Rural Depopulation and the Migration Turnaround In Mediterranean Western Europe: A Case Study of Aragon[1]

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Abstract

The region of Aragon in the northeast of Spain was selected for a long-run case study of the problem of rural depopulation in Mediterranean Western Europe. The strength and persistence of the depopulation in the region has left numerous rural districts in extreme situations of low demographic density. The basic cause of this phenomenon is the intensity of rural-to-urban migratory processes in the Aragonese countryside. Rural depopulation in Aragon has not yet stopped. However, important changes have taken place since the 1990s.

First, migration has been replaced by negative natural growth as the key factor in rural depopulation. Furthermore, the current situation features a reversal of the migratory balance, resulting in a sharp deceleration in depopulation since 2001 and positive growth in the larger country towns. This switch in migratory flows is partly due to the arrival of foreign-born immigrants attracted by opportunities arising as a result of the difficulty of replacing the active population. At the same time, Aragon is close to the top of the ranking of Spanish regions in terms of per capita income, as an incipient process of restructuring and change has begun in the

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rural hinterland and the emergence of new residential and tourist functions has helped attract Spanish urban migrants.

1.0 Introduction

The distribution of population in the European Union (EU) is remarkably uneven, resulting in enormous differences between average densities in different regions and between urban and rural areas. Perhaps the most disturbing feature of European demographics, however, is the startlingly low population density in some regions compared to the density 50 to 100 years ago. From this standpoint, the main objective of this paper is to examine the long-term causes for depopulation and the current status of the problem. Depopulation has affected rural areas almost exclusively and it may unquestionably be regarded as the most severe threat to local economies, not only because it limits growth opportunities, causes important environmental problems and complicates the provision of public services, but because it may jeopardize the very existence of small towns and villages as inhabited settlements (Marini and Mooney, 2006, p. 94).

An analysis of the population of eight EU countries and Switzerland at the regional/provincial level (as referenced by the Nomenclature of Territorial Units for Statistics III [NUTS III]) from the mid-19th century to the present reveals significant depopulation processes in all cases except the Netherlands, Belgium, and Switzerland, three small states with a relatively uniform geography where industrialization began early. The intensity and timing of these processes vary considerably. In the large states of northern Europe (United Kingdom and France), depopulation affected wide areas from 1860 to 2000. This depopulation began early and diminished in the second half of the 20th century. In southern European countries (Italy, Spain, and Portugal), in contrast, depopulation became a problem above all in the period after World War II, when the process increased pace to reach dramatic proportions in some cases. These differences in the timing of depopulation processes are key to understanding the predominant patterns, and they would appear to indicate a strong link between the transformations involved in modern economic growth and intense demographic imbalances.

From this perspective, depopulation may be viewed as a specific case of a more general phenomenon, which was the rural exodus caused by modern economic growth. During the period of industrialization and the subsequent economic growth, cities expanded rapidly, concentrating the location first of industry and then services. This expansion required the recruitment of a large labor force drawn mainly from rural areas, where the increasing substitution of farm machinery for muscle power further encouraged significant rural-to-urban migration.

Rural depopulation may be understood as a process affecting regions where the rural exodus outstripped natural growth, thereby reducing the total number of inhabitants to a critical level, particularly in terms of population density and aging of demographic structures. The differences in the pace of depopulation in northern and southern Europe illustrated in Tables 1 and 2 would appear to replicate the processes of modern economic growth in the countries concerned.

The situation today is more complex, however. While the great rural exodus ended decades ago, depopulation remains significant in many rural areas and is still a

serious threat in many districts. In others, also affected by depopulation until recent times, interesting signs of repopulation may be found, which are associated with a range of causes.

The main objective of this paper is to examine the depopulation processes described from a long-run standpoint, linking the origins of the problem to the current situation and future outlook. The central hypothesis is that depopulation phenomena are associated with modern economic growth over the long term and may be understood as a by-product of this process. Thus the outcomes of industrialization include not only highly diverse population densities, but also an overlap between the growth of cities and the demographic decline in predominantly rural areas. These phenomena may be seen as inextricably linked.

Table 1. *Depopulated*[a] *Provinces/Districts (NUTS III) in Western Europe, 1860–2000*

Country	Population (% of total)		Area (% of total)	Annual rate of population change (%)
	1860	2000		
Belgium	0.0	0.0	0.0	—
France	33.6	17.3	40.4	-0.2
Italy	8.9	6.7	9.3	-0.1
Netherlands	0.0	0.0	0.0	—
Portugal	14.7	5.9	15.9	-0.1
Spain	17.1	5.6	24.3	-0.1
Sweden	0.0	0.0	0.0	—
Switzerland	0.0	0.0	0.0	—
United Kingdom	7.0	2.3	28.5	-0.2

Note. Adapted from data taken from *International Historical Statistics: Europe 1750–2000*, by B. R. Mitchell (2003), London: Macmillan.

[a]Depopulated provinces/districts are defined as those losing populations between both dates in absolute terms.

In southern Europe today, a range of phenomena are under way, changing the rural environment and generating new perspectives for depopulated areas. However, the scope of these changes varies considerably depending on the diverse conditions prevailing in the regions affected. These new trends in the rural environment of southern Europe are also related to profound economic change, such as the decline of farming and the emergence of new economic and residential functions.

Finally, rural Europe has not remained untouched by the phenomenon of international economic integration, which has also had an impact on the predominant demographic trends. In the first phase of globalization, which began in the mid-19th century and continued until the interwar period, Europe was the source of mass immigration to America, and rural areas were at the forefront of the movement. This out-migration to places overseas was an additional cause of depopulation. Matters have changed considerably since World War II. In the second phase of globalization, still in full swing, Europe has become a destination

for immigrants. Thus, some rural areas in the more developed countries exert a considerable attraction on emigrants from other continents and less developed European nations.

