, 1969). Pieces or fragments of a happy Arcadia are sold where the green prevails over the artificial, although the new space is an equal or more artificial product than the urban one itself; where the private predominates over the public in closed spaces and folded on themselves (bunkerization of the house).

In short, among the motors of the change of paradigm of urban growth were the economic factors, fruit of the crisis of the Fordist growth model that defended centralization to obtain more capital gains, and that motivated a hard reconversion of the productive fabric of industrial cities; like the ideological one, that sells a better model of life in an idyllic periphery that democratizes itself as a place not only for elites but for a wide sector of the middle class of the developed world. If we add to all the above, that the process feeds back, since the attraction generated for companies by a middle class of qualification and higher income than that of lower status, will accentuate, even more if possible, the process of relocation of companies from the cities to the periphery, with greater disinvestment of the central cities and creation of companies in the periphery.

But while the dispersed versus concentrated growth model seems irreversible and, for some, more desirable, the dispersed urbanization model that has spread in recent decades in the developed world should not be seen as the panacea to follow. In fact, recently, Precedo Ledo (Precedo Ledo, A., 2004) pointed out the main costs of dispersed growth such as environmental costs, or loss of landscape, together with the deterioration of the environment; the economic costs, or death of the "centres", and the social costs (increased levels of social segregation). These costs are underlined by the radical geographical approach[26] that opposes the dispersion model because of the innumerable costs it entails. In spite of everything, Precedo Ledo defends a disperse but planned model, different from the one carried out until then, which would lead to a level of compatibility between diffuse urbanization and sustainability in all its spheres, which would move from an urban monocentrism to an urban polycentrism, basic supports of the urban diffusion process.

1.7. FROM THE CITY TO METROPOLITAN AREAS. TOWARDS MEGALOPOLIZATION.

It was B. Berry[27] who, faced with the processes of urbanization of the rural milieu and the crisis of the classic model, argued that old terms cannot be applied to the new processes of urban growth. He criticizes the concept of the traditional city and proposes the concept of the urban region or metropolitan area, since, according to him, large cities cannot indefinitely maintain their centripetal or systolic tendencies. In urban regions, centrifugal or diastolic tendencies have a greater impact on population growth in the periphery than in the centre. At the same time,

26 Ibid., p. 38.

27 BERRY, B. (1975): Human Consequences of Urbanization. Madrid: Pyramid. Economics and Sociology.

subsequently, the economic heart moves with the population, leading to productive decentralization following demographic decentralization.

Berry and Horton[28] also allude to the factors on which the delimitation of metropolitan areas depends. They mention Bogue, for whom the area of urban influence depends on the distance factor. The distance factor has seen its importance diminish due to the improvement of communications, which has brought about its substitution by the accessibility factor (ease of communications between the metropolis and its urban periphery).

In addition to improving accessibility, the city also offers shops and services that it can bring to its surroundings. No matter how large the city, if it does not have a diversified and adequate offer, its area of influence will not be excessively large.

For Berry and Horton, the metropolitan area becomes a functional area, so that the environment, functionally specialized, is supplied by the diversified offer of the city, constituting the metropolitan area in a consumer area, a functional, hierarchical and interrelated economic unit, thanks to efficient communication channels. Another characteristic of metropolitan areas is that they constitute autonomous areas that serve as a labour market, leading to dissociation between the place of work and residence, with the intensity of this commuting varying according to travel times and population.

A compilation of the different definitions of metropolitan area is made by Almoguera Sallent (Almoguera Sallent, 1989) who mentions how the demographic criterion prevailed in the first formulations: the American Census Bureau made the first official definition in 1910 based on the existence of a central city and a space surrounding it over which the city exerts its influence. Later, in 1950, the United States Federal Census Bureau introduced a new modification: the *Standard Metropolitan Areas* or SMA, delimiting, from demographic criteria but introducing, as a novelty, a demographic indicator, such as the volume of active population dedicated to industry and services. In 1959, Davis tried to unify the criteria of delimitation of the existing metropolitan areas in the world, carrying out a synthesis of the state of the question. Criticism soon arrived, arguing that demographic criteria could not be exclusive, given that some agricultural regions had densities even higher than metropolitan areas. Thus, as P. Almoguera points out, it would be necessary to add the descriptive base criteria that alludes to the continuous urbanized area, such as the metropolitan area, although it would be, in reality, a discontinuous area. P. Almoguera, quoting M. Castells, points out that more than the demographic dimension or size of metropolitan areas, it is characterised by the diffusion of activities and functions in space, with the central city acting as a disseminator of these activities and functions through exchange flows. Once again the importance of accessibility, or ease of communication between the mother city and its hinterland or surrounding area of influence, is highlighted. Based on these flows, material (goods and services) and immaterial (ideologies and urban values) an urban hierarchy is articulated where there will be places with more goods and services (multifunctionality), compared to others that specialize in more specific functions. In short, the metropolitan area is structured as a self-sufficient unit with a concrete hierarchy, to the extent that the metropolitan area is identified (Dematteis, 1998):

> As the scenario where a functional geographical area is inserted, both dependent, through the pendulum mobility between the metropolis or mother city and its periurban area, with weak diffusion process; as the areas that, fruit of the productive delocalization and/or of jobs of exogenous nature, or endogenous from the industrial estates created ex novo, form part, as autonomous nodes of a system, or satellite cities.

Although earlier in time, G. Martinottialso mentions the definitions of the metropolitan area, for whom the same concept contains a partial contradiction, because the metropolitan whole does not necessarily imply a homogeneous area, nor even an area that divides the same territory into its

28 BERRY Y HORTON (1970): Geographic perspectives on urban systems. New Jersey: Prentice Hall.

functional components. The author thus gives the example that a basin of floating population can incorporate centres, functionally dependent on a metropolitan pole, which we call metropolis or mother city, but subcentres do not compose fixed areas in criteria of spatial contiguity (Martinotti, 1990):

> In other words, the concept of spatial contiguity does not necessarily form part of the theoretical definition of a metropolitan system that is functional in nature.

In addition, there is no definition of a metropolitan area. The definitions given are characterised by imprecision and arbitrariness. Whoever prepares to spatially fix the boundaries of a metropolitan area, can only ensure an approximation to reality, which not all reality, and show the criteria that has used in its delimitation, so that the boundaries of a metropolitan area will vary according to the criteria used to define it. In general, the criteria for defining a metropolitan area according to Martinotti can be grouped into three broad categories:

-Uniformity criteria: on the basis of which municipalities or areas that have homogeneous characteristics (demographic dimension, density, economic characteristics and similar) can be regrouped.

-Criteria of interdependence: on the basis of which municipalities or areas in which changes in people or flows, goods or communicative flows take place can be regrouped).

-Morphological criteria such as spatial contiguity or belonging to the same physical configuration systems.

From a strictly operational point of view, some criteria are simple to apply, while others require the availability of more sophisticated data that is difficult to obtain. It is evident that, in studies that propose not the pure and simple definition of a specific metropolitan area, but the individualization of defined areas with comparable criteria throughout the territory of a nation, or directly at the international level, the requirement to adopt simple and relatively inexpensive criteria prevails over the requirement to use more sophisticated criteria. In general, the use of homogeneity criteria is the most widespread, as it is the least costly. Almost all countries have census data referring to relatively small administrative or territorial units and constructed, with greater or lesser approximation, with reference to the urban system.

In Spain, the base unit for the creation of metropolitan areas is the municipality, although these do not always express satisfactorily the extension of the urbanized area, generating problems due to the oversizing of the central municipality (*overbounded)* from the administrative point of view, as is the case of Cordoba, or undersizing (*underbounded)*, case of Cadiz, being scarce the cases of *truebounded*, that is, the administrative definition coinciding with the urban reality. Therefore, the use of the municipal unit as the basis for the metropolitan whole is, at least in a reality such as Spain, insufficiently precise. In other national situations the units used are different and it is not always easy to ensure international comparison. In the United States, for example, the base unit is the *county*, which may have extensions to those of a province in Spain. The county is the unit of reference for the delimitation of the *Standard Metropolitan Areas (SMA)* in almost all the territory of the United States, but unlike the Spanish province, the county develops a wide range of functions for the population. In the United States, the SMA or *Standard Metropolitan Areas* is individualized according to the three criteria. Some are morphological (contiguity as a criterion for inclusion), others are homogeneous (density of inhabitants, number of non-agricultural workers), others are interdependent (flows between the two spatial units). The concept, and also the term, of metropolitan statistical area, currently defined as MSA, *Metropolitan Statistical Area;* it has evolved over time but, despite its modification, it is perfectly feasible to follow its evolution over time.

It is not a question of offering the sets of indicators used to establish these MSAs, but we would like to make it clear how the metropolitan phenomenon cannot be reduced to a simple extension of

a central city over a larger area or to criteria that refer only to the size of the central city. Following this idea, Feria Toribio (Feria Toribio, 2000) refers to four dimensions of the metropolitan event: one of demographic size, which includes from the population of the central nucleus of the municipality to that of the metropolitan municipalities; the metropolitan urban dimension, which can be analysed from the densities of population and the composition of the active population; the morphology or urban continuum and interdependence; in which the daily mobility centre-periphery becomes relevant. However, it is necessary to specify, as the author does, that relativized indicators must be used, that is, relative both in the framework to which the source refers and relative in terms of the source itself, since all kinds of criteria must be used, including, why not, absolute ones.

A different concept of the metropolitan area is that of conurbation, which is generated not by processes of a centrifugal nature, but by the coalescence of two or more autonomous settlements, which maintain their autonomy despite the physical union between the two. The term is due to Geddes, who applied it to a number of British cities (Precedo Ledo, 1990). There are clear differences between conurbation and a metropolitan area: the relationship between the two is not one of dependence, but of autonomy and complementarity, that is to say, they are two or more urban entities that end up merging and constituting a whole morphologically speaking, but with administrative autonomy between them.

Finally, a final level in the evolution of the urban fact is the megapolis or megalopolis. The term is derived from the Greek and means "a very large city". History traces the term back to Antiquity, when a group of Greeks planned to build a huge city on the Peloponnese peninsula. His plan didn't work, but the small town of Megalopolis was built and exists today. The megalopolis, at present, designates processes of coalescence of metropolitan areas.

> A megalopolis is any area of many cities of more than 10 million inhabitants, generally dominated by low-density settlements and economic specialization (Oxford Dictionary of Geography).

The megalopolis was a term coined by the American geographer Gotmann[29], who studied the Northeastern United States during the 1950s and published a book in 1961 describing the region as a vast 300-mile-long metropolitan area stretching from Boston to the north and Washington, D.C. to the south, which he called American megalopolis or BobWash. J. Gottman's megalopolis is a large functional urban region that provides all of North America with many essential services of the kind a community needs from its urban center. The megalopolitan area of BobWash is a center that brings together diverse functions: government, banking center, newspaper center, academic center, and, until recently, the largest immigration center, a position usurped by Los Angeles in recent years. The importance of BobWash in the American urban system is evidenced by the figures: it is home to a population of 44 million, 16% of the population of the United States. Within it are four of the seven largest metropolitan areas in the United States: New York, Washington, Philadelphia and Boston. Gottmann also presented two other megalopolises that were forming in the United States: ChiPitts, which encompasses Chicago-Great Lakes-Pittsburg, and the California coast, from San Francisco Bay to San Diego (SanSan). After Gottmann, other geographers have detected megalopolization processes in Japan (Tokyo-Nagoya-Osaka). In Europe, the so-called "blue banana" comprises a megalopolis which, unlike the United States, is made up of a dense network of medium-sized cities, together with others of more considerable dimensions, which is inserted in the north-west of Europe on a diagonal from London to Milan, which coincides with the economic axis of the old continent, through the London-Paris-Milan axis (Precedo Ledo, 1996). A second space is beginning to be outlined in the Mediterranean axis, but it is less consolidated and has less economic potential than the previous one.

29 GOTTMANN, J. (1961): Megalopolis. The urbanized northeastern seaboard of the United States. New York: The Twentieth Century Fund.

1.8. A RETROSPECTIVE AND PROSPECTIVE VIEW OF CONTEMPORARY URBAN GROWTH IN THE DEVELOPED WORLD.

Although the suburban ideal is centuries old, the term suburb is more recent. It was used at the end of the Middle Ages, when it was introduced by Chaucer in one of the *Canterbury Tales*. Much later, in the 17th century, the rich Parisians sought purity of air and greenery on the outskirts of Paris. Throughout Europe, the privileged classes regularly went on holiday to their country villas. Therefore, the suburb as a residential place to outside walls has historical urban tradition, although the process of growth of the suburbs, suburbanization, was a concept that emerged from the Industrial Revolution.

R. Fishman[30] identifies two key moments: the genesis of the suburbs and the appearance of the technoburbs. It traces the origins of the suburbs back to an Anglo-Saxon model that emerged at the dawn of industrialization, where bourgeois utopia flourished. We speak of utopia as an ideal to be attained, by the wealthy class that seeks to escape from the city and from the "unwanted" elements of the city. This dates back to London in the second half of the 19th century. With the appearance of the Anglo-Saxon suburb, it was possible to break with the pre-industrial or pre-capitalist city scheme in which work and housing no longer needed to be united. Prior to the massive creation of suburbs, the pre-industrial or pre-capitalist city that K. Jackson[31] calls *walking city* was based on the concepts of high density, high congestion, clear separation of the surrounding countryside, mix of functions and correspondence between place of work and place of residence. In front of the city, the suburbs were conceived as *slums*, places of bad life, where ethnic minorities lived preferably. These suburbs thus had, in their origin, a negative connotation, they were the *fauborien* in France, and the *Vorstädtisch* in Germany. So it was obvious that the rich would look for their homes in the heart of the city, not on the outskirts.

Between 1815 and 1875, the major American cities experienced a spatial change with the introduction of the industrial revolution that affected transport. Transport that gave a new impetus to a suburban exodus that, for the first time, brought with it the pendulum mobility between the place of work and residence, that is, the essence of the suburb, the dissociation between the place of work and the place of residence. In this period, the negative view of the North American suburbs changes insofar as the cities are filled with European immigrants and ethnic minorities, socially incompatible for the coexistence according to the white middle class ethnic group. In spite of everything, the reduced accessibility in time of the beginning of the Industrial Revolution limited the diffusion of the new model of growth that was reduced to the wealthiest social elite.

The industrial revolution favoured urban segregation by breaking with the social cohabitation that the compact city had represented. Between the incipient CBD and the suburbs of the bourgeoisie, proletarian suburbs appeared, in which the working population was crowded in subhuman conditions. Their low wages meant that they could not afford to have a house on the outskirts and escape the oppressive way of life of the factory and its surroundings. This happened until the 19th century, because in the 20th century, the appearance of an economic means of transport, such as the automobile, allowed the democratization of the suburbs: not only for the social elites, but also for the American middle class, to the extent that Americans have believed that they are the inventors of the suburbs. Chaline (1988) cites as a source of middle-class suburbs, the *Garden-cites*, E. Howard's ideal city model. In his work *"Garden Cities of Tomorrow"* (1898), E. Howard defends a model of city trying to combine all the advantages of a city life with the beauty and delight of the countryside. The scheme consisted of six garden cities, peripheral, of 32,000 inhabitants each, around a larger central city, linked to it by radial railway lines and, each other, by a circular round. Each city was, in turn, a concentric set of residential bands and large

30 FISHMAN, R. (1987): Bourgeois Utopias. The Rise and Fall of Suburbia. New York: Basic Books.

31 JACKSON, K. (1985): Crabgrass frontier. The suburbanization of the United States: New York-Oxford: Oxford University Press.

park avenues. Its center was a large park with public buildings and commercial activity, its outer periphery a band of industrial land served also by a railway line. The Spaniard Arturo Soria was the forerunner of E. Howard's ideas, proposing, in 1882, a model consisting of six linear cities that would unite the old quarter of Madrid with six peripheral rural nuclei. These first formulations depend almost exclusively on collective means of transport, railways and trams.

But it was in the United States where these theoretical models are going to be reworked to give rise to middle-class suburbs, in principle exclusively residential, with some endowments of services. They are the first *garden cities of* the automobile era in which you can cite suburbs such as Beverly Hills in Los Angeles or Radburn in New Jersey. In Europe, these peripheral, low-density green suburbs also began to emerge in the first half of the 20th century, although the two world wars will delay the generalisation of the model until the post-war period and the economic growth of the 1950s and 1960s.

As a critique of the concept of the garden city, Le Corbusier, in 1928, defends a functionalist paradigm. Le Corbusier defends the functional, but also socially segregated city: the city centre for business and administration, the segregated workers' residence, in the middle of greenery, along linear industrial cities. Le Corbusier considers that the garden city "leads to enslaving individualism and sterile isolation of the individual".

The 1920s gave way to the generalization of the automobile and the construction of the first roads. To the extent that, in some cities, car transport clearly displaced public transport. The American government contributed decisively to this situation, especially during the policy of Roosevelt's *New Deal* following the 1929 stock market *crash*. State intervention in the economy was stimulated, leading to the construction of highways and the incorporation of mortgages as a flexible and long-term means of payment to stimulate national consumption. Thus, the trend towards suburban growth would not have continued in the absence of direct assistance from the American federal government which gave low-interest loans to the American middle class, subsidies to which, however, ethnic minorities had no access as they would introduce an extra cost that no entrepreneur would be willing to face. The most lasting damage done by the American government was to support ethnic and racial discrimination, and to develop policies that resulted in the abandonment of large sections of older, industrial cities. What's more, the private banks, resuming the public policy of restricting mortgage loans to the ethnic minority population, continued with this central government policy. The next step in this gigantic operation was the deterioration of the cities, which were losing population and functions as most of the middle class relocated to the periphery. Thus, San Luis, which in 1940 housed more than 800,000 inhabitants came to have 450,000 inhabitants in 1980. In short, the resource-poor inhabitant in America has not shared in the postwar state-led real estate boom, although most of the major highway improvements were paid for with his taxes. In order to prevent the suburbs from becoming "polluted" by these minorities, the State developed a parallel policy, of much lesser economic importance, so that those who did not have economic means could acquire their housing, logically in the city, thus guaranteeing the white homogeneity of the suburbs and separating ethnic minorities from the suburbs. The *ghettos* that must exist to enforce the American dream for the middle-class white population were thus given free rein.

Between 1945 and 1973 the development of urban America tended to share the following characteristics: suburban growth was already much greater than metropolises: between 1944 and 1954, 9 million people had joined the emigration to the suburbs that appeared on the limits of major cities and on the *edges (edge cities)*. All of them had low density, and were intended for the massive use of the automobile, were homogeneous from the architectural point of view and, most importantly, maintained their economic and racial homogeneity through *zoning*. *Zoning* was a valuable policy to keep poor people and certain polluting industries out of areas of influence, as it favoured specialisation in zones, forcing the mobility of the wealthiest population, relegating in *ghettos* those who could not afford it. But the best symbol of the prosperity and realization of the American dream was not only the single-family house with garden, it also rested on four wheels.

The modern suburbs were indeed, a creature of the automobile and could not exist without it, nor without the Interstate, an ambitious program of construction of highways by the country. Nor would it have been possible without cars, *shopping centres* or their evolution, *the shopping mall* that emerged in the seventies. What is clear is that these suburban consumption centers brought with them a worsening of the crisis of the traditional businesses of urban centers, stimulating the desurbanization.

> Automotels, autocines, autoshopping, etc., were just one of many institutions that followed the growing motorization of the American population (K. Jackson, 1985).

The consequence of such a gigantic suburban process was the displacement of the big growth centers from the cities to the suburbs but, the most serious thing, it was the displacement of the employment centers from the central areas to the suburbs with what took place an unprecedented functional deconcentration that made the *conmuting* unnecessary. In 1970 almost 78% of New York suburban residents worked and resided in the suburbs at the same time. In 1981 almost two thirds of the industrial activity took place in the industrial parks of the suburbs. But not only industry, business was also decentralized. Advances in telecommunications brought with them the segregation of many companies into departments and the march to the periphery. Between 1955 and 1980 more than 50 multinationals left their headquarters in New York. Most of them simply moved, within the region, to greener surroundings, especially in bucolic places, which had the special attraction of having the benefit of New York businesses, without the fiscal concern of taxes. With the suburban city the city is destroyed: counterurbanization is reached.

This new model of suburbanised urban society, clearly perceptible in the United States in the 1950s and early 1960s, is progressively exported to the rest of the West by acculturation and, through the dissemination of ideological propaganda, will also characterise the new urban landscape of major European cities. The traditional concept of metropolitan area will be transformed into a polycentric model, integrated by several metropolitan or megalopolis areas.

The future poses a possible era of post-urbanization: gentrification and rural renaissance (11% growth in the 1970s), but in reality the process is unlikely to slow down in the 21st century, and most likely corresponds to more distant suburban growth.

It has been proposed, an alternative *growth*, the *smart growth*, or intelligent growth, that takes into account the pre-existing infrastructures without renouncing the model of *sprawl* or dispersion that has been traditional in the United States. *Smart growth* versus *sprawl growth* is intended to establish boundaries or limits to dispersed urban growth. It seeks to revitalize existing cities with the construction of housing close to the workplace and preserve the natural space from speculation, promoting multifunctionality against zoning. In short, *smart growth* seeks to reconcile dispersed growth with sustainable development, to propose a return to central and small cities to take advantage of existing infrastructure and proximity to public transport, and thus seeks to revitalize areas that have been abandoned or rejected.

But in the meantime, according to R. Fishman, the suburb has died, because the dispersion of inhabitants first, and then of activities, has broken with the old dynamics of the suburbs: that is, the dissociation between place of work and place of residence that forced the active population to commute. Instead, there is a more diffuse, quasi immaterial city that some call *technoburbium* or *e-burbium*. Hopes for more balanced growth do not seem encouraging, as experts predict that constant technological innovation will only stimulate dispersed growth versus the more concentrated growth advocated by *smart growth*[32] as an alternative to *sprawl growth.*

32On smart growth we refer to the publication we have consulted: SZOLD S. TERRY (Ed.) (2002): Smart Growth. Form and consequences. Toronto: Lincoln Institute of Land Policy.

1.9. THE SCATTERED CITY. RECENT REFLECTIONS ON AN UNSUSTAINABLE PATTERN OF URBAN GROWTH[33]

One of the most frequently cited features of today's urbanization is the appearance of the diffuse city. Many data show that large cities and metropolitan areas continue to attract population and concentrate wealth around the world.

The phenomenon of dispersion has been generated by the displacement of the population from the center of the city to the periphery and is related to the rise in housing prices in the cities, with the strategies of real estate capital to create housing in peripheral locations where land is cheaper. Parallel to the location of housing in the periphery, there is also a displacement of industries, both old factories that need more land to expand their facilities and obtain capital gains by converting the old industrial land into housing, and new industries looking for cheap land in the periphery. This has led some recent jobs to insist that rather than talking about suburbanization due to a change of residence, we should talk about suburbanization induced by the relocation of jobs in industries. At the same time, the tertiarization of the centres also contributes to the expulsion of the resident population in order to dedicate land to offices and shops.

What characterises the new metropolises is, therefore, their continuous growth and their extension towards the periphery. The terms that have been proposed clearly show this reality: in addition to *urban sprawl* or dispersed city, others have been used as diffuse city, city region, megacity, hypercity, etc... At some point this is confused with another even larger urban reality in which several cities enter into coalescence: the megalopolis or set of metropolitan areas that have come into contact.

The origin of the process of metropolization is old, as Horacio Capel quotes, but it is, from 1970, when it acquires the most drastic changes: several authors observed that urbanization in inter-metropolitan or rural spaces, which until then had lost population, were changing dynamics, which led B. Berry to coin the term of counter-urbanization of metropolitan areas that end up losing population and jobs in favor of rural environments. Shortly after, G. Bauer and JM. Roux (1976), realized the same changes also in Europe, and the need to give new expressions to the new urban reality as the term of rural Renaissance[34].

The crisis of 1973 and the development of new information and communication technologies have further accentuated the spread of urbanization and given rise to new transformations of metropolitan areas, giving rise to the expression of technoburg and *edge cities*[35], are terminologies equally used to designate these suburban spaces with technical and tertiary equipment. If one thing is evident, it is that there has been a profound change in the urban structure, leading to what, in simplified terms, we can continue to call a diffuse city and the appearance of forms of polycentrism. A new physical form of urban conglomerates is being drawn.

Economic changes are crucial in the spread of this form of urban growth. Since the 1970s, in increasing competition, machine replacement and progress in automation have made workers redundant. The old lifelong link to a company has ceased to exist, while job change and job mobility between companies, precarious jobs and spatial mobility are becoming more widespread. We can say that growth has become dispersed as the labour market has become highly dynamic, mobile and volatile. At the same time, real estate speculation in obsolete industrial areas has destroyed the old industrial fabric of the city and turned it into residential land, moving the new industrial center to the periphery, so jobs also move to the periphery. Mobility is a prerequisite for obtaining a job, a necessary condition when there is any movement of the factory or offices.

33 This section is a reflection of Chapter 6: de la obra de CAPEL SÁEZ, H. (2003): La cosmópolis y la ciudad. Barcelona: La Estrella Polar Collection. Ediciones del Serbal, pp. 211-242.

34 KAYSER, B. (1990): Op. cit.

35 GARREAU, J. (1991): Edge City. Life on the new frontier. New York: Doubleday.

In conclusion, the spatial mobility of workers from the 1970s onwards has been considered appropriate to facilitate the recruitment of labour in industry and services. This spatial mobility and change of employment are very useful for employers, although not so much for workers, treated without contemplation as a commodity that has to move to where it is needed[36].

Suburban growth has provided a polycentric character to metropolitan areas, which does not question, in any case, the hierarchical centrality of the main city. Above all, shopping malls, hypermarkets, *shopping centres*, *shopping malls*, etc. have been disseminated to serve a poorly equipped periphery that is accessible through motorway networks. With their similar architectures all over the world, they clearly reflect the process of globalisation, both in terms of architecture, the organisation of space and consumer habits, and in terms of links to multinational networks. At the same time, the increase in the production of goods and the pressure to sell with the generalization of credit has stimulated the growing conversion of the worker into a consumer of goods, services and free time, who obtains money not to live, but to consume. Consumption extends to leisure, and has a maximum expression in the city, the place of consumption par excellence, where workers and citizens increasingly become consumers. Other peripheral tertiary facilities are office centres, metropolitan edge cities, or *Edge Cities*, centres of peripheral activity that concentrate jobs and attract population. Created as a new plant after the seventies, they constitute a particularity of North American metropolises that has spread to other countries. It is in them where the new offer of offices is located, in a form of centrality with new morphological features and that does not seem to be threatened at the moment. In areas of old and intense urbanisation such as Europe, small cities that are being transformed can exist on the periphery of metropolitan areas and European *Edge Cities* therefore have a very different character to those of North America, as they are characterised by a polycentrism of more mature medium-sized cities that acquire new dynamism with suburbanisation and the relocation of jobs. But we have to add other types of tertiary centres such as increasingly gigantic airports, international fairs, university campuses or technology parks, all of which are located on the periphery and allow the creation of peripheral tertiary jobs that facilitate the growth of peripheral municipalities by the relocation of jobs. If we add to this the spaces occupied by transport infrastructures (motorways, dual carriageways), plus landfills, wastewater treatment plants, quarries, reservoirs, etc., we will realise the complexity and growing diversity of metropolitan spaces in a situation in which the demand for space has often become significantly greater than the growth of the population. As a result, the natural environment is not preserved, on the contrary, it becomes the object of speculation for property developers who destroy the natural heritage in areas of high landscape value in the face of the passivity and even collusion of local governments.

Real estate developers are dedicated to devouring available land thanks to the permissiveness of planning, allocating the creation of housing to a typology desired by the family of the middle and upper classes: the single-family home. It is true that occasionally there may be processes that H. Capel calls elitization or gentrification in the centers, but this location is intended for young couples without children or singles, preferring the middle and upper class an eccentric location that has led urban centers to the formation of ghettos, which has come to be called ghettoization. The social contrasts between center and periphery have sharpened, the periphery, with the considerable expenses in transport, is forbidden for the groups of lower social status, that occupy spaces of infravivienda in the centers of the cities. There is a socio-spatial segregation that is repeated in the middle cities receiving urban immigrants: the urbanizations remain for the Neo-Rural ones, and, the people, remain for the natives or natives.

> Thousands of homes continue to be built, but thousands of families remain without it. It is built outside or against the regulations, with the assurance that there will always be laws that condone

36 CAPEL, HORACIO (2003): Op. cit. p. 220.

urban infractions. The real estate market is not aimed at satisfying social needs but business. Business that has been directed to the acquisition of housing by the crisis of the stock exchange[37].

This has led to the genesis of an enormous real estate bubble that has led us to the current crisis, since real estate capital is intimately linked to speculative investments made by financial capital.

In conclusion, it is not surprising, according to Horacio Capel, that the discourse on metropolitan areas is in general a pessimistic discourse, the discourse of fear and fear. The studies in different countries reflect a characterization that has been qualified with adjectives such as fragmentation, poverty, *apartheid*, socio-spatial segregation, *ghettos*, social exclusion, urban violence and insecurity.

Faced with these negative aspects, some authors have proposed, although aware of the scarce echo they are going to find to their proposals, to suppress the incentives to urban dispersion, giving specific examples of how *smart growth*, based on programmes for the recovery of old neighbourhoods, the promotion of the use of public transport, and the construction of roads not only for motorists, but also for pedestrians and cyclists. It would be possible to begin the recovery of old abandoned industrial spaces, such as in the capitalist industrial countries and in the former socialist economy countries that have become market economies. However, urban developers are reluctant to build on brownfield sites *"because they don't know if they are contaminated" (O´Meara Sheehan, M., 2003).* Personally, I find this answer innocent, the assumption that developers do not build in such areas because they are kind and, before they get rich, they do not want to affect the health of their potential clients.

If this proposal for the recovery of abandoned old industrial sites is not accompanied by a policy that gives life to these old industrial sites, convincing these potential customers that the central sites put on the market are better than the peripheral sites, this policy will not succeed. It is true that it will mean overcoming old mental schemes that have given too much prestige to periurban spaces, despite the unquestionable costs to health and to the pocketbook of the dissociation between place of work and place of residence. It is not enough, therefore, with economic measures that encourage the recovery of the centres, it is also necessary to raise awareness among the middle and upper class population, that socio-spatial segregation is not the best solution, and that it is also necessary to preserve the natural and economic resources of the states that allow for sustainable urban growth.

1.10. A SPATIAL STUDY: THE CASES OF THE UNITED STATES AND EUROPE.

According to P. Hall and D. Hay[38], after 1970, the twenty largest metropolitan areas of the United States kept their populations stagnant, while smaller metropolitan and nonmetropolitan areas were experiencing significant ascent. This change in trend that Kayser called a *turn around* was due to the urban exodus to the countryside away from metropolitan areas. The greatest population losses were concentrated in the Northeast and Center-North States, where the greatest increases were located in non-metropolitan areas. In contrast, in the South and West, the greatest growth occurred in the smaller metropolitan areas. However, the greatest population declines did not occur in all metropolitan areas, the greatest losses were located in the central cities of those metropolitan areas, while the suburban rings were still growing. Finally, between 1970 and 1975, departures from metropolitan areas exceeded for the first time the entrances to such areas, producing a real demographic loss, a movement that was directed towards non-metropolitan areas. Of 259 metropolitan areas, Hay and Hall point to a net decline in 42 of them, including New York,

37 Ibid. pp. 239-240.

38 HALL, P. y HAY, D. (1980): Growth centres in the European Urban System. London: Heinemann Educational Books, p. 193.

Philadelphia, Pittsburgh, Cleveland, Chicago, St. Louis, Los Angeles and Seattle. This has led B. Berry to assert:

> This has happened through the interaction of four forces: relatively easy mobility, a change in the economy, the growing cultural pluralism of the American people, and the growing role of communications rather than transportation in the choice of residence. Many of the impediments that had limited non-metropolitan growth have been reduced, so the consequences can only be greater dispersion and greater changes in the U.S. settlement model.

Hall and Hay state that people are failing to follow what is considered unreasonable: they are migrating from higher income areas to lower income, more remote and less urbanized areas, perhaps because, according to the authors, they are looking for jobs at any cost, or perhaps they are avoiding the economic problems of a life in the big city during an economic crisis, or perhaps they are looking for a less polluting scenario even with the downside of lower per capita income. Whatever the reason, while this is happening, the movements that have exit in the cities, an exodus dominated by the rich, the whites, the best qualified, continues. There is only one sign of the opposite trend: a process of gentrification in city centres, but it is a very limited process and restricted to a few places where the central city offers highly paid jobs to young workers.

In short, the process of urbanization in the United States has taken on a new dimension since 1970. People, and presumably jobs, will continue to move from the central cities to the suburbs and from the suburbs to the non-metropolitan areas, with the addition that this is a movement to remote, poor and sparsely populated rural areas.

> It is a movement that takes place from the city to the suburb, from the urban to the rural, from the big city to the small city, and from the North and East to the South and West. No one knows for sure what the cause of all this is, but many experts seem to agree that, at least, it represents a movement in search of an easier and more leisurely life, even at the expense of the economic base and a good economic income, it is truly a post-industrial phenomenon" (Hall and Hay, 1980).

As for Europe, A. Precedo considers that *"it is the continent of small and medium-sized cities"* (A. Precedo Ledo, 1996). It is the geographic space that presents the densest urban network and fruit of a long historical process unlike the American city. It is history that has laid the foundations for Europe's current urban network.

> The result has been that the overlapping or juxtaposition of commercial and industrial centres, seaports, political-administrative capitals, tourist centres and other specialised cities has shaped throughout the history of Europe a dense and varied territorial network that maintains a valuable historical heritage and articulates the European territory[39]".

Europe, with only 7% of the world's territory, has almost 5,000 agglomerations with more than 10,000 inhabitants, in which only 18% of the world's urban population lives, although the European urbanization rate is the highest on the planet. These data show, in comparison with other parts of the world, the predominance of small and medium-sized cities, whose average distance from urban centres is less than 20 kilometres, a network of medium and small cities inherited from historical processes. But the processes, closer in time, of cumulative urban growth meant that, although the settlement system maintained the above features, the processes of concentration accelerated; which, however, has not prevented the Western European city system from continuing to be a system of medium sized cities.

From the point of view of spatial articulation, a first visualisation of the location of cities presents us with a territory that shows unequal urban density, formed by three large spaces: firstly,

39 PRECEDO LEDO, A. (1996): Op. cit. p. 97.

the European megalopolis with its central node in Germany, where the largest concentration of cities in Europe is located, and with extensions towards England, Paris and Milan. That is the backbone of the city system (Precedo Ledo, 1996). A second space would correspond to the polycentric Mediterranean axis and the Danube corridor, and the third to the network of national capitals. From a geographical point of view, these three spaces coincide with the morphological models proposed in the 1970s by a group of French geographers, based on the spatial distribution of agglomerations with more than 50,000 inhabitants existing in the mid-1970s. These models were also three:

-The monocentric urban regions, centered in a big city or Parisian type because this is the example of concentration par excellence. Within this model three stages of evolution were differentiated: the least evolved, the attraction of the city generated a concentrating or sucking effect that gave an effect of *backwash* or decrease of its area of influence. They assigned this model to the capitals of the South such as Madrid, Lisbon, Rome and Athens. In the second stage, decentralization processes favoured the formation of medium-size cities of strong growth within the radius of action of the big city, as was the case then in the peripheries of London and Paris where several *"new towns"* were created. In the third stadium, the most evolved, the entire territory participated in urban growth, forming an annular peripheral urban network as was the case of Greater London.

-A second typology was that of "cluster" or grouping of cities of various sizes. None was dominant over the others, so that between one city and another with more than one hundred thousand inhabitants the distance was rarely more than 50 kilometers. This is a space with a strong urban polycentrism, with a dense network of transport routes and with large, medium and small cities that form a high-density urban conglomerate. The most notorious cases are the Rhine axis, the Dutch Randstadt and the urban-industrial regions of the West and North-West of England. Precedo Ledo also assimilates to this typology a series of intermediate or peripheral spaces that are not classified, such as the Cantabrian axis, the Atlantic axis, the Spanish Levantine axis or the axis of Tuscany. Consequently, these urban clusters coincided with what are more commonly called urban axes.

-The third model was defined by the existence of an irregular and lax urban network. This was characterised by the distribution of medium and small cities isolated from each other, with an intermediate space that was little urbanised and lacking in axial or annular orientations that surrounded the central cities, generally primitive even if they were of medium size (between 300,000 and 500,000 inhabitants). All the urban regions that followed this model were in a peripheral position (Andalusia, the Mezzogiorno, Castile, central Portugal, etc.).

As for the many descriptions of the current European organisation, A. Precedo distinguishes five spaces with different structure and function:

-The *"blue banana"* or megalopolis of the Northwest, which groups 50% of the cities and which makes up that great diagonal that extends from London to Milan. However, within this space several subsystems can be differentiated: the fundamental triangle (London, Paris, Brussels), and the Rhenane-alpine axis that connects the metropolises of the North Sea with the cities of Northern Italy, by means of the German urban axis. The metropolitan centres of Amsterdam, Zurich, Frankfort, Munich and Milan stand out.

-A second structuring space begins to be drawn on the Mediterranean axis. It is characterised by a group of medium-sized cities specialising in new technologies, tourism

and culture, of which Milan and Barcelona stand out as gravitational metropolises, to which others such as Rome, Turin, Marseille and Madrid are added.

-The Atlantic Arc, which includes the urban system of the Atlantic or French-Spanish coast (Bordeaux, Bilbao, Oporto and Lisbon as the main agglomerations). It is made up of regions and cities that alternate areas of expansion with others in decline in a functionally disjointed space with a low level of development.

The inland continental spaces, which cover a large part of Spain and inland France, which constitute a disjointed area, although there are some medium-sized metropolises (Toulouse, Zaragoza, Valladolid). This is a residual space that lies between the two coastal and unvertebrate areas, because transverse and diagonal links and flows dominate those of an axial nature.

-Finally, the geographical peripheries that are also functional and dynamic. These are highly populated cities, with an unequally modernised agricultural environment, holiday areas for mass tourism and, in general, with major structural deficits that explain high unemployment rates (Ireland, Southern Iberian Peninsula, Southern Italy and Southern Greece).

Independently of the models used when studying the functions of the European agglomerations, one can distinguish a centre, which coincides with the blue banana, a periphery of the centre, which integrates regions of medium economic development, and a *sensu stricto* periphery which breaks the obsolete classic bipolar structure of the centre-periphery, which benefits from the processes of decentralisation, local flexibility and greater environmental quality. For A. Precedo, it is possible to distinguish, from the functional point of view, the internal central areas that coincide with the demographic and functional centre, or *central inner*, the external central areas, or *central outer*, the intermediate or transitional areas and the internal and external peripheries (geographical and functional at the same time).

1.11. THE CASE OF SPAIN.

1.11.1. Demographic evolution in the main Spanish metropolitan areas.

In the case of Spain, integrated into the trans-European network of cities, we used as a source, to approximate its demographic evolution, the study carried out by the ITUR (Instituto del Territorio y Urbanismo, 1985) that allowed an approximation to the metropolitan reality of Spain. The ITUR makes a distinction between the central municipality, and the *hinter* (functional area of direct influence of activities). At the same time, we have taken from the study carried out by P. Cheshire and D. Hay[40] and which includes the ITUR, the term RUF or Functional Urban Region, which integrates what would be the whole metropolitan area, that is, the metropolis plus its *hinterland*. The result is shown below for the period 1950 to 2001.

The data on the municipalities have been extracted from the National Statistics Institute and allow us to visualise the evolution experienced in the main Spanish metropolitan areas: Madrid, Barcelona, Valencia, Bilbao and Seville.

For the study of the demographic evolution of the main Spanish urban agglomerations, the graphs (absolute demographic increases in the Spanish metropolitan areas) may be illustrative. We must insist that although the validity of the analysis and delimitation of the areas established by the

40 CHESHIRE P. and HAY, D. (1985): "Problems of decline and growth in European cities". Madrid: Estudios Territoriales, nº 19, p. 31-55.

ITUR is debatable, it has a value, from an operational point of view, for reconstructing the demographic evolution of the main metropolitan areas up to the year 2001.

We observe that the starting point, the period from 1950 to 1970, is the most intense increase in the population of the Spanish metropolitan regions. The rupture of the autarchy stage and the industrial take-off in the industrialized regions of the country that produced an intense migratory current from the agrarian regions to the industrialized regions, facilitated a rural exodus, above all, to the central municipalities of the Spanish metropolitan areas. In this way, Madrid gained more than 1´5 million inhabitants in this period, compared to its hinterland which had a much more modest behaviour, 0.3 million. The increase in the global area was more than 1´8 million for the case of Madrid, being in a phase of relative centralization (increases the center and periphery, but more the center than the periphery). This strong positive growth of the central almond of Madrid was much lower in the rest of the metropolis in that period: Barcelona increased its population by just under half a million people, while its metropolitan region increased at a faster rate reaching the figure of 740,000 people in the area as a whole. The same happens in Valencia and Bilbao. Therefore, in these metropolises, between 1950 and 1970 in Barcelona and between 1950 and 1981 in Valencia and Bilbao we are in a relative decentralisation (they increase centre but less than their hinterland and urban region). The exception is Seville where, as in Madrid, the central municipality grows much more than its hinterland. The reason for this exception is due to the different degree of maturity reached in the Spanish metropolitan areas: the areas of Barcelona, Bilbao and Valencia achieved relative decentralisation earlier than in the remaining cases of Madrid and Seville, where the rural exodus is directed towards the centre rather than towards the hinterland or periphery in the initial moments (1950-1970). From the seventies onwards, the situation began to change, especially in the urban centre of Barcelona, where there was absolute decentralisation[41] between 1970 and 1981: the economic crisis of the mid-seventies, which affected industry, led to the deindustrialisation and deurbanisation of the centres, which became decentralisation with a loss from the decade of 1991 onwards, to enter a period of demographic stagnation in the second five-year period of the nineties until the beginning of the century. In Valencia, after the phase of relative decentralisation from 1950 to 1970 (global growth in the centre but more in the hinterland and urban region), from 1970, coinciding with the industrial crisis and deurbanisation due to deindustrialisation, decentralisation took place with a loss that lasted until the mid-nineties, except for a timid recovery of growth in the centre between 1986 and 1991, to end with demographic stagnation in the centre, hinterland and RUF in the second five-year period of the nineties. Bilbao is another case of deurbanisation due to de-industrialisation: as in the previous cases, we went from relative decentralisation until 1981 to decentralisation during the loss, first of type A, due to the maintenance of growth in the hinterland and then of type B, because the demographic fall even affects the hinterland. This is the case of greater maturity in the demographic cycle due to the importance of the industrial sector in this metropolitan area. Finally, in Seville, after the relative centralisation in which the centre grew more than the periphery due to the rural exodus, Seville entered a phase of absolute decentralisation from 1981 and, after a timid recovery of its centre in the second five-year period of the eighties, the area resumed a phase of absolute centralisation due to the demographic loss of the urban centre from 1991 to the end of the century, as in the previous cases, with zero growth or absolute containment of demographic growth.

The moments of absolute decentralisation and decentralisation during the loss, type A or B, which became generalised from the 1980s onwards, deserve a more detailed comment, in which we follow the ideas of M. Castells[42]. According to M. Castells, we are witnessing a change of trend so important that it would make it possible to speak of a change in the economic growth

41 Ibid., p. 33.

42 CASTELLS, M. (1990): "Estrategias de desarrollo metropolitano en las grandes ciudades españolas" in *Las grandes ciudades en la década de los noventa*. Madrid: Sistema. pp. 20-61.

paradigm of the large Spanish cities. The period 1986-90 is a period of integration in Europe and a restructuring of the economy, when a new model of growth is configured in which the big cities play a decisive role. In the case of Madrid, there is modest growth, but significant because of what it means as a way out of the industrial crisis after the readjustments suffered by the Madrid economy in the previous years of economic crisis. This increase did not materialise, except in Madrid, more than in Valencia and Seville, with the agglomerations of Barcelona and Bilbao suffering a maintenance of their negative dynamics, although much less intense because of the attempt to overcome the crisis, even more intense in the fabrics of the traditional industry (iron and steel industry in Vizcaya, textiles in Barcelona). The inducing factors for the increase in Madrid should be sought in the new economy, an economy oriented towards an advanced tertiary and new technologies, heavily dependent on foreign capital, which led to an industrial relaunch. In short, the period was one of net economic growth and apparent exit from the crisis, at least of the traditional industry as opposed to a "tertiarized industry", which is still preferably located in the central almond, relocating to the hinterland or periphery the production processes that require the intervention of manual workers. This explains why the period of the second five-year period of the eighties is described as key to the evolution of the Spanish metropolitan areas, which are entering a new industrial phase that is more modern, healthy and competitive than traditional industry, a phase that has been described as post-fordist or post-industrial, although it is still essentially industrial or a "tertiarised industrial". M. Castells suggests the extent to which the change in demographic trend, an indicator of a change in economic trend, can be extrapolated to urban agglomerations. This explains that, despite the lower demographic dynamism of the old industrial cities of Barcelona and Bilbao, this dynamism is currently substantially lower than in previous decades, and could therefore be an indicator of a way out of the crisis and a progressive insertion into the new economy, in which the large agglomerations have an important role to play in disseminating growth and innovation. As a result of this process, during this period, there is a tendency towards a progressive urban social duality, with a strong increase in higher professional strata, white-collar professionals, or *white collars* as opposed to employees or *blue-collars;* an increase in the black economy, unemployment and precarious employment, accompanied, although it seems paradoxical, by a strong increase in housing prices in Spain, which would be the root of this urban social duality. Therefore, it is an economic growth based on feet of mud or, at least, with a part of society that has not adapted to the new model of economic growth. M. Castells points out:

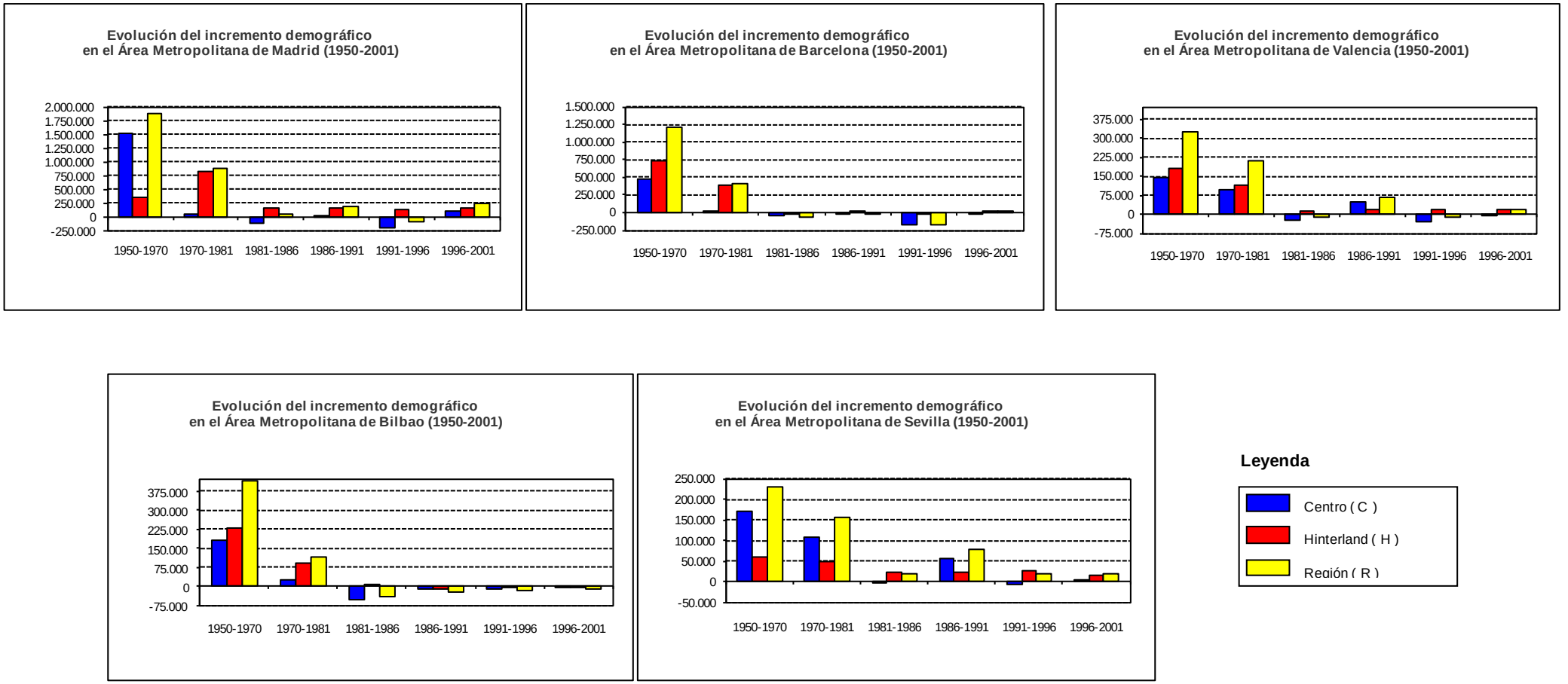
> The tremendous pressure of the new tertiary on the uses of space motivated and will continue to motivate a displacement of residence and activities that forces, moreover, a flexible urbanism and adaptable to regional spaces in process of transformation[43]".

For the coming years, the author predicts that the following years will be of constant decentralization, but by diffusion of population and jobs from the metropolis to the periphery. Today's reality only corroborates his predictions. M. Castells foresaw moderate decreases in the central nuclei to the benefit of the periphery. This is clearly confirmed in graph 1, which shows that the central city of Madrid went from a de facto population of 3,188,297 in 1981 to 2,957,058 in 2001; that Barcelona also experienced a considerable decrease: from 1.754,900 inhabitants in 1981 to 1,505,325 inhabitants; Valencia, a more timid decline: from 751,734 in 1981 to 746,612 inhabitants in 2001; Seville, from 704,857 inhabitants to 702,520 in 2001; or Bilbao, from 433,030 to 353,943 inhabitants in 2001. The trend towards concentration has clearly been interrupted by a moderate trend towards deconcentration, moderate if we bear in mind that the number of people who can afford to leave the city and face daily mobility with all the economic costs that this entails

[43] *Ibid.,* p. 53.

is limited. It seems that the social dualism of the city is giving way to the uniformization of the peripheries, although it remains to be seen to what extent the uniformization of the peripheries carried out by the American middle class is a phenomenon similar to the Spanish case at the beginning of the 21st century. The only hope for urban centres is their transformation, as they enter into competition with less congested, well-communicated and cheaper spaces. The challenge seems to be well understood by Madrid, which, after years of demographic decline, seems to point to a moderate recovery, an indicator of a possible process of gentrification or revitalisation of the central almond, a phenomenon which, it seems foreseeable, will spread to other Spanish urban agglomerations.

Figure 1.1.
Evolution of absolute demographic increases in Spanish metropolitan areas (1950-2001).



Source Own elaboration.

1.12. TERRITORIAL AND FUNCTIONAL CHARACTERISATION OF THE MAIN SPANISH METROPOLITAN AREAS.

In order to carry out a characterization of the Spanish metropolitan areas we followed a study carried out by the Polytechnic University of Catalonia (2001).

From the first characteristic point of view, the population, the authors observe that the seven main areas of the so-called "Spanish metropolitan system" cover some 653 municipalities, which in 1998 reached almost 15 million inhabitants, and just over a third of the Spanish population. The areas of Madrid with just over 5 million inhabitants in 1998 stand out in terms of population, followed closely by Barcelona with 4.39 million inhabitants. At a greater distance from a system, which according to the law of primacy we could qualify as bicephalic, are the areas of Seville and Valencia, with just over 1.35 and 1.47 million. In a third hierarchical step, was the agglomeration of Bilbao, with just over 1 million inhabitants. In a fourth step, with lower population volume, the areas of Malaga, with 700,000 inhabitants and Zaragoza with 650,000[44].

Considering a second characteristic, the surface area, the seven metropolitan areas are very heterogeneous: the largest areas are in Madrid, with just under 7,400 km2, followed closely by Seville, with 6,600. Barcelona is located in an intermediate step, with 4,600 km2, and between 2,500 and 3,000 km2 were located Valencia and Zaragoza, while the smallest were those of Bilbao, with 1,800 and Malaga, with 1,650 km2.

The result of relating the population and the respective areas is the population density, in which Barcelona stands out as the densest metropolitan area, followed by Madrid. The cases of densities higher than 500 inhabitants/ km2 only occur in Bilbao and Valencia, below 500 inhabitants per km2, Malaga, Zaragoza and, finally, Seville, with just over 200 inhabitants per square kilometre.

It is important to highlight the demographic size of the leading municipalities within the metropolitan areas. The municipality of Barcelona represents only 35% of the total population of its metropolitan area and Bilbao 24%, evidencing a polycentric typology as opposed to a monocentric structure prioritised in the other cases. Valencia is in a situation of greater primacy of the central city, with 50% of the population in the metropolis. The degrees of urban monocentrism occur in a range between 92% of Zaragoza and 52% of Seville, with Malaga (74%) and Madrid (58%) in the average levels of that range, but always within urban monocentrism[45]. The different degree of monocentrism/urban polycentrism is an indicator, at the same time, of the degree of diffusion or dispersion of the inhabitants over the territory: Barcelona is characterised by being made up of a metropolitan environment made up of various autonomous subcentres. The analysis of the six autonomous sub-centres (Sabadell, Terrassa, Granollers, Mataró and Vilanova, as well as Barcelona) presents the metropolitan area of Barcelona as the most decentralised metropolitan area and with mobility much less dependent on the metropolitan heart. In the other cases, metropolitan environments have been identified, formed around a single main nucleus, without any autonomous subcentre, as in the case of Madrid, with municipalities structured around the main municipality to which it exports workers, for which the degree of dependency is accused.

44 The work also contemplates the demographic sizes of the parishes in Portugal and communes in France, Lisbon, Porto, Bordeaux, Montpellier and Toulouse, which we have not included here because they exceed our area of analysis, but which are dealt with in the publication cited as all of them are inserted in the Urban System of Southwest Europe.

45 On the terminology used, you can consult the work of PRECEDO LEDO, A. (1990): La red urbana. Ed. Síntesis. Madrid.

Table 1.6.
Population densities of the largest Spanish metropolitan areas.

Metropolitan Area	Area (km2)	Population (inhabitants)[46]	Population density (hb/km2)
Madrid	7.392	5.079.844	687,21
Barcelona	4.592	4.390.025	956,02
Valencia	2.831	1.466.421	517,99
Seville	6.672	1.349.325	202,24
Bilbao	1.780	1.031.214	579,33
Malaga	1.654	700.416	423,47
Zaragoza	2.548	652.593	256,12

Source Polytechnic University of Catalonia. Own elaboration.

In short, as the authors state, "Spanish metropolitan areas show two clearly differentiated patterns in spatial organisation, on the one hand, a more or less primal monocentric typology, in Madrid, Malaga, Seville and Valencia, where almost all mobility flows for work reasons gravitate towards the head municipality and which determine quite long radial routes. On the other hand, it is possible to detect another typology that characterises Barcelona and, to a lesser extent, Bilbao, through the existence of autonomous sub-centres[47], which imply shorter and potentially more sustainable travel distances".

Therefore, unlike other places in the European Union, where the so-called polycentric metropolitan areas can be easily identified, this typology is relatively absent in Spain, at least at the metropolitan level. On the other hand, the typical typology is that of extensive conurbation, although with the aforementioned nuances that differ in Barcelona and Bilbao with respect to the other five metropolitan areas analysed.

Another characteristic to point out is the functional character of the large Spanish urban regions. In general, they are the main focus for a wide range of activities, at the regional level, and in some cases, such as Barcelona and Madrid, at the international level. They generate almost 60% of Spanish exports and imports and can be described as major centres of financial activity and innovation in the areas of R&D, information technology, telecommunications and the electronics industry, grouping together, proportionally, a greater representation of employment in these sectors relative to the State. In spite of everything, it is important to highlight the distance and physical separation between metropolitan areas, especially Andalusian areas, a factor that does not favour interrelation and complementarity between these areas; therefore, horizontal relations are conspicuous by their absence.

The study points out brief notes on the relationship of the degree of autonomy/dependence of the municipalities with respect to the capital, highlighting that it is the municipalities with a primal monocentric structure that present the highest degree of dependence with respect to the metropolis and the lowest degree of autonomy with respect to the capital. Madrid, Malaga, Seville and Valencia have the largest[48] local systems in terms of size, due to both the size of the initial labour

46 According to 1998 data. The source does not specify whether it is population de jure (present plus absent) or de facto (present plus transient). It is understood, then, that it is just an official population (since 1996 the terminology used in the INE undergoes a change, and only the official population is considered and the terminology disappears to the use of de facto and de jure population.

47 Vilafranca del Penedés, Terrassa, Mataró, Sabadell, Sant Celoni, El Vendrell, Granollers, Vilanova i la Geltrú, Martorell, Badalona, Pineda del Mar, Mollet del Vallés and Malgrat de Mar in Barcelona; and Mungia, Llodio, Getxo and Galdakao in Bilbao.

48 Local systems are defined as the basic pieces of the metropolitan structure, assimilable to labour market units, from which the dimension of the functional city is obtained, not equal to the physical city.

markets and the absence of different subcentres of attraction at the head. On the other hand, in Barcelona and Bilbao the greater autonomy of the subcentres allows for the location of a greater number of local systems and a lower degree of dependence on the metropolis.

From the point of view of the economic importance of the Spanish metropolitan areas, Madrid stands out, capital of the State and with the rank of European city. Although dominated by the tertiary sector, the area generates 11% of state exports and has one of the highest GDP per capita of the Spanish urban system. Secondly, there is Barcelona, which can also be classified as European capital, with a strong industrial base that generates 22.4% of Spanish exports. It also has a high GDP per capita and is the most diversified of the seven metropolitan areas. It is an important European and international connection point. Valencia ranks third in the Spanish metropolitan system for its population, but shares characteristics of the "South" for its low GDP per capita, but also of the "North" for its high degree of economic diversification. Malaga and Seville are very similar in aspects related to their peripheral situation, with serious problems in their economic and functional structure, low GDP per capita, very high unemployment, high relative dependence on agriculture, very weak industrial sector and low economic diversification. On the other hand, Bilbao and Zaragoza have the oldest populations in the system, and they also resemble each other in economic aspects: high GDP per capita, and a powerful industrial sector, although Bilbao has unemployment problems. Each of the areas plays an important role in the regional structuring (vertical relations), but, with the exception of the Andalusian cases, they have few horizontal relations, leading to the situation of a certain duplicity of the functions that some of the areas must develop, that is to say, promoting complementarity *versus* competitiveness.

Finally, from the socio-professional point of view, the spatial structure is also clearly differentiated: Madrid denotes a clear northwest belt of socially qualified municipalities, as opposed to a southwest sector of municipalities with a medium or medium-low profile. Barcelona, on the other hand, has a much less concentrated structure of socio-professional classes: the most qualified sectors are distributed in addition to Barcelona-Sant Cugat, on the axis of the Maresme and the Garraf. Seville and Malaga, as well as Madrid, have a concentric structure around the central city, with predominantly middle- and low-income municipalities. Concentric structure that is repeated in the case of Zaragoza, although with a much more homogeneous social profile (medium and medium-high). For their part, Valencia and, above all, Bilbao, show, in the style of Barcelona, a spatial system in which the upper and upper-middle classes predominate.

1.13. THE CASE OF ANDALUSIA.

1.13.1. Introductory notes on the metropolitan phenomenon in Andalusia.

There are words, acronyms and expressions that, despite being novel, are accepted and spread quickly. That is what has happened, according to F. Zoido (1996), with the term metropolitan area. According to the author, in Spain the expression metropolitan area refers to a local entity of supra-municipal scope, capable of providing common public services, planning and unitary management of an important urban agglomeration[49].

49 See, for example, Law 121/1963 on the Metropolitan Area of Madrid. Other experiences of this nature have referred to Barcelona and Bilbao under the previous political regime and to Valencia today.

The application of this term to the autonomous community of Andalusia is[50] a fallacy and requires some clarification. The regional system of human settlements is currently and historically characterized by its high urbanized proportion. Several Andalusian cities have acted as authentic metropolises. However, at the present time and in relation to the immediate urban context (Spanish or European), no Andalusian city stands out clearly in a metropolitan sense, in all the complexity of meanings mentioned above.

Table 1.7
The weight of cities in the Andalusian population as a whole

Year	Total Andalusia (A)	Cities (C)	(C/A)*100
1900	3.562.606	646.864	18,2
1910	3.828.376	680.813	17,8
1920	4.225.667	811.121	19,1
1930	4.609.879	919.504	19,9
1940	5.219.362	1.203.999	22,9
1950	5.605.857	1.421.644	25,2
1960	5.878.915	1.620.275	27,3
1970	5.971.277	1.977.115	33,0
1981	6.441.755	2.456.181	38,1
1991	6.940.522	2.602.348	37,5
2001	7.357.558	2.597.086	35,3

Source López Ontiveros (Ed.): Geografía de Andalucía[51]. Own elaboration.

The *Andalusian City System*, ratified in 1990, contains a higher level of the urban hierarchy made up of the so-called *sub-regional centres* (seven provincial capitals, Jerez and Algeciras) and the capital of the autonomous community, to which it associates the metropolitan dimension. The intention of these proposals, the balanced spatial distribution of these cities with respect to the region as a whole and the gradual variation in their population sizes currently recommend the unitary, more suggestive and real name of regional centres, since despite the fact that the Law only considers Seville as a regional centre, it only differs in that it concentrates a greater number of autonomous services than the others. Also, considers F. Zoido, it is necessary to count on the demonstrations of the Central Administration. Thus, the Infrastructure Master Plan characterized Seville as a national metropolitan area (only Madrid and Barcelona reach the range of international metropolitan areas), while Malaga is classified as a regional metropolitan area and Granada, Cordoba and Cadiz as urban development areas.

The set of urban nuclei previously indicated as the upper stratum of the Andalusian urban subsystem, or regional centres, has its own characteristics. Due to their population sizes and functionality, they are clearly different from the nourished and interesting component of the Andalusian urban subsystem formed by small and medium sized cities. All of them have more than 100,000 inhabitants and, if the populations of the adjacent municipalities are added, the minors reach or are around the threshold of 200,000 people. The condition of provincial capitals, exercised uninterruptedly since 1833, has provided them with communication services and infrastructures, at the same time as it has induced the location of other activities. Jerez and Algeciras, which have

50F. Zoido points out that, in relation to Andalusia, the definition of metropolitan area included in Law 7/93 regulating the municipal demarcation of Andalusia stands out as "a local entity with its own legal personality and full capacity to exercise its competences, made up of municipalities in large urban agglomerations whose population centres have urban, economic and social links that constitute an optimum territorial division for joint planning and coordinated management of certain works and services" (art. 44), very similar to that established by Law 7/85 regulating the bases of the local regime but somewhat more complete. From these definitions, the author highlights the clear differentiation between urban agglomeration and metropolitan area.

51 LÓPEZ ONTIVEROS (Ed.) (2003): Geografía de Andalucía. Barcelona: Ariel, p. 435.

also aspired historically and currently to the status of capital, have followed unique processes, sustained by local factors such as viticulture and port activities.

Without overestimating the absolute facts, it is necessary to appreciate the important weight of the ten main cities in the regional whole (Table 1.7). Without the municipalities of their respective areas of influence, these cities represented 18.2% of the region as a whole, a weight that has almost doubled from the beginning to the end of the century, representing 35.3% in 2001. But what is more, if we analyze the weight of industrial employment or services, they would represent even higher weights in the regional whole, even though they have decentralized population and activities recently.

On the other hand, Florencio Zoido distinguishes three well-differentiated situations in relation to metropolitan processes in the superior rank of the system of cities. The first of these are the major cities and urban agglomerations in which very significant metropolitan manifestations take place: this is the case of Seville, Malaga, Granada, Cadiz and Campo de Gibraltar, which constitute what we can consider to be current metropolitan events in Andalusia. In three other cases (Almería, Huelva and Jaén) there are incipient processes of supramunicipal urban agglomeration but, given the volume of the total population and the low real incidence of phenomena qualifying as metropolitan, it seems exaggerated to apply to these situations the expression of metropolitan areas. Finally, Cordoba and Jerez de la Frontera, although they are cities with a certain weight and population dynamism, are located in very extensive municipalities, a cause that avoids phenomena of supramunicipal agglomeration. In both cases, it makes no sense to describe the events as metropolitan. Only in relation to five of the ten regional centres is it possible, therefore, to appreciate significant situations leading to the formation of metropolitan areas within a reasonable time, but they are not metropolitan areas in the legal sense of the term, although in a geographical sense. Nevertheless, the term "urban agglomerations" is more widespread than "metropolitan areas", especially with regard to the framework of spatial planning.

1.13.2. An approximation to the characteristics of recent urban development in Andalusia during the 20th century.

According to J. Cruz Villalón[52], and in light of the data provided above, *"the twentieth century has been the century of exponential growth and physical transformation of Andalusian cities.* It has been a change, not only demographic, but also physical and functional, so that from an agrarian base or market centre of a more or less extensive agricultural area, they have become cities of services in a generalized way. The magnitude of the growth experienced in these cities is, in turn, a synthesis of other major transformations produced in the region during the last century: that of its demographic transition, that of its economic transformation, that of changes in urban and regional modes of transport; or those of substantive changes in the urban landscape.

From the demographic point of view, there has been a shift from a rural exodus from the countryside to the city, the peak of which was reached in the 1960s to the 1980s, to a transfer from the city to the countryside, or urban exodus, at the hands of the medium-sized cities in the areas of influence of urban agglomerations in processes that, J. Cruz Villalón interprets metropolitan relocation as a[53]process that is more mature in the areas considered as agglomerations, *stricto sensu,* by F. Zoido, that is, in the agglomerations of Málaga, Sevilla, Granada, and Bahía de Cádiz. Along with migratory phenomena, vegetative growth has gone from having a relevant weight, to having a residual weight in the overall growth of the central municipalities, the result of a selective

52 CRUZ VILLALÓN, J. (2003): "Características del desarrollo urbano reciente en Andalucía: El siglo XX" in Geografía de Andalucía. Barcelona: Ariel, pp. 433-439.

53 Movements between municipalities within the same functional scope, which represented 30% of internal movements in Andalusia (Boletín de la Asociación de Geógrafos Españoles, nº 26. 1998, p. 96).

urban emigration of young middle class sectors of the population, which has resulted in a gradual but progressive decrease in the rates of vegetative growth in the most important Andalusian cities.

Placing ourselves in the chronological perspective, the process has not always been like this, next we will briefly analyse the phases of demographic evolution in urban agglomerations, and finally we will point out a few brushstrokes on the possible factors that different works have contributed as an interpretation of this evolution.

With respect to evolution,[54]and applying the theory of the metropolitan life cycle of P. Hall that we applied previously to study the evolution of Spanish cities, we observe a clear chronological lag due to the economic backwardness of Andalusia.

We can differentiate a first phase, characterized by the rural exodus, is typical of the industrial city of the nineteenth century, but in Andalusia extends virtually until the early sixties of the twentieth century. Relative centralisation occurs when not only the central municipality, but also the surrounding nuclei, begin to form the metropolitan belts. These processes began to appear in the first decades of the 20th century in many European cities and even in highly industrialised Spanish cities such as Bilbao and Barcelona. However, in Andalusian urban areas the process is much later and comes mainly from the politics of the development poles of the 1960s. This is the period of greatest growth of the main urban areas considered as a whole. Relative decentralization occurs in a clear inversion of terms, the metropolitan belt becomes more dynamic than the central city, which begins to experience a significant reduction in its rates of growth. In Europe, this is a phenomenon that developed from the post-war period until the 1960s, and in the large Spanish metropolitan areas, it lasted for a shorter period, fundamentally that corresponding to the 1960s and 1970s. In Andalusia, again, the process is presented later, starting in the eighties and still being maintained in some urban areas of the region. Absolute decentralization appears when the center begins to lose population in front of a belt that still grows enough so that the whole metropolitan area still presents a positive population dynamic. This stage has not yet been reached in Andalusia except very recently, as J.M. Feria Toribio points out, "it is necessary to rely on the data from the 2001 Census to find evidence of absolute decentralisation processes in the region"[55].

Table 1.8.
Demographic evolution in Andalusian metropolitan areas (1981-2001).

Supramunicipal Scope	Population 1981	Population 2001	Metropolis (1981=100)	Corona (1981=100)
Seville	984.384	1.135.563	106,01	147,70
Malaga	651.253	828.421	109,34	173,70
Cádiz-Jerez	517.025	577.756	89,17	121,49
Granada	385.492	464.256	97,58	161,03
Campo de Gibraltar	196.207	229.407	118,83	115,45
Almeria	153.915	187.930	118,18	164,02
Huelva	181.771	217.071	111,31	138,78
Jaén	156.852	179.034	117,55	108,80

Source Cruz Villalón, J.: *Geografía de Andalucía,* p. 438.

Specifically, this phenomenon, called *counter-urbanization* by some, which for others would be a mere metropolitan relocation or even metropolitan expansion towards belts hitherto outside the peripheral municipalities[56], would only be evident in the cases of Granada and Cadiz. In the latter case, the process is somewhat earlier, but is partially explained by the physical limitations to urban growth imposed by the small dimensions and geographical characteristics of the municipality of Cadiz. The results of Seville, Malaga, Huelva and Algeciras are more ambiguously interpreted.

54 FERIA TORIBIO, J. M. (2003): "El sistema urbano" in LÓPEZ ONTIVEROS, A. (Coord.): Geografía de Andalucía. Barcelona: Ariel, pp. 359-384.

55 Ibid., p. 369.

56 Same as above.

They show stability between 1991 and 2001, but with different behaviours if we analyse the evolution of the population through census reviews. In any case, it can be said that they are now initiating a process that developed in Europe from the mid-seventies, a process of absolute decentralisation. Finally, Córdoba, Almería and Jaén continue in a phase of relative centralisation (the nucleus and the belt grow, but the centre rather than the belt).

For F. Zoido, several factors explain this dynamic recently experienced in our region, but the fundamental cause is of an economic type, although based on technology. The increase in mobility allows urban agents and the general public to opt for one location or another without excessive impairment in the quality of life. Moreover, by improving accessibility, the population opts for other places where it is possible to live better than in the metropolis or mother city. Therefore we start from a competition between municipalities in which for a single demand there are many offers. But, and point F. Zoido[57]:

> Two other general processes of a social and political-administrative nature should also be highlighted in relation to these causes. The first of these refers to the aspiration to enjoy a home of its own with characteristics that have been clearly associated since the 1970s by a significant part of Spanish society with what it considers to be the optimum Anglo-Saxon-rooted dwelling: the spacious, well-equipped single-family home with a private garden. A wish that the European middle classes had satisfied during the previous decades, at different times depending on the country. This attitude has triggered the peripheral extension of the agglomeration, on cheap, not infrequently, illegally urbanized soils.

Thus, factors of a psychosocial nature, of a mentality, rather than of an economic base would lend the basic explanation of this process of metropolitan relocation, to which is added the absence of a legal framework in many municipalities until relatively recently[58]. This has been taken advantage of by some small municipalities to offer land classified as excessively developable, taking as justification the demand for agglomeration, exogenous causes rather than endogenous type as would be the growth of the municipality itself, are municipalities that have seen in urbanism *"a remedy to their insufficient budgetary allocations*. The result has been a greater supply of land for development in metropolitan areas than in the main cities, both in general and in the various possible uses. Only in relation to the implementations corresponding to the tertiary sector do the main cities maintain a proportionally higher rate. This has led to the need to arbitrate a global urban and territorial planning that takes into account the new metropolitan reality.

As J. Cruz Villalón points out, it[59]has created two instruments for territorial planning (art. 5): the Andalusian Territorial Development Plan (POTA), and the Subregional Territorial Development Plans[60], an instrument that attempts to plan urban agglomerations in Andalusia in a physical way, which is, F points out. Zoido, an essential prerequisite for the subsequent constitution of real local metropolitan entities, which would already be metropolitan areas, but for this, the author indicates,

57 ZOIDO NARANJO, F. (1996): "El hecho metropolitano en Andalucía. Consideraciones sobre su funcionalidad, ordenación e institución" in Cuadernos Económicos de Granada. nº 5 (Área Metropolitana de Granada). Granada: Caja General de Ahorros de Granada, p.51.

58 Florencio Zoido explains that the first general urban planning plan of the main Andalusian cities after the developmental disorders, that of Malaga, was not approved until November 1983.

59 CRUZ VILLALÓN, J. (1996): "La política de ordenación del territorio de la Junta de Andalucía en las agglomeraciones urbanas", in Cuadernos económicos de Granada, nº 5 (Área Metropolitana de Granada). Granada: Caja General de Ahorros de Granada.

60 To date, the Subregional Plans of the Urban Agglomeration of Granada, Cadiz Bay, Seville Urban Agglomeration, Malaga Urban Agglomeration, Almeria Urban Agglomeration, Campo de Gibraltar have been approved, and those of the Urban Agglomerations of Cordoba, Huelva and Jaen (Website of the Department of Public Works and Housing) are being processed. Territorial Planning Area).

it is essential to overcome party or bureaucratic pitfalls and promote greater social awareness and citizen participation in the process of creating a city.

CHAPTER 2

THE GEOGRAPHICAL FRAMEWORK IN THE MAIN ANDALUSIAN URBAN AGGLOMERATIONS

2.1. THE PROCESS TOWARDS THE DELIMITATION OF ANDALUSIAN AGGLOMERATIONS. PRELIMINARY CONSIDERATIONS.

The object of our study is the Andalusian urban agglomerations. We must specify the concept of agglomeration[61] and distinguish it from the term metropolitan area. It is true, as F. Zoido points out, that there are metropolitan facts, but it is not very correct to call urban agglomerations as metropolitan areas *sensu stricto*, and that metropolitan areas are born as administrative entities that, in the absence of political will, have not been constituted as such, and this is so, despite the fact that urban agglomerations act as a single market for consumption, housing, employment, etc. Therefore, from now on, we will simply refer to the term agglomeration or the term metropolitan area in its geographical, non-juridical sense, as an area made up of bonds of dependence/reciprocity with respect to a metropolis or mother city.

We must also mention the fact that we have chosen a limited number of urban agglomerations. There are two reasons for this: firstly, for reasons of simplicity, since it is not the same to analyse and discern concrete patterns in a limited number of cases than in a large number of these, let us say that a limited caseload allows us to obtain a more global idea of general behaviour than a larger caseload, provided that the cases are the most significant. The representativeness of the selected cases is guaranteed because, as F. Zoido points out, the phenomenon of agglomeration was still incipient in some urban centres, such as Huelva, Jaén or Almería, despite having already been studied by various and very meritorious research projects[62], while the agglomerations of Seville, Malaga, Granada and Cadiz not only constitute the most important agglomerations in Andalusia, but their selection is also justified because they constitute what we can consider metropolitan events in Andalusia at the end of the 20th century. In three other cases, Almería, Huelva and Jaén, it seems exaggerated to apply the expression metropolitan fact to these situations (Zoido Naranjo, 1996).

A debatable issue is the delimitation of the municipalities covering the agglomerations under study. Not only in terms of using the municipal sphere as an object, due to the difficulty of having statistics that allow us to refer explicitly to a supra-municipal framework. Faced with this situation, we have municipal areas that only partially reflect the urban fact, such as the well-known case of Cadiz, and others that even surpass the urban fact, such as the municipality of Cordoba.

61 According to the Junta de Andalucía, the concept of agglomeration refers to the functional transformation up to the unit, of the housing market, work and services of a supramunicipal system, without the parallel transformation of its administrative organization. (JUNTA DE ANDALUCÍA (2000); Plan de Ordenación del Territorio de la Aglomeración Urbana de Granada, p. 22).

62 In this sense, the work of LARA VALLE, JUAN J. (1988): Desarrollo y crisis urbana en Almería (1900-1980). Ed. Cajal. Almería, as well as MONTEAGUDO LÓPEZ, J. (1980): Evolución geodemográfica de un sector periurbano de Huelva.

2.2. HISTORICAL BACKGROUND IN THE DELIMITATION OF ANDALUSIAN URBAN AGGLOMERATIONS.

In relation to the beginnings of the formulation of the Andalusian agglomerations, we can cite the different regional plans drawn up in the last years of the Franco dictatorship, which were abandoned with the advent of democracy for constituting a "legacy of the previous regime".

The process was not taken up again until ten years later, when the 1983 Andalusian Regionalisation Proposal appeared, where the need to take into account, in planning, a supra-municipal area was recognised, for reasons of system efficiency. With regard to the concept of *district*, mention that it is inserted at an intermediate level of territorial analysis, between the municipality and the province or region. A region can be understood from different points of view[63]:

-A commonwealth or groupings of municipalities that serve a series of services that would be more difficult and expensive to perform independently.

-Functional areas with a regional head, which offers public and private services to an environment.

The scope of the county is favorable for the planning of a territory because the municipal and provincial scales are insufficient to deal with the metropolitan event.

With respect to the limits, we must warn of the subjective and arbitrary character of any delimitation, however, if we understand the region as a functional area endowed with a certain autonomy, within the 1983 Proposal for a Region, a series of these can be distinguished that encompass several urban agglomerations. In spite of everything, prematurely, the scope of the region was forgotten that offered a vital reference, to deepen in the supramunicipal scope. This is how the 1986 proposal for the *Andalusian City System*, drawn up by the Directorate General for Territorial Planning, came about, which was completed with the 1990 Bases for the Territorial Planning of Andalusia. The Cities System represents a milestone in the historical process of delimitation of metropolitan areas, by giving these areas a territorial character, and subject to planning, with a total of ten Andalusian metropolises (the provincial capitals, plus Jerez and Algeciras) being classified as sub-regional centres, also recognising Seville as a regional capital[64].

In 1992, the thesis of Feria Toribio appeared as a way of overcoming the municipal sphere and as an example of the fact that the space we are dealing with is essentially relational, of primacy/dependence of some focuses with respect to others.

Subsequently, ESECA's 1997 Economic-Financial Report on Andalusia delimits the area according to fundamentally economic criteria (ESECA, 1997).

> The Andalusian metropolitan areas constitute the backbone of the entire territorial and economic system of the region,... they are the focal points of the greatest economic dynamism of the region,... as a result of the concentration of economic, social and cultural functions that take place in them.

The report suffers from a lack of geographical meaning when considering exclusively economic variables.

Finally, as a corollary of this historical evolution, the study closes with the Territorial Development Report of Andalusia (2001), which considers a total of 63 sub-regional units or comarcas as an intermediate geographical base between the municipality and the province. Most areas are homogeneous and even have a consolidated name with historical roots, or emerged from recent joint processes. F. Zoido and a team of researchers used a methodology based on multivariate analysis, specifically, the analysis of main components and cluster analysis, the latter to form a classification of counties according to territorial development. Thus, with an analysis of conglomerates, F. Zoido classifies the territory according to its degree of territorial development in

63 Ibid., p. 206.

64 FERIA TORIBIO, J. M. (1992): El Sistema Urbano Andaluz. Seville: Instituto de Desarrollo Regional.

homogeneous areas, concluding that urban agglomerations, and also coastal areas, are included in typology VI, which includes counties with high levels of wealth and activities in relation to average levels, underlining the tendencies towards social duality according to processes of spatial segregation in these counties[65].

Thus, the evolution ends as it started, that is, if we start from the concept and importance of the region as an autonomous territorial area, from the functional point of view, which is not administrative, we recover the area of the region, three decades later, as articulator of a series of processes that have a starting point in a space, not unique, but plural, a territory that, depending on the multiple existing flows, of demographic, economic, and even historical root, defines the county area. However, the term "comarca" has evolved, and if decades ago, it represented a party head that held a primacy over a more or less wide rural territory, nowadays, in the concept of "comarca" we can differentiate the traditional or rural comarcas, as opposed to the urban comarcas, or urban agglomerations.

65 This report has been updated with the II Informe de Desarrollo Territorial y el III Informe de Desarrollo Territorial.

Table 2.1

	1983 Regionalisation proposal	*1986 Cities System*	*ESECA Report 1997*	*Andalusia Territorial Development Report 2001*
Almeria	Almería, Benahadux, Enix, Gádor, Huércal de Almería, Pechina, Rioja, Santa Fe de Mondújar, Viator.	Almería, Benahadux, Gádor, Huércal de Almería, Pechina, Rioja, Santa Fe de Mondújar, Viator.	Almería, Benahadux, Gádor, Huércal de Almería, Pechina, Rioja, Roquetas de Mar, Viator.	Almería, Benahadux, Gádor, Huércal de Almería, Níjar.
Cadiz	Cádiz, Chiclana de la Frontera, Puerto Real, Puerto de Santa María, San Fernando.	Cádiz, Chiclana de la Frontera, Puerto Real, Puerto de Santa María, San Fernando.	Cádiz, Chiclana de la Frontera, Puerto Real, Puerto de Santa María, San Fernando.	Cádiz, Chiclana de la Frontera, Puerto de Santa María, Puerto Real, San Fernando.
Cordoba	Córdoba, Villaviciosa de Córdoba, Obejo		Cordoba	Cordoba
Granada	Granada, Albolote, Alhendín, Armilla, Atarfe, Beas de Granada, Cájar, Cenes de la Vega, Colmenar, Cúllar Vega, Churriana de la Vega, Dílar, Dúdar, Las Gabias, Gójar, Güéjar Sierra, Güevéjar, Huétor Santillán, Huétor Vega, Jun, Maracena, Monachil, Nívar, Ogíjares, Otura, Peligros, Pinos Genil, Pulianas, Quéntar, Vegas del Genil, Víznar, La Zubia.	Granada, Albolote, Alfacar, Alhendín, Armilla, Atarfe, Beas de Granada, Calicasas, Cájar, Cenes de la Vega, Cúllar Vega, Churriana de la Vega, Dílar, Dúdar, Las Gabias, Gójar, Güéjar Sierra, Güevéjar, Huétor Santillán, Huétor Vega, Jun, Maracena, Monachil, Nívar, Ogíjares, Otura, Peligros, Pinos Genil, Pulianas, Quéntar, Vegas del Genil, Víznar, La Zubia.	Granada, Albolote, Alfacar, Alhendín, Armilla, Atarfe, Cájar, Cenes de la Vega, Cúllar Vega, Chauchita, Churriana de la Vega, Dílar, Fuente Vaqueros, Las Gabias, Gójar, Güevéjar, Huétor Vega, Jun, Maracena, Monachil, Ogíjares, Otura, Pinos Genil, Pinos Puente, Pulianas, Santa Fe, Vegas del Genil, Víznar.	Granada, Albolote, Alfacar, Alhendín, Armilla, Atarfe, Beas de Granada, Cájar, Calicasas, Cenes de la Vega, Cijuela, Cogollos Vega, Cúllar Vega, Chauchita, Churriana de la Vega, Dílar, Dúdar, Fuente Vaqueros, Gójar, Güéjar Sierra, Güevéjar, Huétor Santillán, Huétor Vega, Jun, Láchar, Maracena, Monachil, Nívar, Ogíjares, Otura, Peligros, Pinos Genil, Pinos Puente, Pulianas, Quéntar, Santa Fe, Víznar, La Zubia, Las Gabias, Vegas del Genil.
Huelva	Huelva, Aljaraque, Beas, Gibraleón, Moguer, Palos de la Frontera, Punta Umbría, San Bartolomé de la Torre, Trigueros.	Huelva, Aljaraque, Beas, Gibraleón, Moguer, Palos de la Frontera, Punta Umbría, San Bartolomé de la Torre, Trigueros.	Huelva, Aljaraque, Gibraleón, Moguer, Palos de la Frontera, Punta Umbría, San Juan del Puerto, Trigueros.	Huelva, Aljaraque, Gibraleón, Moguer, Palos de la Frontera, Punta Umbría, San Juan del Puerto.
Jaén	Jaén, Campillo de Arenas, Los Cárcheles, Fuerte del Rey, La Guardia de Jaén, Mengíbar, Torre del Campo, Udalejo, Los Villares.	Jaén, Campillo de Arenas, Los Cárcheles, Fuerte del Rey, La Guardia de Jaén, Mengíbar, Noalejo, Torre del Campo, Torrequebrada, Los Villares, Villatorres.	Jaén, La Guardia de Jaén, Jamilena, Mancha Real, Martos, Mengíbar, Torredelcampo, Torredonjimeno and Los Villares.	Jaén, Fuensanta de Martos, Fuerte del Rey, La Guardia de Jaén, Higuera de Calatrava, Jamilena, Mancha Real, Martos, Mengíbar, Porcuna, Santiago de Calatrava, Torredelcampo, Torredonjimeno, Villardompardo, Los Villares, Villatorres.
Malaga	Málaga, Alhaurín de la Torre, Almogía, Rincón de la Victoria, Torremolinos, Totalán.	Málaga, Alhaurín de la Torre, Almogía, Rincón de la Victoria, Torremolinos, Totalán.	Málaga, Alhaurín el Grande, Alhaurín de la Torre, Almogía, Benalmádena, Cártama, Casabermeja, Rincón de la Victoria, Torremolinos and Totalán.	Málaga, Alhaurín de la Torre, Alhaurín el Grande, Almogía, Álora, Benalmádena, Cártama, Casabermeja, Coín, Pizarra, Rincón de la Victoria, Totalán, Torremolinos.
Seville	Seville, La Algaba, Almensilla, Bormujos, Camas, Castilleja de la Cuesta, Castilleja de Guzmán, Coria del Río, Gelves, Gines, , Mairena del Aljarafe, Palomares del Río, San Juan de Aznalfarache Santiponce, Tomares, Valencina de la Concepción.	Seville, La Algaba, Almensilla, Bormujos, Camas, Castilleja de la Cuesta, Castilleja de Guzmán, Coria del Río, Gelves, Gines, Mairena del Aljarafe, Palomares, La Puebla del Río, San Juan de Aznalfarache, Santiponce, Tomares, Valencina de la Concepción.	Seville, Alcalá de Guadaira, La Algaba, Almensilla, Bormujos, Camas, Castilleja de Guzmán, Castilleja de la Cuesta, Coria del Río, Dos Hermanas, Espartinas, Gelves, Gines, Mairena del Aljarafe, Palomares del Río, Puebla del Río, La Rinconada, Salteras, San Juan de Aznalfarache, Santiponce, Tomares, Valencina de la Concepción.	Seville, Alcalá de Guadaira, La Algaba, Almensilla, Bormujos, Camas, Castilleja de Guzmán, Castilleja de la Cuesta, Coria del Río, Dos Hermanas, Espartinas, Gelves, Gines, Mairena del Aljarafe, Palomares del Rñio, La Puebla del Río, La Rinconada, Salteras, San Juan de Aznalfarache, Santiponce, Tomares, Valencina de la Concepción, Villafranco del Guadalquivir.

Source: Compilation of some of the most significant urban agglomeration delimitations developed for Andalusia (1983-2001)[66]. Own elaboration.

66 We show these documents not as the only ones available in the geographical literature, we could thus add e.g., the delimitation of the Ministry of Development (2000): Atlas Estadístico de las Áreas Urbanas en España, the II Informe de Desarrollo Territorial de Andalucía (2005), to which the III Informe de Desarrollo Territorial de Andalucía (2010) should be added.

2.3. OPERATIONAL DELIMITATION OF THE STUDY AREA.

From the perspective of Andalusian urban agglomerations planning, since 1994 Andalusia has had a Territorial Planning Law, LOTA, which contemplates two intervention instruments: the Andalusian Territorial Planning Plan and the Subregional Territorial Planning Plans, which include several Andalusian urban agglomerations.

We are going to follow, as a delimitation, the proposal of the Junta de Andalucía of 1994, since it served, initially, as a reference in the elaboration of the different sub-regional plans of the Andalusian urban agglomerations, with our reserves, since, the metropolitan fact cannot be glimpsed with an administrative framework as is the municipality, since, many times, it surpasses the municipal framework, as is the case of Cadiz. We ask that this delimitation be admitted as a lesser evil, since so far there is no known alternative proposal to a non-administrative reality such as urban agglomeration.

The territory comprising the urban agglomeration of the Bay of Cadiz is established following the agreement of 10 May 1994[67], and included the municipalities of Cadiz, Chiclana de la Frontera, El Puerto de Santa Maria, Puerto Real and San Fernando. The area coincides with the space where the transforming effect of the expansion of the urban system is most noticeable. Part of the agglomeration's dynamic occurs towards spaces not included in it, such as Rota or Jerez or, more diffusely, the northwest coast (Chipiona and Sanlúcar de Barrameda). As part of a longer-term strategy, the Plan contemplates the possibility of reformulating and extending its geographical boundaries if relations between urban areas that are not entirely alien to the metropolitan phenomenon increase[68].

The delimitations corresponding to the urban agglomeration of Seville have been diverse, mentions P. Almoguera Sallent[69], although, the Junta de Andalucía comes to collect, in the words of the researcher, "*most of the criteria and opinions poured into the body of scientific work already published*[70]*.* The territory comprising the urban agglomeration of Seville was established following the agreement of 31 May 1994[71], and included, in addition to the provincial capital, the municipalities of the first peri-urban belt of the agglomeration of Seville: Alcalá de Guadaira, Dos Hermanas, Gelves, Coria del Río, Puebla del Río, Almensilla, Mairena del Aljarafe, Palomares, San Juan de Aznalfarache, Bormujos, La Rinconada, La Algaba, Santiponce, Valencina, Gines, Castilleja de la Cuesta, Camas, Castilleja de Guzmán, Tomares, Espartinas and Salteras.

The Subregional Plan of the Urban Agglomeration of Granada that was published in the year 2000[72], was approved by agreement of May 24, 1994[73], which established a delimitation, "in function of the analyses carried out to date, that the scope of the agglomeration is delimited by the provincial capital in addition to Albolote, Alfacar, Alhendín, Armilla, Atarfe, Cájar, Cenes de la Vega, Cúllar Vega, Chauchina, Churriana de la Vega, Dílar, Fuente Vaqueros, Gójar, Güevéjar, Huétor Vega, Jun, Las Gabias, La Zubia, Maracena, Monachil, Ogíjares, Otura, Peligros, Pinos Puente, Pinos Genil, Pulianas, Santa Fe, Vegas del Genil and Víznar".

67 Published in B.O.J.A. (Bulletin of the Regional Government of Andalusia) No. 97 of 28 June 1994.

68 CONSEJERÍA DE OBRAS PÚBLICAS Y TRANSPORTES. JUNTA DE ANDALUCÍA (2002); Plan de Ordenación del Territorio de la Bahía de Cádiz. p. 14.

69 ALMOGUERA SALLENT, Mª. P. (1995): "La aglomeración urbana de Sevilla en la actualidad". Anales de Geografía de la Universidad Complutense, nº 15, p. 28.

70 Ibid., p. 28.

71 Published in B.O.J.A. (Bulletin of the Regional Government of Andalusia) No. 98 of 30 June 1994.

72 CONSEJERÍA DE OBRAS PÚBLICAS Y TRANSPORTES (2000); Plan de Ordenación del Territorio de la Aglomeración Urbana de Granada. Seville: Regional Government of Andalusia.

73 Published in B.O.J.A, (Bulletin of the Regional Government of Andalusia) No. 98, of 30 June 1994.

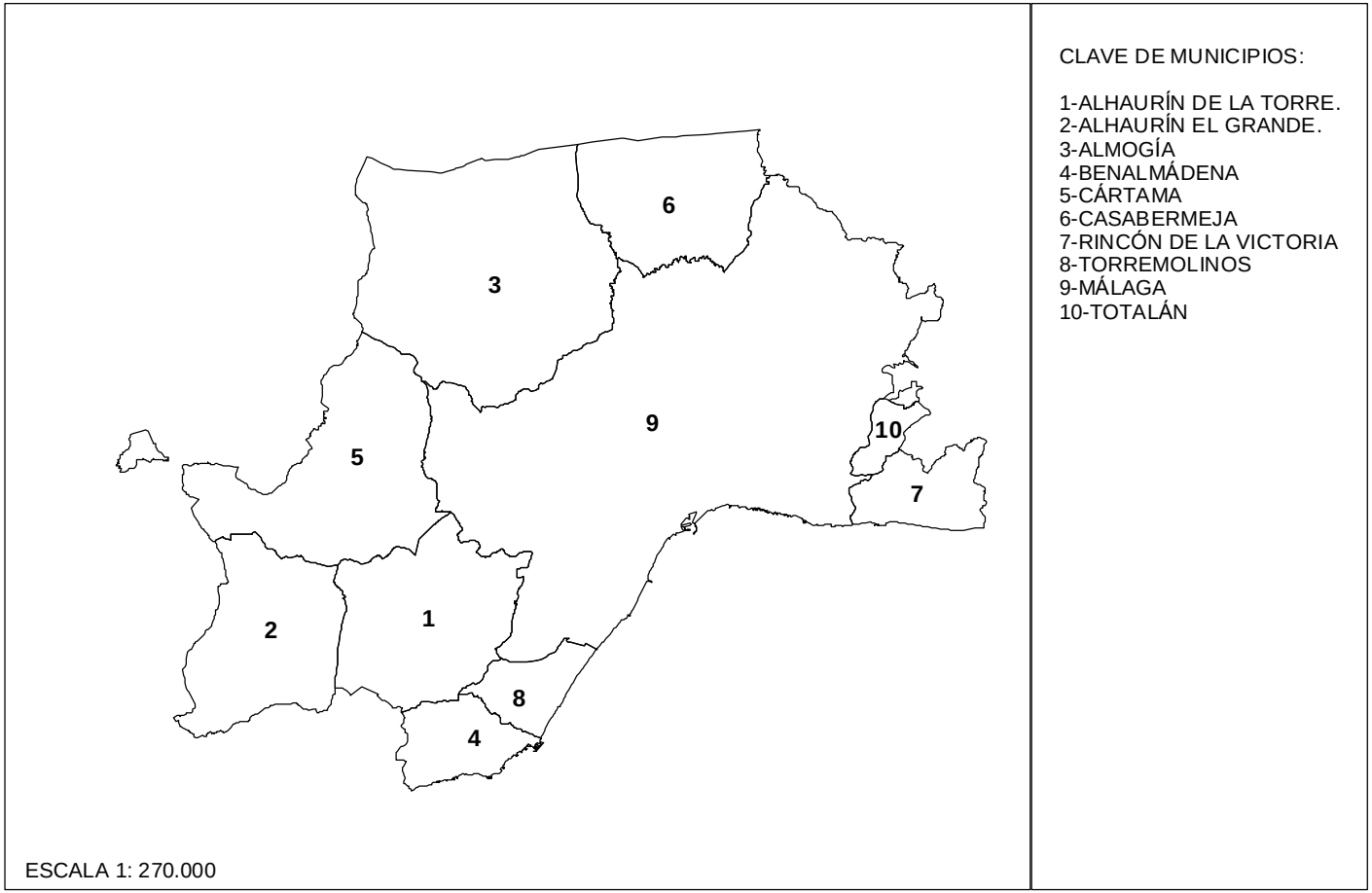
The delimitation of the metropolitan area of Malaga with a view to the Spatial Plan of the Urban Agglomeration of Malaga, began with the agreement of 10 May 1994, which appeared in the BOJA number 98 (of 30 June 1994) and which, in addition to Malaga, covered the municipalities of Torremolinos, Benalmádena, Alhaurín de la Torre, Alhaurín el Grande, Cártama, Almogía, Casabermeja, Totalán and Rincón de la Victoria[74].

With regard to the most recent events, it should be pointed out that the Department of Public Works of the Regional Government of Andalusia, at the time of writing, had the intention of extending the preparation of sub-regional plans for urban agglomerations to the agglomerations of Huelva and Almeria, which demonstrates the dynamism and current importance of metropolitan processes in Andalusia.

74 The delimitation has been updated with the addition of the municipalities of Álora, Pizarra and Coín to the AUM.

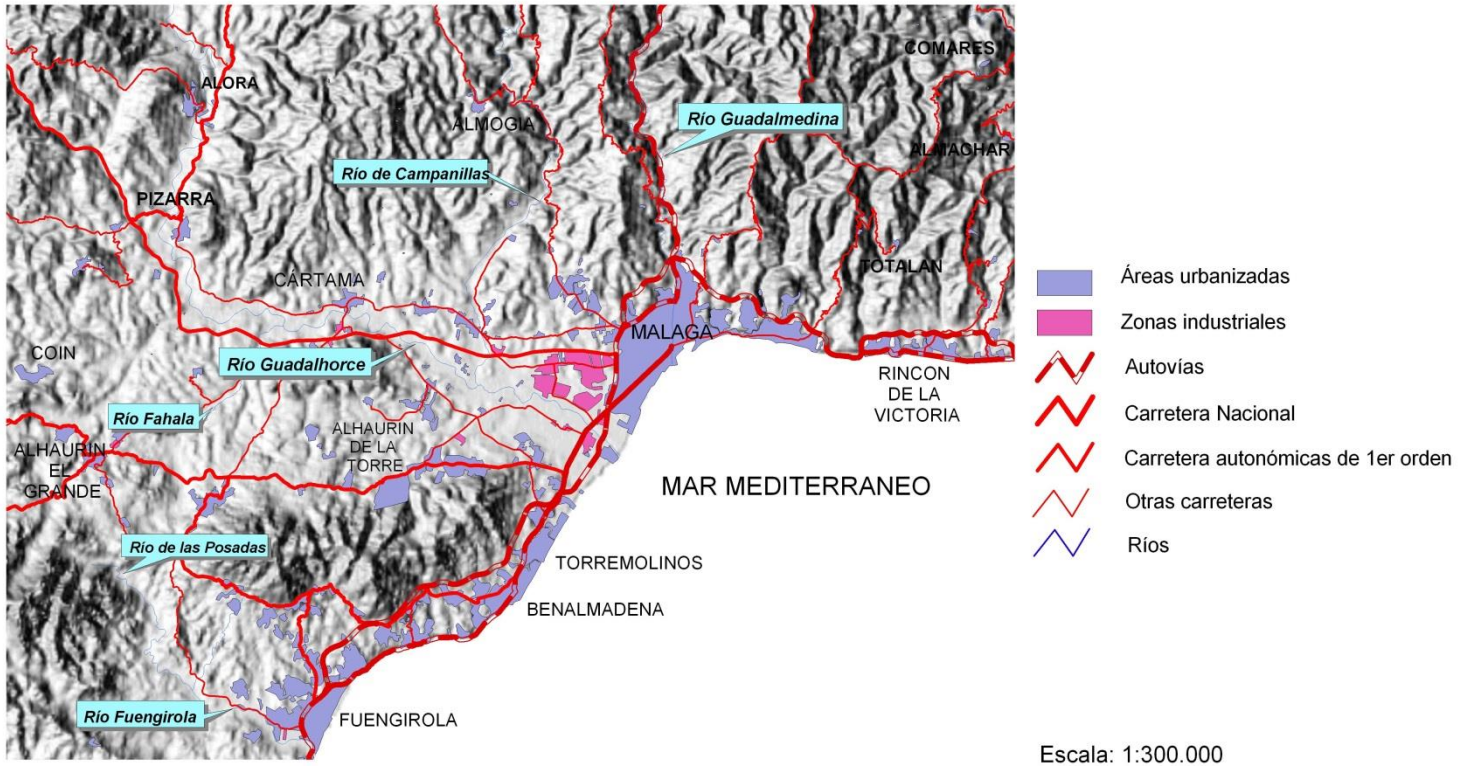
MAP 2

MAPA BASE. AGLOMERACIÓN URBANA DE MÁLAGA.



Source Own elaboration.

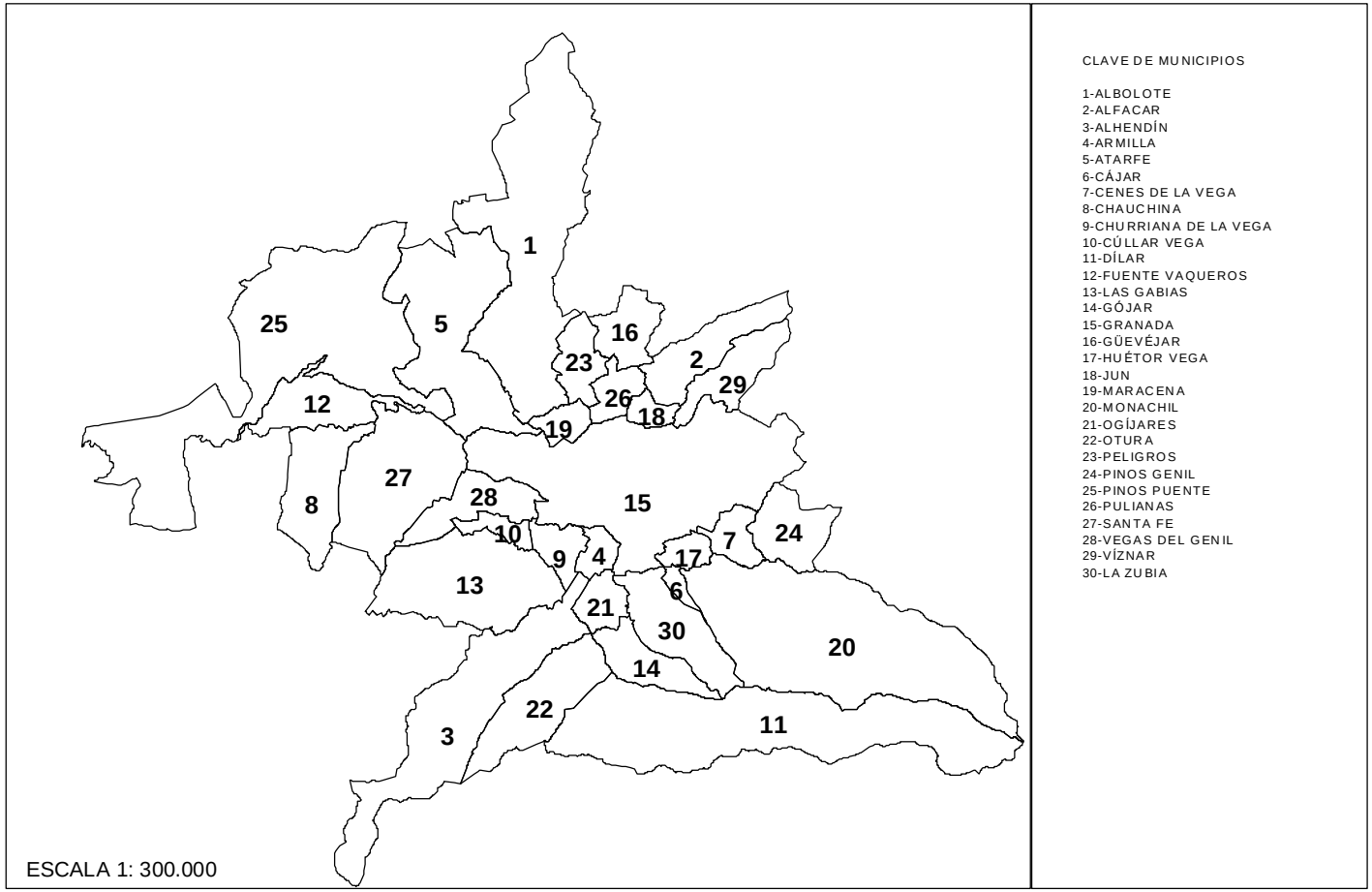
MAP 3



Fuente: Elaboración Propia

MAP 4

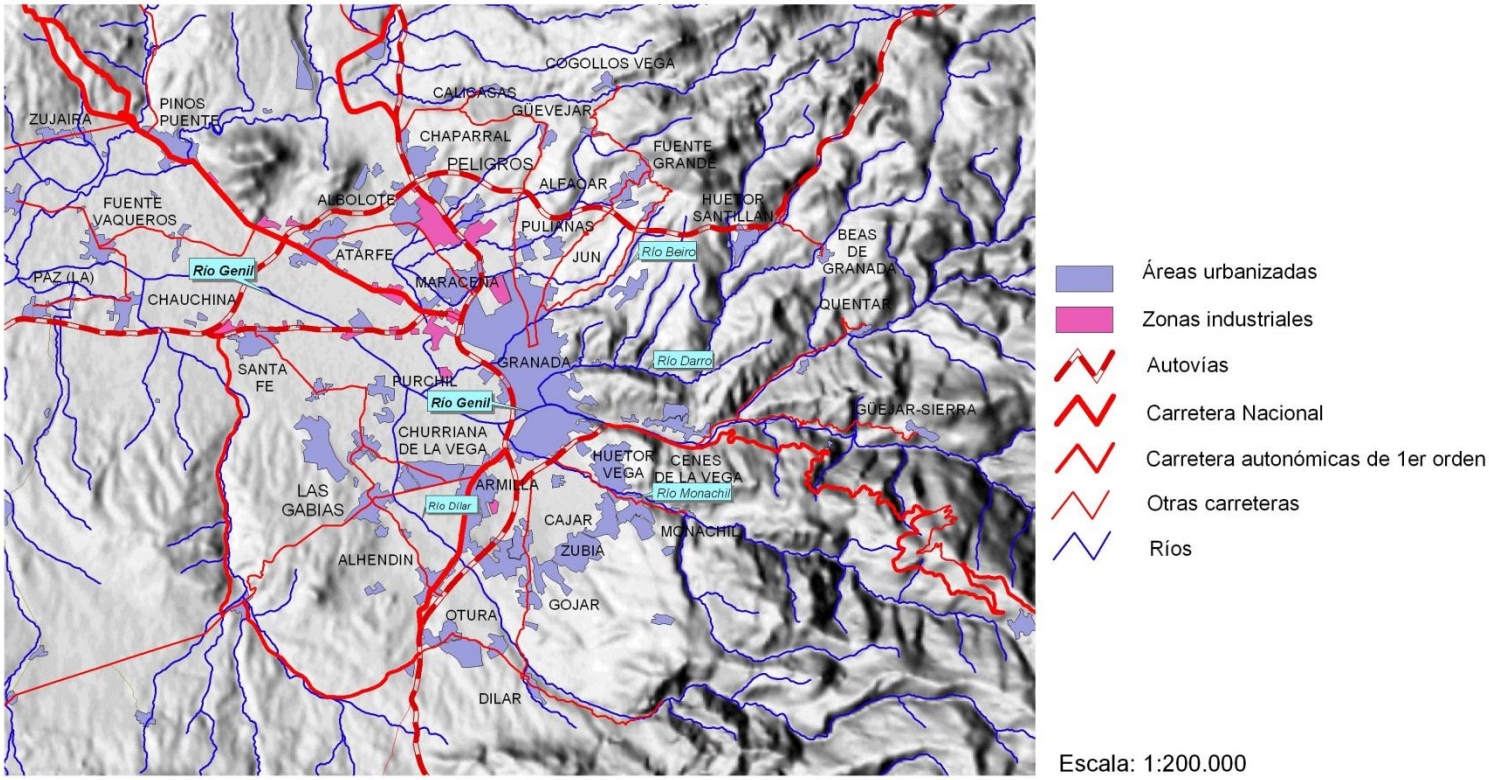
MAPA BASE. AGLOMERACIÓN URBANA DE GRANADA.



