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Analysis of the biodemographical rural change in Spain: A case study in the township of Corral de Almaguer (Toledo)

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RESUMO

O trabalho analisa alterações biodemográficas no meio rural Espanhol a partir das ocorridas na povoação de Corral de Almaguer (província de Toledo) durante os anos 1940-1980.

É detectável uma marcada mudança nos padrões de casamento, nascimento e morte através da comparação das duas sub-amostras (1940-60 e 1960-80) em que os dados foram divididos. As alterações de padrões são devidas provavelmente ao aparecimento tardio, em Espanha, das características que identificam a ruptura da estagnação demográfica europeia, bem como o despovoamento rural que uma migração massiva para as cidades provocou nos campos durante os anos 60 e 70.

Igualmente digno de nota é o declínio da mortalidade devido ao envelhecimento da população, bem como à mudança de certas práticas tradicionais tais como a idade ao casamento e número de filhos por família.

Palavras-chave: Alterações biodemográficas; Corral de Almaguer; Espanha.

ABSTRACT

The work analyzes biodemographical changes occurring in the Spanish rural environment by using those which happened in the township of Corral de Almaguer (province of Toledo) during the years 1940-1980.

One can detect a marked change in the patterns of marriages, births and death by comparing the two subsamples (1940-60 and 1960-80) into which the data have been divided. Pattern changes are probably due to the delayed aftermath in Spain of those features which identify the rupture of the European demographic stagnation as well as the rural depopulation which a massive migration to the cities caused in the country during the 60's and 70's.

Also noteworthy is a decline in infant mortality which contrasts with higher death rates due to increased ageing of the population as well as a change of certain traditional practices such as age at marriage or the number of children per family.

Key-words: Biodemographical changes; Corral de Almaguer; Spain.

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INTRODUCTION

Since 1952, when LASKER stated the importance of analyzing some demographic factors in order to understand human evolution and the future of our species, numerous studies have opened up this field. They have tried to establish both the course followed by a particular population up to the time it reaches its characteristic structure and the mechanisms which can alter this course.

Two great milestones mark the rupture of European population stagnation: a decline in mortality (especially children) and later a decrease in the birth rate. These tendencies were somewhat delayed in Spain in comparison to continental Europe, and even more so in rural populations.

An important migratory movement took place from the 1960's on, producing, in consequence, a depopulation of what had been both the economic and population base of Spain. This paper proposes to study the period of change in rural society by analyzing changes occurring in the township of Corral de Almaguer (Toledo) during the period after the Spanish Civil War.

MATERIALS AND METHODS

Births, marriages and deaths were analyzed using two sources, municipal census records and parish records. It was found in some cases that parish records were more complete and reliable than public records.

The study takes in the period from 1940 to 1980 and is subdivided into two stages, 1940-1960 and 1960-1980, to coincide with changes occurring in patterns of rural life. Censuses were taken every five years in the township, which means that available data had to be organized into five-year periods. The figures were later processed in the Computer Center of the Universidad Autónoma of Madrid.

RESULTS

Table 1 shows the pattern in number of inhabitants registered in the township of Corral de Almaguer. During the time studied the resident population is situated at around 8000 inhabitants, with a maximum being reached during the decade 1945-1955. A noteworthy change was the important decline in population shown in the last two censuses (1975 and 1980). Population was reduced by 26%.

Table 2 reflects changes in birth statistics along with factors contributing to population changes in the township. The birth rate declined from 29.21% during the five-year period from 1940 to 1945 to 15.33% during the period from 1975 to 1980. A substantial reduction was also recorded in the rate of reproduction, from 37.51% to 13.29%. These definitely high values found during the first five-year period may be due to the fact that this is the period

TABLE 1. *Population census for Corral de Almaguer 1940-1980*

YEAR	♂	♀	TOTAL	YEAR	♂	♀	TOTAL
1940	3808	4238	8046	1965	3948	4139	8087
1945	3960	4332	8292	1970	3890	4116	8006
1950	4084	4512	8596	1975	3291	3506	6797
1955	4000	4337	8337	1980	3018	3212	6230
1960	4089	4302	8391				

TABLE 2. *Birth and proportion of sexes*

YEAR	Birth rate	Reproduction rate	Proportion 2 ^a of sexes	Proportion 3 ^a of sexes
1940				
1940/45	29.21	37.51	111.31	91.41
1945/50	17.74	19.99	101.26	90.51
1950/55	20.34	21.05	106.82	92.22
1955/60	22.09	18.17	109.25	95.04
1960/65	20.50	17.89	112.72	95.38
1965/70	16.66	16.42	96.17	94.50
1970/75	15.94	14.43	114.22	93.86

TABLE 3. *Seasonal res of births patterns and proportion of sexes from month*

	% Births	Proportion of ♂	Proportion of ♀	% by Seasons
January	8.70	54.77	45.23	23.32
February	7.94	48.85	51.15	
March	9.72	52.39	47.61	
April	9.48	53.30	46.70	28.63
May	9.43	55.65	44.35	
June	8.68	49.58	50.42	
July	8.60	52.32	47.68	25.06
August	7.78	53.46	46.54	
September	8.52	52.45	47.55	
October	8.02	46.81	53.19	24.47
November	7.93	52.79	47.21	
December	6.68	47.76	52.24	

immediately following the Civil War. During this time there was a sharp rise in the birth rate throughout the whole country. In Table 2 births are also broken down according to the proportion of each sex. Except for two five-year periods, 1965-70 and 1975-80, the values shown are always over 100.