Table 2. *Depopulated*[a] *Provinces/Districts (NUTS III) in Western Europe, 1950–2000*

Country	Population (% of total)		Area (% of total)	Annual rate of population change (%)
	1950	2000		
Belgium	0.0	0.0	0.0	—
France	6.7	4.5	14.0	-0.2
Italy	23.1	17.4	28.9	-0.3
Netherlands	0.0	0.0	0.0	—
Portugal	48.5	33.4	74.7	-0.5
Spain	30.8	17.2	53.5	-0.4
Sweden	6.9	5.3	18.3	-0.7
Switzerland	0.0	0.0	0.0	—
United Kingdom	n.a.	n.a.	n.a.	n.a.

Note. Adapted from data taken from *International Historical Statistics: Europe 1750–2000*, by B. R. Mitchell (2003), London: Macmillan.

[a]Depopulated provinces/districts are defined as those losing populations between both dates in absolute terms.

A case study approach has been adopted in carrying out the analysis. This involved selecting a region exhibiting representative features of the phenomenon of depopulation in southern Europe. These include the experience of intense depopulation in the second half of the 20th century, resulting in critically low population densities over large parts of the territory, with a threshold level of under 10 inhabitants per square kilometer, defining so-called demographic deserts. This case study aims to shed light on the past and present nature of depopulation in the rural regions of Mediterranean Europe in late-developing countries, which have experienced certain changes and transformations that differ from the timing and patterns observed in northwestern Europe. As Hoggart and Paniagua (2001) have argued, the processes of rural restructuring do not follow the same spatial and temporal patterns in all regions, and these phenomena therefore need to be carefully contextualized. These divergences do not, however, mean that there are no parallels or similarities between the dynamics of change in different places.

1.1 A Case Study: Extreme Depopulation in Rural Aragon

The case of the rural areas of the Autonomous Community of Aragon—one of the 17 autonomous regions into which the Spanish state is divided—has been chosen to illustrate the long-run process.

Figure 1. Location of Aragon in Europe.

Located in northeastern Spain, the region has a total area of 47,720 km^2; its population in 2005 was 1,269,027 inhabitants (Figure 1). Aragon is divided into three provinces: Huesca, the northernmost; Teruel, the southernmost; and Zaragoza, which lies in the center. In 2003 population density was the 12th lowest of the EU-25, while at the level of the NUTS III study the provinces of Teruel and Huesca were the 8th and 16th least populated areas, with just 9.3 and 13.4 inhabitants per km^2 (Figure 2). The region is crossed by two mountain chains, the Pyrenees, lying north of Huesca and marking the frontier with France, and the Iberian Cordillera, lying mainly in the province of Teruel and extending into the southeast corner of Zaragoza. These two mountain chains are divided by the Ebro Valley, which runs across the region from the northwest to the southeast and occupies the central province of Zaragoza, as well as the southern part of Huesca and the northeastern portion of Teruel. Internally, Aragon is divided into 33 districts (equivalent to the former NUTS IV level) that are intended to bring policymaking close to the citizen and ensure the provision of services at a minimum level, given that many of the 730 Aragonese municipalities (NUTS V) do not have a sufficient population to undertake the functions that would normally be required of local government. The Autonomous Community's capital is Zaragoza.

This case study was chosen because the depopulation of Aragon is extensive and commenced early, accelerating rapidly in the second half of the 20th century. The population of Aragon has grown by only 37% since 1900 (compared to 234% for Spain as a whole), while two provinces today have a significantly lower population than they did in 1900 (15% less in Huesca and 44% in Teruel). Twenty-five of Aragon's 33 districts have lost inhabitants over the course of the 20th century, with declines of more than 70% in the most dramatic cases and more than 50% in a

third of them. Fifteen of these districts currently have fewer than 10 inhabitants per km^2. Almost all of the rural districts have lost population. A few small gains are found where the development of irrigated farming has succeeded in stabilizing the population. In the remaining districts where the population has increased, these increases are due to the importance of industry and the service sector, or because the districts embrace the administrative centers of the provincial capitals.

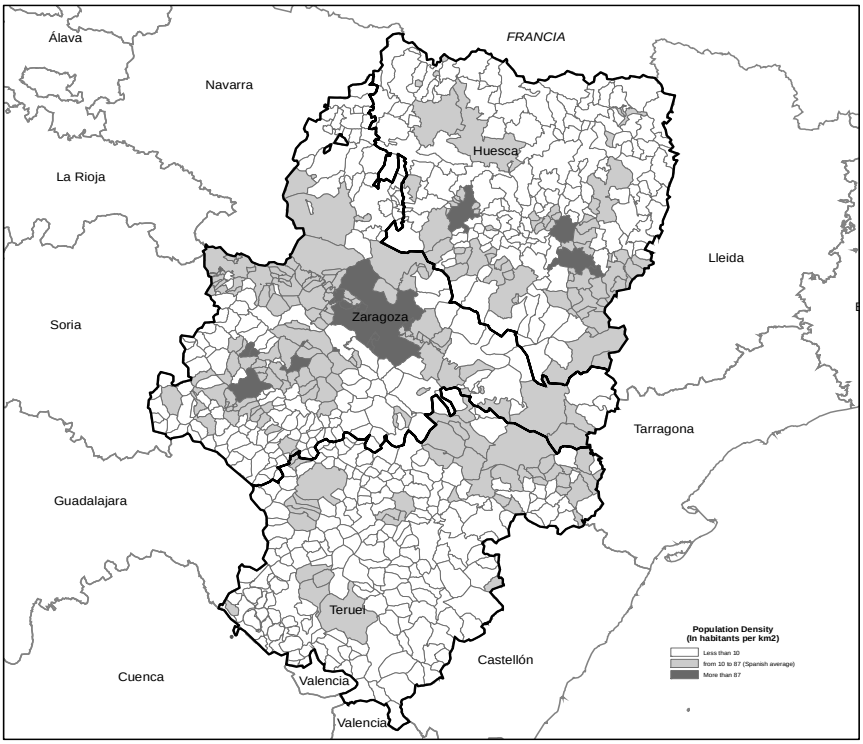

Figure 2. Population densities of Aragonese municipalities in 2005 (inhabitants/km^2).