Source Own elaboration.

MAP 5

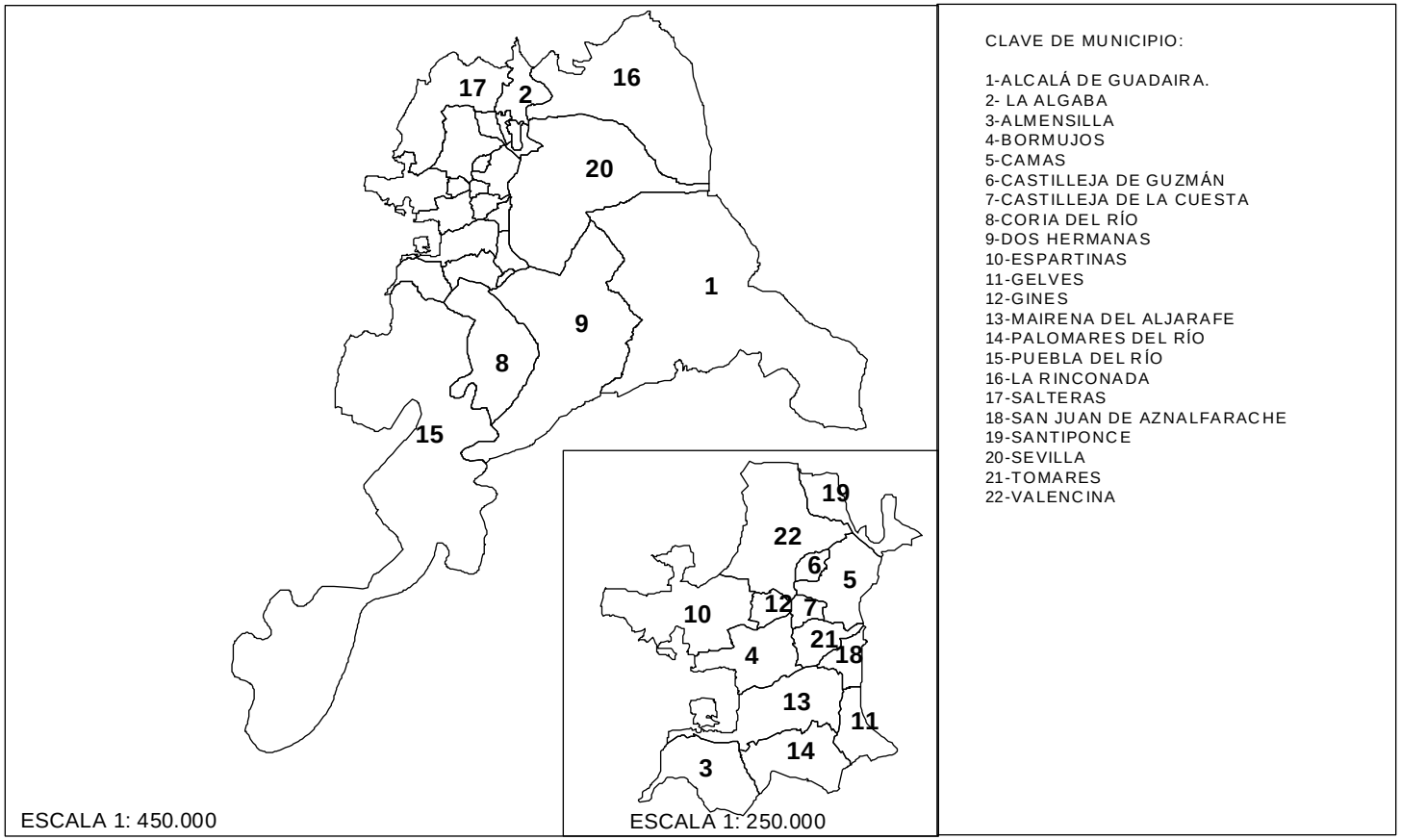
MAPA DE AGLOMERACIÓN URBANA DE GRANADA



Fuente: Elaboración Propia

MAP 6

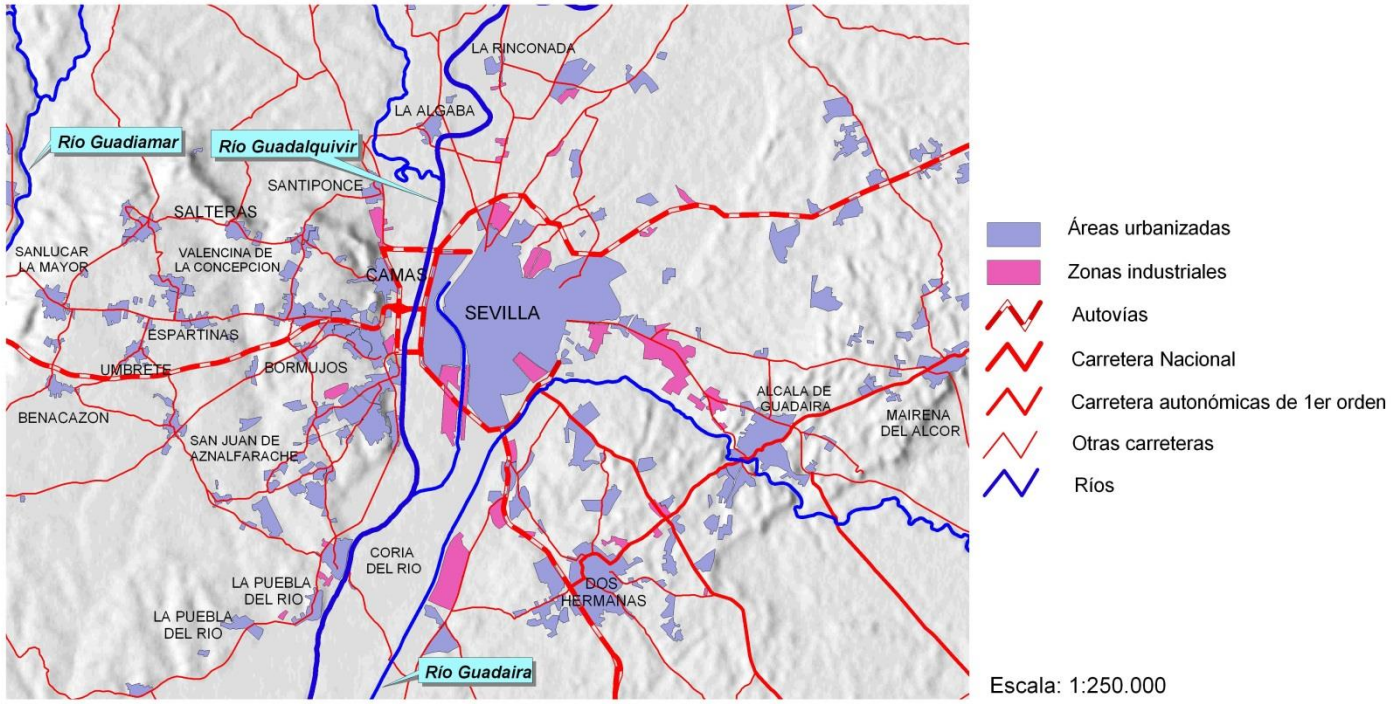
MAPA BASE. AGLOMERACIÓN URBANA DE SEVILLA.



Source Own elaboration.

MAP 7

MAPA DE AGLOMERACIÓN URBANA DE SEVILLA



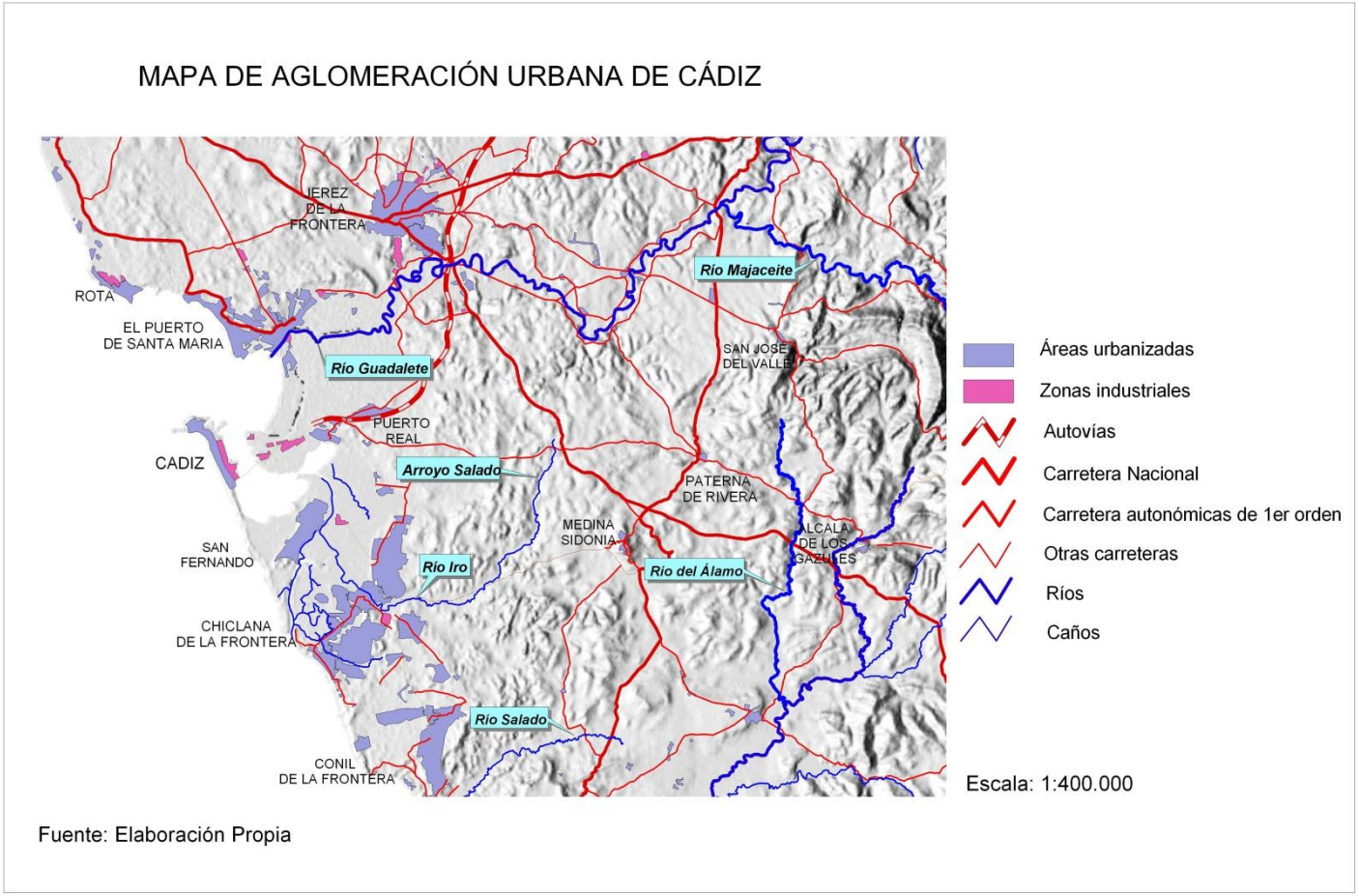
Fuente: Elaboración Propia

MAP 8

MAPA BASE. AGLOMERACIÓN URBANA DE CÁDIZ

Source Own elaboration.

MAP 9



Fuente: Elaboración Propia

2.4. STUDY OF THE PHYSICAL ENVIRONMENT IN THE SELECTED AGGLOMERATIONS.

2.4.1. The agglomeration of Bahía de Cádiz.

From a general point of view, we could highlight the polynuclear nature that is the main Andalusian Atlantic agglomeration, which is unparalleled in the entire peninsula. Faced with models of growth from a central city, in the Bay of Cadiz, we find an urban region made up of a set of large settlements, each with specific characteristics and functions, but forming part of the same metropolitan structure. This urban network is based on nuclei that have a population of more than 35,000 inhabitants, with two cities, San Fernando and El Puerto de Santa Maria, between 50,000 and 100,000 inhabitants, located around the Bay, with the exception of Chiclana de la Frontera which has a more eccentric location.

From a physical point of view, the middle of the Bay is dominated by "a complex land-sea relationship[75]". The conditioning of both factors on the population has been remarkable, insofar as the settlements are located on the coast, so that Cadiz and San Fernando are located on islands surrounded by the waters that limit and limit their available land. The remaining settlements occupy promontories above the floodable areas and extend along the sea shore and floodable areas. Thus, urban soils and floodable areas successively limit and separate full and empty spaces in the agglomeration as a whole.

The agglomeration is made up of three areas of settlement, separated by the natural spaces of the marshes of the river San Pedro-Guadalete, which divides the northern sector, where El Puerto de Santa María is located, and the central sector, with the nuclei of Puerto Real, and the islands of Cadiz and San Fernando; and finally, the marshes of the Sancti-Petri channel, which physically separate the central sector of the agglomeration from the southern sector, with Chiclana and its Atlantic coastal extension.

2.4.1.1. The central sector.

The group of settlements located around the inner sack of the Bay constitute the neuralgic center of the agglomeration. The cities of Cadiz, San Fernando and Puerto Real concentrate a large part of the population and the metropolitan facilities of the urban region. The peculiarity of the settlement system lies in the isolated condition of the population centres, as a consequence of the island position of the cities of Cádiz-San Fernando. The first and oldest settlement, Cadiz, was joined by Puerto Real, as the mooring place for the fleet of the Belt of Castile in 1493, and San Fernando in 1751, by moving the Department of the Navy from Cadiz to this place.

In this scheme, Cadiz is the main urban area, due to its size and range of functions. The non-availability of free land in the isthmus motivated the urbanization in Puerto Real, and San Fernando. Cádiz represents the "big brother" of the settlements in the Bay, with a relatively diversified economic base (with a first class port, a naval and food industry, and a service sector with a tourist activity that has nothing to envy of Puerto de Santa María). But Cadiz has the handicap of its limited space. Its constricted space is limited to an island joined by a sandy tombolo to the Bay, so that the environment has decisively conditioned an urban structure of linear character, which has sought its extension in the municipality of San Fernando, due to the fact that there has been, practically, the total clogging of the land available for urban uses in the central city, which, in turn, has contributed to the foreign location of activities, which has clearly contributed to accentuating the character of functional urban region of the Bay.

75 CONSEJERÍA DE OBRAS PÚBLICAS Y TRANSPORTES. JUNTA DE ANDALUCÍA (2002); Plan de Ordenación del Territorio de la Bahía de Cádiz, p. 15.

San Fernando is the third nucleus in population of the agglomeration, although it presents a scarce functional diversification, as nucleus of residential development, more than of jobs, for the neighboring Cadiz, behaving this way like authentic district dormitory, necessary prolongation of the central city. San Fernando, "increases its functional dependence, at the same time as it undergoes a process of urban growth, which causes the identity and cohesion of the traditional nucleus to be lost[76]". Likewise, the flows between Cadiz and San Fernando have experienced competition with the core of Puerto Real.

The nucleus of Puerto Real is the smallest in the agglomeration, although, at present, it has the highest growth rates, especially since the construction of a bridge linking it to the capital. If San Fernando plays a more purely residential role, Puerto Real has a more outstanding functional rank, due to the delocalisation of industrial activities in Cadiz, with more than half of its active population employed in industry, with shipyards being the base of the local economy, "hence the fragility of the economic base of this city, with scant representation of the tertiary sector", combining, only recently, its industrial and residential functions.

2.4.1.2. The southern sector.

In the southern sector, after crossing the marshes of the Sancti-Petri stream, the land domain gives us a countryside fully oriented to agricultural uses that makes, moreover, a natural bridge between the Bay and the region of La Janda, with an extension along the coast that has been altered by second home tourism. Chiclana de la Frontera, located in an eccentric position to the Bay. It is located to the south of the Bay, in full rural domain, but subject to urbanization processes by second residence, but retaining, of course, an important active population dedicated to the primary sector, as well as the construction sector, which highlights its rural character and dependent on the functional scope of the Bay.

2.4.1.3. The northern sector.

On the northwest coast and at the mouth of the Guadalete, there is the nucleus of El Puerto de Santa María. As in Chiclana, the coastal strip has been occupied by urbanizations oriented towards the second residence. El Puerto de Santa María also shares links with neighbouring Jerez de la Frontera, as it is the centre of a wine industry in its countryside. Its agricultural function is complemented by the interrelations with the Bay, as a first class tourist centre as well as a port centre.

2.4.2. The agglomeration of Seville.

The river Guadalvivir has decisively conditioned the structure of the agglomeration, after crossing the region adosado to Sierra Morena, turns abruptly its course to the height of Alcalá del Río. With a north-south direction, this wide alluvial corridor narrows considerably at Seville's height to make its way between the platforms of Los Alcores and El Aljarafe, two spaces with differentiated geographical and territorial characteristics that profoundly condition the entire process of urban growth. On the left bank, the terrain rises progressively from the river terraces to the crest of Los Alcores, which dominates not only the valley but also the entire countryside. On the right bank of the river, the Aljarafe platform has unique characteristics throughout the Baetic Depression.

From a lithological point of view, the metropolitan area of Seville is based on relatively recent materials, and its geomorphological evolution could be briefly synthesised. The materials of Sierra Morena emerged from the Paleozoic, after the rise of the Béticas, with the alpine orogeny, a

76 Ibid., p. 339.

depressed area was constituted between both mountain massifs, occupied by an important arm of the sea. The progressive sediment filling of this area will be the basis for the lithological support of the entire Guadalquivir Depression. As the coastline shifted westward and marine sediments emerged, the modelling agents provided materials (red formation) that culminated the filling process, although the southwestern sector was still occupied by the sea.

From here, the new hydrographic network begins to exercise its activity on the filling materials of the Depression. On the one hand, its erosive activity promotes the dismantling and evacuation of a large part of the filling materials, configuring the countryside spaces of the metropolitan area and, as a consequence of this same process, some sectors that constituted elevated platforms within the Depression (the Aljarafe and the Alcores) were isolated. The fluctuations in sea level in the Quaternary caused the river and its tributaries to excavate their floodplain, leaving different levels of terraces in elevated topographic positions.

2.4.2.1. Platforms.

This unit groups extensive spaces of the study area. One of them is located in the western sector, the Aljarafe platform, and another in its southeastern sector, the Alcores platform.

2.4.2.1.1. Aljarafe platform.

Limited by the Guadalquivir to the east and the Guadiamar to the west, it constitutes, on a regional scale, an inclined platform, from north to south, reaching almost 190 metres at its culminating point, descending gently as one advances towards the south. Morphologically, the platform is articulated on a slope relief, in which it is necessary to distinguish, as B points out. Delgado Bujalance (2004) *"one foot, one front and one back"*, with steeper slopes on the front or slope. Of significant geomorphological importance is, in fact, the pronounced escarpment that delimits the platform to the north, east and west. The escarpment has gone from being a limiting factor for human occupation due to its greater inaccessibility, and its steeper slopes that hinder its agrarian exploitation; to becoming a resource, due to its landscape value, key when choosing the Aljarafe as a residence for not a few Sevillians in the capital.

Within this set, three differentiated areas can be distinguished, as pointed out by B. Thin Bujalance[77]:

-The northern escarpment, which includes part of the municipalities of Valencina and Santiponce and the whole of Castilleja de Guzmán, up to almost 40% of the area studied. It has importance as a reserved destination for urban speculation in the coming years, once the space of the central escarpment has been exhausted.

-The central escarpment, which extends over almost all the municipalities of Camas, Castilleja de la Cuesta, Tomares, San Juan de Aznalfarache, Mairena del Aljarafe and Gelves, which represents 36% of the whole, but is the most intensely humanised from a demographic and residential point of view, are small municipalities that have conurbated, *de facto,* by growing simultaneously with each other.

-The southern escarpment, which includes the municipalities of Palomares, Coria del Río and Puebla del Río.

In the northern escarpment, and in the south, within a metropolitan context, the peri-urban model of territorial organization predominates: "in it, agriculture maintains a considerable weight, above the general average". However, the greater rurality introduced in this space does not prevent the impact of peri-urbanization, around plots that combine residential activity and part-time agriculture (ATP).

77 Ibid., p. 27.

2.4.2.1.2. Alcores Platform.

The platform is deeply dissected by the Guadaira river, which digs a deep valley. Contact with the central sector of the metropolitan area is softer here than in the Aljarafe. The materials that serve as the basis for this structural platform, mainly limestone, constitute a narrow strip that extends towards Dos Hermanas, closing off the Guadalquivir Valley and gradually losing altitude. As it is a topographically elevated platform, its external limits are of great geomorphological and landscape interest, but it has undoubtedly been less successful than the Aljarafe.

Among the settlements, those of Dos Hermanas, with a population of about 100,000 inhabitants, Alcalá de Guadaira of more than 50,000, Mairena del Alcor, Viso del Alcor and Carmona, with a population, the latter, between 15,000 and 25,000 inhabitants. In this area, the nuclei of Dos Hermanas and Alcalá de Guadaira constitute the vertexes. These are, as the sources point out[78], *"settlements with historic centres of a certain size"*, which have undergone processes of urban growth linked to industry, which has allowed them to develop their activity without depending on the capital, in an endogenous development that configures them as the most mature elements of the metropolitan phenomenon.

2.4.2.1.3. Units of fluvial origin.

The importance of the main fluvial channels in the conformation of the metropolitan space is obvious from the moment in which the Guadalquivir is the articulating axis of the same one in direction North-South. A shared characteristic of these channels, both the current ones and the ones abandoned today, is that of forming depressed areas where the lowest levels are reached, framed by different terraces, especially on the Guadalquivir River, which rise above the current floodplain. The current floodplain is made up of the Guadalquivir, Guadaira and Rivera de Huelva rivers. It occupies the lowest level of the study area, usually below 12 meters. The repeated floods of the river overflowed the natural margins and deposited on the floodplain sediments in which the fertile soils of fertile lowlands were developed, overturned to the cultivation of irrigated lands. On the flood plain there are up to four levels of terraces, where the irrigated crops are alternated, linked, in this case, to the herbaceous crops, rather than to the fruit trees of the Vega, and the dry ones. These terraces connect with the crests of the Alcores, through a glacis-terrace, whose upper limit is the erosion escarpment of Alcalá de Guadaira. On the rich soils of the Vega, there is the last axis of urbanization of the area of Seville, the one constituted by the riverside settlements, among which are included the capital, La Rinconada, San José de la Rinconada and Camas. The size of the settlements covers all levels, from Seville, with just over 700,000 inhabitants, to Villaverde del Río, with some 5,000, with the influence of the capital which has led to greater growth of the riverside nuclei of the metropolitan belt in Camas and La Rinconada, the latter presenting an excellent hierarchical position to play a leading role within the subsystem as a result of the possibility of merging its two nuclei La Rinconada and San José de la Rinconada.

78 CANO GARCÍA (Director and Coordinator) (1990): Geografía de Andalucía. Vol. III. Seville: Tartessos, p. 295.

2.4.3. The urban agglomeration of Granada.

From a physical point of view, the region of Granada is *"one of the large sinking pits that mark out the interior of the Béticas mountain range* (Sáenz Lorite, 1996)*"*. This is a series of depressions inserted in the so-called Intrabetic Furrow, which extend from West to East (Antequera, Granada, Guadix-Baza), which have originated from the filling of soft post-torogenic materials. The region is framed by a line of mountains, almost continuous, which stand out as natural barriers on the bottom of the Vega, which sinks into the interior of them, only about 600 meters above sea level. At the head of the Depression, Sierra Nevada acts as a first-order limit, *"presenting in the background the impressive mass of its schistose nucleus in which the dissymmetrical profile of the weather vane is cut. The altitude denounces it more than the soft shapes of its hilltops, the continued presence of snow.*[79]*"*

The center is *"a great plain, which longitudinally crosses the Depression, from the very foothills of the Sierra Nevada, descending gently from altitude to the West*[80]*.* The Genil River flows over it, which also runs longitudinally through the Depression, with the flatness breaking only along the northern edge, in the Sierra Elvira, *which "emerges within the depressed area in the form of an island".* The transition between the bottom of the plain and the mountain foothills is resolved in the manner of glacis, carved on post-torogenic materials. A slight topographical accident (due to diapirism) delimits the Vega de Granada in a strict sense in the west, with the Vega de Huétor-Tájar-Loja, which J. Menor Toribio[81] calls Vega Baja to differentiate it from the Vega itself. According to J. Menor Toribio, *"the plain acquires its maximum dimensions upstream of this threshold, and it is there that most of the irrigated land in Granada is settled uninterruptedly".*

For the development of these crops it has been fundamental the plain character of the bottom of the Depression, soils of great agricultural aptitude, loam soils in general, *"with balanced composition of clays, silts and sands*[82]*",* that make it optimal for an agrarian use. Equally important for the agricultural suitability of the soils of the Depression is the availability of water, which in the Vega is a fundamental element for understanding its landscape, as irrigation occupies a large part of the bottom of the Depression. In this sense, Menor Toribio explains that, *"in its headwaters, it is fed by the Aguas Blancas, Monachil and Dílar rivers, coming from the Sierra Nevada. From the confluence of these rivers, and on the right bank, the Cubillas, coming from the Sierras Subbéticas, collects the waters of other respective tributaries. And finally, after passing the diapiric elevations, the rivers Cacín, Alhama and Salar, pour from the left bank of the Genil the waters coming from the mountains of Tejeda and Almijara*[83]*.* These watercourses favour the formation of an aquifer which, despite the limited rainfall due to the climate, allows water to become an omnipresent element in the Vega which explains the traditional agricultural use until very recently.

The agricultural attractiveness has allowed a human occupation of the territory from very distant dates. But, *"the frequent flooding of the totally flat bottom of the Vega, which practically gave it a marshy character, caused the first human settlements to be located at higher altitudes, with the edges presenting a greater attraction for the settlement of the villages*[84]*".* Thus*, "a border of villages frames the entire eastern edge of the Vega, forming an amphitheatre of dense human occupation*[85]*".* In its centre, *"at the confluence of the rivers Darro, Beiro and Genil, lies the city of*

79 OCAÑA OCAÑA: M.C. (1974): La Vega de Granada. Granada: Instituto de Geografía Aplicada del Patronato "Alonso de Herrera" (C.S.I.C.) and Caja de Ahorros de Granada, p. 9.

80 Ibid., p. 9.

81 MENOR TORIBIO, J. (2000); La Vega de Granada. Recent agrarian transformations in a periurban space. Granada: University of Granada. Institute for Regional Development, p. 36.

82 Same as above.

83 Ibid., p. 37.

84 Ibid, p. 43.

85 OCAÑA OCAÑA, M.C. (1974); Op. cit. , p. 63.

Granada and, around it, the former small rural nuclei[86]", which now *"act practically as city neighbourhoods: Maracena, Ambroz, Purchil, Belicena, Churriana, Armilla and Pinos Genil, totally envelop the capital, so that, thanks to it, they have had a great population growth recently[87]".*

To the south of Granada, *on the glacis barely modified by the erosion of the rivers Dílar and Monachil[88]*, eleven more villages are located, the largest of them being La Zubia, and the Gabias, the rest, Huétor Vega, Monachil, Cájar, Ogíjares, Gójar, Dílar, Otura, Alhendín, have a somewhat smaller population, although, in reality, all of them currently have such a degree of conurbation that we could actually speak of an urban continuum, since the nuclei of this area have experienced in recent decades an intense process of demographic and urban growth, whose cause has been *"the supply of residential land under the protection of proximity and accessibility, as well as an attractive environment that, at least initially, has led to the proliferation of a whole series of developments that are located along this sector south[89]"*, developments that, if initially were second homes, every day more, are becoming permanent housing.

2.4.4. The urban agglomeration of Malaga.

Málaga capital appears in the centre of an urbanisation, eminently coastal. If anything can characterise this agglomeration, as C. Ocaña Ocaña quotes (1995), it is its heterogeneity in the settlements, due to the heterogeneity in the physical structure of the territory: on the one hand, the Hoya de Málaga; on the other, the Montes; and, finally, the coastal strip.

2.4.4.1. The coastal area.

The wide opening to the sea of the Hoya de Málaga, and the proximity to the coast of the elevations that enclose it, structure the agglomeration in three units, physiographically well differentiated: the central part corresponds to the coastal edge of the Hoya, at the centre of which the river Guadalhorce flows out; to the east, the slopes of the Málaga Mountains appear, with a narrow coastal plain; and finally, to the west, the proximity of one of the foothills that close the Hoya to the south, Sierra de Mijas, forms the beginning of a narrow coastal strip of plain and foothills. In the centre of Hoya is the city of Málaga, which is constrained to the north by the Mountains and to the south by the Mediterranean Sea. The urbanisation continues without major discontinuities to the east as far as Rincón de la Victoria, a second home for the middle class of Malaga, which has ended up becoming the bedroom district of Málaga[90]; while in the west, a discontinuity arises around the mouth of the Guadalhorce, where agricultural uses have given way to other urban demands such as the airport, the new leisure and consumption centres or the Guadalhorce Industrial Estate. On the other side of the river, to the west, the building becomes continuous again on the axis of the National 340. As mentioned C. Ocaña, *"only the mountain forms an insurmountable wall to its advance, and the consequence is an almost complete occupation of the coastal plain and the foothills[91]"*. In the area closest to the capital, on the coastal plain, there is no visual discontinuity between the urban centres of Torremolinos and Benalmádena[92], which bring

86 MENOR TORIBIO, J. (2000); Op. cit. , p. 43.

87 OCAÑA OCAÑA, M.C. (1974); Op. cit. , p. 68.

88 Ibid., p. 68 and 69.

89 SÁENZ LORITE (1996); Op. cit. , p. 79.

90 About Rincón de la Victoria can be consulted the work of MONTOSA MUÑOZ, J. (1997): Rincón de la Victoria: La población en un municipio metropolitano de Málaga. Málaga: University.

91 OCAÑA OCAÑA, C. (1995): Op. cit. p. 21.

92 C. Ocaña mentions the structuring of the municipality of Benalmádena in two initial entities: Benalmádena village, in the interior, and the residential urban complex of the coastal band, Benalmádena-Costa, which has physically merged with the nucleus of Arroyo de la Miel.

together a very considerable population: of more than 80,000 inhabitants[93] in 2001, to which should be added an important *floating population* in the summer months, given the purely tourist nature of these Costa Rican municipalities.

2.4.4.2. The inner space.

The city is not as large inland as it is in its linear development along the coast, cut to the north by the Málaga Mountains, so that C. Ocaña Ocaña[94] contrasts the city, understood towards the sea, and the natural space of the mountain, while, on the Guadalhorce plain, the transition is more gradual. In front of the whole of the plain and the coast, "*the Mountains seem wild and uninhabited*". Its relief, included in the Penibético de las Cordilleras Béticas, rises from the limits of the plain, at altitudes of 400 to 500 metres, but at short distance from the coast, which contributes to its *talwegs* fit and form narrow valleys between these slopes. This mountainous character makes it not very accessible, highlighting the natural pass of the Puerto de las Pedrizas that connects Malaga with the Antequera Depression. The dominion of the mountain has been a clear difficulty in the coastal-interior interrelations. In the Montes, the periurban space seems little affected by the presence of the city, with its dry tree-lined landscape, partly semi-abandoned, on heavily eroded slopes and with small population centres, such as Totalán, Casabermeja and Almogía.

Towards the western plain, the delimitation between rural and urban space loses the sharpness offered by the Mountains. The compact city gives way to a diffuse urbanization of residential areas that intermingle with a denser agricultural landscape, fruit of irrigation organized in the Vega Baja del Guadalhorce. In the organization of this space plays a major role the river Guadalhorce, which runs northwest-southeast on a plain cut, to the north, by hills of the Mountains and, to the south, by the glacis of the foothills of Sierra de Mijas and Sierra Llana, which close to the south Hoya, interposing opposite the coast.

The landscape is strongly humanised in this sector of Malaga's peri-urban environment. Yes, near the mouth, the cane, in strong retreat, and the orchard are the characteristic uses, upstream, the valley is practically a citrus plantation, carried very generalized by part-time farmers, as is characteristic of periurban spaces. Within the Valley, the first axis of the urban diffusion has conformed a population of rural immigration[95], emphasizing the periurban nucleus of Campanillas, where the Technological Park of Andalusia is located. A short distance away, in the municipality of Cártama, two comparable headwaters stand out, in the towns of Cártama, at the foot of the Sierra of the same name and; in La Vega, the industrial centre of Estación de Cártama. The second axis of the Valley is the foothills of the Sierra de Mijas. The neighborhood of Churriana, *"has catalyzed the growth of a large area of urbanizations, many of them second homes*,*"* which are experiencing significant population growth. Next, the Alhaurines, one of the municipalities, Alhaurín de la Torre, with processes of urban diffusion, that have physically separated the municipality between the discontinuous urbanizations of the Neo-Rural population, coming from the capital, and "the town", where the autochthonous ones are located.

The balance of this urbanizing model has been a disaster for regions with an old agrarian vocation such as the paradigmatic case of the Vega de Granada. The diffusion of the model in the years prior to the bursting of the real estate bubble has produced urban speculation and destruction of the landscape and, after the systemic crisis, has left empty urbanizations, city councils unable to guarantee the services to these new constructions, etc. On the other hand, the city councils are unable to give economic dynamism to these areas that were previously dumped in

93 According to data from the 2001 Census of Inhabitants, conducted by the National Institute of Statistics, the total population in the municipality of Torremolinos was 44,772 inhabitants, while Benalmádena housed a population of 34,565 inhabitants.

94 OCAÑA OCAÑA, C. (1995): Op. cit. p. 23.

95 Ibid., p. 31.

the construction sector with the real estate boom, and many dream of going back to brick again, promoting illegal works in protected areas, without seeking an alternative in endogenous development, as the environmental groups explain. It is difficult to quantify the exact number of empty homes that the bursting of the real estate bubble has left unoccupied, although a stroll through some of these developments is enough to see how many of them have remained unfinished and others finished, but lacking in services. The current crisis has meant, at least, "a kind of moratorium," say environmental groups, who see in the construction freeze, an "opportunity" to do things differently, the question is whether this will materialize in new projects promoted by administrations to avoid the excesses produced by the application of a very permissive legislation that has allowed to build outside the planning favoring the construction of rural houses and illegal housing arising in the maelstrom of the brick.

CHAPTER 3

DEMOGRAPHIC DYNAMICS OF THE MAIN ANDALUSIAN URBAN AGGLOMERATIONS.

The objective of this section is determining to know the entity of the metropolitan processes in Andalusia. It is vital, in turn, because it makes it possible to justify that these spaces function as a whole, as a system, in such a way that what happens in the metropolis has direct repercussions on its periphery, which grows, induced from the interior, by the relocation of the population from the centre to the periphery, or, at least, this is the starting hypothesis that we will go on to expound. It is, therefore, of crucial importance the study of the registrations by immigration and by origin in these spaces, which has decisive consequences in the natural dynamic, to contribute fertile population, in age to have children, to the spaces of the periphery. Thus, the dynamics, the basic characteristic of metropolitan spaces, becomes an essential object in the analysis of spaces that, precisely, have the qualifier of metropolitan because they are growths induced from the capital. Andalusia has thus moved, albeit belatedly, from the traditional rural exodus to the urban exodus characteristic of postmodernity.

3.1. GENERAL EVOLUTION OF ANDALUSIAN URBAN AGGLOMERATIONS SINCE THE MIDDLE OF THE 20TH CENTURY.

Applying the metropolitan life cycle model of Peter Hall and Dennis Hay[96], the degree of adjustment with the model is characterized by a delay with respect to the evolution in the rest of Europe, as corresponds to the lower economic development of Andalusia (table 3.1). Hall and Hay's empirical analysis led them to expose six sequential phases of urban development, in terms of population changes originating in the centres and hinterlands of their urban systems. In turn, Hall and Hay defined sets of functional urban regions, despite occasional problems with noncomparable data. The areas of these urban regions corresponded to the smallest local demarcations, municipalities or equivalents, where it was possible to obtain the essential data. Hall and Hay then examined and partially analysed the changes in the components of the European Community's urban systems, both growing and declining. A modified version of these phases is set out in Table 3.1. Two additional phases 1A and 6A are added. Such phases consider, in the first case, the centralization that occurs in the case of population loss of a region as a whole, when both in the center and in the hinterland the population is decreasing, with the loss in the center being less than in the hinterland. The second one expresses decentralization in case of population loss of a region, when in the hinterland there is an increase of population, but this increase is surpassed by the loss that takes place in the center. Van den Berg proposes a similar scheme of urban growth, based on the work of van den Berg and Klassen (1978) cited in the journal of Territorial Studies (1985, n. 19, p. 34).

96 HALL, P. & HAY, D. (1980): Growth centres in the European Urban System: London: Heinemann Educational Books, p. 193.

Table 3.1.
Urban Growth Stages: Population Change.

Population	1 Centralisation during CP loss		2 Absolute centralization CA	3 Relative centralisation CR	4 Relative decentralization DR	5 Absolute decentralization DA	6 Decentralization during the loss PD	
	A	B					A	B
Core (C)	-	+	+	+	+	-	-	-
Hinterland (H)	-	-	-	+	+	+	+	-
Region (C+H)	-	-	+	+	+	+	-	-
(Van den Berg et al)	(ΔC<ΔH)			(ΔC<ΔH)				(ΔC>ΔH)
(Equivalent)	7	8	1	2	3	4	5	6

Source Instituto del Territorio y Urbanismo, ITUR (1985): "Problems of decline and growth in the cities of Europe". Territorial Studies, 19, 31-56.

In Andalusia, according to the stages of urban growth of Hall and Hay, there is a moderately satisfactory adjustment of the model to the set of Andalusian urban agglomerations, so we move from a stage of centralization to a stage of decentralization that, in the case of Andalusia, does not become decentralization with loss in the period analyzed.

Table 3.2
Evolution of population in the AUC[97]

Years	TOTAL HINTERLAND	FUNCTIONAL URBAN REGION	Cádiz capital	Total with respect to agglomeration	Total peri-urban (Base 100=1900)	Total metropolis (Base 100=1900)
1900	69.626	138.817	69.191	49,84	100,00	100,00
1910	62.639	129.945	67.306	51,80	89,96	97,28
1920	66.259	142.396	76.137	53,47	95,16	110,04
1930	75.935	150.302	74.367	49,48	109,06	107,48
1940	96.748	182.602	85.854	47,02	138,95	124,08
1950	98.211	196.965	98.754	50,14	141,06	142,73
1960	123.088	238.039	114.951	48,29	176,78	166,14
1970	145.146	279.488	134.342	48,07	208,47	194,16
1975	163.414	304.276	140.862	46,29	234,70	203,58
1981	188.233	344.944	156.711	45,43	270,35	226,49
1986	209.287	364.586	155.299	42,60	300,59	224,45
1991	227.427	381.774	154.347	40,43	326,64	223,07
1996	244.412	390.007	145.595	37,33	351,04	210,42
2001	261.120	394.483	133.363	33,81	375,03	192,75

Source Own elaboration.

Table 3.3
Evolution of the population in the AUG[98]

Years	TOTAL HINTERLAND	FUNCTIONAL URBAN REGION	Granada capital	Total with respect to agglomeration	Total peri-urban (Base 100=1900)	Total metropolis (Base 100=1900)
1900	48.293	123.863	75.570	61,01	100,00	100,00
1910	58.210	138.188	79.978	57,88	120,54	105,83
1920	63.561	167.066	103.505	61,95	131,62	136,97
1930	74.458	192.035	117.577	61,23	154,18	155,59
1940	82.176	234.182	152.006	64,91	170,16	201,15
1950	88.464	243.053	154.589	63,60	183,18	204,56
1960	92.761	247.826	155.065	62,57	192,08	205,19
1970	102.979	289.139	186.160	64,38	213,24	246,34
1975	111.789	326.019	214.230	65,71	231,48	283,49
1981	121.008	367.650	246.642	67,09	250,57	326,38
1986	133.049	389.122	256.073	65,81	275,50	338,86
1991	148.492	403.704	255.212	63,22	307,48	337,72
1996	174.084	419.724	245.640	58,52	360,47	325,05
2001	203.460	444.121	240.661	54,19	421,30	318,46

Source Own elaboration.

[97] Urban agglomeration of Cadiz.

[98] Urban agglomeration of Granada.

Table 3.4
Evolution of the population in the AUM[99]

Years	TOTAL HINTERLAND	FUNCTIONAL URBAN REGION	Malaga capital	Total with respect to agglomeration	Total peri-urban (Base 100=1900)	Total metropolis (Base 100=1900)
1900	39.675	170.738	131.063	76,76	100,00	100,00
1910	40.653	175.945	135.292	76,89	102,47	103,23
1920	42.965	193.223	150.258	77,76	108,29	114,65
1930	42.027	222.132	180.105	81,08	105,93	137,42
1940	45.946	281.301	235.355	83,67	115,81	179,57
1950	48.755	323.602	274.847	84,93	122,89	209,71
1960	50.079	346.511	296.432	85,55	126,22	226,18
1970	51.587	412.869	361.282	87,51	130,02	275,66
1975	54.529	462.987	408.458	88,22	137,44	311,65
1981	61.871	564.103	502.232	89,03	155,94	383,20
1986	74.484	637.816	563.332[100]	88,32	187,74	429,82
1991	110.888	632.996	522.108	82,48	279,49	398,36
1996	136.194	685.329	549.135	80,13	343,27	418,99
2001	167.669	692.083	524.414	75,77	422,61	400,12

Source Own elaboration.

Table 3.5
Evolution of the population in the AUS[101]

Years	TOTAL HINTERLAND	FUNCTIONAL URBAN REGION	Seville capital	Total with respect to agglomeration	Total peri-urban (Base 100=1900)	Total metropolis (Base 100=1900)
1900	46.714	193.985	147.271	75,92	100,00	100,00
1910	53.708	206.966	153.258	74,05	114,97	104,07
1920	60.105	265.828	205.723	77,39	128,67	139,69
1930	83.189	300.977	217.788	72,36	178,08	147,88
1940	103.282	405.582	302.300	74,53	221,09	205,27
1950	128.412	502.550	374.138	74,45	274,89	254,05
1960	165.325	607.194	441.869	72,77	353,91	300,04
1970	210.303	755.995	545.692	72,18	450,19	370,54
1975	238.906	828.627	589.721	71,17	511,42	400,43
1981	273.583	919.400	645.817	70,24	585,66	438,52
1986	302.092	953.176	651.084	68,31	646,68	442,10
1991	338.818	1.021.846	683.028	66,84	725,30	463,79
1996	377.498	1.074.985	697.487	64,88	808,10	473,61
2001	412.696	1.097.329	684.633	62,39	883,45	464,88

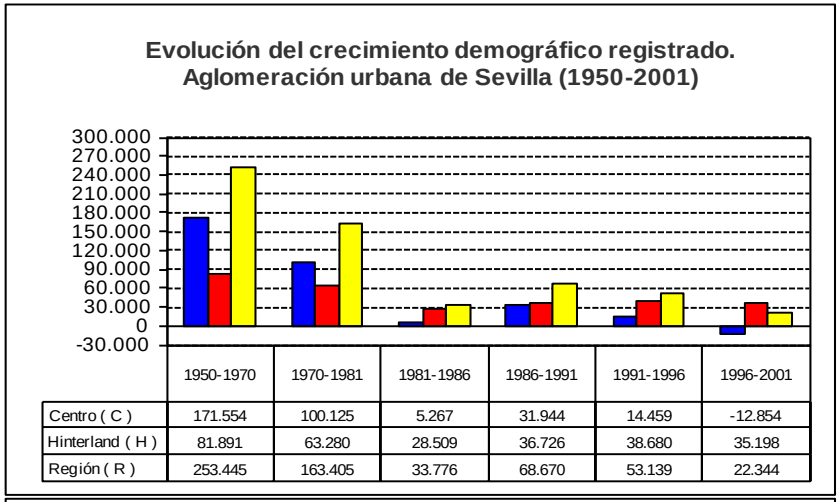
Source Own elaboration.

99 Urban agglomeration of Malaga.

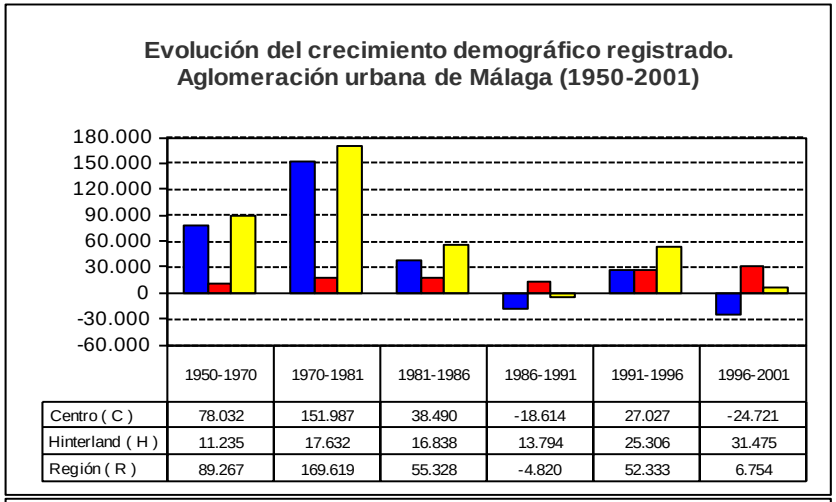
100 The figures in the 1986 population census are oversized, as the impact that the disintegration of Torremolinos from the municipality of Málaga since that year was limited and the population of the new segregated municipality of Málaga did not represent more than 27,543 inhabitants de jure and 35,309 de facto. In Ocaña Ocaña, C. (1995): Málaga, población y espacio metropolitano. Málaga: Universidad, p. 46.

101 From now on, Urban Agglomeration of Seville.

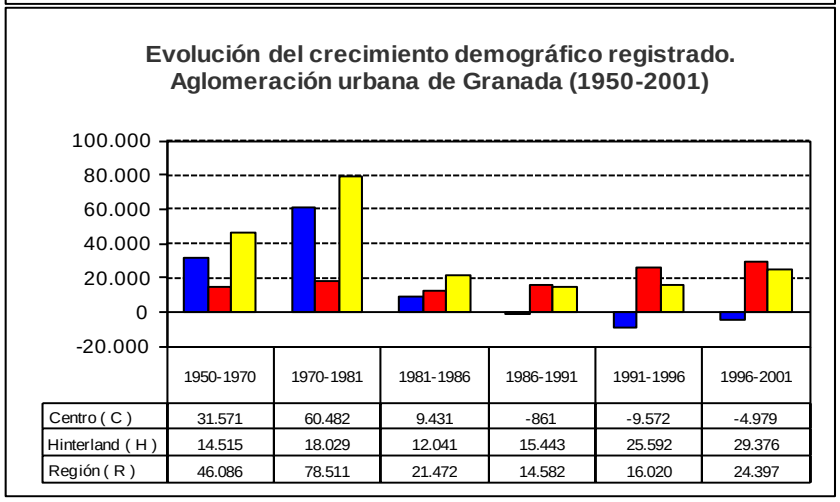
Figure 3.1.
Evolution of the growth of the main Andalusian urban agglomerations (1950-2001).



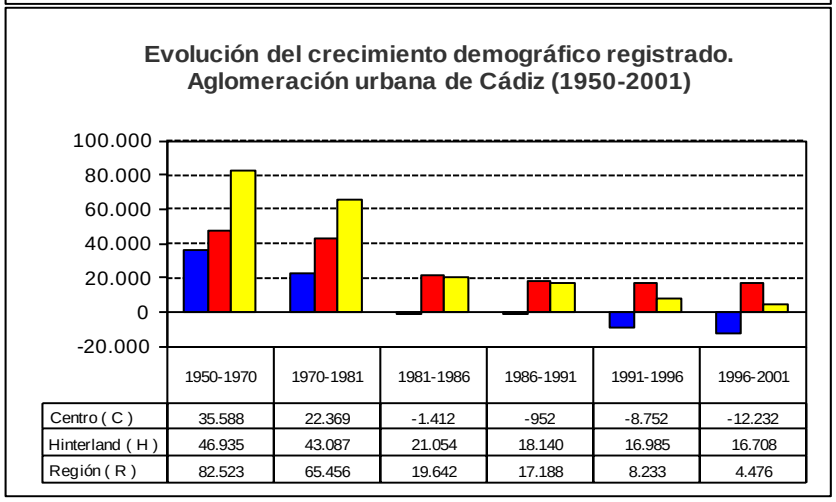
	1950-1970	1970-1981	1981-1986	1986-1991	1991-1996	1996-2001
Centro (C)	171.554	100.125	5.267	31.944	14.459	-12.854
Hinterland (H)	81.891	63.280	28.509	36.726	38.680	35.198
Región (R)	253.445	163.405	33.776	68.670	53.139	22.344



	1950-1970	1970-1981	1981-1986	1986-1991	1991-1996	1996-2001
Centro (C)	78.032	151.987	38.490	-18.614	27.027	-24.721
Hinterland (H)	11.235	17.632	16.838	13.794	25.306	31.475
Región (R)	89.267	169.619	55.328	-4.820	52.333	6.754



	1950-1970	1970-1981	1981-1986	1986-1991	1991-1996	1996-2001
Centro (C)	31.571	60.482	9.431	-861	-9.572	-4.979
Hinterland (H)	14.515	18.029	12.041	15.443	25.592	29.376
Región (R)	46.086	78.511	21.472	14.582	16.020	24.397



	1950-1970	1970-1981	1981-1986	1986-1991	1991-1996	1996-2001
Centro (C)	35.588	22.369	-1.412	-952	-8.752	-12.232
Hinterland (H)	46.935	43.087	21.054	18.140	16.985	16.708
Región (R)	82.523	65.456	19.642	17.188	8.233	4.476

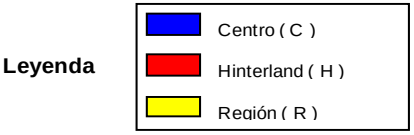


Figure 3.1 shows the evolution of the main Andalusian urban agglomerations since 1950. It is justified that the starting point is the second half of the twentieth century since, in Andalusia, there is a delay in the productive bases and a continuity of the spatial structures dedicated to the primary sector in relation to the rest of Spain.

In the urban agglomeration of Cadiz according to the model of Hall and Hay, there is an early relative decentralization: the center and periphery grows, but more the periphery since 1960. Absolute decentralization began in 1986, when the capital lost weight.

The urban agglomeration of Granada begins the period with a relative centralization: the center and the periphery grow, but more the center. This phase lasted until the mid-1980s. From the mid-eighties onwards, there was a change in the urban cycle: the centre decreased and the periphery grew: from a phase of relative decentralisation, it evolved to a phase of absolute decentralisation at the beginning of the nineties, and remained so until the period analysed.

The urban agglomeration of Malaga is characterised by a relative centralisation with greater growth of the centre than of the hinterland from the beginning of the period analysed until the mid-eighties. The phase of relative centralisation became absolute decentralisation in the mid-1980s, although it was produced in an artificial way because the figures in the 1986 census of inhabitants were overdimensioned. In fact, absolute decentralization will not take place, with clarity, from the mid-1990s until the beginning of the new century.

Finally, in the urban agglomeration of Seville, an early relative decentralisation can be appreciated from 1950 to the decade of the eighties: the centre and the periphery grow, but more the centre than the periphery. Centralisation became relative decentralisation in the 1980s: the centre and periphery grew, but the periphery more so, with a loss of the weight of the capital in relation to the rest of the agglomeration from the mid-1990s onwards, with the beginning of absolute decentralisation.

In conclusion, a common feature of all the agglomerations is an evolution that, starting from a predominance of the demographic growth of the centres, has moved to the periphery, producing, in a generalized way, first, a relative decentralization that has become an absolute decentralization, in all the metropolises until the beginning of the 21st century, although without reaching decentralization with the loss of the whole of the functional urban region.

3.1.1. Detailed study of developments in the main Andalusian agglomerations.

Our analysis would not be complete without a more detailed study of the evolution of Andalusian agglomerations on a case-by-case basis. To this end, we have produced a series of maps in which we have established thresholds that are not strictly numerical, but have quantified and assigned a specific attribute to the evolutionary stage reached by the components of the agglomeration throughout the period analysed (second half of the century). The thresholds have been obtained from the estimates of C. Ocaña Ocaña, E. García Manrique and S. Navarro Rodríguez[102]. Based on these data, and with a simplification to adapt it to our analysis, we have established the following intervals (Table 3.6).

102 OCAÑA OCAÑA, C., GARCÍA MANRIQUE, E. and NAVARRO RODRÍGUEZ, S. (1998): Andalucía, Población y espacio rural. Ministry of Agriculture and Fisheries. Malaga: Andalusian Regional Government and University.

Table 3.6

Designation	Intervals	Interpreting
Regressive	GPR[103] below 0% per year	With negative natural and/or migratory dynamics
Stagnant	GPR. between 0.01 and 1.99% per year	With positive natural dynamics and indifferent migratory dynamics (positive or negative)
Progressive or expansive	GPR between 2 and 4.99% annually.	Corresponds to growth classes by immigration or by natural growth
Accelerated growth	GPR between 5 and 9.99% annually.	Corresponds to the global growth class of C. Ocaña, with rates of less than 10% per year.
Highly accelerated growth	GPR higher than 10% per year	With positive natural and migratory dynamics

Source Own elaboration.

In the AUC, the Cádiz-San Fernando conurbation shows levels of recent retreat that differentiate it from a more dynamic periphery, especially in Puerto Real and Chiclana de la Frontera.

In the AUG, the demographic decline of the capital is accompanied by a very significant global growth in the periphery, both in its northern sector, which highlights the growth of Pulianas and Jun, the closest to the capital, being very notable the growth in the southern sector of the Vega, where there are the highest levels of population growth, leading to fungus growth.

In the AUM, the recent evolution of the central city shows a demographic stagnation, while its periphery presents dynamics of differentiated global growth: of stagnation and recession in the rural municipalities that remain more at the margin of the processes induced from the capital Málaga, and of accelerated global growth and global expansion in the coastal municipalities, and in those traditionally linked to the Malacitana metropolis, Rincón de la Victoria and Alhaurín de la Torre.

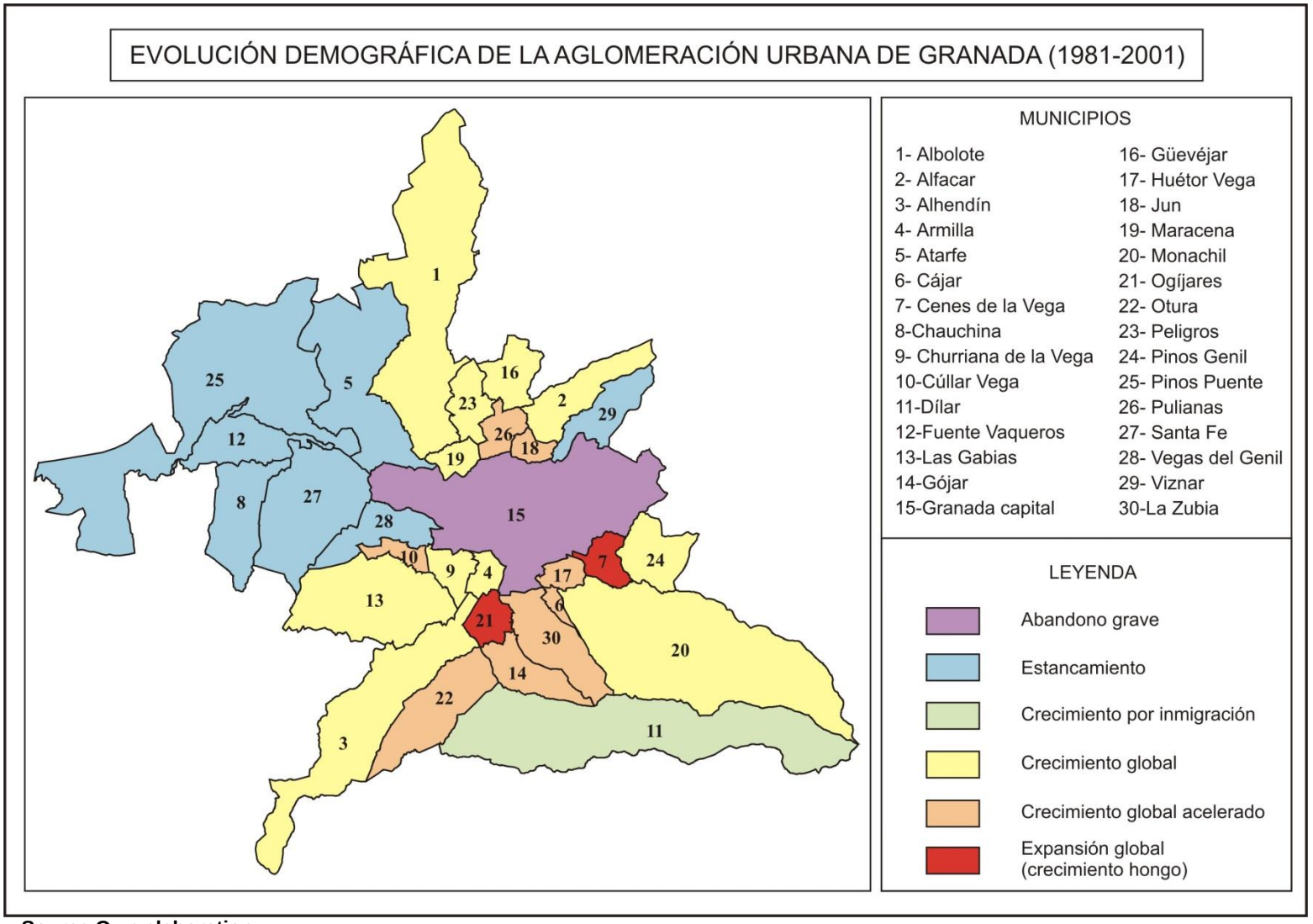
Finally, in the AUS, again highlights the recent decline of the central municipality, which coincides with global and expansive growth in most of the Aljarafe, especially in its central sector. On the other hand, in the Vega and Plataforma de los Alcores, growth becomes more moderate.

In short, the recent demographic evolution of the stagnations or setbacks of the central municipalities coincides with the expansive growth of some municipalities in their periphery, some more than others, although it is not generalizable in all of them.

The hypothesis can therefore be made that this remarkable growth of the peripheries, coinciding in time with stagnation and moderate setbacks in the centres, is closely related.

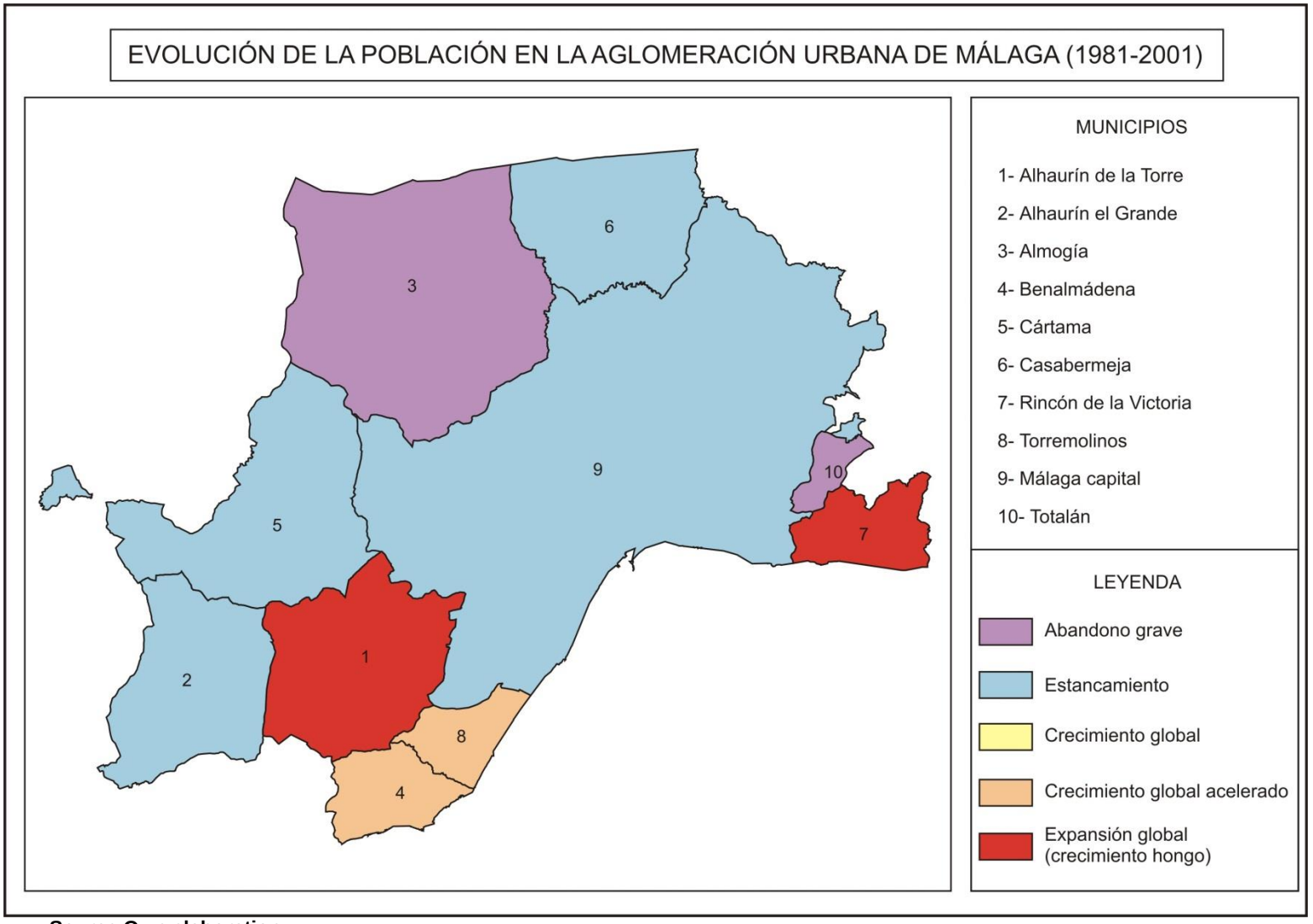
103 Growth Population Rate (%).

MAP 10



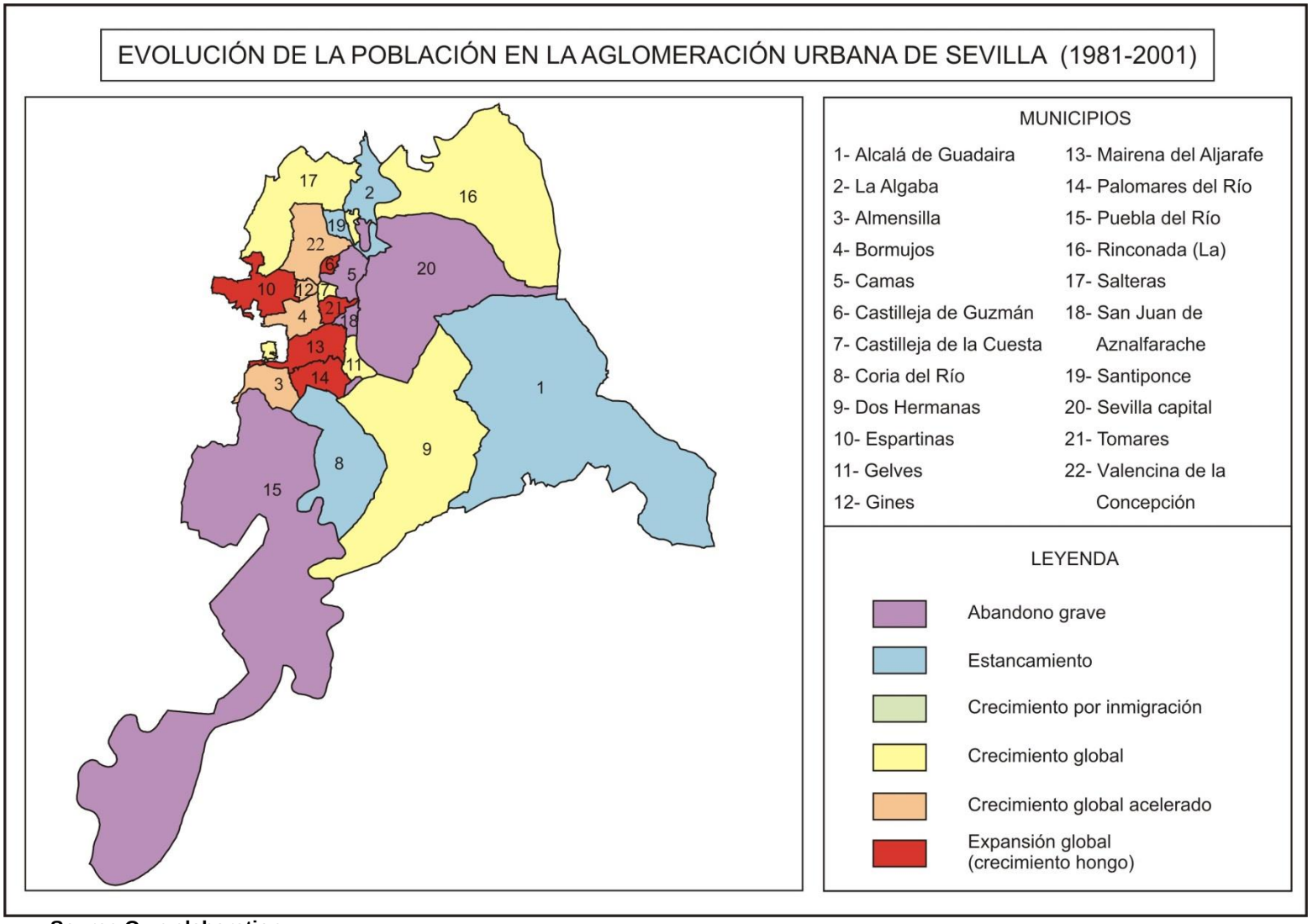
Source Own elaboration.

MAP 11



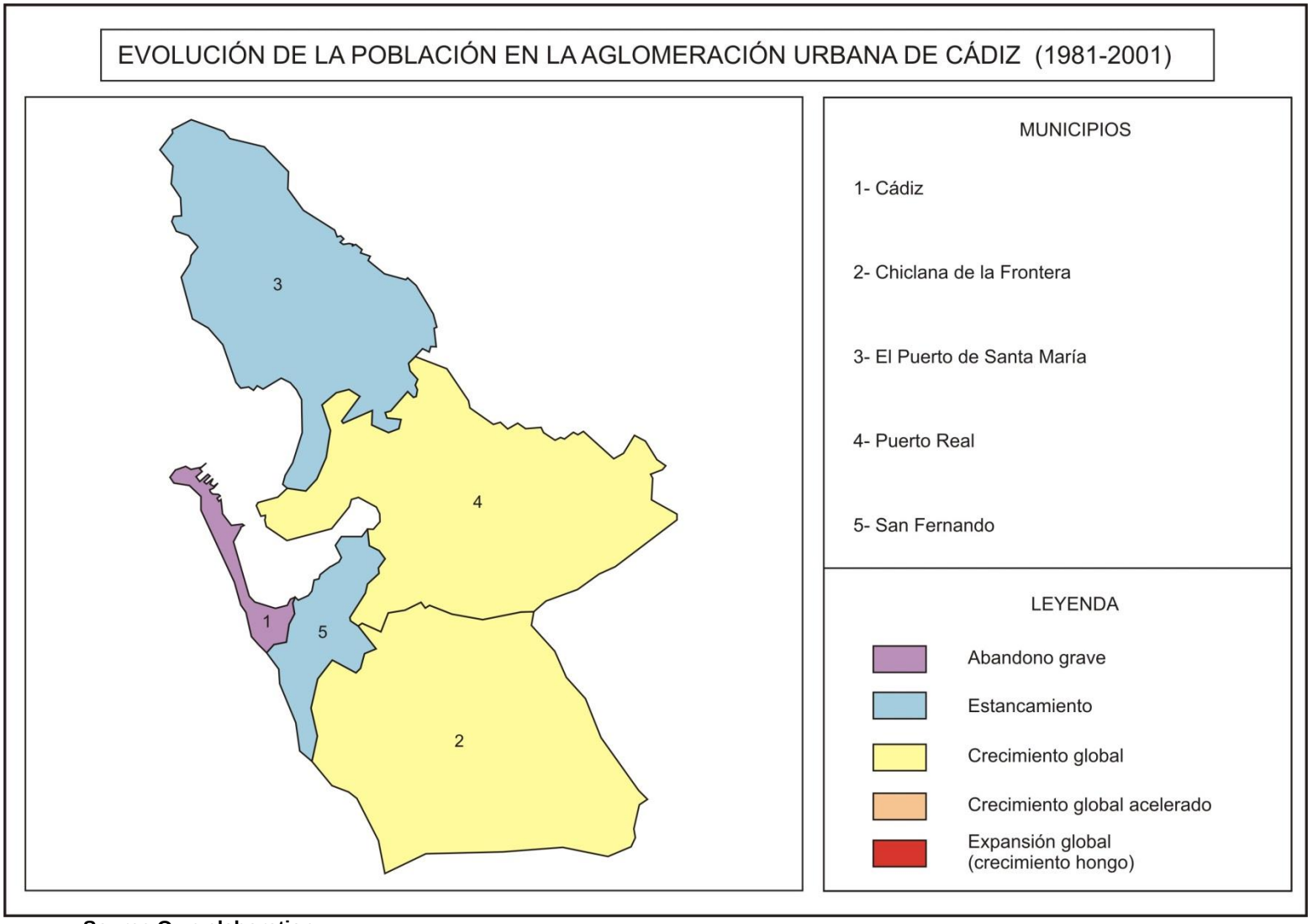
Source Own elaboration.

MAP 12



Source Own elaboration.

MAP 13



Source Own elaboration.

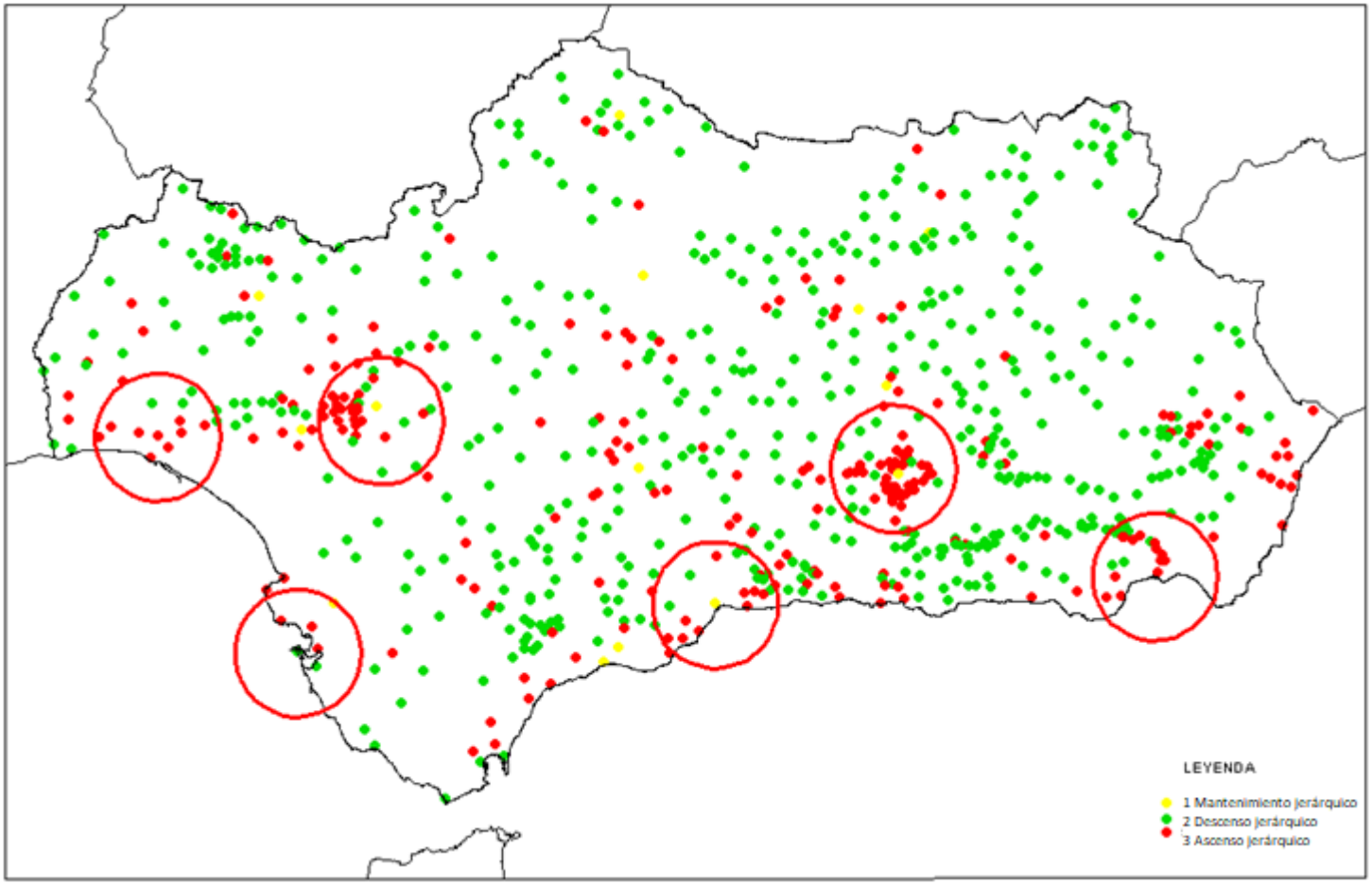
3.1.2. The consequences of population change: recent changes in the rank-size rule in Andalusia.

The observation that something is changing in the Andalusian urban subsystem lies in the hierarchical changes of the urban phenomenon that responds to the growth that, as we have seen, is not uncommon to be accelerated in most cases. This growth is producing significant hierarchical changes. In the map shown below, we have represented all the settlements of Andalusia, and we have assigned a color, depending on the alteration of the hierarchy of settlements between 1981 and 2001. The provincial capitals retain their hierarchical role, with the exception of Cadiz, which descends in hierarchy to the benefit of Jerez. Despite the maintenance, and sometimes population decline of the metropolises, this decline has not produced a hierarchical change in the metropolis of the Andalusian metropolitan areas. Yes, on the other hand, drastic changes occur, especially in the step corresponding to municipalities of a certain demographic size, those that exceed the threshold of 10,000 inhabitants: specifically, these represent a total of 29 of the 124 Andalusian municipalities with a population of less than 100,000 inhabitants but more than 10,000 in 2001, which represents 23% of the total.

In any case, we must not overlook the initial situation, the 1981 hierarchy, which is why the hierarchical leaps have been considerable in a short period of time: from the head of the Andalusian urban subsystem (Dos Hermanas, from hierarchy 13 to 10, Chiclana de la Frontera from 22 to 15, Mairena del Aljarafe from 83 to post 33); to the intermediate sections (Tomares, from 197 to 66, Castilleja de la Cuesta, from 95 to 88, La Zubia, from 173 to 96), up to the lower steps (Gines, from 257 to 123, Bormujos, from 234 to 115), and so on.

In summary, we can conclude that the demographic growth of the periurban municipalities has not contributed to the concentration and increase in the degree of primacy of the capitals, on the contrary, it has led to a strengthening of the network of average Andalusian cities, and, consequently, to hierarchical leaps in a short period of time in the Andalusian urban subsystem.

MAP 14



Source Own elaboration.

3.2. COMPONENTS OF GROWTH.

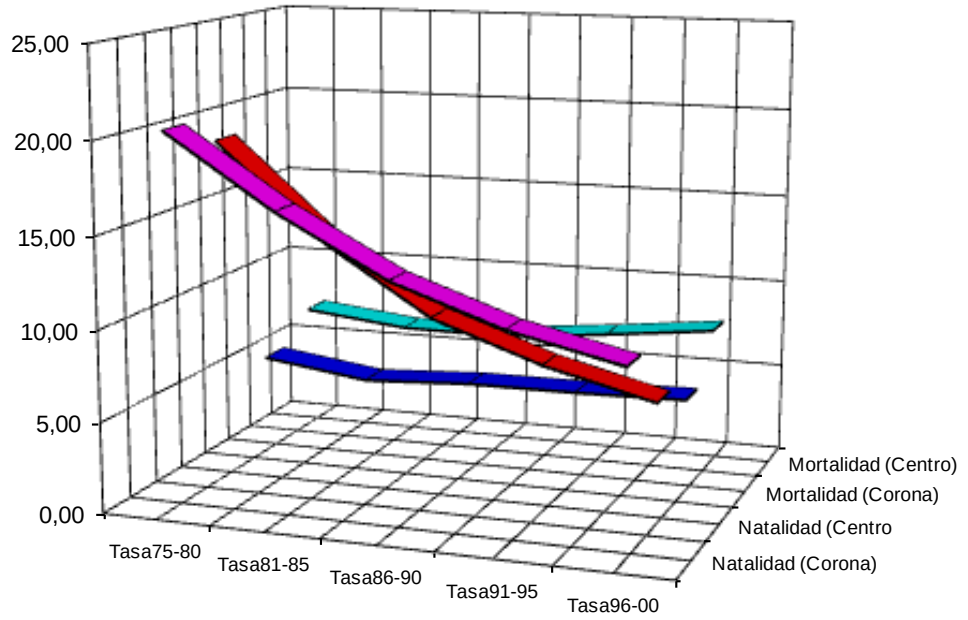
The starting point for the analysis of the components of growth is going to be 1975, because, it is from 1975, when a new stage begins in the official statistics on births and deaths, secondly, because it serves as an inflection point of the population dynamics, thirdly, because a change begins in the dynamics, both natural and migratory.

3.2.1. Natural mobility

We begin the analysis of the components of growth with the study of natural mobility. For the study of natural mobility, we will use as a source the MNP or Natural Movement of the Population of the Institute of Statistics and Cartography of Andalusia. As we can see in the attached graphs (figures 3.2 to 3.5), the starting situation was that of full demographic transition, both for the centres and for the belts, with birth rates higher than 15 per thousand in all of them, and even close to 20 per thousand. The low mortality rates allowed a natural balance of the highest in Spain. However, in addition, the starting situation was more advantageous for the central cities, to the detriment of the belts, as the birth rates were higher in them than in the belts. However, in the period of a quarter of a century, the dynamics have been completely reversed: the central cities have completed the cycle of demographic transition, indeed, even place their mortality rates above birth rates, resulting in a negative natural balance (Cadiz capital). The natural dynamics of the belts, although they have experienced a decline in birth rates, are above the natural dynamics of the centres. But, in addition, there are differences in mortality rates: compared to the slight increase in crude mortality rates in the capitals, there has been a moderate decline in mortality rates in the belts, with the exception of Malaga capital.

In conclusion, there has been a general decline in birth rates in the municipalities of the agglomeration, although this decline has been more serious in the centres, due to the incidence of emigration of young people of the age of having children towards the periphery. On the other hand, the most significant thing has been the decrease in mortality, which has been greater in the belts than in the centres, due to an immigration that has rejuvenated the structure by age. The result has been that the highest natural balance has been transferred from the focus of the centers to the peripheries, which have seen their natural balances increase thanks to the immigration of young people.

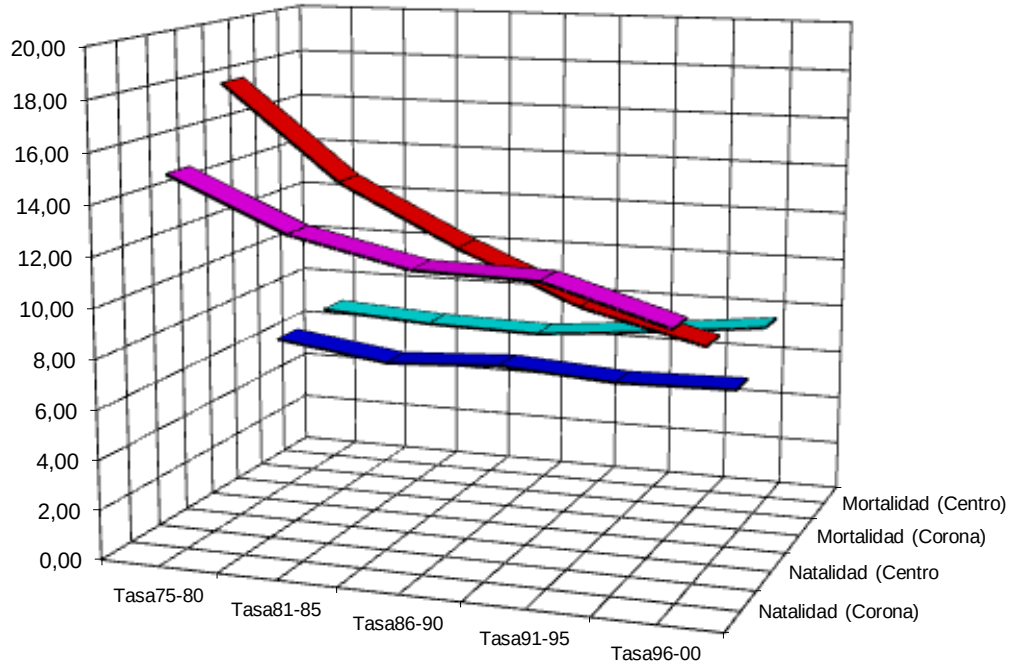
Figure 3.2.
Evolution of growth components in the AUC (1975-2000).



	Tasa75-80	Tasa81-85	Tasa86-90	Tasa91-95	Tasa96-00
Natalidad (Corona)	20,43	16,54	13,38	11,32	9,98
Natalidad (Centro	19,07	13,91	10,14	8,07	6,59
Mortalidad (Corona)	5,51	4,70	5,03	5,07	5,21
Mortalidad (Centro)	7,09	6,45	6,42	7,03	7,73

Source Institute of Statistics and Cartography of Andalusia. Natural Population Movement (1975-2000). Own elaboration.

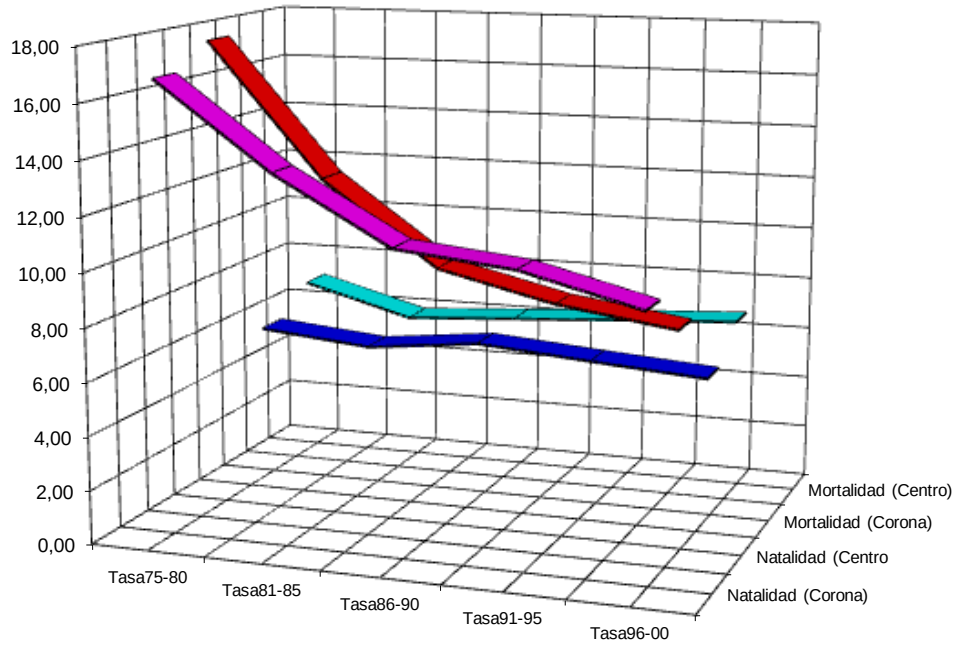
Figure 3.3.
Evolution of growth components in AUG (1975-2000).



	Tasa75-80	Tasa81-85	Tasa86-90	Tasa91-95	Tasa96-00
Natalidad (Corona)	15,10	13,07	12,04	11,96	10,56
Natalidad (Centro	18,03	14,32	12,00	10,03	8,87
Mortalidad (Corona)	6,61	5,97	6,24	5,94	6,06
Mortalidad (Centro)	6,92	6,64	6,56	7,02	7,57

Source Institute of Statistics and Cartography of Andalusia. Natural Population Movement (1975-2000). Own elaboration.

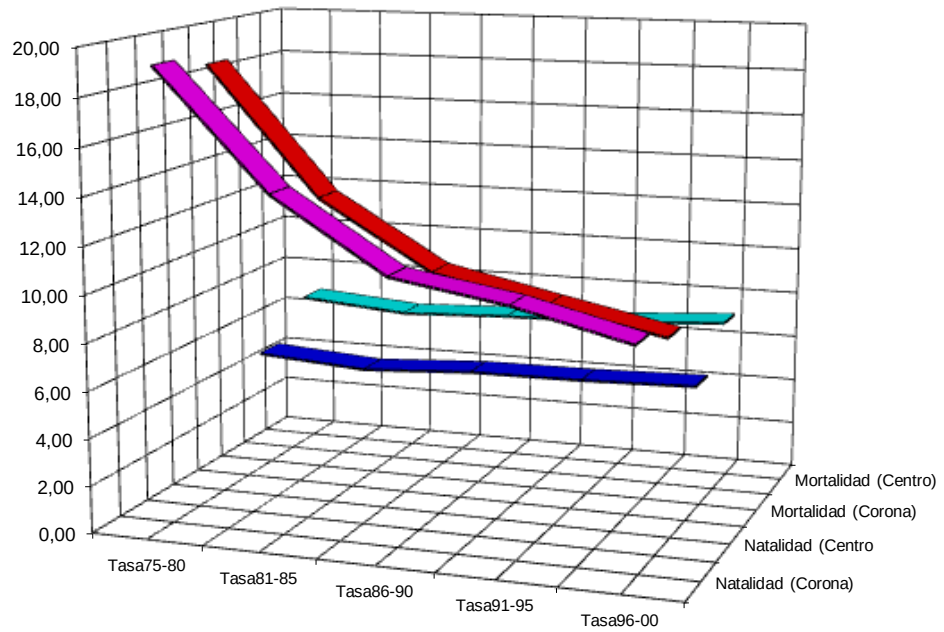
Figure 3.4.
Evolution of growth components in the AUM (1975-2000).



	Tasa75-80	Tasa81-85	Tasa86-90	Tasa91-95	Tasa96-00
Natalidad (Corona)	16,81	13,71	11,34	10,90	9,83
Natalidad (Centro	17,73	12,85	9,83	8,84	8,24
Mortalidad (Corona)	6,01	5,62	6,10	5,77	5,47
Mortalidad (Centro)	7,01	5,87	6,16	6,44	6,69

Source Institute of Statistics and Cartography of Andalusia. Natural Population Movement (1975-2000). Own elaboration.

Figure 3.5.
Evolution of growth components in the AUS (1975-2000).



	Tasa75-80	Tasa81-85	Tasa86-90	Tasa91-95	Tasa96-00
Natalidad (Corona)	19,21	14,30	11,32	10,54	9,38
Natalidad (Centro	18,75	13,38	10,57	9,57	8,59
Mortalidad (Corona)	5,25	4,93	5,22	5,28	5,43
Mortalidad (Centro)	6,85	6,47	6,69	6,79	7,12

Source Institute of Statistics and Cartography of Andalusia. Movimiento Natural de la Población (1975-2000). Own elaboration.

3.2.2. Analysis of the components of growth: the natural and migratory balance in the real growth of the main Andalusian urban agglomerations.

We started the analysis with the urban agglomeration of Granada. The period runs from 1975 to 2000. The data have been compiled in tables that reflect the evolution of the periurban belt and the capital, so that the differences between the two can be clearly appreciated. They are offered in absolute and relative data or rates. The tables we offer (Tables 3.11 to 3.12) are a summary of the recent evolution of the growth components in the AUG. In the initial stage, we started from a higher global growth in the metropolis of Granada than in the rest of the agglomeration. The growth of capital Granada registered a total of 32,412 people of real growth in the five-year period from 1975 to 1980, compared with only 6,596 people in the rest of the agglomeration. Most of the growth comes from natural causes, being the vegetative growth of 18,398 people, which represents a rate of 13.31‰ per year, as opposed to the migratory growth that supposes an overall balance of 14,014 people and a net migration rate of 10.14‰ per year. In contrast, the periphery is growing, but at a much slower rate than the metropolis of Granada, with a negative migration balance. We are, in short, in the initial stage of the urban cycle of Hall and Hay[104]: relative centralisation predominates: the centre and the periphery grow, but more the centre than the periphery. In the period 1981-1985, changes were generated in this dynamic: the belt grew at a faster rate than the centre: 11,930 people in the five-year period, compared to 9,431 people in the capital. It corresponds to a phase of relative decentralization: the center and the periphery grow, but the growth in the periphery is more intense. With respect to the components, the capital grows more by natural balance than migratory, registering a rate of -1,41‰ annual migratory balance, although the vegetative growth allows a moderately positive final balance for the capital. On the periphery, there is a balance between the components of vegetative and migratory growth, although, unlike the capital, the migratory balance exceeds the natural balance.

The period from 1986 to 1990 is one of consolidation of this trend of decentralization: moreover, the degree of decentralization in the metropolis of Granada is such that it loses inhabitants, which is why we are entering a phase of absolute decentralization.

The 1990s marked the consolidation of the previous period: real growth was negative in the capital, with -7.65‰ or -0.76% per annum, losing 9,572 inhabitants in the first five-year period of the 1990s, although it slowed to negligible levels in the second five-year period. On the other hand, the belt continues to grow: from 25,501 people in the first five-year period to 29,243 people in the second five-year period, with sustained rates of over 3% per year. As for the future, it seems uncertain for the metropolis of Granada: the sharp fall in natural increase, due to the repercussions of the emigration of young people of childbearing age, does not seem to indicate a positive evolution in the coming years. In contrast, the belt, which has maintained modest figures, but higher than the capital in natural balance, does not seem to glimpse a stage of interruption of growth, therefore, we deduct a slight decrease in the vegetative balance and a maintenance, in similar or even higher figures, of the positive migratory balance if this trend continues over time.

104 CHESHIRE, P. and HAY, D. (1985): "Problems of decline and growth in European cities". Estudios Territoriales, n. 19 (September-December 1985), pp. 31-34.

Table 3.7

Indicators	Granada capital	First periurban belt
CR[105] 1975-1980	32.412	6.596
CR 1981-1985	9.4131	11.930
CR 1986-1990	-861	15.268
CR 1991-1995	-9.572	25.501
CR 1996-2000	-4.979	29.243
CV[106] 1975-1980	18.398	7.088
CV 1981-1985	11.204	5.018
CV 1986-1990	8.026	4.922
CV 1991-1995	4.301	5.639
CV 1996-2000	1.923	5.053
SM[107] 1975-1980	14.014	-492
SM 1981-1985	-1.773	6.912
SM 1986-1990	-8.887	10.346
SM 1991-1995	-13.873	19.862
SM 1996-2000	-6.902	24.190

Source Own elaboration.

Table 3.8

Annual fees	Granada capital	First periurban belt
TCR 1975-1980 (‰)	23,44	7,72
TCR 1981-1985 (‰)	7,50	18,75
TCR 1986-1990 (‰)	-0,67	21,66
TCR 1991-1995 (‰)	-7,64	31,57
TCR 1996-2000 (‰)	-4,10	30,93
TCV 1975-1980(‰)	13,31	8,29
TCV 1981-1985 (‰)	8,91	7,89
TCV 1986-1990 (‰)	6,28	6,98
TCV 1991-1995 (‰)	3,43	6,98
TCV 1996-2000 (‰)	1,58	5,34
TMN 1975-1980 (‰)	10,14	-0,58
TMN 1981-1985 (‰)	-1,41	10,86
TMN 1986-1990(‰)	-6,95	14,67
TMN 1991-1995 (‰)	-11,08	24,59
TMN1996-2000 (‰)	-5,68	25,58

Source Own elaboration.

105 Absolute growth of population.

106 Natural Increase Rate,

107 Migratory Balance.

Figure 3.6
Annual real growth rates (‰) in the agglomeration of Granada (1975-2000).

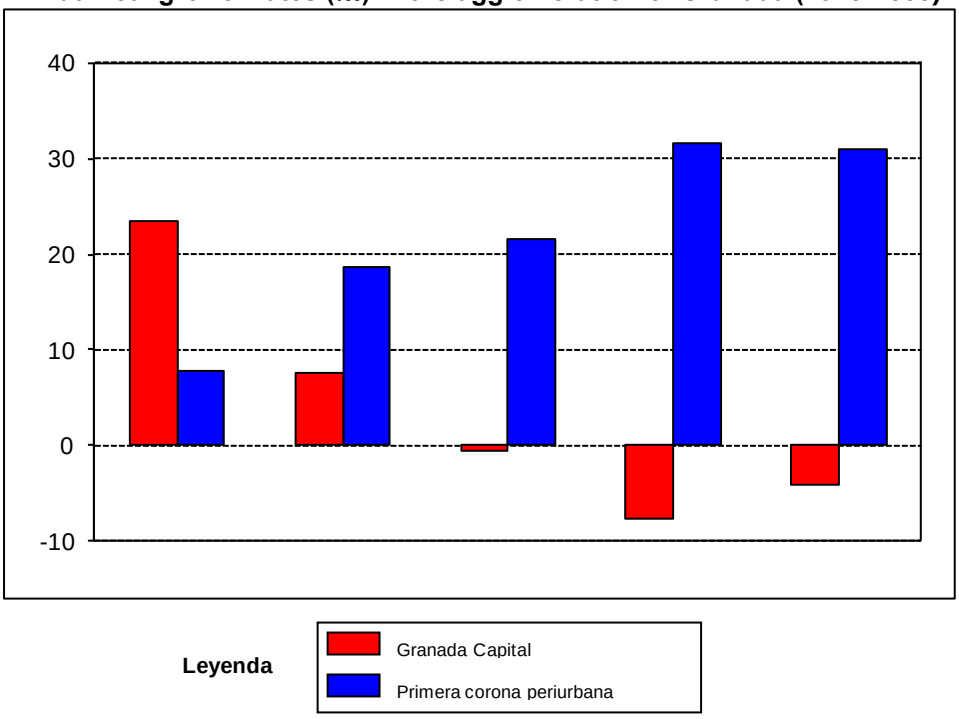


Table 3.9

Indicators	Seville capital	First periurban belt
CR 1975-1980	32.412	6.596
CR 1981-1985	9.4131	11.930
CR 1986-1990	-861	15.268
CR 1991-1995	-9.572	25.501
CR 1996-2000	-4.979	29.243
CV 1975-1980	18.398	7.088
CV 1981-1985	11.204	5.018
CV 1986-1990	8.026	4.922
CV 1991-1995	4.301	5.639
CV 1996-2000	1.923	5.053
SM 1975-1980	14.014	-492
SM 1981-1985	-1.773	6.912
SM 1986-1990	-8.887	10.346
SM 1991-1995	-13.873	19.862
SM 1996-2000	-6.902	24.190

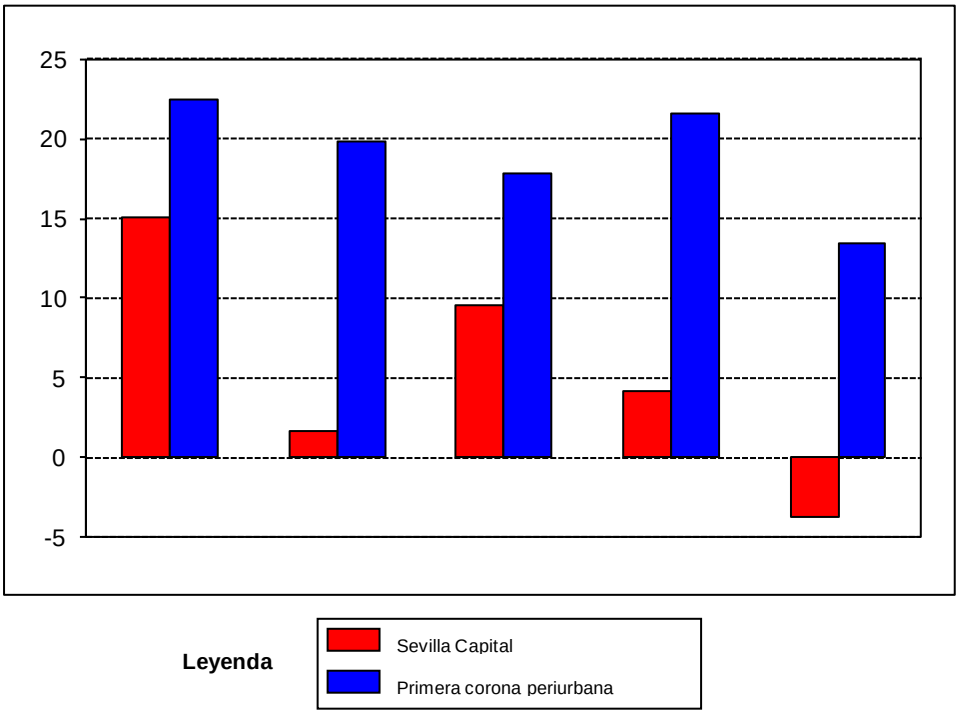
Source Own elaboration.

Table 3.10

Annual fees	Seville capital	First periurban belt
TCR 1975-1980 (‰)	15,13	22,55
TCR 1981-1985 (‰)	1,62	19,81
TCR 1986-1990 (‰)	9,58	17,79
TCR 1991-1995 (‰)	4,19	21,60
TCR 1996-2000 (‰)	-3,72	13,41
TCV 1975-1980(‰)	14,04	16,81
TCV 1981-1985 (‰)	7,86	10,84
TCV 1986-1990 (‰)	4,47	9,73
TCV 1991-1995 (‰)	3,06	6,13
TCV 1996-2000 (‰)	1,11	2,81
TMN 1975-1980 (‰)	1,09	5,75
TMN 1981-1985 (‰)	-6,23	8,97
TMN 1986-1990(‰)	5,11	8,06
TMN 1991-1995 (‰)	1,13	15,47
TMN1996-2000 (‰)	-4,83	10,61

Source Own elaboration.

Figure 3.11
Annual real growth rates (‰) in the agglomeration of Seville (1975-2000).



With respect to the AUS, in its initial stage we start from a higher growth in absolute values in the metropolis (table 3.13). Nevertheless, if we consider the relative values, the growth of the first periurban belt is higher than that of the central city, with an annual growth rate of 2.26% compared to 1.51% for the Sevillian metropolis. This is due to the greater degree of maturity reached in the central city, since, unlike the AUG, Seville capital starts the period with a weak migratory balance of 1,09‰, a reduced rate, although the net migration rate of the belt was also quite moderate, at 5,75‰ per year. The natural balance is the one that explains most of the growth of these two geographical areas, with annual vegetative growth rates of 14-16‰ in both cases. In short, in this initial stage, the metropolis grows and the periphery grows, although more the belt than the

metropolis, we are in a phase of relative decentralisation following the urban growth model of Hall and Hay. The first quinquennium of the eighties supposes the beginning of the emigration or urban exodus, the migratory rates become negative in the central city, with an annual -6,23‰, opposite to the annual 8,97‰ in the periphery. Thus, relative decentralization is sharpening and total growth is slowing considerably in the capital of Seville.

However, real growth continues, albeit weak, in the centre, thanks to the fact that the natural balance compensates for the losses due to the migratory balance. In the second five-year period of the 1980s there was a momentary recovery of the centre, a momentary recovery because it would not have continuity in time. There are already clear differences in the natural balance between metropolis and belt, so that the natural balance is 4,47‰ annual in the center and 9,73‰ in the periphery, as a result of the decline in fertility in the capital by the emigration of young people at potentially fertile ages. The decade of the nineties is the consolidation of the retreat of the Sevillian metropolis and the growth of its periphery. One tends from a phase of weak decentralization relative to absolute decentralization, since the second quinquennium of the nineties ends with losses in the metropolis. In this period, a very weak natural balance, of the 1,11‰ annual can no longer compensate the losses by emigration, of the -4,83‰ annual. The krona has also seen its natural balance fall significantly, although it maintains, at a slower pace, the favourable evolution of the migratory balance, with average rates of 10.81‰ per year.

To sum up, the evolution in the indicated period marks a tendency of relative decentralization, to an absolute decentralization, by the strong reduction of the natural balance in the center, smaller in the periphery; that cannot compensate the losses by a migratory balance that concludes with negative figures at the end of the period (table 3.14).

Table 3.12

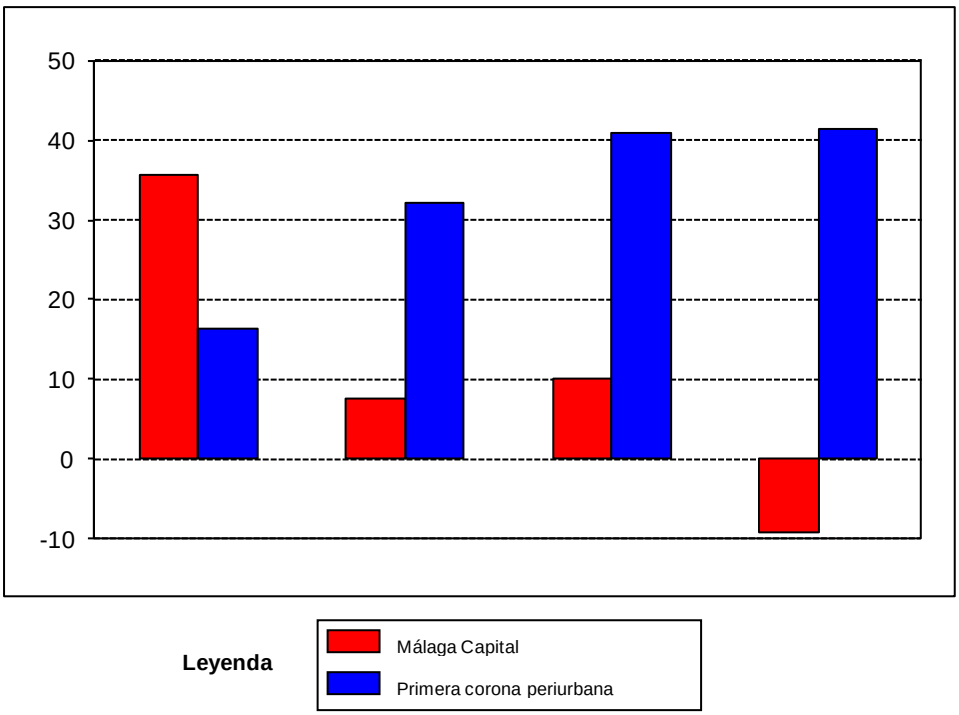
Indicators	Malaga capital	First periurban belt
CR 1975-1980	94.442	7.342
CR 1981-1990	38.261	30.632
CR 1991-1995	27.027	25.306
CR 1996-2000	-24.721	31.475
CV 1975-1980	35.143	4.572
CV 1981-1990	31.098	7.159
CV 1991-1995	7.307	3.459
CV 1996-2000	5.086	3.574
SM 1975-1980	59.299	2.770
SM 1981-1990	7.163	23.473
SM 1991-1995	19.720	21.847
SM 1996-2000	-29.807	27.901

Source Own elaboration.