A different situation is found when analyzing the tertiary proportion of sexes, whose value is always lower than 100, revealing a greater number of women in the population. The first two five-year periods could reflect the effects of war fatalities, the majority of whom were men. In any case, during the following periods the tertiary proportion of sexes remains at values lower than 100 and can be attributed to a higher mortality among men. This is independent of the number of male births that occur in each five-year period.

The lack of sufficiently detailed census information hindered us from analyzing the proportion of sexes at ages which correspond to the useful female reproductive period. This might have given an idea of the possible effect of proportion of sexes on the reproductive potential. The values found are slightly higher than those found by LUNA (1980) in the Alpujarra region, but clearly lower than those found by FUSTER (1982) in Nogales or by GONZALEZ BREÑA (1985) in Barrado.

To complete the analysis of births, they were distributed over a year's time in Table 3. It can clearly be seen that a higher number occur in spring, during the months of March, April and May. This maximum coincides with certain rural Spanish populations such as Margatería, studied by C. Bernis (1974).

Nevertheless, the maximum that was recorded in our case for the two sub-periods studied is not found in other rural populations in our country such as Alpujarra (LUNA, 1981), with a winter maximum; such as Formentera (BERTRANPETIT, 1981), with maximums from December to March or such as Daganzo (TRANCHO, 1979), with an irregular pattern. Evidently, the fact that births are seasonal could be due to several different factors, sociological, climatic or economic. Thus, the complexity and variability among communities is an undeniable fact. In Corral de Almaguer, the seasonal minimum is registered in winter. This phenomenon will be analyzed in relation to marriage in the next section.

Marriage

Marriage is a factor which determines fecundity, since the births will reflect the number of marriages that have taken place.

It is evident that in the period studied there is a clear relation between the number of inhabitants and a decline in the birth rate in the town. A maximum was reached during the periods from 1955 to 1960 (10.6) and from 1960 to 1965 (9.29).

On comparing these figures with data on the Spanish population as referred to by SALUSTIANO DEL CAMPO (1975) and the I.N.E. (Instituto Nacional de Estadística), we find throughout the four decades studied, higher values in Corral de Almaguer than in the rest of the population. During the

1960's, especially from 1965 on, the population of the municipality begins to fall. This decline, however, is less drastic than that which affected the Spanish population as a whole. The last two figures recorded may be the result of an overestimate since many couples return to the town to get married or else marry and then emigrate. This fact could contribute to making these figures higher than the national average for the same period.

The marriage rates we found were higher than those found by different authors studying other rural Spanish populations: BERNIS (1974), FUSTER (1982), BERTRANPETIT (1981), MASIU (1977) and TRANCHO (1979).

The principal cause of the decline in marriages must be sought in emigration rather than in unsanctioned unions, rarely occurring in conservative societies such as rural ones.

The distribution of marriages in Corral de Almaguer throughout the year has been analyzed since it is an obvious fact that they did not take place in uniform fashion. Several sociocultural factors contribute to this. The distribution of marriages is interesting because it provides information on patterns of conduct relating to crops, maximum labour periods and periods of maximum purchasing power, all of which promote marriages. Along with these are other factors linked to the religious life of the population such as feasts and festivities of patron saints.

Table 5 shows percentages of marriages in different months. It was divided as before, indicating the two subperiods, with the annual distribution of marriages in each one. The percentages in both periods clearly diverge from the theoretical percentage of 8.33 per month. However, we were able to confirm notable differences which can be summed up as follows:

- 1.) The seasonal maximum for marriages in both periods was reached in fall. In the first period the greatest number occurred in November, where as in the second period the greatest number took place in September.
- 2.) In winter there is an important change with respect to the percentage of marriages, which go from 31.21% to just 12.03%.
- 3.) A tendency towards an increase in spring marriages was detected.
- 4.) In the summer months, in August to be exact, there is an important increase.

Behind these statistically significant changes are the modifications which have taken place in rural Spain over the last 20 years. The process cannot be generalized since each district has its own characteristic crops and its own calendar. The significant rise in the percentage of marriages in November coincides in this region with a decrease in agricultural activities. There is also an increase in buying power due to the sale of the grape harvest, one of the principal sources of income in this town of the grape-growing region of La Mancha.

As for changes from the first period to the second, these are conditioned by a great increase in the use of agricultural machinery from the 1960's on.