This paper focuses exclusively on depopulated rural areas. Rather than employing a spatial approach, rural Aragon as a whole is analyzed, based on the size of the municipalities concerned. The tables provide data for urban areas by way of contrast. The boundary separating rural from urban municipalities is a threshold population of 5,000. While this may appear rather small, it can nevertheless be considered as reasonable given the scant number of towns that actually exceed this threshold in Aragon and the economic and administrative functions they perform.[2]

2.0 Long-run Depopulation: Economic Disparities and the Rural Exodus

The intensity of the depopulation process suffered by large parts of rural Aragon is, above all, a consequence of the high negative migratory balances that existed from the end of the 19th until well into the 20th century. While industrialization went ahead at a considerably slower pace in Spain than in more advanced parts of Europe, by the mid-19th century some dynamic, core areas had begun to emerge,

[2]Of the 730 municipalities currently existing in Aragon, only the three provincial capitals and 17 other towns fall outside this definition of rural municipalities.

where modern industry and associated economic activity tended to concentrate. The industrializing process was thus strongly polarized. This was by no means exceptional, of course, and similar trends are observable over much of Europe.

Aragon found itself sandwiched between Barcelona and its environs and the Basque Country, the two fastest developing areas of Spain. Madrid and Valencia were also development hubs, forming an industrializing rectangle with Catalonia and the Basque provinces. Once again, Aragon found itself in the middle. In this context, the response of the rural areas of Aragon took shape in a wide range of strategies to profit from the incipient modern economic growth of Spain (Gallego, Germán, and Pinilla, 1993). To explain this, let us begin defining two main areas. The first is the central part of Aragon, where a degree of development may be observed with specialization in farm produce and transformation to supply the expanding towns. This activity was particularly focused in and around the city of Zaragoza. The second comprises the mountainous areas of northern and southern Aragon, which underwent a severe economic crisis as a result of the breakdown of the traditional economy based on sheep, subsistence agriculture, and the traditional textile industry (Collantes and Pinilla, 2004).

These differences in the pace of economic growth, and therefore of available opportunities, were to activate a major migratory movement from the least prosperous areas to those where growth was strong, especially in the later decades of the 19th century.[3] In Aragon, the migratory flows that sprang from the rural areas headed above all for Barcelona. Other developing cities such as Zaragoza itself, Valencia and Madrid, and to a lesser extent fast growing American republics like Argentina and Cuba, also attracted appreciable contingents of Aragonese emigrants. As the newcomers settled in the cities, they created strong migratory networks, strengthening and consolidating the position of Barcelona, Zaragoza, and Valencia as the main destinations (Recaño, 2002).[4]

The intensity and persistence of negative migration rates in the provinces of Huesca from 1878 through 1981 and Teruel from 1878 through 2001 (Table 3) provide a general idea of the outward population flow. The province of Zaragoza, meanwhile, alternates between positive and negative flows, basically as a consequence of the conflicting situations of the capital, which enjoyed significant population growth, and the mainly rural provincial hinterland, where negative migratory balances were persistent and significant. The high rates of natural growth that existed throughout the period of demographic transition were insufficient in the long run to prevent demographic collapse in both provinces as a result of decades of migration-driven population loss.

The impact of depopulation, meanwhile, was far from uniform. As in the rest of Western Europe, industrialization was accompanied by an intense process of urbanization in the 20th century, which only continued an already existing trend (Reher, 1995). In Aragon, the population was redistributed, tending to concentrate

[3]Studies of internal migration in Spain have identified the importance of industrial job opportunities and the urban-rural wage gap as the main causes of these flows (Silvestre, 2005).

[4]Some 276,380 people of Aragonese origin (equivalent to 23% of the population resident in the region) currently live in other Spanish regions. The largest emigrant contingents are to be found in the provinces of Barcelona (102,874), Madrid (32,086), and Valencia (31,151).

Table 3. *Natural and Migratory Growth Rates of Aragonese Provinces, 1878–2004*

	Natural annual growth rate (o/oo)			Annual migration rate (o/oo)		
Period	Huesca	Teruel	Zaragoza	Huesca	Teruel	Zaragoza
1877–1887	4.65	3.53	0.21	-3.58	-3.65	3.08
1888–1900	4.07	5.17	3.63	-7.18	-3.87	-2.19
1901–1910	7.74	9.72	8.10	-6.37	-5.94	-1.86
1911–1920	4.92	5.73	6.96	-4.02	-7.07	2.70
1921–1930	6.67	9.81	10.01	-9.73	-9.54	-2.00
1931–1940	1.68	3.98	3.75	-6.44	-12.53	6.73
1941–1950	2.76	5.38	6.00	-0.80	-3.69	-1.62
1951–1960	4.76	7.26	8.06	-5.90	-16.49	-2.59
1961–1970	4.14	3.94	9.11	-9.10	-27.23	5.49
1971–1981	2.77	0.44	6.86	-3.76	-11.42	2.47
1982–1991	-0.95	-1.59	0.48	0.54	-4.96	1.74
1992–2001	-3.60	-4.70	-1.75	2.97	-0.90	4.64
2002–2004	-3.70	-5.03	-0.96	14.53	14.01	16.24