Table 3.13

Annual fees	Malaga capital	First periurban belt
TCR 1975-1980 (‰)	35,56	16,41
TCR 1981-1990 (‰)	7,47	32,05
TCR 1991-1995 (‰)	10,09	40,97
TCR 1996-2000 (‰)	-9,21	41,43
TCV 1975-1980 (‰)	13,23	10,22
TCV 1981-1990 (‰)	6,07	7,49
TCV 1991-1995 (‰)	2,73	5,60
TCV 1996-2000 (‰)	1,90	4,70
TMN 1975-1980 (‰)	22,33	6,19
TMN 1981-1990 (‰)	1,40	24,56
TMN 1991-1995 (‰)	7,36	35,37
TMN1996-2000 (‰)	-11,11	36,73

Figure 3.8
Annual real growth rates (‰) in the Málaga agglomeration (1975-2000).



In the AUM, the beginning of the period analyzed is characterized by a process of relative centralization: a high growth in the metropolis of Malaga, with annual rates of 3.55% in the second five-year period of the seventies. Net migration rates were higher than vegetative growth rates, although in the agglomeration as a whole, the highest vegetative growth rates corresponded to the metropolis. In the belt, growth is weak, with higher rates of vegetative growth than net migration.

In the eighties the capital grew at a much slower rate than the belt, deducting the impact of the unbundling of Torremolinos de Málaga capital in the middle of the decade. The rates of net migration are higher than those of the belt, with a rate of 32,05‰ annual against 1,40‰ of the metropolis. This results in a higher real growth rate in the belt than in the metropolis. We would be in a phase of relative decentralization, it being the case that, for the first time, the natural balance of the periphery surpasses that of the metropolis of Malaga due to the consequences of an immigration linked to the tourist sector in the Costa del Sol municipalities. In the first five years of the nineties, the trend towards greater peripheral growth was consolidated. Relative

decentralization occurred with a slight increase in rates in the capital, where it grew again at rates of over 1% per year, surpassing the natural balance of the centre to that of the periphery. In the last five-year period analysed, there has been a move towards absolute decentralisation (Table 3.16). The real growth in the center differs again with respect to the belt: -9,21‰ annual versus 41,43‰ of the belt. The weak natural balances are not the cause of these figures, but the increase in the migratory balance. The migratory balance of the center is negative, with an annual rate of -11,1‰ against 36,73‰ of the belt. In addition, the figures for the migration balance are similar, with a negative balance of 29,807 persons in the belt, very similar to, but with a positive sign, those of the periphery, which ended the period with a migration balance of 27,901 persons. The high statistical significance between the emigration of the centres and the immigration of the peri-urban belts is demonstrated.

Table 3.14

Indicators	Cádiz capital	First periurban belt
CR 1975-1980	15.849	24.819
CR 1981-1985	-1.412	21.054
CR 1986-1990	-952	18.140
CR 1991-1995	-8.752	16.985
CR 1996-2000	-12.232	16.708
CV 1975-1980	12.745	18.802
CV 1981-1985	6.673	13.694
CV 1986-1990	3.230	10.645
CV 1991-1995	729	8.453
CV 1996-2000	-505	4.198
SM 1975-1980	3.104	6.017
SM 1981-1985	-8.085	7.360
SM 1986-1990	-4.182	7.495
SM 1991-1995	-9.481	8.532
SM 1996-2000	-11.727	12.510

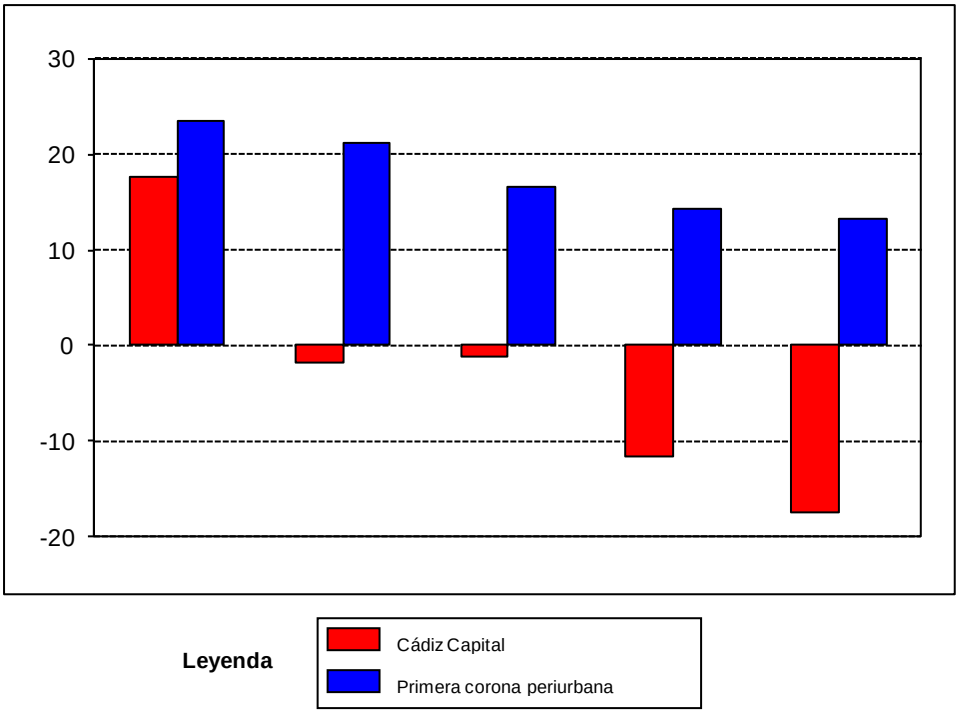
Source Own elaboration.

Table 3.15

Indicators	Cádiz capital	First periurban belt
CR 1975-1980	17,75	23,53
CR 1981-1985	-1,81	21,19
CR 1986-1990	-1,23	16,61
CR 1991-1995	-11,67	14,40
CR 1996-2000	-17,54	13,22
CV 1975-1980	14,28	17,82
CV 1981-1985	8,55	13,78
CV 1986-1990	4,17	9,75
CV 1991-1995	0,97	7,17
CV 1996-2000	-0,72	3,32
SM 1975-1980	3,48	5,70
SM 1981-1985	-10,37	7,41
SM 1986-1990	-5,40	6,86
SM 1991-1995	-12,64	7,23
SM 1996-2000	-16,82	9,90

Source Own elaboration.

Figure 3.9
Annual real growth rates (‰) in the Cádiz agglomeration (1975-2000).



We conclude the analysis of the components in the different agglomerations with the Cadiz agglomeration (Tables 3.17 to 3.18). We start from the values of a relative centralization, grow center and periphery but more the periphery than the center, especially by the natural balance, with an annual 17,82‰ in the second five-year period of the seventies against the modest 5,70‰ annual migratory balance. The decade of the eighties is one of absolute decentralization: the center decreases, the periphery grows, but with levels that do not yet allow to speak of a decentralization during the loss, because the growth of the whole functional region is positive. The natural balance decreases significantly in the centre and, to a lesser extent, in the periphery which, in global values, grows more than the centre, thanks to the natural balance. The second five-year period of the 1980s is one of continuity, although what is most notable is the sharp fall in the natural balance of the capital, which has reduced its possibilities for growth, although the migratory balance decreases at a slower rate than the previous period. The periphery of Cadiz continues to grow, although the tendency to equalize the figures of the migratory balance and the natural balance will be consolidated until the end of the period analyzed. In the first five years of the nineties, the capital could not stop a significant fall in its real growth, consolidating the absolute decentralization of the center of the previous period. The most striking thing is the strong loss of the natural balance which stands at 0.97‰ per year in this five-year period, as opposed to 7.17‰ in the belt. The last period is one of evolution towards a phase of greater maturity of the agglomeration: decreases in absolute and relative values the natural balance in the capital, but so does the hinterland, to the point that the growth of the hinterland cannot be compensated with the decrease of the center, and the absolute balance is of loss of inhabitants of the urban region, so that the agglomeration enters the decentralization during the loss according to the theory of the urban growth cycle of Hall and Hay[108]with negative values of natural balance and high urban exodus: from -0,72‰ and -16,82‰ respectively annual.

108 Ibid., p. 33.

In short, the evolution tends to be identical in the agglomerations mentioned: the starting point is real growth, natural balance and migratory balance above the provincial and regional average in the central city, to become, in a more or less continuous way, the emitting centres of a population that chooses, in an unequal way and at differentiated times, areas of the periphery as its place of residence. The result is that these municipalities are growing less due to natural causes (due to birth restrictions, although they are accompanied by very low mortality rates as a consequence of the rejuvenation of their structures by age due to the incorporation of a younger immigrant population); that due to migratory causes, by incorporating an immigration current coming from the capital that is producing in the metropolis a significant reduction in the natural and migratory balances and an ageing in its structures by age.

This conclusion must be confirmed through the analysis of the migratory movement of these agglomerations.

4.3. MIGRATORY MOBILITY.

The migratory growth in the main Andalusian urban agglomerations should be approached through estimated data, by means of the basic demographic equation, but also by direct sources, coming from aggregate data from the Andalusian Institute of Statistics and Cartography: the Residential Variations Statistics between two census moments: 1991 and 2001.

From the point of view of the estimated balance we show the information in figure 3.10. In it, the coincidence of the moments of positive migratory balance in the municipalities of the Cadiz agglomeration stands out. In Cadiz, the starting point in the capital was a positive balance of 3,104 people in the five-year period from 1975 to 1980 for, in later stages, experiencing a considerable slowdown, ending with a negative balance of -21,208 people. While this happens in the central municipality, in the rest of the agglomeration the balances are positive and growing, since 1975, to end with a balance almost identical, but of different sign that the central municipality: +21,042 people. This data reflects the nature of the migratory processes: the emitting focus is the central municipality and the receiving focus of this migratory current is the metropolitan belt.

In the case of the urban agglomeration of Granada we start from a positive migratory balance in the capital of +14,014 people in the five-year period from 1975 to 1980, ending with negative balances in the decade of the eighties: -7,114 people. Finally, in the decade of the nineties the maximum levels of urban emigration were observed with -20,775 of negative migratory balance, a part of this balance has as destination the municipalities of the Vega de Granada, whose migratory balance turns out to be +44,226 people.

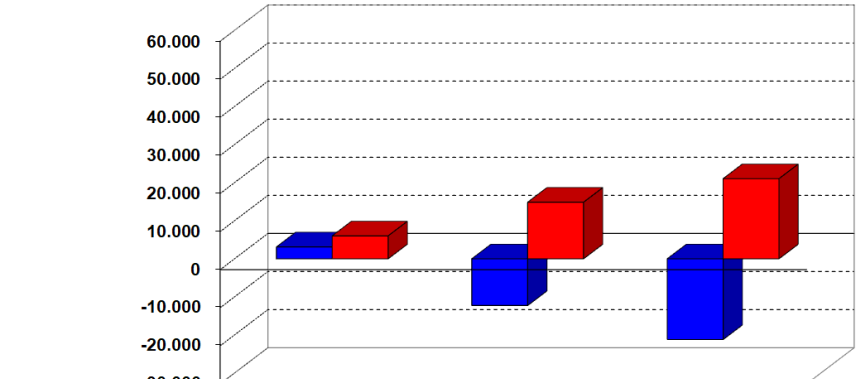
The dynamics do not differ in the major urban agglomerations, Malaga and Seville. That of Malaga presents an overall balance of the largest of the central cities between 1975 and 1980 of +58,631 estimated migratory balance in said period. Between 1981 and 1991 this balance, after deducting the impact of the Torremolinos breakdown (which has been taken into account so as not to artificially inflate the figures), reached a balance of +7,163 people. But, finally, in the decade of the nineties we can speak of a change of sign of the migratory balances, when passing to -10.087 people, which together with the reduction of the natural balance are responsible for the stagnation of the demographic growth of the regional metropolis of Malaga in the decade of the nineties. Faced with the sharp reduction in the positive balance in the last quarter of a century, the Malaga krona has seen growth induced by a positive migratory balance strengthened by a natural balance even higher than that of the capital, so that population growth has moved from the centre to the periphery.

Finally, the urban agglomeration of Seville presents a weak migratory balance in the second five-year period of the seventies in contrast to the high immigration levels of the Malacitana metropolis, which is an indicator of the greater maturity of the metropolitan fact in the capital of the autonomous community of Andalusia, although the evolution is similar to the Malacitana

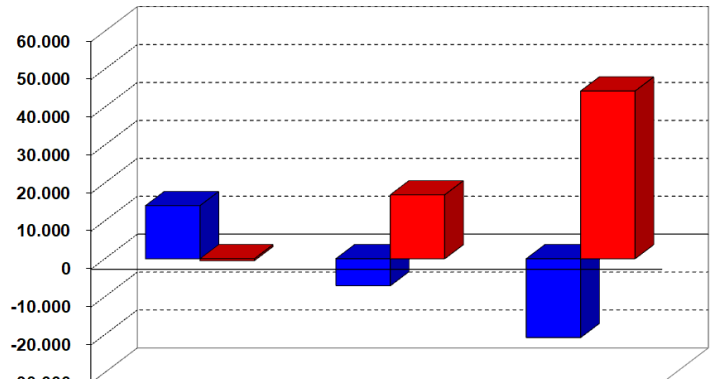
metropolis. In the periphery, on the other hand, the migratory balance is positive and growing throughout the two decades.

In short, the estimated migratory balances lead us to the conclusion that there are sufficient indications that lead us to relate the emigration of the centres and the notable immigration of the peripheries in the agglomerations analysed. In order to contrast this data, it is appropriate to confirm this thesis with the registered data, where we can study the origin of these migratory flows.

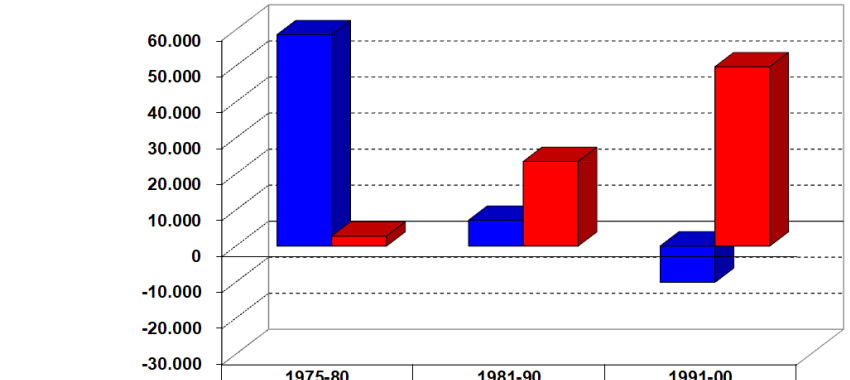
Figure 3.10
Evolution of the estimated migratory balance in Andalusian urban agglomerations (1975-2000).



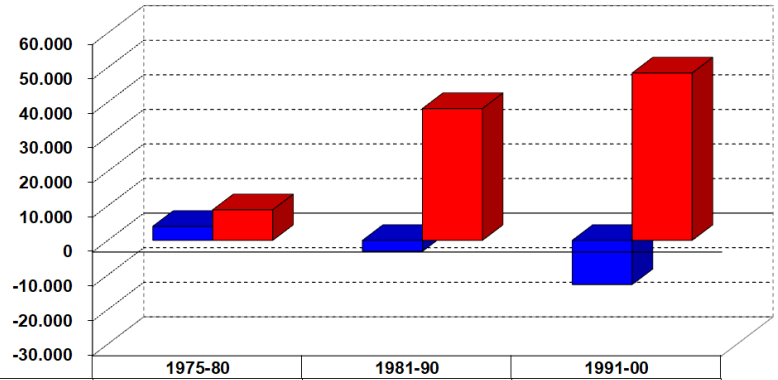
	1975-80	1981-90	1991-00
Cádiz	3.104	-12.267	-21.208
Resto de aglomeración	6.017	14.855	21.042



	1975-80	1981-90	1991-00
Granada	14.014	-7.114	-20.775
Resto de aglomeración	-492	16.861	44.226



	1975-80	1981-90	1991-00
Málaga	58.631	7.163	-10.087
Resto de aglomeración	2.770	23.473	49.748



	1975-80	1981-90	1991-00
Sevilla	4.050	-3.169	-12.767
Resto de aglomeración	8.836	38.134	48.413

Source Own elaboration.

3.3.1. Characteristics of recent immigration.

We use as a source the immigration and emigration registered in Andalusia between 1991 and 2000, accounted for by the Institute of Statistics and Cartography of Andalusia in the Residential Variations Statistic.

3.3.1.1. Volume.

As expected, negative balances in the central cities and positive migratory balances in the belts are predominant. The net balance is very similar in metropolises, with volumes between -18,000 and -21,000 of migratory balance. With respect to the belts, the balances oscillate according to the demographic size of the agglomeration, being smaller in the belt of Cadiz and maximums in Seville and Malaga. Of the 52,495 immigrants in the Cádiz belt, 15,481, 29.49% came from the central city. This percentage rises to 48.26% in the belt of Granada, and oscillated around 45% in the belts of Malaga and Seville. This shows that, although urban migration has an indisputable weight, it is far from total. With this, it would be necessary to ask which are the other origins of the registered migrations, aspect that we will develop next.

Table 3.16
Volume of registered migrations[109] (1991-2000).

Agglomeration	METROPOLIS			PERI-URBAN AREA		
	Inmig.	Emig.	Recorded balance	Inmig.	Emig.	Recorded balance[110]
AUC	12.579	30.790	-18.764	52.495	38.192	+13.004
AUG	42.458	65.238	-22.780	67.901	40.057	+27.844
AUM	55.410	73.028	-24.850	67.960	30.577	+28.940
AUS	79.539	100.841	-21.302	105.240	69.189	+36.051

Source Institute of Statistics and Cartography of Andalusia. Residential Variations Statistics (1991-2000). Own elaboration.

3.3.1.2. Origin of population.

In relation to origin, we have broken down into various categories the information available in the Residential Variations Statistics provided in computer support by the Andalusian Institute of Statistics and Cartography. At the same time, we show the aggregated data, according to geographical areas of each agglomeration, whose tables we offer, together with their cartographic representation, in an aggregated way, in percentages. The intention with it is to show information that can be represented, and is legible, for the purposes of its cartographic representation, as well as to appreciate, with greater clarity, the differences according to areas.

109 Foreign emigration is excluded because it is not considered in the sources consulted.

110 In Malaga, the total migratory balance, considered foreign immigrants and excluding foreign emigrants, was +37,383 persons in the same period.

The geographical areas have been delimited, through the consultation of diverse documentary sources, such as the work of Menor Toribio (2000) and Delgado Bujalance (2004). At the same time, we have used other sources, for the urban agglomeration of Seville (1989), Bay of Cadiz (2002), and agglomeration of Malaga (1995)[111], respecting the municipal delimitation carried out by the Junta de Andalucía in 1994, and regrouped, to operative effects, in geographical areas, attending to criteria of geographical homogeneity and differentiating of these to the metropolis or capitals.

Table 3.17
Delimitation of large geographical areas in the main Andalusian urban agglomerations.

Geographical area	Municipalities
Bay of Cadiz-North	Puerto de Santa María.
Bay of Cádiz-Centro	San Fernando, Puerto Real.
Bay of Cadiz-South	Chiclana de la Frontera.
Vega de Granada-Norte	Albolote, Alfacar, Atarfe, Güevéjar, Jun, Maracena, Peligros, Pulianas, Víznar.
Vega Media of Granada	Chauchina, Fuente Vaqueros, Pinos Puente, Santa Fe.
Vega de Granada-Sur	Alhendín, Armilla, Cájar, Cenes de la Vega, Cúllar Vega, Churriana de la Vega, Dílar, Las Gabias, Gójar, Huétor Vega, Monachil, Ogíjares, Otura, Pinos Genil, Vegas del Genil, La Zubia.
East Coast of Malaga	Rincón de la Victoria.
Málaga West Coast	Benalmádena, Torremolinos.
Málaga Mountains	Almogía, Casabermeja, Totalán.
Vega del Guadalhorce	Alhaurín de la Torre, Alhaurín el Grande, Cártama.
North Escarpment of Aljarafe	Castilleja de Guzmán, Espartinas, Santiponce, Salteras, Valencina de la Concepción.
Central Escarpment of Aljarafe	Bormujos, Camas, Castilleja de la Cuesta, Gelves, Gines, Mairena del Aljarafe, Tomares, San Juan de Aznalfarache.
South Escarpment of Aljarafe	Almensilla, Coria del Río, Palomares del Río, Puebla del Río.
The Alcores	Alcalá de Guadaira, Dos Hermanas.
Vega of Seville	La Algaba, La Rinconada.
Capital	Cadiz, Granada, Malaga, Seville.

Source Own elaboration.

111 OCAÑA OCAÑA, C. (1995): Málaga, población y espacio metropolitano. Malaga: University, 201 p.

Table 3.18
Registered immigration in the main Andalusian urban agglomerations. By geographical areas (1991-2000).

Geographical area	Capital	Rest of the province	Rest of Andalusia	Rest of Spain	Foreigner	Total
Bay of Cadiz-North	1.715	3.640	2.162	4.959	488	12.964
Bay of Cádiz-Centro	9.695	4.569	2.026	6.571	454	23.315
Bay of Cadiz-South	4.071	7.144	1.480	3.164	357	16.216
Cádiz capital	-	6.110	1.863	4.053	553	12.579
Vega de Granada-Norte	8.136	5.159	1.602	2.332	316	17.545
Vega de Granada-Sur	20.872	10.408	2.872	4.483	755	39.390
Vega Media of Granada	901	1.857	539	1.412	331	5.040
Granada capital	-	17.968	13.124	11.366	1.191	43.649
East Coast of Malaga	9.188	1.375	1.223	1.665	920	14.371
Málaga West Coast	11.022	7.823	4.132	7.126	6.806	36.909
Málaga Mountains	890	344	55	143	123	1.555
Vega del Guadalhorce	9.319	2.943	652	1.617	594	15.125
Malaga capital	-	20.366	11.180	16.632	7.232	55.410
North Escarpment of Aljarafe	4.526	3.728	638	825	184	9.901
Central Escarpment of Aljarafe	18.887	18.374	4.765	5.706	713	48.445
South Escarpment of Aljarafe	2.189	4.503	568	1.069	269	8.598
The Alcores	15.979	4.787	3.395	5.121	549	29.831
Vega of Seville	4.492	1.926	724	1.159	164	8.465
Seville capital	-	17.968	13.124	11.366	1.191	43.649
TOTAL	121.882	140.992	66.124	90.769	23.190	442.957

Table 3.19
Registered emigration in the main agglomerations andalusian urban areas by areas (1991-2000).

Geographical area	Capital	Rest of the province	Rest of Andalusia	Rest of Spain	Total
Bay of Cadiz-North	415	2.471	1.825	5.457	10.168
Bay of Cádiz-Centro	3.172	8.506	2.303	7.503	21.484
Bay of Cadiz-South	765	2.497	1.047	2.231	6.540
Cádiz capital	-	18.700	3.538	8.552	30.790
Vega de Granada-Norte	2.418	4.652	1.289	1.909	10.268
Vega de Granada-Sur	5.044	8.618	1.952	3.253	18.867
Vega Media of Granada	809	2.054	629	1.651	5.143
Granada capital	-	39.301	12.388	13.549	65.238
East Coast of Malaga	2.524	1.118	406	800	4.848
Málaga West Coast	3.653	7.756	2.164	4.138	17.711
Málaga Mountains	657	446	48	134	1.285
Vega del Guadalhorce	2.323	2.843	452	1.115	6.733
Malaga capital	-	45.831	9.889	17.308	73.028
North Escarpment of Aljarafe	1.221	2.394	254	498	4.367
Central Escarpment of Aljarafe	8.178	20.594	2.941	4.584	36.297
South Escarpment of Aljarafe	1.063	3.660	548	1.148	6.419
The Alcores	5.382	4.229	2.826	5.350	17.787
Vega of Seville	1.404	1.320	497	1.098	4.319
Seville capital	-	58.207	17.410	25.224	100.841
TOTAL	39.028	235.197	62.406	105.502	442.133

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales. Aggregated data. Own elaboration.

Table 3.20
Migratory balances recorded in the main Andalusian urban agglomerations. By geographical area of operation (1991-2000).

Geographical area	Capital	Rest of the province	Rest of Andalusia	Rest of Spain	Total
Bay of Cadiz-North	1.300	1.169	337	- 498	2.308
Bay of Cádiz-Centro	6.523	- 3.937	- 277	- 932	1.377
Bay of Cadiz-South	3.306	4.647	433	933	9.319
Cádiz capital	-	- 12.590	- 1.675	- 4.499	- 18.764
Vega de Granada-Norte	5.718	507	313	423	6.961
Vega de Granada-Sur	15.711	1.694	886	1.162	19.453
Vega Media of Granada	209	- 101	- 56	- 171	- 119
Granada capital	-	- 21.333	736	-2.183	- 22.780
East Coast of Malaga	6.664	257	817	865	8.603
Málaga West Coast	7.369	67	1.968	2.988	12.392
Málaga Mountains	233	- 102	7	9	147
Vega del Guadalhorce	6.996	100	200	502	7.798
Malaga capital	-	- 25.465	1.291	- 676	- 24.850
North Escarpment of Aljarafe	3.305	1.334	384	327	5.350
Central Escarpment of Aljarafe	10.709	- 2.220	1.824	1.122	11.435
South Escarpment of Aljarafe	1.126	843	20	- 79	1.910
The Alcores	10.597	558	569	- 229	11.495
Vega of Seville	3.088	606	227	61	3.982
Seville capital	-	- 28.936	4.196	- 1.621	- 26.361
TOTAL	82.854	- 82.902	12.200	- 2.496	9.656

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Own elaboration.

The total immigration recorded between 1991 and 2001 was, in the agglomerations analysed as a whole, 442,957 immigrants, including, in this case, foreign immigration. The total number of registered emigrants, excluding foreign emigration, was 442,133 emigrants. Considering the origins, the most important volume of immigrants was registered among the immigrants coming from the rest of the province, with 140,992 persons, representing 31.8% of the total of immigrations, followed by those coming from the capital, a total of 121,882 immigrants, 27.5% of the total. Also relevant was immigration from the rest of Spain, with a total of 90,769 registered immigrants, with 20.5% of total immigration; that from the rest of Andalusia, with a total of 66,124 immigrants, 14.9%, while those from abroad accounted for 23,190 immigrants, 5.2% of the total.

In relation to registered emigration, excluding foreign emigration, there were 442,133 emigrants, with which, theoretically, there would be an equilibrium in the migratory balance registered in the group of agglomerations analyzed. The most emigratory areas correspond to the provincial capitals, in order of increasing importance, highlighted Cadiz capital, with 30,790 registered emigrants, Granada capital, with 65,238 registered emigrants, Malaga capital, with 73,028 emigrants and Seville, with 100,841 emigrants. The majority of the destinations of this emigration were the rest of the province, with percentages ranging from 57.7% of emigrants from Seville capital and 62.76% of emigrations from Malaga capital and the rest of the province.

The figure for recorded balances differs from the expected figure because foreign emigration has not been taken into account in the balance and has been taken into account in immigration. The recorded migration balances accumulated throughout the decade were negative in the provincial capitals, with values among the 18,764 people with a negative balance in Cádiz capital, the -22,780 in Granada capital, -24,850 with a negative balance in Málaga capital and -26,361 in

Seville capital, always excluding foreign emigration. It should be noted that the volume of the balance recorded between capital and province coincides almost completely: the positive balance of 82,854 people from the capital and destined for the metropolitan belt, compared to a negative balance of 82,902 people, mostly registered in the metropolises and destined for the geographical areas of the metropolitan peripheries.

By areas and origins, in the urban agglomeration of Cadiz, the Bay of Cadiz-Centro concentrates most of the immigration of the agglomeration of Cadiz, with 23,315 immigrants, surpassing, even the capital in power of attraction, highlighting the immigration from the capital, with 9,695 immigrants, 62.6% of the immigrants of the capital of the agglomeration. In the urban agglomeration of Granada, immigration from the capital is concentrated, overwhelmingly, in the Vega Sur, with 20,872 immigrants from the capital, concentrating 69.8% of immigrants from the capital. In the urban agglomeration of Malaga, the coast concentrates 66.4% of immigrants with origin in the capital, representing a volume of 20,210 immigrants. Finally, in Seville, the Escarpe Central del Aljarafe and the Alcores receive a total of 78,276 immigrants from the capital of the total of 100,841 emigrants who left the capital, representing 77.62% of the total emigration from the capital.

With respect to the immigrants coming from the rest of the province, and bound for some geographical area of the agglomeration, the capitals stand out, but with volumes that cannot compensate for the high emigration to the metropolitan belt. However, there are also high numbers of immigrants from the rest of the province, but not from the capital, in the geographical areas of Vega Sur de Granada, with 10,408 immigrants and the Escarpe Central del Aljarafe which, with 18,374 immigrants from the rest of the province, excluding the capital, even surpasses the attraction capacity of the capital of Seville, which only managed to attract 17,968 immigrants from the rest of the province of Seville.

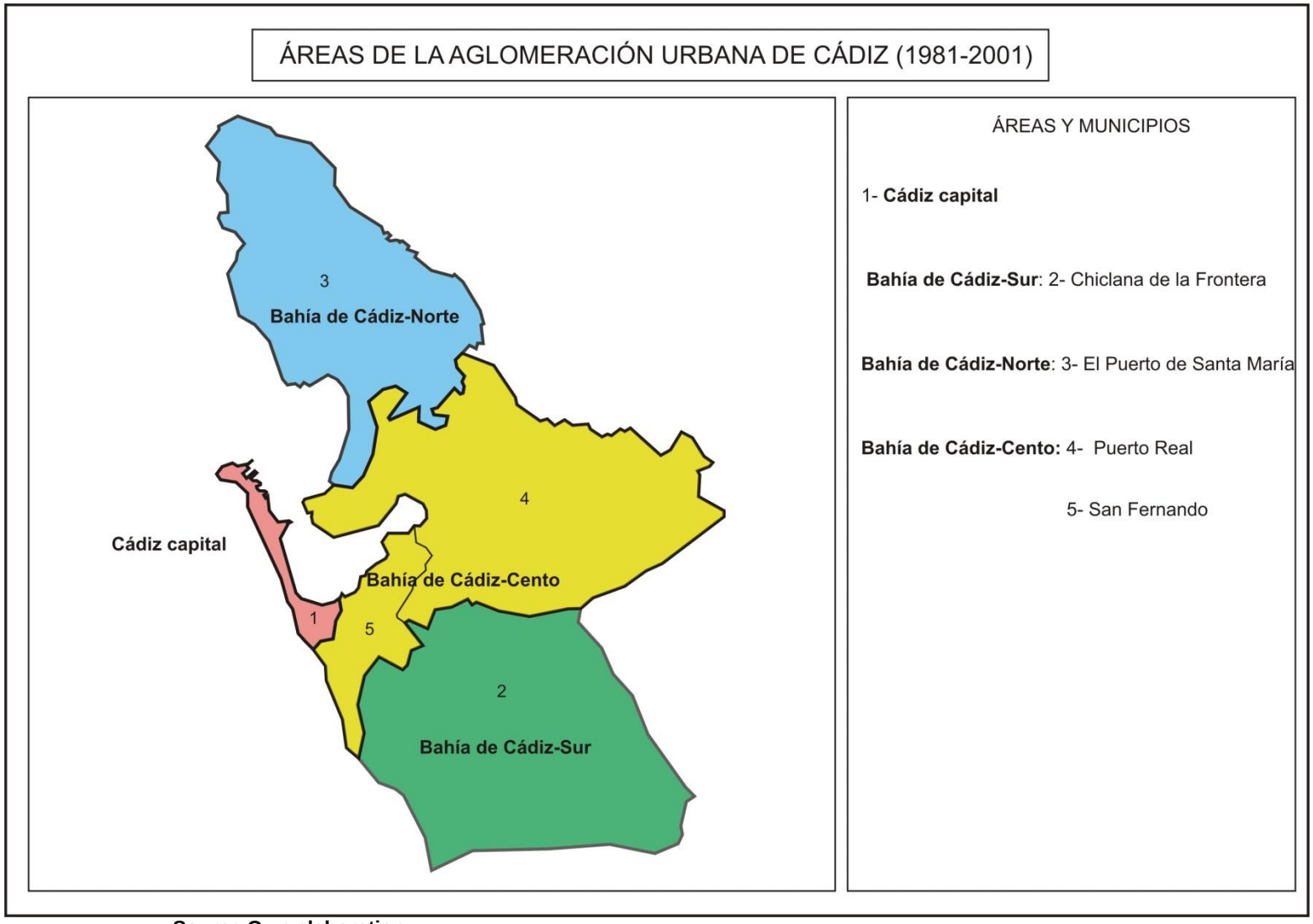
In relation to immigration from other origins, this is concentrated preferably in the metropolises of Granada, Malaga and Seville, to the extent that it displaces, in order of importance, the traditionally most important intraprovincial immigration. Thus, extraprovincial immigration is predominant in the capitals as a whole: 25,681 extraprovincial immigrants in the capital city of Granada, 35,044 extraprovincial immigrants in Malaga, and 25,681 in the capital city of Seville.

In short, several conclusions can be drawn from the above:

a) In the first place, the almost equilibrium in the migratory balance, excluding the known foreign emigration, in the whole of the urban agglomerations analyzed.
b) Secondly, the predominance of immigration originating in the capital in the metropolitan belts, to the extent that the figures for immigration to the metropolitan belts explain to a large extent the emigration to the rest of the province in the capitals.
c) Thirdly, the concentration of immigration, especially that generated from the capitals, in certain geographical areas, namely: in Cadiz, in the Bay-Centre; in Granada, in the Vega Sur; in Malaga, on the coast; and in Seville, in the Escarpe Central del Aljarafe and in the Alcores.
d) Fourthly, the predominance of negative balances in provincial capitals which, despite extraprovincial immigration, are unable to offset these entries with departures to the aforementioned geographical areas of the metropolitan belt. With which, the weakening of the traditional current between center-periphery, rural exodus, is deduced by a process in inverse sense, that is, of emigration from the capital to the periphery, or urban exodus, which confirms the thesis of a demographic delocalization in the provincial capitals that do not manage to compensate their losses by exits from the capital to the belt with the entries coming from the flow of the extraprovincial immigration, that has become the entries by origin of more weight in the capitals.

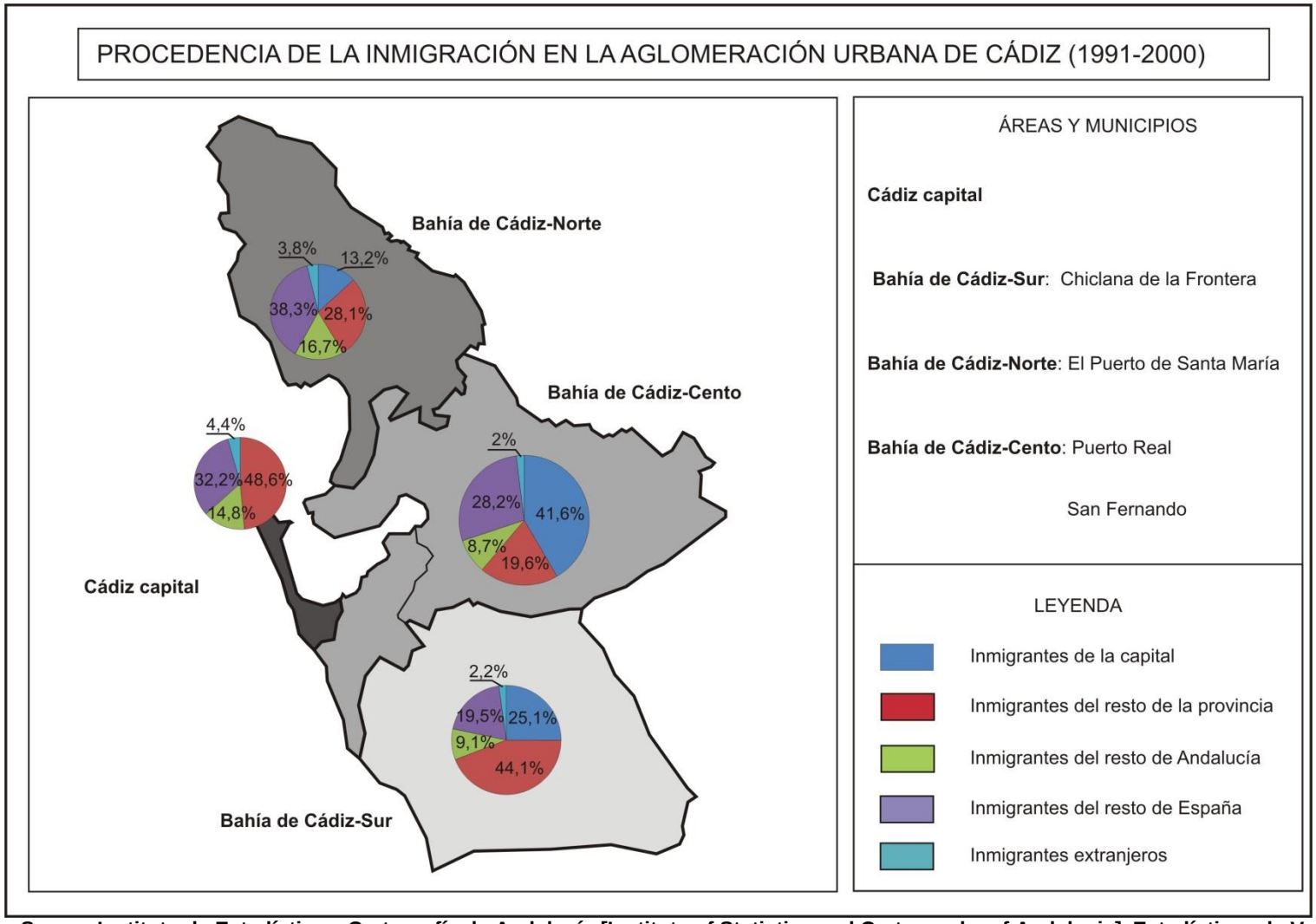
In conclusion, we must consider that the strong demographic growth of some periurban municipalities would not be explained without the migratory movements in which immigration has an outstanding weight, an immigration of capital origin that is the predominant of all the registered movements with values higher than 60% of the total balance of the capitals and as destination the first periurban belt, where it is also characteristic the concentration in certain municipalities with the exception of the agglomeration of Cadiz. Thus, as opposed to the metropolis, the periphery is the preferred destination, underlining the metropolitan character of the migratory movements within each of the agglomerations.

MAP **15**



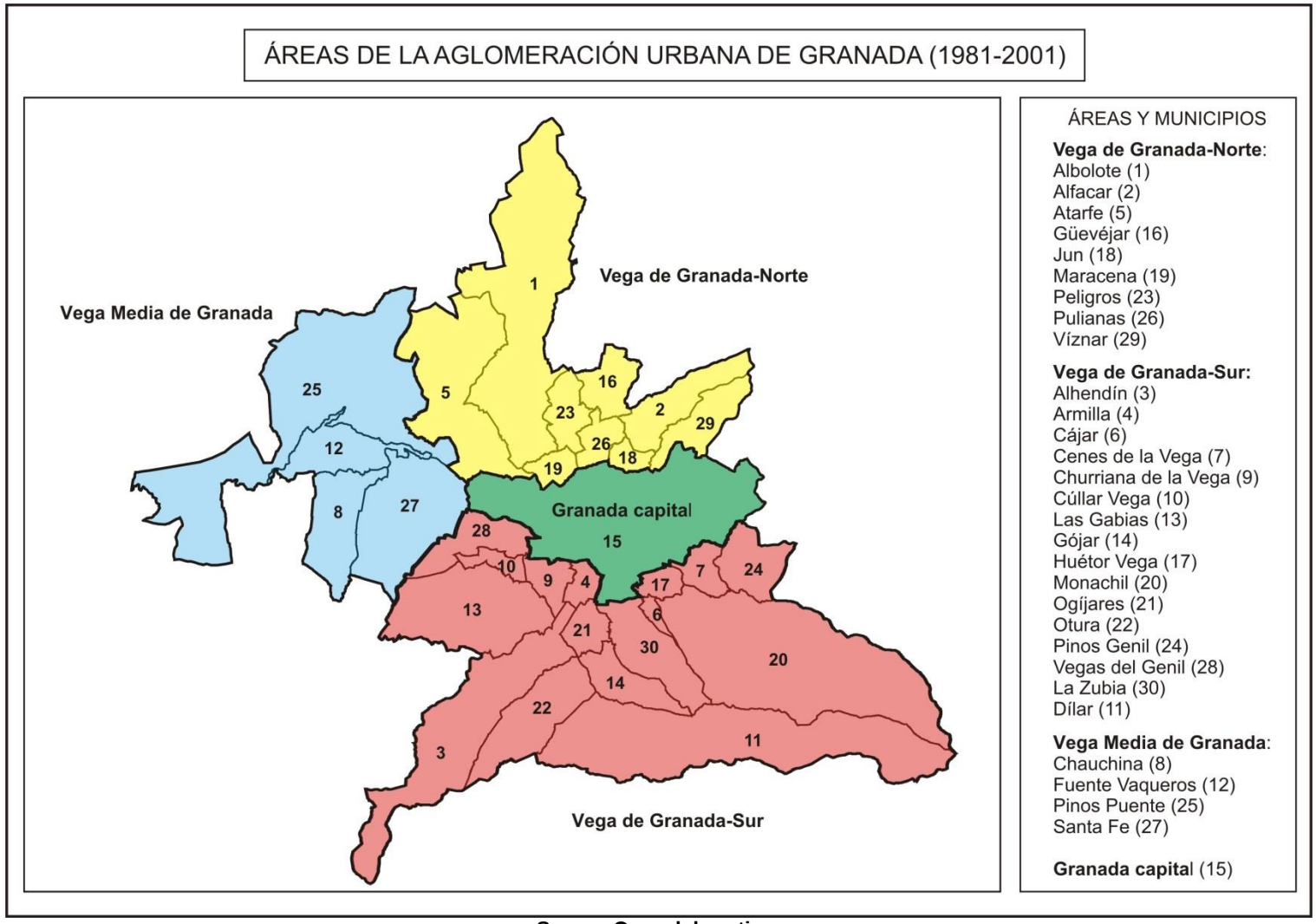
Source Own elaboration.

MAP 16



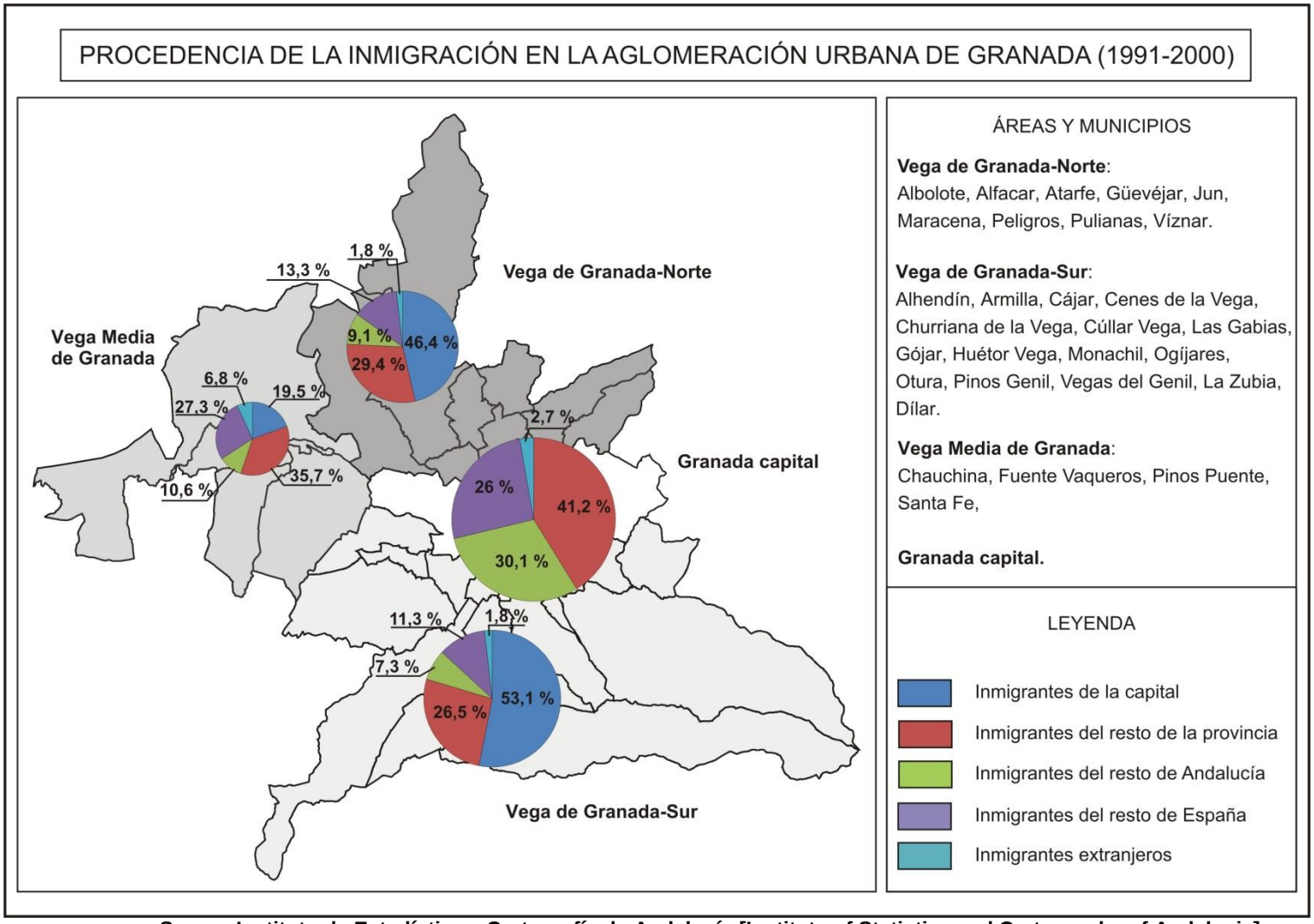
Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000).

MAP 17



Source Own elaboration.

MAP 18

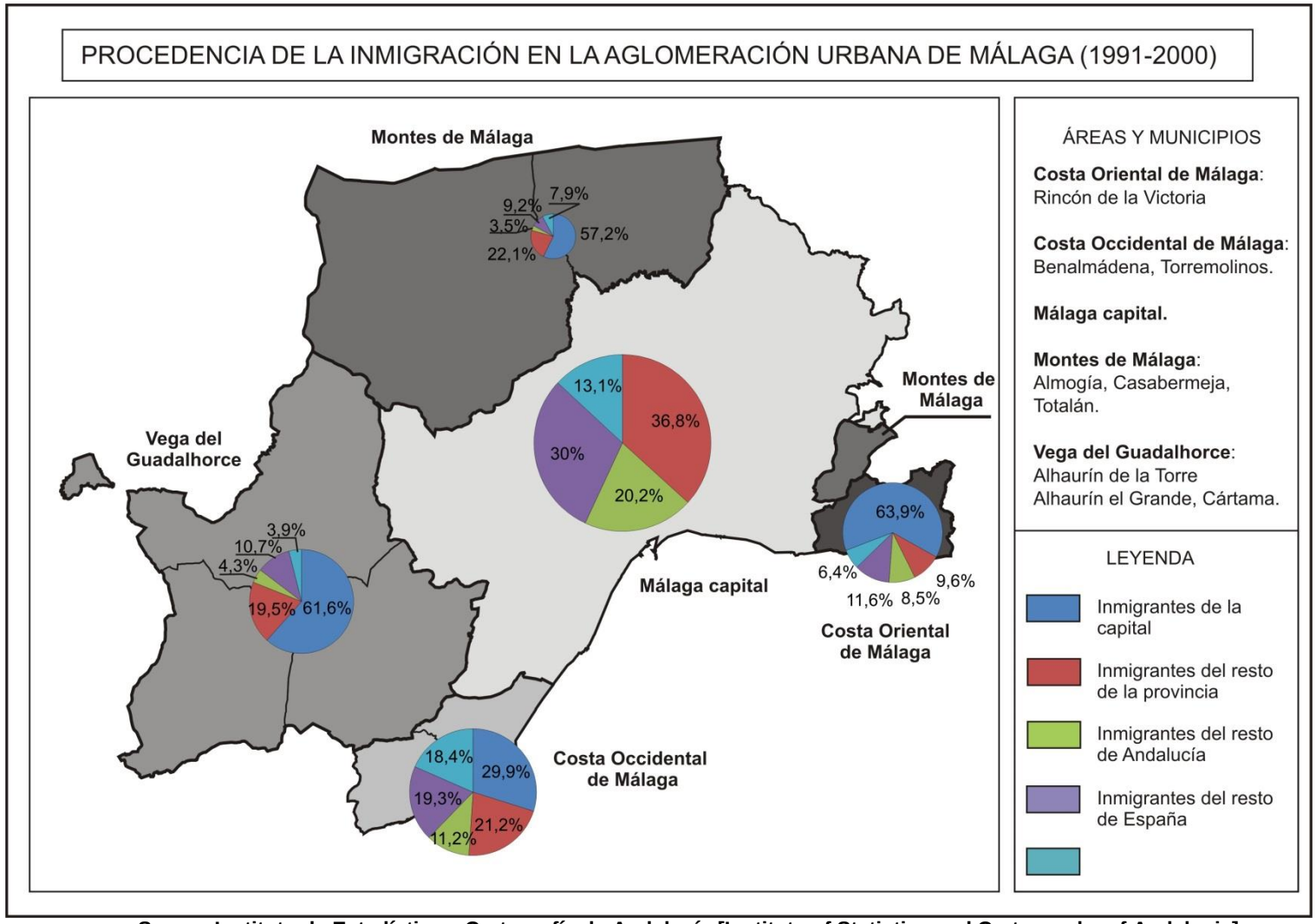


Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000).

MAP 19

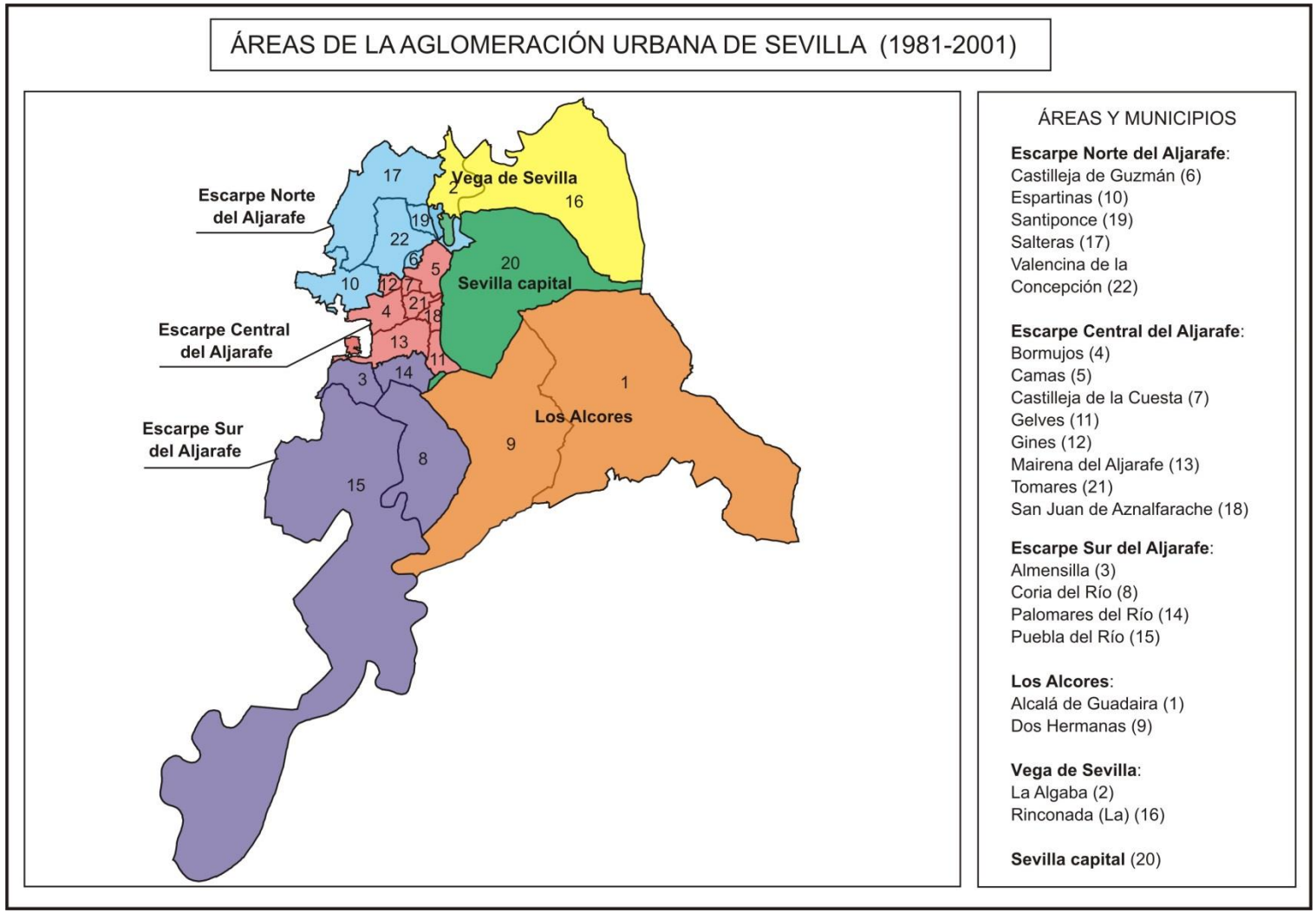
Source Own elaboration.

MAP 20



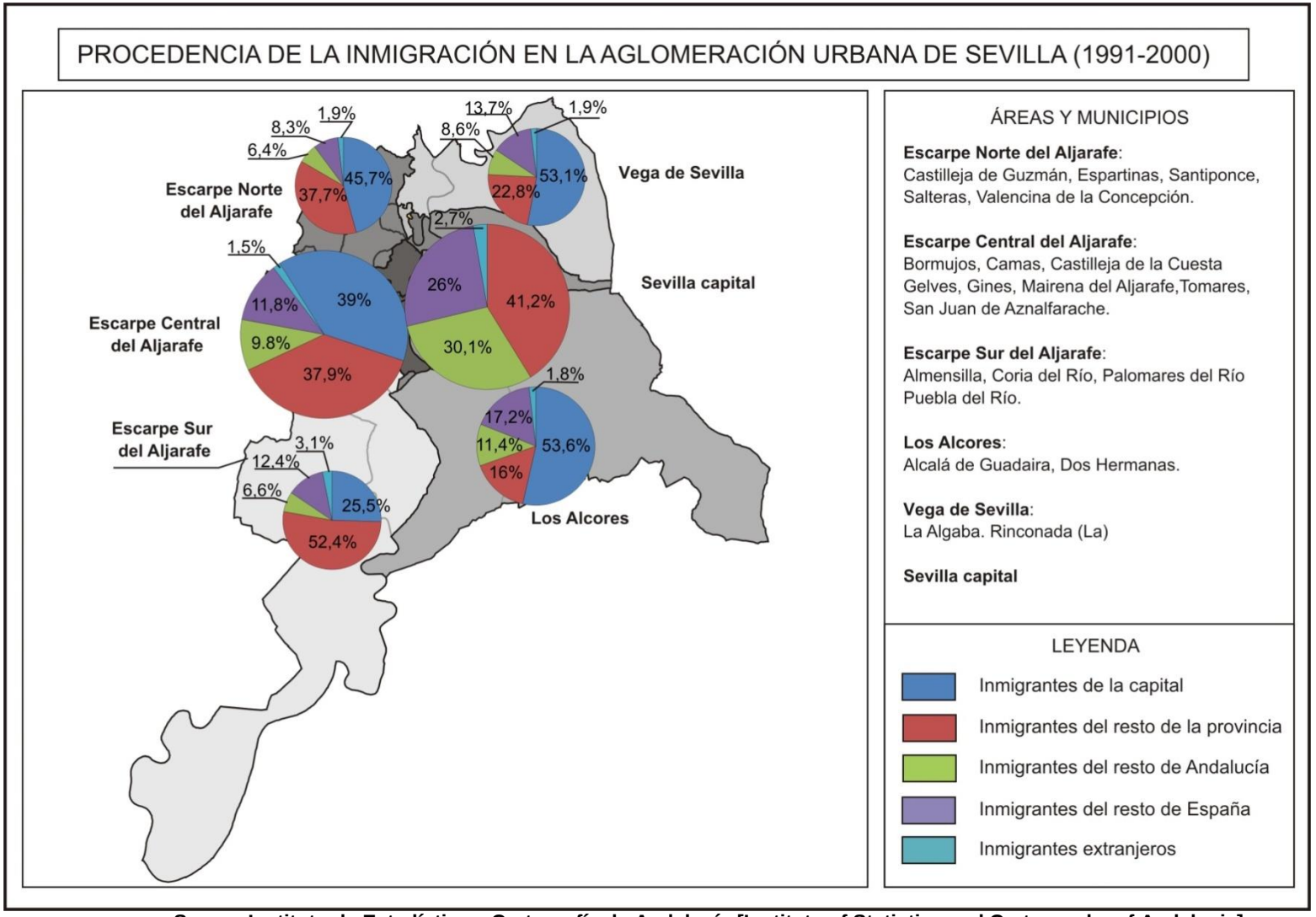
Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000). Own elaboration.

MAP 21



Source Own elaboration.

MAP 22



Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000). Own elaboration.

3.3.1.3. Structure of Age.

One of the most important characteristics in periurban municipalities is the youth of immigration. The majority of the immigrant population is young and potentially fertile, with the segment of the population aged 16 to 39 being the most representative. Consequently, the rejuvenation that occurs in the age structures of the peripheral municipalities simultaneously leads to the ageing of the age structures of the central municipalities that lose their youngest and most fertile population. This also explains the moderate rises in the birth rates of certain peri-urban municipalities, since, as a potentially fertile population, it results in an increase in birth rates and in the natural balance, as it is accompanied by very low mortality rates.

As shown in the table (table 3.59), the predominance in the centres of negative balances in the youngest group between 16 and 39 years of age, which is the one that has the most positive repercussions on the dynamisation of the local economy, since it is a population that works or is looking for employment. We also highlight the practical coincidence of the balances between center and periphery, especially in the aforementioned group from 16 to 39 years old.

In conclusion, the migratory movements between the metropolises and their metropolitan belts are selective: the majority of them are adult-young age groups, which generate, in addition to an increase in the migratory balance in the peripheries, a rise in the natural balance as a consequence, rather than an extraordinary increase in the birth rate, of the reduction in mortality that the incorporation of young people entails, which rejuvenates the age structure of the municipalities receiving exurban populations. Simultaneously, in the metropolises, this emigration of personnel due to the young age of having children, produces a decrease in the natural balance, which is doubly reduced, due to the fall in fertility, as it is an emigration of adult-young people, and due to an increase in mortality, as the older personnel remain in the metropolises, consequently, there is an ageing of the age structure of the metropolises.

Table 3.21
Migratory balances recorded in Andalusian urban agglomerations (1991-2000).

Large age groups (years)	A.U. DE CÁDIZ		A.U. OF GRANADA		A.U. DE MÁLAGA		A.U. OF SEVILLA	
	Core	Periphery	Core	Periphery	Core	Periphery	Core	Periphery
<16	-3.010	2.375	-4.053	5.315	-4.071	5.494	-3.995	6.084
16-39	-11.959	7.362	-14.294	13.739	-14.841	15.282	-13.462	15.724
40-64	-3.049	2.473	-3.942	5.232	-5.369	6.445	-3.650	3.965
>64	-746	794	-491	1.012	-569	1.756	-207	1.316
TOTAL	-18.764	13.004	-22.780	25.298	-24.850	28.977	-21.314	27.089

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000)[112]. Own elaboration.

112 The sum of the recorded migratory balance by age does not coincide with the total recorded migratory balance.

3.3.1.4. Structure of Sex.

A relevant characteristic that indicates the selective character reached by migratory movements is the composition by sex.

In the gender composition, very balanced structures are observed with regard to the emigrants from the capital and the immigrants from the belt, which seems logical to us if we consider that many of the emigrants from the capital are, at the same time, immigrants from the belt. The balanced character of the composition by sexes speaks to us of families composed of couples of both sexes.

On the other hand, the presence of a certain selective character among the immigrants whose destination is the capital is notorious: it is the women who have greater preference for the immigration whose destination is the central city. Thus, the urban phenomenon presents two faces: family in peri-urban areas and predominance of women in immigration to the central city.

Table 3.22
Gender composition of migratory movements (1991-2000).

Agglomeration	Place of destination / origin	EMIGRANTS		IMMIGRANTS	
		Men	Women	Men	Women
Cadiz	Capital	15.873	14.917	6.020	6.006
	Belt	19.889	18.303	26.320	24.876
Granada	Capital	32.399	32.839	19.551	22.907
	Belt	17.419	17.630	31.051	30.523
Malaga	Capital	37.030	35.998	23.233	24.945
	Belt	15.369	15.208	29.979	29.538
Seville	Capital	51.045	49.796	35.584	38.896
	Belt	34.952	34.237	52.078	51.283

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia].Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000).

Table 3.23
Sex Ratio of immigrants and emigrants with place of destination / origin. Main Andalusian agglomerations (1991-2000).

Agglomeration	Place of destination / origin	Sex Ratio[113] Emigrants	Sex Ratio Immigrants
Cadiz	Capital	106,41	100,23
	Belt	108,66	105,80
Granada	Capital	98,66	85,35
	Belt	101,17	101,17
Malaga	Capital	102,87	93,12
	Belt	101,06	101,49
Seville	Capital	102,51	91,48
	Belt	102,08	101,55

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia].Estadísticas de Variaciones Residenciales [Residential Variations Statistics] (1991-2000).

113 The sex ratio is the ratio of men to 100 women and is calculated with the quotient between men and women and the result is multiplied by 100.

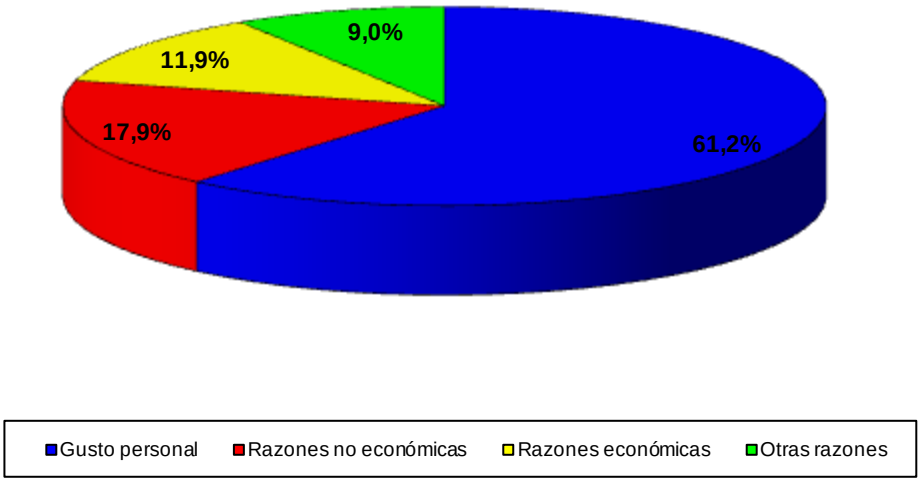
3.3.2. The motivations of immigrants.

The causes or motivations that drove immigration to the periphery are of great importance when it comes to economic causes, if the thesis of regional restructuring predominates, or if it is a question of deconcentration or decentralization of the population without prior diffusion of activities, in which environmental causes predominate or of a certain lifestyle.

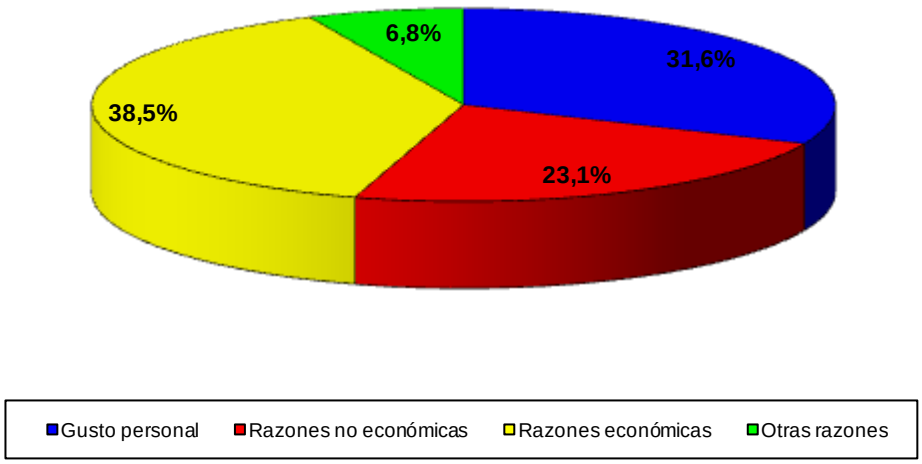
As a source, we are going to use the Survey carried out in 1997, of the selected municipalities of Albolote and Ogíjares (Granada), Alhaurín de la Torre and Rincón de la Victoria (Málaga), and Tomares in Seville. In this section I have set myself the objective of discerning the causes, which can be of two types: economic or non-economic. Within the economic ones, these can be exogenous or endogenous, depending on whether they are their own capacities or those spread from abroad through the delocalization of activities. In order to carry out the analysis, we have specified the origin, resulting in the autochthonous; and the foreign population, whose distribution is as follows: of a total of 401 respondents, 149 were autochthonous, 38% of the total; 248 were immigrants, which represents 61.84% of the total of those surveyed. Of these, we have specified the immigrants coming from the capital, a total of 134, 33.42% of the total and 114 to the rest of immigrants, 28.43%; resulting in a fairly balanced distribution. Finally, with respect to the questionnaire, we have chosen to specify economic or non-economic motivations of a more residential nature. Among the economic motivations, we have included housing, employment or other economic motives. Among the non-economic we have chosen to consider proximity to the capital, tranquility, the environment, acting separately or interacting together. The results are shown below:

Figure 3.11
Immigrants' motivations[114].

NEORRURALES



RESTO DE INMIGRANTES



Source Montosa Muñoz, J., Encuesta a la población (1997). Own elaboration.[115]

114 The main reason were: For pleasure, Non-Economic Reasons, Economic Reason, Other Reasons.

115 Neo-rural: newcomers or immigrants of urban procedence, Resto de inmigrantes: Rest of immigrants (Other procedences different from a city.

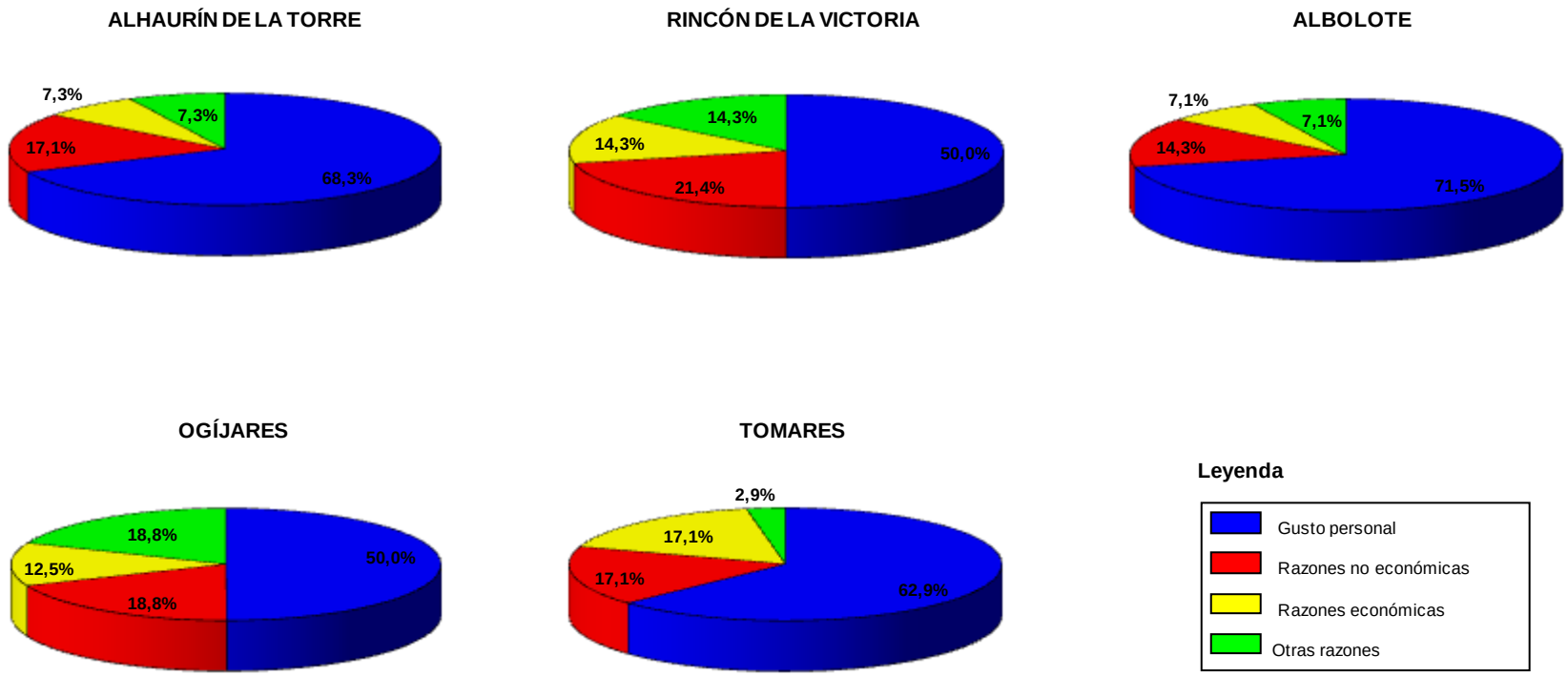
As can be seen in figure 3.11, there is a clear differentiation in mobile phones according to origin: among Neo-Rural phones there is an overwhelming predominance of mobile phones that corresponds to personal taste, which represents 61.2% of the total of those surveyed. On the other hand, economic motivations only represent 17.91% of Neo-Rural motivations. In the rest of the immigrants, the total represented by personal taste dropped ostensibly, to 31.62%, while economic motivations represented 38.46% of the total of those surveyed.

If we relate this data with the municipality of residence, we also obtain other valuable information: among the Neo-Rurals surveyed, the percentage of responses relating to personal preference was in a range ranging from 50% in Ogíjares and Rincón de la Victoria, more than 60% and less than 70% in Alhaurín de la Torre and Tomares, and reaches its maximum among the Neo-Rurals of Albolote, 71.43% of the total. In this same group, the weight of economic mobiles is a minority: these responses represented a range between 7.14% and 7.32% in Albolote and Alhaurín respectively and a maximum of 17.14% in Tomares. In an intermediate situation were Rincón de la Victoria with 14.29% and Ogíjares with 12.50%.

With respect to the rest of the immigrants, as we mentioned, the answers regarding personal preference or taste differ considerably, with percentages higher than 40% in Alhaurín, Ogíjares and Tomares (figure 3.13). On the other hand, they fell significantly in Rincón de la Victoria and Albolote, with percentages between 10 and 28% respectively. As opposed to personal preference or taste, economic reasons have a relevant weight: with a maximum in Rincón de la Victoria, with 48% of the total responses, and a minimum in Ogíjares with 22.2%. Alhaurín, Albolote and Tomares appear in an intermediate situation and in a fork situated around 30-40%.

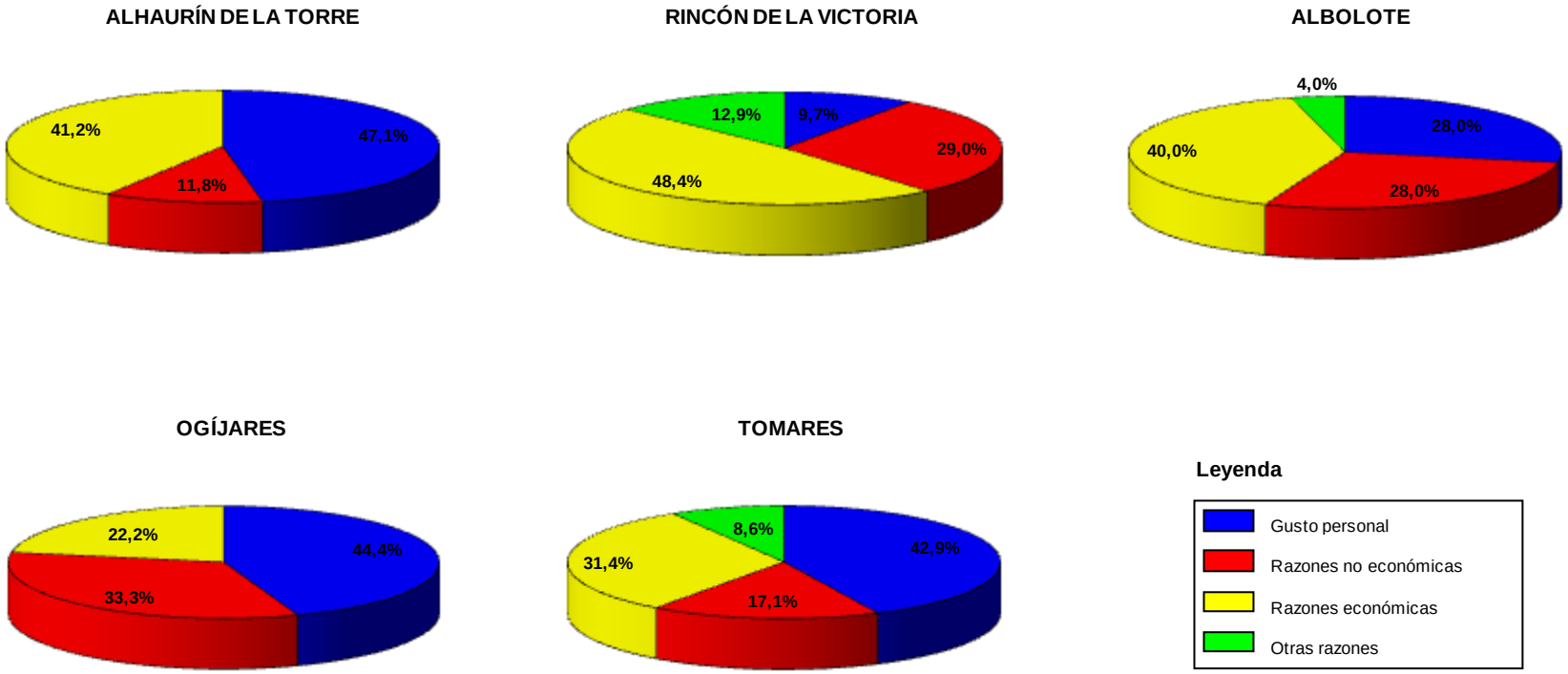
Thus, we can conclude that economic motives prevail among immigrants from sources other than the capital; while non-economic motives, of personal preference or taste, predominate among neo-rurals, or immigrants from the capital.

Figure 3.12
Motivations among the immigrants of the capital.



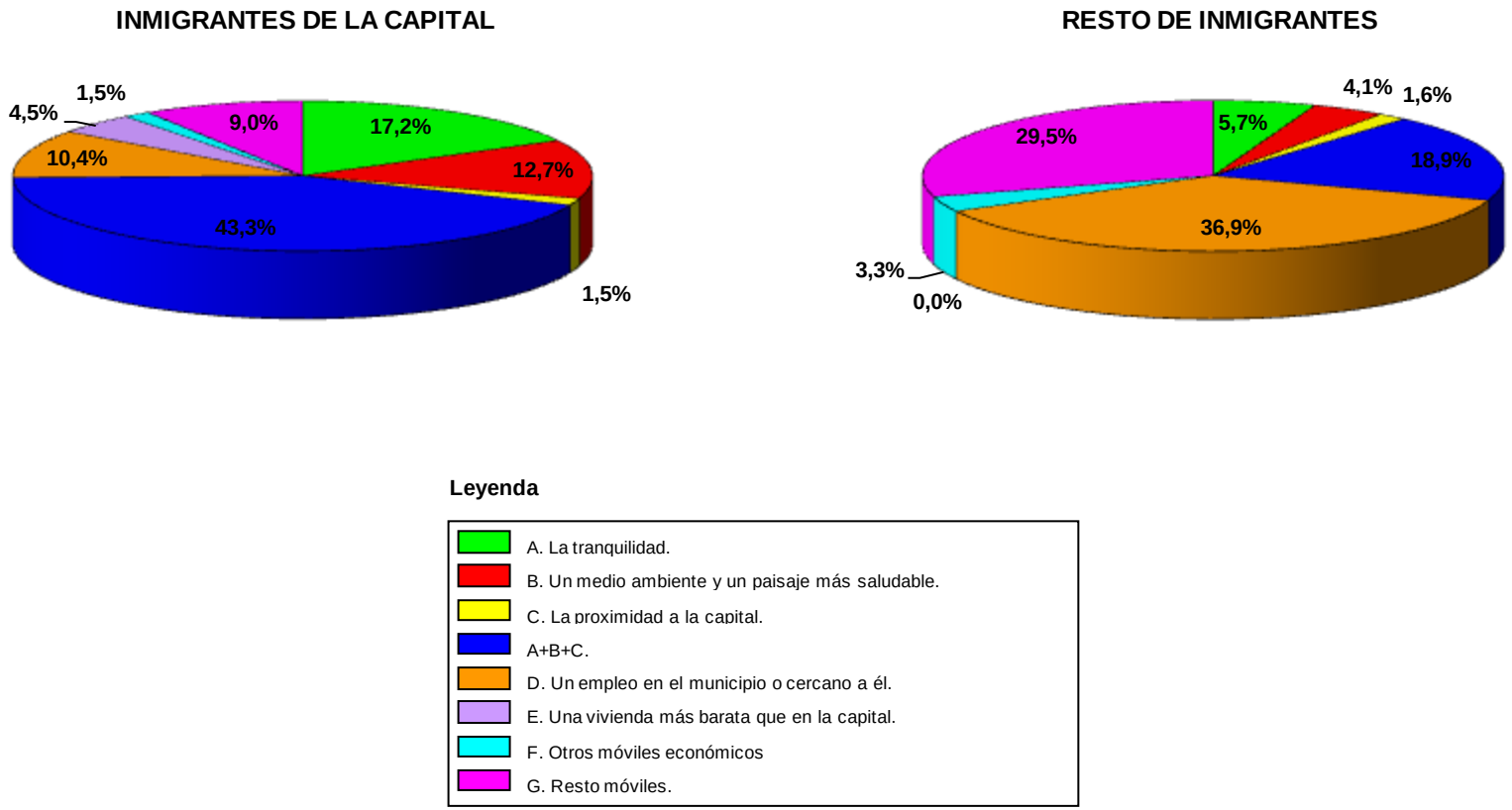
Source Montosa Muñoz, J., Survey (1997). Own elaboration.

Figure 3.13
Motivations in the rest of immigrants.



Source Montosa Muñoz, J., Survey (1997). Own elaboration.

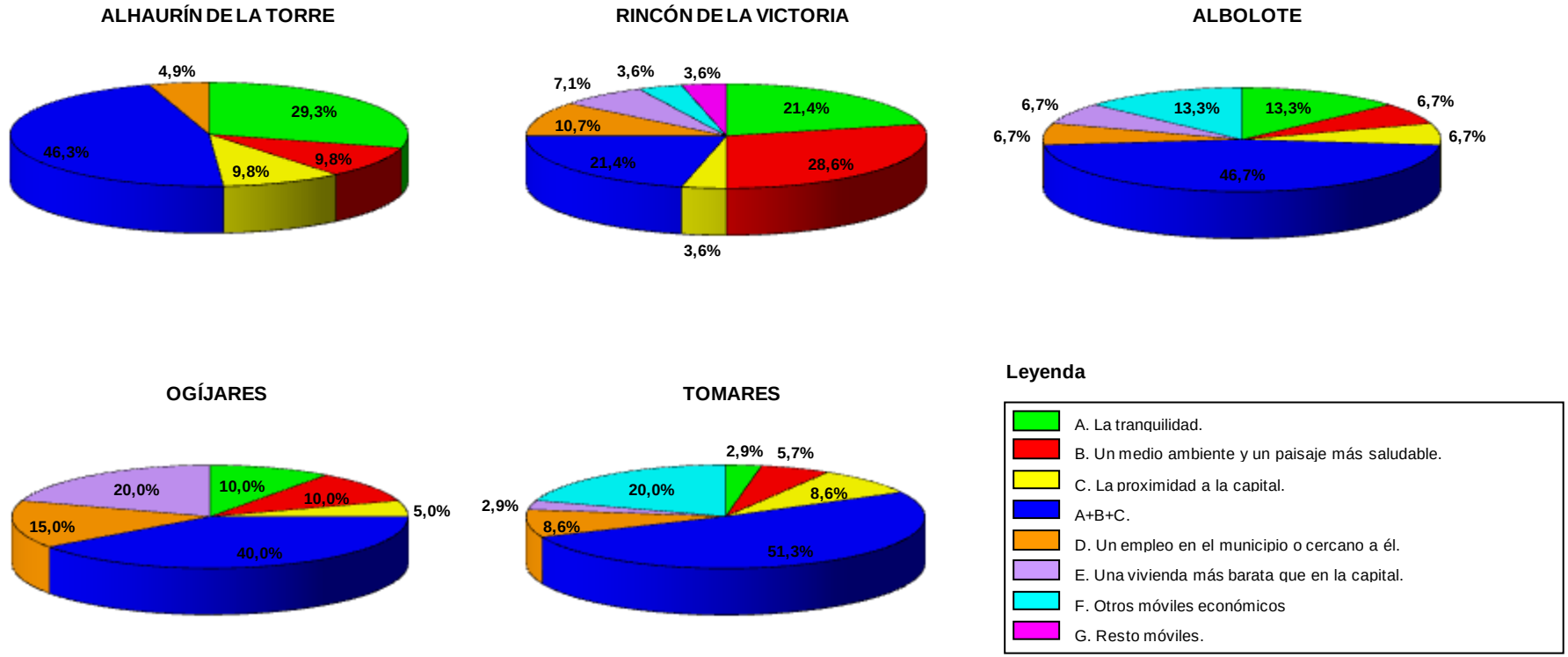
Figure 3.14
Class of motivations according to origin (1997)[116].



Source Montosa Muñoz, J., Survey (1997). Own elaboration.

116 A. Quietness, B- An healthier landscape and environment, C- Proximity to the city, D- An employment in the municipipality or near it, E-A cheaper housing than the one in the city, F- Other economic motivations, G- Rest of motivations.

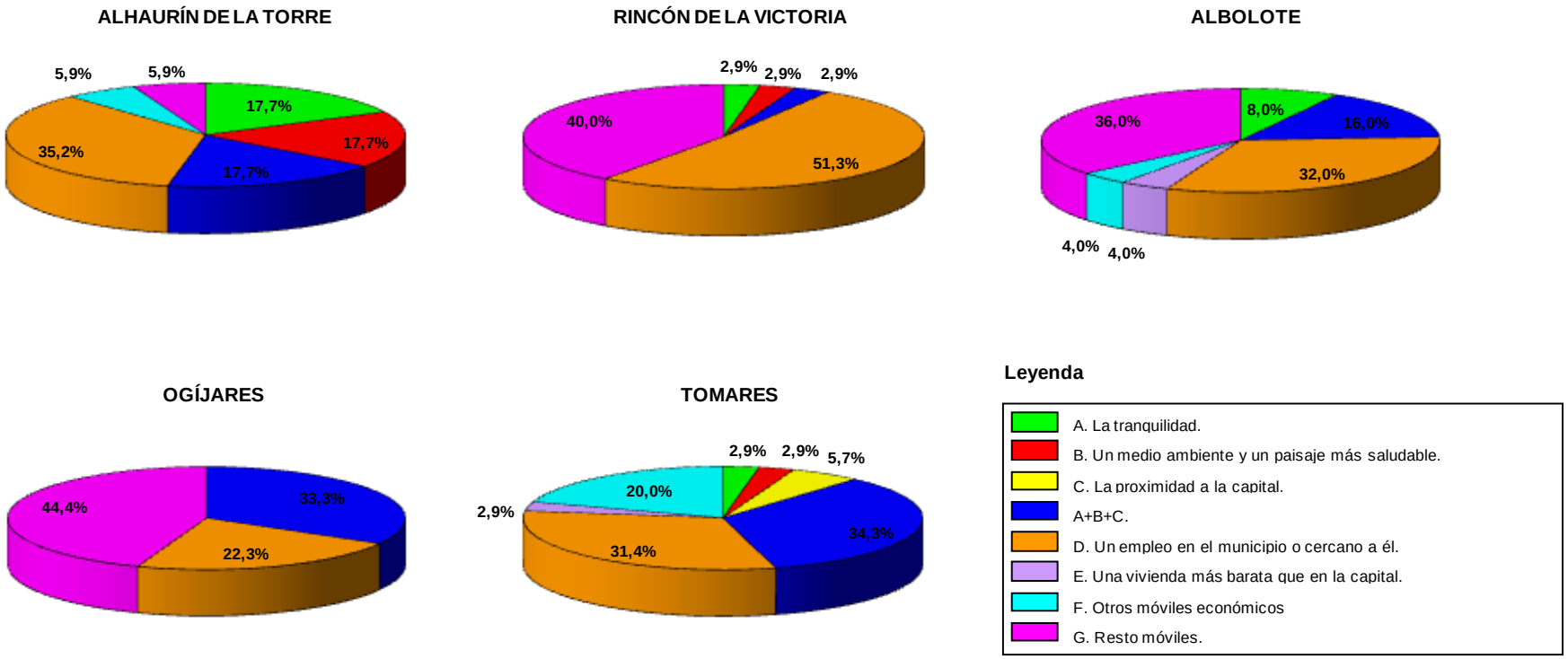
Figure 3.15
Motivation class among neo-rurals[117] (1997).



Source Montosa Muñoz, J., SurveySurvey (1997). Own elaboration.

117 A. Quietness, B- An healthier landscape and environment, C- Proximity to the city, D- An employment in the municipipality or near it, E-A cheaper housing than the one in the city, F- Other economic motivations, G- Rest of motivations.

Figure 3.16
Motivation class among the rest of the immigrants[118].



Source Montosa Muñoz, J., Survey (1997). Own elaboration.

[118] A. Quietness, B- An healthier landscape and environment, C- Proximity to the city, D- An employment in the municipipality or near it, E-A cheaper housing than the one in the city, F- Other economic motivations, G- Rest of motivations.

The result is quite eloquent: between immigrants from the capital and immigrants from the rest of the world:

Among the immigrants of the capital, non-economic motivations predominate, and, in this order: the combination of proximity, landscape and tranquillity, i.e. specifically environmental motives, accounted for 43.3%. To these were added those who chose the municipality only for its proximity to the capital, 1.5%, those who cite tranquility, 17.2%, and the landscape, 12.7%. At a significantly lower level are non-economic mobiles, among which we mention employment in or near the municipality, with 10.4%; cheaper housing than in the capital, with only 4.5%; and other economic 1.5%. At a detailed level, there are significant municipal differences: in this way, the combination of landscape-proximity and tranquillity means a range that ranges from a minimum in Rincón de la Victoria, with 21.4% and a maximum in Tomares with 51.4%. Alhaurín, Albolote and Ogíjares appear at an intermediate level, with a weight of around 40-45%. Tranquillity is also relevant, especially in Alhaurín, with 29.3% of those surveyed; in Rincón, with 21.4%; and it is considerably lower in Albolote, with 13.3%; in Ogíjares, 10%; and in Tomares, with a tiny percentage of 2.9%. Finally, the landscape has percentages with a range between 5.7% of Tomares and 28.6% of Rincon de la Victoria. Among the economic motives, we find employment in Alhaurín, with 9.8%; in Rincón de la Victoria, with 10.7%; in Albolote, with 6.7%; Ogíjares, with the highest percentage, with 15.0%; and, finally, Tomares with 8.6%. The other economic motive, that of housing, appears as merely residual: in Rincón de la Victoria, with 7.1%; Ogíjares, with 5.0%, and Tomares with 8.6%.

Among immigrants from other origins, economic motives carry more weight and, within these, employment, with 36.9%. Other economic motives accounted for 3.3%. Nevertheless, non-economic reasons continue to prevail, with the three reasons being landscape, tranquillity and proximity to the capital, with 18.9% of those surveyed; other non-economic reasons accounted for 28.5% of the total responses, among which family reasons stood out, with 18.85% of the total responses. The rest of the non-economic mobiles had a rather reduced significance: proximity 1.6%, tranquillity 5.7% and landscape 4.1%. It is worth mentioning that cheaper housing than in the capital is not cited as an economic motive among immigrants from all other backgrounds. employment represented a range considerably higher than that of capital immigrants: between 22-51%, with a minimum in Ogíjares and a maximum in Rincón de la Victoria. To a lesser extent, Albolote stands out with 32%, Alhaurín with 35.3% and Tomares with 31.4%. Within the non-economic mobiles has greater weight the integration of environmental mobiles, the well-known combination that resides in the municipality by proximity to the capital, for a landscape of higher quality than the capital and tranquility. The percentages are quite disparate: the fork is at a minimum in Alhaurín, with 5.9% and a maximum in Ogíjares, with 44.4%. In the medium interval appears Rincon, with 40%, Albolote, with 36% and Tomares with 20%.

In conclusion, within the types of mobiles, among the Neo-Rural ones, the combination of three of them stand out in the non-economic ones: proximity, tranquillity and landscape, as opposed to the economic ones. On the other hand, among the extra-capital immigrants, economic motives stand out, especially employment in the municipality or in its surroundings, closely followed by environmental motives.

Thus, we would have to refer to a differentiation of type of motives according to origins: for the immigrants of the capital the residential motives intervene clearly, with which the thesis of the deconcentration would be confirmed, but among the immigrants of other origins employment has a relevant weight, which would confirm the thesis of the regional restructuring.

CHAPTER 4

SOCIODEMOGRAPHIC CHARACTERS IN THE PERIPHERIES OF THE MAIN ANDALUSIAN URBAN AGGLOMERATIONS.

The treatment of the phenomenon of suburbanization and its effect on society leads us to address the biological, social and economic features in the peripheries of the selected agglomerations. As sources, we will use the indirect ones: the Census of 1991, as well as the Census of 2001, that will be completed by other sources as the Census of Locals of 1990 and the public file of the discharges of the Social Security to December 2000. In turn, we will make use of a direct source such as the Survey, to check whether the variations observed in the structure of the population have a correlate, at a spatial level, in the social and cultural characteristics of the population according to their origin.

With the analysis of these sources, I try to corroborate the following hypotheses:

1) Immigration of the peripheries has been selective in age, producing a rejuvenation in the structures prior to immigration in the periurban belts and an ageing of the centres, altering the traditional differentiation of some young centres and an aged rural environment.

2) Immigration has also been selective in terms of gender structure, being very balanced in the belts, in the case of immigration of young couples of reproductive age.

3) Immigration has produced a change in the level of education, incorporating a population with middle and higher education to a previous rural milieu that suffered from low level of education. It has therefore rebalanced social structures.

4) Immigration has also been socially selective, the basis of social change in these peripheries, by incorporating middle and upper class populations that maintain jobs in the capital, which forces a pendulum mobility from the place of residence to the place of work. The analysis of the intensity of daily mobility, so characteristic of metropolitan reality, which has not altered the relationship of primacy in terms of productive capacity of the centres, is therefore pertinent, which exacerbates the dependence of municipalities on the peri-urban belts receiving immigration in the selected agglomerations.

5) The change of residence among Neo-Rurals has occurred for environmental reasons as opposed to economic motives, since the impact of a lower price of housing in the peripheries that we have been able to observe; has been less than expected *a priori.*

In terms of methodology, the study of age structure will be approached by graphical means: the age pyramids, simple and composite, as well as cartographic and statistical through the rates of youth and old age. The aim of this analysis is none other than to establish the hypothesis that suburbanisation produces a rejuvenation in the municipalities receiving immigration, while in metropolises there is an ageing process due to the loss, as residents, of a considerable sector of young adults.

It is pertinent to show that suburbanization generates a rejuvenation in the structure by age in the belts and an aging in the centers. Faced with this situation, our hypothesis considers that, since it is a matter of immigration focused on the family, that is, on forming families; the impact that it could have on the municipalities that receive immigration is qualified by the fact that it is due to the urban emigration of couples of different sexes, with which the masculinity relationship should be shown to be much more balanced in the case of the peripheries, not so much, as we shall see, in the centres, by experiencing phenomena that, perhaps, are related, in the case of the immigration of women of progressively advanced ages.

At the same time, considering the socioeconomic structure, a study of the level of education is necessary, not as a mere statistical appendix, but to carry out a comparative analysis between two specific moments, 1991 and 2001, which coincide with the peak moments of emigration from the

centre to the periphery. As a hypothesis, we consider that the emigration of the centres has produced changes in the peripheries, which have become centres receiving middle class population and, as such, suburbanisation has also been selective, generating changes in the social composition of the population, above all, with the incorporation of a population with a higher social status than the autochthonous one.

At a greater level of detail, this fact must be qualified, since, as we have seen previously, immigration to the periphery is not a general fact, but a particular one, which affects some municipalities more intensely and leaves others unaware, so it can be assumed that the study, case by case, will show very marked differences that can only be attributed to the fact that they are municipalities, which, for the time being, have remained unaware of suburbanisation.

Finally, the analysis of the activity becomes necessary with the intention of verifying the degree of diffusion of activities or endogenous development. To this end, we will propose the analysis of the activity in three aspects: first, as a productive capacity, for which, as a source, we will make use of the jobs, and as an analysis technique, the Sargent Florence matrix. Secondly, it would be necessary to verify the degree of autonomy or dependence on the central city, the basis of the analysis of the theories of restructuring and regional deconcentration[119]. Thirdly, we would propose a study of the degree of qualification of the workforce.

With regard to the analysis of productive capacity, we consider, in the initial hypothesis, that demographic growth has produced changes in productive capacity in terms of job creation, that these jobs have been created through the diffusion of activities, the basis of the thesis of regional restructuring, which has contributed to endogenous development, but that, nevertheless, there have also been many cases in which there has not been diffusion of activities but of inhabitants without more, by residential delocalization, the basis of the theory of deconcentration, fundamentally linked to processes of residential suburbanization, which have created jobs, yes, but linked to construction activities and the real estate sector, sectors of high precariousness and high eventuality preferably for the indigenous population, not for the new residents who maintain their jobs in the capital of medium and high qualification. The immediate consequence is the creation of hierarchical leaps in employment in the municipalities of the agglomerations analysed: a high hierarchical level in the central city where highly specialised activities continue to be concentrated, an average level in municipalities that have experienced suburbanisation and a lower level in municipalities outside suburbanisation.

In relation to the degree of autonomy, it is essential to carry out a comparative study between jobs (occupations of residents and non-residents in a municipality); and employed, (occupations of those censused in a municipality, whether or not they reside in it). This will allow us to enter into the degree of autonomy/dependence of the municipalities under study or, in other words, to what extent the municipalities that have suffered suburbanization remain dependent or not with respect to the labour market of the central city. We will base the study of the degree of functional autonomy with the analysis of the levels of daily mobility.

Thirdly, and directly related to the previous point, the degree of qualification. The hypothesis of a hierarchy of the workforce in the agglomerations, of the maintenance of the degree of dependence of the foreign population, as opposed to the native population that benefits from an endogenous activity, but of high precariousness and low job stability, is consolidated in this section: high and medium-skilled jobs would continue to be located in the central cities, and those of lower qualification in the municipalities that suffer from suburbanization. This last aspect will allow us to allude to the characteristics of the population according to origin, which we will analyse through the Survey carried out in 1997.

119 Regarding the hypotheses on suburbanization, we already commented on the existence of two tendencies in geographic literature: that of regional restructuring whose defenders are, among others, Manuel Castells, and the thesis of the deconcentration of P. Hall and D. Hay.

Once the hypotheses, sources and basic objectives have been put forward, they are then developed.

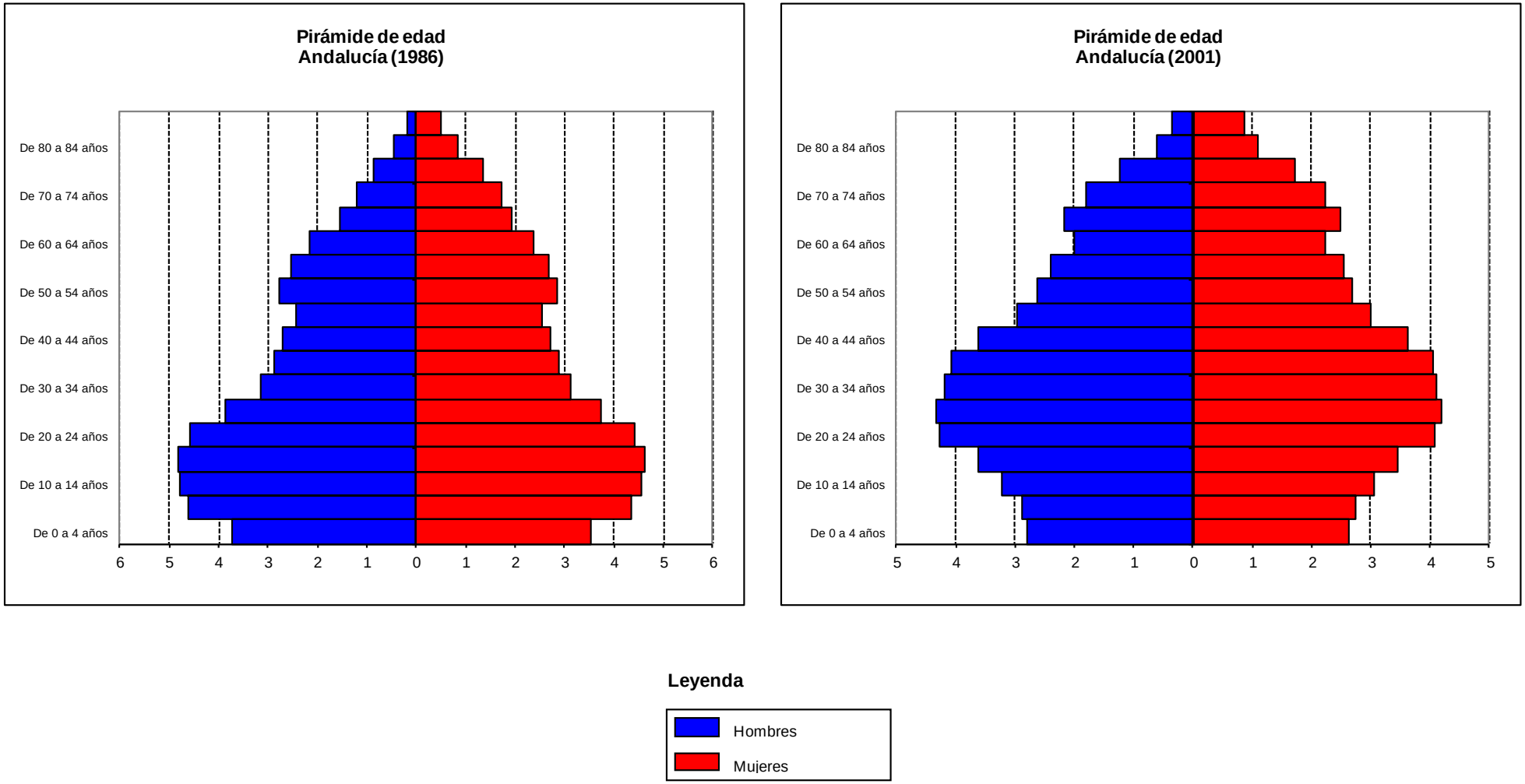
4.1. THE STRUCTURE BY AGE AND SEX.

The study of the characteristics of the population, specifically the analysis of the biological characteristics of the population by age and sex in the main Andalusian agglomerations, becomes a necessity not only to observe the evolution of the population by age and sex in the Andalusian context, but also to detect possible differences according to geographical areas, as well as the origin of this possible differentiation and whether there is a relationship between greater youth or greater old age in the agglomerations and an underlying emigration and immigration.

It is therefore necessary to carry out a comparative analysis in the different areas, considering the context of Andalusia, in order to detect where the levels of greater youth or greater ageing occur, at a global level; in addition to studying the possible causes of this differentiation, and whether there is a relationship with the recent suburbanisation of the peripheries. For this, we will set two moments of special interest: the beginning of the generalisation of suburbanisation in Andalusia, which, as we have seen previously, began in the mid-eighties, and the closure, with the available data on the population by age and sex from the 2001 Census. The result of this analysis is the study of the balances by age and sex. Finally, we will take a larger scale approach to distinguish areas of greater youth/old age, with the hypothesis that greater youth is explained by the immigration of young people, while ageing will be related to the processes of emigration of young people of urban origin. In short, we will try to relate migratory movements, cause of the relocation of inhabitants center / periphery, with the processes of aging and youth in a geographical analysis.

In 1986, the pyramid of Andalusia had its own profile of a stationary population in the shape of a bell, with a young population, the fruit of a high birth rate, with the onset of regression, and low mortality. In contrast, the Andalusian pyramid in 2001 is typical of a more advanced stage, of a regressive pyramid, of low growth, due to a low and decreasing birth rate and a reduced mortality. The consequence is that in a period of fifteen years the ageing of the Andalusian population has worsened, both because of the base, because of the fall in the birth rate, and because of the peak, because of the rise in life expectancy.

Figure 4.1
Andalusia 1986-2001.



The levels of ageing in Andalusia take shape with a youth rate that has gone from 242.3% in 1986, to a rate of 118.6% in 2001 (see table 4.1) and, with it, an ageing rate that has increased notably: from 41.27% in 1986 to 84.29% in 2001. The higher levels of ageing in Andalusia are related to the sharp fall in the birth rate, which began, with a delay compared to the rest of Spain, in the mid-eighties, together with a low mortality rate due to the higher life expectancy that results in a greater number of elderly people, from an absolute and relative point of view (from 10.57% in 1986 to 14.60% in 2001).

On a case-by-case basis, we can draw the following conclusions:

-In the first place, the relative similarity in the structures of the centre and the periphery at the starting point, as shown in the attached tables.

-Secondly, and valid for all cases, there are some common characteristics: a centre with greater ageing, due to a fall in the birth rate and the emigration of young people of childbearing age; and, on the other hand, on the periphery, the incorporation of young people of childbearing age has meant less ageing and even rejuvenation of the population.

Table 4.1
Population by large age groups in the A.U. of Cadiz.

Years / Variables	ANDALUSIA		CAPITAL CADIZ		PERIPHERY OF CADIZ	
	1986	2001	1986	2001	1986	2001
Young population	25,62	17,32	25,43	13,34	29,60	19,02
Adult population	63,81	68,09	65,49	71,33	63,28	70,93
Elderly population	10,57	14,60	9,08	15,33	7,13	10,05
Youth rate	242,32	118,64	280,15	87,05	415,35	189,21
Dependency ratio	176,35	213,34	189,81	248,81	172,30	243,97
Old-age rate	41,27	84,29	35,70	114,88	24,08	52,85

Source Own elaboration.

Table 4.2.
Population by large age groups in the A.U. of Granada.

Years / Variables	ANDALUSIA		GRANADA CAPITAL		GRANADA PERIPHERY	
	1986	2001	1986	2001	1986	2001
Young population	25,62	17,32	24,38	14,83	25,95	19,90
Adult population	63,81	68,09	65,16	68,43	64,27	68,74
Elderly population	10,57	14,60	10,45	16,74	9,78	11,36
Youth rate	242,32	118,64	233,26	88,56	265,42	175,22
Dependency ratio	176,35	213,34	187,06	216,77	179,89	219,94
Old-age rate	41,27	84,29	42,87	112,92	37,68	57,07

Source Own elaboration.

Table 4.3
Population by large age groups in the A.U. of Málaga.

Years / Variables	ANDALUSIA		MÁLAGA CAPITAL		PERIPHERY OF MALAGA	
	1986	2001	1986	2001	1986	2001
Young population	25,62	17,32	25,77	16,08	27,24	17,71
Adult population	63,81	68,09	64,62	70,26	63,42	70,62
Elderly population	10,57	14,60	9,61	13,67	9,34	11,67
Youth rate	242,32	118,64	268,18	117,63	291,69	151,79
Dependency ratio	176,35	213,34	182,64	236,23	173,38	240,34
Old-age rate	41,27	84,29	37,29	85,01	34,28	65,88

Source Own elaboration.