TABLE 4. *Number of marriages and marriage rate*

	Number of marriage	Marriage rate C. Almaguer	rate España		Number of marriages	Marriage rate C. Almaguer	rate España
1940-45	285	6.87	7.10	1960-65	376	9.29	7.5
1945-50	339	8.13	7.6	1965-70	338	8.44	7.1
1950-55	357	8.50	7.8	1970-75	270	7.94	6.8
1955-60	407	10.06	8.3	1975-80	240	7.70	

TABLE 5. *Distribution of marriages by months: total and sub periods*

	Total	1st Period 1940-60	2nd Period 1960-80
January	8.30	14.85	3.86
February	3.72	5.51	2.42
March	2.22	1.95	2.42
April	3.65	3.11	4.05
May	6.39	4.62	7.72
June	3.72	3.82	3.66
July	2.59	1.15	3.66
August	11.88	2.04	19.17
September	18.54	9.52	25.26
October	6.24	8.45	4.64
November	24.60	34.51	17.40
December	7.90	10.85	5.75

TABLE 6. *Mortality, mortality infant and age at death*

	Mortality rate	Infant mortality rate %	Average age at death		Infant mortality rate in Spain
			♂	♀	
1940-45	15.75	103.22	48.01 ± 3.02	49.06 ± 1.77	115
1945-50	9.14	85.07	53.35 ± 4.84	54.37 ± 4.57	81
1950-55	9.11	61.32	54.17 ± 5.69	56.11 ± 5.69	54
1955-60	7.96	33.44	56.12 ± 4.70	59.59 ± 5.78	43
1960-65	8.56	33.42	60.81 ± 5.47	61.68 ± 1.90	32
1965-70	8.85	31.48	61.02 ± 5.80	63.02 ± 2.86	24
1970-75	11.00	31.20	62.70 ± 5.15	65.14 ± 2.18	20
1975-80	11.12	26.50	62.89 ± 5.03	66.00 ± 2.76	15

The use of machinery considerably cut harvesting time, which no longer lasts until August as it did in the past. This coincides with an important rise in the number of August and September marriages. September also coincides with festivities in honour of the patron saint of the municipality.

Ages at which townspeople got married turned out to be very uniform throughout the periods studied. The average age for men is $x = 28.63 \pm 1.12$. For women it is $x = 26.60 \pm 0.97$. In the second period, however, slightly lower marriage ages were recorded. For women it was 25.85 ± 0.7381 and for men, 27.89 ± 1.03 as opposed to the first period in which the age for women was 27.35 ± 1.08 and for men, 29.37 ± 1.30 .

Deaths

Deaths are shown in the same way as births, the figures being divided into 5-year periods and based on a theoretical population of 1000. The death rate is shown in Table 6. This rate is relatively high from 1940 to 1945, the post-war period. It then drops markedly, with the lowest rates recorded for 1955 to 1970. In the last decade there is an appreciable increase, with values of over 10%. This must be attributed to ageing of the population due to emigration of groups of younger individuals. This leaves a higher proportion of older individuals and a corresponding increase in deaths. After 1970, the death rate exceeds the national average which is around 8.5%. The rate of infant mortality partly reflects the quality of life that indicator of the socioeconomic status. The infant mortality rate has descended noticeably in Corral de Almaguer, although not as drastically as the infant mortality rate for the total population. The values are relatively high until the 1955-60 period: From here on, infant mortality is cut practically in half in this area. This is without a doubt conditioned by the abandonment of traditional rural practices such as home birth. This, in turn, is due to a greater diffusion of information on child care and a growing network of hospital facilities.

Infant mortality rates are lower than those found in other rural Spanish communities as can be seen in BERNIS (1974), FUSTER (1982), GARCIA MORO (1983), GONZALEZ BREÑA (1975), MARÍN (1977) and TRANCHO (1979). Only two authors found lower infant mortality rates in rural areas, LUNA in Alpujarra (1971) and BERTRANPETIT in Formentera (1981).

The average age of death rises in both men and women, but the differences between sexes do not remain stable, but increase in virtue of greater female longevity, a fact cited by GOMEZ (1986).

As to incidence of death during different months of the year, this was again compared by grouping the figures into two main periods. In both periods, the highest frequencies are found during the winter months of December and January. Furthermore, a notable decrease in deaths during the summer months was found in the second period. This is associated with the decrease in infant deaths caused by the high incidence of dehydration during these months.

A study of death certificates showed that they often did not state the cause of death very precisely. An overall estimation, however, points to a progressive reduction in infectious diseases due to the advent of antibiotics, along with a greater incidence of tumoral and cardiovascular diseases.

CONCLUSIONS

The changes occurring throughout Spanish society during the period studied also had an influence on rural society. The effects, however, were unequal and were not simultaneous. For this reason it becomes necessary to analyze separately different rural districts of our country whose biodemographic aspects are as yet little-studied.

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