Note. Data from 1888 to 1930 are from "Los movimientos migratorios interprovinciales en España entre 1877 y 1930: Áreas de atracción, áreas de expulsión, periodización cronológica y cuencas migratorias," by F. Mikelarena, 1993, *Cuadernos Aragoneses de Economía*, *3*(2), pp. 213–240. Data from 1930 to 1970 are from "Migraciones interiores y mercado de trabajo en España, 1887–1930," by J. Silvestre, unpublished doctoral dissertation, 2003. Departamento de Estructura e Historia Económica y Economía Pública de la Universidad de Zaragoza. Data from 1971 to 2004 are calculated from census data and population register figures.

in the larger towns and cities, while the villages became ever smaller. Thus, analysis of the distribution of population by the size of municipalities reveals a stark contrast between 1900 and the present (Table 4). In 1900, three-quarters of the Aragonese population was concentrated in rural municipalities with less than 5,000 inhabitants, while those living in the main towns and cities accounted for less than 25%. The situation today is the reverse, and the urban population now represents three-quarters of the total.

3.0 The End of the Rural Exodus and the Persistence of Depopulation

The sharp slowdown in the outflow of inhabitants from rural areas in the years after the economic crisis of 1973 did nothing to alleviate the problem of depopulation. Thus, at the end of the 20th century, all of the small rural municipalities with less than 1,000 inhabitants were still experiencing negative real growth. The intensity of the decline was, furthermore, inversely proportional to size, with the smallest villages losing population the fastest (Table 5).

Table 4. *Distribution of the Population of Aragon Based on Size of Municipality of Residence, 1900–2005*

	1900		2005	
Municipalities	% population	Number	% population	Number
< 100	0.0	1	0.7	146
100–499	8.8	230	6.9	381
500–999	18.6	234	4.8	89
1,000–4,999	48.9	248	14.8	94
5,000–19,999	12.9	15	13.8	16
20,000–100,000	0.0	0	8.0	3
> 100,000	10.8	1	51.0	1
Total municipalities of 2005	100.0	729	100.0	730

Note. Calculated using data published by the Aragonese Institute of Statistics and the Spanish National Institute of Statistics. The figure for 1900 is at December 31 (census), while that for 2005 is at January 1 (population register figure).

3.1 Aging and Depopulation

One of the keys to the analysis of depopulation is to understand that the nature of the problem has changed substantially. In the later years of the 20th century, out-migration ceased to be the main cause of the demographic decline in the rural areas of Aragon, overtaken by the negative natural growth. This fact is related to the size of the municipalities affected. Thus the smaller the village, the higher the rate of negative natural growth.

The sharp increase in this phenomenon is mainly due to the aging of the population. Like those of most developed regions, Aragonese population figures speak louder than words. The aging rates found in rural areas, especially those that are most depopulated, are much higher. This problem is apparent from an analysis of the data by municipality, which reflect extreme aging in small municipalities. In general, all of the rural areas of Aragon reflect high rates of aging with scores of over 100, indicating that people over 65 years of age outnumber those aged under 16. However, the rate of aging is manifestly higher the smaller the municipality. The recent evolution of the aging rate is, moreover, substantially negative. The rise in the index for small municipalities with less than 1,000 inhabitants and the critical circumstances of villages with less than 100 residents show that the recent influx of in-migrants has not been sufficient to improve the age structure of the rural population (Table 6).

Table 5. *Aragon: Population Growth, Migration, and Natural Growth Rates, 1991–2004 (o/oo)*

	Population growth rate		Migration rate		Natural growth rate	
	1991–01	2001–04	1991–01	2001–04	1991–01	2001–04
Total Aragon	1.3	14.1	3.7	16.0	-2.4	-1.9
Municipalities[a]						
< 100	-16.7	-3.4	-3.0	7.7	-13.7	-11.1
100–499	-11.5	-3.9	-1.4	6.4	-10.1	-10.3
500–999	-9.0	-2.4	-1.1	6.2	-8.0	-8.6
1.000–4.999	0.3	18.1	5.0	22.3	-4.6	-4.2
5.000–19.999	4.6	23.1	6.0	24.3	-1.4	-1.1
20.000–100.000	6.4	16.2	6.6	16.7	-0.2	-0.4
> 100,000	3.4	14.6	3.7	14.3	-0.3	0.3

Note. These figures were calculated using data published by the Aragonese Institute of Statistics and the Spanish National Institute of Statistics. Figures for 1991 to 2001 were prepared using population census data for 1991 and 2001 at December 31. Figures for 2001 to 2004 were prepared using population register figures for 2001 and 2005 at January 1.

[a]Municipalities ranked by population size in 2001.

The high rates of aging found in Aragon, particularly in the most heavily depopulated rural areas, compared to other Western European regions, are a consequence of intense migration from much of the region's territory, a process that lasted throughout the 20th century and was particularly severe in the 1950s and 1960s. The presence of a high percentage of young people among these migrants was a prime cause of the relative aging of the population in their areas of origin. Moreover, the rate of female migration exceeded the outflow of males in Aragon, affecting reproduction in the region's rural areas (Recaño, 2002).

It is not surprising, then, that a clear association exists among areas experiencing population loss due to migration until recent times, the most depopulated areas, and areas with the highest rates of aging. This is a typical case of path dependence. Migration caused depopulation for decades, at the same time that aging steadily rose, and aging in turn became the main cause of depopulation.