Table 4.4
Population by large age groups in the A.U. of Seville.

Years / Variables	ANDALUSIA		SEVILLA CAPITAL		PERIPHERY OF SEVILLE	
	1986	2001	1986	2001	1986	2001
Young population	25,62	17,32	24,32	15,01	30,01	18,57
Adult population	63,81	68,09	65,27	69,82	62,02	71,54
Elderly population	10,57	14,60	10,41	15,18	7,97	9,89
Youth rate	242,32	118,64	233,67	98,87	376,56	187,88
Dependency ratio	176,35	213,34	187,91	231,29	163,27	251,39
Old-age rate	41,27	84,29	42,80	101,14	26,56	53,22

Source Own elaboration.

4.1.1. Cadiz agglomeration.

The population in the capital city of Cadiz started from a situation quite similar to that of Andalusia as a whole, and even with higher levels of youth and a lower rate of ageing. On the other hand, the situation has changed drastically in 2001, as the young population was smaller than the old. This has been caused by a sharp reduction in the birth rate, which began two decades ago and has contributed to a very high level of ageing, with just under 1.15 old for every young person, or 0.87 young people for every old person. At the same time, the periphery of Cadiz, which had a greater youth in 1986, has seen how the levels of aging also affect it, but in a way ostensibly inferior to Cadiz capital. Thus, compared to 13.34% of young people in the provincial capital, in the periphery of Cadiz this value was around 19.92%, and the elderly only accounted for 10.05% compared to 15.33% in Cadiz or 14.6% in Andalusia.

4.1.2. Granada agglomeration.

In the capital city of Granada, the same phenomenon of aging of the metropolis and less aging of the periphery can be seen. Starting from similar levels of youth, both in the metropolis and in the periphery, with youth rates of 233.26% in the capital and 265.42% in the periphery, the ageing process of these last five years has affected unevenly. It is higher and higher in the centre, and lower in the periphery, due to lower rates of youth that have gone from 233.26% in the capital city of Granada to only 88.56%, or 0.88 young people for each elderly person. In the periphery of Granada, there has also been an aging process, but it has been much less than that produced in the capital (265.42% in 1986 to 175.22% in 2001).

4.1.3. Málaga agglomeration.

In Malaga, the starting situation was quite similar to the Andalusian set, with more youth in the periphery. However, as was the case in Cadiz and Granada, the starting point was a situation in which the population was characterised by its youth in 1986 and few differences between the centre and the periphery, there has been an evolution tending towards a clear differentiation between the two areas. Ageing has affected both the centre and the periphery, with greater intensity in the central city: from a youth rate of 268.18% to a youth rate of 117.63%, while in the periphery, there is once again an ageing trend but it has been contained by the immigration of young adults (291.68% in 1986 compared to 151.79% in 2001)[120].

4.1.4. Seville agglomeration.

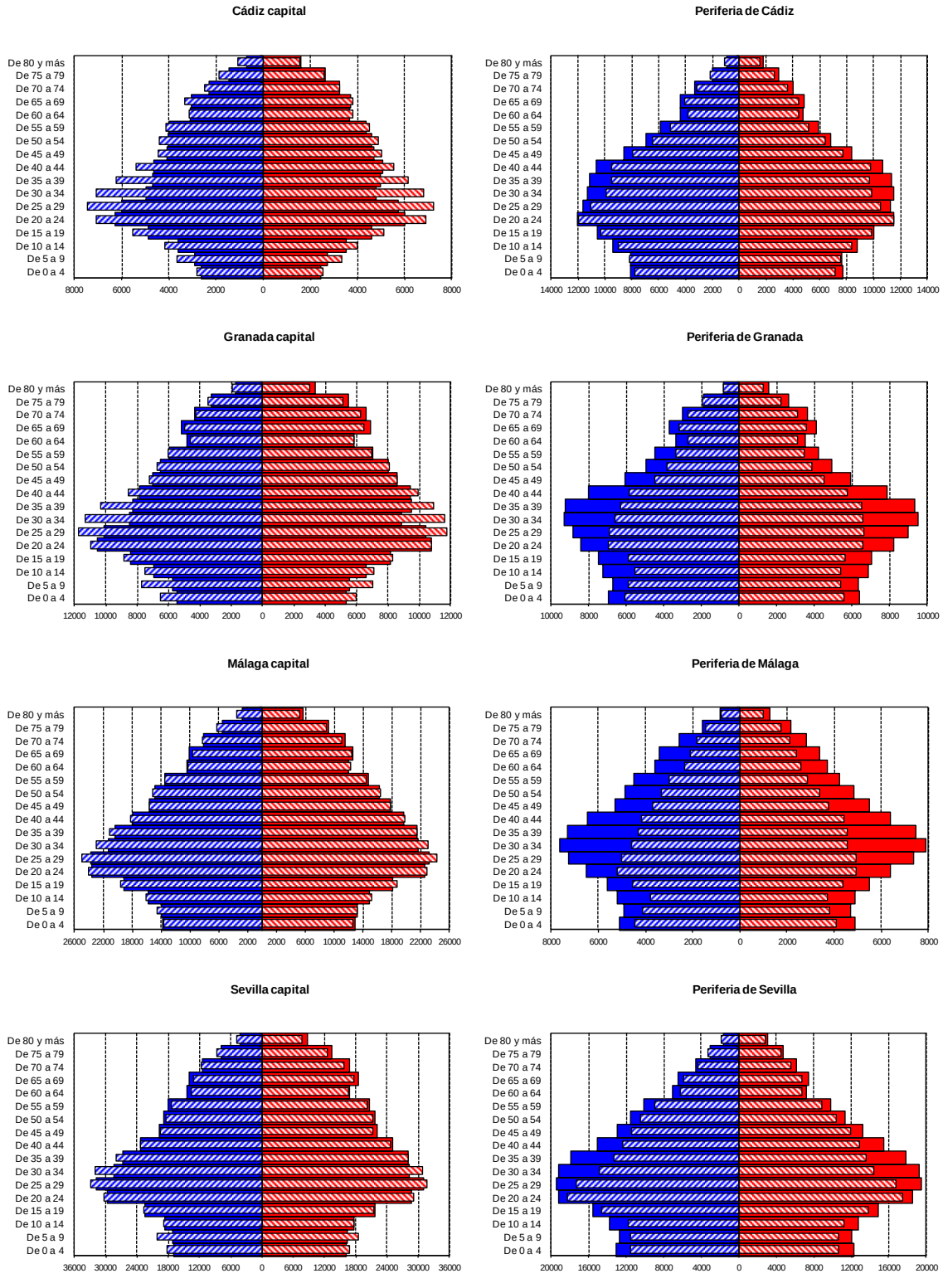
In 1986, the periphery of Seville reached the highest levels of youth of all the areas analyzed: 30.01% of the population was young and only 7.97% was old in 1986. In the capital, the percentage of young people was somewhat lower: 24.32% and 10.41% of the elderly. The ageing process, common to all the agglomerations, has been unequal: greater in the capital than in the periphery. Thus, in Seville, the youth rate has dropped drastically: from 233.67% to 98.87%, and, consequently, there has been an increase in old-age rates: from 42.8% to 101.14%. On the other hand, the ageing process has also had an impact on the periphery, albeit at a slower pace than in the capital: it has gone from a youth rate of 376.56 per cent in 1986 to 187.88 per cent in 2001, and an old-age rate of 53.22 per cent (53 elderly per 100 young people) in 2001 compared with a rate of 26.56 per cent in 1986 (27 elderly per 100 young people).

In conclusion, from the data provided, it can be deduced that the ageing trend of the population in the Andalusian agglomerations is a fact, a phenomenon which they share with the rest of Andalusia, although there is a clear differentiation between the periphery, with less ageing due to the incorporation of young couples, not exclusively from the centres, although to a large extent; and some centres which have undergone a notable ageing process, due to a reduction in the birth rate due to the loss of young people of childbearing age.

To be more precise, the use of the composite pyramids as a graphic method will allow us to superimpose two demographic structures: the real structure of the 2001 Census and the one projected from the method of the survivors.

120 In 2001, the old-age index was around 85.01% in the capital as against 112.92% in Granada or 114.88% in Cadiz.

Figure 4.2
Age pyramids composed of the structure of the population (actual and projected) of the main Andalusian agglomerations between 1991 and 2001.



Source Own elaboration.

The method we used for the elaboration of the composite pyramids was the comparison of the real structure of 2001 and the structure projected for the same moment according to the method of the survivors of Courgeau (Courgeau, 1988). Inspired by this method, I have first obtained the age structure in the absence of migrations, considering the values of birth rate for the first two census age groups, and of mortality for all age groups and sex. For mortality by age, we have used as a source the Statistics of the National Institute of Statistics of deaths by age in provinces between 1991 and 2000. Finally, the estimated mortalities have been calculated by multiplying the mortality rate by the values recorded in the age and sex structure of 1991. For births, we have used the birth rate data between 1991 and 1995, to calculate the groups from 5 to 9 years in 2001 and those from 1996 to 2000, for the groups from 0 to 4 years. Subsequently, we have deduced the mortality in their respective age groups. In this way, we obtained the estimated migratory balance by age and sex in 2001 in each of the spheres.

On the contrary, in cases where the projected population is lower than the population recorded in the 2001 Census, a positive migratory balance would be deducted in that cohort or in the population group by age and sex (table 4.5).

In the compound pyramids, which are expressed in absolute numbers, we observe, as a common feature, a predominance of the regressive character; although with a very clear differentiation between metropolis and new periphery (Monclús, 1998). In the capitals, the retrenchment of the pyramids at the base is very pronounced, accompanied by a setback in the middle age groups, coinciding with the potentially fertile adult ages and occurring among both males and females. Thus, the decline in the birth rate in the centres would be explained not only by the restrictive behaviour of the birth rate, but also by the significant reduction in the population of fertile age, which would lead to a reduction in the birth rate, as the potentially fertile age groups migrate. On the other hand, in the new periphery, the profile is markedly different: the pyramids do not present the regressive character of the provincial capitals and they present an expansive character in the indicated period, with containment and even a certain widening of the pyramid at the base by an incipient increase in the birth rate. At the same time, the effectiveness of middle ages increases and aging is significantly reduced by the cusp.

Consequently, we can conclude that the lower ageing of the peripheries is due to the massive incorporation of young adult population, at a potentially fertile age, which has led to a rise in the birth rate, very clear in the peripheries of Granada, Malaga and Seville, and lower in Cadiz.

In conclusion, it can be deduced that the higher levels of youth in the periphery and older age of the centres are due to an emigration of fertile middle ages, which has selectively affected both young men and young adult women, more men than women at progressively higher ages. In the peripheries, immigration has been general in all age groups, although it has been more intense in the more fertile middle ages of young couples. However, we have to qualify that, despite the close relationship between the aging of capitals and rejuvenation of the peripheries, far from being fully explained by the emigration of cities, so it can be deduced that the area of influence of the city dispersed in Andalusia extends to areas not strictly of the capital, but of other origins and this is perceived both by the method of the natural balance (estimated balance and by the method of survivors).

Table 4.5
Calculation of the migratory balance by age and sex using the survivor method.

Geographical area	Sex	From 0 to 14	From 15 to 44	From 45 to 64	From 65 and up	Total
Cádiz capital	Men	-1.532	-7.360	-1.004	-1.161	-11.057
	Women	-1.219	-6.606	-895	-50	-8.769
	Total	-2.751	-13.965	-1.899	-1.211	-19.826
Peri-urban area of Cadiz	Men	640	5.145	2.455	186	8.427
	Women	1.092	4.989	2.002	1.354	9.438
	Total	1.732	10.135	4.457	1.541	17.864
Granada capital	Men	-3.565	-8.075	-233	-100	-11.972
	Women	-2.590	-6.178	-67	1.426	-7.409
	Total	-6.155	-14.253	-300	1.327	-19.381
Peri-urban area of Granada	Men	3.423	12.795	4.525	842	21.585
	Women	3.205	13.259	3.730	1.625	21.818
	Total	6.628	26.054	8.255	2.467	43.403
Malaga capital	Men	-810	-5.034	32	-1.331	-7.143
	Women	-52	-3.338	-93	1.462	-2.022
	Total	-862	-8.372	-61	130	-9.165
Peri-urban area of Málaga	Men	2.844	13.003	5.914	2.245	24.006
	Women	2.883	13.249	5.696	2.375	24.204
	Total	5.727	26.253	11.610	4.620	48.211
Seville capital	Men	-4.571	-7.052	2.517	-975	-10.080
	Women	-2.818	-3.067	1.918	3.817	-150
	Total	-7.389	-10.119	4.436	2.842	-10.230
Peri-urban area of Seville	Men	4.662	15.821	4.743	527	25.753
	Women	4.535	16.502	3.764	1.893	26.693
	Total	9.197	32.322	8.506	2.420	52.446
Total Andalusian metropolis	Men	-10.478	-27.520	1.313	-3.567	-40.252
	Women	-6.678	-19.189	863	6.655	-18.350
	Total	-17.157	-46.709	2.176	3.088	-58.602
Total peri-urban areas	Men	11.569	46.764	17.636	3.801	79.771
	Women	11.715	47.999	15.192	7.247	82.154
	Total	23.284	94.764	32.828	11.048	161.924

Source Own elaboration.

From the data provided by the method of the survivors, two facts are clear: first, that urban emigration produces a direct effect on the structure by age, with the departure of young population and young adults and a consequent rejuvenation of the structures by age of the destinations or centres receiving this emigration, the Andalusian peri-urban areas. that the migration of the Andalusian capitals produces a simultaneous ageing due to the emigration of young people, especially young couples, from between simultaneously produces an unquestionable process of ageing/centers *versus* less ageing/peripheries in the age structure.

Table 4.6
Comparison of net migration by the natural balance method and the survivor method.

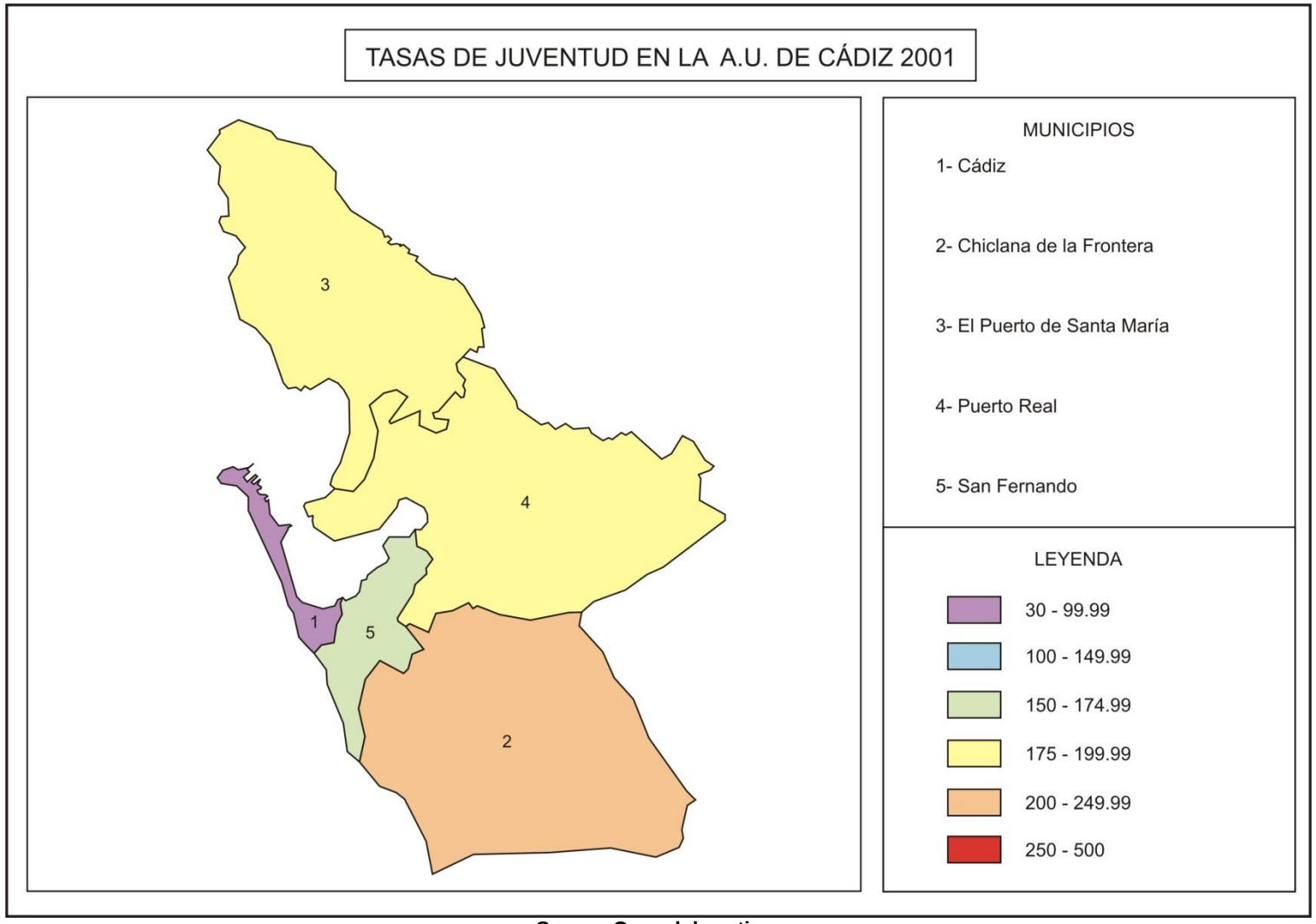
Calculation of the Balance by the natural balance method (estimated balance)	*Calculation of Survivors' Method Balance (estimated balance)*
Cádiz capital (-21.208) Cádiz periphery (+21.042)	Cádiz capital (-19.826) Cádiz periphery (+17.864)
Capital Granada (-20.775) Granada periphery (+44.226)	Capital Granada (-19,381) Granada periphery (+43.403)
Malaga capital (-10.087) Málaga periphery (+49.748)	Malaga city (-9.165) Málaga periphery (+48.211)
Seville capital (-12,767) Sevilla periphery (+48.413)	Seville capital (-10.230) Sevilla periphery (+52.446)
Total centres (-64,837) Total peripheries (+163.429)	Total centres (-58,602) Total peripheries (+161.924)

Source Own elaboration.

The comparison between the natural balance method and the survivor method shows a relevant agreement on the magnitude of the suburbanization processes.

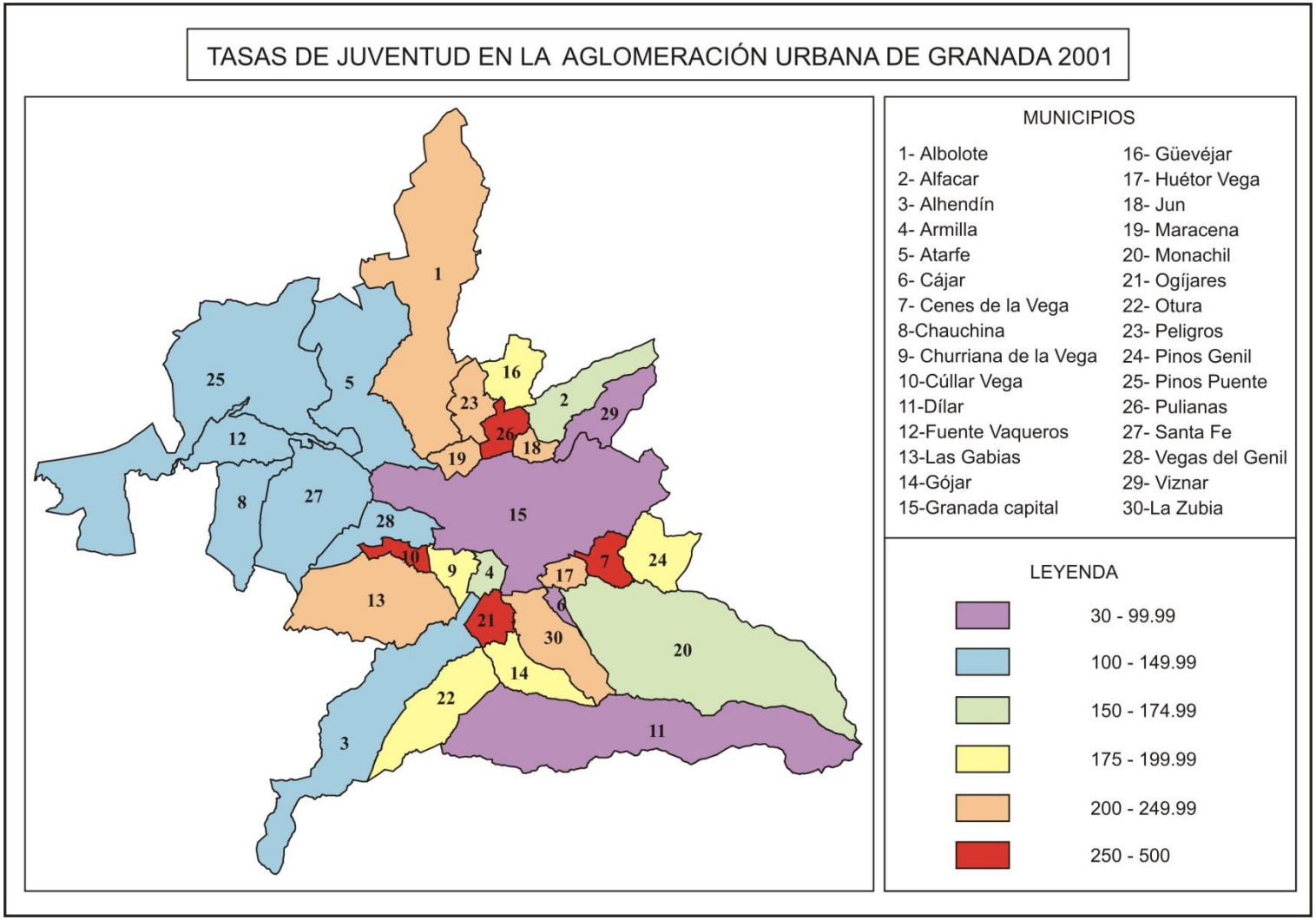
Finally, we include the youth rate, expressed in so many per thousand, of the different areas in 2001 with a view to verifying intermunicipal differences in the processes of unequal ageing due to suburbanisation.

MAP 23



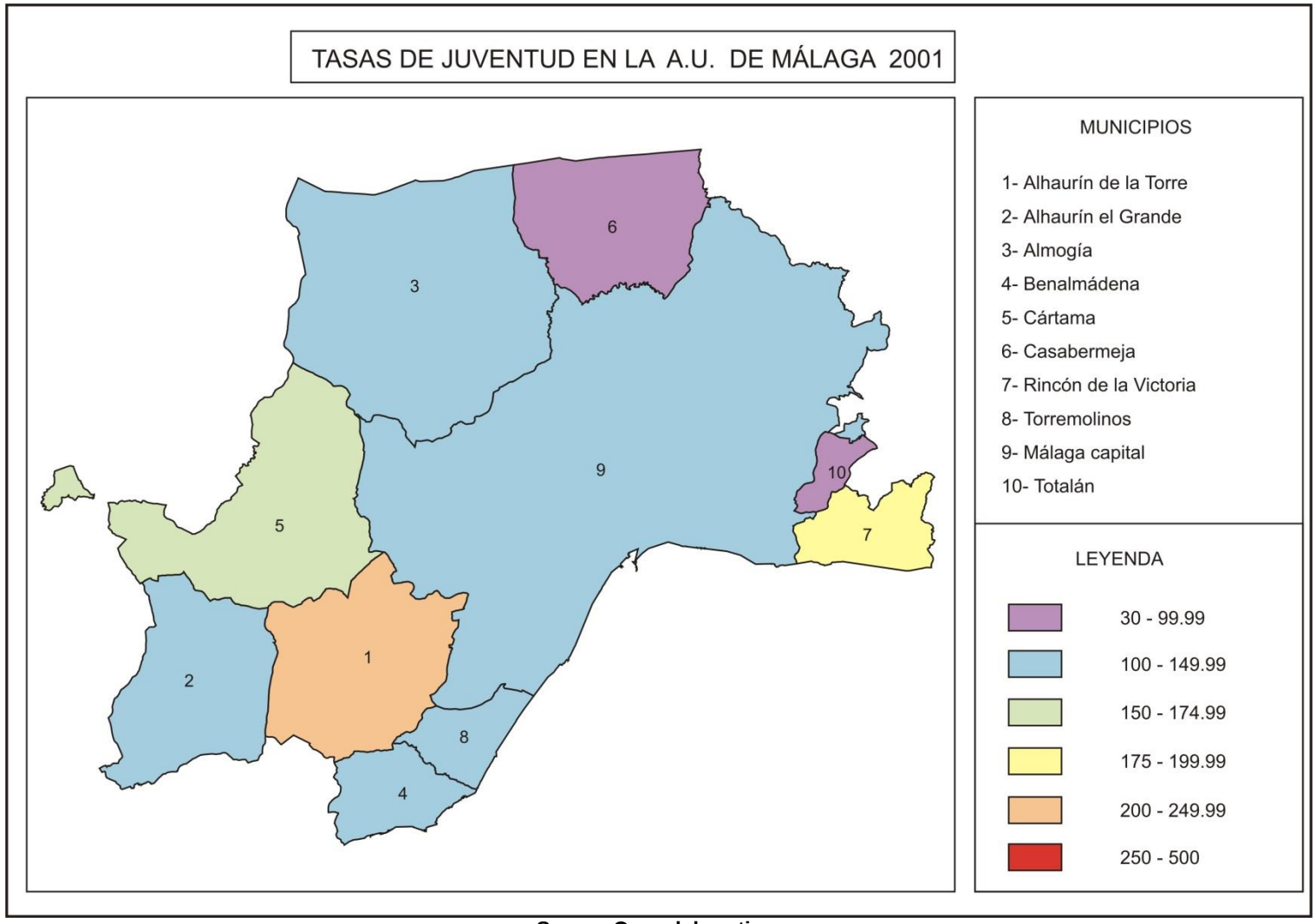
Source Own elaboration.

MAP 24



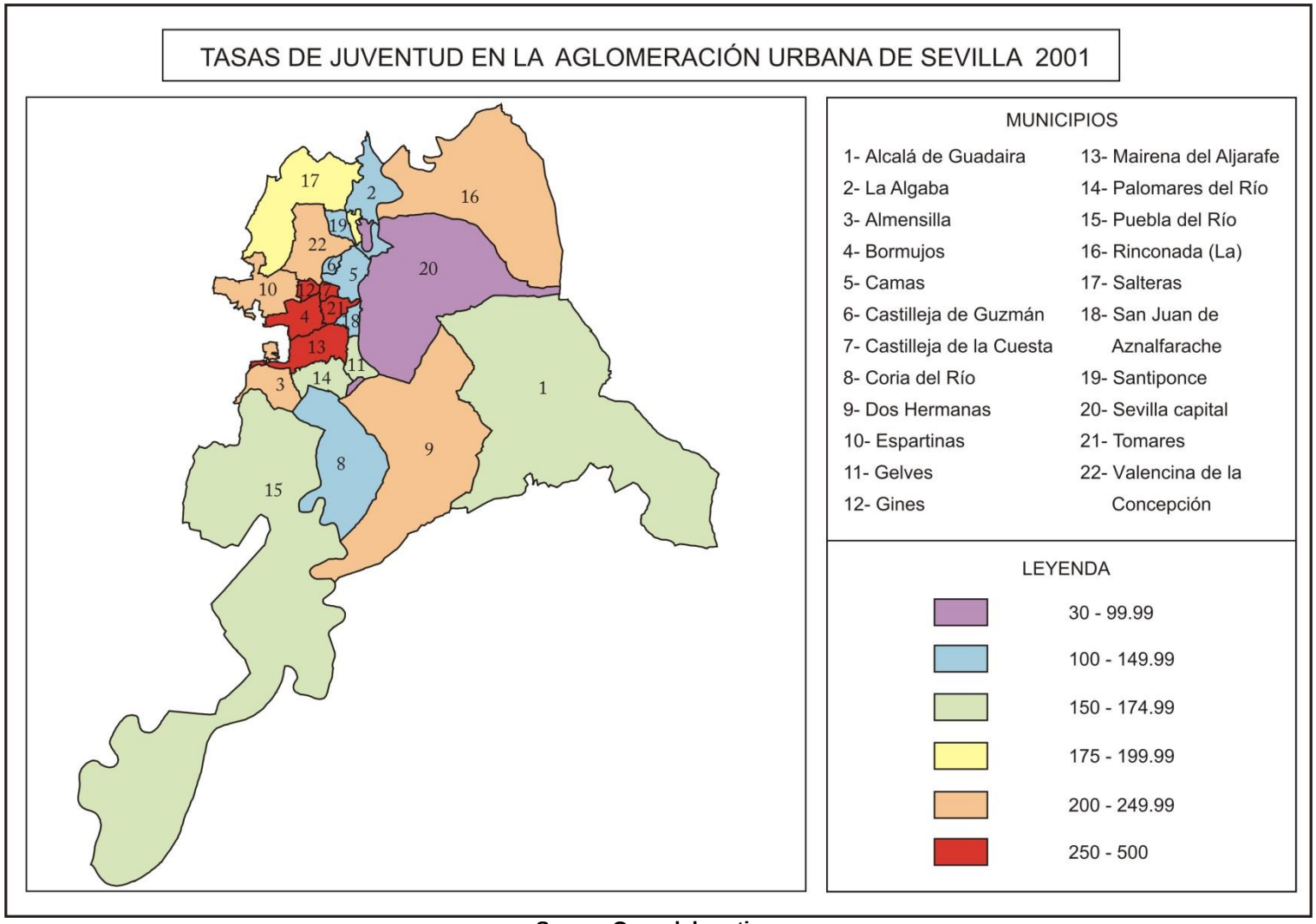
Source Own elaboration.

MAP 25



Source Own elaboration.

MAP 26



Source Own elaboration.

In the AUC, the levels of greater ageing in the central municipality and its closest periphery, that is, San Fernando, and the greater youth of its less immediate or suburban periphery stand out: Puerto de Santa María, Puerto Real, and, above all, Chiclana de la Frontera, where high demographic dynamics, greater immigration and a high youth rate correlate (Map 31). On the other hand, in Cadiz, the capital, there is a correlation between a low demographic dynamic and a high level of ageing, when the starting point three lustrums ago was a low level of ageing, from which can be deduced the selective nature of the urban exodus, affecting the youngest sectors of the capital of Cadiz.

In the AUG, the phenomenon has been similar: from an initial situation of low degree of ageing, a high level of ageing has been reached which contrasts with the low levels of ageing in the northern and southern sectors of the Vega. Pinos Puente, Fuente Vaqueros, and Chauchina, along with Dílar, in the Vega Sur, and the capital, are the municipalities that have most intensely experienced an aging of their demographic staff in recent decades. On the other hand, the municipalities with the highest growth due to immigration, on receiving the contribution of the population emigrating from the capital and from the municipalities mentioned above, experience lower levels of ageing, but more due to the immigration of this young population than to a substantial increase in the birth rate. Again they correlate high urban dynamics and maintenance of high levels of youth by immigration of young people in the municipalities of the northern and southern sector of the periphery, in contrast in the Vega Media and the capital, which are suffering an emigration of young people experiencing greater aging.

At the AUM, the aging process has also been significant. Starting from high levels of youth, with the exception of Casabermeja and Totalán, ageing has been general, more intense in the less transformed rural areas, and more moderate on the coast. Those who have benefited more clearly from suburbanization: Alhaurín de la Torre and Rincón de la Victoria also stand out as the least aged of the Malacitana agglomeration.

As in previous agglomerations, the AUS has experienced significant levels of ageing throughout the period from 1986 to 2001. The starting point is a great youth of its staff, but the situation in 2001 shows a differentiated image: on the one hand, the Aljarafe platform, with low levels of aging, as might be expected, as a result of the immigration of young people from the capital and the province, while the levels of aging are moderate in the municipalities of La Vega and the Alcores platform (Dos Hermanas and Alcalá de Guadaira), and high in the capital.

Thus, despite the fact that the ageing process has been particularly intense in Andalusia, as a result of the drastic fall in the birth rate and the rise in life expectancy, this process has been quantitatively greater in the central municipalities, the result of an emigration that has deprived them not only of their youngest and most fertile members of staff, but also of the offspring of these generations. On the other hand, the ageing process in the peripheral municipalities that suffer suburbanisation has been considerably less, due to the fact that they have been the destination of metropolitan migratory flows. The separation of two worlds is sharpened: on the one hand, the central municipalities, with the highest level of ageing, when, traditionally, they had been the youngest municipalities at the height of the rural exodus of the sixties and seventies; and the municipalities that suffer suburbanisation, which experience levels of growth due to immigration which provides them with an ageing process but of less intensity than that experienced in the central municipalities due to the immigration of young adult personnel.

In the biological structure of the population, the structure or composition by sex stands out. The consideration of gender structure is an attempt to answer the question of whether or not there has been a selection of the population that has migrated on the basis of gender composition. The current structure by sex is a consequence of the local migratory movements that are being generated between the metropolis and the periphery: in the centres, there is emigration, more intense in middle ages, but of both men and young women, from which an emigration of young couples can be deduced. At progressively older ages, there is a tendency for men to emigrate, to a greater extent than women, especially in the capitals of Malaga and Seville, where male emigration

has led to alterations in the sex ratio of these ages in these cities. In the peripheries, this emigration from the centres becomes immigration, the sex composition being much more balanced than that of the metropolises.

From the overall analysis we can highlight the following conclusions (Table 4.8).

Table 4.8
Structure by sex in the Andalusian A.U.[121] (1991-2001).

Geographical area	Sex ratio[122] 1991	Sex ratio 2001
Periphery of Cadiz	100,07	99,56
Cadiz	94,43	91,47
Periphery of Granada	99,01	99,37
Granada	89,2	86,81
Periphery of Málaga	98,69	98,76
Malaga	93,01	92,66
Periphery of Seville	98,2	98,51
Seville	92,19	91,05

Source Own elaboration.

According to the 2001 census data, the structure by sex is very balanced for the peripheries, with values higher than 98%. On the other hand, with regard to the central municipalities, the relationship between men and women is more unbalanced, with a sex ratio ranging from 86.81% in Granada to 92.66% in Malaga. Starting from the analysis of migrations, we observed a selective migration: the emigration from the centres affects young people, both men and women, although in a greater proportion to men. This is accentuated at progressively older ages: in the capitals, the male population tends to emigrate in greater proportion than the female population, and this differentiation becomes increasingly noticeable at progressively older ages, in which there is even moderate immigration of women, which would correspond to a different stage of the life cycle.

Thus, the city functions, at the same time, as a pole of "selective attraction/repulsion" in terms of sex: it expels young couples of both sexes, to a greater extent men, and, as we get older, it becomes a focus of attraction for older women, because of a change in the life cycle and a return to the city.

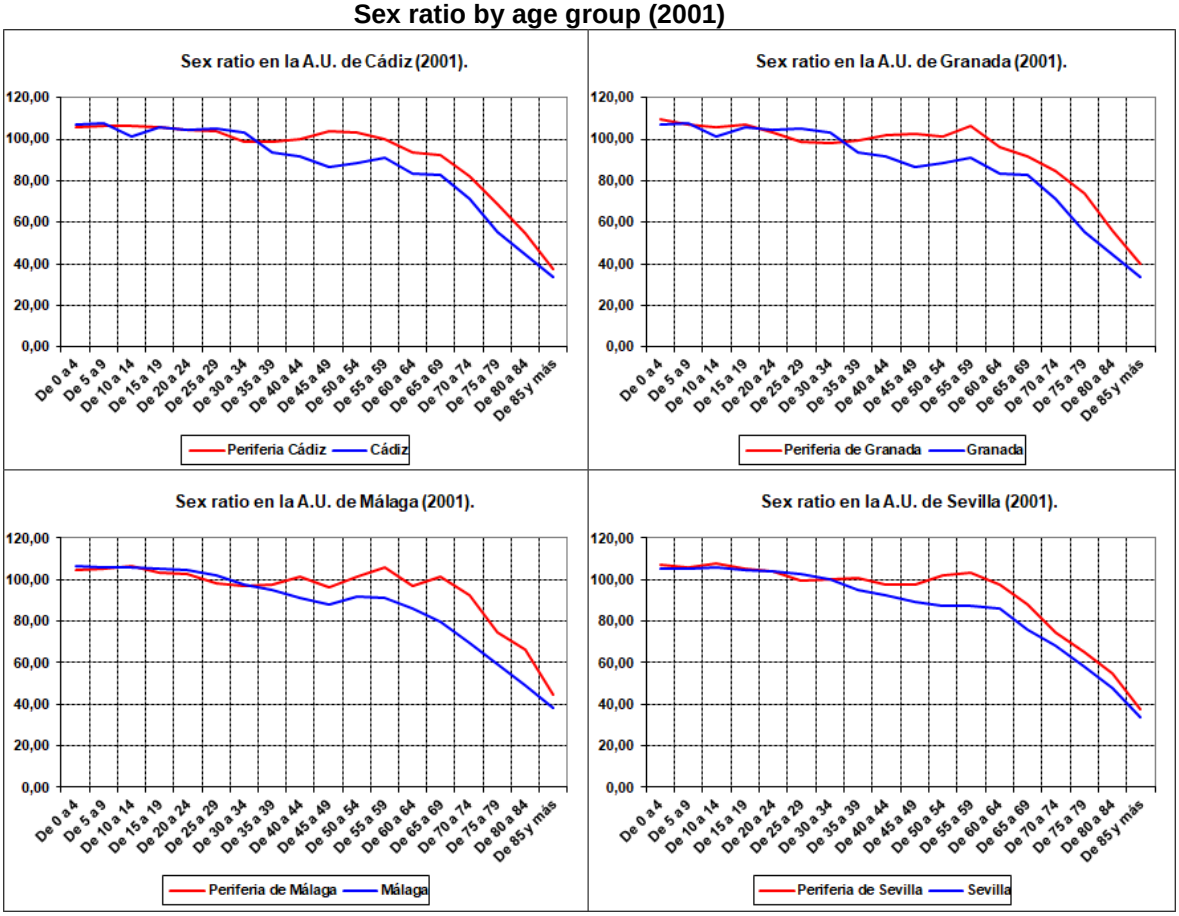
With respect to the relationship of masculinity by age, the interpretation is enriched with nuances. In 1991, the evolution of the relationship of masculinity by age shows a similar behavior, well above 100% in the capital as in the peripheries. This happens until the middle ages: from 30 to 34 in Cadiz, from 25 to 29 in Granada, from 30 to 34 in Malaga, and from 25 to 29 in Seville. Although with similar peripheral-metropolis rates, the situation differs: it remains high, and even increases in the periphery with respect to previous ages; especially in the younger ages, and also decreases clearly in the central city. The relationship between the two phenomena seems clear: the immigration of young middle-aged people from the periphery increases the ratio of masculinity, since the rejuvenation of the age structure results in these municipalities having a higher sex ratio at these ages. On the other hand, in the central municipalities, the emigration of young people results in ageing, and this greater ageing, due to emigration, contributes to a certain immigration of elderly women who are in another stage of the life cycle, probably when they become widowed, and seek an alternative to their place of origin in the city.

The census situation in 2001 does not show significant changes in the profile, although there are indications of the effects of greater ageing not only in the metropolis but also in the peripheries.

121 See Andalusian Urban Agglomerations.

122 The sex ratio relates the number of men per 100 women.

Figure 4.9
Sex ratio by age group (2001)



Source Own elaboration.

4.2. SOCIO-ECONOMIC STRUCTURE.

4.2.1. The level of education.

Knowing the degree of qualification of the population should be a priority objective in any sociodemographic analysis with a view to obtaining an approximate view on the degree of qualification of the workforce. In our research work, this priority is applied, specifically, to knowing how social change has occurred thanks to an improvement in the degree of qualification of the population, a change that is of exogenous root; since the most relevant change has not produced a decrease in the absolute volume of population with the lowest level of education; but in the incorporation of population with middle and higher studies of exurban origin. It is for this reason that it is necessary to study the levels of education by origin of the population.

As sources, I would like to mention the indirect sources of the 1991 and 2001 Censuses, elaborated by the National Statistics Institute and operated by the Andalusian Institute of Statistics and Cartography for the case of Andalusia. At the same time, we will refer to a direct source such as the Survey, in order to verify the cause of the improvement in the level of education of the population.

Looking at the tables below, the following conclusions can be drawn:

-In the first place, the improvement in the training of the population in the intercensal from 1991 to 2001: from a majority population without a complete primary school to a predominance of those who have a School Graduate or an ESO, being also relevant the weight of the average studies which, due to the greater demographic volume, are the predominant ones in Granada and Cadiz, being somewhat lower in importance in Malaga and in Seville capital.

-Secondly, I would not want to ignore the extraordinary growth in relative terms of the population with intermediate studies (BUP/COU/FP/Bachillerato LOGSE.), and of higher studies experienced in all the areas object of our analysis, both periphery and metropolis, while we are witnessing a strong decrease in the population without studies or with incomplete primary education. It can therefore be deduced that the intercensal has resulted in an improvement in the degree of qualification of the population.

-Finally, the greatest relative increases correspond to the peripheries, both in intermediate studies and, above all, in university studies, with the number of people with higher studies doubling in all the peripheries except in Cadiz.

Table 4.9
Educational level of the population aged 10 and over according to 1991.

	Illiterate 1991	No studies 1991	Incomplete primary 1991	School Graduate or ESO 1991	Middle studies 1991	University studies 1991	Other	Total
Periphery of Cadiz	7.317	44.958	6.3281	35.678	27.838	9.389	1.351	189.812
Cadiz	2.509	25.986	46.775	22.222	25.670	11.032	1.206	135.400
Periphery of Granada	7.042	37.377	36.627	25.338	13.499	5.872	162	125.917
Granada	6.110	49.251	49.239	44.462	41.722	31.086	1.409	223.279
Periphery of Málaga	5.386	23.105	28.489	20.213	11.959	4.710	578	94.440
Malaga	16.797	100.631	137.054	90.219	73.277	32.162	2029	452.169
Periphery of Seville	15.124	79.758	90.166	58.431	30.698	12.433	577	287.187
Seville	17.580	124.057	174.460	121.724	105.989	54.410	3.685	601.905

Source Instituto de Estadística y Cartografía de Andalucía, Censo de población de Andalucía 2001[Institute of Statistics and Cartography of Andalusia: Population Census of Andalusia 1991]. Own elaboration.

Table 4.10
Educational attainment of the population aged 16 and over in 2001.

	Illiterate 2001	No studies 2001	Primary incomplete 2001	School Graduate or ESO 2001	Middle Studies 2001	University studies 2001	Total
Periphery of Cadiz	6.335	27.489	46.017	54.493	48.347	24.239	206.920
Cadiz	2.126	14.798	24.182	25.229	28.190	18.786	113.311
Periphery of Granada	4.376	21.332	33.322	48.586	32.181	19.313	159.110
Granada	4.596	22.346	32.351	42.288	45.973	52.818	200.372
Periphery of Málaga	4.190	16.893	28.732	39.795	28.986	16.448	135.044
Malaga	12.457	49.640	82.196	127.406	95.361	63.983	431.043
Periphery of Seville	11.798	45.243	68.137	93.637	71.476	39.098	329.389
Seville	14.648	66.766	109.387	143.502	130.176	106.442	570.921

Source Instituto de Estadística y Cartografía de Andalucía. Censo de Población de Andalucía 2001.
[Institute of Statistics and Cartography of Andalusia. Population Census of Andalusia 2001]. Own elaboration.

Table 4.11
Population location coefficients by level of education in 2001
(Population aged 16 and over).

Geographical area	Illiterate 2001	No studies 2001	Primary incomplete 2001	School Graduate or ESO 2001	Middle Studies 2001	University studies 2001	Total
Periphery of Cadiz	1,09	1,08	1,12	0,98	1,04	0,74	1,00
Cadiz	0,67	1,06	1,08	0,83	1,11	1,04	1,00
Periphery of Granada	0,98	1,09	1,06	1,14	0,90	0,76	1,00
Granada	0,81	0,90	0,82	0,79	1,02	1,66	1,00
Periphery of Málaga	1,10	1,01	1,08	1,10	0,96	0,77	1,00
Malaga	1,02	0,93	0,96	1,10	0,99	0,93	1,00
Periphery of Seville	1,27	1,11	1,05	1,06	0,97	0,75	1,00
Seville	0,91	0,95	0,97	0,94	1,02	1,17	1,00
Total	1,00	1,00	1,00	1,00	1,00	1,00	1,00

Source Instituto de Estadística y Cartografía de Andalucía. Censo de Población de Andalucía 2001. [Institute of Statistics and Cartography of Andalusia. Population Census of Andalusia 2001]. Own elaboration.

Considering the location coefficients[123], we can draw the following conclusions: the level of education shows higher levels of qualification in the provincial capitals than in their respective peri-urban areas. The area with the highest qualification is in the city of Granada, with a location coefficient of 1.66 in the population of university studies. On the other hand, the localization coefficient is lower than the weight of the population among the illiterates, which represented a coefficient of 0.81. For studies, the highest coefficients among illiterates are found in the peripheries, due to the great representativeness of the local population, with a lower level of education than the population as a whole. Incomplete primary levels are also high in all the peripheries and only have a greater representation in the city of Cadiz. On the contrary, the presence of the population with a school graduate or equivalent are the levels of study with a coefficient greater than the weight of the population that has completed obligatory studies (of ages between 16 and over). In the cities, the population coefficients of intermediate studies in Cadiz, Granada and Seville are relevant, being somewhat lower in the city of Malaga in relation to the total population that has completed compulsory education. Finally, university studies are very high in the city of Granada and, to a lesser extent, in Seville and Cadiz. We can therefore deduce the relative importance that the incorporation of middle class population has had in the level of qualification of the population, always clarifying that we are talking about averages in global groups. Descending to a municipal scale, the situation changes substantially (see Table 4.12 and following.).

Table 4.12
Location coefficients of the AUC population[124].

Municipality	No studies	Middle Studies	University Studies
Chiclana de la Frontera	1,09	0,99	0,90
Puerto de Santa María (El)	0,66	1,15	1,36
Puerto Real	0,82	1,32	1,00
San Fernando	0,70	1,33	1,23
Cadiz	0,78	1,28	1,64

[125]Source Own elaboration.

123The localization coefficient is calculated by dividing the percentage of the subgroup of the population in a spatial unit - in our case a geographical area - by the total percentage of the population (DEL CANTO, C. et al.: Trabajos Prácticos de Geografía Humana. Síntesis: Madrid, p. 240-242).

124 Population 16 years old and over (16 years old is the compulsory schooling age in Spain).

In the AUC (Urban Agglomeration of Cadiz), the highest coefficients correspond to average studies in the periurban area, except in Chiclana de la Frontera, where the level of education is significantly lower. In the sub-regional metropolis we find the highest location coefficients in higher studies. To highlight the cases of San Fernando and Puerto Real with high coefficients of average studies (1.32) in Puerto Real and San Fernando (1.33), even higher than in the capital. They are indicators of a degree of endogenous urbanisation driven by industrial activity in the case of Puerto Real and, in the case of San Fernando, of being a dormitory city in Cadiz with which it borders geographically.

Table 4.13
Location coefficients of the AUG population[126].

Municipality	No studies	Middle Studies	University Studies
Albolote	0,75	1,23	0,98
Alfacar	0,89	1,10	0,88
Alhendin	0,86	0,81	0,62
Armilla	0,62	1,27	0,78
Atarfe	1,10	0,95	0,57
Cájar	0,63	1,47	1,80
Cenes de la Vega	0,52	1,42	1,27
Cúllar Vega	0,35	1,52	1,00
Chauchina	1,07	0,71	0,37
Churriana de la Vega	0,46	1,05	0,68
Dílar	0,99	1,03	0,82
Fuente Vaqueros	1,53	0,79	0,41
Gójar	0,32	1,42	1,33
Güevéjar	0,76	0,93	0,48
Huétor Vega	0,64	1,38	1,10
Jun	0,70	1,31	0,95
Maracena	0,64	1,23	0,70
Monachil	0,89	1,25	0,95
Ogíjares	0,34	1,49	1,33
Otura	0,66	1,24	1,17
Peligros	0,65	1,17	0,86
Pinos Genil	0,61	1,24	0,92
Pinos Puente	1,20	0,66	0,34
Pulianas	0,76	1,16	0,76
Santa Fe	0,95	1,06	0,69
Víznar	0,61	1,33	0,93
Zubia (La)	0,60	1,18	1,02
Gabias (Las)	0,77	1,16	0,84
Vegas del Genil	0,73	1,05	0,71
Granada	0,62	1,31	1,83

Source Own elaboration.

125 Prepared by the authors based on data from the National Statistics Institute: Population Census 2001.

126 Population 16 years old and over (16 years old is the compulsory schooling age in Spain).

In the AUG (Urban Agglomeration of Granada), the coefficients of population without studies and with the weight of population with medium studies or medium qualifications indicate a lower degree of urbanisation and less urban diffusion. They all belong to the municipalities of the Vega Media of Granada. Therefore, it is deduced that a high coefficient of population without studies and a low coefficient of population of medium studies is a good indicator of the degree of rurality of these municipalities: Alhendín, Atarfe, Chauchina, Fuente Vaqueros and Pinos Puente are the municipalities that make up this sample. At the same time, the dissymmetry between the Vega Norte of Granada and the Vega Sur is underlined: the Vega Norte, with municipalities with middle class studies that show the presence of a middle class protagonist of suburbanization. In the southern sector of the Vega de Granada, the coefficients of higher education are comparable to those existing in the provincial capital, Granada. All municipalities with a higher education location coefficient are located in the conurbation insinuated in the south of the Vega de Granada: in Cájar (1.80), Cenes de la Vega (1.27), Gójar (1.33), Ogíjares (1.33), Otura (1.17), La Zubia (1.02). The existence of a middle and upper-middle class can be seen in these municipalities in the southern sector of the Vega de Granada. The lowest coefficient of persons without studies is also located in these municipalities with location coefficients between 0.3 and 0.35 in Cúllar Vega, Gójar and Ogíjares. Therefore, a correlation can be guessed between population with medium and higher education and with low levels of uneducated population in the South sector of the Vega and with medium education in the North sector of the Vega. Granada reached the highest level of agglomeration of population with higher education (1.83).

In relation to the AUM (Urban Agglomeration of Malaga), there are four distinct areas: on the one hand, the municipalities of the Costa del Sol of the agglomeration, with a residential tourism of medium and high qualification and, on the other hand, the municipalities of Alhaurín de la Torre and Rincón de la Victoria. In both cases, we are referring to municipalities that attract immigrants of medium and high qualification, somewhat more elitist in Rincón de la Victoria which has the highest location coefficient in higher studies (1.63), even higher than that of the provincial capital, Malaga, which has a high coefficient in medium studies and, above all, higher in the agglomeration as a whole.

Table 4.14
Location coefficients of the AUM population.

Municipality	No studies	Middle Studies	University studies
Alhaurín de la Torre	0,73	1,18	1,10
Alhaurin the Great	1,54	0,66	0,54
Almogía	2,02	0,38	0,21
Benalmádena	0,65	1,20	1,04
Cartama	1,35	0,63	0,36
Casabermeja	1,07	0,67	0,66
Rincón de la Victoria	0,56	1,29	1,63
Total	0,92	0,37	0,33
Torremolinos	0,66	1,28	1,17
Malaga	0,78	1,13	1,26

Source Own elaboration.

With regard to the AUS (Urban Agglomeration of Seville), we can mention several areas:

La Vega, the municipalities of La Algaba and La Rinconada showed, in the 2001 Census, higher levels of rurality as corresponds to a less intense degree of urbanization and with a lower presence of middle and upper-middle class immigrants.

-The Aljarafe platform is representative of a direct correlation between a low localization coefficient of population without studies of 16 years of age and over and high localization coefficients in population with higher studies, especially in the Central Escarpment, the oldest suburbanization, and in the North and South escarpment. In the North escarpment, Castilleja de Guzmán with a very high location coefficient in medium and higher studies (2.33), in Espartinas (2.03) and in Valencina de la Concepción (1.59). In all of them, the presence of high coefficients can be seen in the population of intermediate and higher education, which contrasts with the older suburban areas (Camas and San Juan de Aznalfarache, with relevant coefficients associating a low-skilled population: in Camas (0.97) and with intermediate studies (0.92), and in San Juan de Aznalfarache with an outstanding coefficient of low qualification (0.96) and average qualification (1.01), perhaps indicative of filtering down processes or filtering carried out by a population with lower incomes that seeks, above all, cheaper housing than in the capital although older and of a lower quality typology than in other sectors of the Aljarafe. In the Aljarafe we also find areas that indicate that they have not yet received the urbanizing influence of the city, so that the levels of rurality that manifest themselves in a greater presence of population without studies is greater, as in Coria del Río, La Puebla del Río or Santiponce.

-The platform of the Alcores. Where a relevant part of the industry is located in the agglomeration. As in Puerto Real, it is the protagonist of an endogenous suburbanization in which the attraction to industrial jobs has motivated an emigration that, however, is not as classy as the one felt in certain sectors of the Aljarafe. In Alcalá de Guadaira, for example, endogenous suburbanization has attracted uneducated people, industrial workers, while in Dos Hermanas, it has been led by urban and middle-class people (1.43).

Table 4.15
Location coefficients of the AUS population.

Municipality	No studies	Middle Studies	University Studies
Alcalá de Guadaira	1,07	0,87	0,70
Algaba (La)	1,57	0,75	0,39
Almensilla	0,78	1,13	1,11
Bormujos	0,46	1,40	1,08
Beds	0,97	0,92	0,57
Castilleja de Guzmán	0,31	1,65	2,33
Castilleja de la Cuesta	0,79	1,16	0,96
Coria del Río	1,32	0,73	0,45
Two Sisters	0,78	1,43	0,91
Espartinas	0,43	1,43	2,03
Gelves	0,40	1,35	1,30
Gines	0,55	1,50	1,78
Mairena del Aljarafe	0,50	1,38	1,62
Palomares del Río	0,77	1,16	1,42
Puebla del Río (La)	1,11	0,59	0,44
Corner (La)	0,97	0,94	0,46
Salteras	0,52	1,25	0,91
San Juan de Aznalfarache	0,96	1,01	0,58
Santiponce	1,45	0,89	0,54
Tomares	0,38	1,53	2,34
Valencina de la Concepción	0,57	1,32	1,59
Seville	0,73	1,21	1,49

Source Own elaboration.

Finally, we mention the differentiation of the population according to origin through the information provided by an indirect source such as the survey (Table 4.16).

Of a total of 401 respondents, the head of household, whether male or female, with no schooling or incomplete primary schooling, comfortably exceeded 50 per cent in the indigenous population, with only 12.75 per cent at average levels and 6.71 per cent at university level. On the other hand, among immigrants coming from the central city, the situation is clearly different: 29.1% of intermediate studies (BUP /COU/FP), and 21.64% of higher education. These levels are even higher among immigrants from other backgrounds[127], whose share of the population with higher education rose to almost a third of the heads of household surveyed.

Thus, the extraordinary increase in the population with secondary and higher education in the municipalities of the new peripheries is explained, since it is the result of immigration, of the incorporation of foreigners from other origins (from the provincial capital or preferably from the same province).

As a result, urban migration is selective in nature, affecting the population with a higher level of education, middle and higher education. In spite of everything, the phenomenon is far from being generalized, there are municipalities that continue to have a greater presence of population with primary studies, that correspond to those that have remained on the margin of the metropolitan

127 The immigrant population not coming from the central city was 37.61% of the rest of the province, 23.08% from other points in Andalusia, 29.06% from other places in Spain and 9.4% from abroad.

processes or that are suffering processes of filtering or replacement of the middle class population by another of lesser qualification and social status.

In conclusion, we can underline that the level of education is an indicator of excellence of the presence or not of suburbanization processes, whether residential or endogenous. As the indigenous population remains in its place of origin, in places other than suburbanization, the population with the lowest level of qualification continues to be relevant in many peripheral municipalities. On the other hand, the guidelines are clearer with respect to the population with medium and higher education, whose predominance indicates a generalization of the phenomenon of suburbanization at a global level in the new peripheries that arises under the protection of urban dispersion processes not exempt from clogging and incipient conurbation such as those of the Vega de Granada, the Costa del Sol or the Aljarafe in Seville.

Table 4.16
Educational level of the head of household surveyed. Percentages according to origin.

Instructional Levels	TOTAL	NATIVE	NEO-RURALS	REST OF IMMIGRANTS
a. No studies.	20,69	33,55	5,97	20,51
b. Up to elementary school.	16,71	20,13	15,67	13,67
c. School graduate.	24,43	26,84	27,61	17,95
d. Middle studies:	19,95	12,75	29,1	18,8
BUP-COU Grades	12,72	4,7	20,89	14,53
FP Grade	4,99	4,03	2,98	0,86
There is no record.	3,24	4,03	5,22	0
e. University studies:	18,2	6,71	21,64	29,06
University degree.	6,98	3,35	6,71	9,4
University graduate	8,73	3,35	8,95	15,38
There is no record.	2,49	0	0	0
Others	0	0	5,97	0
TOTAL	99,98	99,98	99,99	99,99

Source Montosa Muñoz, J.; 1997 Population Survey. Own elaboration.

4.2.2. The activity.

The analysis of the economic activity is crucial to determine whether the growth of inhabitants would have been produced by a diffusion of activities from the central municipalities towards the periurban belts or it is a diffusion of inhabitants without more. Although in the municipalities studied in our Survey that were chosen among those with the most intense demographic growth and that responded to an exogenous type of urbanisation, we insisted that it was non-economic motives that explain that certain municipalities became centres of migratory attraction and, therefore, demographic; this does not prevent that in other municipalities where demographic growth has gone parallel to industrial development, the explanation is clearly economic and due to the diffusion of activities, the subsequent diffusion of inhabitants. This brings us back to the two theories that try to explain the recent exorbitant growth of peri-urban areas: the thesis of restructuring and that of deconcentration. The theory of regional restructuring, which has, among others, the sociologist Manuel Castells as its main defender, considers that we are in a post-Fordist era, or post-industrial, in the so-called information society[128], in which the technological revolution has facilitated the

128 For Manuel Castells, the information society is the result of an economy based on information and the dissemination of that information without the need for geographical contiguity, which has freed up geographical barriers and accentuated decentralisation.

dissemination of information to the most remote corner of the planet. In short, a world in which the distance factor, in its geographical sense, has lost weight and facilitated the decentralisation of activities, including industrial activities, as opposed to the traditional location focus of these that had been the central cities. In contrast to the theory of restructuring, which considers that it is the activities that attract population, the theory of deconcentration gives greater importance to the individual's freedom to choose his residence because technological development has allowed deconcentration thanks to improvements in accessibility and technological innovations. Its main defenders are Hall and Hay.

In the case of Andalusia I have to make two clarifications: a first in the sources I had available, to check whether there had been a diffusion of synchronous or diachronic activities to the process of diffusion of inhabitants. To this end, I have taken the 1990 Census of premises, drawn up by the Institute of Statistics and Cartography of Andalusia, which provides information on the real productive capacity of each municipality and I have compared it with another of public origin: Social Security registrations with a level of municipal disaggregation and the type of activities as of December 2000.

The main disadvantage of such information is that we are talking about dynamic processes, metropolitan reality is, by its very nature, unstable, and the resulting analyses are necessarily ephemeral. The conclusion I have drawn from the information available is that in certain places the dissemination of activities has taken place and is a factor that has attracted the population to these municipalities. However, it is not a generalized fact that this process of industrial decentralization does not occur in all sectors of the Andalusian periurban areas. But, more strikingly, the diffusion of activities is not a sine qua non factor for suburbanization to occur: demographic growth has not occurred in other cases due to the diffusion of activities, but rather due to the diffusion of inhabitants, a condition for residential suburbanization from the central municipalities; which have not generated a simultaneous growth of strictly urban or industrial activities, but rather the creation of highly precarious and highly unstable jobs for the indigenous population, such as in construction, which do not affect, as we say, the population that diffuses from the metropolis to these municipalities since they keep their jobs in the central areas, which forces daily mobility for work reasons.

In short, we are faced with two models of urbanization and urban growth: one is through the diffusion of activities that respond to the delocalization or diffusion of activities from the metropolis to the periurban municipalities: Puerto Real, in Cadiz; northern sector of the Vega de Granada: Albolote, Atarfe, Jun, Maracena, Peligros and Pulianas; and Alcalá de Guadaira and Dos Hermanas, in Plataforma del Aljarafe, and the municipality of La Rinconada, but also some municipalities of Aljarafe, especially in its westernmost sector and close to Seville, which constitutes, after Seville, the agglomeration sector whose productive land is more tertiarized, "with two corridors, the oldest around the road of Extremadura as it passes through the municipalities of Camas, Valencina, Santiponce and Salteras, being mostly poor quality industrial areas. In a second corridor, located on the road between San Juan de Aznalfarache and Puebla del Río, there is more recently created industrial land[129]. This group of municipalities confirms for Andalusia the thesis of restructuring: there has been a restructuring that has generated a diffusion of industrial activities from the metropolis to these municipalities coinciding with the transition from the industrial era to the post-industrial or post-Fordist.

On the other hand, the thesis of deconcentration would also accommodate peri-urban growth: there would be municipalities where there has not been a diffusion of activities but a diffusion of inhabitants without more, which corresponds to the concept of residential suburbanization. In these

129MENDOZA BONET, A (2006): "Situación y tendencias de la industria en la aglomeración metropolitana de Sevilla". In MÉNDEZ GUTIÉRREZ DEL VALLE, R. and PASCUAL RUIZ-VALDEPEÑAS, H. (Ed.): Ciudad e Industria en España: nuevas realidades, nuevos desafíos. Cizur Menor (Navarra): Aranzadi, p. 229.

municipalities the mobile is markedly residential; and the sector that has grown the most among local jobs is construction.

Therefore, in conclusion, the phenomenon acquires complexity, depending on the cases and it is not possible to generalize a single explanation for urban growth in the set of Andalusian periurban belts. In short, no thesis is decisive in Andalusia and they are not mutually exclusive: both are equally valid depending on which cases they are dealt with.

The drafting process will contain the following sections: in the first, the productive capacity of the municipalities in the agglomeration is studied in order to analyse the degree of specialisation of these municipalities. The second studies the degree of autonomy with respect to the metropolis of the municipalities analyzed. As a result of the character of autonomy/dependence between the centre and its periphery, the analysis of the intensity of daily or pendulum mobility is relevant, for which we will use the data from our survey to analyse the degree of dissociation between place of work and place of residence. Finally, in the third, the degree of qualification of the total employed will be analyzed, and according to their origin, with a view to verifying if the immigration of professionals of medium and superior type has entailed an alteration of the social uniformity and a social change of exogenous root that has contributed to give a greater heterogeneity to the social fabric of certain municipalities of the periphery.

4.2.2.1. The degree of specialisation of the assets.

In order to study the degree of specialization of the assets we will use as source the jobs to December 2000 of the public archives of the Social Security. The Social Insurance files distinguish jobs with a degree of disaggregation of two digits that we have grouped into one digit to make the neat information they contain more intelligible. We have preferred to use employment data instead of employed persons in order to know the degree of specialisation of the productive structure of the municipalities, an aspect that would be distorted if we had used data on employed persons. To prepare the data we use the CNAE, the National Classification of Economic Activities of 1993, approved by Royal Decree 1560/1992. The activities that were regrouped dealt with the following elements:

1-Agriculture, livestock, hunting and forestry.

2-Fishing.

3-Extractive industries.

4-Manufacturing industry.

5-Production and distribution of electricity, gas and water.

6-Construction.

7-Commerce, repair of motor vehicles and personal and household goods.

8-Hotel.

9-Transport, storage and communications.

10-Financial intermediation.

11-Real estate activities and business services.

12-Public administration, defence and social security.

13-Education.

14-Health and veterinary activities, social service.

15-Other social activities and personal services.

16-Domestic staff.

17-Extraterritorial Organizations.

Once the single-digit classification was obtained, we grouped together the data of the jobs as of December 2000 from the Social Security, and on the data, we applied, as an analysis technique, the Sargent Florence matrix in which we calculated the localization quotients and the localization and specialization coefficients. The reference unit is the set of agglomerations, so the degrees of specialisation will always be taking into account the whole of the agglomeration. Codes have been used from the National Institute of Statistics, the equivalence of which is shown below.

11012 Cádiz
11015 Chiclana de la Frontera
11027 El Puerto de Santa María
11028 Puerto Real
11031 San Fernando
18003 Albolote
18011 Alfacar
18014 Alhendín
18021 Armilla
18022 Atarfe
18036 Cájar
18047Cenes de la Vega
18057Cúllar Vega
18059Chauchina
18062Churriana de la Vega
18068Dílar
18079Fuente Vaqueros
18084Gójar
18087Granada
18095Güevéjar
18101Huétor Vega
18111Jun
18115Láchar
18127Maracena
18134Monachil
18145Ogjares
18149Otura
18153Peligros
18157Pinos Genil
18158Pinos Puente
18165Pulianas
18175Santa Fe
18193Zubia (La)
18905Gabias (Las)
18911Vegas del Genil
29007Alhaurín de la Torre
29008Alhaurin El Grande
29011Almogía
29025Benalmádena
29038Cartama
29039Casabermeja
29067Malaga
29082Rincón de la Victoria
29092Totalan
29901Torremolinos
41004Alcalá de Guadaira
41007Algaba (La)
41010Brenes
41017Bormujos
41021Camas
41028Castilleja de Guzmán
41029Castilleja de la Cuesta
41034Coria del Río
41038Dos Hermanas
41040Espartinas
41044Gelves
41047Gines
41059Mairena del Aljarafe
41070Palomares del Río
41079Puebla del Río (La)
41081Rinconada (La)
41085Salteras
41086San Juan de Aznalfarache
41089Santiponce
41091Seville
41093Tomares
41096Valencina de la Concepción

The AUC matrix in 2000 for Social Security jobs showed the following information:

Table 4.17
Sargent Florence's matrix in the AUC (2000).

Sectors	11012	11015	11027	11028	11031	Location coefficient
1	0,14	2,60	2,50	2,29	0,59	0,51
2	1,55	0,23	0,57	0,13	0,33	0,30
3	0,40	0,13	1,95	0,13	4,59	0,51
4	0,52	0,94	0,85	4,07	1,16	0,29
5	1,25	0,53	1,08	0,42	0,62	0,15
6	0,42	3,05	1,36	1,16	1,09	0,32
7	0,59	1,83	1,69	0,82	1,42	0,24
8	0,62	1,48	1,98	0,61	1,48	0,24
9	1,19	0,73	0,97	0,57	0,73	0,10
10	1,72	0,13	0,14	0,11	0,14	0,39
11	1,02	0,73	1,34	0,67	1,05	0,06
12	1,48	0,18	0,31	0,24	1,02	0,26
13	1,13	0,41	1,24	0,38	1,18	0,13
14	1,68	0,09	0,18	0,24	0,22	0,37
15	1,01	0,81	1,30	0,47	1,23	0,07
16	0,79	0,94	2,05	0,29	1,39	0,19
17	0,00	0,00	7,23	0,00	0,00	0,86
Specialization coefficients	0,21	0,37	0,27	0,41	0,16	

Source Own elaboration.

At the AUC, localization ratios were high in San Fernando in the extractive industry and in Puerto Real, specializing in manufacturing. In relation to the construction sector, high levels of specialisation were reached in Chiclana de la Frontera, linked to the tourist sector and, specifically, to the phenomenon of second homes.

In relation to Sargent Florence's parent company for AUG jobs in 2000, the location ratios were high in the primary sector in the Vega Media (Pinos Puente, Fuente Vaqueros, Chauchina and Santa Fe),- more alien to the urbanization induced from the central city-, and in other rural municipalities in the North and South sector of the Vega (Dílar, Güevéjar and Vegas del Genil). The processes of urbanization induced by the industry by diffusion of activities that promote an endogenous development, appear linked to the North sector of the Vega: extractive and manufacturing industry in Atarfe; only in manufacturing industry stands out the North sector of the Vega: Albolote, Peligros, Pulianas, Maracena, Jun, Alfacar and Alhendín. In relation to the construction sector and associated with processes of exogenous urbanization or suburbanization, the municipalities in the southern sector of the Vega de Granada stand out: Armilla, Cájar, Cenes de la Vega, Cúllar Vega, Gójar, Huétor Vega, Ogíjares, La Zubia and Las Gabias and Alhendín; although also in the northern sector of the Vega in Alfacar, Güevéjar and Maracena, therefore, associated with the demand for housing from a population attracted by industrial jobs. Linked to the construction sector, the real estate activities, as well as in Granada capital, the sector acquires relevant representation in the Vega Sur, due to the greater demand for housing, in Jun, Armilla, Ogíjares and, to a lesser extent, in Pulianas.

In reference to the degree of concentration/diversification of a sector with respect to other sectors of activity and in reference to AUG, i.e. the location coefficients, these show levels of diversification and only the case of Albolote deserves to be highlighted, with a location coefficient of 0.40 as corresponds to the importance of its industrial sector within the agglomeration.

In the AUM, the location ratios in the primary sector are especially significant in municipalities that have remained more alien to endogenous and exogenous urbanization processes such as Almogía, Cártama, and Totalán. The industrial sector is relevant in Alhaurín de la Torre, due to the extractive industry linked to the quarries for construction; while the manufacturing sector acquires a notable presence, apart from in the city of Málaga, in the Alhaurines, in Rincón de la Victoria and in Cártama, particularly in Cártama-Estación. However, the industrial presence in the Málaga agglomeration is modest in comparison with the weight of the construction sector in the agglomeration as a whole, linked not only to the tourist sector, but also to the demand for housing by inhabitants in municipalities such as Rincón de la Victoria, Cártama or Alhaurín de la Torre or related to the proximity to the central city, such as the rural municipalities of Casabermeja or Almogía in the figure of workers-peasants who are kept in the villages by geographical proximity to the capital and the municipalities of the Costa del Sol. The tourism sector is the great driving force behind the agglomeration's economy, as demonstrated by the specialisation of local jobs in the hotel sub-sector in Benalmádena and Torremolinos.

In the urban agglomeration of Seville, jobs in the primary sector are found in municipalities in which suburbanisation is maintained at moderate or low levels, such as in the northern and southern sectors of the Aljarafe Platform: above all in the southern sector: Coria del Río and in La Puebla del Río, but also in others where suburbanisation was still evident in an intense but incipient manner, such as Almensilla, Bormujos, Espartinas, Salteras or Santiponce. The processes of urbanization of endogenous type by industrial development took place in the platform of the Alcores, in the populous Alcalá de Guadaira and Dos Hermanas, of which some of the Aljarafe were no strangers, like Camas, Gelves, Gines, Santiponce, Salteras or Valencina de la Concepción; while the construction sector concentrated the highest rates of specialization in the municipalities with the highest population growth and related to processes of exogenous urbanization or residential suburbanization such as those in the central sector of Aljarafe, as well as in the municipality of La Rinconada.

Table 4.18
Sargent Florence's matrix at AUG (2000).

Sector	18003	18011	18014	18021	18022	18036	18047	18057	18059	18062	18068	18079	18084	18087	18095	18101	18111	18127	18134	18145	18149	18153	18157	18158	18165	18175	18189	18193	18905	18911	Coefi. of location.
1	0,91	1,28	1,92	0,74	2,12	0,85	0,88	2,09	5,75	2,17	4,84	6,82	1,89	0,45	5,67	0,80	0,85	1,24	0,64	0,65	1,93	0,79	1,82	6,80	0,81	3,46	1,60	1,17	1,86	4,39	0,40
2	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,52	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,34
3	0,19	0,00	0,00	0,00	7,25	0,00	1,39	0,00	0,00	0,00	0,00	0,00	0,00	0,93	0,00	0,00	0,00	0,28	0,00	1,44	0,00	0,23	94,41	1,60	0,00	0,00	0,00	0,49	0,00	0,00	0,29
4	3,13	2,48	2,57	1,14	2,95	0,71	0,36	0,70	0,63	2,52	0,33	0,73	1,50	0,52	0,27	1,44	5,22	2,00	0,43	2,02	1,07	2,67	0,58	0,89	4,43	2,24	1,73	0,77	1,78	0,80	0,35
5	0,00	0,00	0,00	0,00	2,02	0,00	0,26	0,00	0,00	0,22	0,00	0,00	2,21	1,29	0,00	0,73	0,58	0,00	0,00	0,09	0,31	1,65	0,00	0,88	0,00	0,23	0,00	0,00	0,44	0,49	0,24
6	1,10	3,70	2,01	2,08	1,02	3,28	2,69	3,08	1,50	1,65	1,74	0,67	2,61	0,69	2,79	2,84	0,93	2,24	0,65	2,26	1,88	1,27	1,30	0,70	1,46	0,78	1,21	2,13	2,46	1,57	0,22
7	1,30	0,80	1,31	1,74	1,08	0,88	1,24	0,88	0,29	1,30	0,46	0,27	0,93	0,95	0,31	0,93	0,47	1,22	0,46	1,32	1,07	1,75	1,23	0,49	1,09	1,02	0,52	1,16	0,91	1,34	0,08
8	0,75	0,76	0,80	0,94	0,54	0,64	1,98	0,40	0,52	0,53	0,80	0,22	0,50	1,05	0,43	1,67	0,45	0,51	5,25	0,67	1,25	0,29	1,80	0,37	0,22	0,69	6,88	0,73	0,74	0,46	0,13
9	1,84	0,52	0,41	0,93	1,29	0,35	1,59	0,70	1,83	0,57	0,46	0,35	1,06	0,92	0,45	1,20	0,74	1,16	0,91	0,93	0,69	2,17	2,55	0,67	0,63	0,56	0,79	1,69	0,59	0,65	0,11
10	0,06	0,03	0,07	0,15	0,07	0,35	0,28	0,25	0,10	0,07	0,00	0,12	0,17	1,47	0,00	0,21	0,09	0,15	0,02	0,10	0,15	0,02	0,15	0,06	0,02	0,08	0,00	0,24	0,16	0,08	0,31
11	0,77	0,22	0,28	1,16	0,48	0,56	0,48	0,94	0,29	0,67	1,15	0,15	0,59	1,16	0,22	0,73	1,14	0,65	0,52	1,42	0,66	0,86	0,39	0,10	1,01	0,72	0,13	0,92	0,53	0,32	0,12
12	0,40	0,23	0,29	0,59	0,33	0,46	0,10	0,74	0,34	0,16	0,34	0,71	0,21	1,31	0,18	0,53	0,15	0,70	0,63	0,09	1,00	0,27	0,55	0,40	0,07	0,14	0,07	0,50	0,79	0,06	0,21
13	0,19	0,04	0,02	0,14	0,50	1,16	0,72	0,12	0,37	0,24	0,00	0,01	0,42	1,34	0,00	0,30	0,92	0,30	1,65	0,29	0,14	0,16	0,08	0,24	0,07	0,39	0,10	0,54	0,19	0,02	0,24
14	0,09	0,04	0,03	0,09	0,20	0,34	0,10	0,06	0,01	0,08	0,19	0,68	0,18	1,45	0,00	0,11	0,20	0,06	0,01	0,23	0,12	0,03	0,00	0,01	0,37	0,23	0,05	0,33	0,14	0,01	0,30
15	0,98	0,41	0,27	0,40	0,42	1,77	1,11	0,75	0,17	0,24	0,46	0,09	0,42	1,16	0,38	0,34	0,80	0,61	4,25	0,31	0,61	0,18	0,33	0,15	0,31	0,52	0,26	1,37	0,65	0,08	0,17
16	0,37	0,32	1,20	0,30	0,21	1,48	1,55	0,47	0,18	0,36	0,96	0,17	1,85	1,25	0,00	1,36	1,04	0,30	1,31	0,94	2,57	0,17	0,34	0,25	0,41	0,18	0,00	0,80	0,57	0,35	0,19
17	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,52	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,34
C.E.	0,28	0,43	0,38	0,28	0,31	0,29	0,32	0,32	0,53	0,36	0,45	0,54	0,31	0,14	0,62	0,28	0,36	0,28	0,44	0,31	0,24	0,36	0,35	0,54	0,35	0,34	0,49	0,21	0,30	0,44	

Source Own elaboration.

Table 4.19
Sargent Florence's matrix at the AUM (2000).

Sector	29007	29008	29011	29025	29038	29039	29067	29082	29092	29901	Location coefficients
1	2,32	4,41	15,97	0,35	14,09	14,39	0,59	2,32	18,02	0,28	0,41
2	0,00	0,00	0,00	0,18	0,00	0,00	1,08	1,83	0,00	1,26	0,10
3	8,47	0,58	0,00	0,57	2,25	1,81	0,89	0,56	0,00	0,54	0,16
4	1,24	2,36	2,11	0,40	1,37	0,73	1,04	1,00	0,00	0,35	0,07
5	0,82	0,00	0,00	0,64	0,00	0,00	1,12	0,00	0,00	0,72	0,10
6	1,86	2,25	1,58	1,08	1,44	2,24	0,94	2,47	1,61	0,51	0,08
7	0,98	0,97	0,29	0,73	0,65	0,31	1,04	0,84	0,25	0,92	0,03
8	0,77	0,62	0,25	4,01	0,38	0,75	0,64	1,14	0,38	3,64	0,32
9	0,68	0,36	0,20	0,61	0,73	0,60	1,04	0,80	0,61	1,24	0,05
10	0,15	0,19	0,00	0,26	0,10	0,03	1,18	0,20	0,00	0,29	0,15
11	0,84	0,23	0,17	0,91	0,26	0,27	1,02	0,71	0,33	1,37	0,04
12	1,24	0,64	0,68	0,54	0,22	0,41	1,09	0,52	1,00	0,67	0,07
13	0,49	0,12	0,00	0,57	0,42	0,03	1,13	0,67	0,00	0,42	0,10
14	0,33	0,05	0,00	0,34	0,03	0,01	1,18	0,26	0,00	0,26	0,14
15	0,66	0,77	0,03	1,71	0,21	0,15	0,98	0,81	0,40	1,28	0,05
16	0,80	0,26	0,12	2,47	0,28	0,26	0,88	1,35	1,09	1,79	0,13
17	0,00	0,00	0,00	0,00	0,00	0,00	1,23	0,00	0,00	0,00	0,19
Specialization coefficients	0,19	0,36	0,60	0,30	0,47	0,55	0,05	0,23	0,58	0,28	

Source Own elaboration.

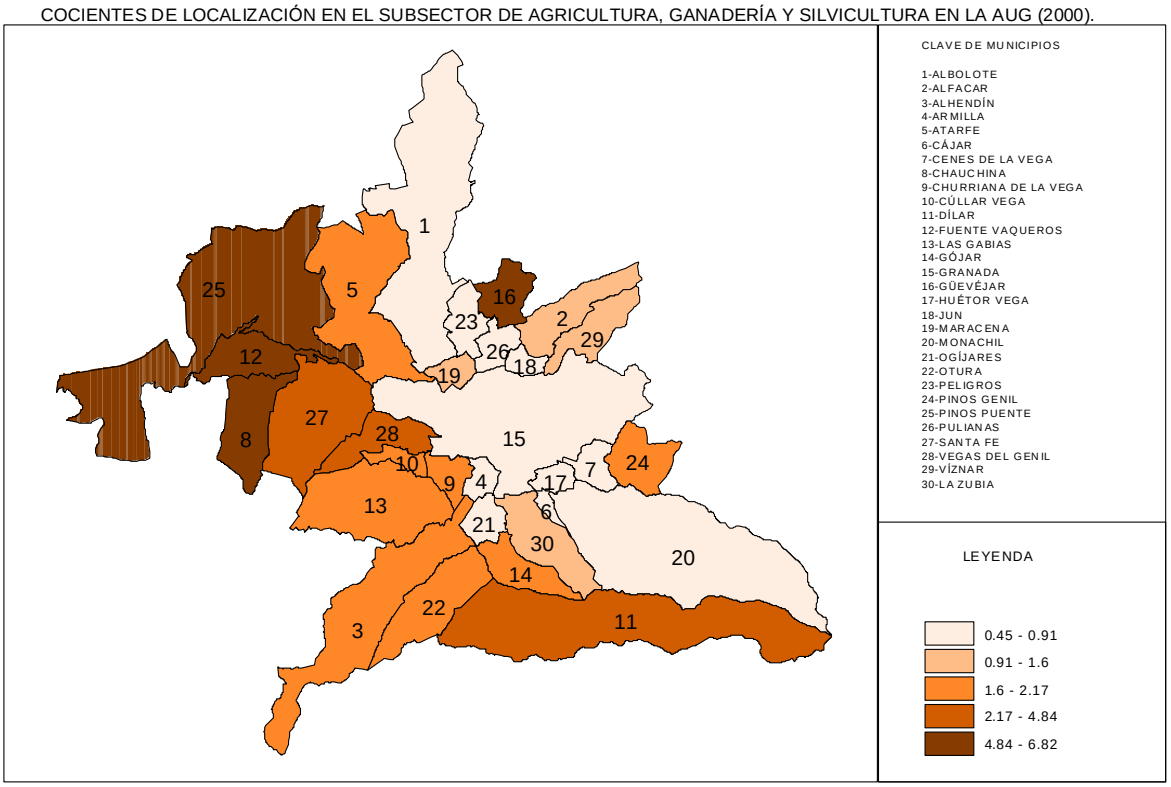
Table 4.20
Matrix of Sargent Florence in the AUS (2000).

Sector	41004	41007	41010	41017	41021	41028	41029	41034	41038	41040	41044	41047	41059	41070	41079	41081	41085	41086	41089	41091	41093	41096	Location coefficients
1	0,83	7,81	9,50	2,65	1,00	0,40	1,25	8,58	1,41	2,47	0,88	0,72	0,46	1,55	16,25	7,68	2,83	0,54	2,67	0,37	0,47	1,15	0,50
2	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	6,73	0,00	0,00	41,16	0,00	0,43	0,00	0,00	0,66
3	2,41	0,00	0,00	0,00	0,00	0,00	0,00	12,03	1,22	0,00	1,92	0,00	0,17	0,00	2,23	9,47	0,00	0,28	0,00	0,54	0,00	0,00	0,43
4	2,94	0,33	0,71	0,66	1,84	0,52	0,64	0,66	1,72	1,77	0,88	1,02	0,97	0,39	0,39	1,93	3,22	0,82	1,75	0,77	0,55	1,95	0,20
5	2,73	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,60	0,21	0,00	0,00	0,15	0,00	0,19	0,19	0,00	0,08	0,00	1,04	4,27	0,00	0,15
6	1,63	1,55	2,25	1,51	1,02	4,76	1,27	1,54	1,66	0,93	1,13	3,64	1,42	2,40	1,27	1,59	0,46	0,52	0,83	0,82	1,30	1,67	0,14
7	1,18	1,09	0,37	1,51	1,52	0,48	1,27	1,12	1,53	0,77	0,99	0,81	1,18	1,09	0,52	0,75	0,85	0,94	1,24	0,93	1,52	1,53	0,06
8	0,55	1,36	0,70	1,38	1,32	2,10	1,31	0,67	0,76	1,01	0,89	1,33	0,91	0,70	0,42	0,66	1,98	3,74	1,32	1,00	2,14	0,76	0,06
9	1,29	0,95	0,39	0,56	0,95	0,84	1,25	0,77	1,02	0,44	0,57	0,74	0,66	1,65	0,24	0,84	0,84	0,36	1,51	1,03	0,42	0,88	0,05
10	0,08	0,26	0,06	0,16	0,23	0,00	0,21	0,15	0,10	0,00	0,36	0,13	0,10	0,15	0,05	0,08	0,17	0,11	0,10	1,32	0,23	0,14	0,23
11	0,34	0,27	0,23	0,55	0,59	0,39	0,55	0,61	0,44	0,41	1,32	0,69	1,57	0,90	0,29	0,34	0,12	1,14	0,36	1,15	0,98	0,61	0,12
12	0,34	1,18	1,21	1,11	0,64	1,23	0,16	0,19	0,48	1,00	0,96	0,80	0,42	0,70	0,63	0,10	0,90	0,11	0,56	1,20	0,49	0,41	0,15
13	0,30	0,11	2,12	0,19	0,37	0,13	1,07	0,25	0,77	3,22	1,03	0,58	1,66	0,31	0,04	0,19	0,17	0,48	1,58	1,13	0,72	0,27	0,12
14	0,19	0,08	0,00	0,47	0,07	0,48	0,20	0,18	0,18	0,78	0,12	0,35	0,20	1,11	0,03	0,07	0,13	0,12	0,30	1,29	0,31	0,05	0,22
15	0,30	0,33	0,44	0,99	1,05	0,74	3,86	0,43	0,72	0,63	2,05	0,64	1,43	0,62	0,12	0,90	0,68	4,20	0,41	1,01	1,19	0,70	0,09
16	0,54	1,45	0,28	0,97	1,07	1,94	1,00	1,03	0,61	2,58	4,56	1,69	1,05	1,07	0,13	0,21	1,06	0,59	1,04	1,07	2,08	1,38	0,09
17	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3,61	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,04	0,00	0,00	0,20
Specialization coefficients	0,34	0,35	0,48	0,24	0,22	0,40	0,27	0,35	0,26	0,25	0,16	0,25	0,20	0,21	0,58	0,40	0,37	0,34	0,26	0,08	0,24	0,28	

Source Own elaboration.

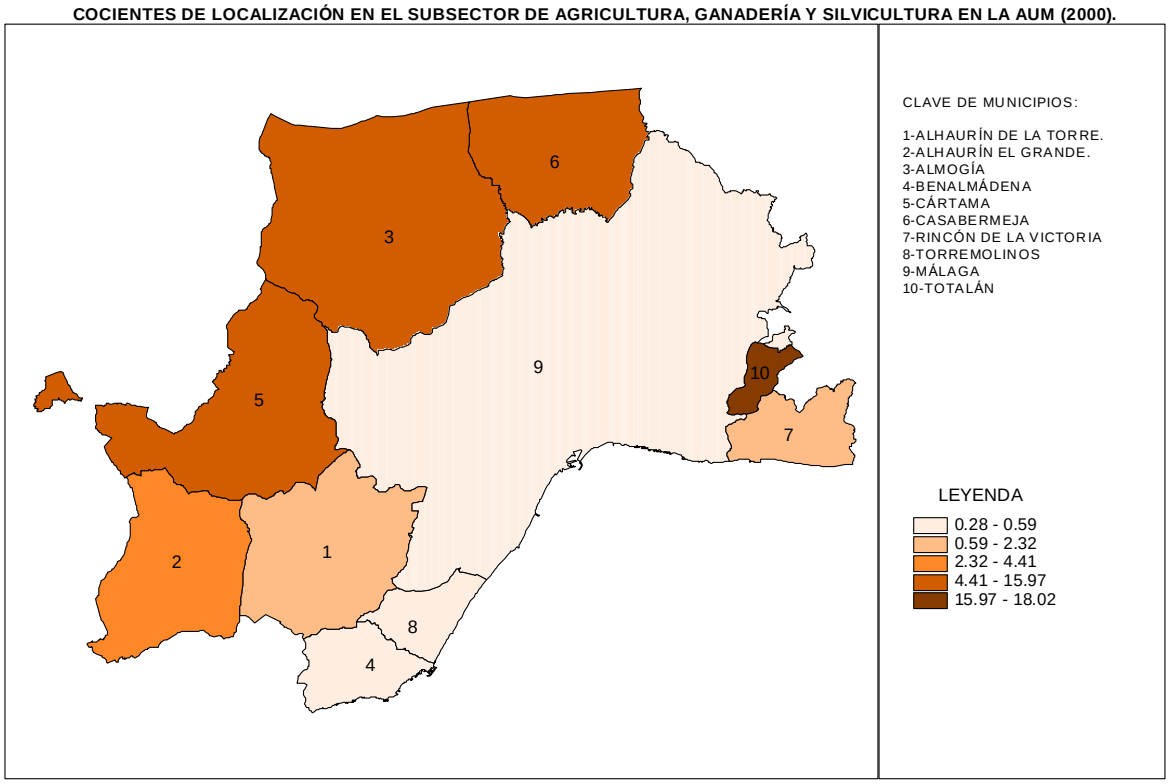
MAP 27

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE AGRICULTURA, GANADERÍA Y SILVICULTURA EN LA AUG (2000).



MAP 28

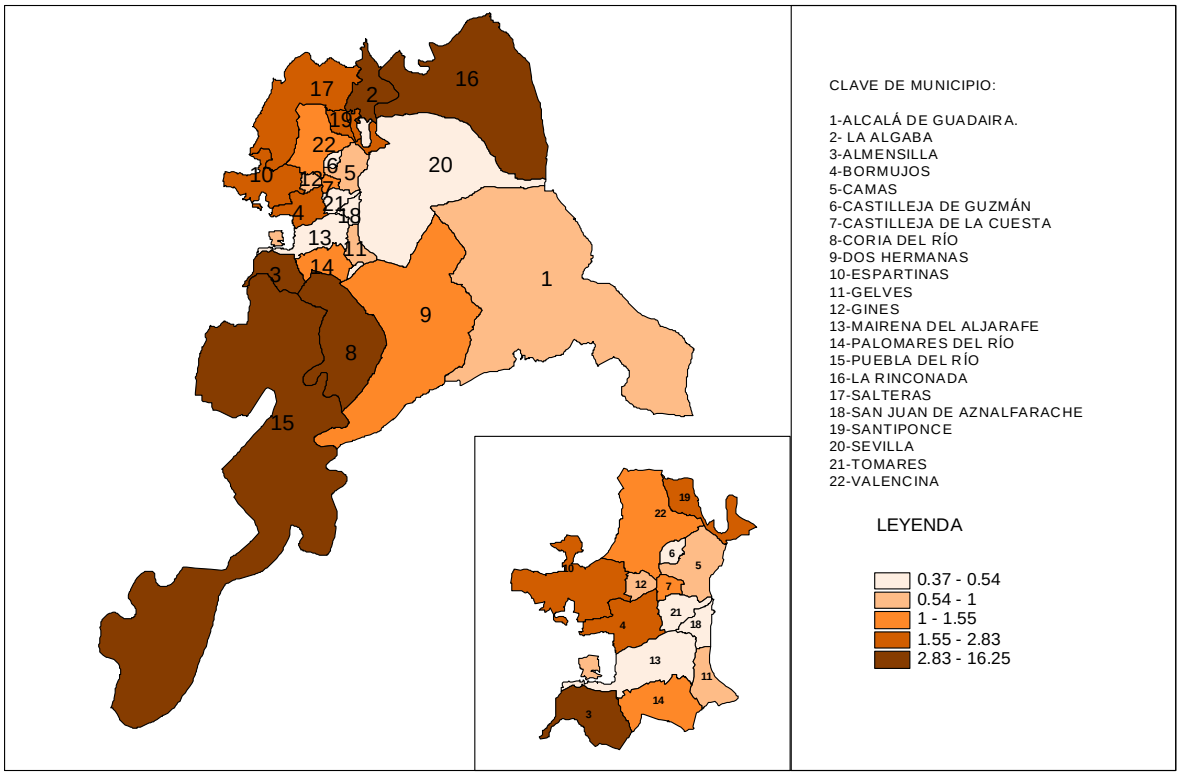
COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE AGRICULTURA, GANADERÍA Y SILVICULTURA EN LA AUM (2000).



Source Own elaboration.

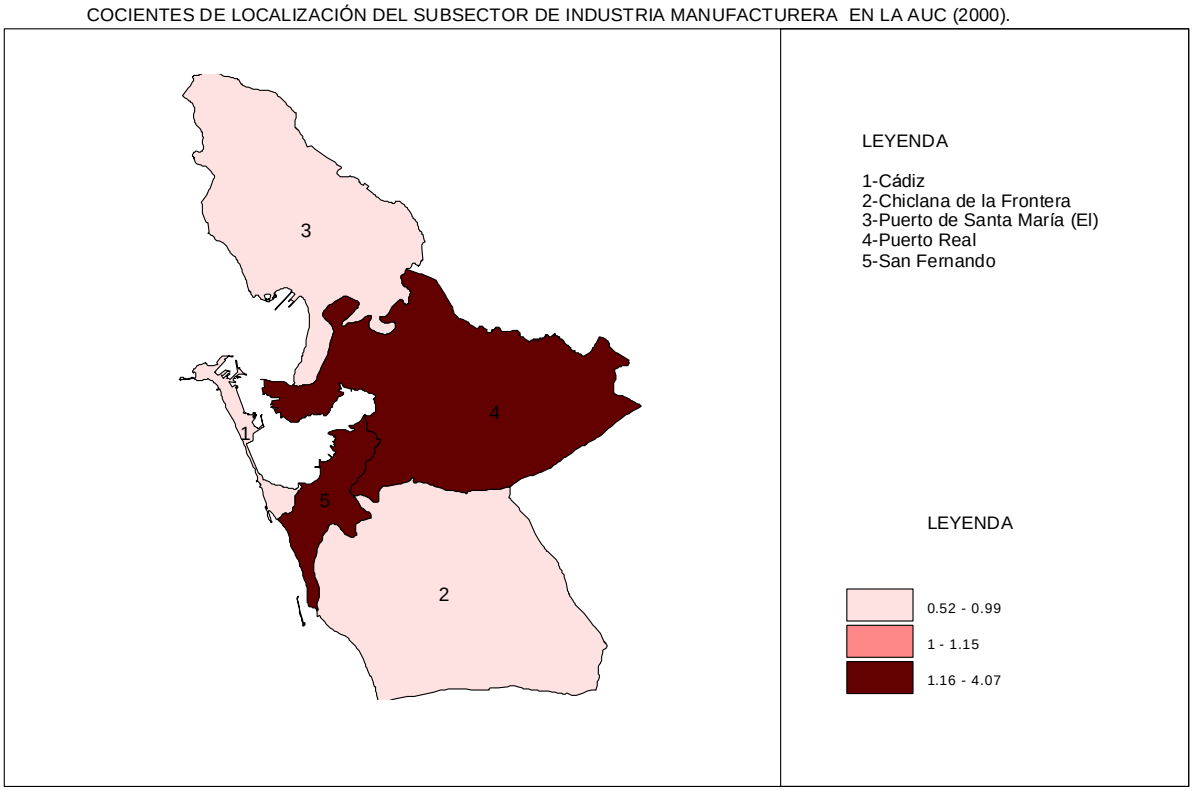
MAP 29

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE AGRICULTURA, GANADERÍA Y SILVICULTURA EN LA AUS (2000).



MAP 30

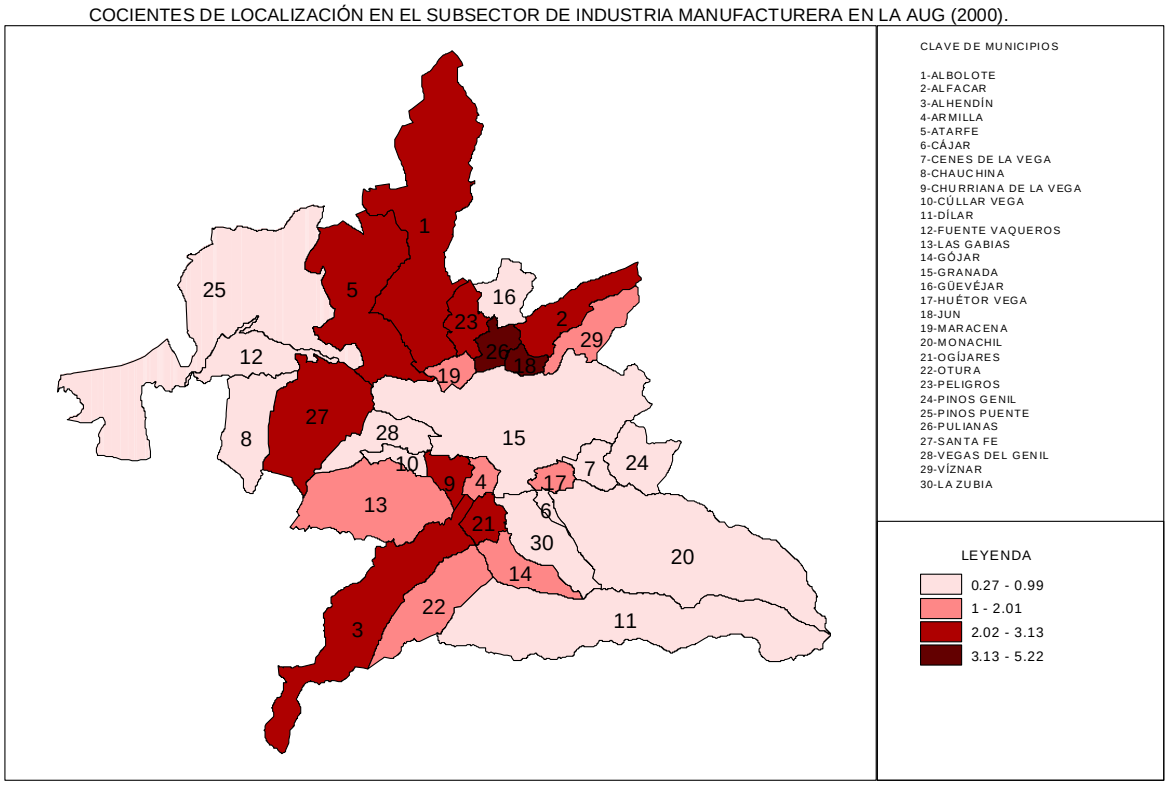
COCIENTES DE LOCALIZACIÓN DEL SUBSECTOR DE INDUSTRIA MANUFACTURERA EN LA AUC (2000).



Source Own elaboration.

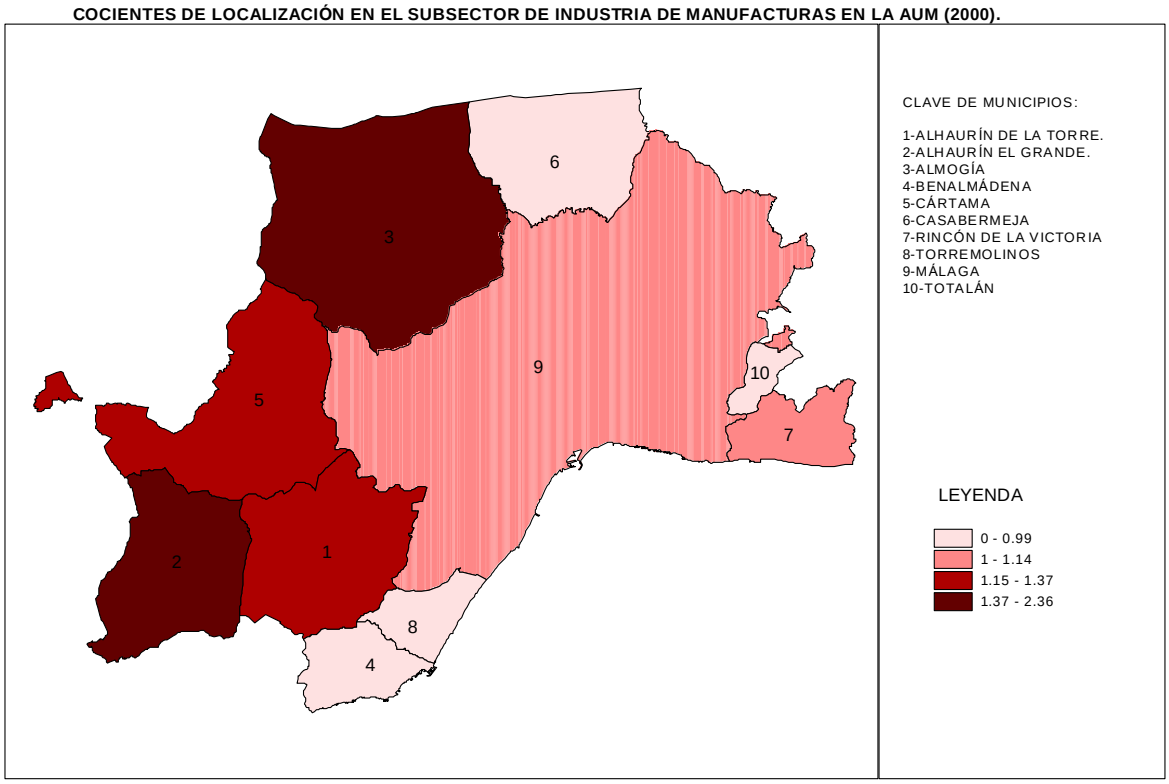
MAP 31

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE INDUSTRIA MANUFACTURERA EN LA AUG (2000).



MAP 32

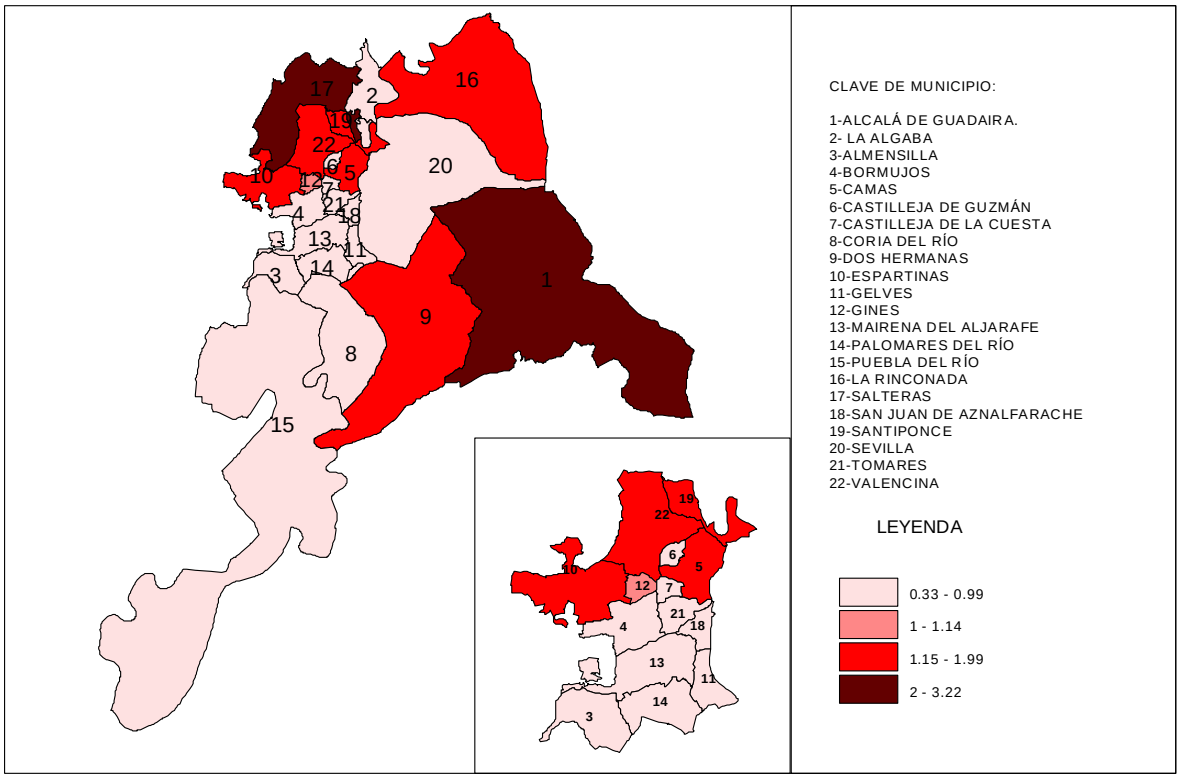
COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE INDUSTRIA DE MANUFACTURAS EN LA AUM (2000).



Source Own elaboration.

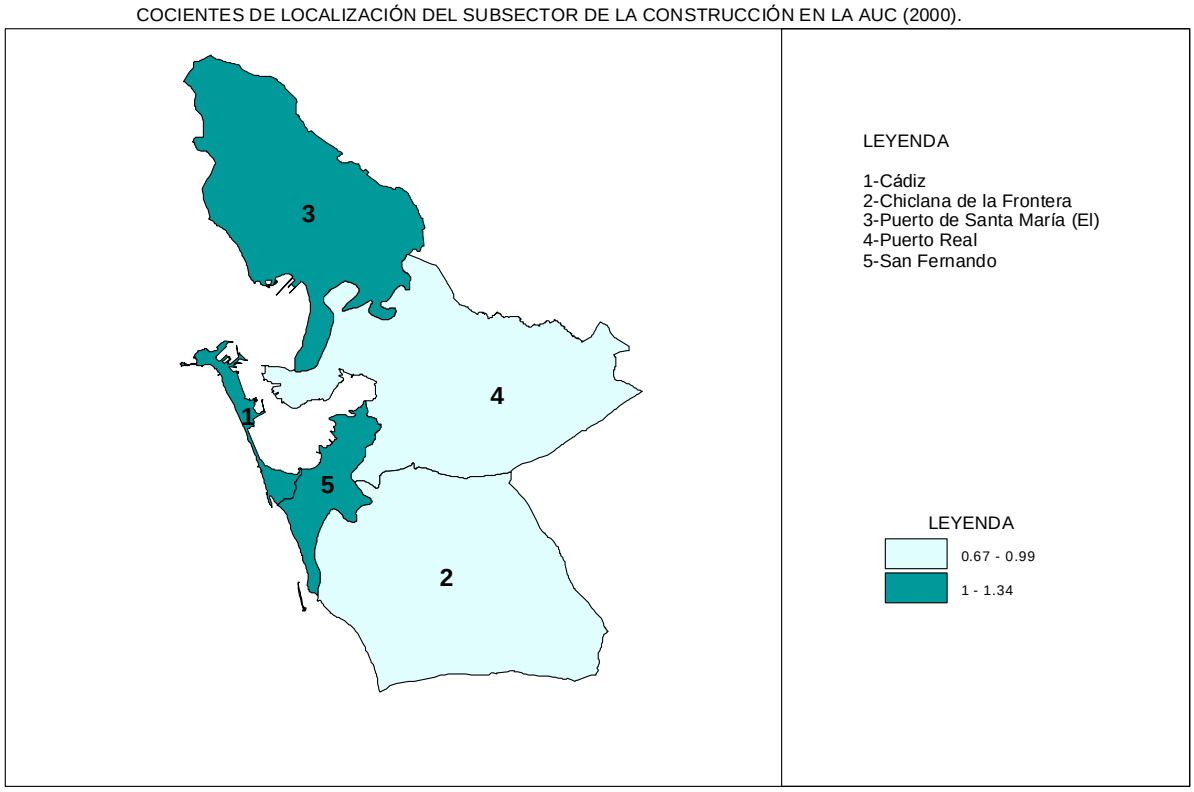
MAP 33

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE INDUSTRIA DE MANUFACTURAS EN LA AUS (2000).



MAPS 34

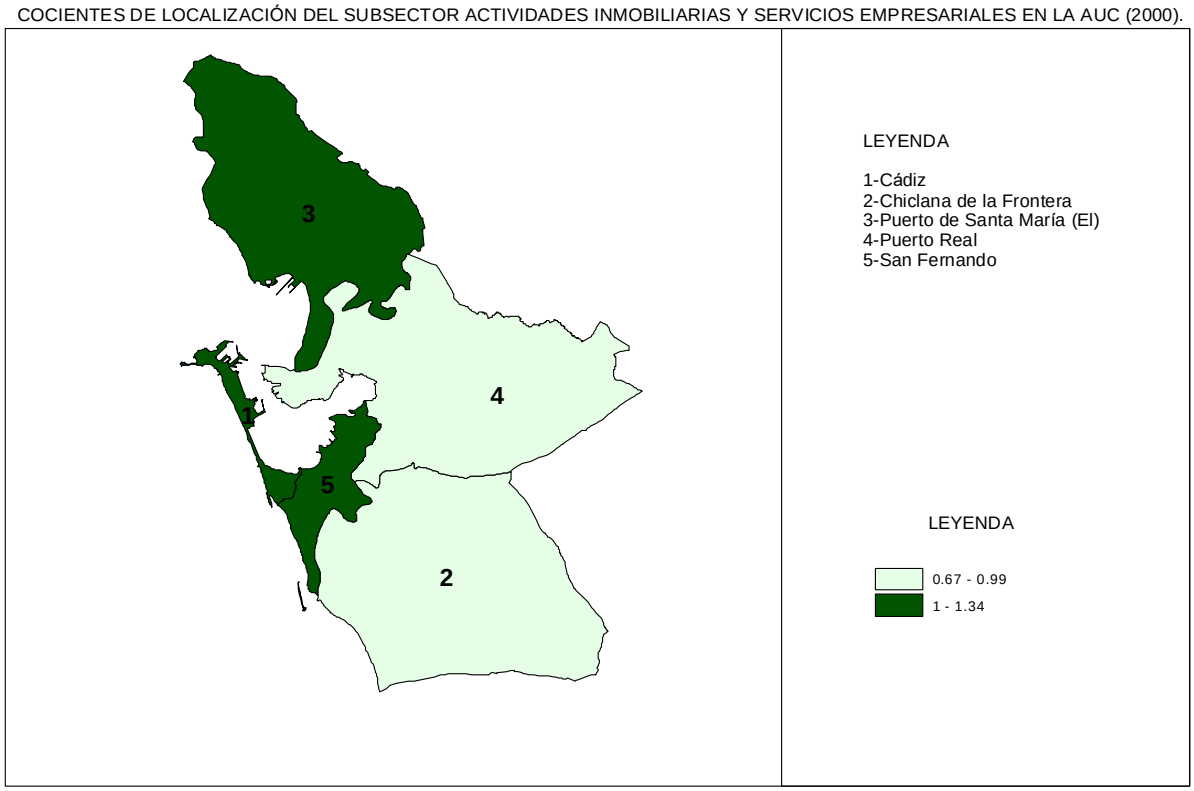
COCIENTES DE LOCALIZACIÓN DEL SUBSECTOR DE LA CONSTRUCCIÓN EN LA AUC (2000).



Source Own elaboration.

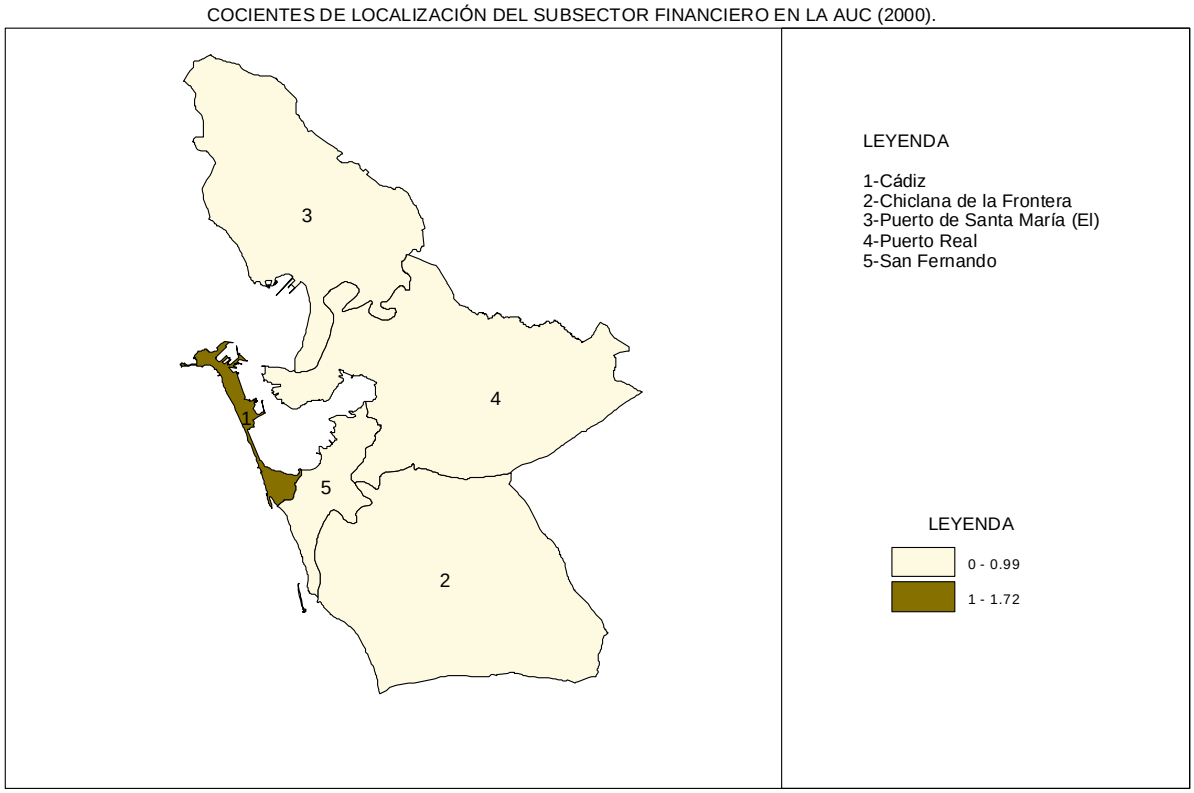
MAP 35

COCIENTES DE LOCALIZACIÓN DEL SUBSECTOR ACTIVIDADES INMOBILIARIAS Y SERVICIOS EMPRESARIALES EN LA AUC (2000).



MAP 36

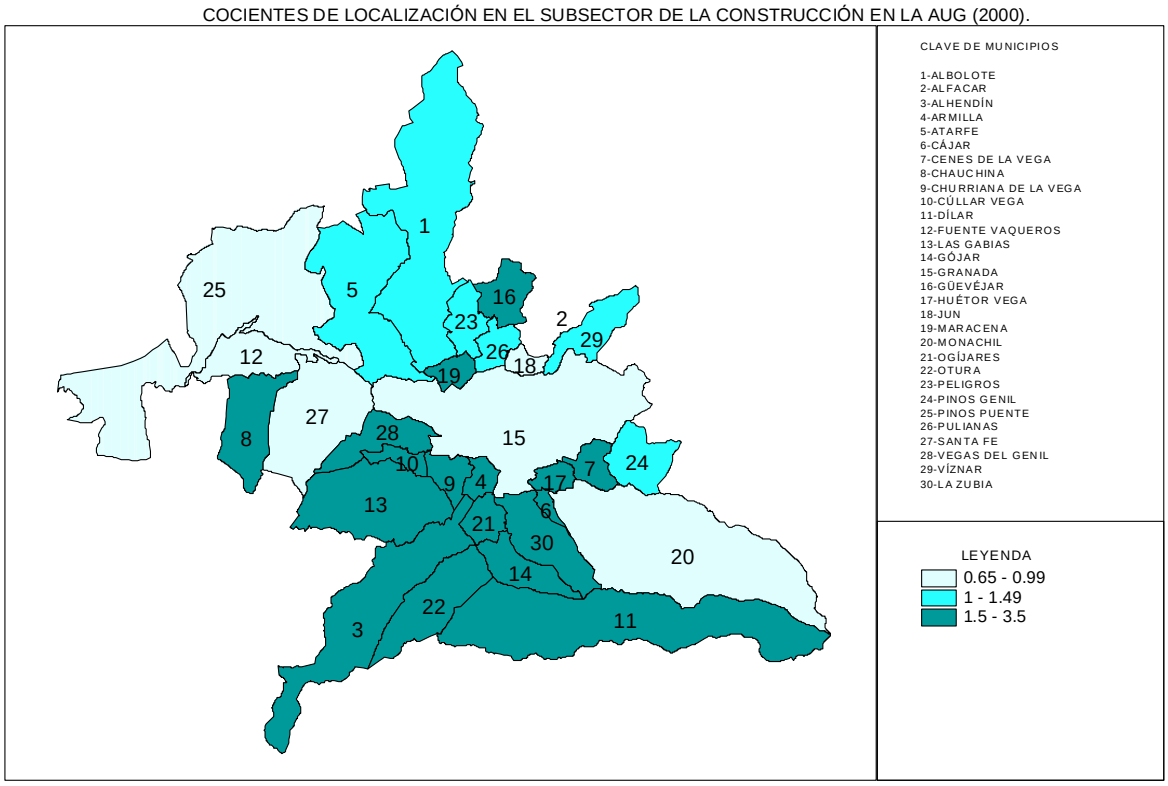
COCIENTES DE LOCALIZACIÓN DEL SUBSECTOR FINANCIERO EN LA AUC (2000).



Source Own elaboration.

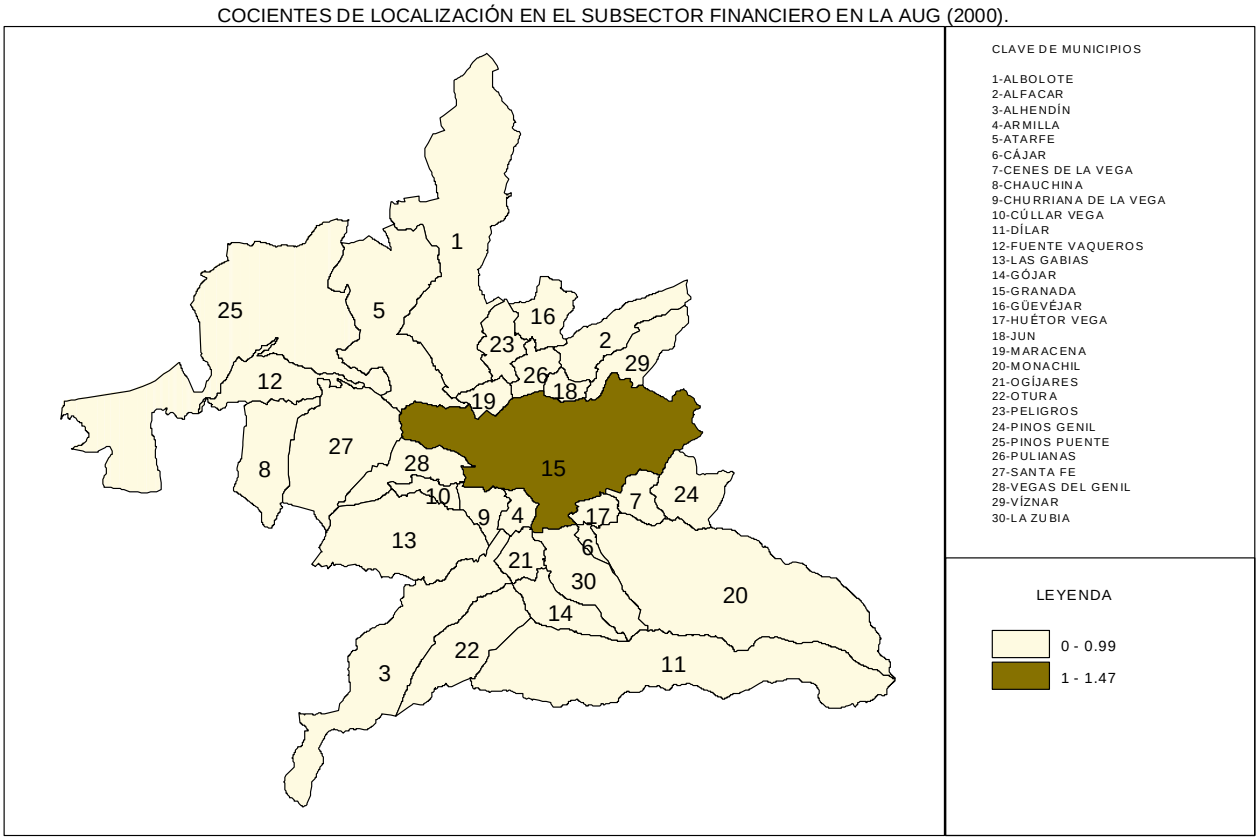
MAP 37

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE LA CONSTRUCCIÓN EN LA AUG (2000).



MAP 38

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR FINANCIERO EN LA AUG (2000).

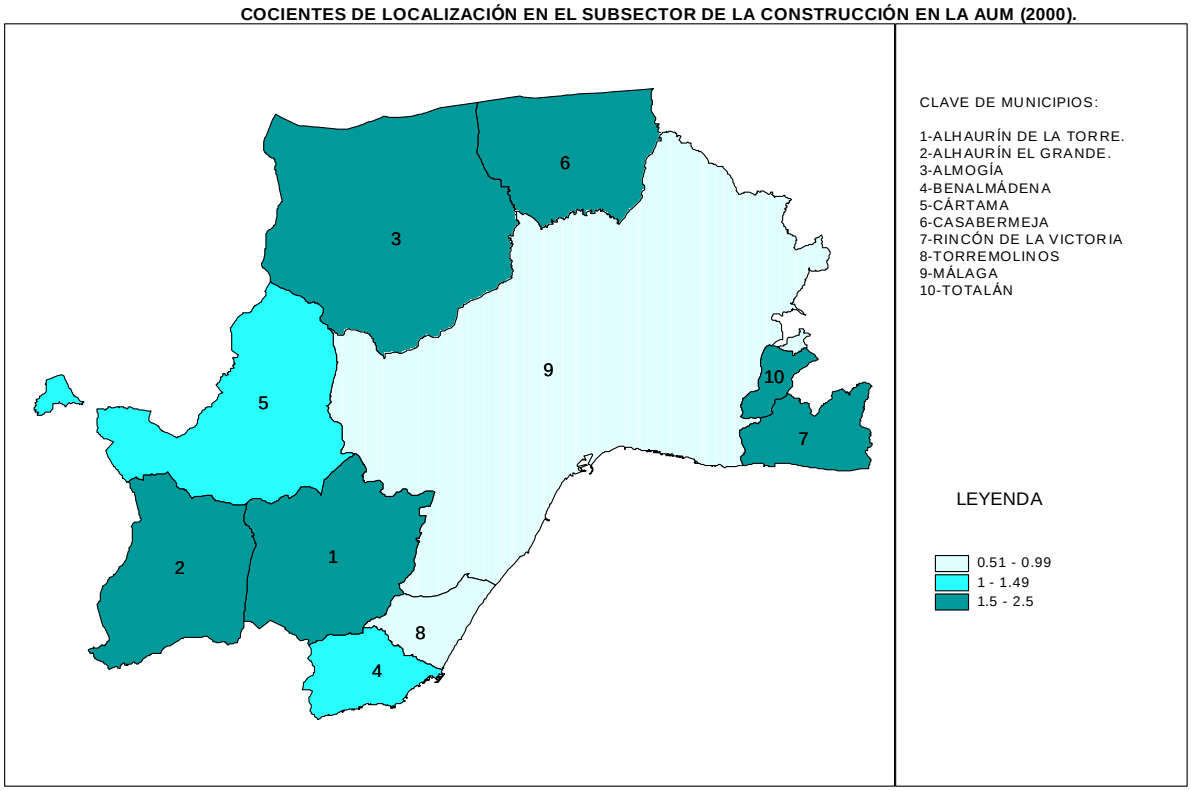


Source Own elaboration.

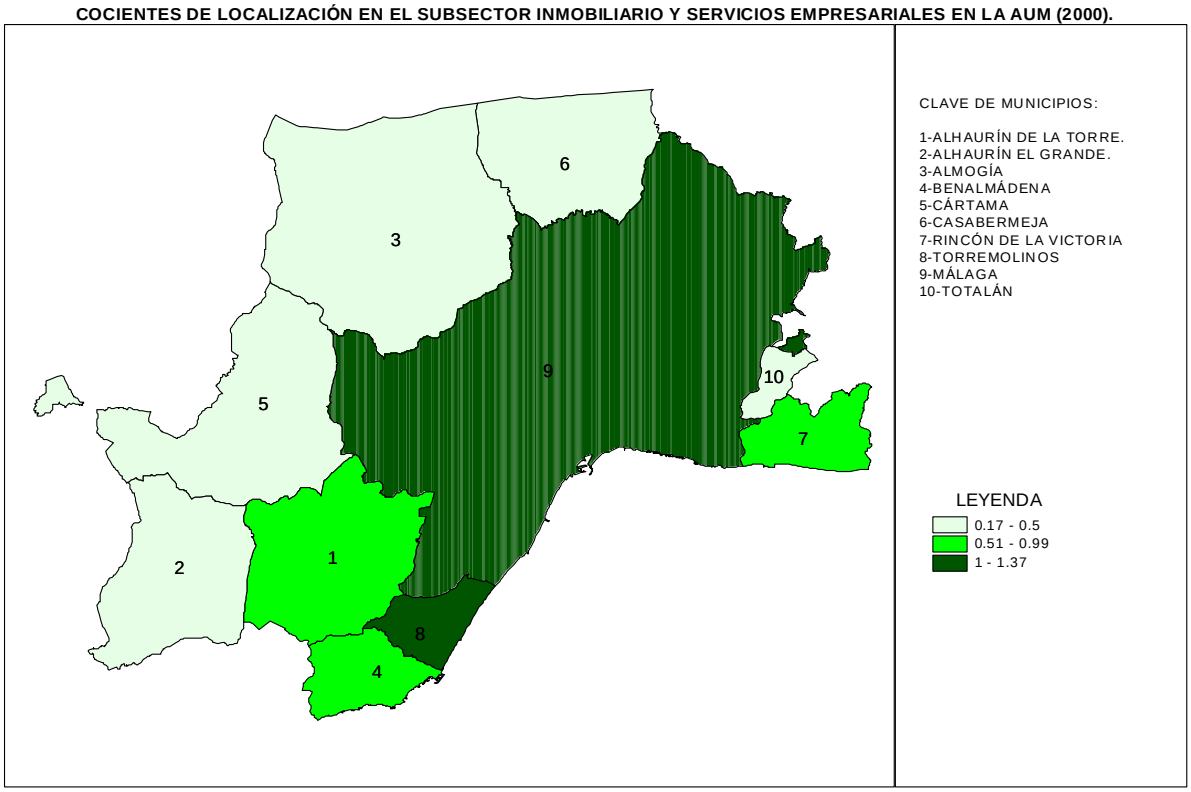
MAP 39

MAP 40

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE LA CONSTRUCCIÓN EN LA AUM (2000).



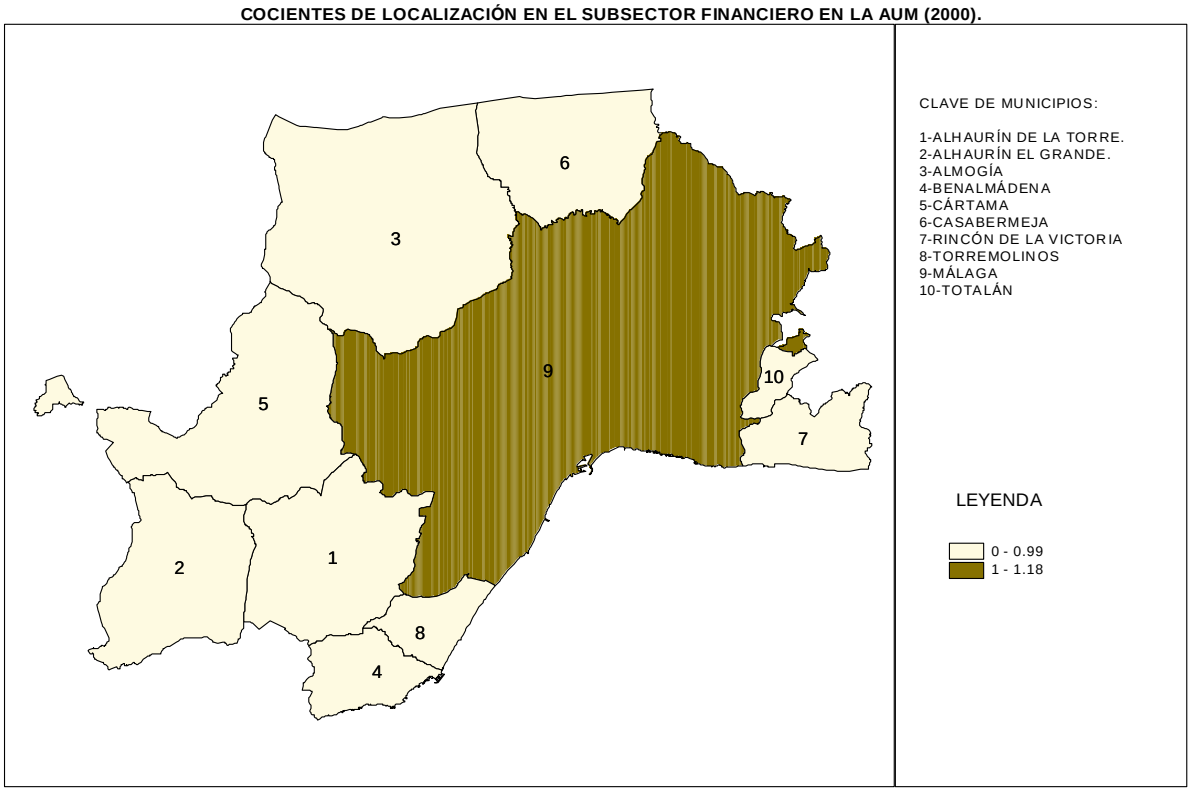
COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR INMOBILIARIO Y SERVICIOS EMPRESARIALES EN LA AUM (2000).



Source Own elaboration.

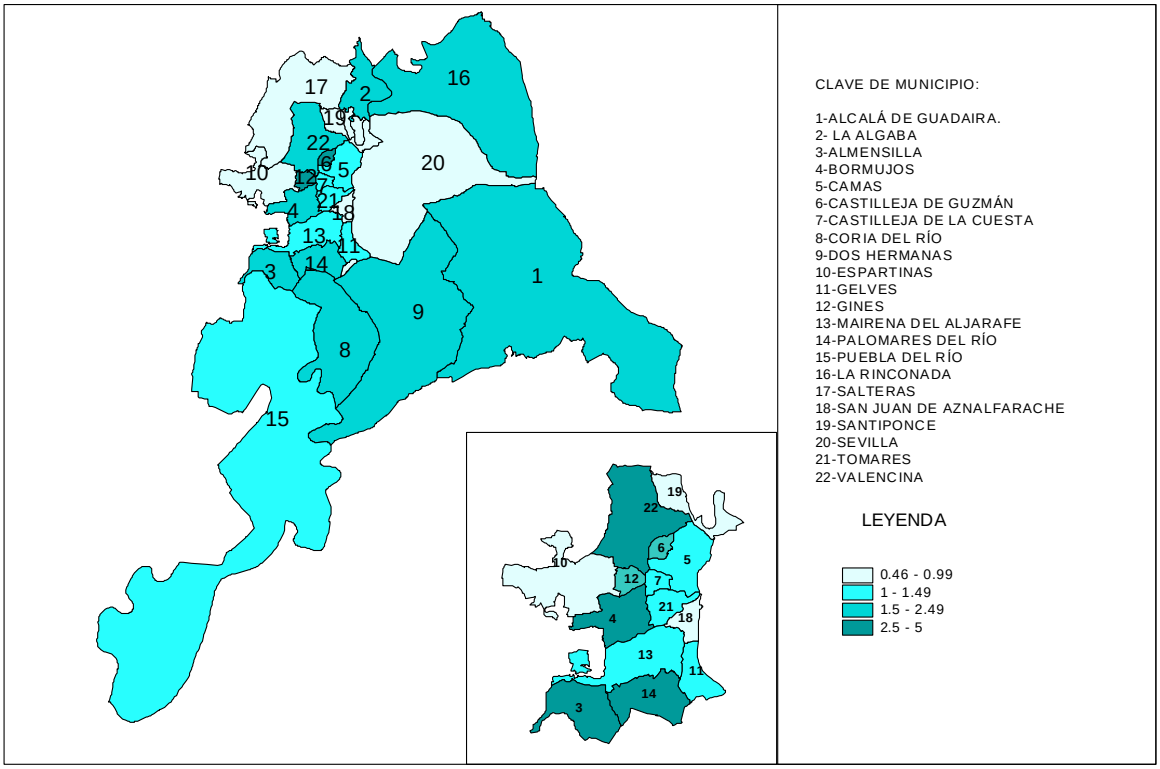
MAP 41

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR FINANCIERO EN LA AUM (2000).



MAP 42

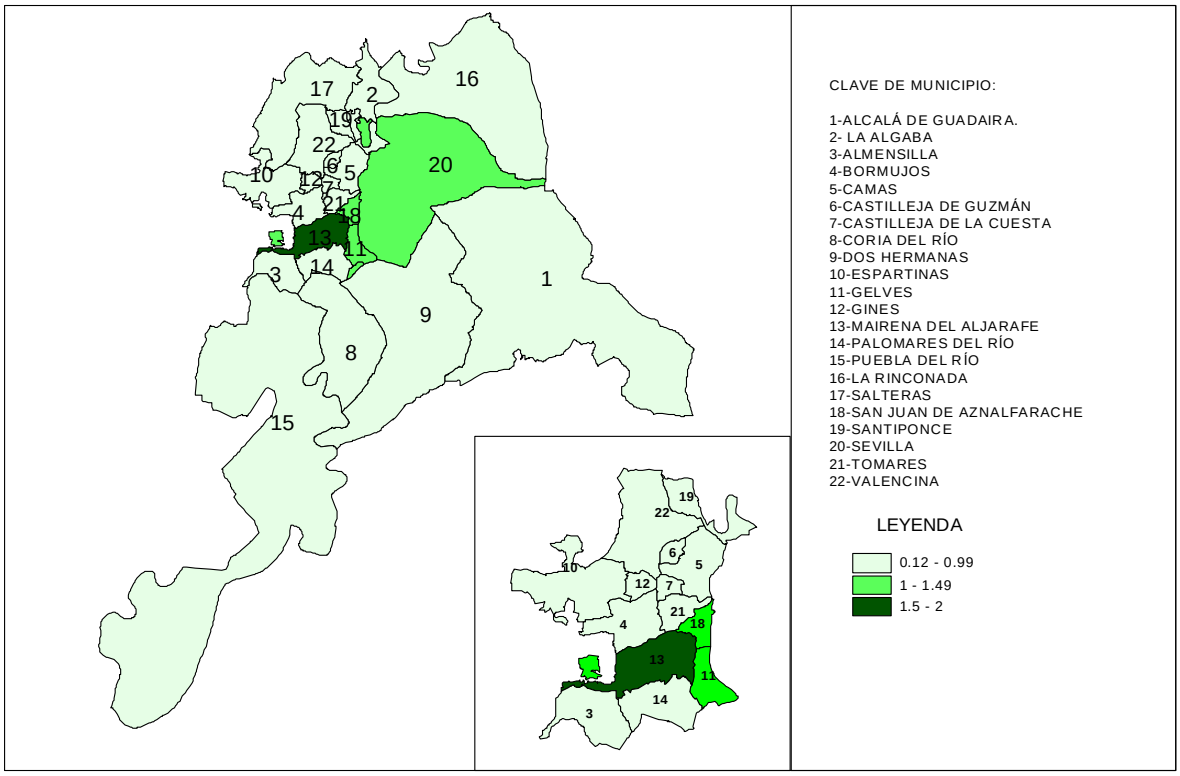
COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR DE LA CONSTRUCCIÓN EN LA AUS (2000).



Source Own elaboration.

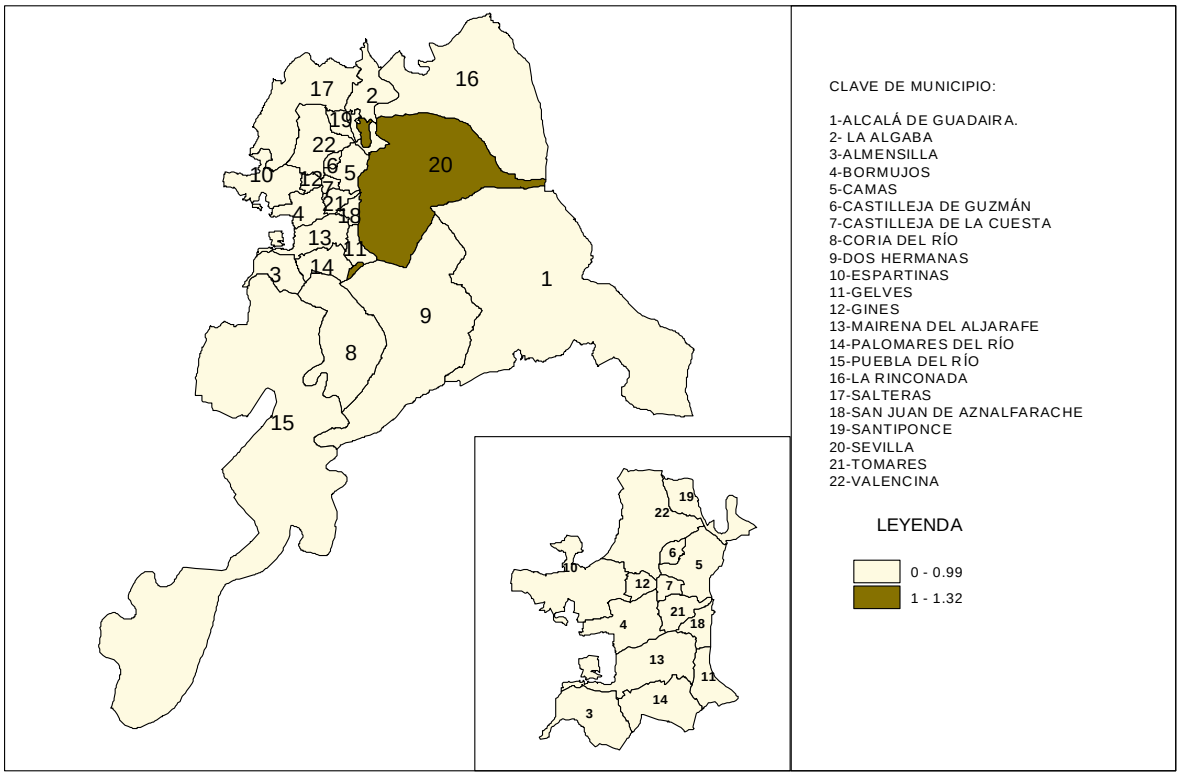
MAP 43

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR INMOBILIARIO Y SERVICIOS EMPRESARIALES EN LA AUS (2000).



MAP 44

COCIENTES DE LOCALIZACIÓN EN EL SUBSECTOR FINANCIERO EN LA AUS (2000).



Source Own elaboration.

Considering the maps that we showed previously we can highlight several conclusions:

In the first place, the most rural municipalities, farthest from suburbanization, are those with the highest location ratios in the agriculture, livestock and forestry sub-sector.

-Secondly, to highlight the peripheral location of the industry which is concentrated in a few municipalities: Puerto Real and San Fernando in Cádiz, the northern sector of the Vega de Granada, the Alcores platform (Alcalá de Guadaira and Dos Hermanas) and, occasionally, in some municipalities of Seville's Alfarafe.

-Thirdly, to highlight the weight of construction in the most dynamic municipalities of the agglomeration and by autochthonous inhabitants as well as by workers-peasants of the nearby rural and suburban municipalities, who provide qualified and eventual labor to meet the great demand for housing, first and second residence in municipalities that are being urbanized by suburbanization or endogenous development.

-Fourthly, and related to the above, the location of the real estate subsector and other business services is monopolised by the central city and by several dynamic municipalities: in Cadiz, in the Cadiz-San Fernando conurbation and in El Puerto de Santa Maria; in Granada in the municipalities closest to the provincial capital: Jun, Pulianas in the northern sector and Armilla, Ogíjares in the southern sector, together with the anomalous data of Dílar. In Málaga, in the municipalities of Málaga-Torremolinos, next to the tourist Benalmádena, and the suburban Rincón de la Victoria and Alhaurín de la Torre. In Seville, in addition to the central city, the suburban San Juan de Aznalfarache, Gelves and Mairena del Aljarafe.

-Finally, the exclusive concentration of the more specialised services, in particular the financial services which are monopolised by the central cities.

In conclusion, there is a concentration of primary sector activities in the municipalities most removed from suburbanization; the peripheral location of industry that appears concentrated in very specific municipalities, where the land is abundant and cheap compared to the capital; the location of the workforce working in construction in rural municipalities and in those with high urban dynamics due to endogenous development (diffusion of activities and population) and due to exogenous causes or residential suburbanization (diffusion of inhabitants), and the maintenance of highly specialized services in the central city.

4.2.2.2. The degree of autonomy of the assets.

The study of the degree of autonomy of the productive fabric of the Andalusian agglomerations has the objective of answering whether the processes of urbanization in the periphery, whether by industrial development or endogenous tourism or by causes linked to residential delocalization without more, has produced a simultaneous creation of jobs parallel to the exorbitant demographic growth of some of these municipalities of peripheral location. The comparison of two types of sources: those of occupation (work of those censused in the municipalities, residing or not in them) of the Censuses of 1991 and 2001 and those of the registrations of 1990 to 2000 of the Census of premises and establishments and the official registrations of Social Security (work of residents or not residing in the municipality), offers very valuable information about what has happened. In the areas analysed, low-skilled jobs predominate, linked to the construction and real estate sectors, as a result of the demand for housing in peri-urban municipalities where suburbanisation has taken place. On the other hand, in the structure of occupation, medium and highly qualified jobs related to the service sector acquire importance. Consequently, residential relocation has not led to the

generation and replacement of jobs of the same qualification as that which these exurban inhabitants maintain in the metropolises or central cities, which forces the necessary daily mobility for work reasons.

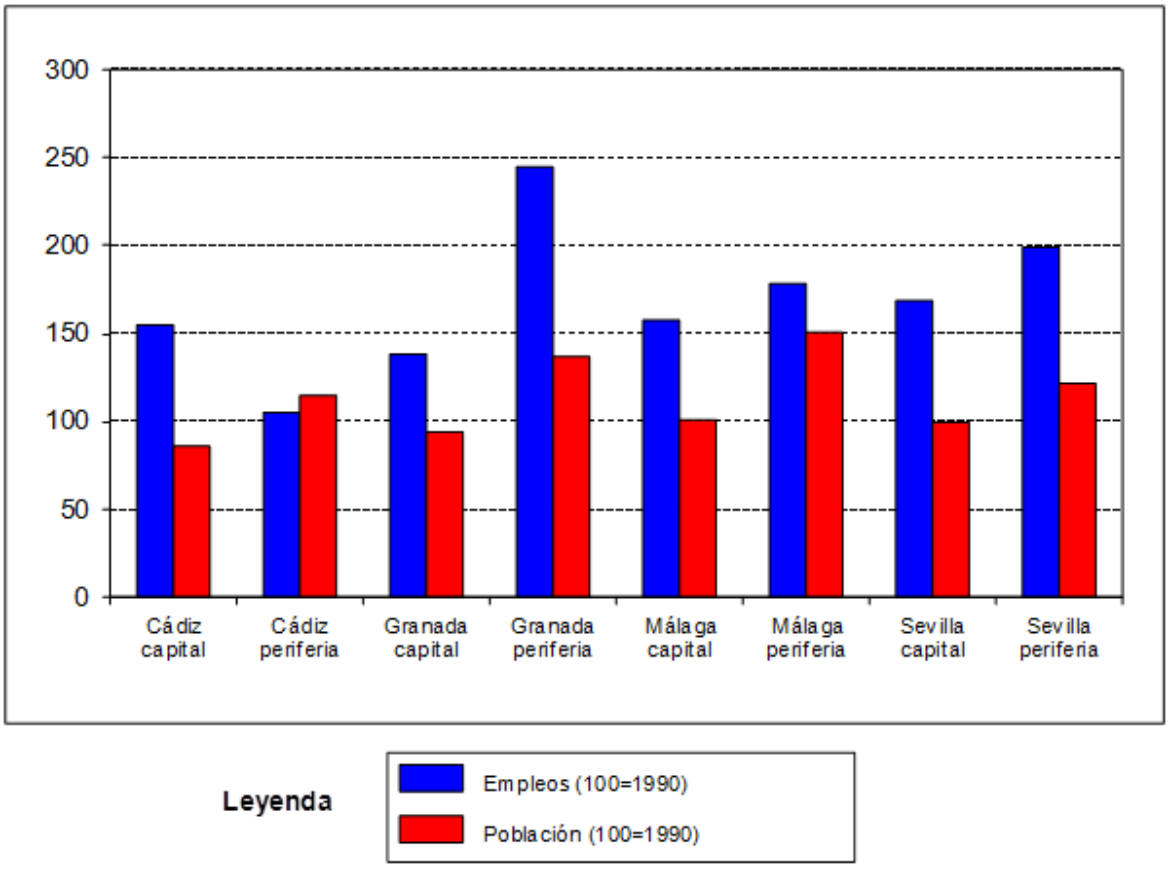
With regard to the total volume of jobs, the data show growth at a higher rate than that of the population, which would indicate beforehand that residential relocation has been accompanied by simultaneous job creation. However, if we look at the structure of the jobs, the image we can obtain is distorted, since it does not correspond to a hypothetical diffusion of activities from the centre to the periphery.

Table 4.21
Comparative population-employment evolution (1990-2000).

	Jobs 90	Jobs 00	Base 100=1990	Population 91	Population 01	Base 100=1991
Cádiz capital	41.797	64.495	154,31	154.347	133.363	86,40
Cádiz periphery	50.872	53.309	104,79	227.427	261.120	114,81
Granada capital	71.323	98.957	138,74	255.212	240.661	94,30
Granada periphery	20.954	51.234	244,51	148.492	203.460	137,02
Malaga capital	117.424	184.996	157,55	522.108	524.414	100,44
Málaga periphery	24.219	43.101	177,96	110.888	167.669	151,21
Seville capital	161.970	273.072	168,59	683.028	684.633	100,23
Seville periphery	49.373	98.118	198,73	338.818	412.696	121,80

Source Own elaboration.

Figure 4.10
Evolution Population-Employment in Andalusian urban agglomerations.



The aggregate evolution of population/jobs shows that, as a general rule, jobs have grown significantly, but not only in the periphery, but also in the centers, so we could speak of global growth in the period analyzed, within a dynamic of positive overall growth. However, the trend of job creation in the periphery was much higher than the rate of job growth in the metropolises (the spectacular growth of jobs in the periphery of Granada with a rate of 244.51%). Could we therefore simply talk of creating jobs *ex novo* or relocating activities?

Firstly, the primary sector has evolved towards a reduction of its weight in the peripheries. The process has been particularly intense in the peripheries while, on the contrary, the primary sector has increased its participation in the capitals.

With regard to the industrial sector, there has been a considerable increase in the number of jobs before those in employment in most of the peripheries analysed, especially in Granada, Malaga and Seville, while there has been a decrease in the number of jobs in the periphery of Cadiz. This confirms the thesis of regional restructuring.

With respect to the construction sector, the growth of the construction sector due to the very strong demand for housing experienced until 2008, has led to the sector that, by far, has contributed more jobs, with exponential growth rates that, obviously, are not maintained today after the bursting of the real estate bubble.

This shows that jobs in highly specialized services continued to be concentrated in the capitals of the Andalusian agglomerations in preference to those of the periphery, which, on the contrary, have strongly reduced their weight.

Finally, the sub-sector of civil service and other liberal activities, representative of the middle class that is the protagonist of the process of suburbanisation or exogenous urbanisation, has increased its weight among those occupied in the periphery at more than considerable rates but, on the other hand, its weight in jobs has decreased. This can be interpreted by the fact that it is a population that has emigrated to the periphery and is therefore counted in the Census as resident professions, without taking into account that, in reality, the professions of these new residents are not exercised in their new places of residence, but in the capitals, from which it can be deduced that there has not been job creation among the middle and upper class populations that are the real protagonists of suburbanization.

Table 4.22
Evolution of the primary sector

	CENSUS 1991	CENSUS 2001	ALTAS 1990	ALTAS 2000
	Primary sector	Primary sector	Primary sector	Primary sector
Periphery Cádiz	1.922	1.748	96	1.331
Periphery Granada	4.432	3.622	6	9.876
Periphery Málaga	2.050	2.239	1	3.579
Sevilla Periphery	6.062	5.705	10	9.970
Cádiz capital	785	376	46	1.540
Granada capital	1.015	1.317	9	4.200
Malaga capital	1.712	2.292	186	3.444
Seville capital	2.615	3.996	195	3.670

Source Own elaboration.

Table 4.23
Evolution of the industry sector.

	CENSUS 1991	CENSUS 2001	ALTAS 1990	ALTAS 2000
	Industry	Industry	Industry	Industry
Periphery Cádiz	10.856	11.529	12.983	10.979
Periphery Granada	6.757	8.249	6.073	8.341
Periphery Málaga	3.180	5.222	1.780	2.961
Sevilla Periphery	19.510	22.419	13.703	18.963
Cádiz capital	6.861	4.840	5.339	4.763
Granada capital	7.303	5.808	5.318	5.021
Malaga capital	21.536	16.633	17.537	16.444
Seville capital	34.438	25.726	24.428	26.025

Source Own elaboration from Censo de Locales [Census of Premises] and Tesorería General de la Seguridad Social [General Social Security Treasury]

Official Data from the General Social Security Treasury

Table 4.24
Evolution of the construction sector.

	CENSUS 1991	CENSUS 2001	ALTAS 1990	ALTAS 2000
	Construction	Construction	Construction	Construction
Periphery Cádiz	6.473	10.236	2.170	8.400
Periphery Granada	6.784	11.323	790	8.544
Periphery Málaga	4.760	9.975	1.071	6.672
Sevilla Periphery	14.803	19.187	817	12.381
Cádiz capital	1.867	2.373	507	2.497
Granada capital	5.129	6.481	2.463	7.212
Malaga capital	13.965	22.734	5.480	21.124
Seville capital	15.369	16.489	10.332	18.660

Source Own elaboration from Censo de Locales [Census of Premises] and Tesorería General de la Seguridad Social [General Social Security Treasury]

Table 4.25
Evolution of the financial sub-sector.

	CENSUS 1991	CENSUS 2001	ALTAS 1990	ALTAS 2000
	Financial sub-sector	Financial sub-sector	Financial sub-sector	Financial sub-sector
Periphery Cádiz	805	1.178	655	203
Periphery Granada	685	1.374	325	164
Periphery Málaga	621	1.319	654	348
Sevilla Periphery	1.781	3.064	757	340
Cádiz capital	1.307	1.117	1.127	3.188
Granada capital	2.768	2.856	2.649	4.698
Malaga capital	4.667	5.021	3.795	7.887
Seville capital	6.868	7.682	7.071	11.071

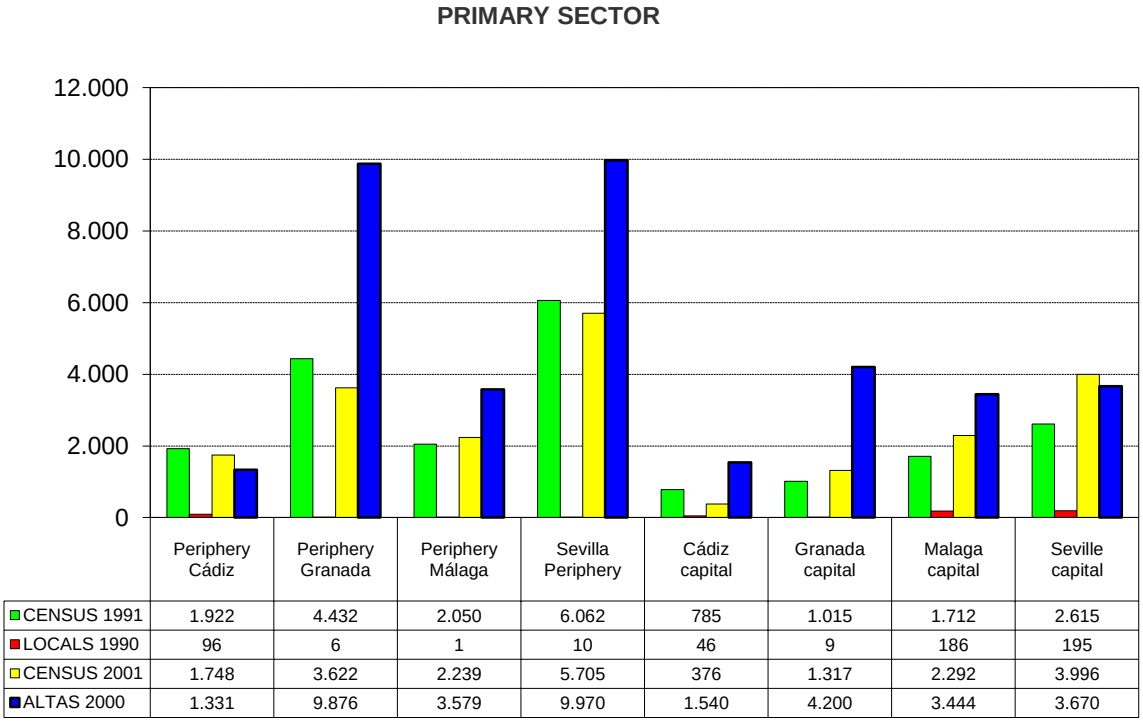
Source Own elaboration from Censo de Locales [Census of Premises] and Tesorería General de la Seguridad Social [General Social Security Treasury]

Table 4.26
Evolution of the civil service subsector and other liberal activities.

	CENSUS 1991	CENSUS 2001	ALTAS 1990	ALTAS 2000
	Civil service and liberal professions	Civil service and liberal professions	Civil service and liberal professions	Civil service and liberal professions
Periphery Cádiz	15.646	24.992	15.960	6.435
Periphery Granada	7.193	15.665	4.236	3.288
Periphery Málaga	4.266	11.769	3.693	3.540
Sevilla Periphery	17.621	32.555	11.405	7.501
Cádiz capital	14.760	15.450	19.846	32.203
Granada capital	27.036	31.343	29.400	33.014
Malaga capital	35.752	45.591	31.567	40.481
Seville capital	53.611	68.939	45.062	68.826

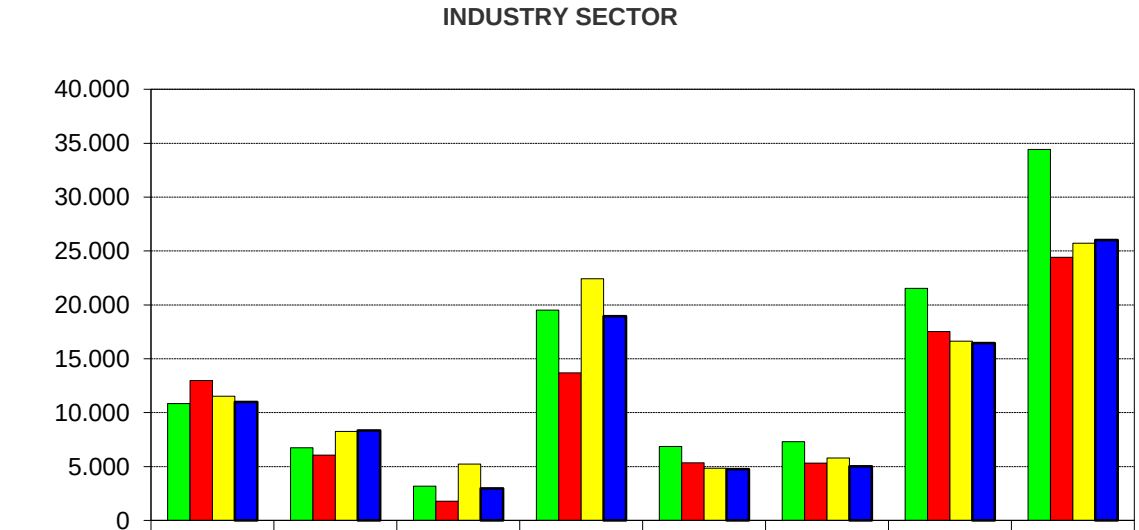
Source Own elaboration del Censo de Locales and General Social Security Treasury

Figure 4.11
The primary sector in the Andalusian agglomerations.



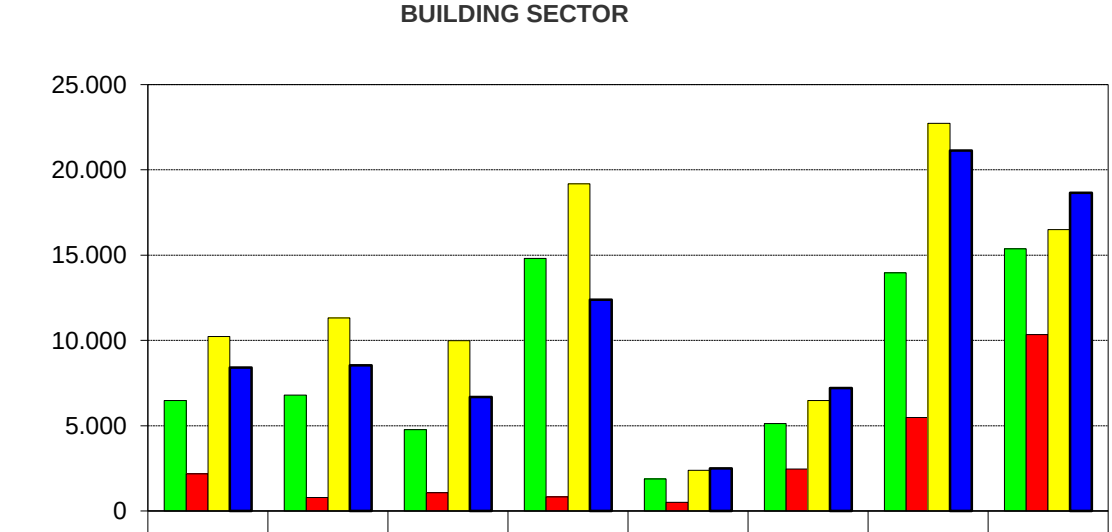
Source Own elaboration.

Figure 4.12
The industry sector in Andalusian urban agglomerations.



	Periphery Cádiz	Periphery Granada	Periphery Málaga	Sevilla Periphery	Cádiz capital	Granada capital	Malaga capital	Seville capital
CENSUS 1991	10.856	6.757	3.180	19.510	6.861	7.303	21.536	34.438
LOCALS 1990	12.983	6.073	1.780	13.703	5.339	5.318	17.537	24.428
CENSUS 2001	11.529	8.249	5.222	22.419	4.840	5.808	16.633	25.726
ALTAS 2000	10.979	8.341	2.961	18.963	4.763	5.021	16.444	26.025

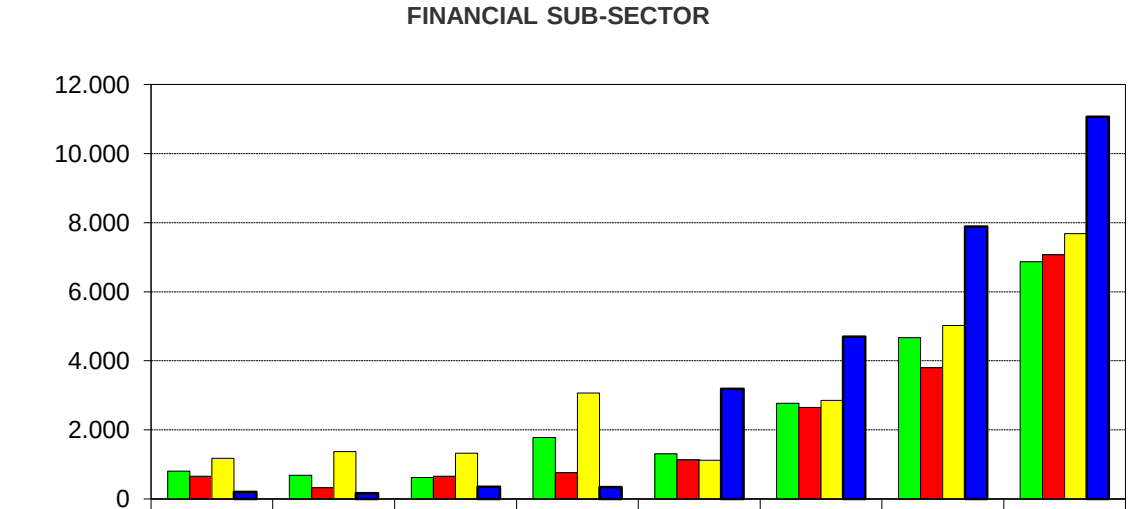
Figure 4.13
The construction sector in Andalusian urban agglomerations.



	Periphery Cádiz	Periphery Granada	Periphery Málaga	Sevilla Periphery	Cádiz capital	Granada capital	Malaga capital	Seville capital
CENSUS 1991	6.473	6.784	4.760	14.803	1.867	5.129	13.965	15.369
LOCALS 1990	2.170	790	1.071	817	507	2.463	5.480	10.332
CENSUS 2001	10.236	11.323	9.975	19.187	2.373	6.481	22.734	16.489
ALTAS 2000	8.400	8.544	6.672	12.381	2.497	7.212	21.124	18.660

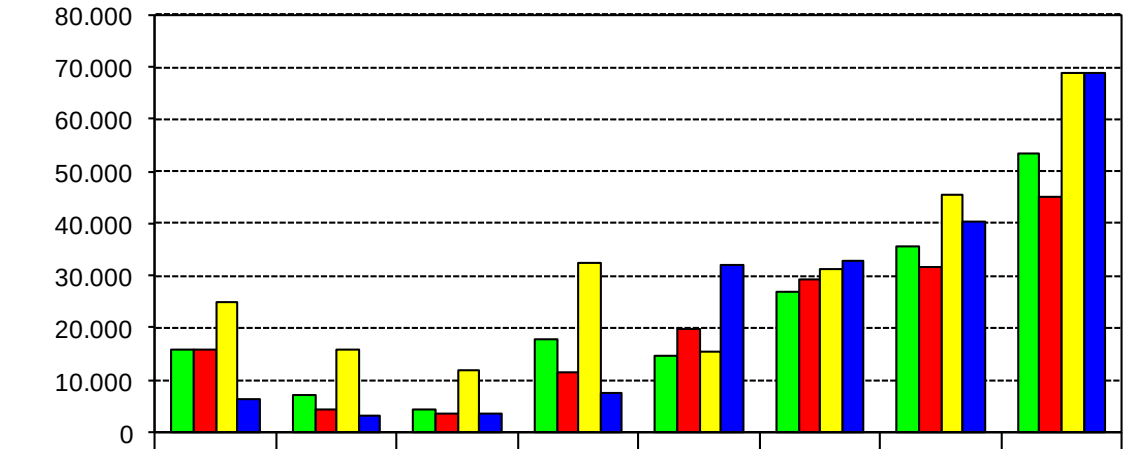
Source Own elaboration.

Figure 4.14
The financial sub-sector in Andalusian urban agglomerations.



	Periphery Cádiz	Periphery Granada	Periphery Málaga	Sevilla Periphery	Cádiz capital	Granada capital	Malaga capital	Seville capital
CENSUS 1991	805	685	621	1.781	1.307	2.768	4.667	6.868
LOCALS 1990	655	325	654	757	1.127	2.649	3.795	7.071
CENSUS 2001	1.178	1.374	1.319	3.064	1.117	2.856	5.021	7.682
ALTAS 2000	203	164	348	340	3.188	4.698	7.887	11.071

Figure 4.15
The civil service and liberal professions sub-sector.



	Periferia Cádiz	Periferia Granada	Periferia Málaga	Periferia Sevilla	Cádiz capital	Granada capital	Málaga capital	Sevilla capital
CENSO 1991	15.646	7.193	4.266	17.621	14.760	27.036	35.752	53.611
LOCALES 1990	15.960	4.236	3.693	11.405	19.846	29.400	31.567	45.062
CENSO 2001	24.992	15.665	11.769	32.555	15.450	31.343	45.591	68.939
ALTAS 2000	6.435	3.288	3.540	7.501	32.203	33.014	40.481	68.826

Source Own elaboration.

5.2.2. The degree of qualification of the employed people.

One last aspect I would like to address about the activity is the degree of qualification of the employed, for which we will use the information provided by the 1991 and 2001 Census. The objective may seem obvious: knowing the degree of qualification of the employed allows us to approximate the degree of specialisation of the workforce, as well as providing us with useful information on the extent to which suburbanisation has led to changes in the specialisation of the resident workforce in the selected municipalities.

The information provided by the National Institute of Statistics on employed persons has been grouped into two tables: one, on data on professions in 1991, and the other from 2001, following the National Classification of Occupations, CNO 94. At the same time, with the intention of obtaining a clearer vision, we have regrouped the information between centre/periphery, from which we have extracted the following conclusions:

Highly qualified professions (linked to university degrees and managerial positions) continue to be hegemonic in the central cities which, throughout the decade, have reinforced their predominance in this type of profession.

The middle-skilled professions, i.e. administrative, and skilled workers have a greater weight in the peripheries, highlighting, in this sense, the middle-class white-collar workers who have come to represent in the periphery of Cadiz of a 12,95% to 18.8%, in the periphery of Granada, from 9.17% to 17.95%, the periphery of Malaga, from 12.47% to 20.74%, and, finally, in the periphery of Seville the weight of administrative and technical support has increased from 12.68% to 21.08%. Simultaneously, in the central cities, although the percentages experience growth in this professional category, the increases are much more modest: in Cadiz, from 21.81 to 23.58%, in Granada, from 20.58% to 23.09%, in Malaga, from 19.09 to 20.74% and, finally, in Seville, from 22.34 to 25.94%. At the same time, skilled workers have a more relevant weight in the peripheries as opposed to the centres, but with slight losses: in the periphery of Cadiz from 23.28 to 19.86%, in the periphery of Granada from 20.38 to 20.01%, in the periphery of Malaga from 18.79 to 15.85% and in the periphery of Seville from 23.65 to 18.61%.

The professions with the lowest qualifications, i.e. unskilled workers, are more evenly distributed in the centre and in the periphery, with slight to moderate decreases depending on the area of reference: in the periphery of Cadiz from 9.6 to 10.04%, in the periphery of Granada from 28.89 to 14.84%, the most spectacular decrease; in the periphery of Malaga from 13.68 to 13.05%, and in the periphery of Seville from 18.77 to 13.67% in 2001.

For greater detail, we show several maps with a view to obtaining a more particular view, depending on the municipality, using as an indicator the location coefficient in which we have used the socio-professional structure at provincial level as a major reference[130].

130 To consult the design of this indicator can go to the work of ESTÉBANEZ ÁLVAREZ: Geografía Humana. (4. Espacios urbanos, p. 357-585).

Table 4.27
Professions of the employed. Percentages with respect to total employed persons (1991).

	Professions linked to university degrees and managerial positions	Administrative and technical support	Catering, protection, personal, and trade sales workers	Agriculture and livestock	Skilled workers	Machine operators	Unskilled workers	Armed forces	Total
Cadiz	22,38	21,81	25,16	1,12	14,82	5,50	6,52	2,69	100,00
Periphery of Cadiz	15,33	12,95	23,74	3,25	23,28	6,17	9,60	5,68	100,00
Granada	27,23	20,58	27,61	1,33	12,01	4,40	5,25	1,58	100,00
Periphery of Granada	9,84	9,17	21,66	3,04	20,38	6,36	28,89	0,68	100,00
Malaga	17,12	19,09	28,69	1,19	17,59	7,15	8,38	0,77	100,00
Periphery of Málaga	11,83	12,47	31,47	4,98	18,79	6,42	13,68	0,35	100,00
Seville	22,18	22,34	24,90	0,89	15,52	5,78	7,19	1,20	100,00
Periphery of Seville	12,39	12,68	22,01	2,09	23,65	7,68	18,77	0,74	100,00

Source Instituto Nacional de Estadística [National Statistics Institute]. Population Census 1991. Own elaboration.

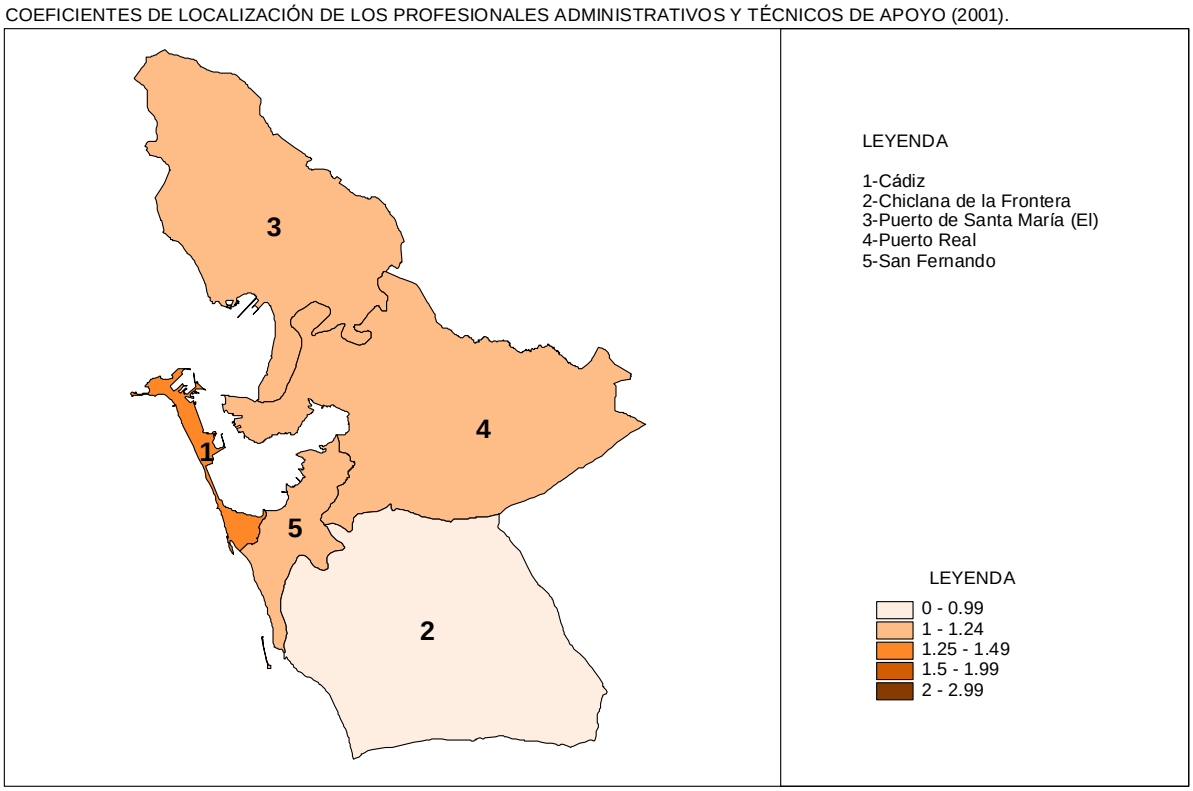
Table 4.28
Professions of the employed (2001).

	Professions linked to university degrees and managerial positions	Administrative and technical support	Catering, protection, personal, and trade sales workers	Agriculture and livestock	Skilled workers	Machine operators	Unskilled workers	Armed forces	Total
Cadiz	26,11	23,58	19,61	0,51	11,83	5,70	10,22	2,45	100,00
Periphery of Cadiz	19,23	18,80	17,31	1,53	19,86	7,09	10,04	6,14	100,00
Granada	33,67	23,09	16,84	0,85	9,52	5,11	9,94	0,98	100,00
Periphery of Granada	19,09	17,95	16,76	2,17	20,01	8,39	14,84	0,79	100,00
Malaga	20,77	23,14	19,49	0,80	14,68	7,74	13,00	0,39	100,00
Periphery of Málaga	20,45	20,74	19,99	2,17	15,85	7,43	13,05	0,33	100,00
Seville	26,80	25,94	16,83	0,75	10,98	6,75	11,06	0,89	100,00
Periphery of Seville	19,36	21,08	15,85	1,30	18,61	9,14	13,67	0,98	100,00

Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

MAP 45

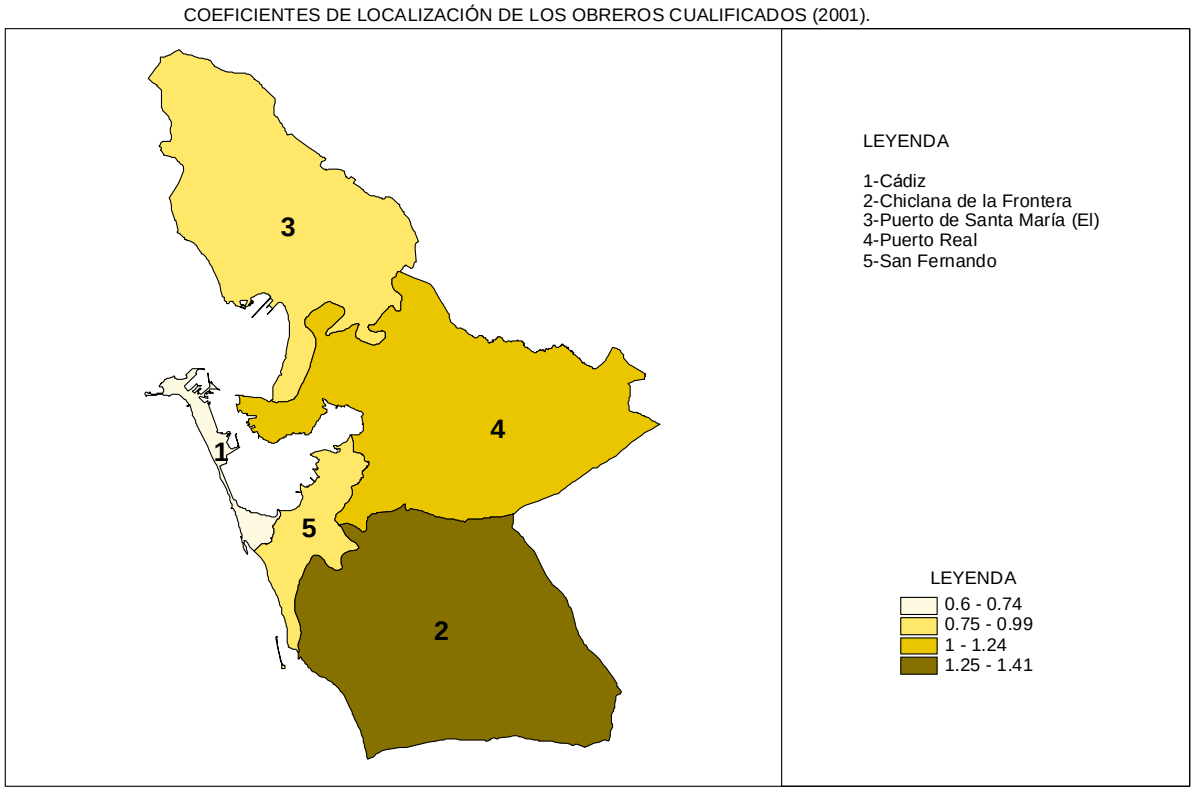
COEFICIENTES DE LOCALIZACIÓN DE LOS PROFESIONALES ADMINISTRATIVOS Y TÉCNICOS DE APOYO (2001).



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

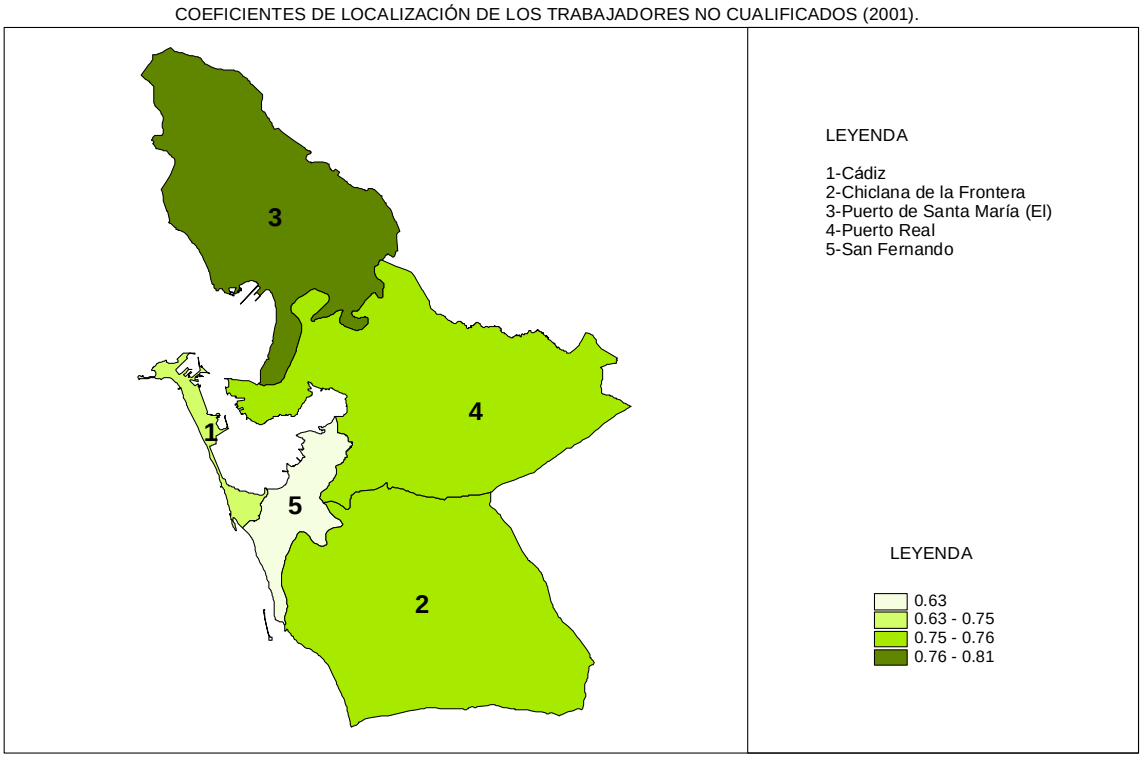
MAP 46

COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS CUALIFICADOS (2001).



MAP 47

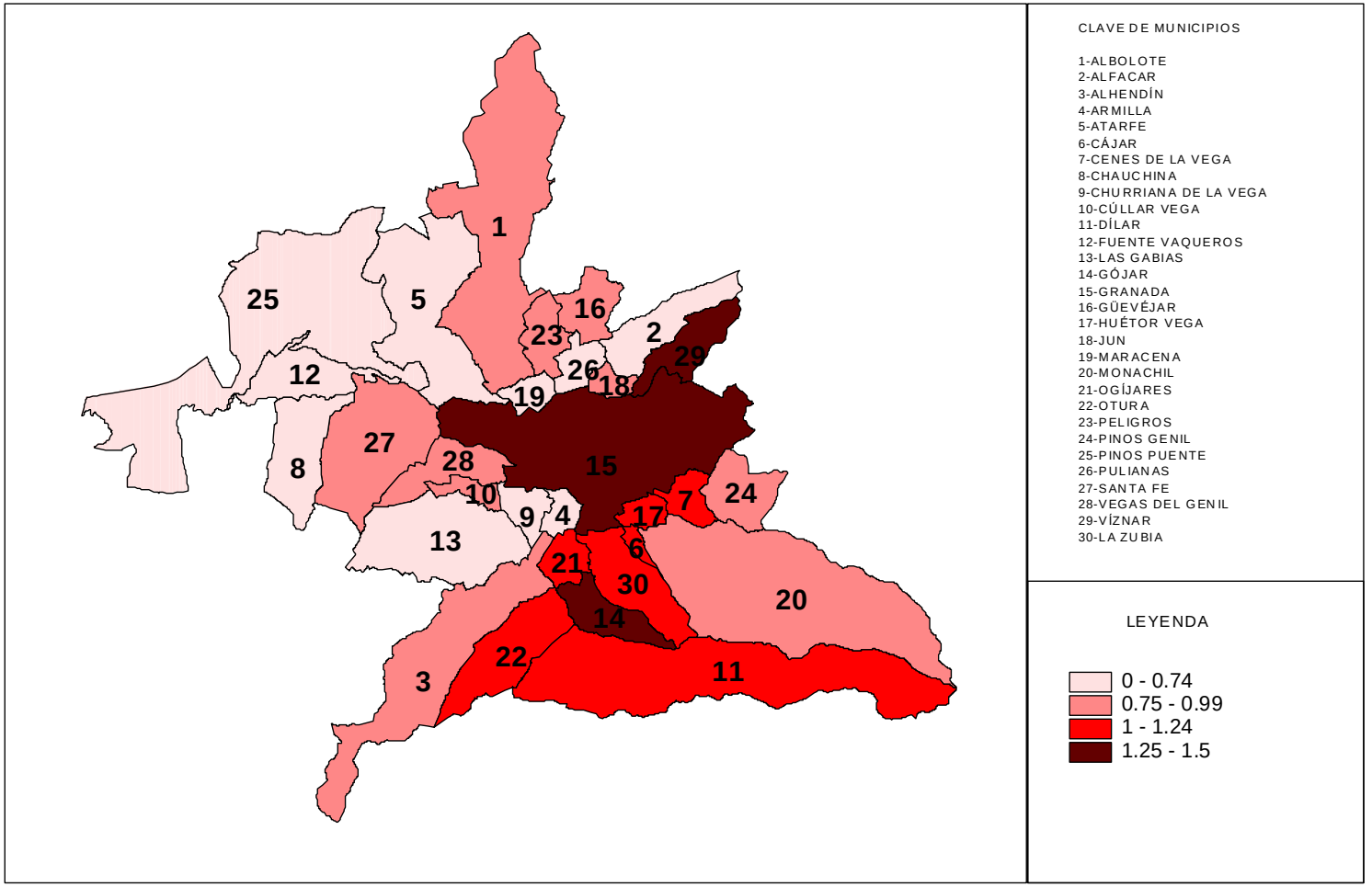
COEFICIENTES DE LOCALIZACIÓN DE LOS TRABAJADORES NO CUALIFICADOS (2001).



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

MAP 48

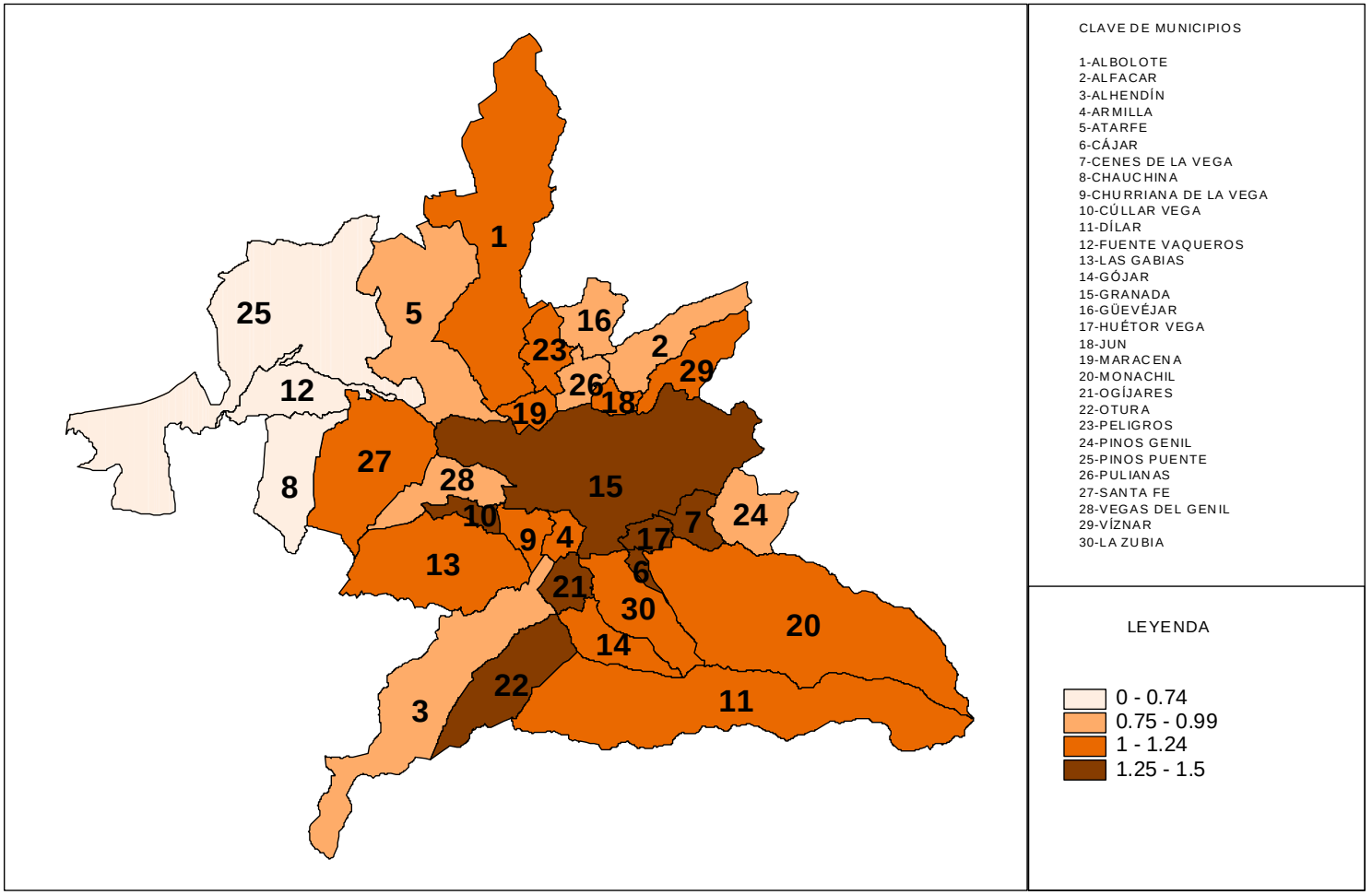
COEFICIENTES DE LOCALIZACIÓN DE LOS TRABAJADORES LIGADOS A TITULACIÓN UNIVERSITARIA Y CARGOS DIRECTIVOS (2001).



Source National Statistics Institute. 2001 Population Census. Own elaboration.

MAP 49

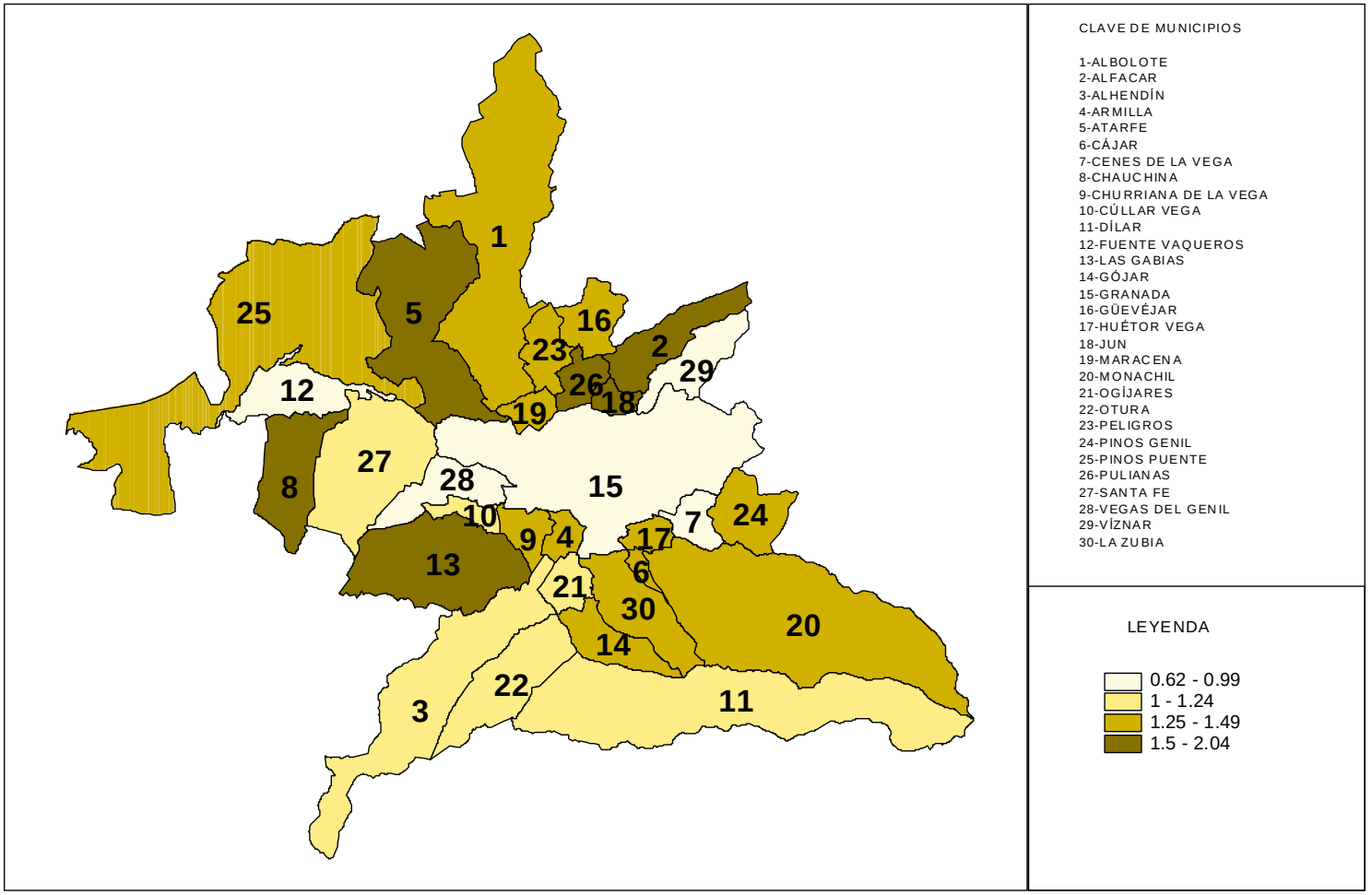
COEFICIENTES DE LOCALIZACIÓN DE LOS ADMINISTRATIVOS Y TÉCNICOS DE APOYO (2001).



Source Instituto Nacional de Estadística [National Statistics Institute].
Censo de Población de 2001 [Population Census 2001]. Own elaboration.

MAP 50

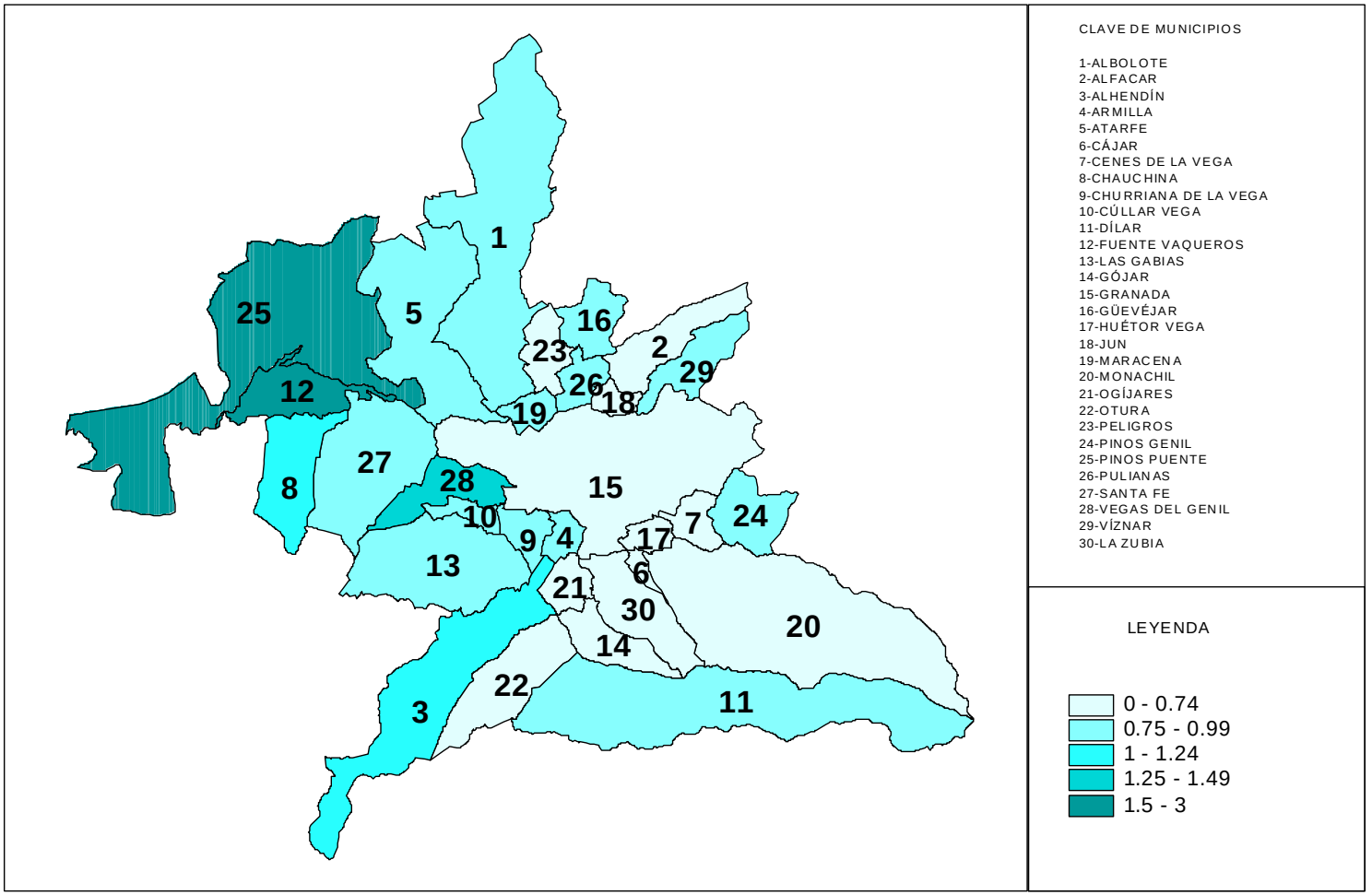
COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS CUALIFICADOS (2001).



Source Instituto Nacional de Estadística [National Statistics Institute].
Censo de Población de 2001 [Population Census 2001]. Own elaboration.

MAP 51

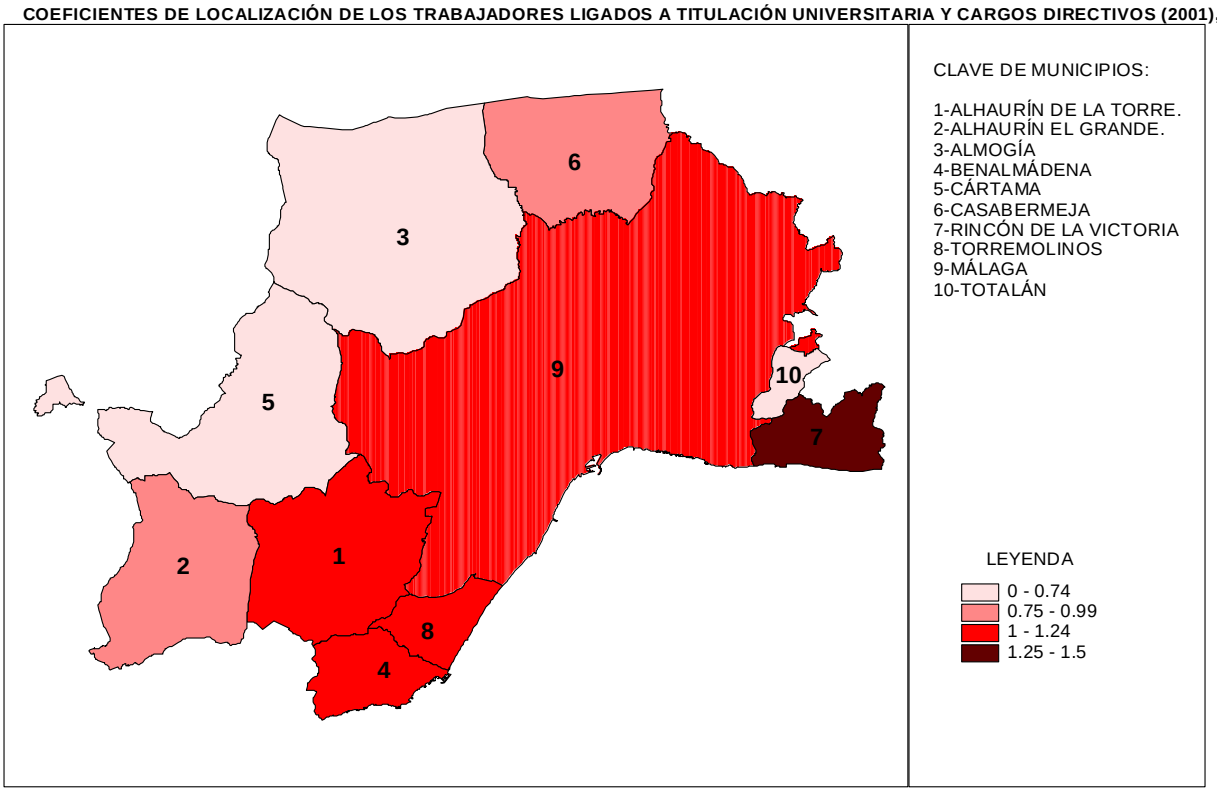
COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS SIN CUALIFICAR (2001).



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

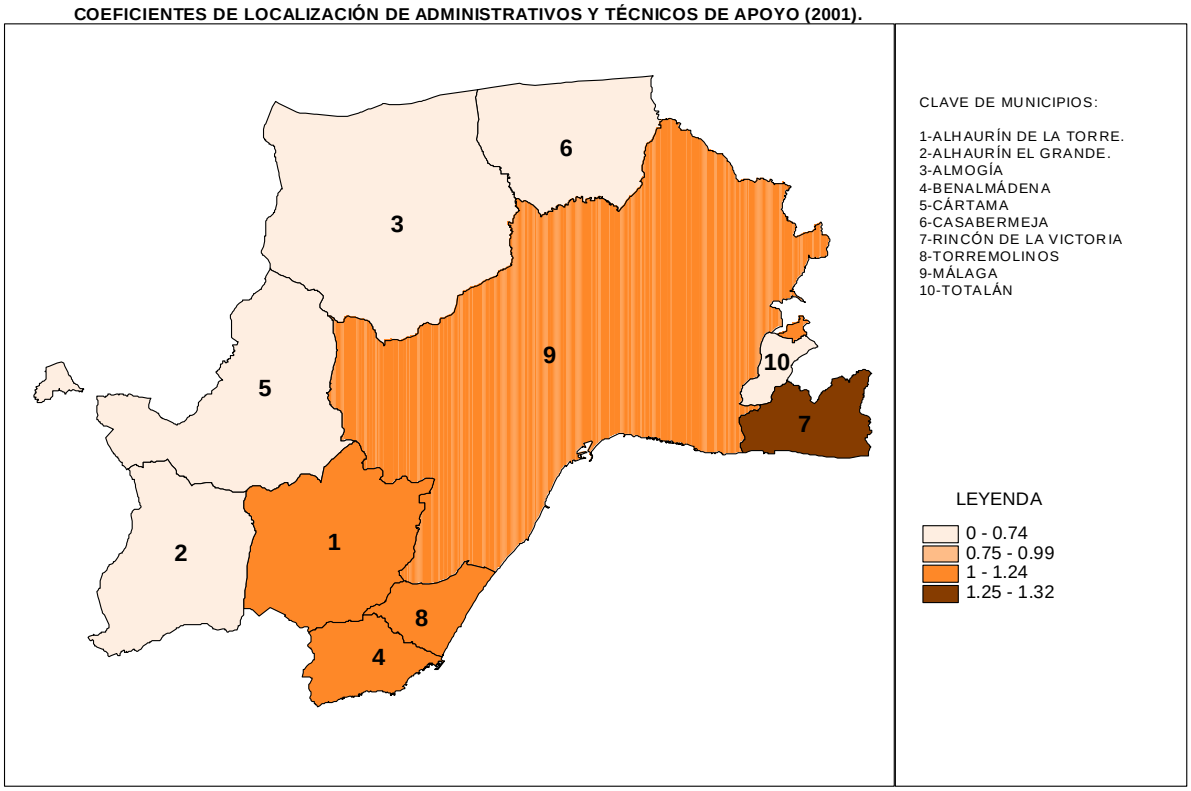
MAP 52

COEFICIENTES DE LOCALIZACIÓN DE LOS TRABAJADORES LIGADOS A TITULACIÓN UNIVERSITARIA Y CARGOS DIRECTIVOS (2001).



MAP 53

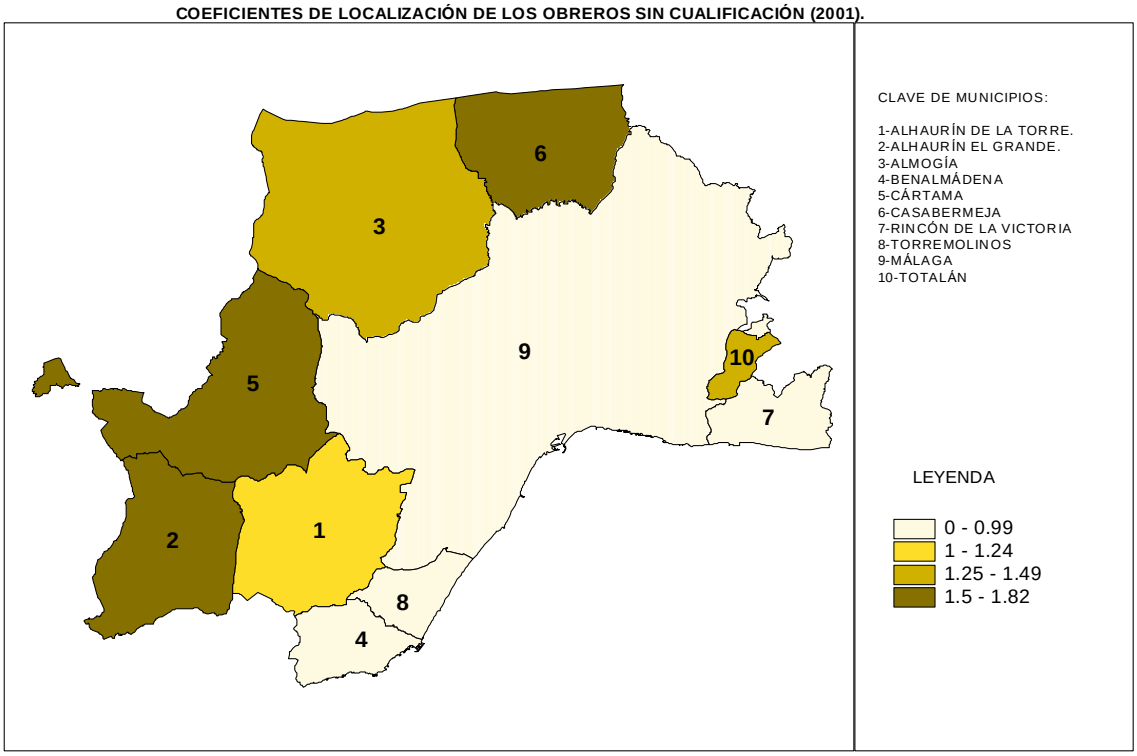
COEFICIENTES DE LOCALIZACIÓN DE ADMINISTRATIVOS Y TÉCNICOS DE APOYO (2001).



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

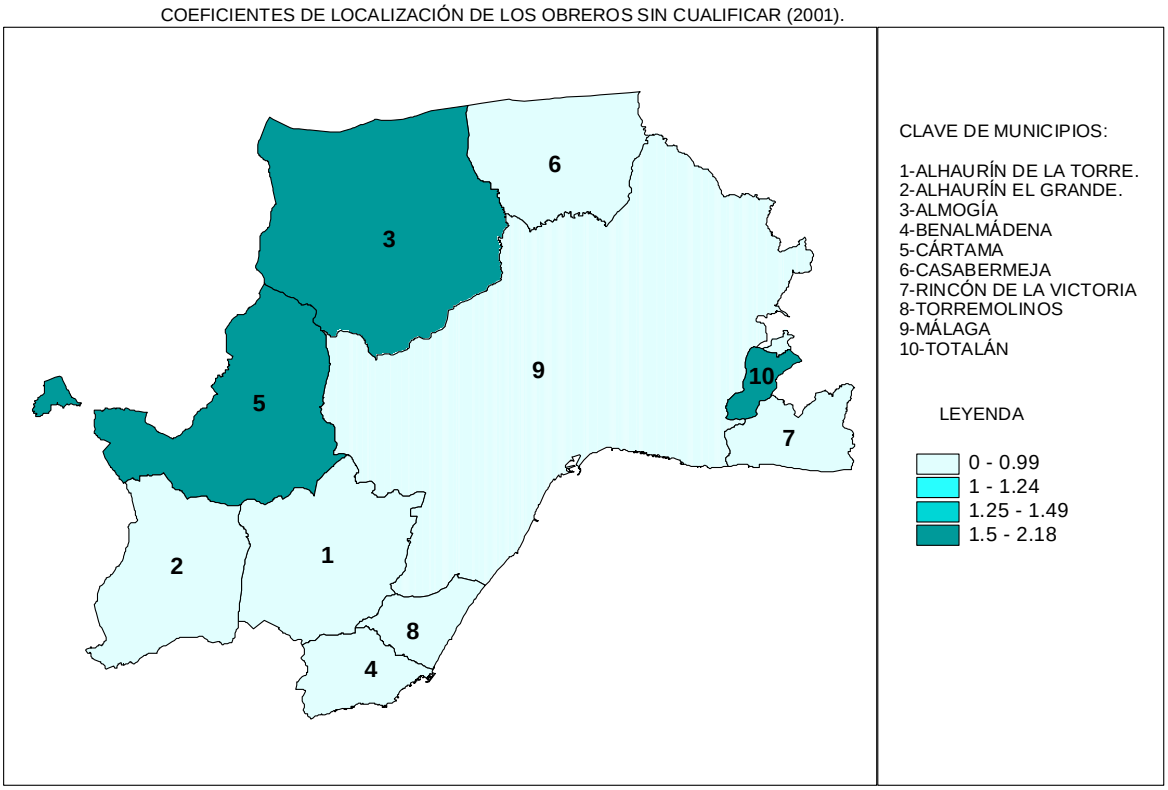
MAP 54

COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS SIN CUALIFICACIÓN (2001).



MAP 55

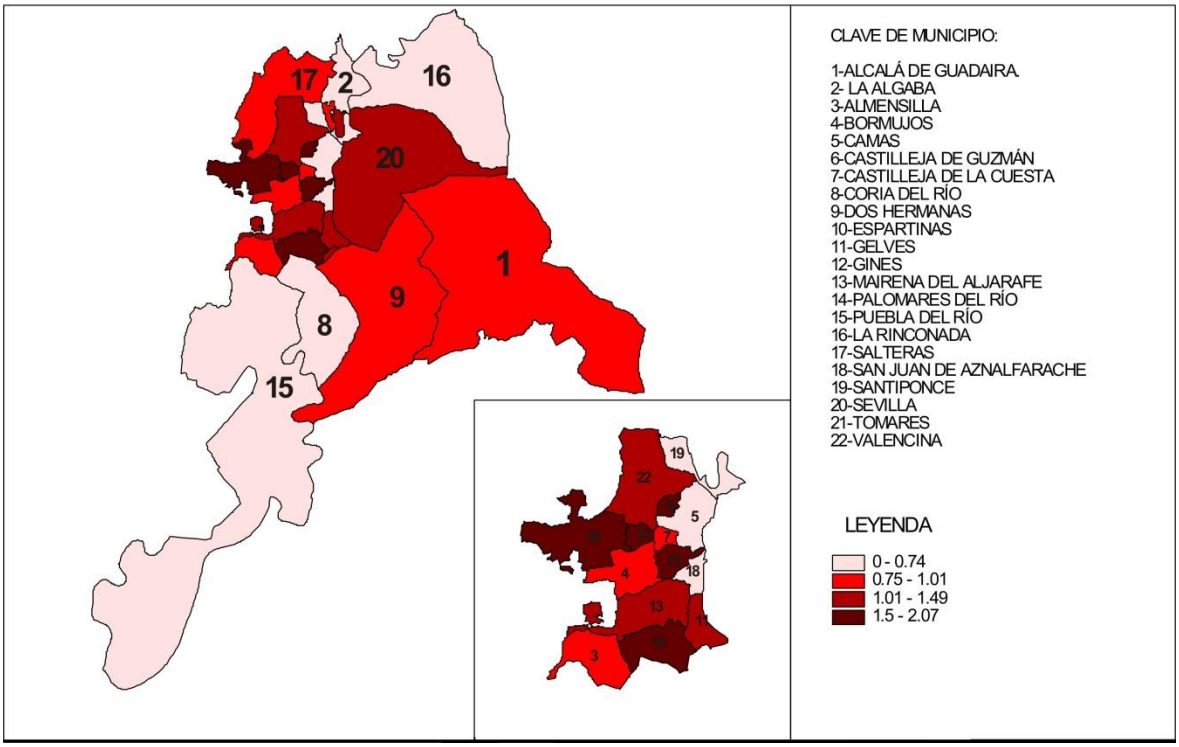
COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS SIN CUALIFICAR (2001).