The rate of aging means that the number of deaths relative to the total population is high, despite generally good levels of public health. Consequently, the areas with the oldest populations also have the highest crude death rates. The problem is clearly apparent from a comparison of crude death rates by municipality grouped by size, which reflects relatively high rates in municipalities with less than 1,000 inhabitants (Table 7). A further consequence of the high rate of aging is the very low rate of births in relation to the total population in the majority of the rural areas of Aragon. Once again, a comparison of the crude birth rate by size of municipality is revealing: the smaller the village, the lower the birth rate. The low crude birth rate is due both to a low rate of fertility (i.e., the number of babies per woman of

child-bearing age) and to the small numbers of potential mothers among the population as a whole.

Table 6. *Aragon: Aging[a] and Working Population Replacement[b] Rates*

	Aging		Replacement	
	1991	2001	1991	2001
Total Aragon	110	158	86	91
Municipalities[c]				
< 100	557	918	274	395
100–499	293	396	184	166
500–999	205	288	155	130
1,000–4,999	139	181	115	94
5,000–19,999	93	132	83	76
20,000–100,000	85	120	74	66
> 100,000	84	129	66	85

Note. These calculations are based on data from the Aragonese Institute of Statistics and the Spanish National Institute of Statistics.

[a]Aging rate = POP(65+)/POP(0–15).

[b]Working population replacement rate = POP(60–64)/POP(15–19).

[c]Municipalities ranked by population size in 1991 and 2001.

Table 7. *Aragon Crude Birth and Mortality Rates (o/oo)*

	Crude birth rate		Crude mortality rate	
Municipalities[a]	1991–2001	2001–2004	1991–2001	2001–2004
< 100	2.3	2.7	16.0	13.7
100–499	4.3	4.2	14.4	14.5
500–999	5.7	5.3	13.7	14.0
1,000–4,999	7.4	7.8	12.1	11.9
5,000–19,999	8.9	9.5	10.2	10.6
20,000–100,000	10.2	10.1	10.5	10.5
> 100,000	8.7	9.7	9.0	9.4

Note. Calculated using data from the Aragonese Institute of Statistics and the Spanish National Institute of Statistics.

[a]Municipalities ranked by population size in 2001.

On the first point, the birth rate in Spain is extremely low in international terms and compared with the European Union. For example, the average number of babies born to women of child-bearing age in Spain was 1.25 in 2001, while the EU average was 1.47. In Aragon, however, the figure is even lower at just 1.17 (Delgado, 2004). Aragon thus shares in the generally very low fertility trends

affecting the whole of Spain, with figures that are lower than the minimum necessary to ensure generational replacement. Furthermore, the depopulation of rural areas means that the percentage of women of child-bearing age is considerably below that found elsewhere. In short, the higher the rate of depopulation, the lower the relative percentage of women of child-bearing years, a phenomenon that influences the birth rate.

Meanwhile, the high rate of aging in rural areas also raises questions about the viability of current levels of economic activity, given the worrying indices for the replacement of the working-age population. Where this index, which is the ratio of inhabitants who will shortly leave the labor market (i.e., those aged between 60 and 64 years) to those who will soon join it (i.e., those aged between 15 and 19 years), is over 100, the local population will be unable on its own account to ensure the supply of labor required for its economic activities (Table 6). In all of the groups of rural municipalities considered except those with between 1,000 and 5,000 inhabitants, the number of workers close to retirement is significantly greater than that of prospective labor market entrants. In contrast to the age structure of the population, however, the arrival of immigrants beginning in the last decade of the 20th century has resulted in an appreciable improvement in the values reflected by this indicator, at least in municipalities with between 100 hundred and 5,000 (Table 7). The decline in the index for villages with less than 100 residents is, nonetheless, significant.

4.0 A Change in Trends? Rural In-migration, Depopulation, and Repopulation at the Beginning of the 21st Century

A number of interesting changes in trends have emerged recently. If the pace of depopulation was high until the end of the 20th century, it has slowed substantially in all of the rural areas of Aragon since 2001. In recent years decline in the population of municipalities with less than 1,000 inhabitants has slowed sharply, while those with more than 1,000 have seen spectacular positive growth.

This change in the rural population trend is not exclusive to Aragon. This phenomenon is common to many rural parts of Spain, and the peculiarity of the Aragonese case is rather the lag with which the trend emerged in the region and the persistence of demographic decline in some parts of the territory. While migration rates remained negative until the end of the last century and still contributed to population loss, although no longer as the primary cause, they are now positive and have risen to high levels for rural municipalities of all sizes, particularly the larger ones. In the areas where the population is growing, this is an outcome of in-migration, and the rate is also positive in other areas, although insufficient to offset negative natural growth. The change in the trend of migratory balances has thus become a key factor since the year 2000. Nevertheless, the flow of migrants is not yet strong enough to halt the depopulation of large parts of rural Aragon (Table 5).

4.1 Immigration as a New Phenomenon in Depopulated Rural Areas

In 2003 the contribution of immigration to demographic growth was more significant than natural growth throughout the EU-15. However, there are two important differences between Europe as a whole and rural Aragon. In the first place, natural growth was positive, even if low, in the EU-15, but it remained strongly negative in rural Aragon. In the second place, the net migration rate was

markedly higher in the districts of Aragon (Organisation for Economic Co-operation and Development, 2005).