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

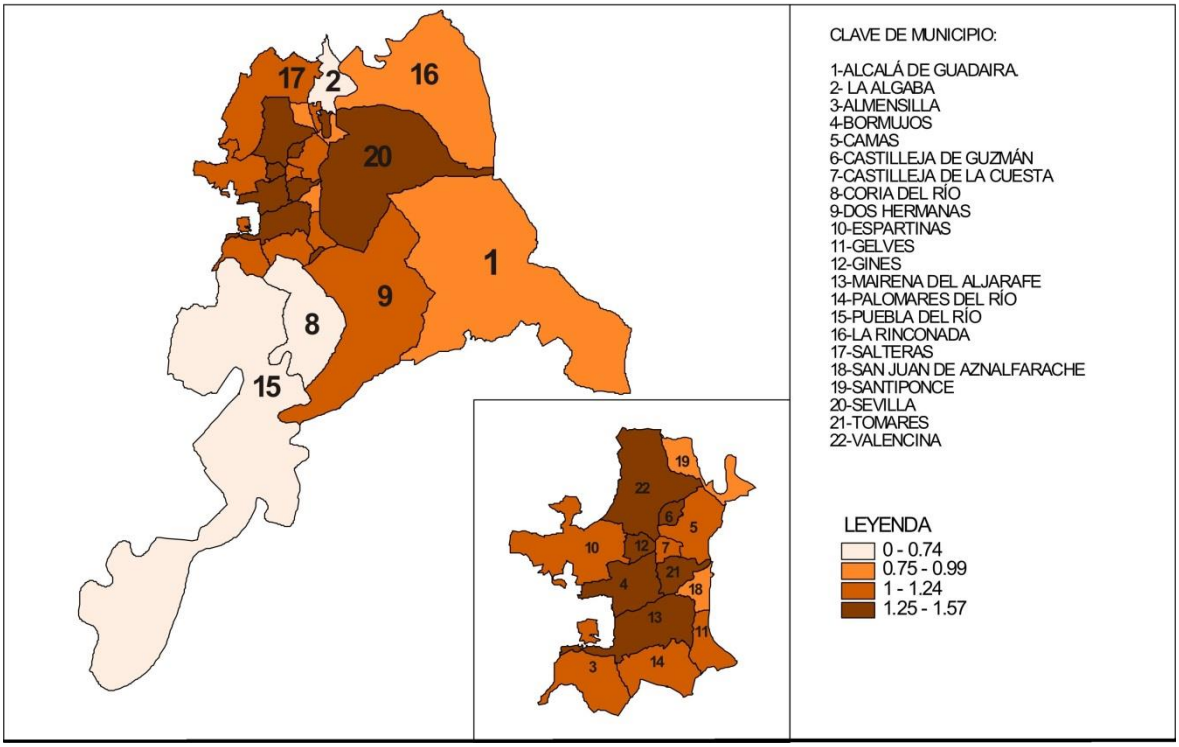
MAP 56

COEFICIENTES DE LOCALIZACIÓN DE LOS TRABAJADORES LIGADOS A TITULACIONES UNIVERSITARIAS Y CARGOS DIRECTIVOS.



MAP 57

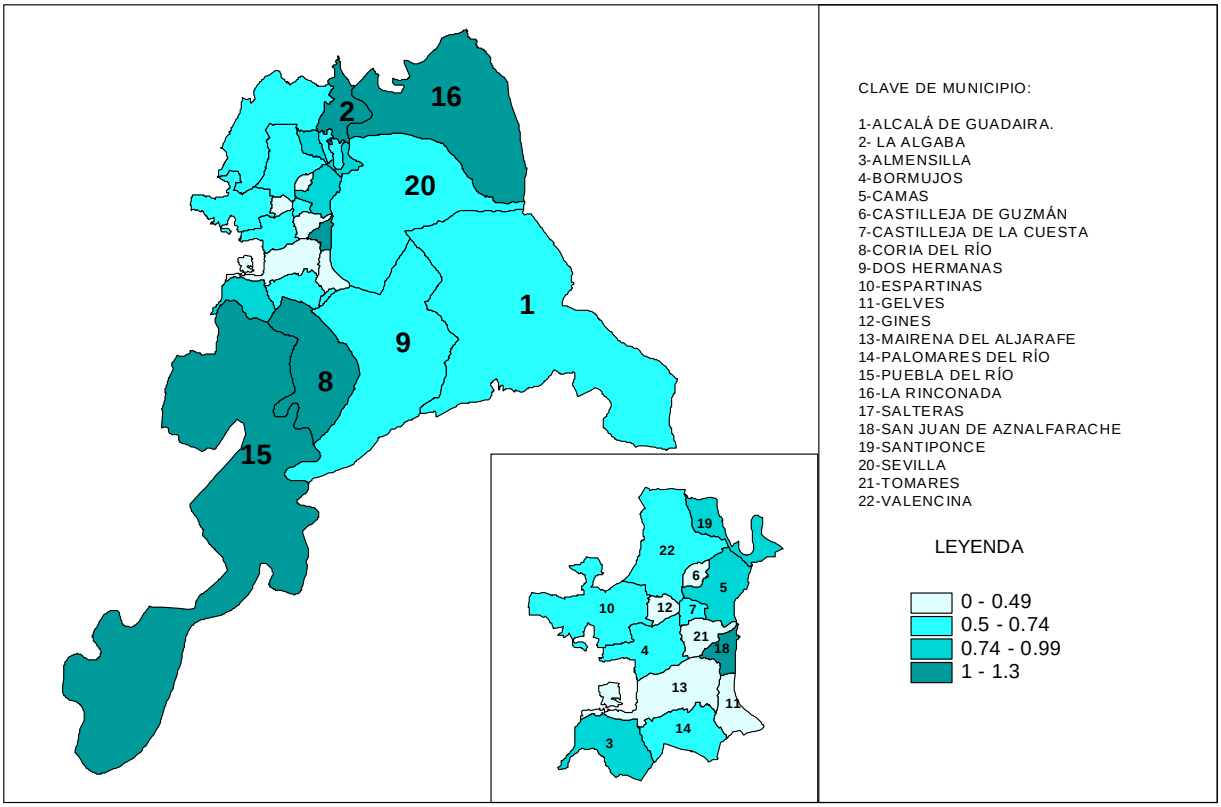
COEFICIENTES DE LOCALIZACIÓN DE LOS TRABAJADORES ADMINISTRATIVOS Y TÉCNICOS DE APOYO



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

MAP 58

COEFICIENTES DE LOCALIZACIÓN DE LOS OBREROS SIN ESPECIALIZACIÓN.



Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

In the agglomeration of Cadiz highlights the hegemony of the capital in the professions of higher qualification but is also relevant the weight of higher professionals in San Fernando, which is known as the dormitory city of the capital. Skilled and unskilled workers stand out in Chiclana de la Frontera and Puerto de Santa Maria, with a minority presence of unskilled workers in San Fernando.

In the agglomeration of Granada, the capital of the most highly qualified professions stands out once again, along with the municipalities in the south of its area of influence. The unskilled workers are a minority in the capital, in some of the northern periphery and in the southern sector of the agglomeration. On the other hand, they are larger in the more rural municipalities: Atarfe, Chauchina and, above all, in Pinos Puente and Fuente Vaqueros.

In the agglomeration of Malaga, a novelty is incorporated: the predominance of upper and middle management in Rincón de la Victoria. On the other hand, skilled and unskilled workers are in the minority in all municipalities except the most rural: Almogía, Cártama and Totalán.

Finally, in the agglomeration of Seville the upper and middle managers predominate in Seville and in the Aljarafe and are more moderately present in Dos Hermanas and Alcalá de Guadaira, where the presence of skilled workers is more predominant due to their industrial character. On the other hand, unskilled workers predominate in Coria del Río, La Puebla del Río, La Algaba and La Rinconada, that is, in those municipalities that have a more rural character.

The greater weight of certain less qualified groups in the municipalities of the areas of influence of Andalusian cities is not due to a selective immigration of these professional cadres, but quite the opposite: immigration acts selectively on the middle cadres and at best lower middle cadres, as we can observe in the balances of the professions between 1991 and 2001.

Table 4.29
Total balance of professions (1991-2001).

	Professions linked to university degrees and manager positions	Administrative and technical support	Catering, protection, personal, and trade sales workers	Agriculture and livestock	Skilled workers	Machine operators	Unskilled workers	Armed forces	Total
Cadiz	-6	-778	-4.055	-331	-2.272	-299	1.086	-287	-6.942
Periphery of Cadiz	5.241	6.486	-1.896	-931	463	1.592	1.675	1.149	13.779
Granada	4.435	1.405	-9.793	-444	-2.450	436	3.704	-551	-3.258
Periphery of Granada	8.995	8.497	1.050	11	4.138	2.885	-4.178	226	21.624
Malaga	7.741	8.598	-15.895	-674	-4.605	1.463	9.122	-680	5.070
Periphery of Málaga	8.389	8.325	474	-555	2.774	2.224	2.972	72	24.675
Seville	12.605	10.172	-17.432	-270	-9.706	2.725	9.744	-659	7.179
Periphery of Seville	14.607	16.819	-1.554	-461	678	4.819	-1.101	617	34.424

Source Instituto Nacional de Estadística [National Statistics Institute]. Censo de Población de 2001 [Population Census 2001]. Own elaboration.

As can be seen, the greatest increases correspond to professions linked to university degrees and management positions, especially in the peripheries, although, except in Cadiz, the central city continues to be a priority place of residence for senior managers. On the other hand, in the periphery, the smallest increases correspond to unskilled workers, with moderate decreases in the Sevillian periphery and strong decreases in the periphery of Granada. And, as we have had occasion to verify in the municipal maps, the periphery continues to hold the main focus of the unqualified workers. How to explain this peculiar situation? To address the issue, we went to the population survey of the municipalities.

Table 4.30
Occupation of the head of household according to the Survey (1997).

Classification of occupations131	NATIVE	NEO-RURALS	REST OF IMMIGRANTS
Direction and management of companies.	1,87	8,96	7,69
Professions linked to 1st or 2nd university cycle.	2,80	14,93	13,67
Technicians and employees of administrative type.	3,74	22,39	14,53
Protection and security service workers.	3,74	2,99	4,27
Merchants.	7,48	6,72	7,69
Catering and personal service workers.	10,28	3,73	13,67
Fishing and agricultural workers.	5,61	0,00	0,86
Craftsmen and skilled workers.	7,48	17,16	4,27
Operators, assemblers and conductors.	2,80	0,75	5,13
Unskilled workers.	31,78	11,19	8,55
Armed forces.	0,00	0,00	0,00
Other/ Not well specified	0,93	1,49	0,00
There is no record.	21,50	9,70	19,67
Total	100,00	100,00	100,00

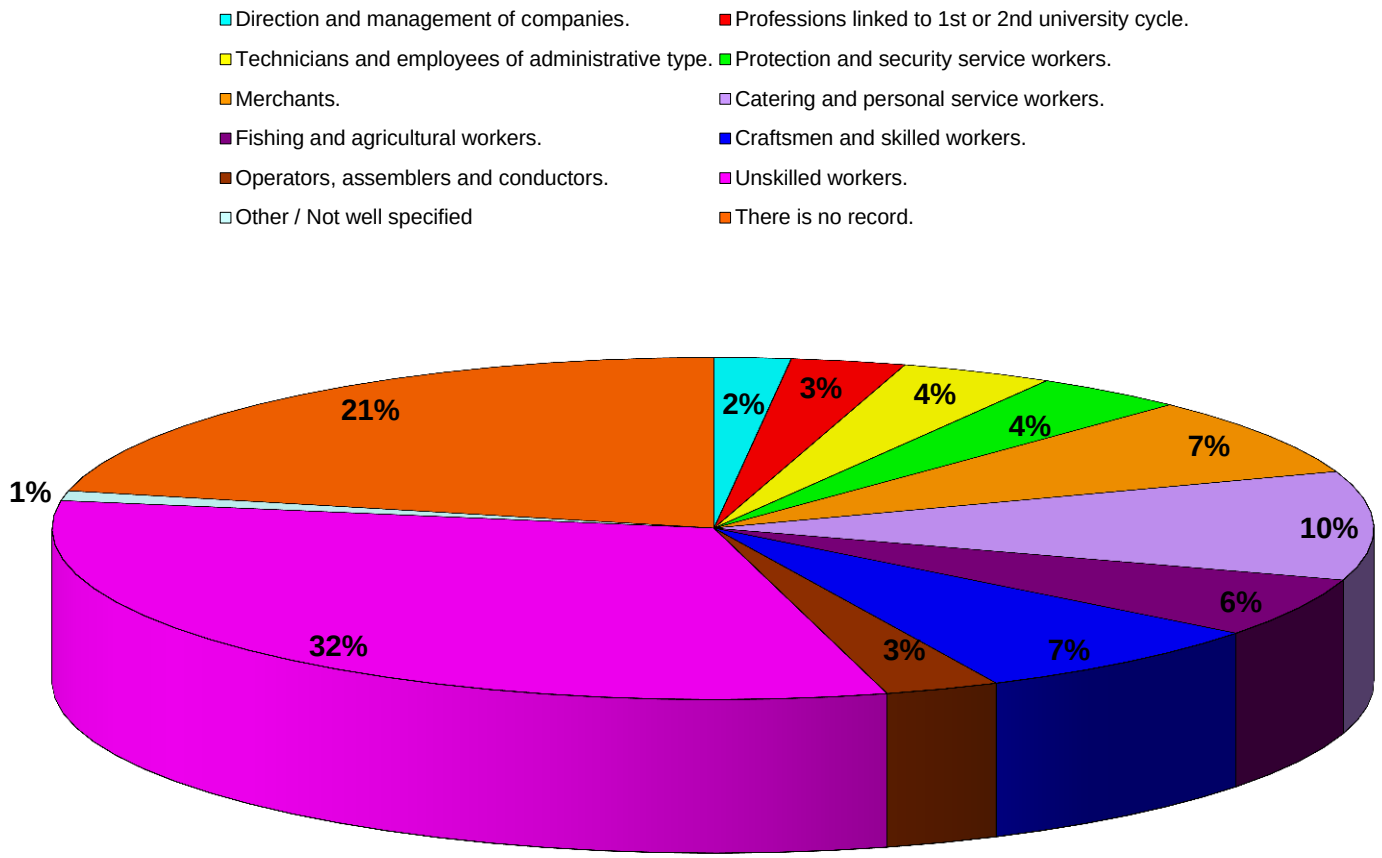
Source Montosa Muñoz, J., 1997 Survey. Own elaboration.

Thus, among the autochthonous, the percentage of unskilled workers and those who do not specify their profession, which tends to be associated with temporary low-skilled jobs, represents 53.28% of the employed, which contrasts with 20.89% of the neo-rurals. At the same time, the percentage of workers dedicated to professions with a certain qualification (managers, university professionals and technicians and administrative employees) rises to 46.19% among immigrants from the capital, with only 8.41% among the indigenous population. We deduce, then, that the moderate, sometimes notable, presence of unqualified professionals in the Andalusian peripheries is due to the maintenance, within the municipalities, of the native population of the municipalities, which does not emigrate, but remains in the "town". In contrast to the latter, the majority of the Neo-Rural population are of medium or even higher socio-professional level.

In short, we have been able to verify the supposed change between the two reference census moments in the peripheries that have experienced an increase in middle and upper-middle class occupations, while those of lesser qualification are mainly concentrated in the municipalities that have either remained or remain on the margin of the processes of diffusion of inhabitants, or constitute the local workforce that remains in the municipality. Thus, suburbanization would have led to a social change in those municipalities that have gone from a scarce social heterogeneity to levels of social segregation that, until now, were more characteristic of cities than of peri-urban areas, as these became spaces in transformation induced by metropolises.

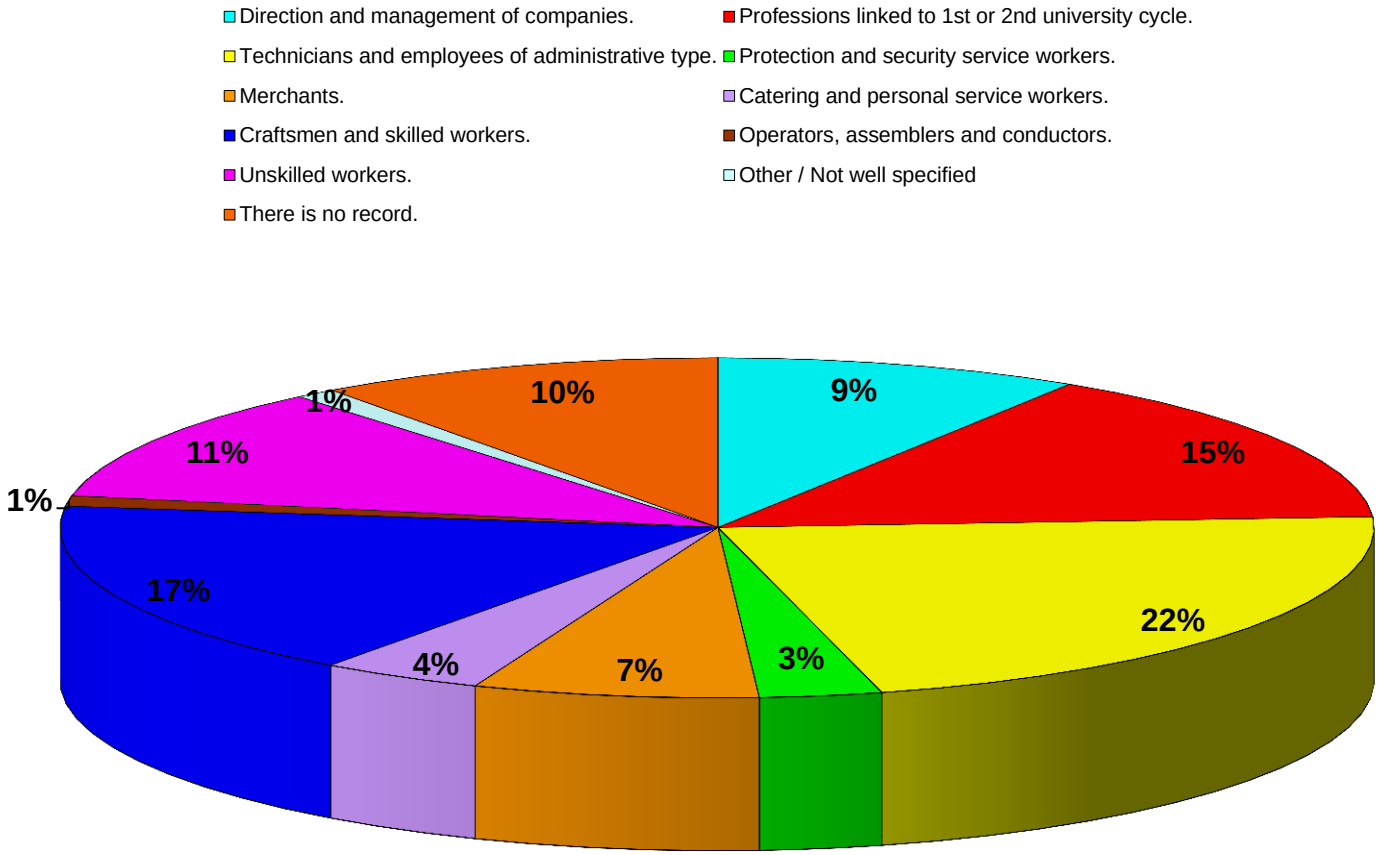
131 Based on Statistical National Institute: National Occupation Classification 1994.

Figure 4.16
Professions of the surveyed population by origin (1997).
NATIVE



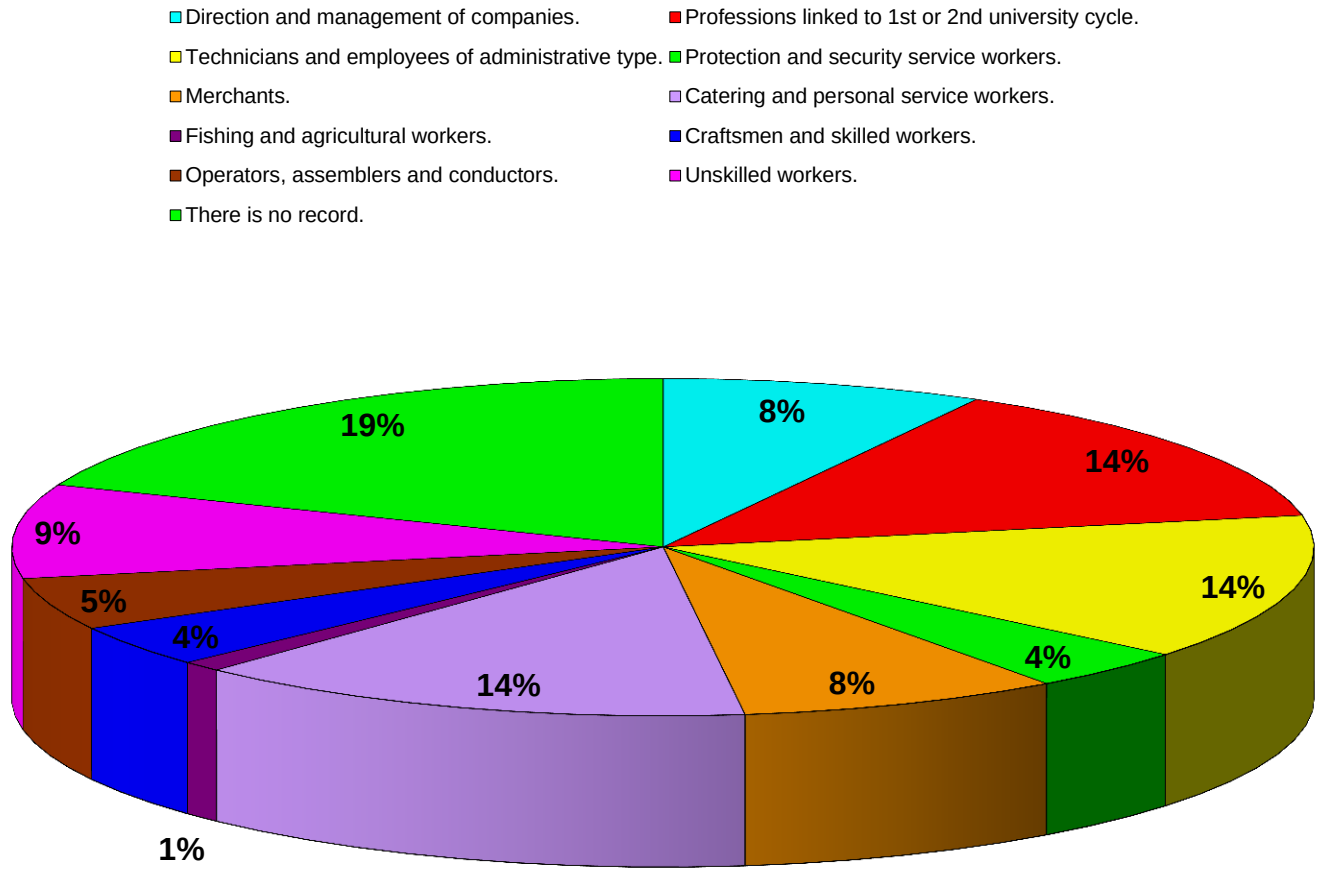
Source Own elaboration.

Figure 4.17
Professions of the surveyed population by origin (1997).
NEO-RURALS



Source Own elaboration.

Figure 4.18
REST OF IMMIGRANTS



Source Own elaboration.

CHAPTER 5

COMMUTING IN THE ANDALUSIAN URBAN AGGLOMERATIONS AT THE BEGINNING OF THE 21ST CENTURY

The degree of functional autonomy/dependence is measured in a very direct way with pendulum or daily mobility which is defined as the daily transfer from the place of residence to the place of work, therefore, it cannot be included in migratory movements as long as it does not entail a change of residence. Daily commuting for work reasons is due to a dissociation, in principle, between place of residence (periphery) and place of work (central city).

5.1. DAILY COMMUTING FOR WORK REASONS ACCORDING TO DIRECT SOURCES: THE 1991 AND 2001 CENSUSES.

-Agglomeration of Cadiz:

In the entrances to Cádiz, the daily flows that have their starting point in the municipality of San Fernando stand out. In the exits from the central municipality, the flows that go from it to the municipality of Puerto Real stand out, where the industrial estates of Tres Caminos and Trocadero139 are located, as well as Río San Pedro, which makes it a receiver of pendulum flows for work reasons due to its functional autonomy with respect to Cadiz.

-Agglomeration of Granada:

In the entrances to the central municipality of the agglomeration, we mention the exits from Maracena and La Zubia in 1991 that are generalized, above all, to the southern sector of the agglomeration in 2001, an indicator of the degree of diffusion from the capital by residential suburbanization. The exits include Albolote, Peligros and Atarfe, where the 209-hectare Juncaril (Albolote) industrial estates are located, as well as the Atarfe (Barriada de la Estación) and Peligros (La Unidad-Asegra) industrial estates, with more than 50 has140.

-Agglomeration of Malaga:

The entrances from Torremolinos and the municipalities of Alhaurín de la Torre and Rincón de la Victoria stand out in 1991. In 2001 this flow was extended to Benalmádena. With respect to the exits from the capital we mention as notable those directed towards Torremolinos and Benalmádena because they are municipalities linked to tourism that generates a relative functional autonomy with respect to the central municipality of Málaga.

-Agglomeration of Seville:

We highlight the exits in 1991 from the municipalities of the Aljarafe escarpment closest to the city of Seville, an indication of functional dependence on the central nucleus of the agglomeration. In 2001, departures from the Aljarafe escarpment towards the capital, as well as from Dos Hermanas and, to a lesser extent, from Alcalá de Guadaíra. In the flows of outflows from the capital for labor reasons, the outflows to Alcalá de Guadaíra (La Red Industrial Estate, with 190 hectares, and Hacienda Dolores, with more than 68 hectares) as well as to Dos Hermanas (where the industrial estates of Los Montecillos and Fuente Rey are located with more than 40 hectares respectively) stand out. In 2001, departures from Seville to the escarpment of the Aljarafe also increased, but the balance of entry-exits continues to be clearly favourable for the capital of Seville, from which it can be deduced that the degree of diffusion of activities from the central nucleus of the agglomeration was still reduced due to the predominance of labour flows to Seville.

Table 5.1
Commuting for work reasons in the main Andalusian urban agglomerations (1991-2001).

Municipalities	MOBILITY 1991 CENSUS		MOBILITY 2001 CENSUS		Balance incoming - outgoing 1991	Balance incoming - outgoing 2001
	Mobility to and from the capital.. ..	Mobility with exit in the capital and des- tino...	Mobility to and from the capital.. ..	Mobility with exit in the capital and des- tino...		
Chiclana de la Frontera	839	288	1.582	750	-551	-832
Puerto de Santa María	700	499	1.209	749	-201	-460
Puerto Real	882	2.205	1.906	2.623	1.323	717
San Fernando	3.436	1.107	4.741	1.835	-2.329	-2.906
Cadiz	5.857	4.099	9.438	5.957	1.758	3.481
Albolote	934	321	1.779	1.433	-613	-346
Alfacar	350	37	769	95	-313	-674
Alhendin	213	38	654	106	-175	-548
Armilla	945	538	2.069	1.063	-407	-1.006
Atarfe	564	262	821	589	-302	-232
Cájar	396	22	768	67	-374	-701
Cenes de la Vega	396	19	1.117	66	-377	-1.051
Chauchina	91	40	209	123	-51	-86
Churriana de la Vega	525	116	985	249	-409	-736
Cúllar Vega	137	22	853	77	-115	-776
Dílar	188	0	217	18	-188	-199
Fuente Vaqueros	97	26	211	72	-71	-139
Gabias (Las)	562	55	1.398	124	-507	-1.274
Gójar	298	10	646	52	-288	-594
Güevéjar	58	10	314	22	-48	-292
Huétor Vega	949	83	1.590	148	-866	-1.442
Jun	140	31	432	58	-109	-374
Maracena	1.543	240	2.590	510	-1.303	-2.080
Monachil	557	237	872	294	-320	-578
Ogíjares	813	52	1.706	373	-761	-1.333
Otura	244	20	706	75	-224	-631
Peligros	615	359	975	813	-256	-162
Pinos Puente	386	116	626	234	-270	-392
Pinos Genil	198	10	284	40	-188	-244
Pulianas	500	70	953	224	-430	-729
Santa Fe	644	197	876	454	-447	-422
Vegas del Genil	211	23	489	53	-188	-436
Víznar	108	0	109	13	-108	-96
Zubia (La)	1.252	80	2.361	249	-1.172	-2.112
Granada capital	13.914	3.034	27.379	7.694	10.880	19.685

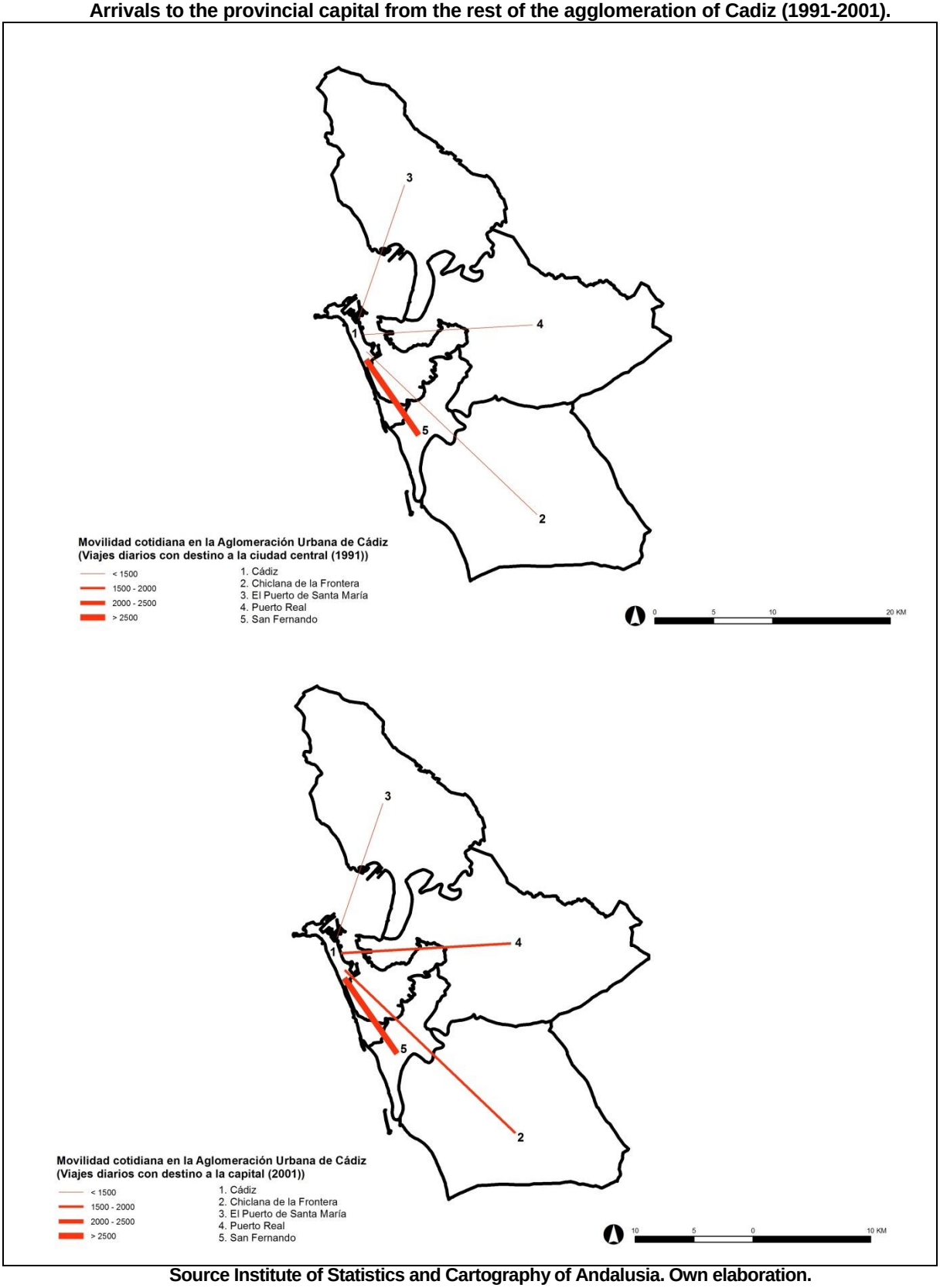
Sources: Feria Toribio, J. M., Susino Arbucias, J. (1996): Movilidad por razón de trabajo en Andalucía. Seville: Instituto de Estadística de Andalucía. Feria Toribio, J.M., Susino Arbucias, J., Casado Díaz, J.M. (2005): Mobility by reason of work in Andalusia 2001. Seville: Instituto de Estadística de Andalucía. Own elaboration.

Table 5.2
Commuting for work reasons in the main urban agglomerations Andalusian (1991-2001). Continued.

Municipalities	MOBILITY 1991 CENSUS		MOBILITY 2001 CENSUS		Balance incoming - outgoing 1991	Balance incoming - outgoing 2001
	Mobility to and from the capital..	Mobility with exit in the capital and des-	Mobility to and from the capital..	Mobility with exit in the capital and des-		
Alhaurín de la Torre	1.209	215	3.386	1.115	-994	-2.271
Alhaurin El Grande	338	116	530	242	-222	-288
Almogía	258	22	569	48	-236	-521
Benalmádena	530	1.002	2.042	2.787	472	745
Cartama	537	188	1.172	575	-349	-597
Casabermeja	224	40	540	85	-184	-455
Rincón de la Victoria	1.451	170	4.679	781	-1.281	-3.898
Total	52	0	96	8	-52	-88
Torremolinos	1.274	2.499	3.539	4.747	1.225	1.208
Malaga capital	5.873	4.252	16.553	10.388	1.621	6.165
Alcalá de Guadaíra	2.882	1.789	4.925	4.025	-1.093	-900
Algaba (La)	1.597	126	1.736	299	-1.471	-1.437
Almensilla	89	0	427	22	-89	-405
Bormujos	572	25	2.131	253	-547	-1.878
Camas	3.510	503	3.362	1.021	-3.007	-2.341
Castilleja de Guzmán	73	0	436	18	-73	-418
Castilleja de la Cuesta	1.978	142	2.468	73	-1.836	-2.395
Coria del Río	1.983	204	1.998	376	-1.779	-1.622
Dos Hermanas	6.492	1.417	12.372	4.464	-5.075	-7.908
Espartinas	324	49	839	111	-275	-728
Gelves	615	27	1.446	111	-588	-1.335
Gines	796	110	1.861	302	-686	-1.559
Mairena del Aljarafe	4.007	240	6.464	1.855	-3.767	-4.609
Palomares del Río	380	13	547	42	-367	-505
Puebla del Río (La)	793	112	810	117	-681	-693
Corner (La)	1.586	507	2.992	1.407	-1.079	-1.585
Salteras	319	41	431	125	-278	-306
San Juan de Aznalfarache	3.269	401	2.591	1.149	-2.868	-1.442
Santiponce	663	119	961	274	-544	-687
Tomares	2.332	207	3.471	711	-2.125	-2.760
Valencina de la Concepción	607	57	1.253	337	-550	-916
Seville capital	34.867	6.089	53.521	17.092	28.778	36.429

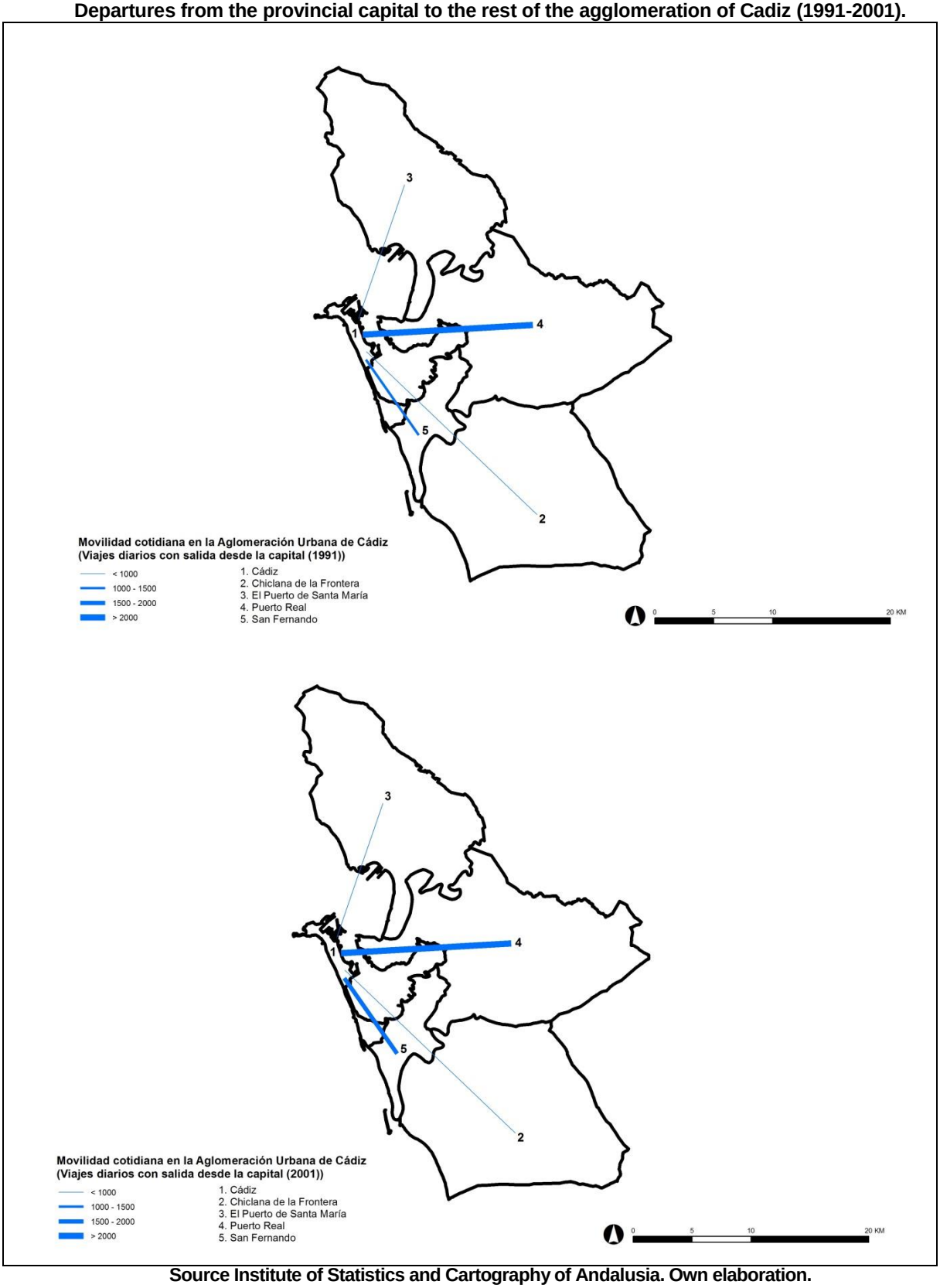
Sources: Feria Toribio, J. M., Susino Arbucias, J. (1996): Movilidad por razón de trabajo en Andalucía. Seville: Instituto de Estadística de Andalucía. Feria Toribio, J.M., Susino Arbucias, J., Casado Díaz, J.M. (2005): Mobility by reason of work in Andalusia 2001. Seville: Instituto de Estadística de Andalucía. Own elaboration.

MAPS 59 AND 60
Arrivals to the provincial capital from the rest of the agglomeration of Cadiz (1991-2001).



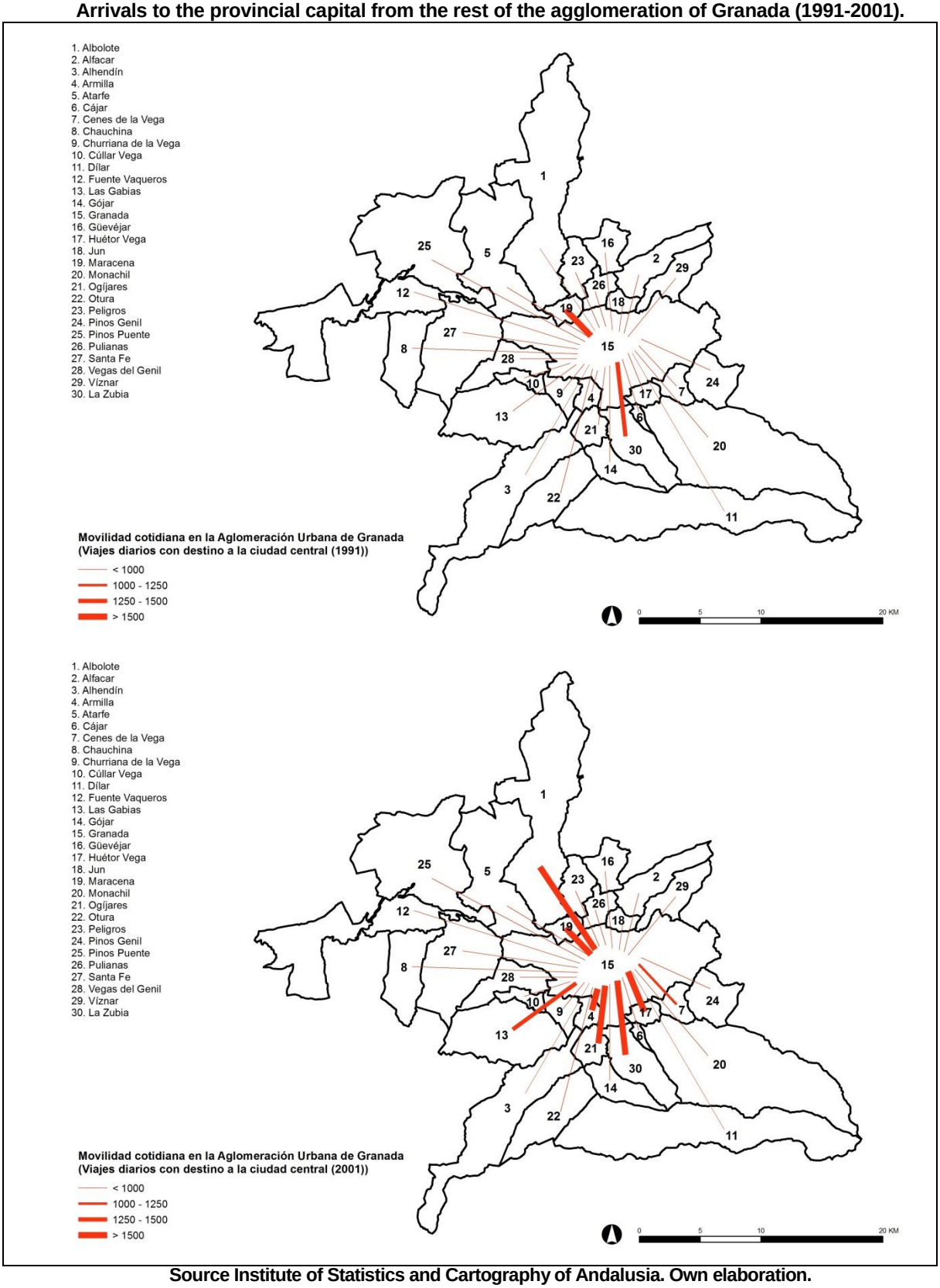
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 61 AND 62
Departures from the provincial capital to the rest of the agglomeration of Cadiz (1991-2001).



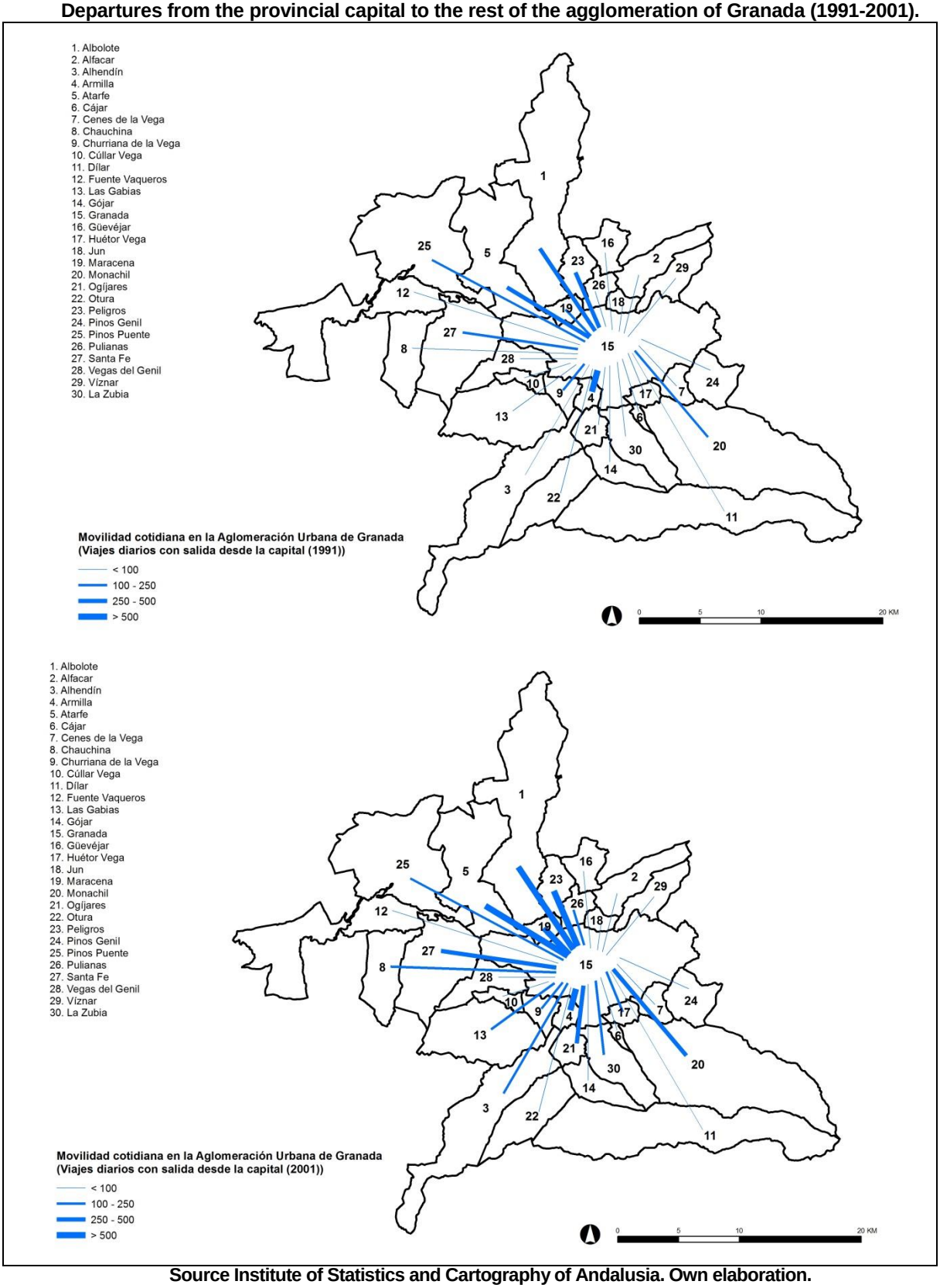
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 63 AND 64
Arrivals to the provincial capital from the rest of the agglomeration of Granada (1991-2001).



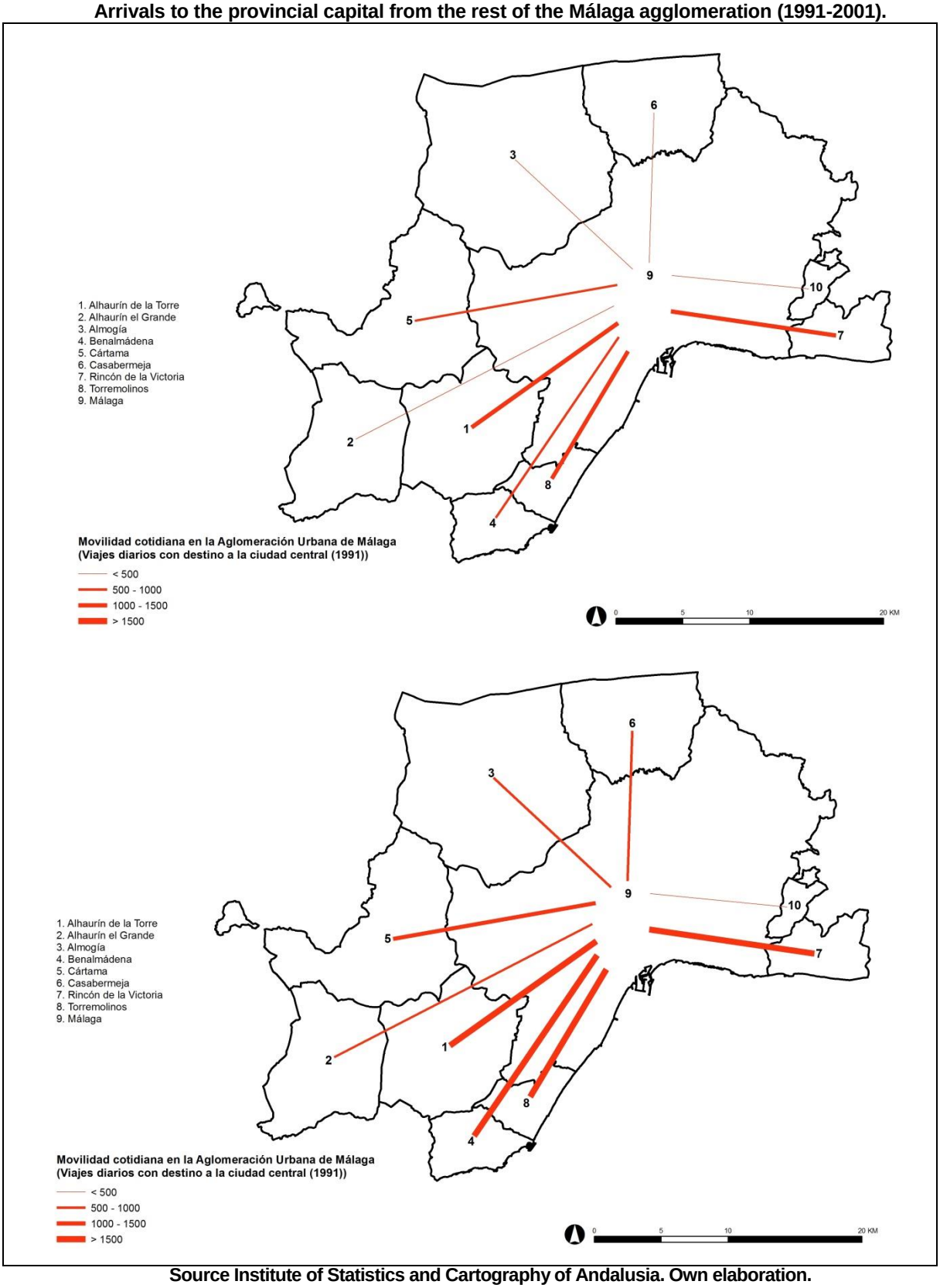
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 65 AND 66
Departures from the provincial capital to the rest of the agglomeration of Granada (1991-2001).



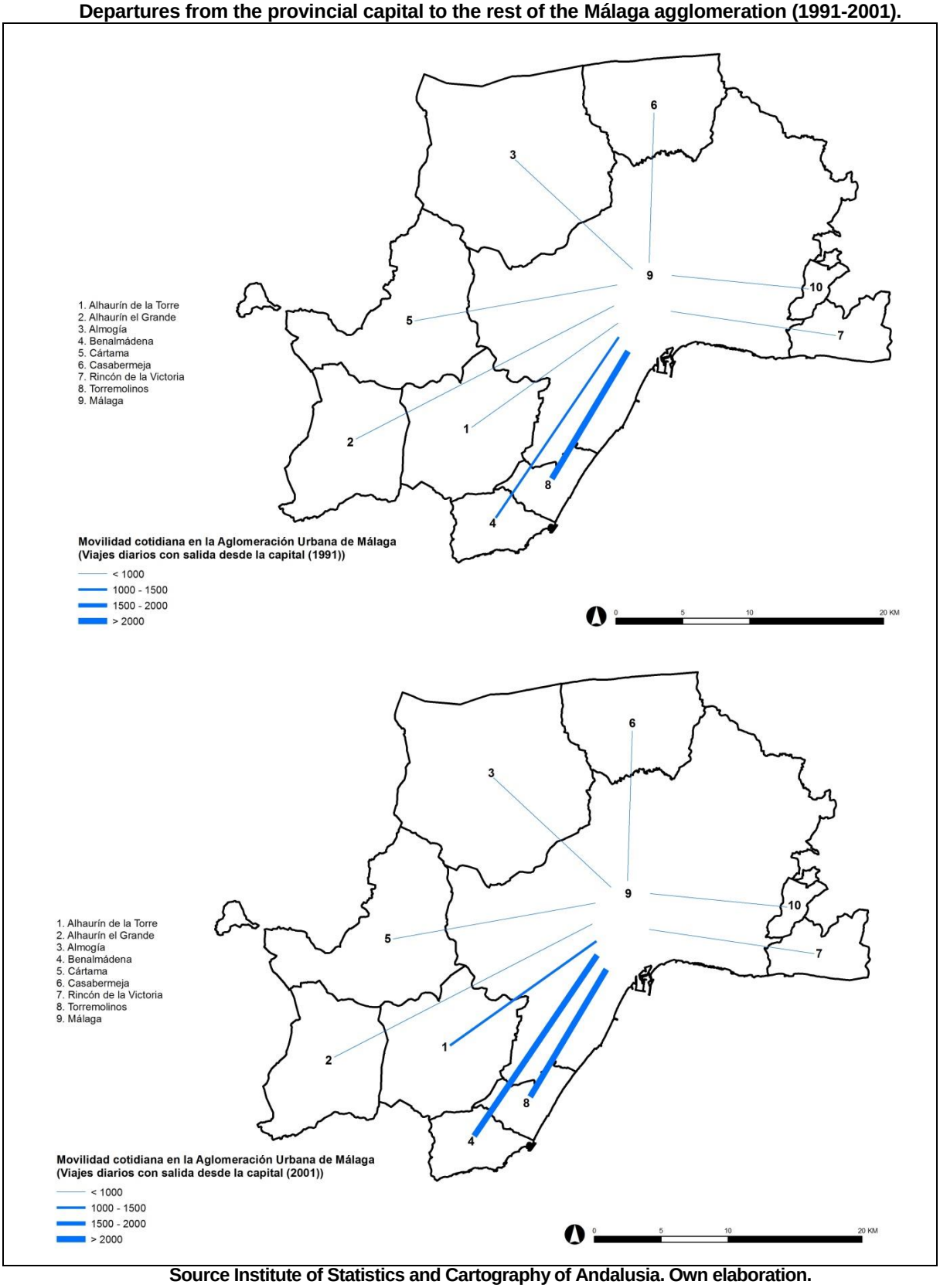
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 67 AND 68
Arrivals to the provincial capital from the rest of the Málaga agglomeration (1991-2001).



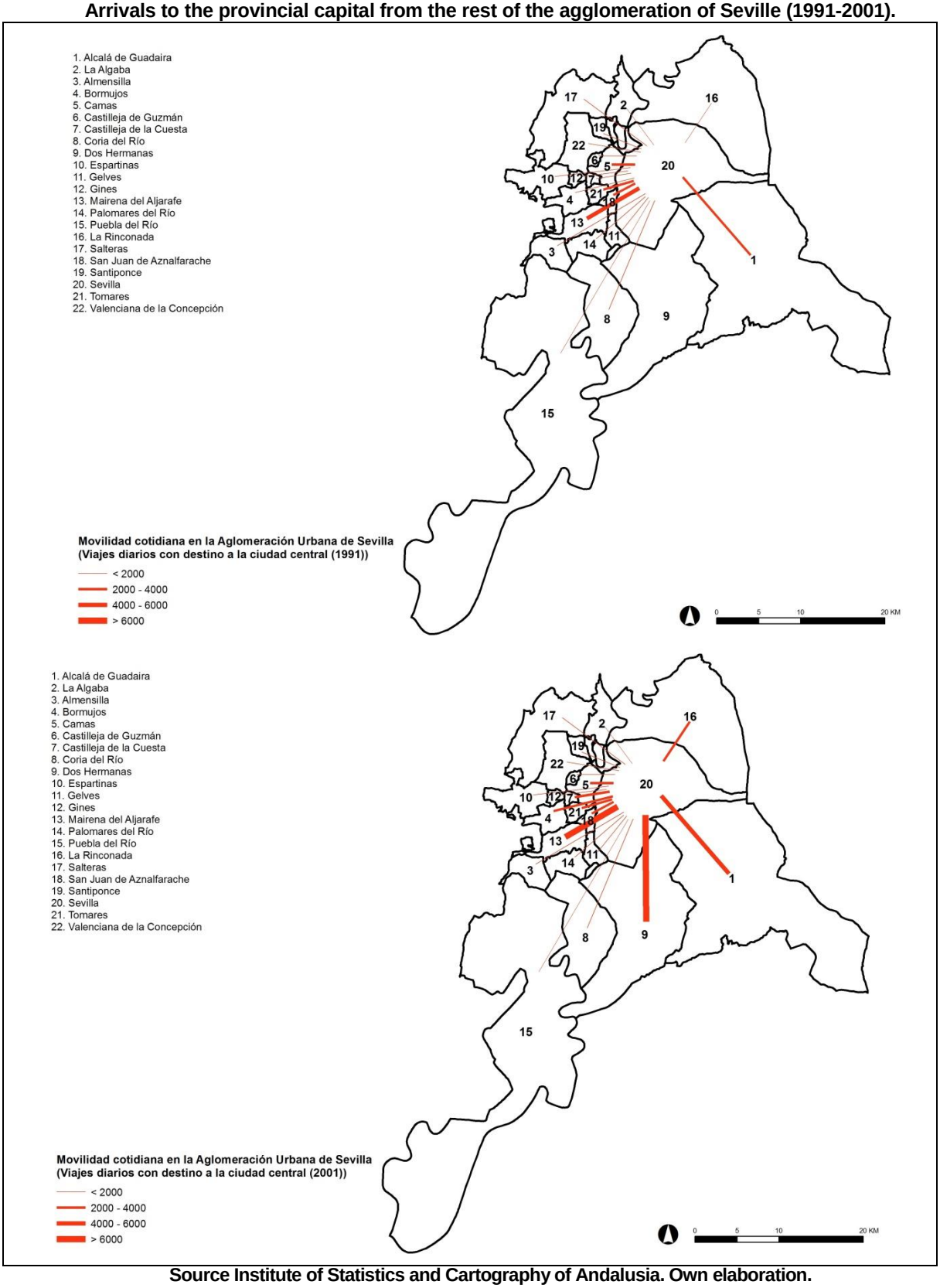
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 69 AND 70
Departures from the provincial capital to the rest of the Málaga agglomeration (1991-2001).



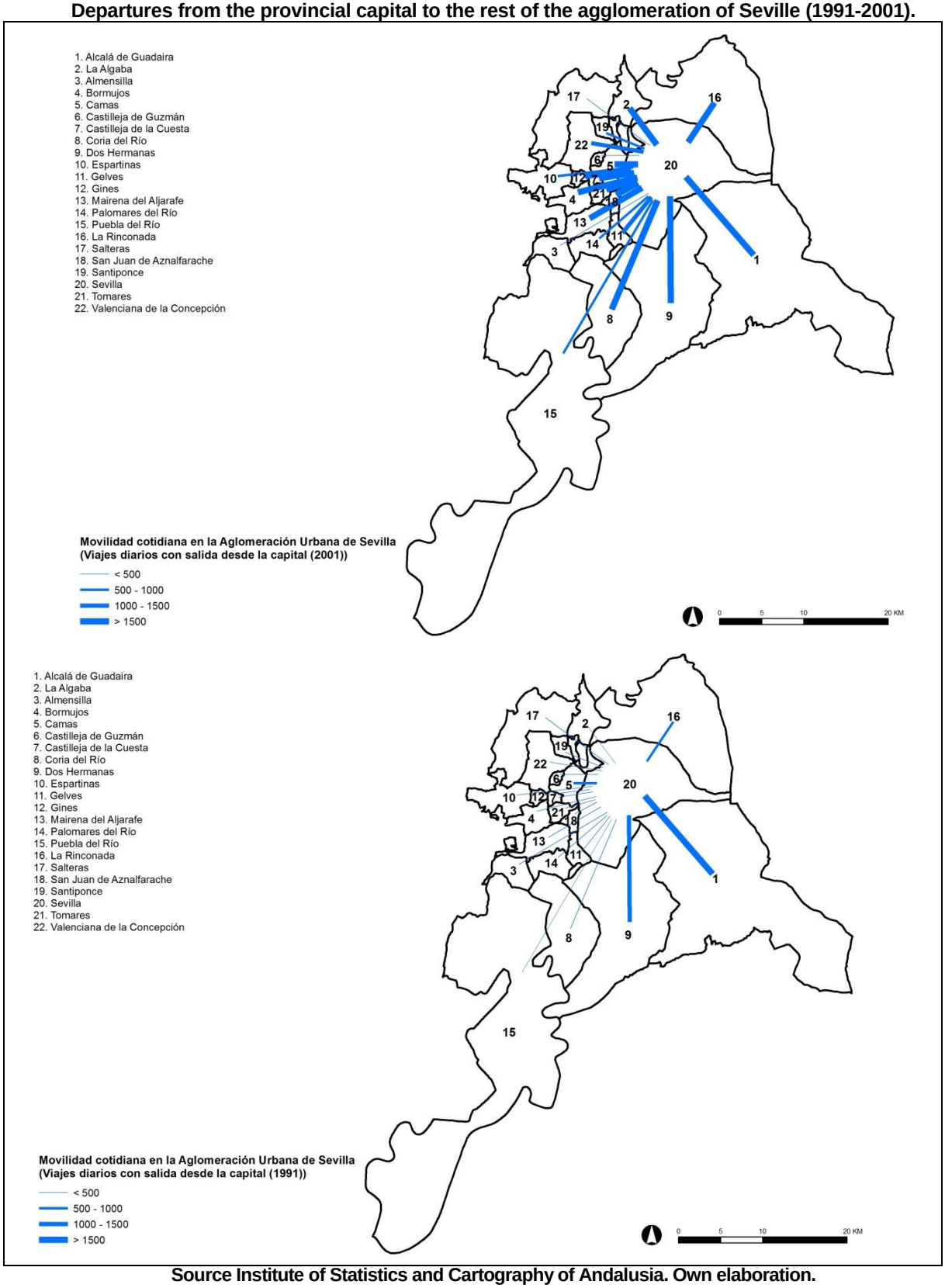
Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 71 AND 72
Arrivals to the provincial capital from the rest of the agglomeration of Seville (1991-2001).



Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

MAPS 73 AND 74
Departures from the provincial capital to the rest of the agglomeration of Seville (1991-2001).



Source Institute of Statistics and Cartography of Andalusia. Own elaboration.

5.2. DAILY MOBILITY FOR WORK REASONS ACCORDING TO INDIRECT SOURCES: 1997 POPULATION SURVEY.

In order to analyse the typical profile of the switch, its income level and its qualification, we turned to a survey. This survey will also allow us to enter into a type of mobility that is difficult to know from indirect sources: non-work mobility, using the empirical method.

The fieldwork for this survey was conducted in 1997, and covered a sample of 401 respondents, selected from the simple random sampling technique. The basic objective that we set ourselves at the time of proposing its realization was to arrive at information that was not available through indirect sources, such as the causes of urban emigration or the characteristics of the emigrant population, differentiated according to origin. The survey was designed as a questionnaire combining closed and open responses. In this questionnaire, the surveyed population was asked about various aspects such as their family situation, residence status and housing, as well as the degree of urban autonomy versus dependence with the consequent daily mobility. Finally, it also contained subjective aspects such as the valuation of the urban environment of the municipality.

After designing the survey, it was necessary to determine the sample size, starting from the population registered in the Register in 1996 in the municipalities of Tomares (Seville), Al-bolote and Ogíjares (Granada) and Alhaurín de la Torre and Rincón de la Victoria (Málaga). The population at that time was 66,503 inhabitants. It was decided that the survey should have a 95% confidence margin and a ±5% margin of error, from which it was deduced that the number of telephone interviews should be 398. Finally, more than 400 interviews were carried out through a previously elaborated questionnaire.

This theoretical value was distributed according to the proportional weight of the population of these five municipalities, but in such a way that it covered all the population entities of these five municipalities, resulting in the following distribution of interviews: in the municipalities of Albolote and Ogíjares (agglomeration of Granada), a total of 112; in Tomares (agglomeration of Seville) a total of 97 and in the municipalities of Alhaurín de la Torre and Rincón de la Victoria, in the agglomeration of Málaga, a total of 192 surveys.

In Malaga, because of its high demographic and urban growth dynamics, we selected the municipalities of Rincón de la Victoria and Alhaurín de la Torre; in Granada, the municipalities of Albolote, because of its high functional dynamics, and Ogíjares, because it is representative of the municipalities with suburbanization of the southern sector of the Vega de Granada; and, in Seville, in the escarpment of the Aljarafe, the municipality of Tomares, because of its high demographic and urban growth dynamics. The following conclusions were drawn:

-Exurban origin:

According to the origin of the commutator, most of it comes from the provincial capital, that is, from the central municipality; in 48.99% of the total of commutators, being the autochthonous commutators 23.49% and the immigrants from the rest of the origins, 10.07% of the total. The association between immigration and daily mobility was therefore clear, precisely because of the residential specialisation of the municipalities surveyed. The destination of daily mobility, according to said Survey, was the central municipality, in 100% of the cases, from which the functional dependence with respect to the central municipality is deduced.

- Family:

Most of the commutators lived in pairs with children, at 95.97 per cent. A good part of them were from large families, 40.94% had more than three children. In 45.64% of cases, these were in the 10 to 20 year age range.

-Low rate of unemployment and unequal degree of qualification:

The commutators were mostly employed, at 93.29%, the unemployment rate was only 2.01% of the total number of interviewees.

The level of education was high among the commutators: 30.2 per cent had university studies and 25.5 per cent had intermediate studies. The presence of a low level of education was also significant, with 8.05% of the total. This high level of education corresponded to jobs of medium and high qualification, highlighting, in this order, the professions linked to university studies, 20.81%; technicians and administrative type employees, with 16.76% of the total; while the unqualified represented a not inconsiderable percentage of 19.08% of the total. However, this differentiation was due to the mixed nature of daily mobility: by participating natives and exurban people, low-skilled jobs were associated with the occupations of natives, while medium- and high-skilled jobs were associated with urban emigrants.

-High level of income:

44.29% of the family units of the commutators surveyed had an income level higher than 250,000 pesetas per month (equivalent to 1,500 euros per month), and 20.8% of these exceeded 400,000 pesetas per month (equivalent to 2,400 euros per month).

-Antiquity of residence:

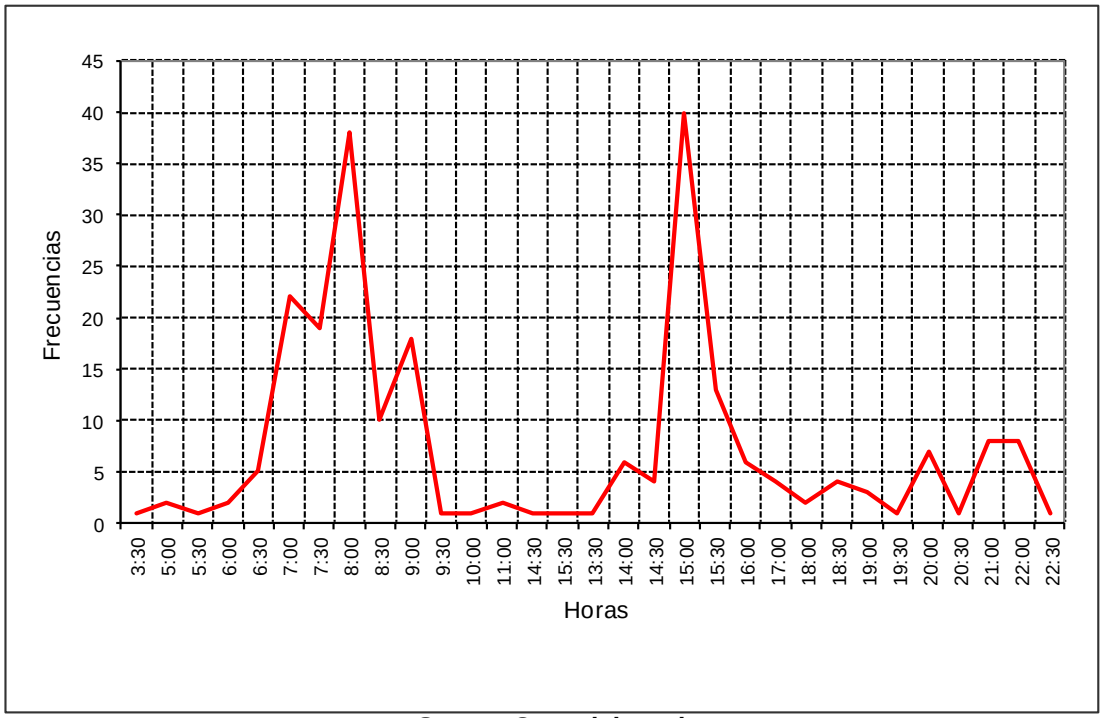
78.99% arrived in the municipality after 1980, and only 14.76% (associated with natives) had been living in the surveyed municipalities since birth.

-Predominance in the use of private transport:

Most of the switches rated communications with the capital as good, although the weight of those who rated it as regular was higher, 20.8% of those interviewed or very good or excellent (8.72% of those interviewed).

During the trips, two peak hours were observed: eight in the morning, with a total of 37 people surveyed; and three in the afternoon, with 42 people surveyed, the continuous working day predominated. The off-peak hours were reached in the morning, between 9:30 a.m. and 1:30 p.m., and from 4 p.m. onwards.

Figure 6.1
Frequencies of the commutes. Peak hours and valleys.



Source Own elaboration.

The means of transport that was mostly used in these journeys was the car, with 87.92% of those interviewed, with public transport representing only 4.7% of the total. It is important to highlight this fact: the environmental cost, the economic cost, without taking into account the psychological cost are important and are not resolved by increasing infrastructures, but by promoting quality public transport, otherwise the collapse in all areas could become a reality in relatively near future. Frequent, organised and efficient public transport would significantly reduce transport costs.

For the majority of the in-surveyed switches, the economic cost of private transport was of some importance in their total personal expenses for 37.58% of the respondents and of great importance for 44.97% of them.

In conclusion, the typical profile of the immigrant commuter at the end of the 20th century was that of a middle-aged person, around 45 years of age, with a large family made up of adolescents and young people, who sometimes shared mobility with their partner or children; who had a high economic status and a high level of education. Native commutators were predominantly low-skilled and low-income; they moved to the capital at peak times for work and used private

transport because they did not have a quality public transport supply, which meant that transport costs were a significant expense for them in their total personal expenses.

5.3. Daily commuting for non-work reasons according to indirect sources.

I have already mentioned that the commutator does not completely abandon the city that saw him be born and grow and that now he abandons, as he enters a new phase of his life cycle, to form a family in a place more "pleasant, peaceful and quiet" than the provincial capital. They go to work, since they continue to absorb a large part of the jobs of urban migrants. What is more, the city is not completely abandoned because, precisely because of its larger size, there is a greater offer of various services that the new residence lacks: amenities, shopping centres, cinemas, exclusive shops, etc., which still maintained a centralised location, making the central municipality a temporary meeting place for people who, although they left it as a place of residence, come to it when leisure or festive activities are organised, or when seasons of voracious consumption arrive. It is part of the specialization of spaces: the city not as a place to live but as a place to work and consume, which consolidates the relationship of domination versus dependence between the central municipality and its metropolitan area.

Specifying the types of this other mobility, we can mention mobility for reasons of training or studies, for reasons of health and for consumption.

-Mobility for reasons of training or studies:

Despite the fact that the children of the commuters are integrated into the life of the "village" and, in fact, they go to the educational centres of the place that has welcomed them as a new residence around 43.62% of those surveyed; the weight of the use of the educational services of the provincial capital, which accounted for 24.83% of those surveyed, was not negligible. Here I would like to make an observation: the majority of the sons and daughters of these commutators were between the ages of 10 and 20, 45.65% of these; when this group leaves puberty they will become potential university students who will exclusively employ the university centres located in the provincial capitals.

-Commuting for health reasons:

Commuting for this reason was of little relevance. 74.5% of those surveyed went to the primary care services of their municipality of reference. Even so, 20% either did not use them, or preferred those of the metropolis, either by personal preference, 19.46%; or for other unspecified reasons.

-Commuting for consumer reasons:

When we refer to consumption we allude to an intensity of consumption, because if something can characterize the postmodern society it is the consumption of products or services that they acquire in the provincial capital. Bearing in mind, moreover, the high incomes of the commutators, it is reasonable to think that mobility for this reason will be significant, since in the new place of residence there is not such a varied offer, and for all tastes and eccentricities, as in the city.

Food, due to its frequent and daily use, is the aspect that registered the least spatial mobility: only 26.17% went to the provincial capital, while 66.44% of the commutators surveyed went shopping in the same municipality.

The most sporadic consumer products are those that have a less eccentric location, so that, almost inevitably, will tend to go to the metropolis. In this sense, clothing and footwear stand out, with 75.84% of purchases in the provincial capital; furniture, with 76.51%; other domestic equipment, with 77.18%; and gifts, with 61.07%.

In conclusion, we have been able to analyse everyday mobility for work reasons through two types of sources that complement each other: direct sources, which quantify flows, and indirect sources that provide us with qualitative data and allow us to know mobility for non-work reasons that often overlap with the main reason for going to the metropolis. On the other hand, it is also deduced that, despite residential relocation, the link with the capital is not lost, but rather maintained, thus inferring the maintenance of a strong dependence for labour and non-labour reasons between the central municipalities of the urban agglomerations and those that make up the first metropolitan belt.

CHAPTER 6

SURVEY OF MUNICIPALITIES WITH HIGH URBAN DYNAMICS

The difficulty of having indirect sources that confirm the hypothesis of a differentiation of the population according to origin and behaviours differentiated according to the origin of the population, forces us to consider resorting to direct sources, specifically a survey carried out on the population, whose objectives and methodology we refer to the introduction. As we mentioned then, we have differentiated the population according to its origin, distinguishing the natives, the Neo-Rurals or *newcomers,* coming from the capital, and the rest of the immigrants. The distribution of the respondents was fairly balanced: of the 401 respondents, 149 were natives, 37.16% of the total, 134 were Neo-Rural from the capital, 33.42%; and 117 were the rest of the immigrants[132], 29.18%. The survey was designed as a questionnaire. In this questionnaire, the population was asked questions as diverse as:

1. The status or family situation. Questions 1 to 10.
2. Status or residence status: mobile choice of residence. Questions 11 to 19.
3. The status of housing. Questions 20 to 30.
4. The degree of autonomy/urban dependency: daily mobility for work reasons. Questions 32 to 40.
5. The degree of autonomy/urban dependency: other types of mobility. Questions 41 to 45.
6. Assessment of the municipality's environment. Questions 46 to 47.

Paragraphs 1, 2 and 6 are the subject of this heading, since paragraphs 4 and 5 have already been dealt with in the daily mobility of the population. Paragraph 3 will be explained in the chapter on housing.

6.1. FAMILY STATUS.

In all cases, there is a predominance of children within the family unit, with levels ranging from 83.9 per cent of the indigenous population to 94.8 per cent of the neo-rural population in the capital. Unipersonal families ranged from 5.4% of autochthonous families to 0.8% of Neo-Rural families, with the rest of immigrants accounting for 2.6% of those surveyed. A characteristic feature of immigrants can be appreciated, and it is the family, which is confirmed with large families: 43.3% of immigrants from the capital had more than 3 children, a percentage that fell to 32.2% of the natives.

In relation to the age of the head of household, the age range of 40 to 60 years stands out, 58.9% of the total of those surveyed; the average age being 47 years. Among the natives there is a predominance of older ages: 69.8% of the heads of households were over 40 years old, corresponding to 16.8% the percentage of those over 60 years old. Overall, the average age of the natives was 53. Among immigrants there is a greater youthfulness: only 6.7% of those surveyed were over 60 years old, ranging from 48 years of the Neo-Rurals of the capital to 47 years of the rest of immigrants, and the percentage over 60 years old was significantly higher in the latter: 15.4% of those surveyed.

The age of the children completes the series of biological characters of the population: the population without children was 12.5% of the total number of respondents; among natives, this

132 Of these, 11% were from the rest of the province, 6.7% from the rest of Andalusia, 8.5% from the rest of Spain and 3.2% from abroad.

percentage rose to 18.1%; among immigrants. Among the Neo-Rurals, the weight was even lower, at 5.2% of families without children.

Among couples with children, children under the age of 10 accounted for 14 per cent of the total respondent population, children aged 10-20 accounted for 30.4 per cent, and those aged 20-30 accounted for 23.9 per cent. Among the natives, children under 10 years old accounted for 16.8% of the total of those surveyed, those aged 10 to 20 years old for 21.5% and those aged 20 to 30 for 26.2%. The younger character of the family unit of the immigrants is observed in the fact of the greater importance of the children from 10 to 20 years old, 34.3% among the immigrants of the capital and 37.6% among the rest of the immigrants. Thus, a higher degree of maturity is detected in the autochthonous families than in the foreign population.

The socio-economic status of the family unit reveals a predominance of employed persons, with 73.5%, an unemployment rate of 4.8% in 1997, and 17.5% of retired persons. The differences according to origin, occur once again, among natives: the percentage of retirees rises to 22.2%; it falls among Neo-Rurals, with 12%, and rises among immigrants from other origins. Unemployment levels also range from 6% for natives, 3% for Neo-Rurals and 5% for the rest of immigrants, always considering the moment the Survey is carried out. Finally, highlight the lower occupancy levels of indigenous people and older immigrants.

In relation to the level of education, the total distribution shows a notable weight of the population of low level of education, 37% of the respondents had primary education or had no education. This percentage rises among natives, whose percentage rises to 53.7% of the total number of natives; it drops among Neo-Rurals to 21.7% and increases among the rest of the immigrants to 37% of those surveyed. The population with a school graduate or equivalent amounted to 24.2% of the total number of respondents, reaching similar values among natives and Neo-Rurals and somewhat lower among the rest of the immigrants. The BUP-COU studies accounted for 12.6% of the total of those surveyed, with maximums among Neo-Rural respondents of 20.9% and lower among autochthonous respondents of 4.7%. Finally, among university studies, university graduates and graduates represented 15.5% of the total of those surveyed, with maximums among neo-rurals, with 26.9% of these, and minimums among autochthonous, with 6.8%. Therefore, the population with medium and higher qualifications predominates among neural immigrants, a low level of education among natives, and, simultaneously, a population with a low level of education and a high level of education in the rest of the origins among immigrants.

Another characteristic of socio-economic status is the income level of the family unit. In the total of those surveyed, the population with more than 1,200[133] Euros per month reached 47.2%, but this percentage decreased considerably among the natives, with 34.9% and rose to 57.5% in the Neo-Rurales of the capital, and 50.4% of the rest of immigrants. Low income levels of less than 1,000 Euros or mileuristas accounted for 33.1% of the total of those surveyed, although the percentage varies considerably: among indigenous people, with 45% of those surveyed; and 21% of immigrants from the capital. In short, there is therefore a differentiation of the population according to origin and level of income: the indigenous people have a lower level of income than the foreign population, significantly in line with their level of qualification.

The origin of these incomes is mainly the male head of household, in 40.5% of those surveyed, oscillating this group between 43.6% of the autochthonous, 40.3% of the Neo-Rural of the capital and 36.8% of the rest of immigrants. The incorporation of women into the labour market continues to be comparatively lower than that of the male head of household: only 29.3% of income also came from women, with a similarity in the composition of natives and immigrants from the capital, and greater incorporation in the rest of the immigrants surveyed, where the incorporation of women is greater, rising to 35.9%. Regarding other sources of income, children represent 24.9% of the complementary income of the total population, ranging from 25.5% of the autochthonous, 24.6% of the Neo-Rural of the capital and 21.4% of the rest of the immigrants.

133 Equivalent pesetas in Euros.

6.2. Residence status and mobiles.

In relation to the origin and year of entry of the population, 26.6% resided in the municipality since birth, and among the rest, the population that was born there varies, but subsequently changed residence, and those that were not born, and the rest of the immigrants, who represent 66.6% of the total of those surveyed. The year of incorporation is quite recent, around 9.2% before 1970, 16.3% between 1971 and 1980, 39% from 1981 to 1990, 31.2% after 1990. Therefore, the incorporation to the selected municipalities is characterized by its proximity in time since 70.2% of total mobility is after 1981, which is quite consistent with the beginning of the demographic take-off of these municipalities that, we recall, began in the decade of the eighties.

With regard to the mobile or residence mobiles, non-economic reasons predominate over economic ones: 37.5% versus 20%, although, in reality, to non-economic mobiles we would have to add the answer of residing for personal taste or preference, so, in reality, it is psychosocial mobiles that would explain the choice of residence. Personal preference is chosen by 36% of all respondents, while only 6.5% give other reasons. Differing the answers according to origin, the non-economic reasons predominate among the natives, 66.4% of them, the psychosocial motives among the Neo-Rural ones of the capital, 61.2% and the economic reasons among the immigrants of other origins, 38.5% of the total of answers. Once again, we can see a distinction, in this case, of mobile phones between respondents according to their origin.

Going deeper into residential mobile phones, environmental mobile phones stand out from the rest (specifically 45.5% of the total responses). Of these, separately, the environment and landscape represent 7.2% of the answers, tranquility, 10.4%, and proximity to the capital 1.5%. Together, the three at the same time accounted for 26.4% of the responses. It was followed, at a distance, by economic reasons: employment in the municipality or in its vicinity, with 22.3% of the responses, and the lowest price of housing, 4.1%. Again, there is a differentiation according to origin: among the natives it is stated as a response that there is no reason why they have chosen the municipality as the place of residence, since they are natives (29.5% of the responses), followed by those who have no response at all, with 24.8%, and those who mention family reasons, with 13.4%. Among the immigrants in the capital, as we mentioned earlier, the environmental motives are in the majority: tranquillity (17.2% of the responses), the environment and the landscape (12.7%), while proximity to the capital only accounted for a small percentage (1.5% of the responses). The interaction of the three environmental mobiles also represents the major part of the weight of the mobiles, with 43.3% of the responses. On the other hand, the economic motives have hardly any relevance among the Neo-Rural ones: a job in the municipality or in its surroundings (10.4% of the answers), the lower price of housing than in the capital (only 4.5%) and other economic reasons (1.5%), represented only 16.4% of the answers of the Neo-Rural ones in the capital. In relation to the rest of the immigrants the situation changes drastically, and it is the economic motive that predominates: a job in the municipality or in the vicinity, 37.1% of those surveyed; while the psychosocial or personal motives also had a not inconsiderable representation, with 19% of the total of those surveyed.

On the other hand, by asking the population about mobile phones separately, we opted to inquire about the following three: tranquillity, landscape and housing. With regard to tranquillity, we can affirm that this is constituted as one of the main motives, of environmental type, to explain the choice of residence, the percentages oscillate: 60.6% in the total, 44.3% among natives, 81.3% among Neo-Rurals and 58.1% among the rest of immigrants. Landscape is another of the motives, again environmental, that induced the population in the process of choosing residence: 33.2% allude to a certain importance and 26.7% a great importance. However, there are differences according to origin: among the natives, the landscape was of little importance (49.6% of those surveyed). On the other hand, it was of some or great importance among the neo-rurals (78.3% of those surveyed). The rest of the immigrants are in a somewhat lower valuation situation (48.7% alluded to the fact that it had little or no importance), an aspect that is explained by the weight that economic motives have in the latter, specifically employment in the municipality or in its vicinity.

Regarding the quality of the landscape, the high valuation of the landscape stands out among those surveyed (55.1% mention it as being of great quality), being the natives those who value the landscape the most, 57.1%; followed by the neo-rurals, (55.2% of those surveyed) and the rest of the immigrants (53% of those surveyed). Finally, housing, of which we will go deeper into a later epigraph, to highlight here briefly that the price of housing does not seem to have had great relevance in the choice of residence, moreover, there is a contradiction between what those surveyed say and what is revealed by the official figures on the price of housing, which we will deal with in more detail. Just to mention here that the price of housing is considered more expensive in the municipality than in the capital, for 47.9% of those surveyed, while those who allude to it being cheaper represent about a third of the responses, which is not negligible in itself, but not the most important.

We can therefore deduce a majority importance, as we said, from the non-economic residential mobiles versus the economic ones. Moreover, when respondents are asked whether a home such as their own would be more expensive in the capital, an overwhelming majority of responses are negative: 59.9% of negative responses versus 34.4% of affirmative responses. Those who have it clearest are the natives, for whom the appreciation that life is more expensive in the capital leads them to value that a home like theirs is more expensive in the capital: 38.9% of the responses, compared to the Neo-Rural, 30% and the rest of the immigrants, 34.2% of the responses.

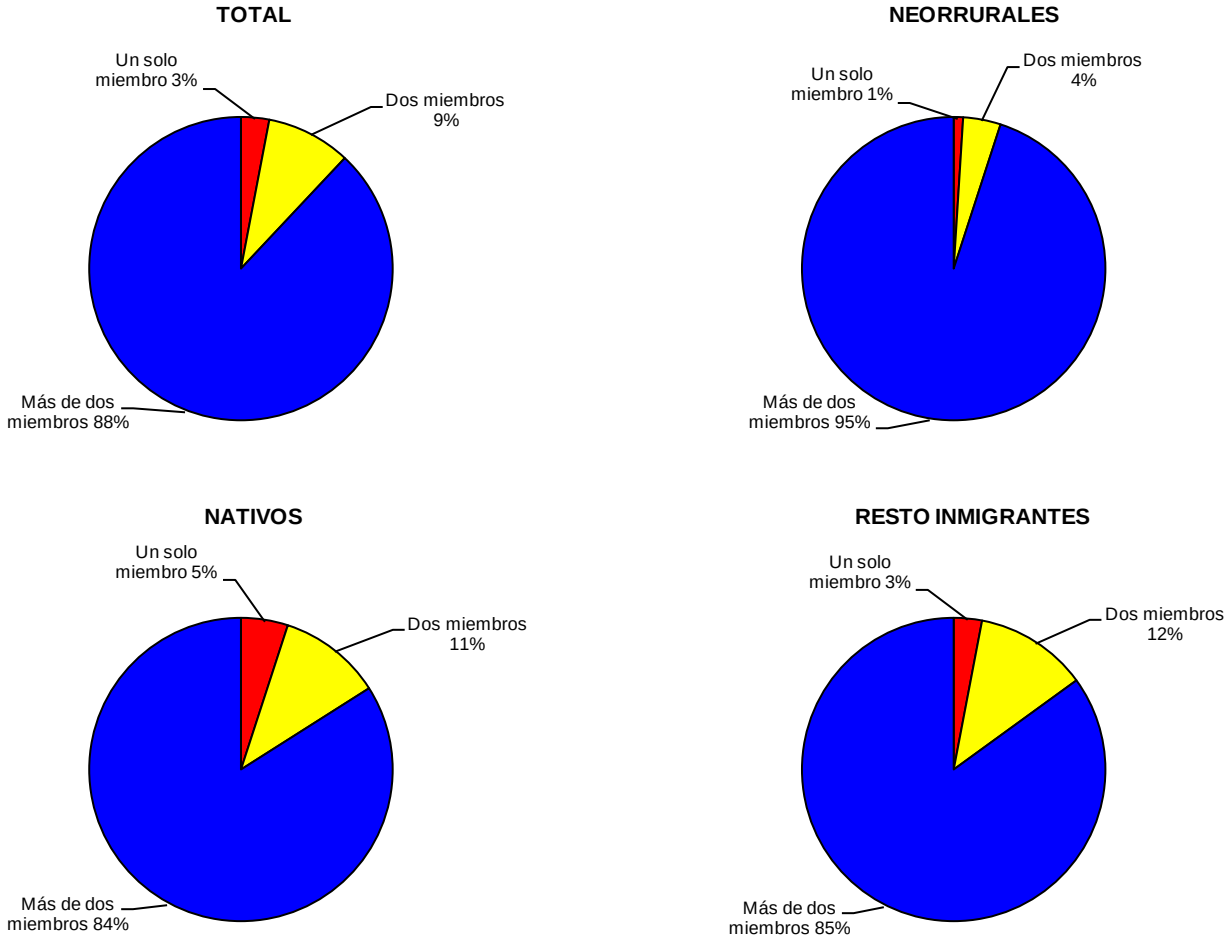
Another topic that is coming to crumble is the role of accessibility with the capital. It should be noted that this statement is not generalizable, since not all the population works in the capital, which is, in short, the ultimate reason that drives the population to make the decision to migrate. Thus, for Neo-Rurals, who maintain a high degree of pendulum mobility with the metropolis, due to the dissociation between place of work and residence, the difference is greater, but the weight is not as crushing as one would expect *a priori* (61.2% who consider it necessary as opposed to 35.8% who do not consider it essential). If we relate these percentages with the workplace, we understand why it is important to have good communications with the capital: for the neo-rural, the capital is mostly the workplace (60.5% of those surveyed), which forces people to move, and with it, to have to think, and a lot, about the decision to emigrate or not. On the other hand, for natives and the rest of immigrants, among whom the degree of pendulum mobility is lower, the percentages that it is possible to reside in the municipality and not have good communications with the capital are majority: 74.5% for natives (68.5% either do not work or work in the same municipality); and 56.4% among the rest of immigrants (55.5% either work in the municipality or do not work).

In conclusion, the population survey provides us with valuable information on the population according to its origin:

-Among the autochthonous there is a predominance of less extensive families, the parents are older, which results in a lower level of occupation and a higher percentage of retirees. The level of education is basic or lower than that of the rest of the population, which has an impact on a lower level of income. At the same time, people who work in the same municipality especially value the housing they own in the municipality because they consider it cheaper than in the capital.

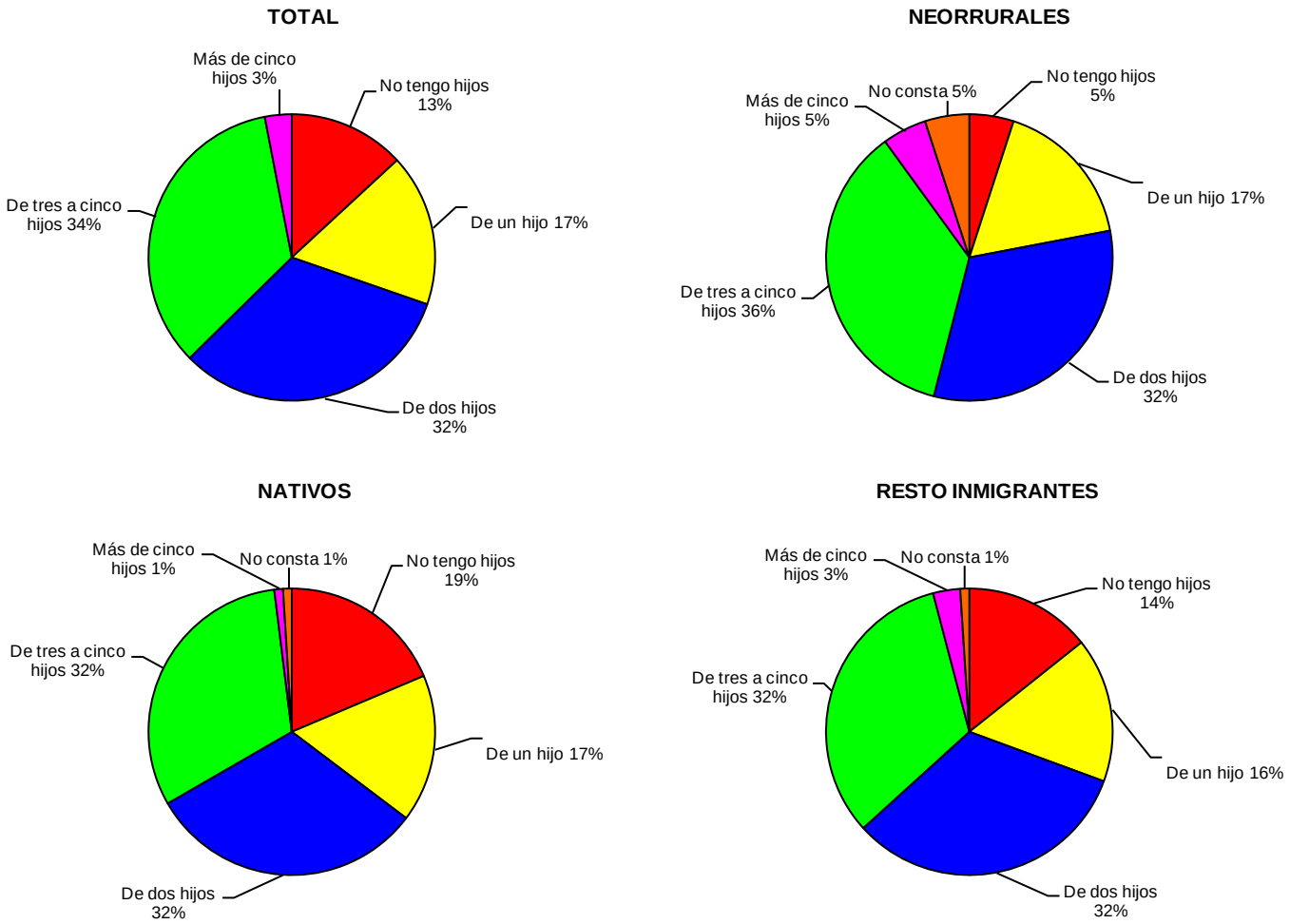
-Among the immigrants, recent immigration predominates, after the decade of the eighties, the origin of the capital and the rest of the province; the family, extended families, parents and children of younger age, higher level of occupation, low rate of unemployment and reduced percentage of retirees. The level of education is medium and superior. This is a population that chooses the municipality to live for reasons of psychosocial (personal) or environmental (among the Neo-Rural), affecting together the tranquility, the landscape and proximity to the capital in this order, although among immigrants from other backgrounds also highlights the economic motive, specifically employment, rather than housing.

Figure 6.1
Family Unit Size



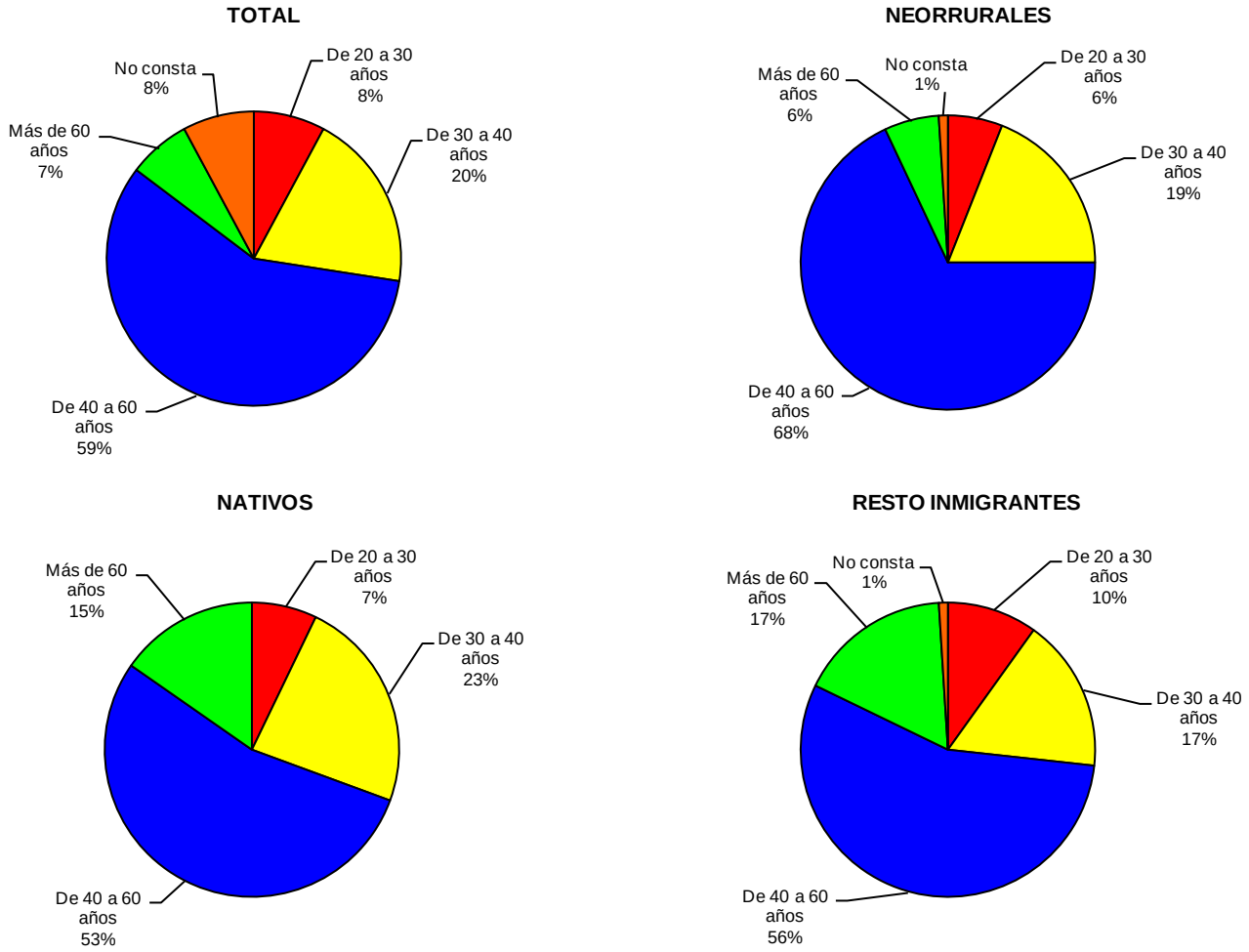
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.2
Number of children in the family unit



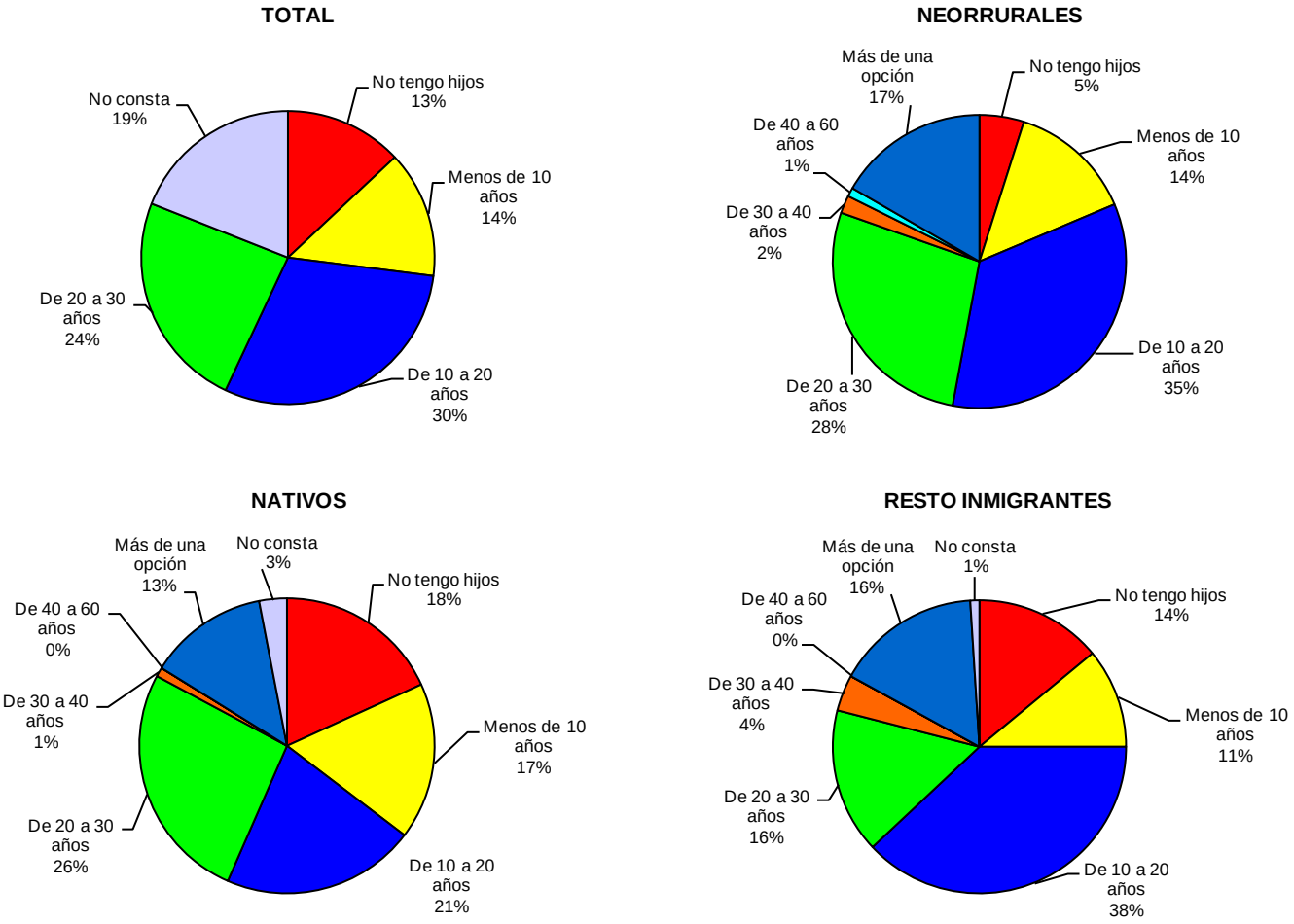
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration

Figure 6.3
Age of head of household



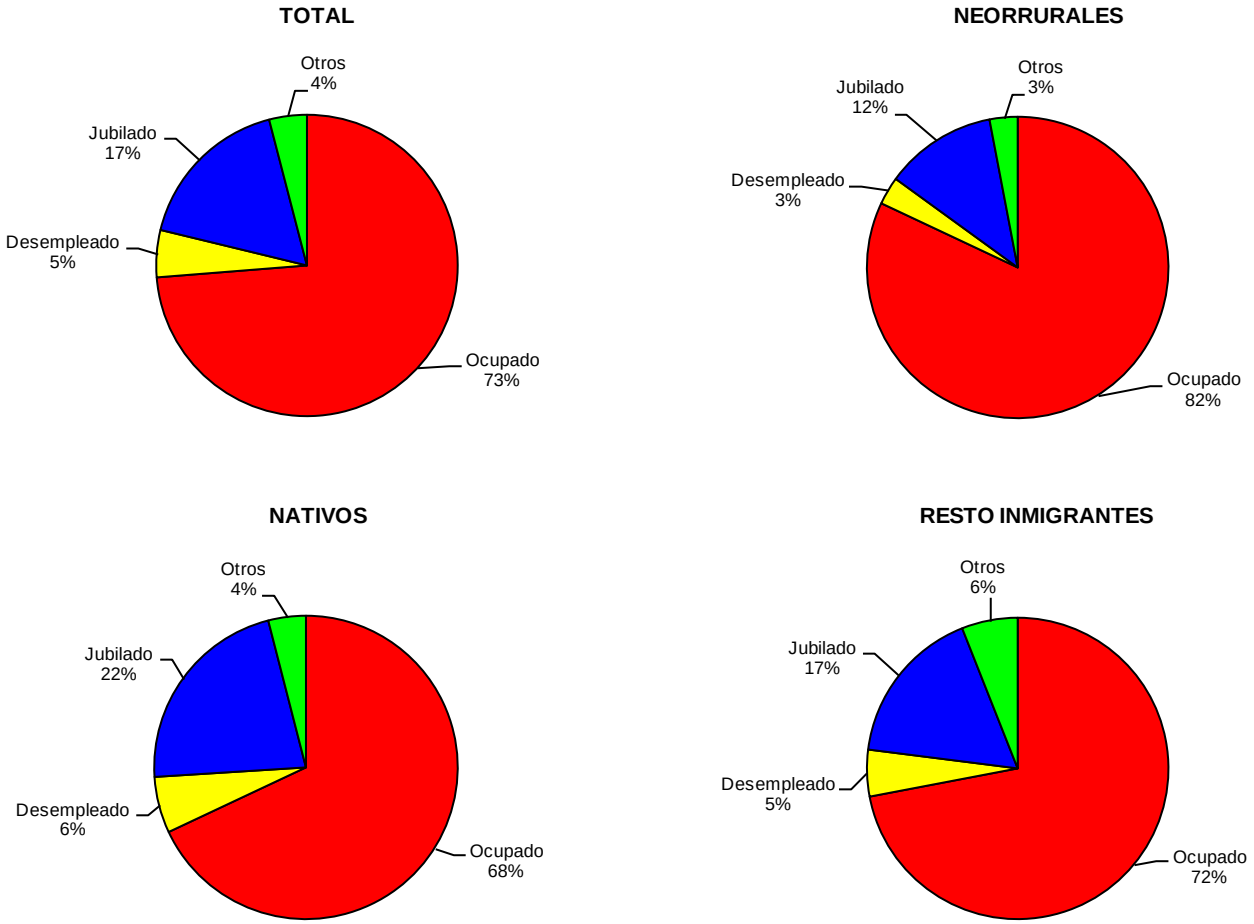
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.4
Age of children



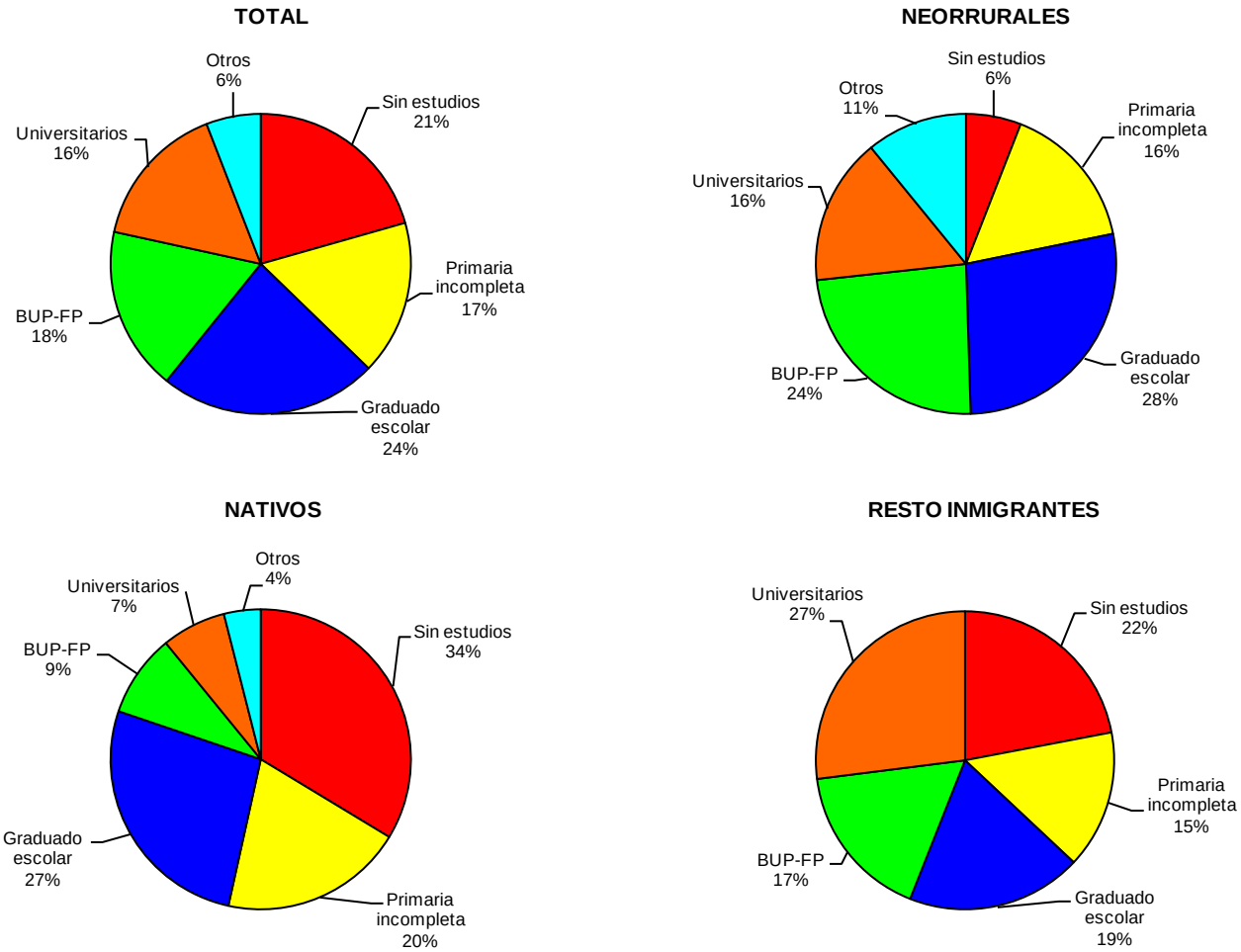
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.5
Work situation of the head of the household



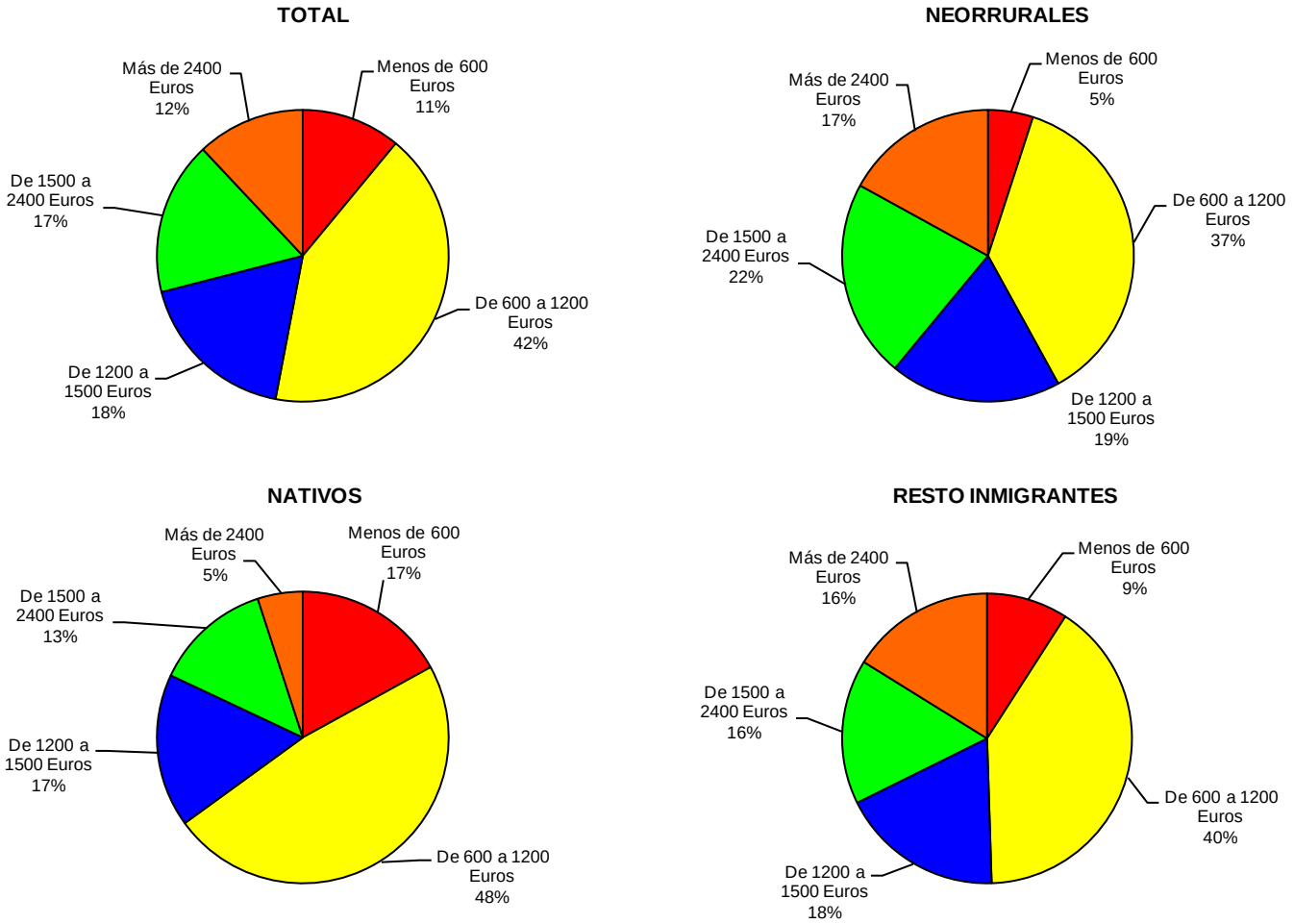
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.6
Level of studies of the head of the family.