This change cannot be understood without taking into account the extent of the shift in the direction and sign of migratory flows in Spain in the last quarter of the 20th century. The crisis of the 1970s halted the flow of emigrants abroad, and encouraged large numbers to return home. By the 1980s Spain had ceased to be a source of emigration, and a still relatively small number of foreign migrants had begun to enter the country. This situation changed gradually in the 1990s, as the country increasingly attracted immigrants to become one of the preferred destinations within the European Union by the early 21st century.

Major changes have also occurred in internal migratory movements in the decades since 1973. If the wage gap and the opportunity of industrial employment, not to mention access to the welfare state, had driven intense migration from the least to the most developed areas (i.e., movement predominantly from the countryside to the towns) until the early 1970s, the ensuing decades have witnessed a certain inversion of population flows, involving urban-to-rural and urban-to-urban movements (Hierro, 2006). This trend has resulted in a decline in long-distance and an increase in short-distance movements (García-Coll and Stillwell, 1999); migrants' motives are no longer solely economic, particularly regarding the search for a better quality of life (amenities) and concerning flight from the high cost of living (especially housing) in the major conurbations.

Against the background of these profound changes in Spain's external and internal migratory movements, the depopulated rural areas have played a decisive role, ceasing to be the demographic reserve of the urban and industrial areas at home and abroad and becoming destinations where arrivals far exceed departures. The current positive migratory balances in the rural areas of Aragon are due not only to the declining outflow of local people toward the cities in comparison to the years of the rural exodus but also to the rising numbers of arrivals.

Population inflows, meanwhile, comprise both foreign immigrants following the classic migratory pattern between areas with significant income and opportunity gaps and the arrival of citizens resident in other parts of Spain. Such people are attracted by new determining factors such as the positive perception of the quality of life in rural districts (amenities). These considerations basically center on the opportunity to purchase more comfortable houses, a more agreeable and less crowded environment and, in general, a lifestyle allowing the enjoyment of higher levels of social and environmental capital.

It is no easy matter to quantify the relative importance of these phenomena, because the unreliability of data concerning foreign arrivals casts doubt on some of the results obtained. However, examination of the registration and deregistration of residents in the rural municipalities of Aragon suggests that foreigners would represent between 19% and 64% of new inhabitants, depending on the size of the localities concerned (Table 8). Meanwhile, these people are unlikely to leave, and their contribution to the positive migratory balance observed in numerous rural districts may therefore be as much as half.

Table 8. *Percentage of Foreigners in Changes of Residence in Aragon, 2001–2003*

Municipalities[a]	Inflows	Outflows
< 100	18.6	13.6
100 to 499	26.2	16.5
500 to 1,999	40.5	22.7
2,000 to 4,999	63.6	27.8
5,000 to 19,999	83.6	26.9
20,000 to 100,000	46.3	13.8
> 100,000	33.8	14.7

Note. Calculated using data from the Aragonese Institute of Statistics.

[a]Municipalities ranked by population size.

4.2 Foreign Immigration to Rural Areas

Spain only became a host country for immigration very recently (Arango, 2004). In this context, the arrival of foreign-born immigrants has had an important impact on the positive migratory balance now exhibited by rural areas. The economic boom enjoyed by Spain in recent years, the entry of smaller new generations into the labor market as a result of the falling birth rate, and the scant interest of Spanish workers in certain occupations all help to explain the massive influx of immigrants into the country, which has coincided with a sharp reduction in the employment rate to levels not seen since before the economic crisis that began in 1973.

In Aragon, the very low number of foreign residents suddenly took off at the end of the 1990s and accelerated sharply from 2000 onward (Table 9). While the percentage of foreigners resident in both rural and urban Aragon was less than 1% regardless of the size of the municipality in 1999, by 2004 it had risen to 8% over the region as a whole (Table 10). In rural areas, this percentage has risen in line with the size of the municipalities concerned, reflecting the greater opportunities for jobs, housing, and social services available in the larger towns.

Whatever the general causes that may be advanced to interpret the recent migratory boom in Spain as a whole, there can be no doubt in the case of the rural districts of Aragon that the labor shortfall resulting from the earlier depopulation has played an important role. While the first arrivals in Aragon in the 1980s were attracted to intensive agriculture, especially to work in fruit picking, their conversion from temporary to permanent immigrants, the arrival of new permanent contingents and the expansion of the areas settled are all connected with the high rate of aging of the rural population and, therefore, with the difficulty of finding the labor in demand. The data (Table 6) clearly reflect how difficult it would be to replace workers leaving the labor market without relying on foreign immigration.

Table 9. *Change in the Number of Foreign Residents in Aragon, 1991–2005*[a]

Year	Registered foreign residents[b]	% foreigners/ total population	Legal foreign residents[c]	% legal foreign residents in Aragon to total Spain
1991	n.a.	n.a.	4,702	1.3
1992	n.a.	n.a.	5,210	1.3
1993	n.a.	n.a.	6,160	1.4
1994	n.a.	n.a.	6,305	1.4
1995	6,848	0.6	6,877	1.4
1996	n.a.	n.a.	6,290	1.2
1997	7,846	0.7	9,747	1.6
1998	8,938	0.8	11,877	1.7
1999	12,051	1.0	15,449	1.9
2000	25,132	2.1	17,590	2.0
2001	43,973	3.6	25,001	2.3
2002	61,896	5.0	25,994	2.0
2003	77,545	6.2	39,015	2.4
2004	96,848	7.6	53,478	2.7
2005	n.a.	n.a.	81,028	3.0

Note. From the Office of the Secretary of State for Immigration and Emigration, National Institute of Statistics and Aragonese Institute of Statistics.

[a]Data at December 31 of the years in question.

[b]Registered foreign residents are those entered in the municipal population register on January 1 each year. These residents have been assigned to the day prior to the population register for the purposes of comparison with data for legal residents (i.e., registered foreign residents are assigned to the prior year). It is not necessary for immigrants to have their papers for municipal registration, which is essential to access public services, such as education and health care.

[c]Legal residents are those holding valid resident permits.

4.3 Urban-to-Rural Migration

Analysis of the origins of Spanish residents settled in the rural districts of Aragon reveals a predominance of internal migrants from nearby locations, mainly from either the same province (between one half and two thirds of arrivals depending on the size of the municipalities concerned) and the other two provinces of the region (Table 11).[5] The current flow of urban-rural migration is, furthermore, significant. Provincial capitals were the main source of Spanish internal migrants in 2003 and 2004 (31.2%, while people moving from large towns and cities taken as a whole

[5]This migratory pattern is by no means exclusive to rural Aragon and pertains, in fact, to the whole of Spain (García-Coll, 2005).

represented 76.4%), and rural municipalities were their main destination (29.3%).[6] Rural destinations were also the primary destination for Aragonese citizens participating in internal migrations in the aforementioned two years, while their relative importance was significantly higher than for Spain as a whole (42.5%).

Table 10. *% Foreign Population to Total Population of Aragon, 1999–2004*[a]

Municipalities	1999	2004
< 100	0.6	3.7
100–499	0.7	4.1
500–999	1.0	5.6
1,000–4,999	1.0	7.4
5,000–19,999	1.0	9.5
20,000–99,999	0.6	6.3
>100,000	1.1	8.0
Aragon	1.0	7.6

Note. Calculated using data from the Aragonese Institute of Statistics.

[a]Municipal population register data from January 1, 2000, and January 1, 2005.

Table 11. *Origin of Spanish Internal Migration into Aragon, 2001–2003 (%)*

Population size	Same province	Other Aragonese province	Other Spanish province	Total
< 100 inhabitants	49.3	18.6	32.1	100
100 to 499 inhabitants	54.1	12.4	33.5	100
500 to 1,999 inhabitants	60.5	10.4	29.1	100
2,000 to 4,999 inhabitants	66.4	8.4	25.2	100
5,000 to 19,999 inhabitants	52.0	11.1	36.9	100
20,000 to 100,000 inhabitants	43.4	17.4	39.2	100
> 100,000 inhabitants	32.1	16.3	51.5	100

Note. Calculations are based on data provided by the Aragonese Institute of Statistics.

The arrival of native, internal migrants in rural areas is due to a complex series of causes, the most significant of which is the change in the socioeconomic functions performed by such districts and, in particular, the rise of tourism and residential development (Perkins, 2006). Furthermore, attention should be drawn to the phenomenon of return immigration (García-Coll, 2005; Stockdale, 2006).

The newfound attractions of rural life appear to be related in large part to changes that have taken place in their economic structures and their function in the economy as a whole. The configuration of new patterns of settlement and spatial

[6]Authors' estimates are based on Residential Change Statistics published by the Spanish National Institute of Statistics.

organization is a process that is in no wise peculiar to either Aragon or Spain, but is in fact common to almost all developed countries and has been going on since the 1960s (García-Pascual, 2003; Marina and Mooney, 2006).

In the case of rural Aragon, this change in economic functions is clearly apparent in light of the "deagrarianization" reflected in the sharp decline in farm assets in the last decade of the 20th century. While the figures in the larger rural towns were already relatively low in 1991 and the loss was moderate, the contraction has been intense in villages (under 1,000 inhabitants), and farming, the main rural activity until recently, has ceased to be so (Table 12).

Table 12. *Active Population of Aragon by Sector, 1991 and 2001 (%)*

	Agric.	Ind.	Cons.	Serv.	Agric.	Ind.	Cons.	Serv.
	1991				2001			
Total Aragon	12	29	9	50	7	23	10	60
Municipalities[a]								
< 100	60	9	8	23	36	16	11	37
100–499	45	17	10	28	28	18	13	42
500–999	37	23	11	29	25	21	13	41
1,000–4,999	23	30	13	34	14	28	13	45
5,000–19,999	11	26	12	51	9	25	13	53
20,000–100,000	4	17	9	70	3	13	10	75
> 100,000	1	32	8	59	1	23	8	68

Note. Calculated using data from the Aragonese Institute of Statistics and the Spanish National Institute of Statistics.

[a]Municipalities ranked by size in 1991 and 2001.

Tourism is one of the fastest growing industries. Its impact, however, shows clear signs of polarization and the sector should not be seen as affecting the whole of the rural environment (Niedomysl, 2005). Thus, it is the mountain areas that have done the best. Even here, however, there are significant differences between the Pyrenees, an area that was already highly specialized in tourism by 1999, and the Iberian Cordillera. Within each of these areas, moreover, there are divergences between different districts (García Pascual, 2003). In particular, those municipalities that are close to ski stations tend to have benefited most (Báguena, Gorría, and Guimbao, 2005).[7]

In the case of residential development, meanwhile, the most successful rural districts are close to or well connected with cities and have experienced counterurbanization.

[7]An analysis of the 84 top-ranking Spanish districts reveals that the capacity to develop residential tourism is dependent on geographical features (relief, snow, proximity to cities) (Collantes, 2005).

Table 13. *Metropolitan Area of Zaragoza (M.A.Z.) and Demographic Growth in Aragon, 2001–2005*

	Metropolitan Area of Zaragoza				
Municipalities[a]	Number of municipalities	% of Aragon municipalities	% population	Annual population growth (%)	% contribution of the M.A.Z. to growth in Aragon
< 100	0	0.0	0.0	—	—
100–499	5	1.3	2.0	0.7	-3.5[b]
500–999	2	2.2	2.3	1.7	-15.3[b]
1,000–4,999	10	10.6	14.4	6.6	47.0
5,000–19,999	2	12.5	10.4	4.6	19.6
20,000–100,000	0	0.0	0.0	—	0.0
> 100,000	1	100.0	100.0	1.5	100.0

Note. Calculated using data from the Spanish National Institute of Statistics and the Aragonese Institute of Statistics.