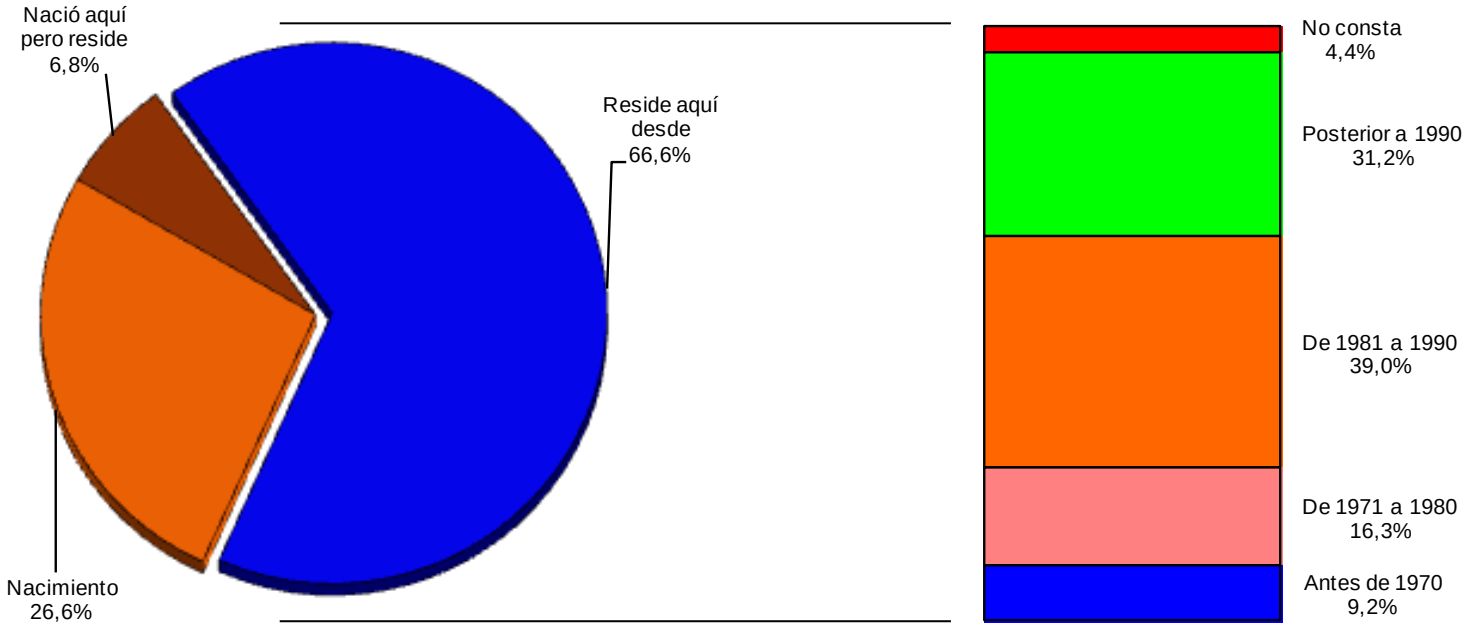
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.7
Household income level. [215]



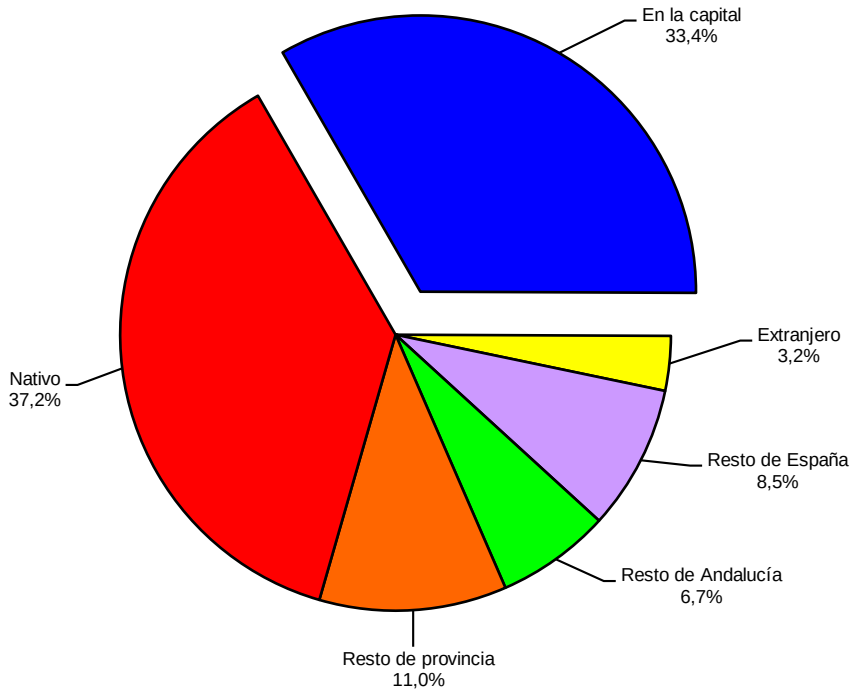
[215] 1997 income level of pesetas converted into Euros.

Figure 6.8
Population according to origin and year of entry to the municipality.



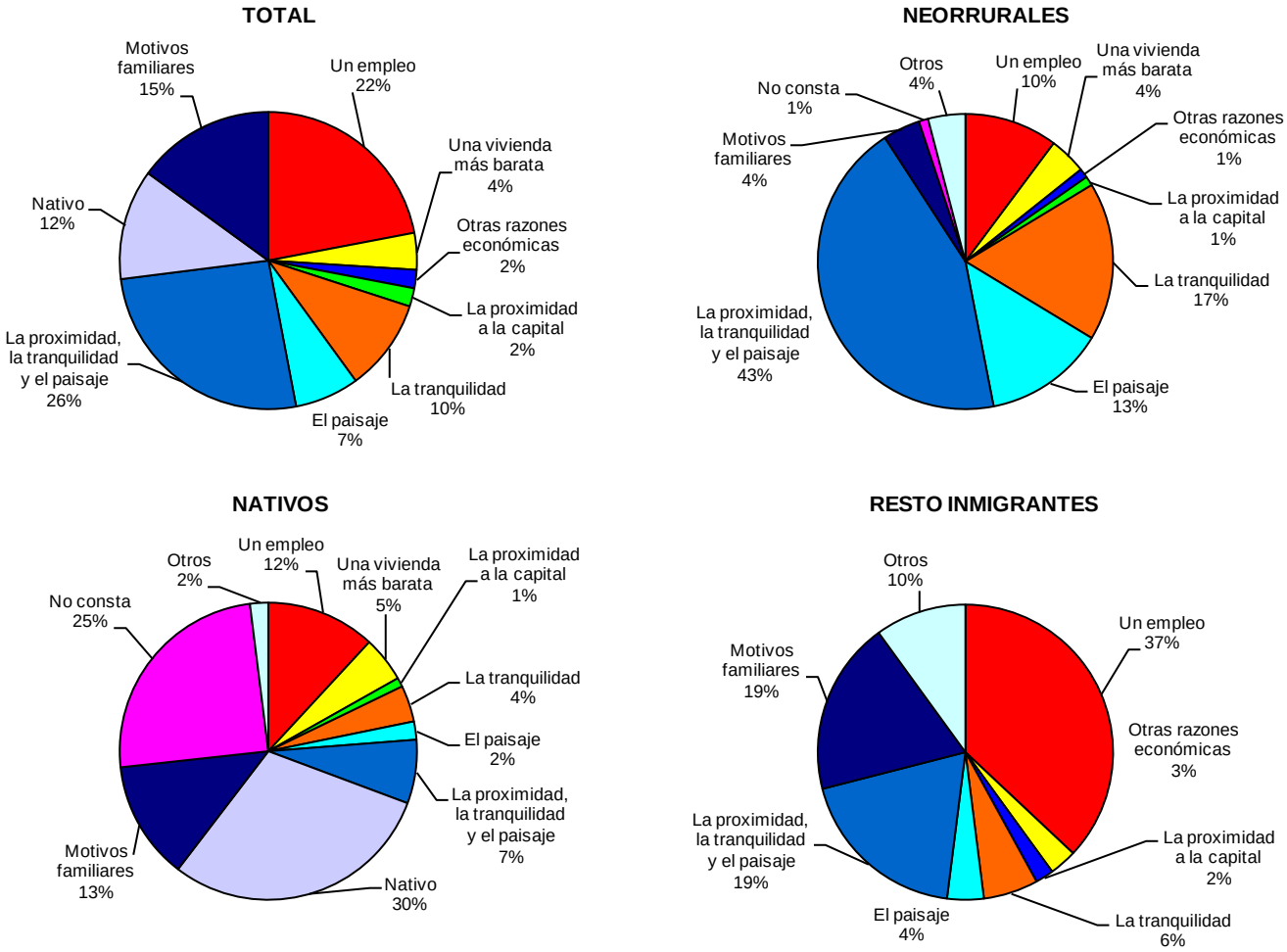
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.9
Place of origin of respondents



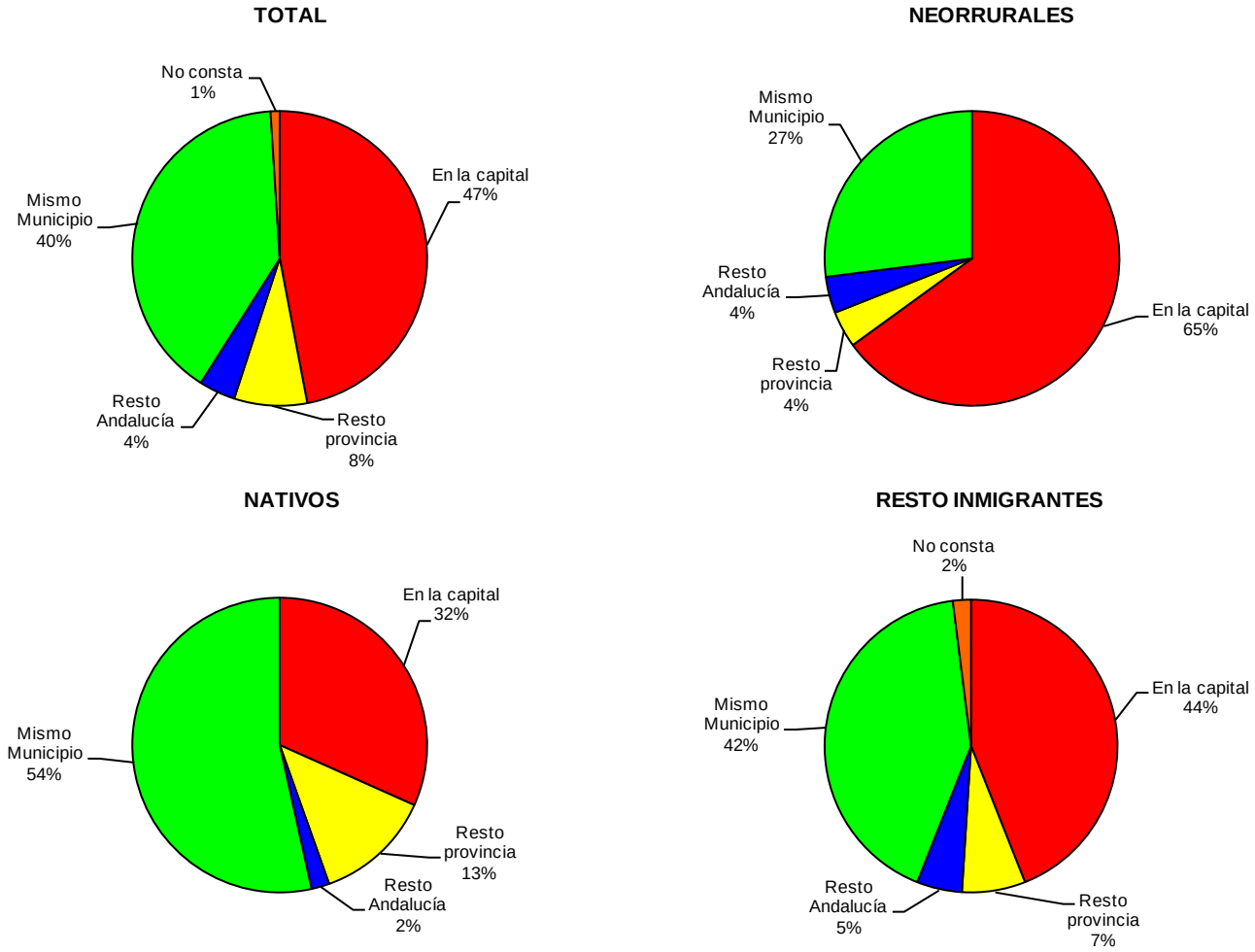
Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.10
Residence mobiles.



Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

Figure 6.11
Place of work of employed persons



Source Montosa Muñoz, J. , 1997 Survey. Own elaboration.

CHAPTER 7

HOUSING AS A BASIC MOTIVATION IN THE OCCUPATION OF THE PERIPHERIES OF THE MAIN AGGLOMERATIONS ANDALUSIAN CITIES

7.1. FINANCIAL BUSINESS AND SOCIAL CONFLICT[134].

The demographic growth experienced in certain municipalities of the Andalusian periurban belts which, until recently, was characterized by accelerated growth, has been carried out thanks to the alliance between the financial sector and the real estate sector.

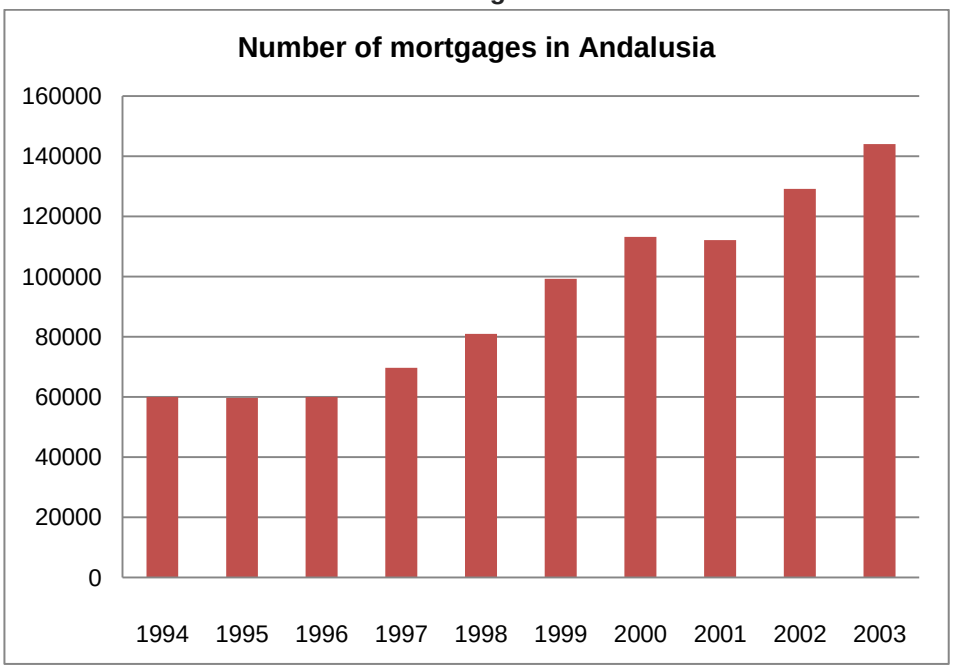
As C mentions. Ocaña (Ocaña, 2008), since the decade of the nineties there has been an urban expansion that Dra. Ocaña does not hesitate to describe it as disproportionate in relation to the speed and intensity with which it has been produced and which it quantifies in a growth of artificialised surface area of 2% of the total surface area of Spain between the late eighties and the end of the twentieth century (Carmen Ocaña, 2008), and which has uncovered the issue of housing as a major social problem, due to the fact that this widespread growth is associated with speculative processes that have led to a dangerous overvaluation of housing and, consequently, problems of accessibility to a property, the enjoyment of which is a right. It has therefore generated economic dangers and social conflicts. According to C. Ocaña, the factors that have produced this increase in urban surface area, especially serious on the Spanish coast, should be as follows:

1. Extension and increase in the price of urban land. The legal framework imposed by Law 6/1998 on the Land Regime and Valuations, a law that has been in force until 2007 and that allowed, at one time, everything that was not protected could be developable, unleashed a desire to monopolize land but for profit, to speculate with it. Given the expectation of the revaluation of this land, social wastelands spread along the edges of all Spanish cities as an undesired reality but which was intended to have an ephemeral character due to the voracity of the construction sector in our country from the nineties onwards. In this way, the law, which sought to liberalise and lower the price of land, had the opposite effect: it raised the price of land and, with it, that of housing (C. Ocaña, 2008, p. 14-15).
2. Housing market pressure. We cannot pretend that the price of land became more expensive as a result of urban speculation that has bequeathed us countless cases of urban corruption; it also met the demand for new homes. These new homes were created, citing C. Ocaña, due to demographic growth, the reduction in the average size of the homes, as a result of the evolution of the family and the forms of coexistence that have led to a reduction in large homes and an increase in the smaller ones (single-person homes or family nuclei without children, etc.).
3. Economic circumstances. There was a very favorable situation to sell flats until the bursting of the real estate bubble. The volume of empty dwellings in Spain does not only correspond to the current situation of dwellings that cannot be sold because the market is inert or very weakly active, but also to the dwellings that were bought while waiting to be sold at a price much higher than the price at which they were bought, with which the dwelling is also used for speculative purposes. This is what Ocaña calls "investment demand" as opposed to "housing demand", "because they have nothing to do with demographic or household changes, but rather with the use of housing as an investment fund with the idea, not so obvious at present, that it is going to revalue over time".

134 The following texts are based on the work of OCAÑA OCAÑA C. (2008): Urbanización y vivienda. Negocio financiero y conflicto social.Colegio Oficial de Arquitectos de Málaga, Málaga.

4. The financial gear. The good performance of housing as a financial asset has been based on the fact that it is a product that sells easily (market liquidity), which has led to an increase in its value due to increased demand from new households. "It is the third disproportionate fact, the rise in the price of housing, 301% between 1995 and 2006 (Data from the Ministry of Housing), is a reality in many metropolitan belts of large cities and in the centers of large cities. This revaluation, well above inflation as cited by C. Ocaña, has led to a social problem: that of access to housing, which is an apparent paradox, since it affects the lower classes and not the higher ones. As a result, a new home is forced to mortgage, as it does not have sufficient income to cope with the rise in the price of housing. In just a few years, the number of mortgages increased from just over 60,000 in 1994 to over 140,000 in 2003 in Andalusia.

Figure 7.1



Source National Statistics Institute. Own elaboration.

The conditions under which banks granted mortgages so "cheerfully" were due to the introduction of the new common currency in Spain, the Euro. The Euro brought about a considerable reduction in credit in our country, from interest rates of 20% and above to a Euribor of just under 5%. In addition, the mortgage contracts were signed without knowing, in many cases, the abusive clauses they contained, such as the roof and floor of a mortgage. The banks saw then, that in the construction there was a huge business. The State also contributes to the increase in mortgage transactions by favouring ownership over renting: deductions for the purchase of a habitual residence in 1999 amounted to 3,488 million euros, doubling the amount of the previous year.

Banks did more than give loans to families: they partnered with builders and real estate agents and they colluded with property appraisals that were inflated to more easily grant the mortgage: a home that actually had an appraised value of 100,000 Euros was appraised much more to facilitate its acquisition for much more than its real value. This benefited the bank and the used home seller who sold their home for much greater value by buying a larger, higher quality home in peri-urban areas or mortgaging for it.

In August 2007, the *subprime* mortgage crisis broke out in the United States. Panic broke out, the banks stopped granting credit. The lack of liquidity ended up infecting practically the entire planet and the banks stopped drinking in the funds in which they were looking for money.

> Even so, the Bank of Spain, the supposedly independent body that had to take action on the matter, chose then to issue only warnings. Banks and governments ignored the reports he published; sometimes they even disproved them. The Bank of Spain bowed. He couldn't or wouldn't use all his power to bring order to the sector. The successive governors of the organ warned that the music of the feast had to be turned off, that it sounded too strident; but they, who were the ones with the hand on the switch, stood still[135].

In July 2008, the company Martinsa presented the largest insolvency proceedings in the history of Spain, with a debt of 7,000 million Euros, but there were still data supporting the idea of a soft landing: in 2007 the price of housing rose by 10% and construction began on 617,000 houses.

All that happened in Spain months before Lehman Brothers declared bankruptcy in the United States, initiating the global financial and economic crisis that has come to be called the Great Recession. And yet it is sometimes thought that this was not the case; that everything was fine until the United States refused to bail out the indebted bank in September 2008.

For many, buying a home has been the biggest mistake of their lives. Thousands of people mortgaged and thousands of people later repented. Unemployment put a lot of people in that situation and, what is worse, by refusing to give the house in payment, the bank kept the house and the family with a debt for life. What follows is the family drama of thousands of families condemned to homelessness, eviction and destitution.

This has closed a cycle, but not the social problem it has generated. From the perspective of the social classes, not everyone has been the same: the upper classes, successful entrepreneurs and the highly qualified population of the service sector have done equally well. The housing market to which they have access is very wide: whether in urban centres, which are revitalised by processes of remodelling or urban renewal that also involves gentrification; or in metropolitan belts, in sumptuous houses on the periphery. Faced with this upper and upper-middle class, the middle class withdraws its positions: they constitute a majority of owners so their level of debt is low, yes, they hope that someday the crisis will end and revalue their property with which to obtain rents that are not going to recover perhaps for the rest of their days. The lower class sees the housing market relegated to renting or buying low-quality housing, or to living in their deteriorated properties not because they do not want to abandon them, but because they can not. As for young people and immigrants, they are the other victims. The labour market only provides precarious employment, even for qualified personnel. They constitute a lost generation that seeks an alternative with emigration. For the migrant, who lives collectively in substandard neighbourhoods, he loses his job, his house and is forced to return to his country of origin.

7.2. CHARACTERISTICS OF THE HOUSING STOCK.

In the area under study, in 2001 there were a total of more than 1´17 million dwellings, most of which corresponded to the main dwelling (848,477 dwellings). It is followed, at a considerable distance, by empty dwellings, with a volume of 171,783 dwellings, according to the 2001 Census, and slightly less than 135,000 secondary dwellings. Most of the main dwellings are located in the most populated areas, with Malaga and Seville representing just over 45% of the total number of main dwellings. The empty dwellings are concentrated in the urban metropolises of Granada, Malaga and Seville, with Seville standing out with a quarter of the empty dwellings in the area under study. It follows, then, that the processes of intrametropolitan residential mobility are producing an alarming increase in the number of empty dwellings in Andalusian cities, and so we demand a wake-up call from the public authorities on the obsolescence of the housing stock in Andalusian capitals and its necessary regeneration and reuse. Thirdly, secondary dwellings in the

135 El País [Spanish newspaper]. Specials 2013. Álvaro de Cózar and Mónica Cebeiro.

areas of Cadiz and Malaga stand out, with percentages, in the latter, representing slightly less than 25% of the total number of secondary dwellings, due to the coastal nature of these agglomerations and the importance of residential tourism.

Table 7.1
The housing stock

Geographical area	Main	Secondary	Empty	Other	Total
Cádiz capital	42.413	3.243	5.473	1.690	52.819
Peri-urban area of Cadiz	79.047	26.584	13.094	823	119.548
Granada capital	81.597	13.988	21.377	7.701	124.663
Peri-urban area of Granada	65.645	9.238	18.656	328	93.867
Malaga capital	170.680	16.621	26.432	3.346	217.079
Peri-urban area of Málaga	57.563	33.009	17.145	3.575	111.292
Seville capital	226.558	21.456	43.673	5.302	296.989
Peri-urban area of Seville	124.974	10.602	25.933	946	162.455
Total	848.477	134.741	171.783	23.711	1.178.712

Source National Statistics Institute, 2001 Census. Own elaboration

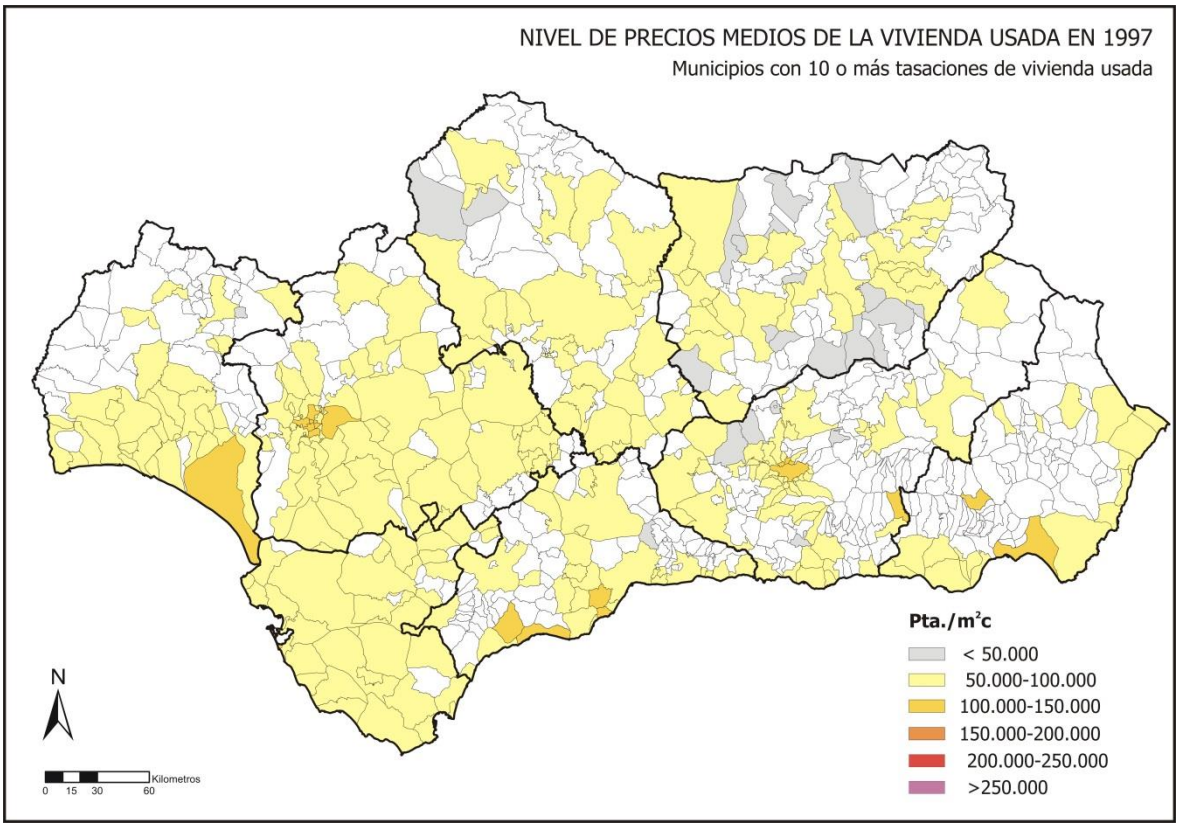
Table 7.2.
The housing stock. Percentages

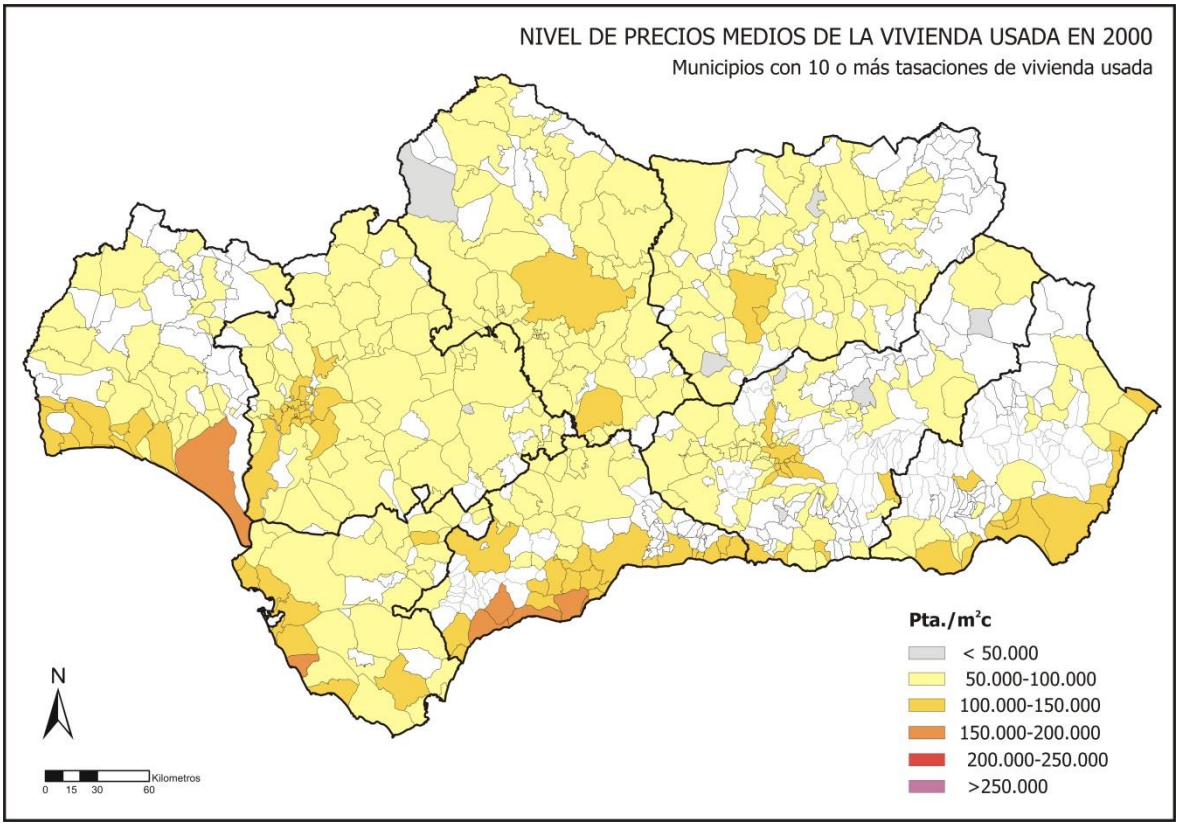
Geographical area	Main	Secondary	Empty	Other	Total
Cádiz capital	5,00	2,41	3,19	7,13	4,48
Peri-urban area of Cadiz	9,32	19,73	7,62	3,47	10,14
Granada capital	9,62	10,38	12,44	32,48	10,58
Peri-urban area of Granada	7,74	6,86	10,86	1,38	7,96
Malaga capital	20,12	12,34	15,39	14,11	18,42
Peri-urban area of Málaga	6,78	24,50	9,98	15,08	9,44
Seville capital	26,70	15,92	25,42	22,36	25,20
Peri-urban area of Seville	14,73	7,87	15,10	3,99	13,78
Total	100,00	100,00	100,00	100,00	100,00

Source National Statistics Institute, 2001 Census. Own elaboration

The increase in demand and the liberalization of the price of land meant, in a few years, a spectacular increase in the price of housing, benefiting property owners and harming the purchasers of this good to which we are all entitled, as recognized by the Spanish Constitution. The direct implication of the new land law of Aznar's government is evident if one studies the maps of the price of housing, both used and new, between 1997 and 2000. In a little less than three years, the price of housing was greatly revalued by the extraordinary demand for it, by the entry into force of the Euro and the facilities granted to mortgages for Spanish families by banks. In relation to the prices of used housing, the differences within the metropolitan area were scarce, except in the agglomeration of Granada and Seville but, even in the latter, the differences between the central municipality and its metropolitan surroundings were very small.

MAPS 59 and 60





Source Own elaboration.

The extraordinary revaluation of the housing used in such a short time is striking, especially in the metropolitan areas and the Andalusian coast, a revaluation in which the demand for housing has a lot to do with it, which means that the savings are not enough to buy the home and, as a result, many Spanish families were forced to take out mortgages. This revaluation, as we recall, benefited the middle class, who, seeing the price of the house rise far above the price at which they bought it, opted to sell this house and buy or mortgage a higher quality property on the periphery. The major victims were low-income groups, especially foreign immigrants, a group that increased pressure on the housing market, normally used in central cities, as argued by C. Ocaña (C. Ocaña, 2008). The strong tensions of the price of new housing in the central cities benefited the upper classes but not the middle classes that do not find a quality good, according to their social status, in the housing market of the capitals, so they were forced to look for an alternative in the periurban housing stock whose revaluation did not reach the price level of the new housing market of the capitals. With this, we deduce that, although the price of housing did not appear in our survey (carried out, moreover, in July 1997), there is no doubt that it was a vital factor for the emergence of the process of residential suburbanization in Andalusia which was something after 1997, when the land law of the Aznar government had not yet been approved.

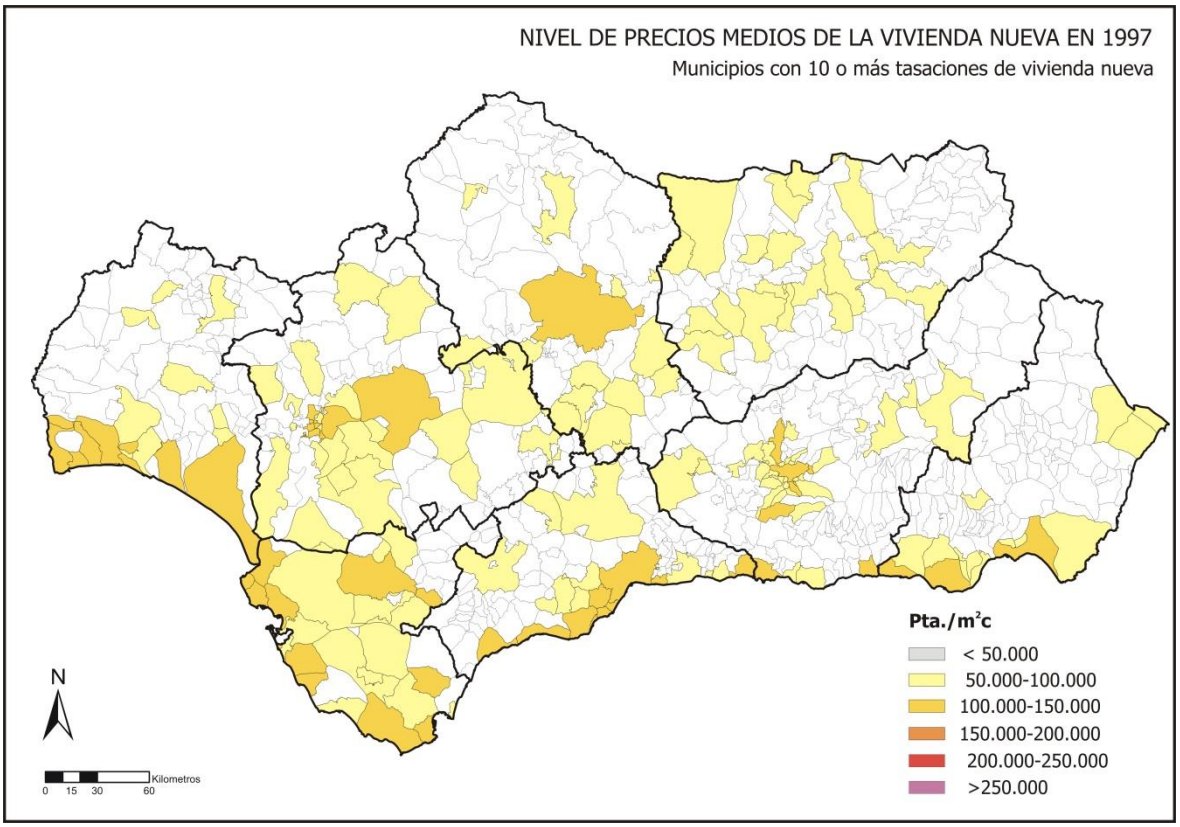
Another characteristic of the housing stock in the Andalusian agglomerations is its unequal age.

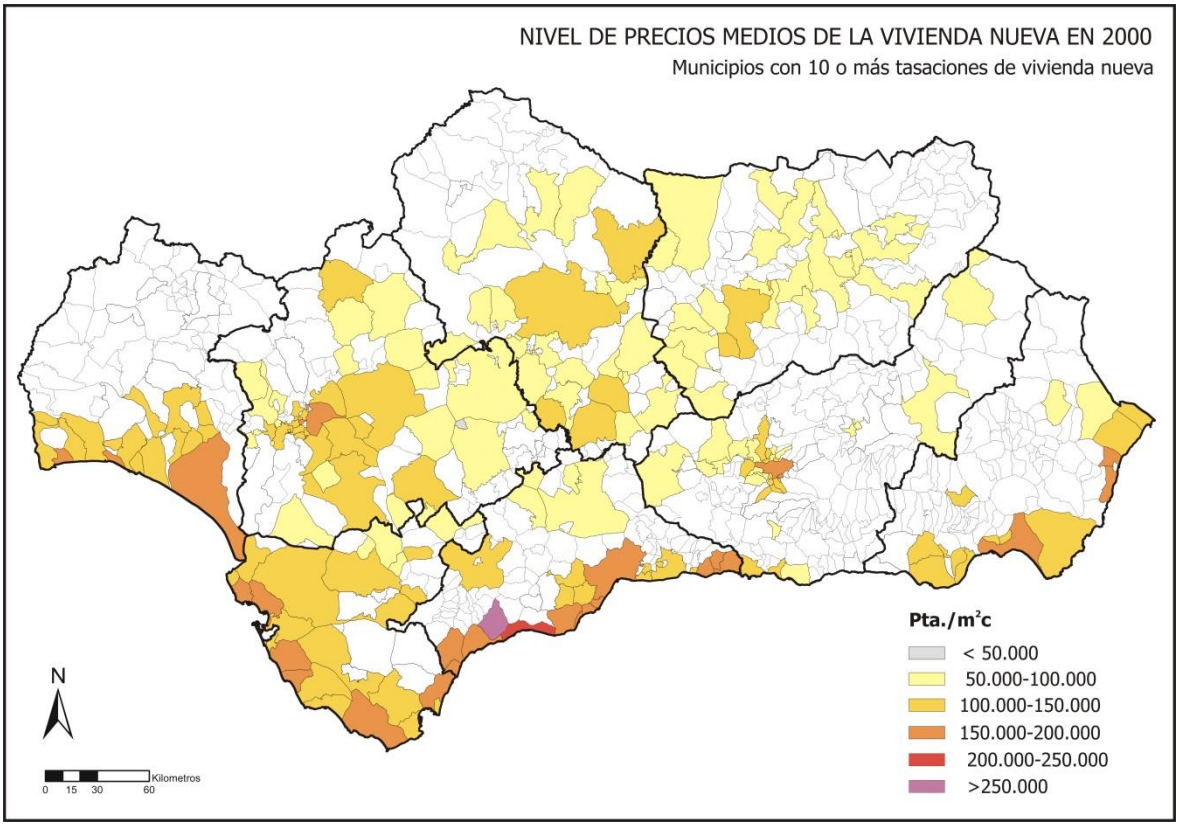
Table 7.3
Location coefficients of dwellings by age and geographical area

Geographical area	Before 1900	1900-1920	1921-1940	1941-1950	1951-1960	1961-1970	1971-1980	1981-1990	1991-2001
Cádiz capital	5,89	3,10	1,52	1,36	1,51	0,92	0,90	0,55	0,41
Peri-urban area of Cadiz	1,66	0,97	0,49	0,69	0,78	0,56	0,98	1,33	1,41
Granada capital	1,17	1,44	0,93	0,91	0,96	1,07	1,22	0,84	0,62
Peri-urban area of Granada	0,56	0,90	1,10	1,01	0,86	0,64	0,56	1,59	1,80
Malaga capital	0,61	0,83	0,83	1,17	0,94	1,14	1,17	0,87	0,75
Peri-urban area of Málaga	0,64	0,71	1,01	0,62	0,46	0,79	0,80	1,70	1,38
Seville capital	0,62	0,83	1,29	1,07	1,44	1,28	1,08	0,66	0,63
Peri-urban area of Seville	0,44	0,75	0,83	0,95	0,61	0,85	0,86	1,20	1,59

Source National Statistics Institute, 2001 Census. Own elaboration

MAPS 61 and 62





Own elaboration.

Calculating the location coefficients by geographical area, it can be deduced that the oldest area is that of Cádiz capital and its periurban area, with high coefficients for dwellings prior to 1900, an indicator of the degree of obsolescence and urban waste. It is followed by the capital city of Granada. The high coefficients reached in the cities of Granada, Malaga and Seville are a reflection of the intensity of the rural exodus since the middle of the 20th century, which reached its peak in the 1960s. On the contrary, the periurban areas stand out for the greater youth of their urban park, especially from the decade of the eighties and more intense in the decade of the nineties in Cadiz, Granada and Seville.

Table 7.4
Location coefficients of dwellings by age and geographical area

Geographical area	<30	30-44	45-59	60-74	75 and up
Cádiz capital	0,57	0,80	1,08	1,19	1,15
Peri-urban area of Cadiz	1,07	1,10	0,97	0,85	0,72
Granada capital	0,90	0,81	0,97	1,09	1,35
Peri-urban area of Granada	1,28	1,14	0,86	0,85	0,78
Malaga capital	0,94	0,92	0,99	1,01	1,05
Peri-urban area of Málaga	1,58	1,50	1,34	1,24	0,97
Seville capital	0,82	0,89	0,97	1,08	1,17
Peri-urban area of Seville	1,16	1,12	0,99	0,78	0,67

Source INE, 2001 Census. Own elaboration.

By age, there is a generational abyss: the youngest are located in the peripheries, with high coefficients for peri-urban areas, especially for the group of 30 to 44 years old. On the other hand, older groups are located in metropolises, especially from the age of 60 onwards. This contrasts two images: average ages in the periurban belts and old age in the central cities.

Table 7.5
Location coefficients of dwellings by number of floors and geographical area

Geographical area	≤2	3	4	5-7	8 and more
Cádiz capital	0,11	1,16	1,45	1,22	1,66
Peri-urban area of Cadiz	1,44	0,99	1,36	0,85	0,34
Granada capital	0,34	0,91	0,85	1,68	1,26
Peri-urban area of Granada	2,45	1,70	0,56	0,12	0,01
Malaga capital	0,62	0,64	0,51	1,10	1,85
Peri-urban area of Málaga	1,60	1,19	0,60	0,79	0,58
Seville capital	0,41	1,03	1,38	1,32	1,21
Peri-urban area of Seville	1,99	1,00	1,11	0,43	0,21

Source National Statistics Institute, 2001 Census. Own elaboration

As for two of the characteristics of the buildings: the number of floors and the surface they occupy, these are also two features that inform us, firstly, of the weight of the single-family and multi-family dwelling in the total and, secondly, the surface is a social indicator that reveals the level of income and the degree of familiarity of the residents.

In relation to the number of plants, there is a predominance of those with less than 2 plants in the peri-urban areas of Cadiz, Granada, Malaga and Seville. It is a very revealing data because it indicates us the predominance of a type of housing, the unifamiliar or chalépolis that is imposed according to the American fashion by acculturation and whose typology varies according to the

income. The enclosed dwelling, more associated with the four-storey dwelling, is particularly present in the peri-urban areas of Cadiz and Seville, associated with a model that was implemented several decades ago and which is an indicator of the differentiation in residential typologies according to the age of the construction. Finally, the towers of houses of eight and more floors correspond to the central cities, the coefficient being particularly high in Malaga capital.

Table 7.6
Location coefficients of dwellings by number of floors and geographical area

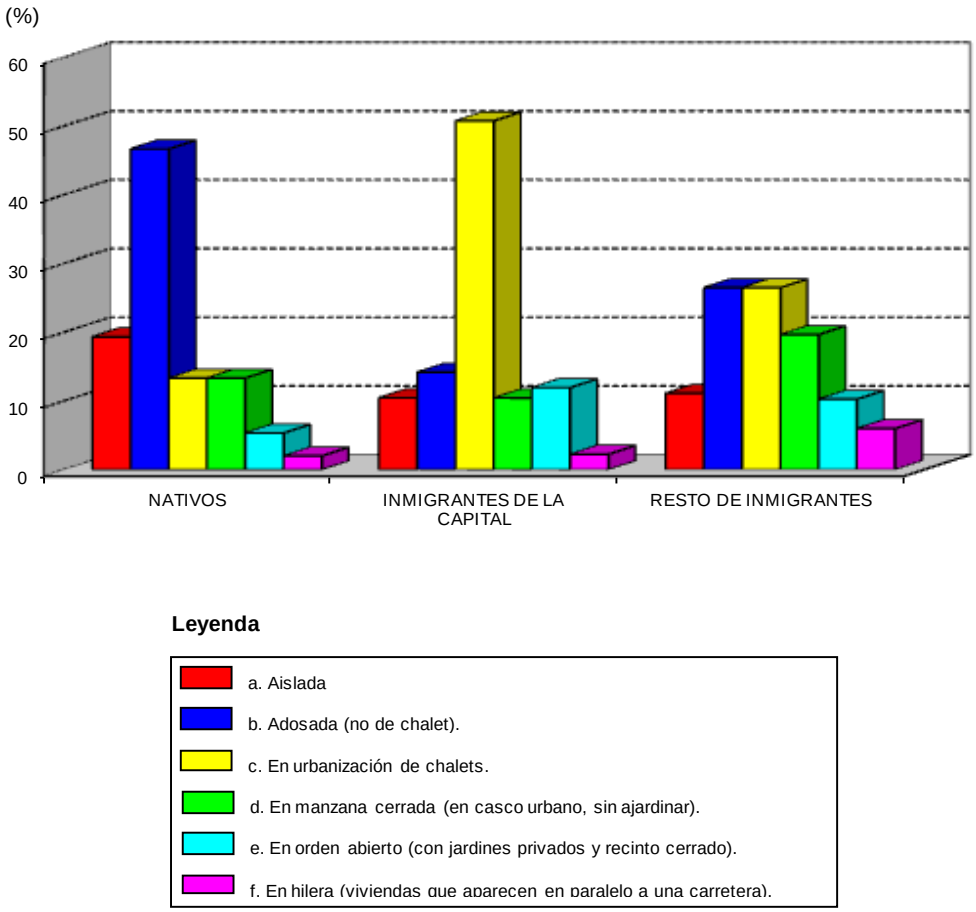
Geographical area	<60	61-75	76-90	91-120	121-150	>150
Cádiz capital	1,62	1,06	0,8	0,89	0,83	0,73
Peri-urban area of Cadiz	1,06	1,18	0,98	0,92	0,8	0,72
Granada capital	0,65	0,76	1,13	1,23	1,16	1,12
Peri-urban area of Granada	0,44	0,45	1,04	1,41	1,73	2,1
Malaga capital	0,89	1,13	1,09	0,94	0,8	0,74
Peri-urban area of Málaga	1,1	0,78	0,96	1,13	1,08	1,21
Seville capital	1,4	1,12	0,92	0,8	0,83	0,82
Peri-urban area of Seville	0,65	1,01	1,01	1,1	1,24	1,19

Source National Statistics Institute, 2001 Census. Own elaboration

The surface area of the dwellings is an indicator of social and family status. Of social status because the more social status, the larger the housing area, and of family status because a larger family demands a larger housing area at the same income. In this sense, homes of less surface area, of less than 60 square meters have a greater weight in Cadiz, in the periurban area of Malaga and in Seville capital. In the capitals it is illustrative of a more advanced family status due to the greater ageing of the population and of real estate. It is significant that it is precisely in Cadiz where the highest levels of antiquity of the dwelling and of surface area are reached, they correspond to dwellings of great antiquity that are occupied by populations of scarce resources in the urban centres. In the case of the peri-urban area of Málaga, the higher coefficients are not due to the greater age of the housing stock as in Cádiz, but to the predominant typology of many dwellings on the coast, based on the housing-study model, especially in tourist areas. Faced with this situation, the home of more than 150 square meters has greater relative weight in the periurban area of Granada, Malaga and Seville, typical of an expansive family cycle.

The typology of the dwelling is differentiated according to origin, as the Population Survey informs us (figure 7.2).

Figure 7.2



Source Montosa Muñoz, J., 1997 Survey[136]. Own elaboration.

Among the natives and immigrants of the capital, single-family dwellings predominate, although with one peculiarity: among the natives, the isolated and non-attached dwelling, the traditional isolated, is more representative, with more than 50% of the dwellings. On the other hand, among the neo-rurals, the situation is quite different, and it is the single-family dwelling, in the urbanisation of villas, that predominates. The situation changes in the group of other immigrants, where the residential typology is more balanced and one does not predominate over the rest, although the traditional townhouses and the urbanizations of villas stand out as corresponds, as we have seen, to the heterogeneous social composition of the provincial immigrant population that does not come from the capital.

In conclusion, housing is a reflection of social status and the family cycle, and as such, a symbol of social triumph on the part of the foreign population as a continuation of the past in the housing of the indigenous population, although very threatened by the importation of a type of

136 Legend:
Detached house
Autochthonous or traditional semi-detached house (casa mata)
Urbanization of single-family houses
Housing in urban center (in closed block)
Housing in open order (with green zones or in closed enclosure)
Row house

housing that is not that of the "village", as visually reflected in the different types of housing by origin (Figure 7.3).

Figure 7.3
Differentiation of the dwelling according to origin (Rincón de la Victoria).

Newly built housing, associated with the foreign population.

Housing in the fishermen's quarter, associated with the autochthonous population.

The consequence is the conversion of public space into private: the countryside is destroyed and privatised by a foreign population. It is not surprising that the autochthonous population is reluctant to see this form of appropriation of a space that is, by right, their own.

It is therefore a new form of colonization of space, more subtle if possible, than a formal invasion of the territory, but not, for that reason, less real.

Figure 7.4
Example of privatization of public space.

Source Own elaboration.

Figure 7.5
Example of the process of invasion of traditional housing and replacement by an urban-type dwelling

Previous photo.

Current photo.

7.3. ESTIMATE OF THE CONVERSION OF PERMANENT RESIDENCE/SECONDARY RESIDENCE IN THE AREAS ANALYSED.

Suburbanization generates processes of colonization of ever wider spaces, but it is true that in different stadiums. This is how we spoke previously, and it is traditional in this type of studies, to cite the colonization of the second home as a previous form of colonization of periurban spaces. However, it should be understood that as a form of colonisation of space, we are not only interested in the volume of second homes in their initial stage, but also in their possible evolution from second homes to permanent homes as an indicator of a definitive change of residence.

The estimated calculation of the housing conversion is inspired by the formula of Leal Maldonado and Cortés Alcalá137 . On the calculation of dwellings we elaborate an indicator to know the entity of the conversion of the secondary dwelling into permanent. The formula from which we start is as follows:

Vi principals in 2001= (Vi principals in 1991)+ (Vi new principals estimated 1991-2001) + V secondary become permanent.

Where Vi principals in 1991+ Vi principals new estimates between 1991 and 2001 is equal to the Vi principals estimated in 2001.

The steps of the method are described below:

Calculation of estimated new dwellings between 1991 and 2001.

(a) Calculation of the main new dwellings in the period from 1991 to 2001:
We obtain this by calculating the weight of the main dwelling in the total number of dwellings in 2001. Once the percentage is obtained, we apply it to the number of new dwellings and the result will be a fairly approximate value of the new dwellings that were destined for permanent housing.

(b) Calculation of the total estimated main dwellings in the period:
Once we have obtained the estimated volume of new main dwellings, we add this to the total of initial main dwellings, that is, the main dwellings of 1991.

(c) Balance between real and estimated main dwellings:
Subsequently, we cleared the unknown of the equation: the total estimated main dwellings moved to the first term with a negative sign, so we subtracted the total family dwellings according to the 2001 INE Housing Census and the total estimated main dwellings. If the result is positive, it indicates a conversion of the second residence into permanent, on the other hand, if it is negative, it supposes the opposite, a conversion of the permanent residence into unemployed.

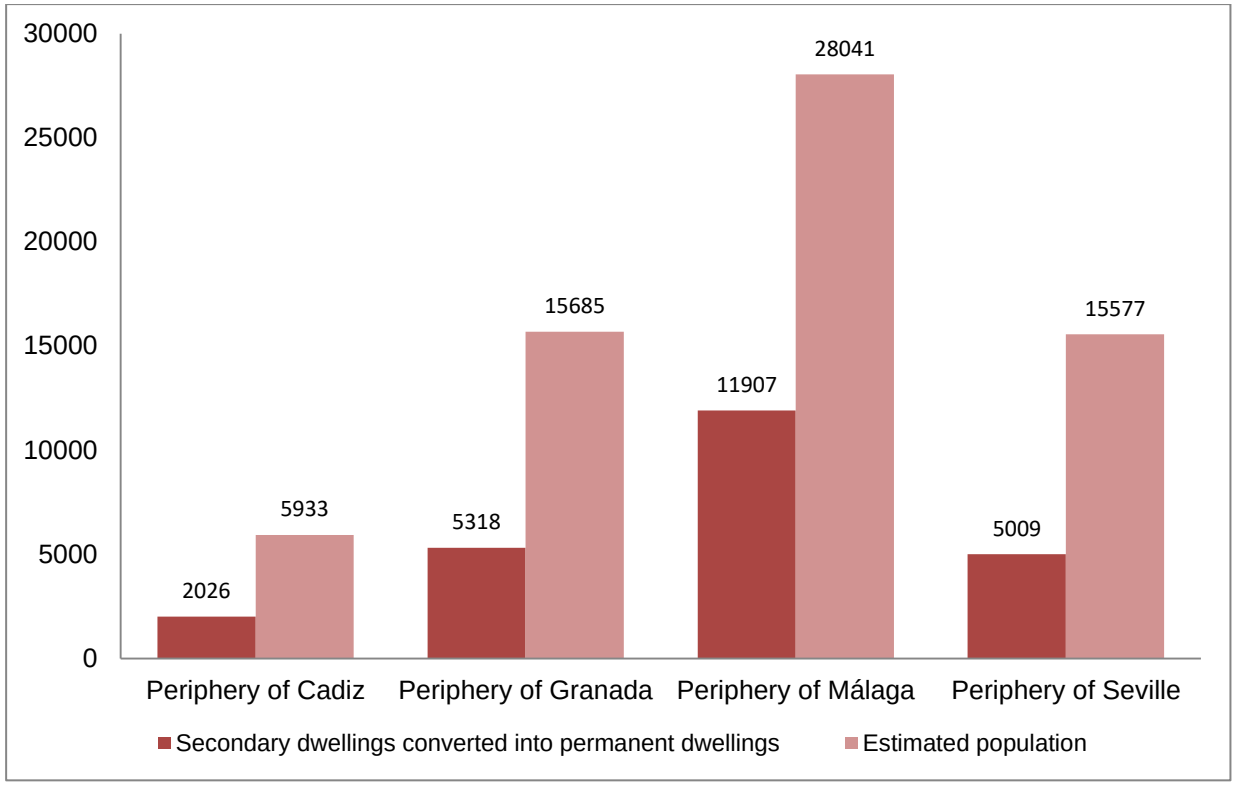
137 LEAL MALDONADO J. and CORTÉS ALCALÁ, L. (1998): La dimensión de la ciudad. CIS [Ed. Centre for Sociological Research]. Madrid

Table 7.7
Changes in the use of permanent housing in the main Andalusian urban agglomerations (1991-2001).

Variables	Cadiz	Periphery of Cadiz	Granada	Periphery of Granada	Malaga	Periphery of Málaga	Seville	Periphery of Seville
Main dwellings 1991	43.129	58.357	82.162	41.131	151.247	33.471	201.509	88.457
Secondary dwellings 1991	3.678	20.340	9.633	9.544	12.669	33.851	10.437	7.281
Empty dwellings 1991	3.381	6.711	10.862	7.758	14.827	9.658	24.102	13.693
Other dwellings 1991	61	96	53	15	122	139	287	91
Homes built between 1991 and 2001	4.242	28.815	14.797	28.836	29.853	24.379	34.812	43.487
Total family dwellings 2001	57.805	122.009	132.521	97.754	223.163	115.140	292.153	167.983
Main dwellings 2001	42.413	79.052	81.597	65.651	170.687	57.565	226.621	126.112
Percentage of main dwellings over total in 2001	73,37	64,79	61,57	66,59	76,48	49,99	77,55	75,07
Estimated volume of main dwellings over those of new construction	3.112	18.669	9.111	19.202	22.832	12.187	26.997	32.646
Total estimated main dwellings (main dwellings in 1991+ estimated new dwellings for permanent housing in 2001)	46.241	77.026	91.273	60.333	174.079	45.658	228.506	121.103
Balance (Main dwellings in 2001-estimated main dwellings in 2001)	-3.828	2.026	-9.676	5.318	-3.392	11.907	-1.885	5.009
Related non-resident population with second residence	11.823	48.288	21.767	17.415	28.134	45.632	16.616	14.338
Census population	133.363	261.120	240.661	203.460	524.414	167.669	684.633	412.696
Permanent and temporary residents	145.186	309.408	262.428	220.875	552.548	213.301	701.249	427.034
Primary and secondary family dwellings	45.656	105.636	95.585	74.889	187.308	90.574	248.077	137.325
Ratio of population per dwelling	3,18	2,93	2,75	2,95	2,95	2,35	2,83	3,11
Estimated volume of population that has converted their temporary residence into permanent or has vacated their permanent residence	-12.174	5.933	-26.564	15.685	-10.005	28.041	-5.328	15.577

Source Own elaboration.

Figure 7.6
Transformations in the use of housing in the main Andalusian urban agglomerations (1991-2001).



Source Own elaboration.

From the application of the method to the Andalusian urban agglomerations, it can be inferred that suburbanisation has meant the conversion of the second residence into permanent in all the first metropolitan belts, in a very similar value in the agglomeration of Granada and Seville, and smaller in the agglomeration of Cadiz due to its smaller demographic size. The weight of the second residence in the urban agglomeration of Malaga, due to the notable importance reached by residential tourism and the second residence, has led to a greater intensity in the degree of conversion of the second residence into permanent.

In contrast, in provincial capitals, there are predominant cases in which the main home has been abandoned in order to become vacant. In the cases we are dealing with, part of these unoccupied dwellings are susceptible of being used, either as an investment for a future or as a source of income (for sale or rent). The average social status of this population means that their income is insufficient to acquire socially prestigious housing in the provincial capitals, due to its high price, and they are forced, according to C. Ocaña, to seek housing on the outskirts in a socially prestigious space and according to their social status, leaving the housing in the central cities unoccupied. This would confirm, once again, several facts: first, the urban squandering represented by an ever-increasing number of empty and, not infrequently, obsolete dwellings in the provincial capitals; a particularly serious problem in the housing boom of the sixties and seventies; second, the speculative use of housing: thirdly, the socially selective nature of urban emigration, since only certain social groups, with certain incomes, will be able to opt for the supply of housing from the peripheries and face the expense that daily trips to the workplace entail, and, we could add a fourth fact: for a sector of the population, an elitist social residential motivation is confirmed, in which it intervenes, albeit partially, not to find an offer of housing, according to its status, in the socially prestigious districts of the capitals.

In short, a relevant importance is deduced from the conversion of temporary residence into permanent residence, in the estimated data, and the predominant weight of the conversion of the first dwelling into unoccupied housing, either temporarily or permanently in the provincial capitals. This fact has produced a devastating phenomenon: it has left countless properties unoccupied in the Andalusian capitals, in spite of the difficulty of access to the first home of a significant sector of the population of the cities: the young people willing to emancipate themselves from the family home and the foreign immigrants, both groups, with a limited income due to having precarious employment contracts and low salaries.

CHAPTER 8

SOCIAL AND MULTIVARIATE ANALYSIS IN PERIURBAN SPACES: A METHODOLOGICAL PROPOSAL.

8.1. ANALYSIS OF SOCIAL AREAS OF SHEVKY AND BELL. A METHODOLOGICAL PROPOSAL ADAPTED TO PERIURBAN SPACES IN TRANSFORMATION.

Our aim in this paper is to apply a theory that has traditionally been applied to the intra-urban space of cities, to peri-urban space. This is Shevky and Bell's theory of social areas. This theory has a great tradition in the spatial analysis of the city by the hand of Human Ecology.

8.1.1. The theoretical approach.

There is a differentiation of the urban space according to the social classes that occupy it, allowing to obtain an idea that there is a social separation or segregation, fruit of the social inequality. This inequality materializes in a competition and in an appropriation of the geographical space of higher quality by the wealthiest social class, relegating the social classes with lower purchasing power to a residential space of lower environmental quality or worse valued, a residential space that ends up being classist, once it is occupied by housing according to the status of the population. The selection of the place of residence is, therefore, the most direct expression of social inequality, of the social segregation of the intra-urban space. With regard to peri-urban space, "the city of post-Fordism has hatched towards outer space and has generated an intense urbanisation in the rural environment that is not exclusive to the great metropolises alone" (C. Ocaña, 2005, p.18). The result is that the scale has changed and the competition scenarios have been moved, for a space of greater environmental quality, to metropolitan spaces, giving rise to what geographical literature has called in various ways (Méndez, 2010): the diffuse city (Indovina, 1991), the metapolis (Ascher, 1995), the dispersed city (Monclús, 1998), the city without borders (Nel-lo, 1998), the post-metropolis (Soja, 2000), the universal pantópolis (García-Bellido, 2003), or the postsuburbia (Méndez, 2010). All of them affect the overcoming of previous models of urbanization, connected to the classical Chicago School and differentiate a suburban area and, continues to this one, a periurban area; and in the confirmation that postmodernity has meant the arrival of a more diffuse or infinite suburbanization (Méndez, 2010). Until recently, the processes of urban diffusion reached unknown dimensions, associated with urbanization processes that have turned the North American *suburbs* into *post-Suburbia*, reaching a functional autonomy that recalls the *edge cities* described by Garreau (Garreau, 1991).

In short, it is an expansion of the city limits that implies that the residential structure has overflowed its physical and administrative limits to generate the same unsupportive and segregated spaces that it had previously generated in the intra-urban space.

The sense of the occupation of the urban space in the periurban space is reversed: the "village" or urban centre would be reserved for the lower social classes, the natives or autochthonous, while, segregated from it, more or less exclusive urbanisations of single-family dwellings arise for a middle class of exurban origin.

The immigrant middle class does not find accommodation in the historical periphery of the seventies which, with urban growth, has been integrated into the urban centre; composed of

obsolete and socially discredited dwellings (*blow out effect*). This is why, due to high housing prices in urban centres, the urban middle classes choose to migrate to peri-urban spaces, offering these dwellings to foreign immigrants and people with lower incomes (*filtering down*).

Thus, suburbanization was, at the beginning of the millennium, the most frequent option of the new middle class homes, whose economic capacity does not allow them access to good housing in their own residential environment and they have to choose between descending on the social scale of the neighbourhood or obtaining a more desirable location in the middle class suburbs, where the distance no longer plays against them, due to the construction of ring roads that became widespread in most large Spanish cities from the nineties of last century.

As C. Ocaña points out, the data from the 2001 Census present the image of Spanish capitals with an ageing index higher than that offered by the Spanish population as a whole and especially serious in large cities. Compared to these, the average cities, especially the metropolitan belts, maintain a more positive dynamic and a lesser ageing, more due to the immigration of young people than to a spectacular increase in the birth rate.

Here again, the urban residential structure overflows the administrative framework of the city. Within the metropolitan space there are also differences, the autochthonous population, older, is relegated to the village or areas of older urbanization; while urban migrants occupy spaces of greater environmental quality, in residential developments, more or less exclusive and intentionally separated from the rest through impassable walls or hedges, which keep them isolated from the environment around them, in a familiar microcosm that leads to isolation and ignorance of the immediate world to which they belong, although they are pertinently connected to the outside through modern information highways, without leaving their homes, only breaking their confinement with cars, which take them from home to work, and from work to home, in an unbearable and soporific daily routine.

Housing plays a crucial role in demographic differentiation or segregation. Land prices or municipal policies have the capacity to drive this key process of demographic segregation. Suburbanisation, which physically disconnects the family network, which progressively removes residence from the workplace, can certainly be a life choice, even if it seems very abulic to us. But it is also true that the choice for it may be being made in a scenario in which the alternatives are non-existent: the middle class leaves the city pressured by the absence of an alternative housing market and affordable price, privatizing a natural space that becomes urban.

It should be mentioned that the theoretical character and media economy of the Shevky and Bell model are two important values that may make it interesting to introduce this model into the analysis of Spanish peri-urban belts. However, both the categories and their statistical measures have been suggested by a specific model of society, and at a very specific moment, very distant, culturally and economically, from the metropolitan reality. Hence, it seems a previous step to reflect to what extent the reality or not of the differentiating factors of the social areas of the model (social rank or social status, family status and ethnic status) adjust to the postmodern society. For this reflection we will base ourselves on the application of the model to a more advanced stage, in which the concept of social scale is crucial (Ocaña, 1985), the degree of complexity of a given society, and which we would use to justify the adaptation of the model to a peri-urban reality of the largest Andalusian urban agglomerations. In the peri-urban reality, or field reached by the city's expansive wave, the post-industrial social scale is different from the industrial scale on which Shevky and Bell's traditional model is based.

In the traditional model of Shevky and Bell, details C. Ocaña[138], to change the society that it tries to reflect, also changes the model. Table 1 shows the modifications we have made within the transformations of a post-industrial society and a post-Fordist economy and what we have considered to be characteristics of peri-urban space, a space that metamorphoses through urban diffusion and acquires elements that are strictly urban, but conserving part of the rural or primitive urban imprint that makes it peculiar and converts it into peri-urban or, more specifically, into rurban.

8.1.2. Methodology:

The categories defined in the old model have been confirmed in many experimental works in the urban environment, hence the value given to the model as a method of analysis, but its application to the periurban environment is not as frequent, although, in fact, it is not non-existent[139].

In the first exploratory model we have used, we have used a fertility trait, children under 5 years old and an urbanisation trait, housing after 1991 as an identification of the recent nature of suburbanisation in Andalusia. In the second model, we have selected as variables two correlated determining factors: young families with minor children in their care; and recent single-family dwellings, as they contain more significant elements of the hypothesis that we intend to validate.

Represented in point clouds, the two dimensions or axes show greater kindness in the second model than in the first (see figures 1 and 2), being less representative, both because of the concentration of the point cloud of the cases in the first sociogram and with a higher determination coefficient than the second; which corresponds to the latest model, with a cloud of points that shows greater dispersion and a structure of the axes, the social and the family, less correlated, with the determination coefficient being closer to 0, that is, to almost icorrelated axes, which is what the factorial ecology seeks.

In the final qualification of the areas in Shevky's model is also used in a secondary way, the ethnic status, profiling the types resulting from the combination of the two previous categories. Its use is reasonable because of the identification that the social rank character can offer with the ethnic status or origin of the population in many occasions.

The typology of the areas arises from the combined consideration of indexes I and II (economic status and family status) that give rise to the 16 fundamental types, which are split into 32 according to high or low ethnic status or origin. Each of these indices is established by simple averaging over the scores of each average over the scores of each variable. To standardize the scale in the value of the variables, a scoring system from 0 to 100 is applied.

This is how the diagram of social areas or sociogram results: on the columns that order the different intervals of the social rank indexes (0-24, 25-49, 50-74 and 75-100) that are listed from 1 to 4 according to the increasing order of the scores. In the rows, the different intervals of family status are ordered from top to bottom in decreasing order (75 to 100, 50 to 74, 25 to 49, 0 to 24), which are called by the letters A, B, C and D, ordered in the same sense. The reading of

138 Same as above.

139 CUTILLAS ORGILÉS, E. (2007): "La diferenciación social en un espacio periférico: las ciudades de Villena, Yecla y Almansa". Papeles de Geografía, no. 45-46, pp. 67-89.

the resulting diagram box is simple: box A1, for example, should reflect the populations in which low scores are combined in the category of social rank with high family status.

In modifying the model of social areas to the first Andalusian metropolitan belts, we have started from the premise that society has changed with respect to the primitive elaboration of the model: from an industrial society to a post-industrial society in which rural-urban mobility has changed to become a city-countryside mobility that has produced the urbanization of the peripheries or residential suburbanization. In this process of mobility, the working class does not have so much protagonism as the middle and upper-middle class.

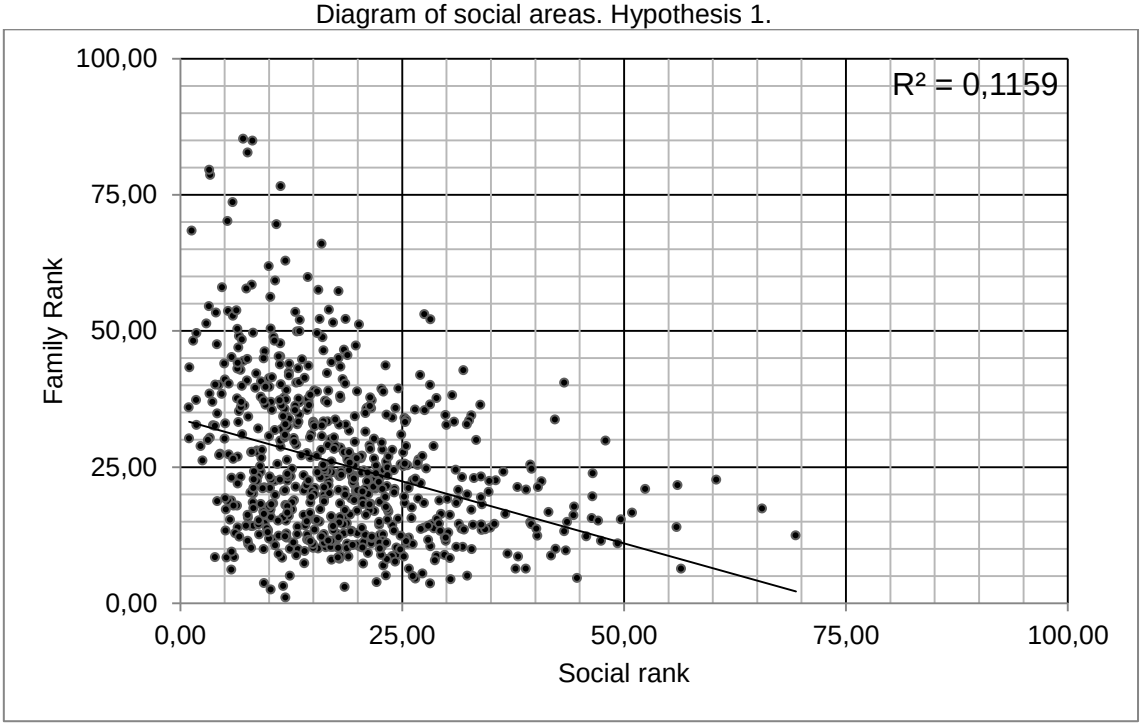
Nor does it have as its cause housing as a necessity, but rather the desire for a type of housing, in exclusive gated (Canosa Zamora, 2007) and single-family housing estates. Nor does it obey an emigration that responds to the initial moments of the family cycle, such as family emancipation. The limited nature of family emancipation, especially of young people, due to the fact that they do not have sufficient income to carry out this process, means that those who delay their participation in suburbanization, being families with children, not so much newborns as dependent minor children, in the working hypothesis. Therefore, a residential mobility led by a middle and upper class, less patrimonial than professional, as J. Susino points out (Susino Arbucias, 2007). The reasons for seeking residence are not clear in Andalusian peri-urban areas: sometimes they respond to a need (young status) and others to free choice (mature status) motivation residential in which the price of housing is not an intrinsic end, but the quality of housing and the type of housing offered: single-family urbanization or in blocks or closed, to isolate from the rest of the population, the native population, from which it is physically separated.

Table 8.1
Phases of reasoning leading to the proposed modification of Shevky's analytical constructions[140].

Postulates relating to industrial society	Statistical trends in industrial society	Statistical trends in post-industrial society	Changes in the structure of the a given social system	Analytical construction or category	Measurements and indicators of the categories
Order and intensity of relations	Transformation in the distribution of tasks: manual production operations decrease and supervision and control operations increase.	Transformation in the distribution of tasks: manual production operations are decreasing and highly qualified operations linked to highly qualified services are increasing. specialized	Change in the range of occupations based on highly specialized services. Urban impact: the presence of the exurban middle and upper-middle class increases in the cities. peri-urban environments	Social status	Medium and high level of education of the population. Population employed in qualified services
Differentiation of functions	Transformation of the productive structure: primary activities decline. Centralized activities are growing in the cities. The family as a unit decreases economic	Transformation of the productive structure: centralized activities in cities are decreasing and decentralized towards the peri-urban environment. The varieties of family cohabitation are multiplied.	Familism: Neo-rurals create new families in socially prestigious peri-urban spaces	Family status	Young families with children in their care. Single-family homes
Organizational Complexity	Increasing mobility of the population: transformation and complexity in the structure of the population	Increasing social and spatial mobility of the population also in peri-urban areas. Segregation of the autochthonous population with respect to the Neo-Rural population	Spatial redistribution, anonymity, isolation and segregation in the peri-urban environment between old neighbourhoods where the indigenous population lives and residential urbanisations where the population lives. neural	Segregation persists	Segregated native population of immigrant population

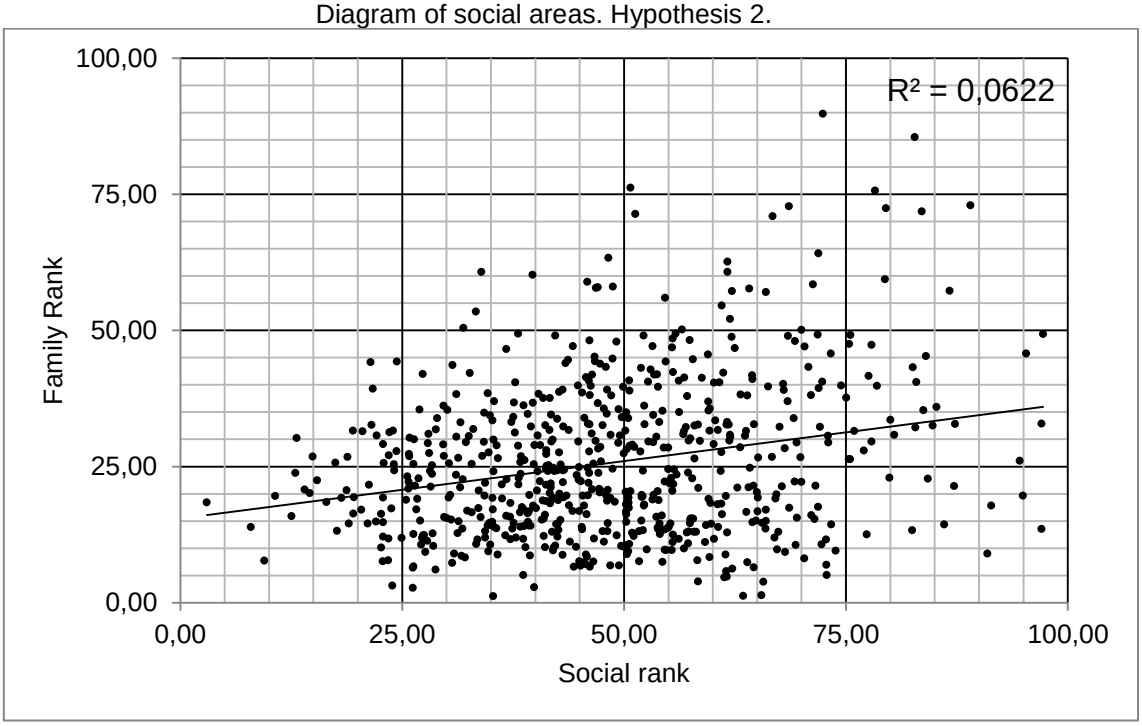
140 Ibid., p. 391.

Figure 8.1
Diagram of social areas. Hypothesis 1.



Source Own elaboration.

Figure 8.2
Diagram of social areas. Hypothesis 2.



Source Own elaboration.

Table 8.2
[141]Location coefficients . Social status of the Andalusian peri-urban.

Social status	Very Low	Low	Medium	High
Bay of Cadiz-North	-	0,93	1,13	1,62
Bay of Cádiz-Centro	0,75	0,94	1,21	0,45
Bay of Cadiz-South	2,36	1,15	0,72	0,35
Vega de Granada North	-	1,41	0,82	0,29
Vega de Granada South	-	0,70	1,61	0,54
Vega Media of Granada	2,70	1,58	0,23	-
Vega del Guadalhorce	2,48	1,44	0,42	-
Málaga West Coast	0,20	0,86	1,48	-
Málaga Mountains	9,42	0,82	-	-
East Coast of Malaga	-	0,68	1,54	1,05
Central Escarpment of Aljarafe	0,16	0,70	1,16	2,77
South Escarpment of Aljarafe	3,55	1,15	0,53	0,35
North Escarpment of Aljarafe	1,50	0,98	0,51	3,28
Platform of Los Alcores	1,07	0,95	0,95	1,54
Vega of Seville	2,58	1,73	0,07	-

Source National Statistics Institute: 2001 Population and Housing Census. Own elaboration.

Table 8.3
Location coefficients. Life cycle in the Andalusian periurban.

Family status	Very young	Young	Mature	Advanced
Bay of Cadiz-North	-	0,58	0,76	1,27
Bay of Cádiz-Centro	1,47	0,17	0,68	1,37
Bay of Cadiz-South	-	0,77	1,49	0,59
Vega de Granada North	-	-	1,91	0,28
Vega de Granada South	-	1,39	1,58	0,44
Vega Media of Granada	-	0,93	0,92	1,09
Vega del Guadalhorce	-	1,64	1,14	0,82
Málaga West Coast	-	-	0,21	1,84
Málaga Mountains	-	-	1,24	0,90
East Coast of Malaga	-	-	1,22	0,92
Central Escarpment of Aljarafe	1,95	1,93	0,72	1,14
South Escarpment of Aljarafe	-	1,29	1,00	0,99
North Escarpment of Aljarafe	-	3,08	1,11	0,70
Platform of Los Alcores	2,44	1,04	0,98	1,00
Vega of Seville	4,55	2,07	0,99	0,85

Source National Statistics Institute: Census 2001. Own elaboration.

141 On the coefficient of location can be consulted the work of CARRERA C. et al. (1998): Trabajos prácticos en Geografía Humana. Ed. Síntesis. 2nd Reprint: Madrid, pp. 240-243.

8 1.3. Conclusions.

From the data in the tables we can draw the following conclusions:

Social heterogeneity in the Andalusian periurban area: there are spaces with very low or low social status, which we can associate with spaces little impacted by suburbanization and belonging to a rural space little evolved. These spaces include the south of the agglomeration of Cádiz, the Vega Media of Granada; part of the Vega del Guadalhorce and the Montes de Málaga in the agglomeration of Málaga. Low class associated with working class is found in the Vega Norte of Granada, where the Granada industry is located. On the contrary, periurban spaces with medium and medium-high social status, with a high representation of managerial, technical and administrative professionals, can be found in the North and Centre of the Agglomeration of Cadiz; in the South of the Vega of Granada; in the East and West Coast of the Agglomeration of Malaga and in the Platform of the Aljarafe and Alcores, where a medium and high status is reached. In the Plataforma de los Alcores, despite the presence of an industrial decentralisation of the development poles that emerged in the seventies, residential mobility is preferably middle class, followed by low purchasing power social class, made up of industrial workers.

As far as the life cycle is concerned, housing by emancipation of young people is the majority in the centre of the Bay of Cadiz and in the urban agglomeration of Seville. Meanwhile, the residential mobile obeys more the desire than the need: in the urban agglomeration of Cadiz, in Chiclana de la Frontera; and in Granada, in the Vega de Granada, less in its North sector than in its South sector. As well as in Malaga, in part of the Vega del Guadalhorce, and on the East Coast of Malaga. Advanced status is also relevant, but for two reasons: residential mobility in the cases of the North and Centre of the Bay of Cadiz, in the Agglomeration of Cadiz; the West Coast of the agglomeration of Malaga and in the Escarpe Central and Plataforma de los Alcores in that of Seville; but more by free choice, as corresponds to social status, than by necessity; while the low social status invokes an aged and rural space in the Vega Media of Granada.

Finally, ethnic status, in which we include the population that was not born in the municipality, i.e. the immigrant, and which could be called origin status in a reformulation of Shevky and Bell's theory, shows high levels of social segregation and origin, so that they appear normally associated, confirming the hypothesis that the foreign population is spatially segregated in exclusive spaces outside the autochthonous population. This occurs in the processes of suburbanisation and urbanisation by residential tourism on the Western Costa del Sol, where there is a strong association of social segregation associated with a foreign origin of the population.

In conclusion, too often we resort to the economic factor as the main explanation of the process of suburbanization as Joaquín Susino (2007, p.50) explains:

> "How else can we understand that the middle classes, with greater resources, are the protagonists of this process of suburbanization, at least in young metropolitan areas such as Andalusian ones? How else can we understand that it especially affects those who do not need housing, those who change out of desire rather than out of necessity? How can we understand that these guidelines do not apply in all cities? The phenomenon of suburban housing is linked to models of consumption, social reproduction and social mobility, of profound social significance, which mere price differentials are not capable of explaining".

8.2. Application of factorial analysis to spaces in transformation. The peripheries of the largest Andalusian urban agglomerations[142].

8.2.1. Purpose of the research.

The objective is to use factorial analysis, an instrument traditionally applied to specifically urban environments; in areas in transformation, i.e. Andalusian suburban areas, to verify the degree of transformation of the areas located in the first metropolitan belt of the largest Andalusian urban agglomerations. As a source, we use the 2001 Census.

8.2.2. Sample.

We have chosen the population of the census sections of the four largest Andalusian urban agglomerations in 2001: Bahía de Cádiz, Vega de Granada, Málaga and Sevilla. These urban areas were delimited using the municipalities belonging to the first metropolitan belt of the respective agglomerations as a major element of analysis. After defining the operational boundaries of these areas, we used the smallest units with respect to which statistical data exist in Spain, namely the census sections that were grouped into units with homogeneous geographic characteristics to detect differences and characterize each of these areas according to the results of an exploratory factorial analysis.

8.2.3. Variables.

In our theoretical proposal we have considered variables that indicate that these are areas subject to exogenous or induced urbanization from the metropolis, central city or provincial capital. For this purpose, we have used demographic variables (population under 15 years of age and heads of household between 30 and 44 years of age) identified with the population of urban origin, the new arrivals who in principle are the protagonists of suburbanization. We have compared this population with people aged 65 or over, associated with the indigenous and rural population that does not participate in the suburbanization process.

Social variables include variables related to qualification level and professions. Our hypothesis is based on the consideration that the population that participates in exogenous or suburban residential urbanization processes has a certain level of studies, due to the high correlation between level of studies and income, and for professions that require medium, if not high, qualifications. For this reason, we have opted for secondary and university studies as a variable, along with professions linked to managerial, technical and administrative staff positions. Once again, we have considered the population that did not participate in these processes, that is to say, the rural and autochthonous population that remains outside the suburban developments, including as retired and pensioner variables, as well as the population dedicated to agriculture and construction, generally associated to the figure of the worker-agriculturist of the periurban areas.

We also selected mobility variables, since in our hypothesis we consider that the population of urban origin has a high degree of mobility for reasons of work, or daily displacement, in comparison with the rural and autochthonous population among which sedentary jobs

142 MONTOSA MUÑOZ, J. (2014): "Aplicación del análisis multivariado en espacios en transformación: las periferias de las mayores aglomeraciones urbanas andaluzas". Boletín de la Asociación de Geógrafos Españoles, nº 65, pp. 87-112.

predominate, especially in the early stages of suburbanization in the autonomous community of Andalusia at the end of the twentieth century.

On the other hand, given the importance of spatial mobility in areas subject to residential suburban development, the variable of recent immigrants (between 1991 and 2001) and immigration by origin has been chosen, taking into account the population of the metropolis, central city or provincial capital, as well as the population of other places, including foreign immigrants.

Finally, we include variables linked to housing, i.e. recent housing and secondary housing, traditionally associated with areas suffering from residential suburbanisation.

8.2.4. Analysis of factors.

Principal component analysis was used. The main factors were calculated and four of them were rotated in a simple structure using the Varimax rotation.

Table 4
Factor load matrix after Varimax rotation.

Variables	1	2	3	4	Initial communities
Illiterate population without schooling	-0.35	0.667		-0,3	(0.675)
Secondary and university studies	0.269	-0.77	0.307	0.364	(0.903)
Recent immigrants (after 1991)	0.412		0.669	0.524	(0.946)
Urban immigrants (Neo-Rural)	0.467	-0.26	0.753	0.258	(0.892)
Foreign Immigrants				0.872	(0.920)
Other immigrants	0.278		0.465	0.747	(0.790)
Children under 5 years old	0.858				(0.735)
Adolescents (under 15)	0.922				(0.822)
Heads of household aged 30 to 44	0.917				(0.901)
Head of Household ≥65 years	-0.8	0.27			(0.792)
Employed in agriculture		0.615			(0.329)
Unskilled		0.802			(0.632)
Occupied in construction		0.657	-0.31	-0.4	(0.600)
Executives and technicians		-0.7		0.379	(0.721)
Administrative staff		-0.79			(0.798)
Neuro-rurals working in the central city	0.281	-0.31	0.815		(0.866)
Sedentary workers			-0.89		(0.749)
Unemployed		0.579	-0.35		(0.396)
Retirees and pensioners	-0.69	0.443			(0.752)
Recent housing (after 1991)	0.682		0.311		(0.587)
Secondary dwellings				0.731	(0.535)
Own values (Eigenvalues)	9.007	3.007	2.249	1.429	

(*) Factorial loads of less than 0.25 have been omitted.

Source Own elaboration.

8.2.5. Conclusions.

Based on the matrix of the rotated components, the labels of each factor can be inferred according to their correlations with the variables used.

Factor 1. Shows high loads of positive factors for the variables of children under 5 years old, adolescents under 15 years old and heads of household between 30 and 44 years old. It shows a negative correlation with the variables head of household, male or female, aged 65 or over and with retirees and pensioners. Finally, it shows a positive correlation with recent housing. Consequently, this factor can be described as "youth and recent urban expansion".

It shows a high burden of positive factors for the variable illiterate population without schooling and population employed in agriculture and construction, unemployed and unskilled workers. Shows high loads of negative factors for secondary and university studies and for white-collar occupations. We have labelled this factor as "traditional agrarian society".

Factor 3. Shows high positive burdens for recent immigrant variables (from 1991 to 2001) and city immigrants and for city immigrants working in the metropolis or central city. On the other hand, it shows high negative burdens for sedentary workers, which is why we label this factor as "Neo-Rural", but not in the traditional sense of the term, but as "new rural population".

It shows a high positive load for foreign immigrants and other origins (excluding immigrants from the city) and for secondary dwellings, so we label this factor as a "recreational residential function".

Exploratory factorial analysis has allowed us to confirm the heterogeneity of Andalusian peri-urban areas. We have established a number of categories for these areas which confirm that this is a territory which, far from being homogeneous, is characterised by its great diversity and subject to residential suburbanisation of varying intensity.

To complete the previous analysis, we used cluster analysis to spatially detect where suburbanization is occurring.

8.3. Cluster analysis applied to the peripheries of the largest Andalusian urban agglomerations.

8.3.1. Methodology:

Cluster analysis is a type of data classification that is carried out by grouping the analyzed elements. The fundamental objective of this type of analysis is to classify n objects in k (k>1) groups, called clusters, by using p (p>0) variables. Like many other types of statistical analysis, it has many variants, each of which has its own classification process. The analysis procedures are mainly divided into two subgroups. In the first of these, the number of clusters is predefined. It's known as the K-Medias method.

Firstly, we indicate that the number of clusters we have ordered is 10 and that the starting centres each are calculated using data from a data file that we use in factorial analysis. We will use the square euclidean distance to mediate the divergence between the units. We will also choose the cluster centers to be calculated after all objects have been classified in each of the defined clusters.

The centres of the initial clusters are vectors whose values are based on the factorial solution: the factorial solution of three of the factors that have a denomination has been assumed:

Factor I: Youth/recent urban sprawl.
Factor II: Traditional agrarian society.
Factor III: Neo-rurals.

The observation units have been the census sections, extracted from the 2001 Census. The municipalities to which the census sections belong belong to the first metropolitan belt of the agglomerations of Bahía de Cádiz, Vega de Granada, Málaga and Sevilla.

Factorial analysis has allowed each observation unit, each census section, to have a score in each of the three selected factors, obtaining the following final centres:

Table 8.5
Centres of the final conglomerates.

Cluster / Factor	1	2	3	4	5	6	7	8	9	10
Factor 1	0,08594	1,76440	1,78099	-0,38591	-0,94845	0,39583	0,19513	-1,02014	0,92288	-0,92415
Factor 2	-0,93851	0,48485	-0,43328	0,17699	2,80736	0,12273	1,52365	0,28542	-0,71116	-1,14208
Factor 3	1,58704	-1,17455	1,57744	-0,68467	0,58004	0,75540	-0,24327	0,46690	-0,99256	-0,70145

Source Own elaboration.

Table 8.6
Intervals of the values of the final plants.

High score:	Greater than or equal to 2 (>=2). From 1.5 to 2 (>=1.5 and <2). From 1 to 1.5 (>=1 and <1.5).
Average score:	0.5 to 1 (>=0.5 and <1). 0 to 0.5 (>=0 and <0.5) .
Low score:	0 to -0.5 (>= -0.5 and <0). From -0.5 to -1(>= -1 and < -0.5).
Very low score:	From -1 to -1.5 (>= -1.5 and < -1). From -1.5 to -2 (>= -2 and < -1.5). Less than or equal to -2 (<= -2).

Source C. Ocaña Ocaña (1998). Own elaboration.

Subsequently, we have assigned categories according to the value of the centres of the final conglomerates obtained according to the following frequency interval:

The first conglomerate has as its final centre for the factor 1 of a mean value, being included in the interval of (1.0), for the factor 2 it has a low value, being included in the interval

of (0.-1), for the factor 3 it has a high value, being in the interval equal to or greater than 1. To the rest of the conglomerates we would apply the value as a function of the intervals of the final centres of each one of them, as observed in table 5, obtaining a result similar to the table.

Table 8.7

Values of the final centres of the conglomerates.

Cluster / Factor	CONGLOMERATES									
	1	2	3	4	5	6	7	8	9	10
FACTOR 1	Medium	High	High	Low	Low	Medium	Medium	Very low	Medium	Low
FACTOR 2	Low	Medium	Low	Medium	High	Medium	High	Medium	Low	Very low
FACTOR 3	High	Very low	High	Low	Medium	Medium	Low	Medium	Very low	Low

Source Own elaboration.

8.3.2. Results:

Clusters 1 and 3 are clearly affected by suburbanization processes, without discussing whether they are due to endogenous or exogenous causes, although the results represented in cartography are obvious if the predominant activity of the municipalities is known. The rest of the conglomerates would be discarded, since our intention is to show the sections according to their degree of suburbanization.

The results are what we show on the maps. Our method has proved valid for detecting sections affected by suburbanisation, but the general casuistry is that they all suffer from a high or even very high degree of suburbanisation, as they correspond to the values of the centres of clusters 1 and 3 in factor 3. The rest of the sections would not be Neo-Rural, which does not mean that they cannot undergo intense urbanisation processes, but they are not produced by urban diffusion from the central city of the agglomeration.

In the agglomeration of Cadiz, the western part of the town of Puerto Real stands out with a high score, affected by processes of urban diffusion, not only of inhabitants, but also of activities that make it an example of suburbanization by endogenous development.

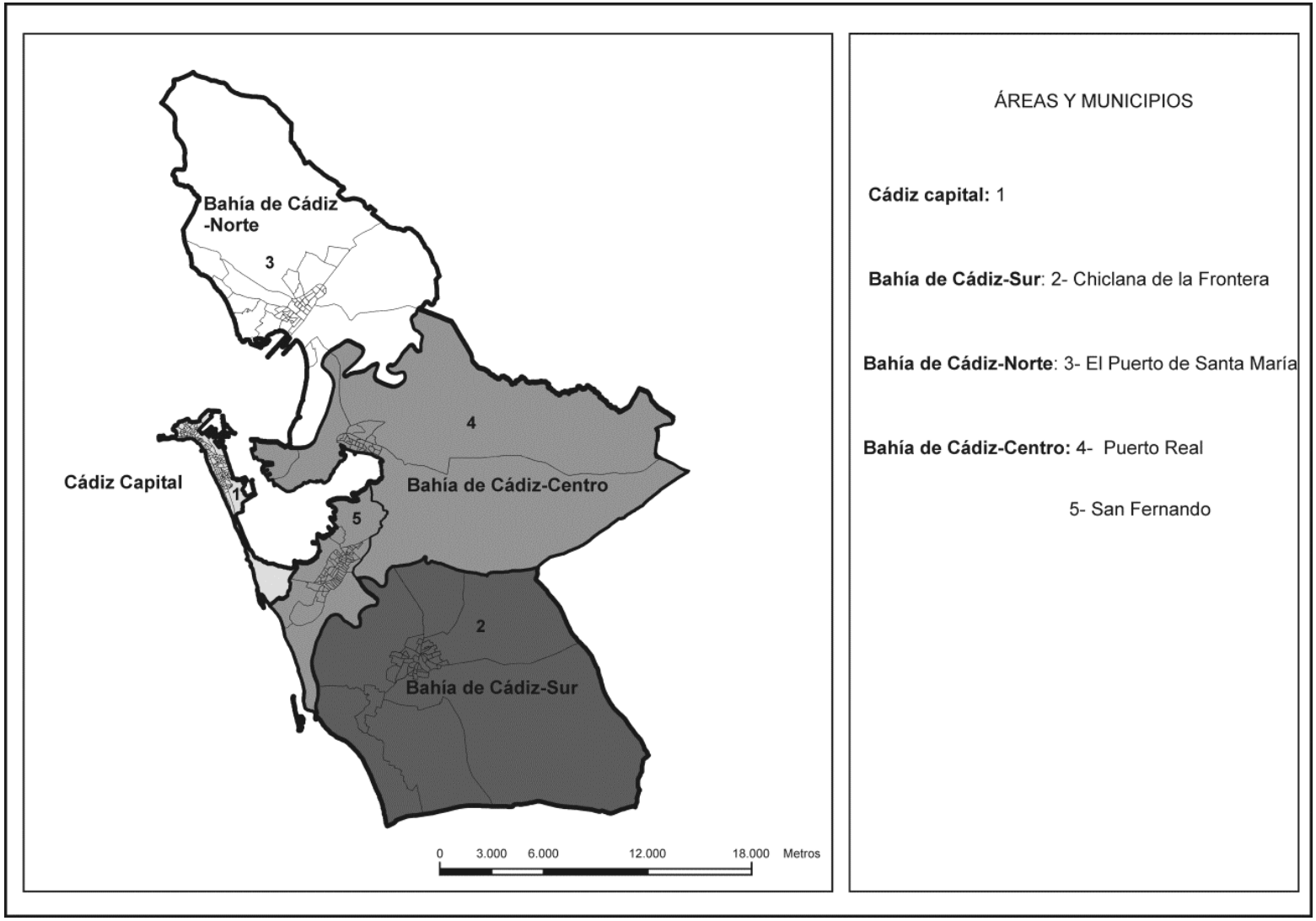
In Malaga, the municipalities of Alhaurín de la Torre, specifically the urbanization of the Tomillares and Pinos de Alhaurín. In Rincón de la Victoria, we mention the urbanizations of Don Miguel, Hacienda Manila, Serramar, Calaflores and El Cantal-Cuevas del Tesoro in the entity of La Cala del Moral. Neither the urban area of La Cala nor the urban area of Rincón de la Victoria participate in this suburbanisation, which would be residential, except for the urbanisation of Cotomar. Also outstanding to the East is the entity of Torre de Benagalbón.

In Granada, they stand out as municipalities with suburbanization and diffusion of activities Albolote, but not the urban helmet, where the industrial estate of Juncaril is located, but to distance of this one, they appear, with intense suburbanization, the urbanizations of Cortijo del Aire, El Chaparral, Park of Cubillas and El Arenal. To highlight the asymmetry in suburbanization between the Northern sector of the agglomeration and the South, which is suffering from intense suburbanization processes of a residential or exogenous type.

In Seville, the municipalities of Aljarafe stand out, but not those closest to the capital of Seville. In this way, the municipalities of Camas, Santiponce and San Juan de Aznalfarache, which knew an intense suburbanisation, but in past decades, remain on the margin of an intense suburbanisation. In the escarpment formed by the Guadaíra River, we must mention, in

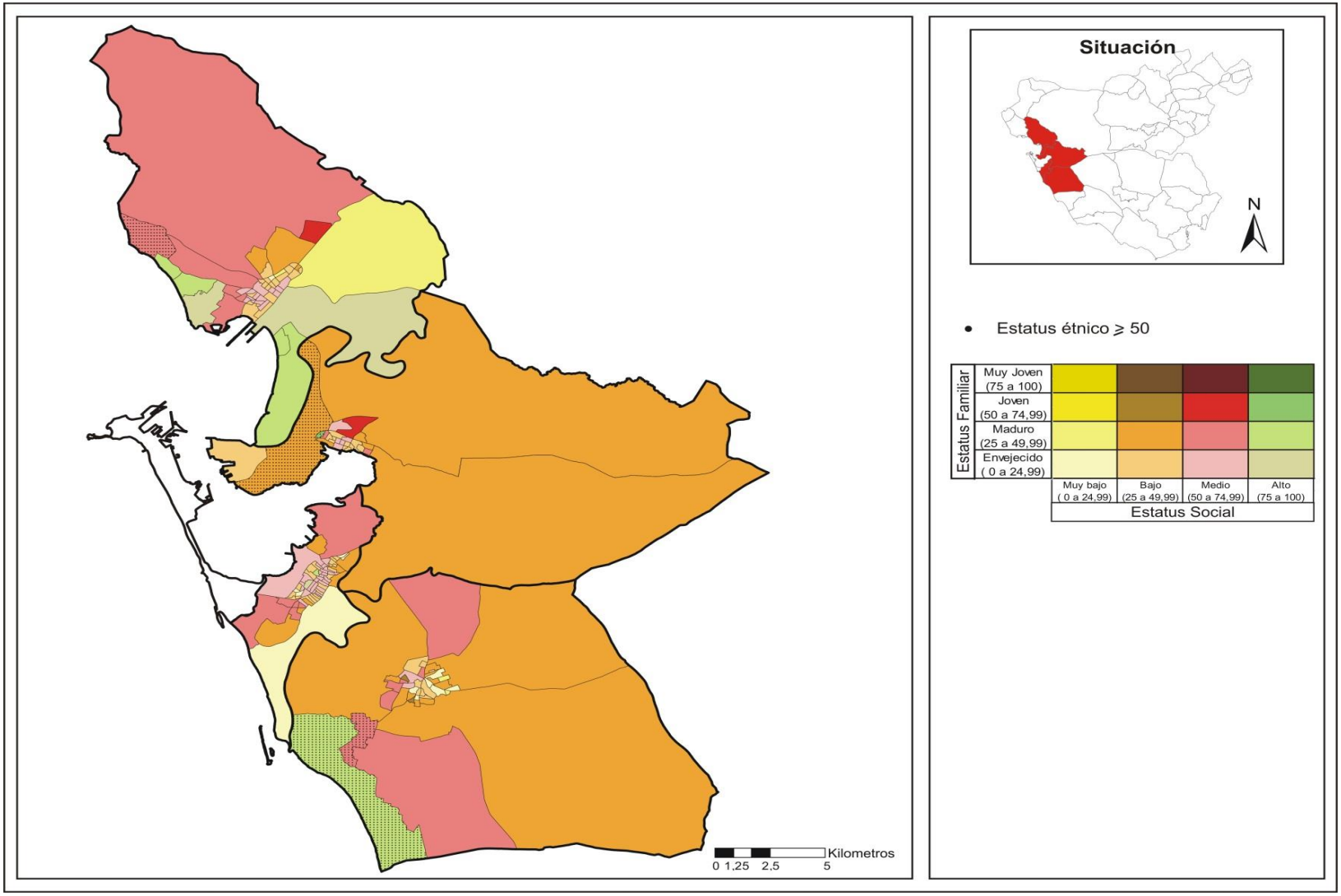
Dos Hermanas, the district of Montequinto, adjacent to the municipality of Seville, close to the Pablo de Olavide University Campus.

MAP 63
BASE MAP OF THE URBAN AGGLOMERATION OF CÁDIZ



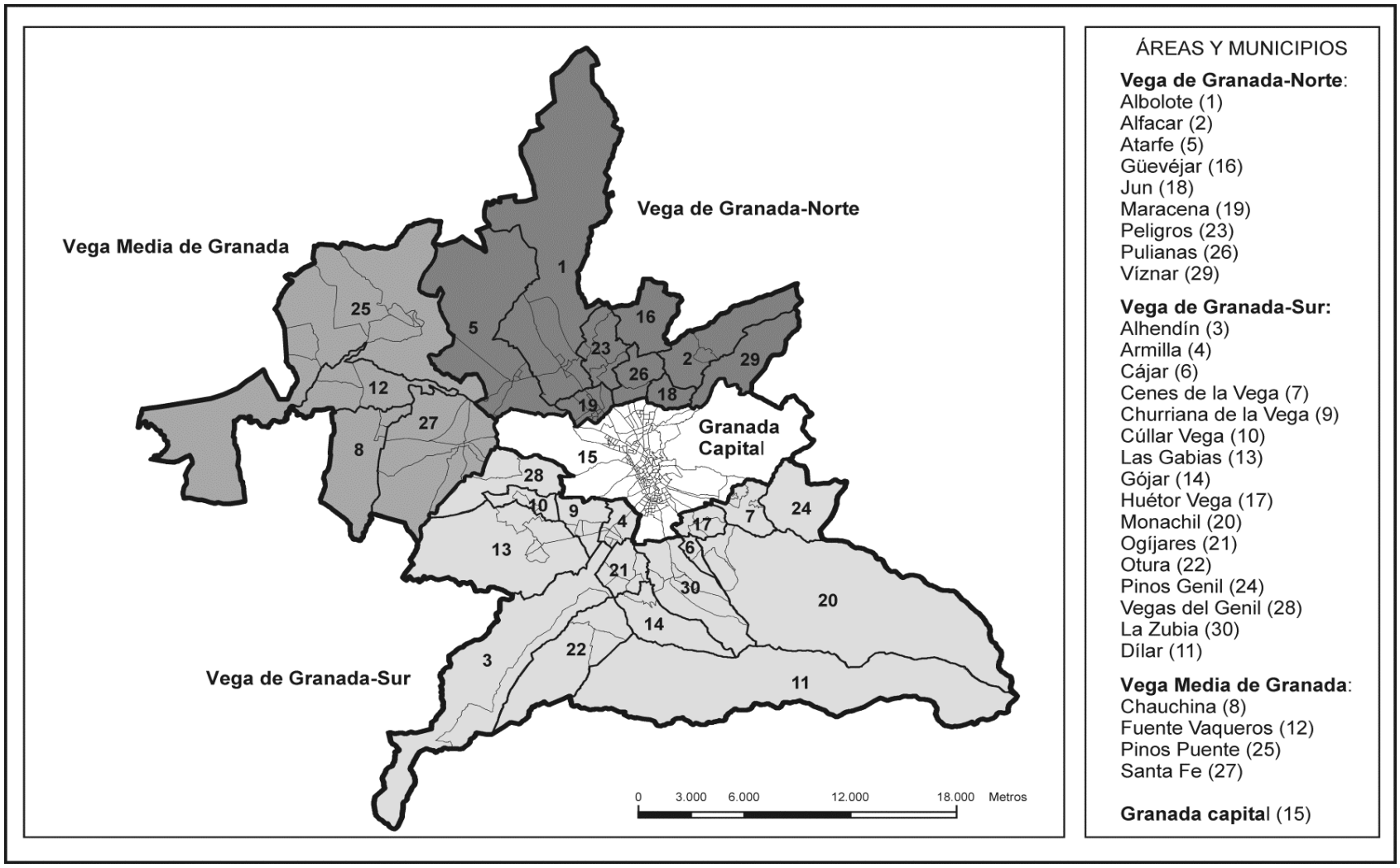
Source Own elaboration.

MAP 64
SOCIAL AREAS IN THE CÁDIZ AGGLOMERATION.



Source Own elaboration.

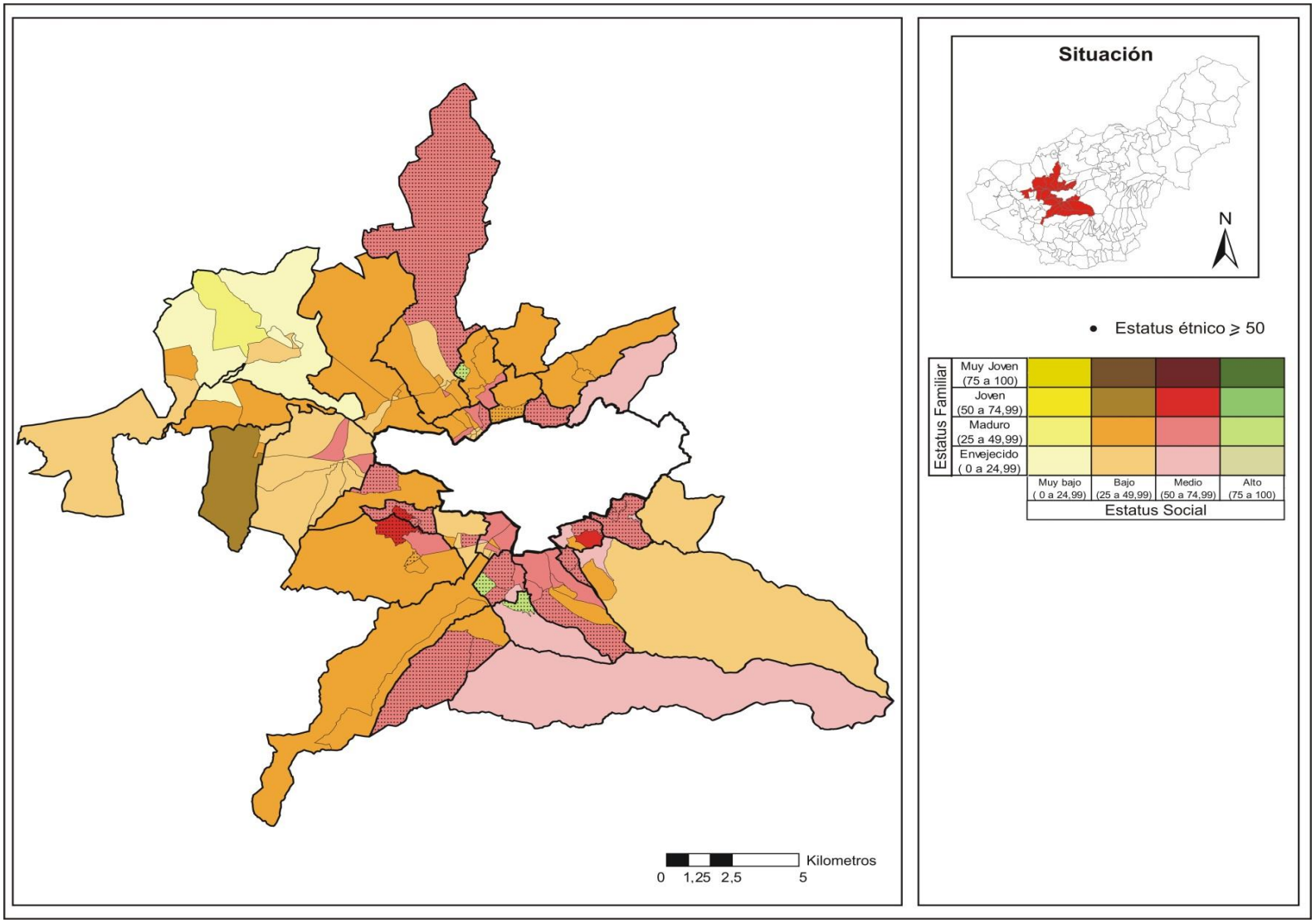
MAP 65
BASE MAP OF THE URBAN AGGLOMERATION OF GRANADA



Source Own elaboration.

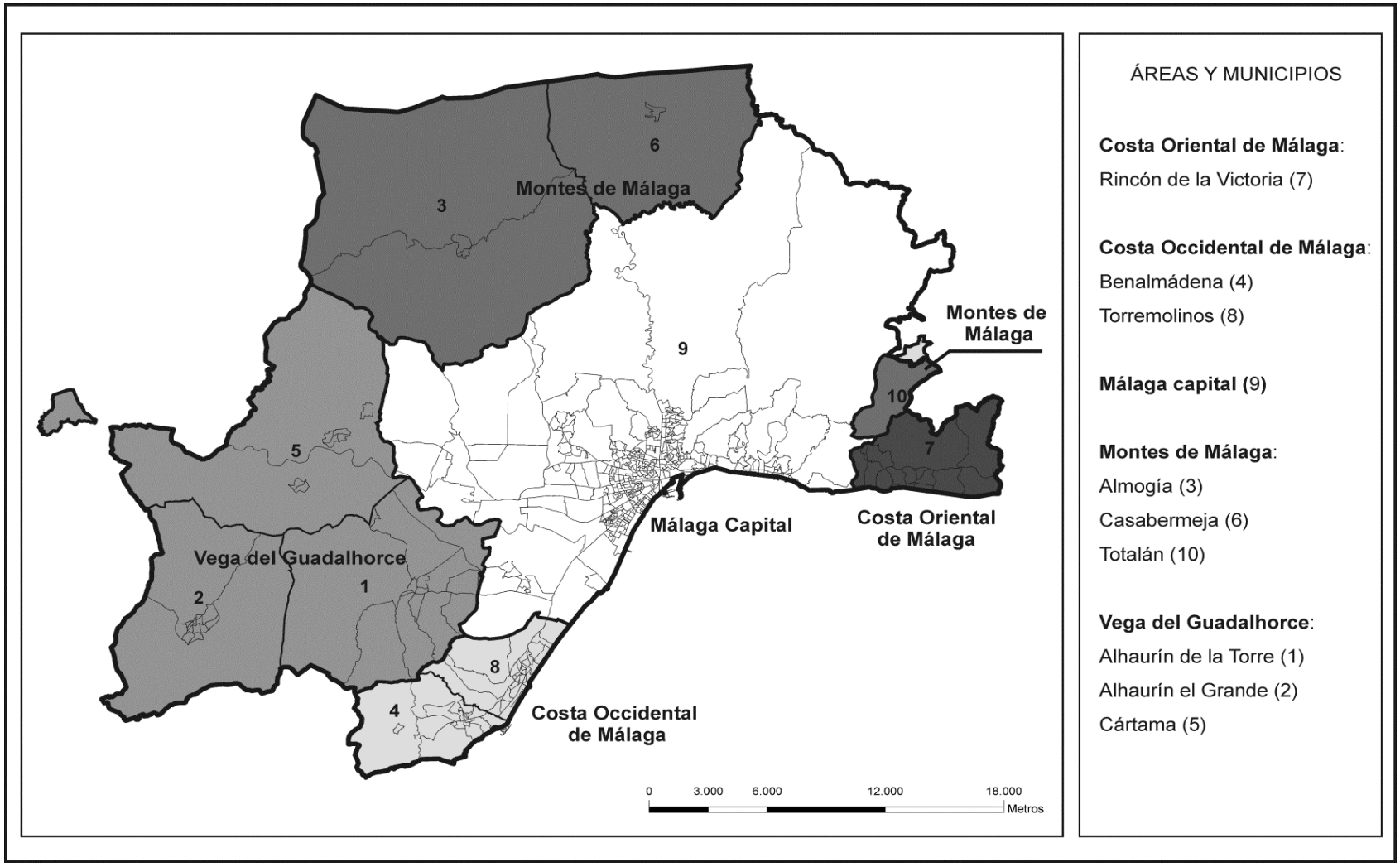
MAP 66

MAP OF SOCIAL AREAS OF THE URBAN AGGLOMERATION OF GRANADA



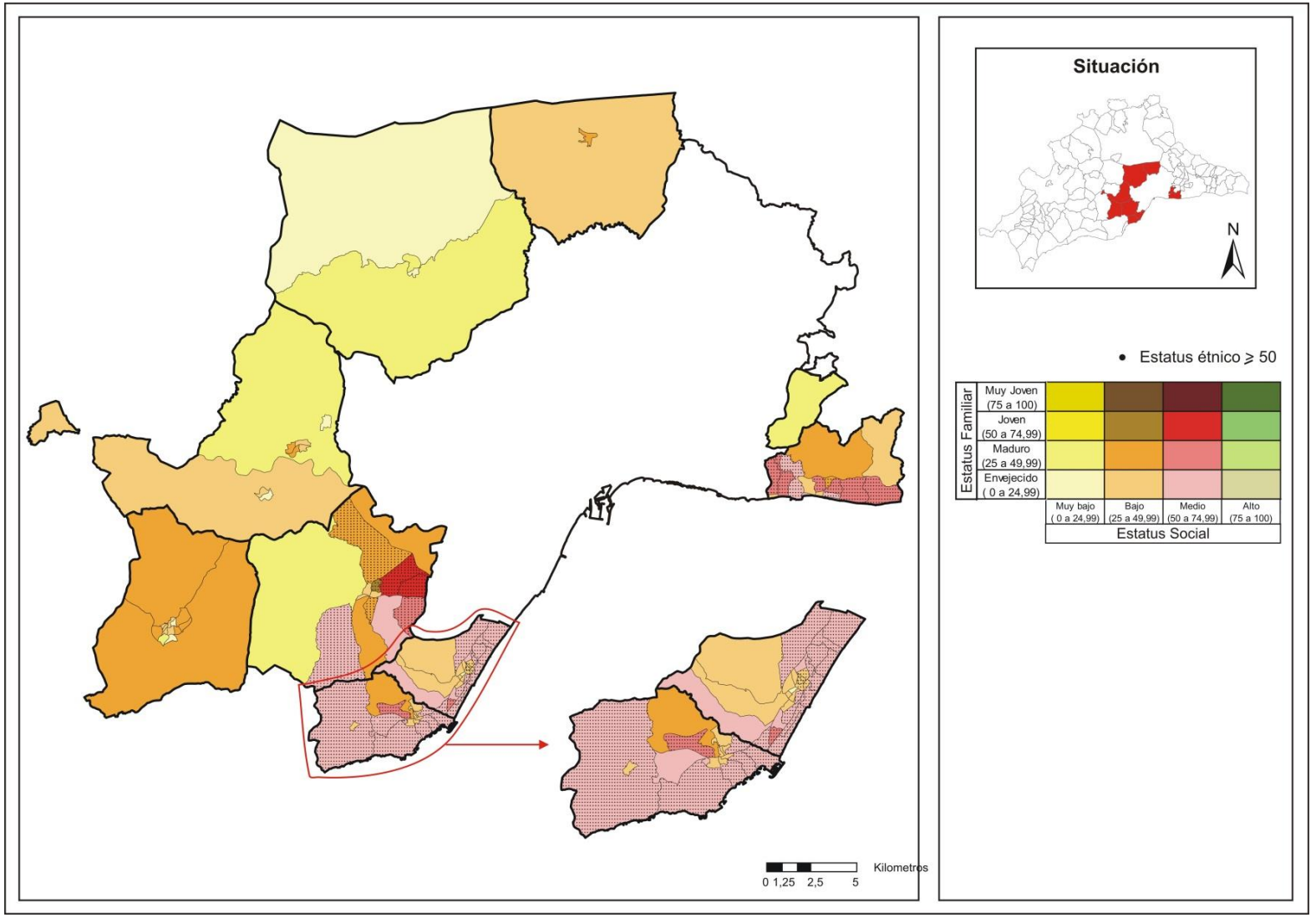
Source Own elaboration.

MAP 67
BASE MAP OF THE URBAN AGGLOMERATION OF MÁLAGA



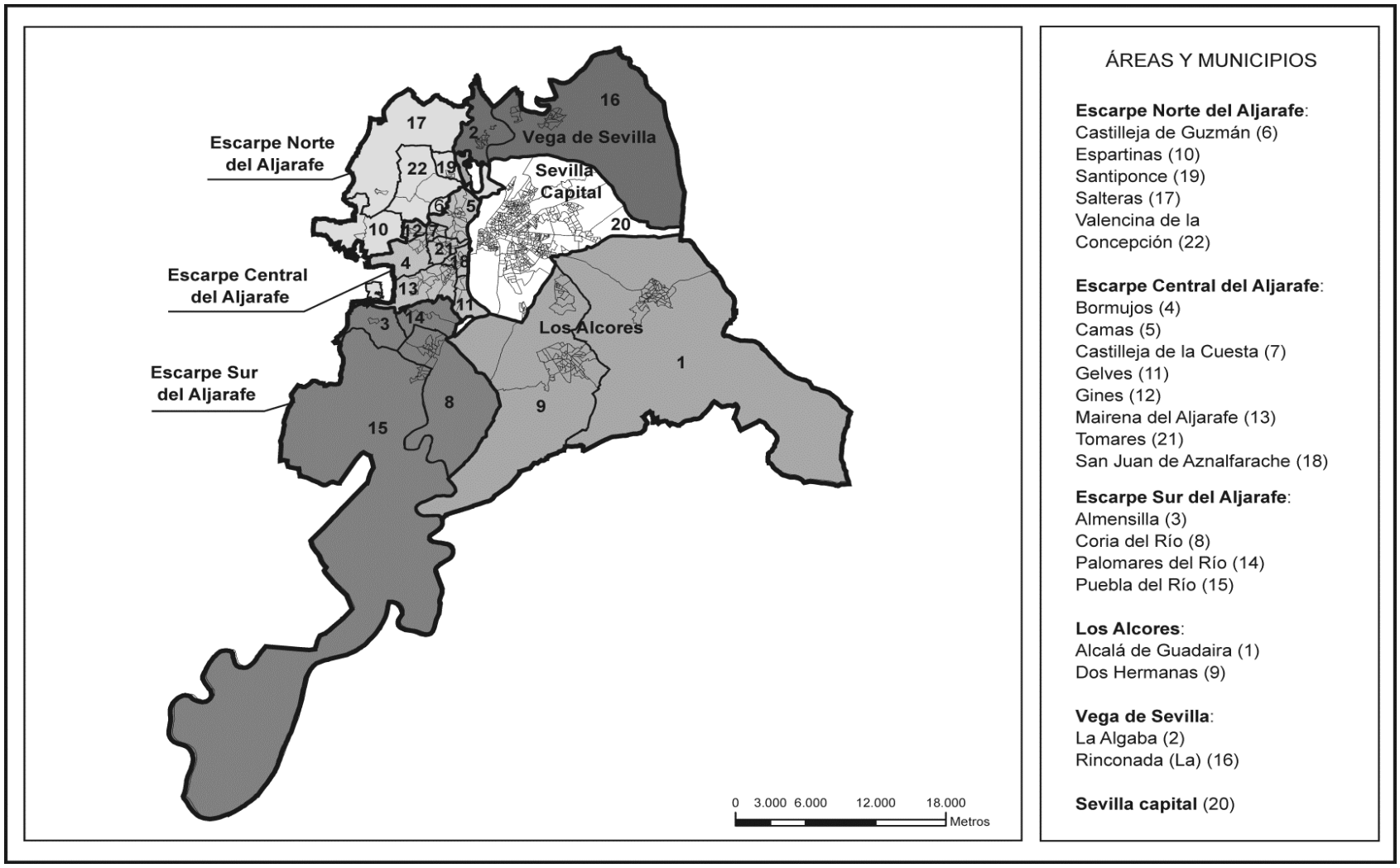
Source Own elaboration.

MAP 68
MAP OF SOCIAL AREAS OF THE MALAGA URBAN AGGLOMERATION



Source Own elaboration.

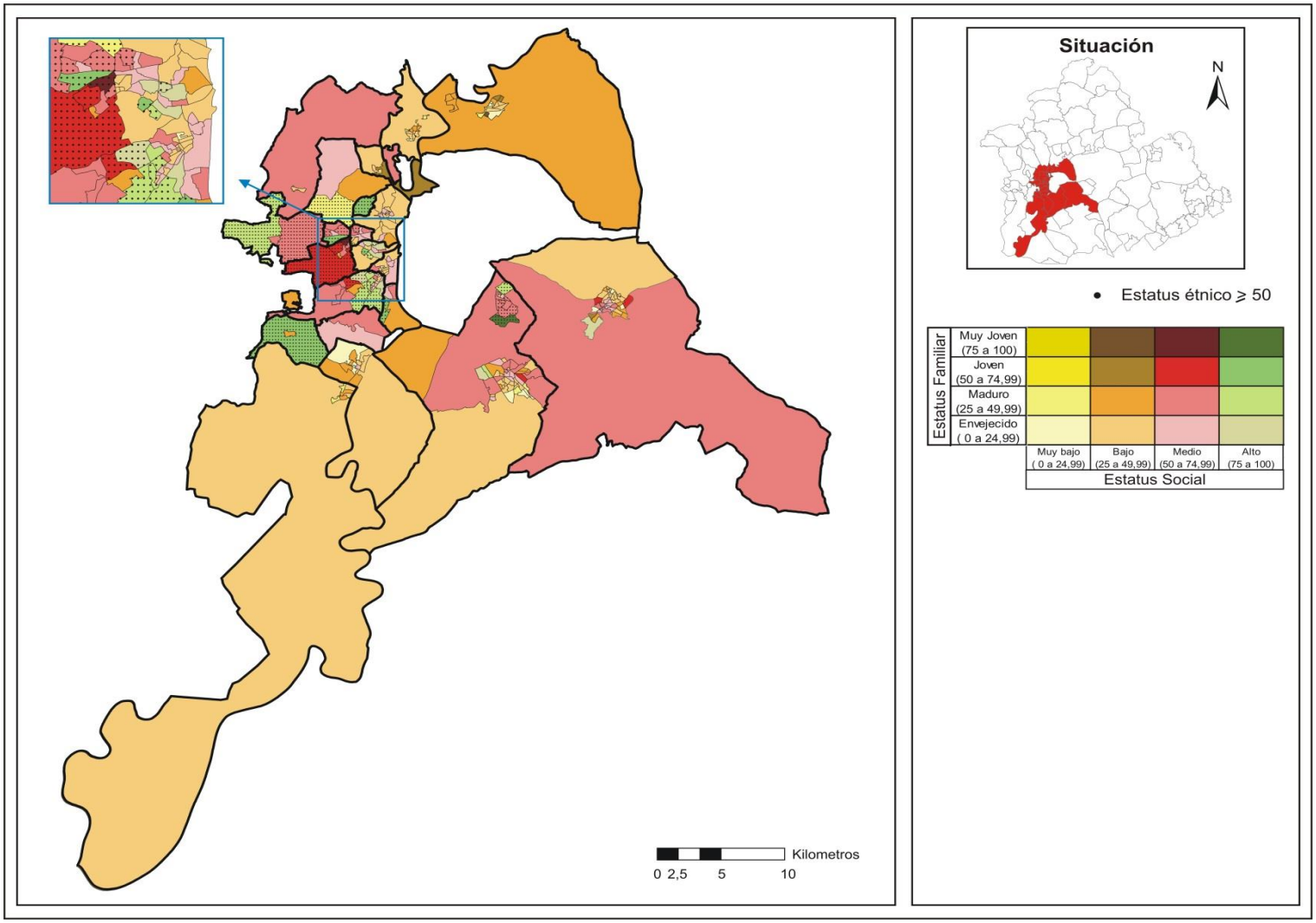
MAP 69
BASE MAP OF THE URBAN AGGLOMERATION OF SEVILLE



Source Own elaboration.

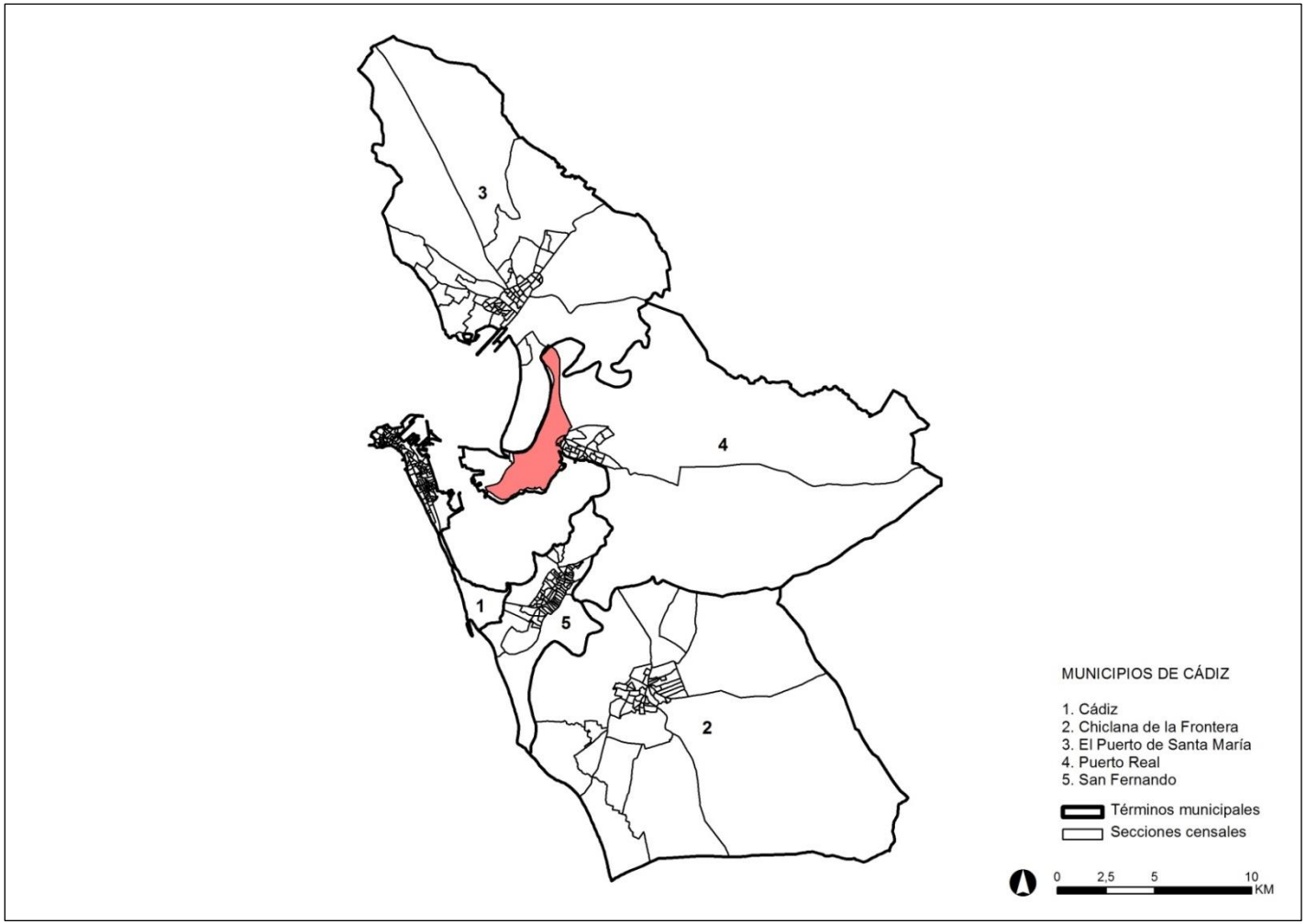
MAP 70

MAP OF SOCIAL AREAS OF THE URBAN AGGLOMERATION OF SEVILLE



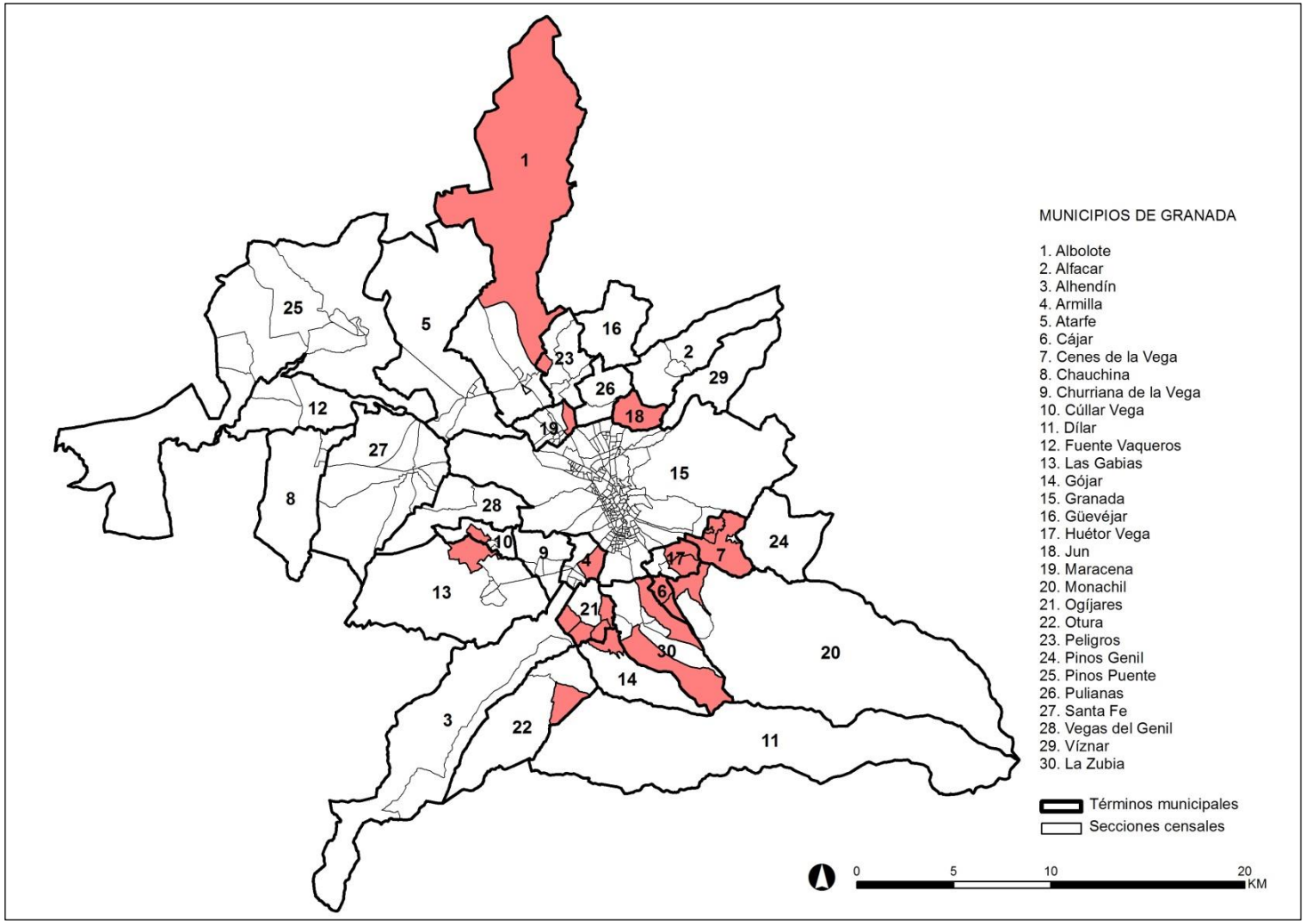
Source Own elaboration.

MAP 71
URBAN SECTIONS WITH A HIGH DEGREE OF SUBURBANIZATION IN THE URBAN AGGLOMERATION OF CÁDIZ



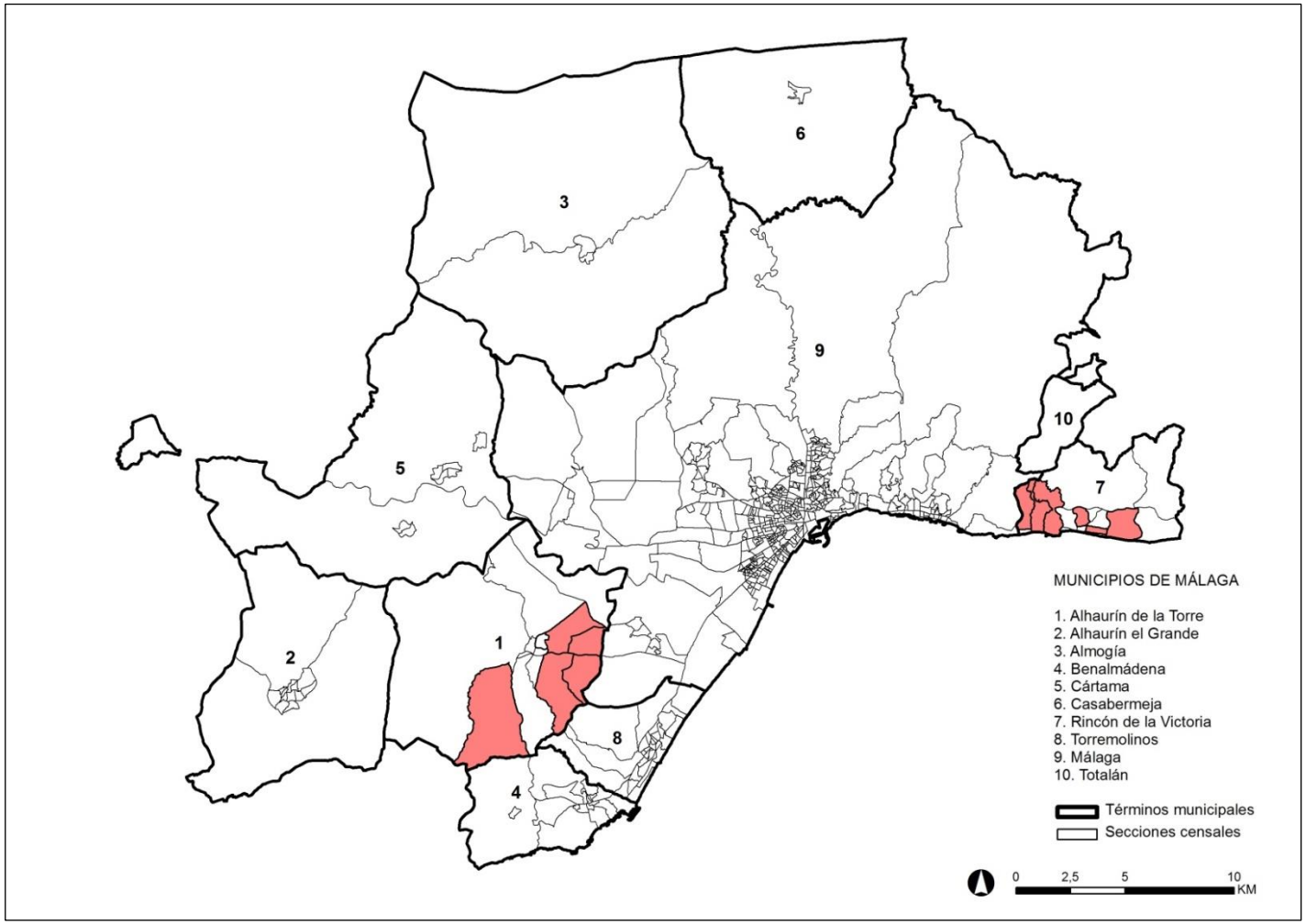
Source Own elaboration.

MAP 72
URBAN SECTIONS WITH HIGH DEGREE OF SUBURBANIZATION IN VEGA OF GRANADA



Source Own elaboration.

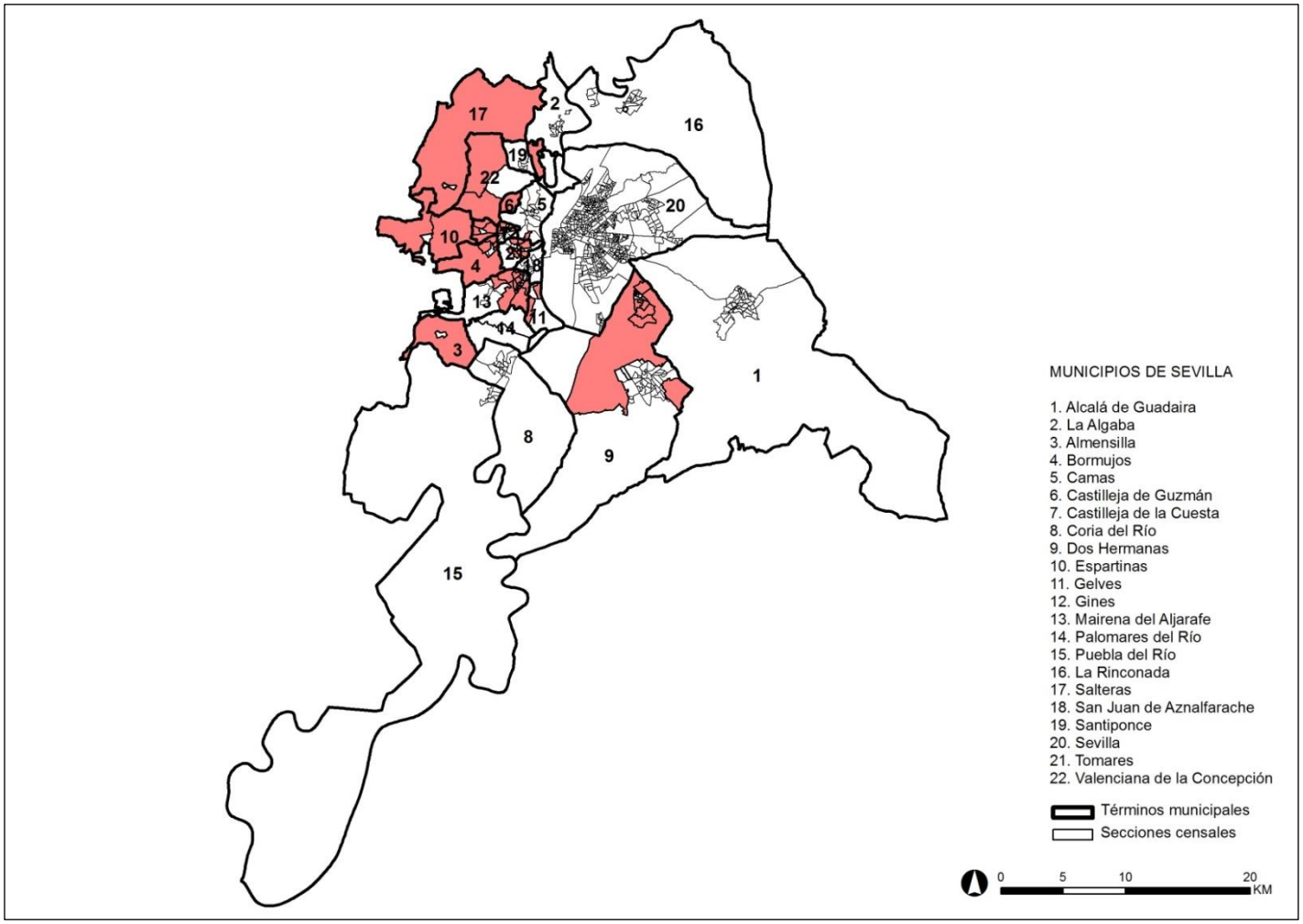
MAP 73
URBAN SECTIONS WITH A HIGH DEGREE OF SUBURBANIZATION IN THE MALAGA AGGLOMERATION



Source Own elaboration.

MAP 74

URBAN SECTIONS WITH A HIGH DEGREE OF SUBURBANIZATION IN AN URBAN AGGLOMERATION OF SEVILLE



Source Own elaboration.

CHAPTER 9

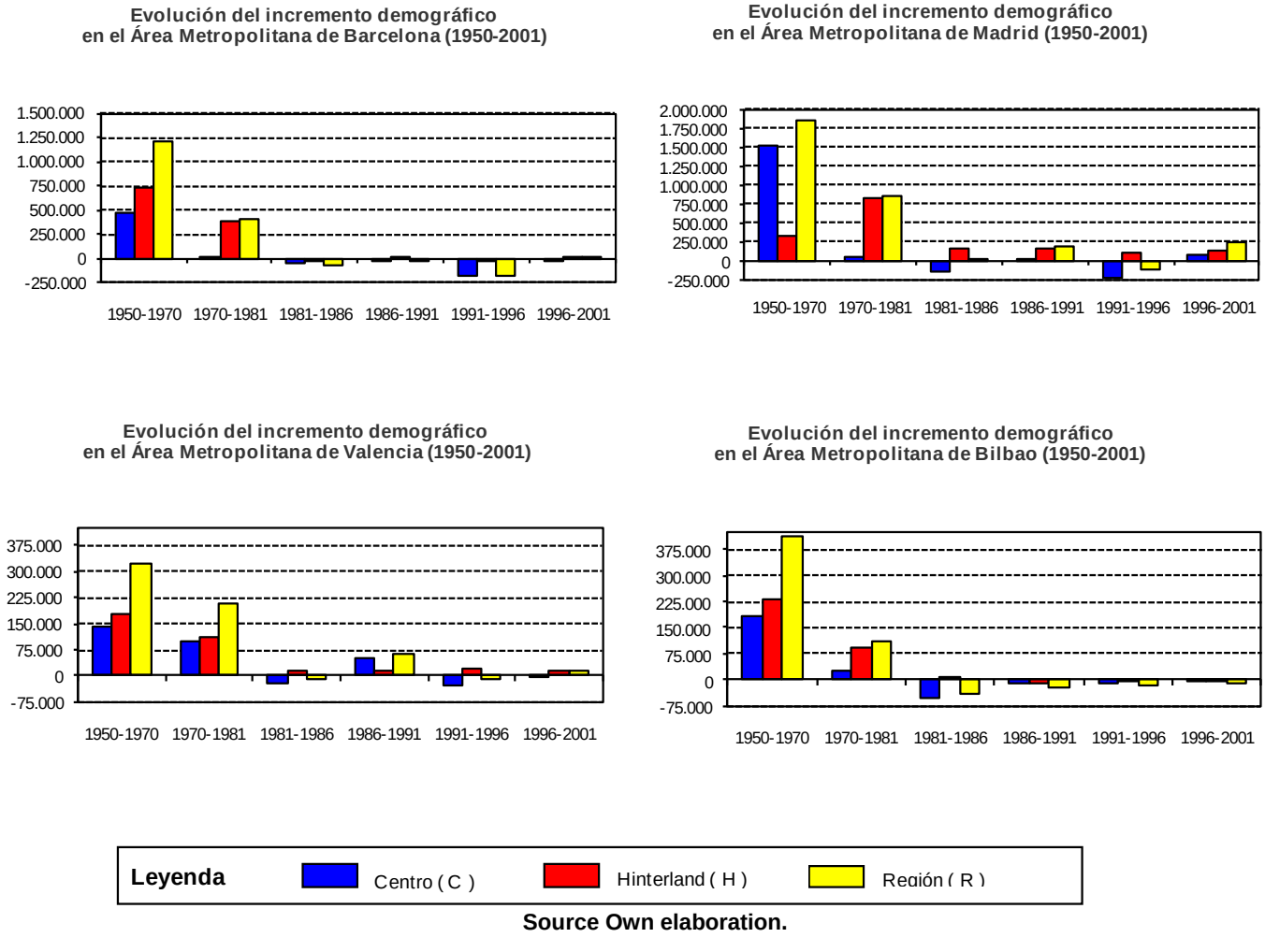
CONCLUSIONS

Throughout the preceding pages, we have tried to tackle the social and demographic analysis of the main Andalusian urban agglomerations. The essentially dynamic nature of the metropolitan processes that these areas have experienced has been confirmed. It is precisely this dynamic and therefore ephemeral character that characterises metropolitan spaces and, despite their perishable and fleeting nature, I have considered some conclusions that, confirming the previous hypotheses that, adjusting to the initial space-time coordinates, I will now move on to expose:

1. EXISTENCE OF A CHANGE OF SIGN OR *TURN AROUND* IN THE DEMOGRAPHIC DYNAMICS OF THE SELECTED ANDALUSIAN URBAN AGGLOMERATIONS:

The change of sign or *turn around* corresponds to a change in dynamics: cities cease to be net receivers of population and become stagnant or even lose population due to processes of residential decentralization to the new peripheries.

Figure 9.1

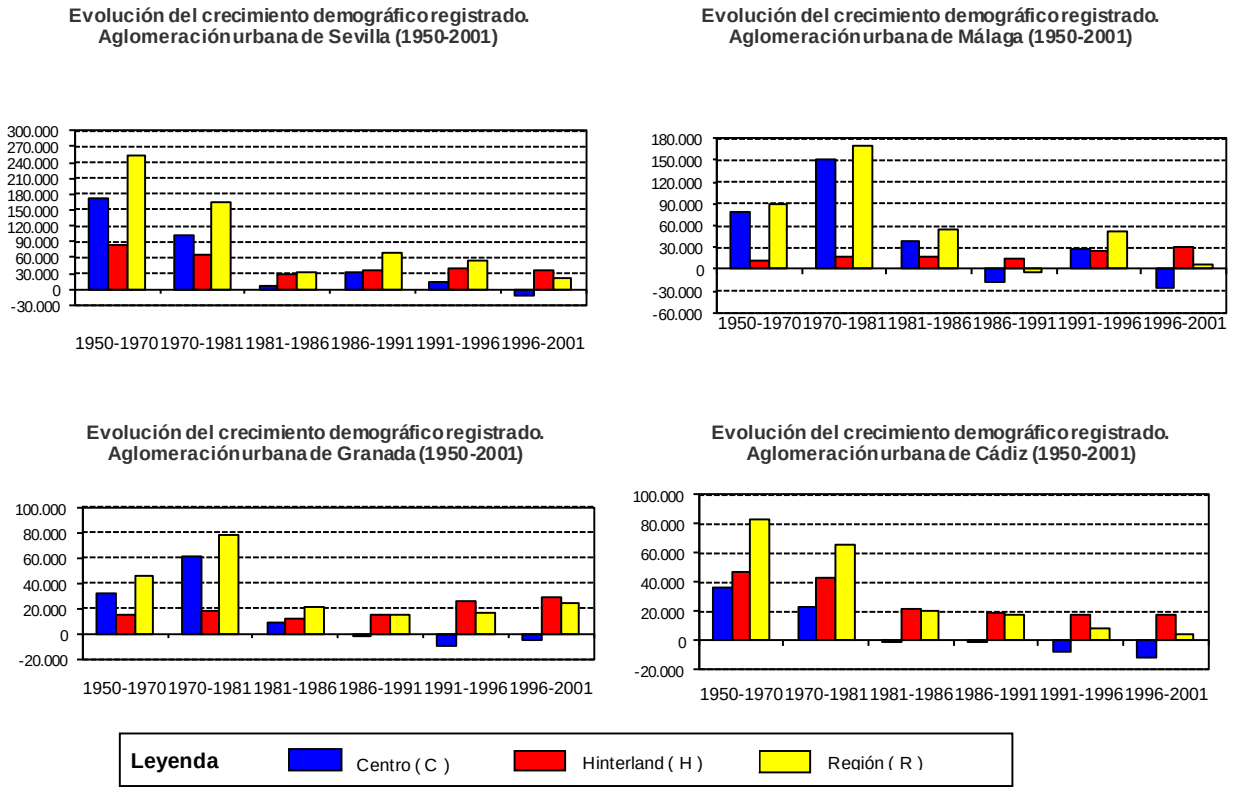


Source Own elaboration.

As it can be seen, after positive growth dynamics in the main Spanish metropolitan areas since the mid-twentieth century, there was a change in dynamics or turn from the beginning of the eighties, with generalised processes of absolute decentralisation with loss, more pronounced in some areas than in others.

In the case of the Andalusian metropolitan areas, the *turn around was* seen a little later, so it was not until the mid-eighties that a change in the growth dynamics of the Andalusian metropolises was observed, which, despite everything, did not produce *absolute decentralisation with a loss* in the agglomeration as a whole, as in the case of some agglomerations in the rest of Spain, but decentralisation affects exclusively the metropolis but not the whole agglomeration, thanks to the existence of a clearly expansive dynamic in the peripheries of the selected areas (Figure 9.2).

Figure 9.2

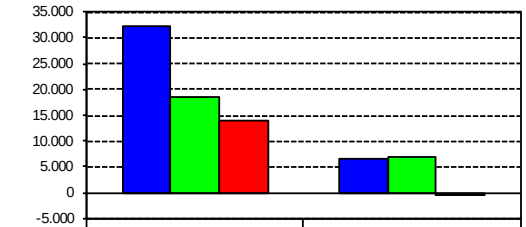


Source Own elaboration.

2. THIS CHANGE OF SIGN OR *TURN* HAS BEEN PRODUCED BY A NEGATIVE MIGRATORY BALANCE IN THE ANDALUSIAN CAPITALS:

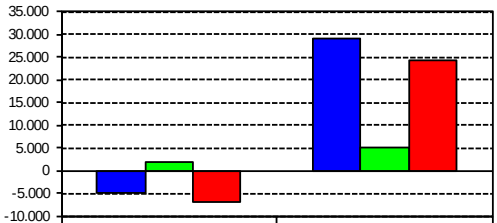
Figure 9.3

Componentes del crecimiento de la AUG (1975-1980).



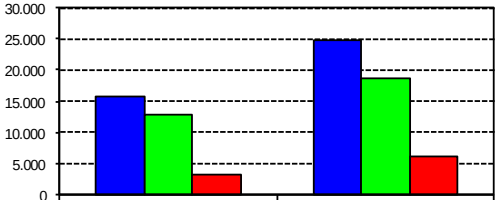
	Granada	Corona
CR 75-80	32.412	6.596
CV 75-80	18.398	7.088
SM 75-80	14.014	-492

Componentes del crecimiento de la AUG (1996-2000).



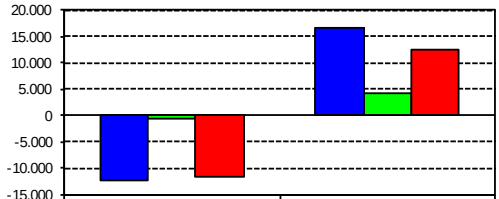
	Granada	Corona
CR 96-00	-4.979	29.243
CV 96-00	1.923	5.053
SM 96-00	-6.902	24.190

Componentes del crecimiento de la AUC (1975-1980).



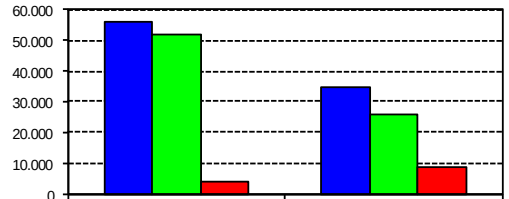
	Cádiz	Corona
CR 75-80	15.849	24.819
CV 75-80	12.745	18.802
SM 75-80	3.104	6.017

Componentes del crecimiento de la AUC (1996-2000).



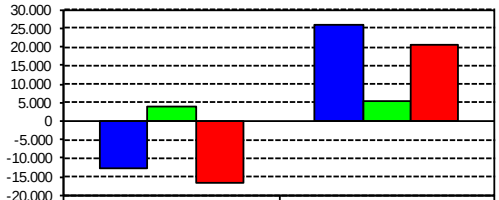
	Cádiz	Corona
CR 96-00	-12.232	16.708
CV 96-00	-505	4.198
SM 96-00	-11.727	12.510

Componentes del crecimiento de la AUS (1975-1980).



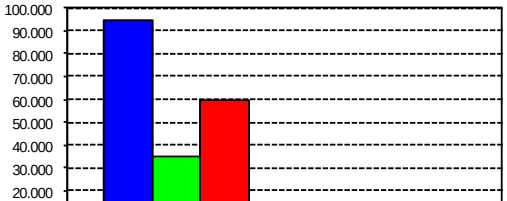
	Sevilla	Corona
CR 75-80	56.096	34.677
CV 75-80	52.046	25.841
SM 75-80	4.050	8.836

Componentes del crecimiento de la AUS (1996-2000).



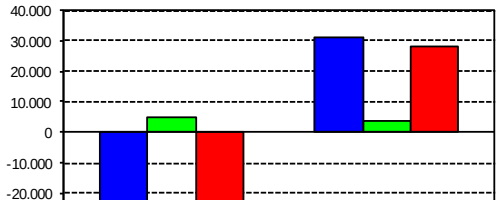
	Sevilla	Corona
CR 96-00	-12.854	26.198
CV 96-00	3.823	5.486
SM 96-00	-16.677	20.712

Componentes del crecimiento de la AUM (1975-1980).



	Málaga	Corona
CR 75-80	94.442	7.342
CV 75-80	35.143	4.572
SM 75-80	59.299	2.770

Componentes del crecimiento de la AUM (1996-2000).



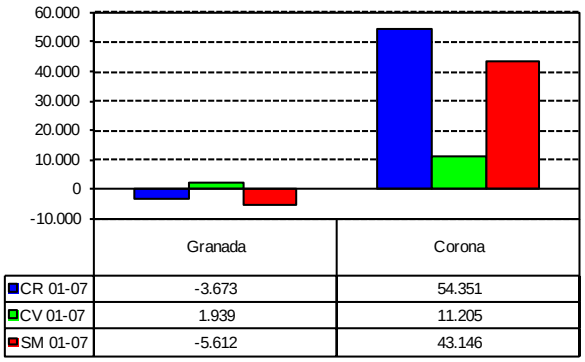
	Málaga	Corona
CR 96-00	-24.721	31.475
CV 96-00	5.086	3.574
SM 96-00	-29.807	27.901

This process has been produced by a change of sign in the dynamics of the selected Andalusian capitals: from a positive growth in the five-year period from 1975 to 1980, driven by a vigorous natural balance and a positive migratory balance; to negative dynamics in the five-year period from the end of the century, from 1996 to 2000. This change in the dynamics of the *core* has particularly affected the migratory balance, which has evolved from positive to negative values, so that it has not been able to be compensated with the natural balance, which has experienced a considerable weakening in recent decades due to the emigration of young people of childbearing age.

At the same time, it can be observed that the decrease of the Andalusian capitals has coincided in time with the strengthening of the growth of the peripheries, experienced thanks, above all, to immigration from the capitals. With regard to the natural balance, although it continues to be positive, it is less significant than at the time of departure (mid-seventies), since the incorporation of immigrant population of fertile age has produced, more than a significant increase in birth rates; a decrease in mortality rates due to the rejuvenation that the arrival of young population has experienced in the age structure of the receiving municipalities.

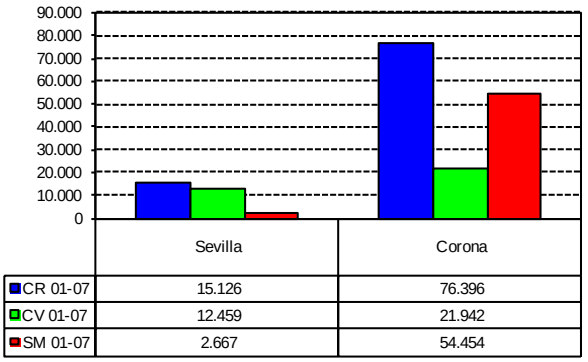
Figure 9.4

Componentes del crecimiento de la AUG (2001-2007).



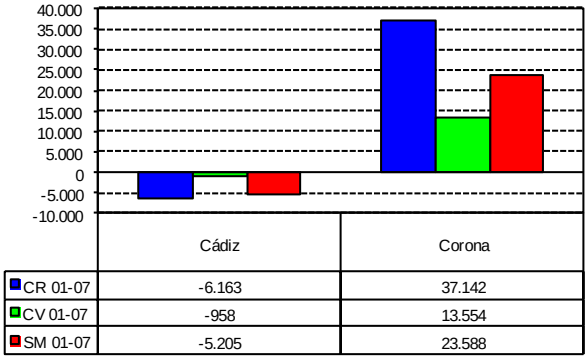
	Granada	Corona
CR 01-07	-3.673	54.351
CV 01-07	1.939	11.205
SM 01-07	-5.612	43.146

Componentes del crecimiento de la AUS (2001-2007).



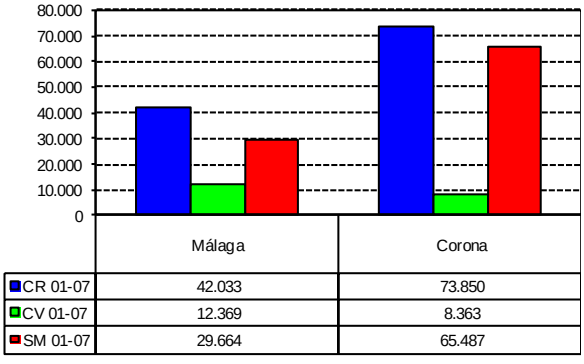
	Sevilla	Corona
CR 01-07	15.126	76.396
CV 01-07	12.459	21.942
SM 01-07	2.667	54.454

Componentes del crecimiento de la AUC (2001-2007).



	Cádiz	Corona
CR 01-07	-6.163	37.142
CV 01-07	-958	13.554
SM 01-07	-5.205	23.588

Componentes del crecimiento de la AUM (2001-2007).



	Málaga	Corona
CR 01-07	42.033	73.850
CV 01-07	12.369	8.363
SM 01-07	29.664	65.487

Source Own elaboration.

The coincidence in time of the decrease of the centers and the accelerated growth of the peripheries leads us to the following thesis:

3. THIS *TURN AROUND* HAS BEEN GENERATED THANKS TO AN EMIGRATION OF URBAN ORIGIN AND ITS DESTINATION IS THE ANDALUSIAN PERIPHERIES:

In the composition by origin of the migratory balance registered between 1991 and 2000 in the metropolises (table 9.1), the simultaneity of the two migratory flows is observed: one with a positive balance towards the peripheries and the other with a negative balance in the metropolises or central cities.

This can be seen in the figures between the two that are practically coincident: the value of emigration from the capitals to the rest of the province represents 84.35% of the migratory flows registered in the set of areas analysed, from which it can be deduced that most of these emigrations are intraprovincial.

Table 9.1
Composition by origin of the registered migratory balance (1991-2000).

Geographical scope	Capital	Rest of the province	Rest of Spain	Total
Cádiz capital	0	-12.590	-6.174	-18.764
Cádiz belt	+11.129	+1.879	-4	+13.004
Granada capital	0	-21.333	-1.447	-22.780
Granada belt	+21.638	+2.100	+2.557	+26.295
Malaga capital	0	-25.465	+615	-24.850
Malaga belt	+21.262	+322	+7.356	+28.940
Seville capital	0	-28.936	+2.575	-26.361
Seville belt	+28.825	+1.121	+4.226	+34.172

Source Instituto de Estadística y Cartografía de Andalucía [Institute of Statistics and Cartography of Andalusia]. Estadísticas de Variaciones Residenciales [Residential Variation Statistics]. Own elaboration.

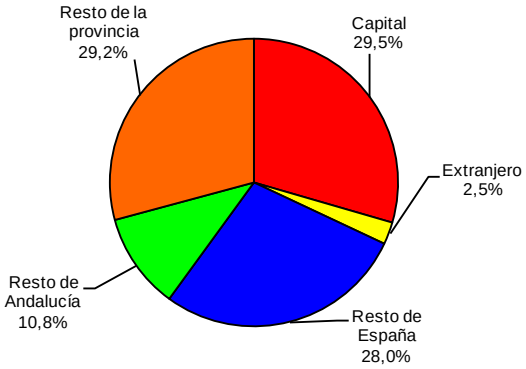
It should be noted that, far from there being an absolute predominance of immigrants from the capital, the registrations for immigration according to origin in the selected peri-urban belts, show a composition by diverse origin, although the majority of immigrants are from the provincial capital.

4. THE PERI-URBAN SPACE IS CHARACTERIZED BY A VARIED COMPOSITION OF THE POPULATION ACCORDING TO ORIGIN.

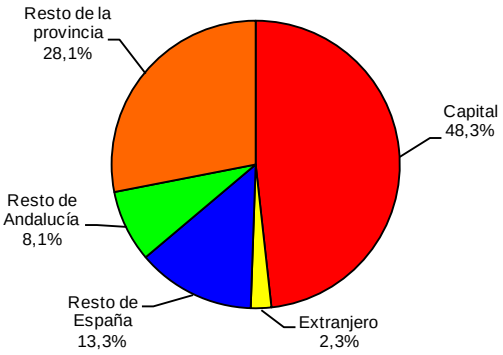
Along with immigration from the provincial capital, there are other origins in the sources consulted, so that immigration of urban origin is far from being exclusive, ranging from values of 29.5% of the total in the periurban belt of Cadiz, to 48.3% in the agglomeration of Granada, and around 45% in the belts of Malaga and Seville.

Figure 9.5

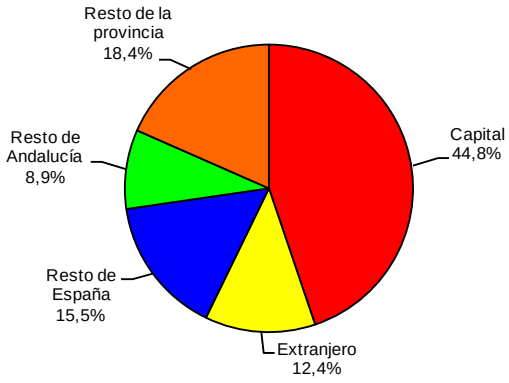
CORONA PERIURBANA DE CÁDIZ



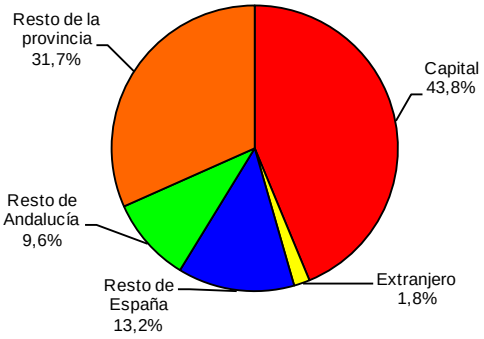
CORONA PERIURBANA DE GRANADA



CORONA PERIURBANA DE MÁLAGA



CORONA PERIURBANA DE SEVILLA



Source Own elaboration.

5. EMIGRATION FROM CAPITALS TO PERI-URBAN BELTS IS SELECTIVE IN BIOLOGICAL STRUCTURE BY AGE.

Through the analysis of the composite pyramids from 1991 to 2001, the selective character of migrations in the composition by age and sex is deduced, since it responds to populations of young adults and there tends to be a balance of sexes. This implies a relationship of this immigration to a certain life cycle linked to family life.

Figure 9.6

Compound pyramids. Actual and projected structure in central cities (1991-2001).

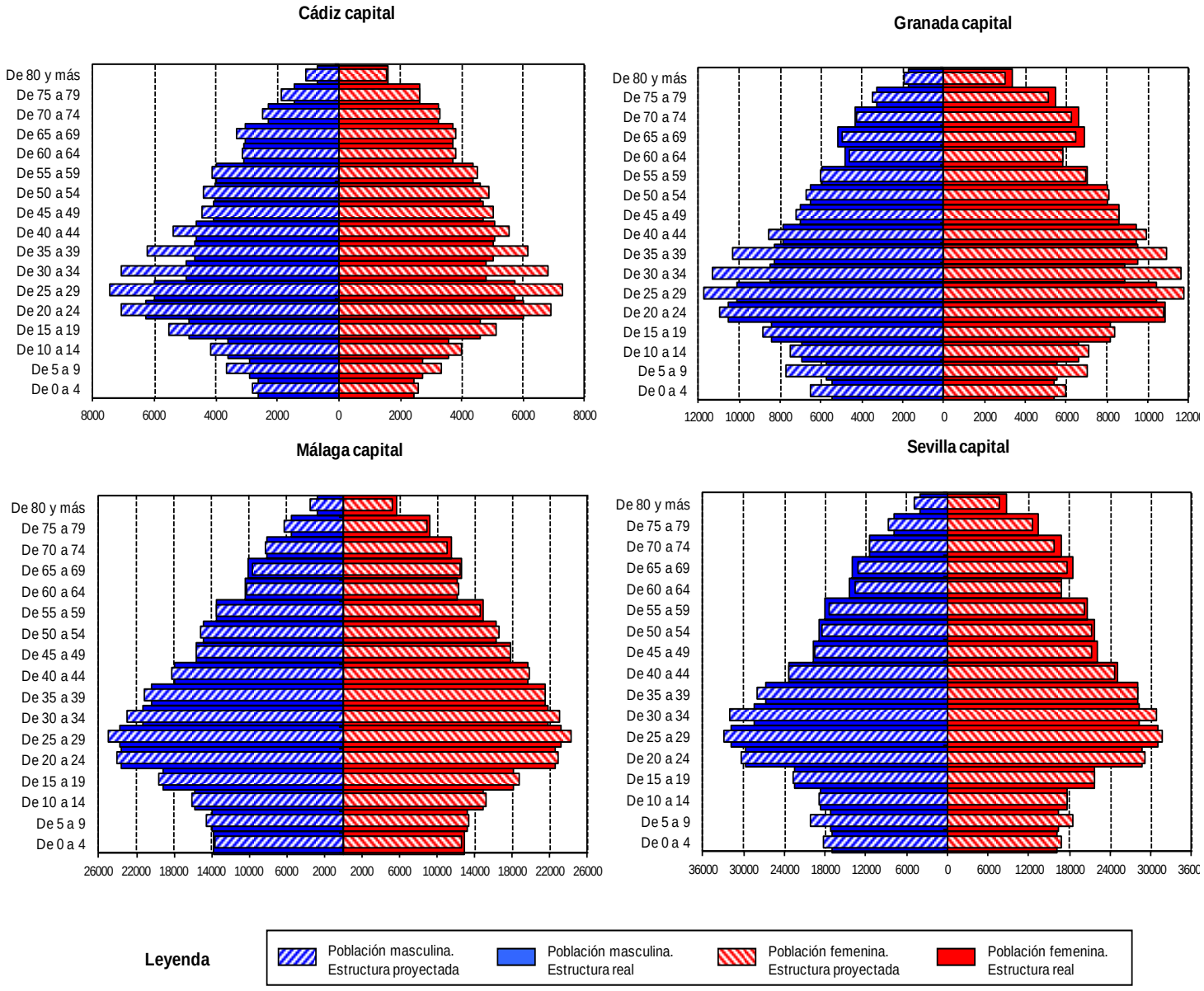
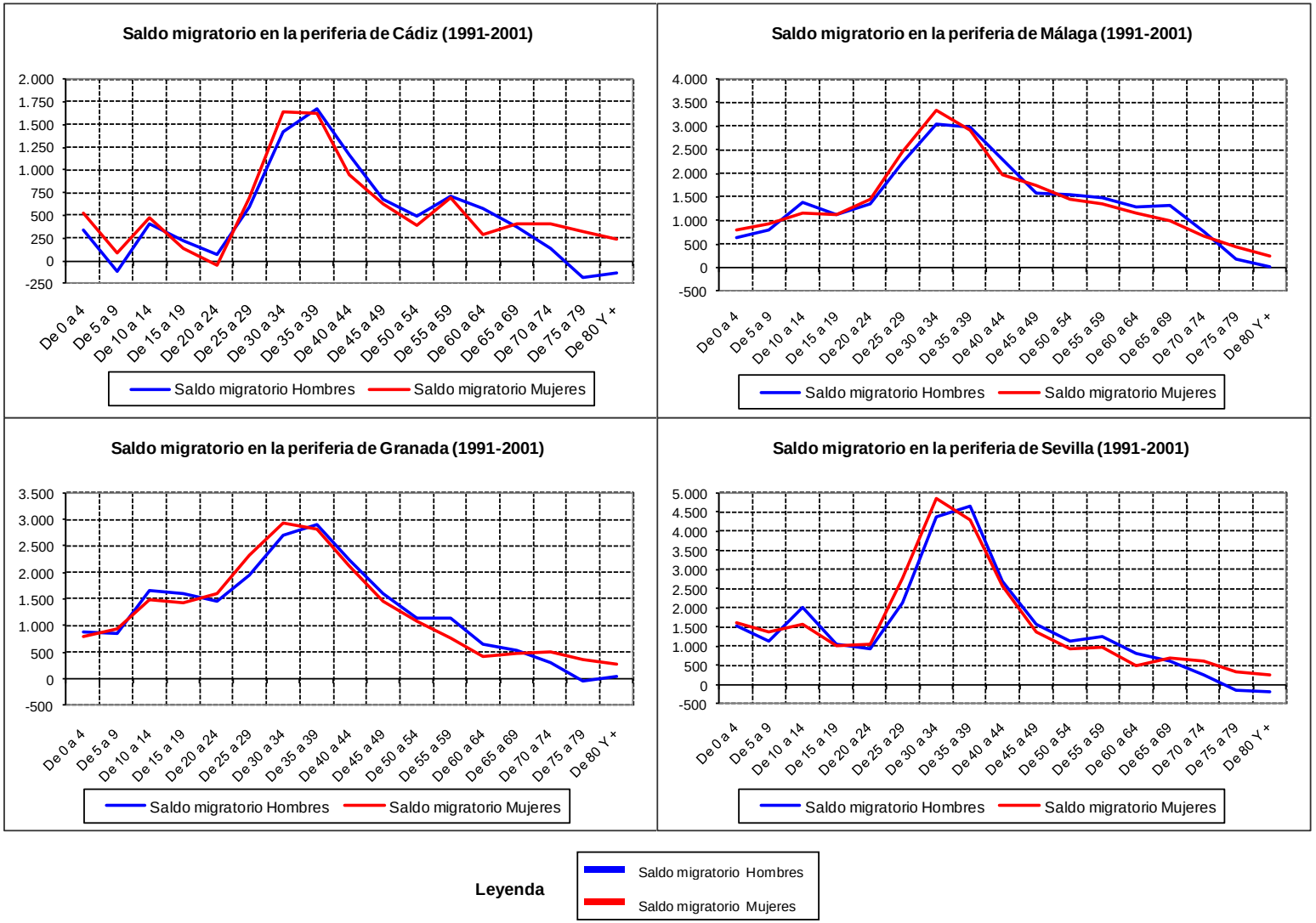


Figure 9.7.
Migratory balances by age groups and sex in the peripheries of the main Andalusian urban agglomerations (1991-2000).



From the graphs above, two facts are inferred:

-Firstly, that the group of young adult immigrants is the most representative, especially between the ages of 30 and 35.

-In second place, the practical coincidence in the profile of the migratory balances registered by sexes allows to consolidate the hypothesis of a selective character in the biological composition of the population: they would be couples of young adults.

The selective nature of immigration of urban origin is also observed in the socio-economic structure and justifies the qualification of induced social change or exogenous type.

6. THE INCORPORATION OF POPULATION OF URBAN ORIGIN HAS PRODUCED A SOCIAL CHANGE INDUCED FROM THE OUTSIDE IN THE SOCIAL STRUCTURE OF THE ANDALUSIAN PERIPHERIES.

This thesis is confirmed by observing the structure of the population according to professions by origin of the population, using the data obtained in our Survey.

Table 9.2
Professions according to origin (in percentages).

Origin / Professions	Total	Autochthonous	Neo-rurals	Other immigrants
Management and administration of companies	5,49	1,87	8,96	7,69
Professions linked to the first or second university cycle	12,97	2,80	14,93	13,67
Administrative technicians and employees	11,97	3,74	22,39	14,53
Protection and security services workers	3,49	3,74	2,99	4,27
Merchants	6,73	7,48	6,72	7,69
Catering and other personal workers	7,98	10,28	3,73	13,67
Agricultural and fisheries workers	3,24	5,61	0	0,86
Craftsmen and skilled workers	9,98	7,48	17,16	4,27
Operators, assemblers and conductors	2,49	2,80	0,75	5,13
Unskilled workers	18,2	31,78	11,19	8,55
Armed forces	0	0	0	0
Other/ Not well specified	2	0,93	1,49	0
Not available	15,21	21,50	9,70	19,67
Total	99,75	100	100	100

Source Montosa Muñoz, J. : 1997 survey. Own elaboration.

The social composition of the indigenous population is mostly of low social status, with a predominance of low-skilled and low-paid professions: 53.28% of the surveyed population is unskilled and unrecorded workers.

On the other hand, among immigrants of urban or neo-rural origin, the presence of professions that indicate a higher social status than that of the native population is majority, especially among the professions of managers, professions linked to university degrees, administrative employees and skilled workers, which account for 63.44% of the neo-rural population surveyed.

The composition by profession of immigrants from other origins is somewhat more complex, where the social structure of the population is more heterogeneous, with two groups: one with a higher social status, made up of managers, employees in university professions and technicians and administrative employees who represent, together with qualified workers, 40.16% of the surveyed population; and a second group, made up of employees in personal and catering services and unqualified workers who represent 33.34% of those surveyed from other origins.

Thus, the social composition of the population has been altered, although it is a social change induced from the outside, it is not endogenously rooted, with which we enunciate the following thesis:

7. RESIDENTIAL OR EXOGENOUS SUBURBANISATION PREDOMINATES IN ANDALUSIA, AT LEAST IN THE PERIOD ANALYSED.

Table 9.3
Balance of employed persons by profession (1991 Census - 2001 Census).

Professions of the employed	Cádiz capital	Granada capital	Malaga capital	Seville capital	Periphery Cádiz	Periphery Granada	Periphery Málaga	Sevilla Periphery
Management and administration of companies	+2.311	+4.937	+9.503	+13.531	+4.134	+5.778	+5.822	+10.335
Scientific and intellectual technicians and professionals	+851	+4.343	+6.466	+11.842	+4.094	+4.487	+3.621	+7.957
Technicians and Support Professionals	+1.729	+5.493	+14.160	+20.831	+5.332	+5.978	+5.914	+14.158
Administrative type employees	-5.675	-8.933	-13.790	-23.427	-1.833	+1.220	+1.357	-1.024
Merchants, catering and other personal services	-4.055	-9.793	-15.895	-17.432	-1.896	+1.050	+474	-1.554
Skilled workers in agriculture and fisheries	-331	-444	-674	-270	-931	+11	-555	-431
Skilled workers in industry and construction	-2.272	-2.450	-4.650	-9.706	+463	+4.138	+2.774	+678
Machinery operators	-299	+436	+1.463	+2.725	+1.592	+2.885	+2.224	+4.819
Unskilled workers	+1.086	+3.704	+9.122	+9.744	+1.675	-4.178	+2.972	-1.101
Armed forces	-287	-551	-680	-659	+1.149	+226	+72	+617
TOTAL	-6.942	-3.258	+5.070	+7.179	+13.779	+21.595	+24.675	+34.424

Source Instituto Nacional de Estadística [National Institute of Statistics]:Censos de Población de 1991 y 2001. [Population Censuses of 1991 and 2001]. Own elaboration.

The composition of the balance of the professions shown in the attached table shows a significant reduction in the weight of those employed in the central or *core* cities as opposed to those in the periphery, precisely in sectors of activity that require a certain qualification: in this order, administrative employees, merchants and employees in catering and personal services, as well as skilled workers in industry and services. This does not mean that there has been a real destruction of jobs in the Andalusian capitals analyzed between 1991 and 2001, since the structure of occupation is due to the fact that the resident population ceases to be resident when residential relocation occurs in the new peripheries, This fact does not correspond to the real one, since the new residents of the peripheries continue to work in the central city, since they do not abandon their jobs in the metropolises.

Table 9.4
Employment balance by sector of activity (1990-2000).

Sectors of activity	Total capital	Total periphery
Agriculture, livestock, hunting and forestry	+10.748	+24.397
Fishing	+1.670	+246
Mining and quarrying	+408	+356
Manufacturing industry	-2.144	+5.794
Production and distribution of electricity, gas and water	+1.367	+555
Construction	+30.711	+31.149
Trade, repair of motor vehicles and personal and household goods	+26.909	+21.370
Catering	+6.451	+1.232
Transport, storage and communications	+19.269	+8.832
Financial intermediation	+12.202	-1.336
Real estate activities and business services	+52.866	+15.315
Public administration, defence and social security	+24.662	-4.202
Education	-5.434	-6.843
Health and veterinary activities, social service	+29.421	-3.485
Household	+7.940	+2.689
Other services	+11.960	+4.275
Total	+229.006	+100.344

Source Censo de Locales [Census of premises, 1990]. Additions to the Social Security General Treasury in December 2000. Own elaboration.

The absence of job destruction in the capitals as a result of emigration would be confirmed by the figures for job creation, whether carried out by residents or non-residents in these municipalities. Therefore, it is a different concept from that of employed, and responds to the productive capacity of capitals. In the structure of jobs, the capitals continue to show their primacy and vigor in the capacity to generate jobs in the period considered (1990-2000): 229,006 more jobs in the capitals, compared to 100,344 in the peripheries.

Likewise, it can be seen that most of the jobs created in the main Andalusian peripheries, whether they are carried out by resident or non-resident workers in these municipalities, are greater in those sectors that present a high degree of precariousness and low qualifications in jobs, such as construction and real estate activities, which account for just over 46% of the total new jobs in the peripheries. It is followed, in order of importance, by the primary sector, with 24% of these new jobs.

On the other hand, in the capitals there is a greater variety and all sectors are growing, except industry, due to the delocalisation of industry towards the periphery which, in spite of everything, sees its business fabric grow in modest values: only 5.77% of the new jobs created in this period in the periphery corresponded to manufacturing industry (table 9.4).

The differentiation in the structure of occupation and employment implies an obligatory pendular mobility to the capital, as the place of work does not coincide with the place of residence, which states our thesis: existence of a pendular mobility that acts selectively in the population according to its origin.

8. Unequal degree of pendular mobility according to origins, and predominance of daily movements towards the provincial capital.

Of the total number of workers surveyed in the selected municipalities (Table 9.5), there is a predominance of pendulum mobility to the provincial capital, especially among neo-rural workers, at a value of around 64%. Among immigrants from the rest of the world, this value stands at almost 45%, and among natives at just under a third.

At the end of the twentieth century, respondents working in the same place of residence accounted for 53 per cent of the native population, 26 per cent of the neo-rural population and 42 per cent of the rest of the immigrants.

Table 9.5
Destinations of the commuting of the population according to origin

Destination of commuting	Total	Native	Immigrants from the capital	Other immigrants
Towards the provincial capital.	47,00	31,53	64,04	44,57
Same municipality	40,38	53,15	26,32	42,39
To other municipalities in the province.	8,20	12,61	4,39	7,61
To other municipalities in Andalusia.	3,79	1,80	4,39	5,43
There is no record.	0,63	0,90	0,88	0,00
TOTAL	100	100	100	100

Source Montosa Muñoz, J. : 1997 survey. Own elaboration.

In relation to the members of the family unit who move for work reasons, there is a differentiation according to the origin of the population:

Among the autochthonous, the mobility of another member of the family unit does not reach a quarter of those surveyed. On the other hand, the mobility of more than one member of the family unit ranges from 41.05% of immigrants of urban origin to 27.4% in the rest of immigrants.

The member who commuted to a greater extent was the other member of the couple among the immigrants of the capital, while, among the natives, they were the children.

A selective character of pendulum mobility is therefore deduced: it is higher among Neo-Rurals and significantly lower among the rest of immigrants and natives. This differentiation is due to the fact that pendulum mobility entails an economic cost for daily travel to workplaces, which can only be paid by a group of certain economic incomes, in this case, the neo-rural ones. At the same time, the labour insertion in the local fabric of the native population explains, to a large extent, the lower degree of pendulum mobility in this group, while, among urban immigrants, the maintenance of their jobs in the central city, together with the lower offer of a job corresponding to their degree of qualification in their new places of residence, obliges them to carry out a daily displacement from the place of residence to the place of work, mobility in which both members of the couple participate.

9. RESIDENTIAL SUBURBANIZATION HAS LED TO A LOW DEGREE OF URBAN AUTONOMY IN THE SUBURBS AND A HIGH DEGREE OF FUNCTIONAL DEPENDENCE ON METROPOLISES:

Along with pendulum mobility for work reasons, the appreciation of a low degree of autonomy and a high degree of functional dependence with respect to metropolises or central cities is consolidated, considering the repercussion that other mobiles of non-work origin with destination in the provincial capital have, for which we refer to the information provided by our Survey.

We can distinguish the following modalities of non-labour mobility in the Andalusian peripheries:

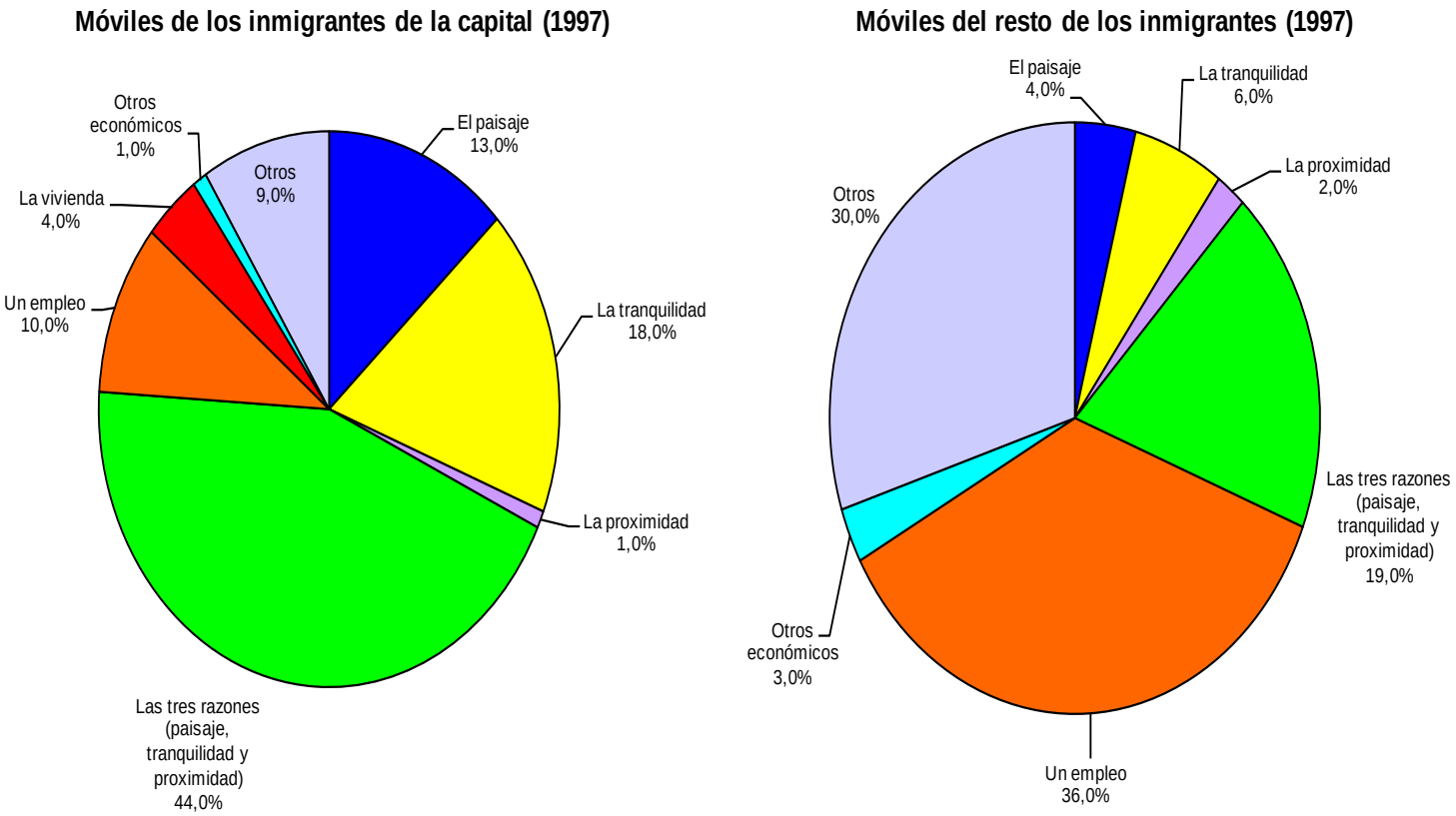
- Mobility for educational reasons (25% use the educational centres in the provincial capital).
- Mobility for health reasons (20% prefer to use those of the capital).
- Mobility related to consumption (less in food, 26%; but greater in specialized services: in a range between 60% and 77% who prefer to move to shops and specialized services in the provincial capital).

10. DIFFERENTIATION IN THE MOBILE TYPE OF CHANGE OF RESIDENCE AMONG IMMIGRANTS ACCORDING TO THEIR ORIGIN.

One consequence of the differentiation of the immigrant population according to origins is the different motive used to explain residential mobility: among Neo-Rurals, the weight of residential type motives represents 75% of the responses of the Neo-Rurals surveyed, specifically of an environmental nature (tranquillity, landscape, proximity or the combination of them at the same time). The work mobile only represented 10% of the answers, as corresponds to their greater degree of daily mobility.

On the other hand, among immigrants from other origins, the least numerous group of new residents, other types of motives were used: economic motives represented almost 40% of the responses, above all labour motives, corresponding to a lower degree of pendulum mobility than immigrants of urban origin.

Figure 9.8
Immigrants' Motivations.



11. DIFFERENTIATION OF SOCIAL STATUS ACCORDING TO THE ORIGIN OR PROVENANCE OF THE POPULATION.

As we have pointed out, in the distribution of professions by origin, there is a predominance of low-skilled and more precarious jobs, among indigenous people, and a greater weight of medium- or high-skilled jobs, among neo-rurals or immigrants of urban origin.

The lower social status of autochthonous people is due to their lower degree of qualification, as confirmed by the data from the Survey:

Table 9.6
Level of studies of the head of the family.

Level of education	Total	Autochthonous	Immigrants from the capital	Other immigrants
No studies	20,69	33,55	5,97	20,51
Up to primary	16,71	20,13	15,67	13,67
School Graduate	24,43	26,84	27,61	17,95
Middle studies:	19,95	12,75	29,1	18,8
BUP-COU grade	12,72	4,7	20,89	14,53
FP grade	4,99	4,03	2,98	0,86
Not available	3,24	4,03	5,22	0
University studies:	18,2	6,71	21,64	29,06
University 1st cycle	6,98	3,35	6,71	9,4
University 2nd cycle (graduates)	8,73	3,35	8,95	15,38
Not available	2,49	0	0	0
Other	0	0	5,97	0
TOTAL	99,98	99,98	99,99	99,99

Source Montosa Muñoz, J. : 1997 survey. Own elaboration.

Among the native people, a low level of education predominated, with 53.7% of the population with incomplete primary education. On the other hand, among Neo-Rural students, the percentage of greatest significance is that of middle studies, with 20.9%, and that of higher studies, with 21.6%. In the rest of immigrants, there is a more varied distribution, with 34.2% of primary education incomplete, but with 29.1% of the population with university studies.

The different degree of qualification by origin of the population has an impact on the income distribution of the population. Among the autochthonous, 40% recognized a monthly income of less than 900 Euros equivalent. Compared to this level of income, 57% of Neo-Rurals had an income of more than 1,200 Euros per month.

Table 9.7
Level of monthly household income (1997):

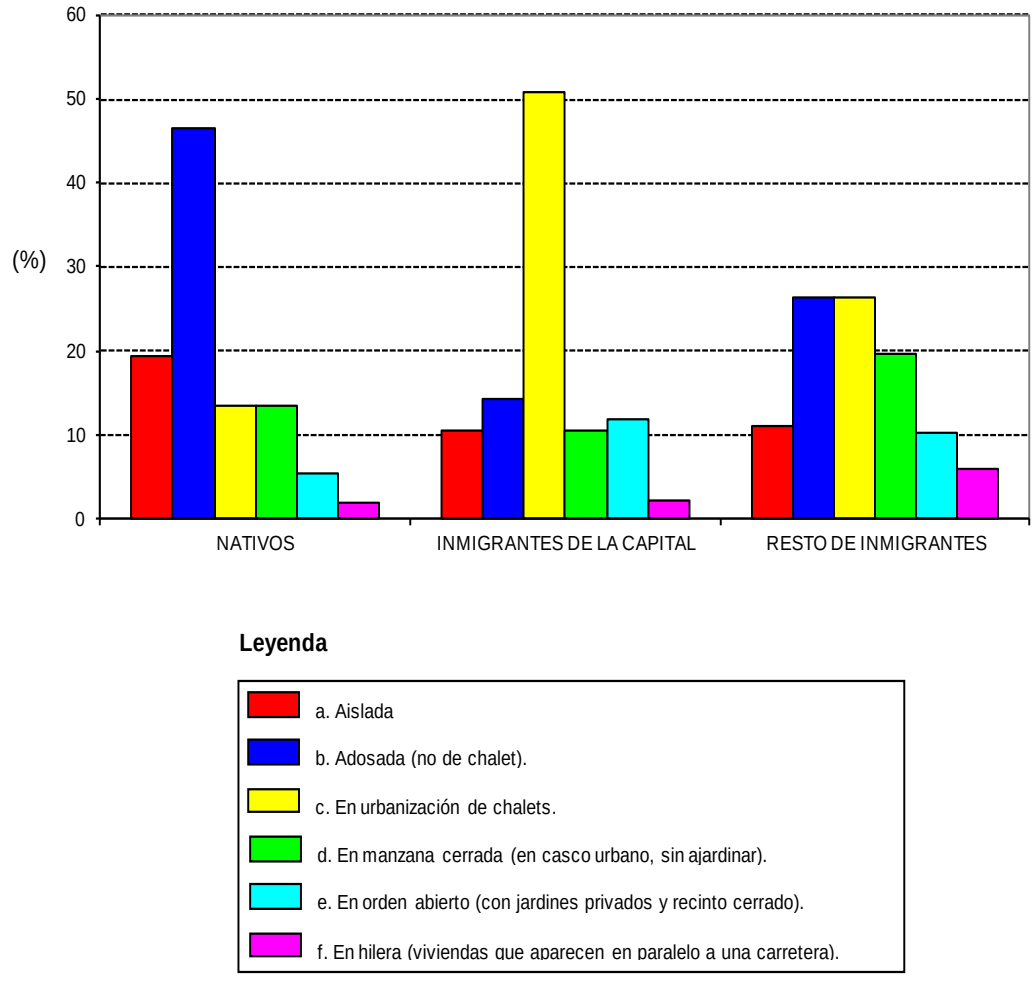
Intervals	Total	Native	Immigrants from the capital	Other immigrants
Less than 300 Euros	2,74	5,37	0,75	1,71
From 300 to 600 Euros	7,98	11,41	4,47	7,69
From 600 to 900 Euros	22,44	28,19	15,67	23,08
From 900 to 1.200 Euros	19,7	20,13	21,64	17,09
From 1.200 to 1.500 Euros	17,95	16,78	18,65	17,95
From 1.500 to 2.400 Euros	16,96	13,42	21,64	16,24
More than 2.400 Euros	12,22	4,7	17,16	16,24
TOTAL	99,99	100	99,98	100

Source Montosa Muñoz, J. : 1997 survey. Own elaboration.

The immediate consequence of the unequal degree of income, apart from the unequal commuting by origin, is the differentiation of the type of housing by origin. Among the immigrants in the capital, one type of housing predominates that corresponds to a higher social status: that of urbanization of single-family houses: isolated or semi-detached. On the other hand, among the autochthonous, the type of housing that prevails is that of traditional single-family housing. In the rest of the immigrants, the distribution is more varied, as corresponds to a group of heterogeneous social composition.

An eloquent indicator of the social level or status of the population is housing. As can be seen in the quality of housing according to the status and origin of the population, the highest quality housing and that of the most recent construction is that of a neo-rural population that is looking for socially prestigious housing that is affordable to its social status. On the other hand, the oldest and most humble dwelling is associated with the autochthonous population.

Figure 9.9
Housing typologies according to origin



Source Montosa Muñoz, J. : 1997 survey[143]. Own elaboration.

143 Legend:
Detached house
Autochthonous or traditional semi-detached house (casa mata)
Urbanization of single-family houses
Housing in urban center (in closed block)
Housing in open order (with green zones or in closed enclosure)
Row house

12. OUTSTANDING ROLE OF HOUSING AS A SIGN OF SOCIAL OSTENTATION AND AS A FORM OF PRIVATIZATION AND DESTRUCTION OF THE NATURAL SPACE.

Figure 9.10
Differentiation of the dwelling according to origin.

Newly built housing, associated with the foreign population.

Housing in a traditional neighbourhood, associated with the indigenous population.

From the data analyzed in our research work, the following facts are inferred:

-That real estate capital and financial capital have acted together to benefit from the demand for housing on the part of the population, a demand that was real, but that was due to speculative purposes on the part of a sector of the population, the urban middle class, that did not have a housing supply to their liking and according to their status in the metropolises.

-This has led to a considerable increase in the number of empty homes, especially in the central cities and especially because it corresponds to a housing stock that is only demanded by the lower income population, especially foreign immigrants.

That there is a variation in the characteristics of housing between central cities and their respective peri-urban areas: in the central areas the dwellings are smaller, older and predominantly multi-family. In the periphery, the dwellings are of greater surface area and less height, as corresponds to a dispersed urbanization model and based on the urbanizations of single-family dwellings, indicators of a greater social status and of a greater familism, as opposed to those of greater aging of the central cities.

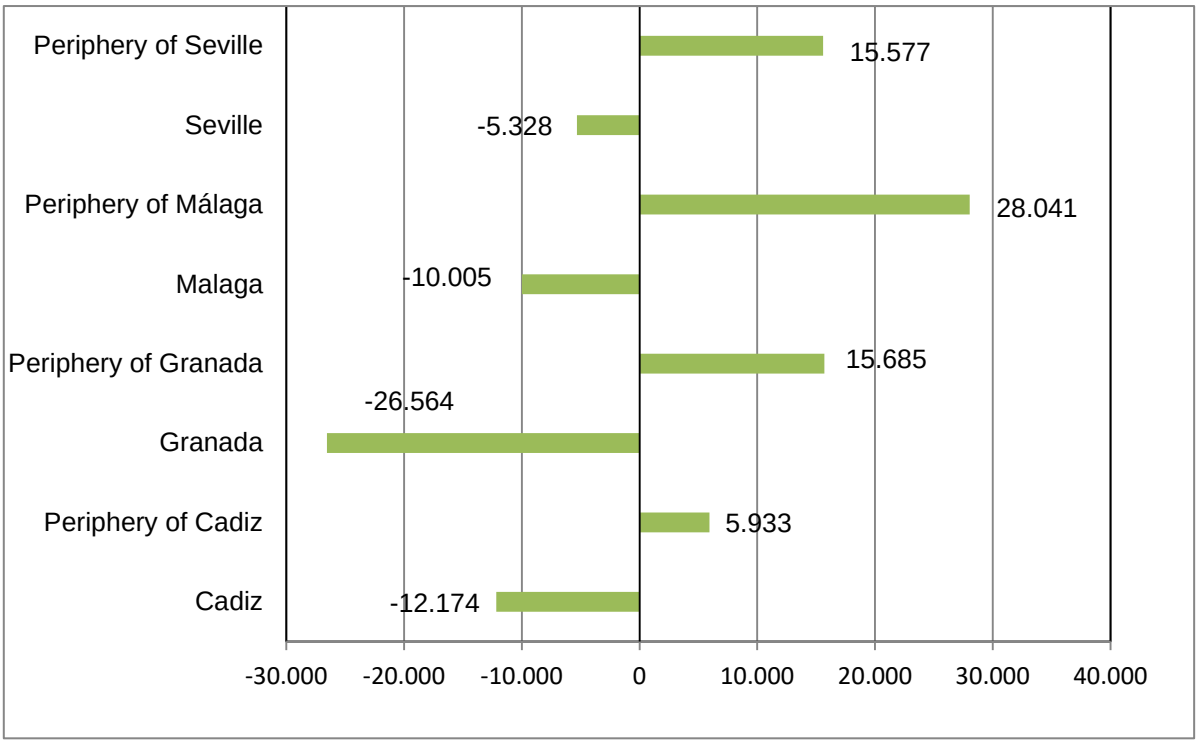
-That the demand for housing, the repealed land law, the single currency and the mortgage policy based on low interest rates compared to the previous period led many to believe that there was no bubble and that it was not necessary, despite the obvious, to take any regulatory action, not even the biggest regulator of the Spanish banking system.

-That the conversion of secondary housing into permanent housing had a relevant importance in the periurban belts, but not in the capitals, where the conversion of the main housing into empty was more relevant.

This confirms, firstly, the urban waste that an ever-increasing number of unoccupied dwellings in the capitals represent; secondly, the use of housing as an investment fund, whose value is "expected" to increase in the market. However, if Spain has not had a social outburst with the crisis is because in 2010 there were 16 million homeowners compared to 300,000 who bought housing each year, according to the opinion of the president of the Association of Real Estate Developers of Madrid[144] in the midst of the crisis justified the rise in housing prices in Spain, because they benefit 16 million homeowners and "only hurts 300,000 homebuyers annually. This is a reflection of the blindness of the sectors most benefited by the rampant rise in house prices prior to the bursting of the housing bubble: property developers and banks.

144 Interview included in the weekly summary on the real estate portal El Idealista.com on 21 May 2010.

Figure 9.10
Transformations in the use of housing in the main Andalusian urban agglomerations (1991-2001).



Source Own elaboration.

13. GROWTH PROSPECTS WERE PROMISING UNTIL THE BURSTING OF THE HOUSING BUBBLE.

The prospects for future population growth and housing in the main Andalusian peripheries were optimistic at the time of writing of our research, since the market was interested in maintaining, indefinitely, the demand for housing to enable the growth of a sector, construction, a business that was enormously lucrative for builders until the bursting of the housing bubble in 2008. Today, the real estate sector is once again a business and it is preferred to invest in the purchase of housing and then rent as the returns on this liability exceed, in profitability, the stock market and other capital investments.

14. THE NON-RESIDENT RELATED POPULATION[145] HAS AN OUTSTANDING WEIGHT IN THE CENTRES AND BELTS OF THE ANDALUSIAN METROPOLITAN AREAS.

The non-resident related population, that is, the one that, despite not being a habitual resident, remains as an unregistered resident for other reasons (study, work, etc.), constitutes a very considerable volume of population that should be borne in mind. In cities it is a non-resident population for economic reasons, i.e. the change of location of permanent residence does not entail a relocation of jobs, which allows the links of the neo-rural - and now exurban - population with the metropolis to be partially maintained. Similarly, in peri-urban belts this link is recreational, linked to the leisure of the urban population, due to the significant weight of

145 The non-resident related population includes the population that maintains a link with the municipality for reasons of work, study or because it has a second residence in the municipality.

temporary residences or second homes that are likely to become permanent when accessibility improves and environmental conditions and social homogeneity are maintained.

Table 9.9
Non-resident related population in 2001.

Areas	Non-resident related population				Second residences (2001)	Ratio (Persons per residence)
	TOTAL	Because you work in...	Because you study in...	Because he's got a second home in...		
Cádiz capital	34.146	14.497	7.826	11.823	3.243	3,65
Periphery of Cadiz	77.161	23.469	5.404	48.288	26.584	1,82
Granada capital	104.019	38.880	43.372	21.767	13.988	1,56
Periphery of Granada	40.558	21.124	2.019	17.415	9.275	1,88
Malaga capital	85.351	34.448	22.769	28.134	16.621	1,69
Periphery of Málaga	65.190	18.539	1.019	45.632	32.937	1,39
Seville capital	150.998	84.708	49.674	16.616	21.456	0,77
Periphery of Seville	60.324	41.624	4.362	14.338	11.181	1,28

Source National Statistics Institute: 2001 Population Census. Own elaboration.

15. GOOD ADAPTATION OF THE MODEL OF SOCIAL AREAS TO THE CONTEXT OF PERI-URBAN AREAS, AS WELL AS TO MULTIVARIATE ANALYSIS: EXPLORATORY FACTORIAL ANALYSIS AND CLUSTER ANALYSIS.

As revealed by the modified model of social areas to be applied to periurban spaces subjected to exogenous urbanization, or suburbanization, the protagonist of suburbanization has been the middle class, the so-called in Anglo-Saxon terminology *baby-boomers*, who are employed professions. They are managers, technicians and qualified professionals, as well as administrative staff, whose motive is basically residential: the search for a dwelling of certain characteristics and in accordance with their social status: a single-family dwelling, with a garden, in spaces that are more or less exclusive and exclusive and that tend to segregate spatially from the native population, generating two worlds that coexist separately and that, rarely, meet: the autochthonous and the immigrants of urban or neo-rural origin. This pattern of conduct is due to the fact that housing is sought as a sign of ostentation and of "no place" in which to share with "*homoioi*", exclusive spaces that privatise the rustic wealth of the countryside, formerly public, and represents a genuine invasion and conquest of space of the highest environmental quality.

At the same time, we demonstrated that multivariate analysis (exploratory factorial analysis and cluster analysis) can be used with a high degree of adaptation to spaces that suffer suburbanization. By selecting the appropriate variables for analysis, it is possible to obtain an optimal factorial structure at the level of spatial microanalysis or urban sections, the smallest units with official statistical information in Spain. As a continuation, the cluster analysis identifies, in specific clusters, where suburbanisation occurs and which urban sections have a high degree of suburbanisation. From the research we can deduce the elitist character of urban expansion, carried out by middle and upper-middle class population of urban origin (social status), spatially segregated from the native population, -population born and resident in the same municipality-, (origin status). Secondly, it can be deduced that this is not a generalized phenomenon in the periurban Andalusian space, but that it is essentially scattered in the different scales of analysis used, with the exception of the Aljarafe, in the urban agglomeration of Seville (Andalusia, Spain).

EPILOGUE

I would not want to conclude without criticising a model of urban growth that postmodern society has idealised, without considering the countless costs involved in promoting a model based on unlimited growth. Faced with an extensive city model, little planned and spontaneous, which is proving to be unsustainable, due to the numerous costs, not only environmental, but of all kinds that it brings with it; the current crisis must serve to correct the errors of the past. Faced with a model of an elitist city, segregated, unsupportive and high cost, not only environmental by the irreparable loss of natural landscape, but also economic (just think of the large investments that have had to be made to build the rounds and hyperrounds and thus meet the demand of this exurban population); the return to the traditional city should be advocated, what has come to be called the human metropolis, the *humane metropolis*, widely defended by a large sector of North American urban planners, and based on promoting intelligent growth as an alternative to *urban sprawl* or uncontrolled urban growth. We defend the return *to* sustainability, rationality, conservation and preservation of our natural spaces, to be enjoyed by the community. The entire society, in a current context in which the privatization of the public sector prevails, must demonstrate that it wants to fight against this process that has already been experienced with a resounding failure in the North American city, which is where this model of growth comes from; and who wants the recovery for the whole of society of goods that are public and that must remain so, to preserve a quality environment for our cities that stops the privatization and speculation of public space that constitutes the landscape of the suburbs, dominated by a deteriorated landscape, even without being urbanized (the fallow lands or social wastelands that have become landscapes of rubbish dumps and urban waste). I defend a peri-urban space that will be recovered or preserved for future generations but, for this, our public officials must take forceful measures that allow our cities to be equipped, through planning, with quality spaces that consolidate the compact city as an authentic alternative to the dispersed city. It is not only a question of improving the mobility of Andalusian cities with million-Dílar investments such as the Malaga, Granada or Seville metros, which is a desirable and necessary measure to improve the urban environment, but it is also urgent to channel investments to improve the habitability conditions of our cities, especially in the neighbourhoods with buildings that are suffering the greatest environmental deterioration, which is the motive that is driving the processes of the population fleeing the cities to find the false myth of the happy Arcadia that has cleverly sold the new urban speculators in the periphery in a very well developed and blessed marketing product by the financial system, until it has broken with the consequences known by all.

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