[a]We have defined the municipalities of the metropolitan area of Zaragoza as those falling within the District Boundary of Zaragoza.

[b]The sign is negative because growth in Aragon was negative in these municipalities. This should be interpreted, therefore, as showing by how much more the population would have fallen had it not been from the positive contribution of the municipalities forming part of the metropolitan area of Zaragoza.

The expansion of the metropolitan area of Zaragoza via the growth achieved by small and medium-sized municipalities on the back of rising city house prices is a relatively recent phenomenon, especially in comparison to the situation in other major Spanish cities, such as Barcelona and Madrid. This highlights the increasing importance of mobility for residential reasons.[8] Though recent, this trend has already had an impact on rural population growth in the municipalities lying within the metropolitan area of Zaragoza, particularly on certain types of towns. Table 13 includes a calculation of the percentage of demographic growth in the Aragonese municipalities (ordered by size) that is explained by the growth of the metropolitan area of Zaragoza between 2001 and 2005. Towns with 1,000 to 5,000 inhabitants in the metropolitan area accounted for almost half of growth in all municipalities of this size in Aragon as a whole, which was in turn the only segment to show real positive population growth in rural areas.

Finally, return immigration has been an important phenomenon in Spain in recent decades, driven by home-coming migrants who left their areas of origin in the 1960s for the growing cities, as well as young people who found their first jobs outside their home districts (Rodríguez, Egea, and Nieto, 2002). In Aragon, return

[8]Recaño (2004) argues that the increasing importance of residential mobility in Spain is due above all to the rise in city house prices and the improvement of public and private transport, which has allowed the delocalization of residences and work facilities within the metropolitan areas.

migration is a relevant component of the positive migratory balance in rural areas (Recaño and Cabré, 2003). In the period from 1997 to 2001, return migration represented 27.1% of outflows and 27.9% of inflows.[9]

5.0 Conclusions

The movement of people from rural to urban areas, as well as emigration abroad, had a major impact during the two centuries of industrialization and modern economic growth in the countries of Western Europe. In general terms, rural areas experienced intense outflows as people were attracted away by job opportunities in new economic activities, which were preferentially located in the cities. This entailed either low demographic growth in country districts or, in many cases, significant depopulation resulting in a decline in demographic numbers in absolute terms. Almost all of the big Western European nations were affected by processes of rural depopulation, which had a major influence on the negative evolution of the population in numerous rural regions. In recent decades, however, the new phenomenon of urban-to-rural migration has emerged in many countries, affecting the rural environment together with other developments such as changes in the economic functionality of the territory.

To study this phenomenon, this paper focused on the Spanish Autonomous Community of Aragon, where rural depopulation has had a major impact. This case does not, of course, explain the course of events in rural Europe as a whole, but it does cast light on similar processes in other regions of southern Europe where depopulation reached its peak in the second half of the 20th century.

Beginning toward the end of the 19th century, rural depopulation was basically caused by the intense participation of the country districts of Aragon in rural-urban migrations in Spain. The region's central position inside a rectangle with its vertices located in the main centers of Spanish industrialization explains the strong pull of new opportunities in the expanding cities, while the crisis of the traditional rural economy and the difficulty of many country areas in adapting to changing times triggered a powerful migratory current, which is clearly reflected in high negative rates of migration.

In contrast to many other developed countries, the process of rural depopulation in Aragon has not yet stopped, and large areas continue to lose population in absolute terms. However, important changes have taken place since the 1990s.

In the first place, migration has been replaced by intense negative natural growth as the key factor in rural depopulation due to the aging of the population, which is itself an outcome of the region's long history of migration. Aging is a key factor in low crude birth rates and high crude death rates. The situation is so extreme in many of the rural districts of Aragon that numerous villages are now completely uninhabited, while the prevailing rates of aging and population replacement in many others cast serious doubts on their future.

Secondly, the current situation features a reversal of the migratory balance in rural Aragon, resulting in a sharp deceleration in depopulation since 2001 and positive growth in the larger country towns. The transformation of many rural areas into net

[9]In Teruel the contribution of this group of migrants is key to explaining the positive migratory balance exhibited by the province in these years (García-Coll, 2005).

receivers of population is explained by a combination of factors. On the one hand, Spain has undergone a boom in immigration from overseas since the end of the 1990s. The high rates of aging and the difficulty of replacing retiring workers in rural areas offer excellent opportunities to foreign-born immigrants seeking work. On the other, per capita income in Aragon is among the highest in Spain, and the region's rural areas are currently seeing an incipient process of restructuring and change. This is defined, above all, by the decline of agriculture and the emergence of a dynamic service sector (above all tourism), the activation of a significant process of counterurbanization, despite a significant lag compared to other cases in Europe and Spain (e.g., Madrid and Barcelona), and increasing return immigration.

As a result, the phenomenon of migration, which for so long worked to empty rural Aragon, has switched its role, becoming the main driver of demographic regeneration in some areas. Nevertheless, the time horizon of this study is still too short to assess the extent of this process. In a territory where depopulation has been so intense as to create veritable demographic deserts, it is doubtful whether the budding restructuring of rural areas will be sufficient to change the trend. This brings us to the unequal intensity of the process, which suggests that stark contrasts are likely to emerge in the coming years.

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