

SPAIN'S POPULATION CENSUS IN 1860: ITS METHODOLOGICAL PROBLEMS. THE INTRODUCTION OF SOCIAL VARIABLES TO THE CENSUSES

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I. INTRODUCTION

This article explores two fundamental aspects of *Spain's 1860 population census*, starting with an examination of the methodological problems encountered, and in particular the degree to which de jure registration of the resident population was exhaustive. The doubts harboured by the Statistical Commission of the Kingdom regarding the completeness of the first census counts stemmed from many factors. These included, among others, a) the length of time which had passed -70 years - since the last, pre-modern 1787 census of the Spanish population, rendering the previous census an unreliable basis for comparison with the 1857 census, and b) the lack of a statistical census infrastructure in Spain, especially at provincial level, since the Statistical Commission was created only months before performing Spain's first modern census. As a consequence of the qualms and misgivings about the results of the 1857 census, the published version only contained basic demographic variables, and the Commission's intention was to validate it - or not - by conducting a second census only three years later. In contrast, the published version of the 1860 census contained social variables such as educational level and economically active population, which were essential in determining the reality of the country for practical purposes. The Commission alleged other serious methodological shortcomings, such as not having included the de jure population in the censuses, nor having sufficiently clarified the definition of active population and method of counting the same.

This section is then followed by an examination of the level of primary education attained by the population at provincial level. An analysis is conducted not only of the different levels

of literacy achieved according to sex, place of residence and region, but also of some of the human infrastructures that might explain the levels of schooling declared, such as the scant and unequal distribution of primary school teachers and above all, the low levels of school attendance, so conditioned at that time by the social class of the head of household and by discrimination against women in education. Statistics from the 1860 census, as well as the 1857 Law on Public Instruction itself, provide firm evidence of such discrimination. This study highlights the profound discrepancies in schooling and literacy that existed between men and women in both urban and most especially rural environments, and in regional distribution. The analysis of literacy levels by sex, place of residence and region was intimately related to the social and practical goals pursued at the time by governments of all countries to justify their modern censuses.

II. METHODOLOGICAL PROBLEMS IN SPAIN'S 1857 AND 1860 POPULATION CENSUSES

The introduction to the *1857 population census of Spain* (15,464,078 inhabitants) highlighted the following:

- a) *The census did not achieve «the certitude of complete accuracy»*, due to a lack of experience in this type of undertaking. This suspicion that the real total population had not been counted was the result, according to the Commission, of provinces with a very sparse population, which thus required greater preparation of census activities, and of not having counted all the collective households in the larger cities.
- b) *Professions and occupations*, although included in the 1857 census resident registration form, *were not published* «... due to the complications arising from the same person appearing repeatedly and in several concepts in the boxes in the residents' register...».
- c) In addition, for “technical” reasons, the Commission was *unable to publish the de jure population*, and assumed that the de facto population was sufficient.
- d) *The Commission noted the earlier - and widespread - problems of under-declaration in the census* due to fears that the information declared would be used by the Government to raise taxes and/or military quotas in the different regional divisions. According to the Commission, it was on medium-sized towns that greatest suspicion fell of intentional and malicious concealment, in contrast to smaller ones which «normally showed more sincerity».
- e) *To correct omissions and errors in the census*, Spain's provincial governors published previews of the census in the official gazettes, and «individuals and towns were invited to report errors and nondisclosure».
- f) Lastly, the introduction to the 1857 census *reiterated the utility and practical nature of the population census*. This census would replace previous ones as regards application of electoral law, conscription, public finance and provincial government. The census may also have been the origin of the «reform of municipal organisation in towns with a low population» or of the amalgamation of municipalities within the same administrative and judicial regional division. The introduction to the census also highlighted its usefulness to private companies.

The **1860 population census of Spain** (15,658,586 inhabitants) was performed under favourable “statistical circumstances”, since besides the experience the Statistical Commission had garnered as a result of implementing the 1857 census, its economic, human and administrative resources were considerably better in 1860.

The published information from the 1860 census contained substantial improvements over the first census of 1857: on the one hand, the information incorporated a *greater wealth of detail*, and on the other, *two new census variables* were included in the 1860 publication.

The number of *age groups was increased*, rising from 16 in 1857 to 22 in 1860, mainly affecting groups aged less than 25 years old. In 1860, the age groups were normalised to 1, 4 and 5 years. A second improvement over the 1857 census was the *publication in 1860 of the «professions, arts and trades»* at judicial district and provincial level. The 1860 census highlighted the lack in 1857 of clear criteria for counting the frequently multiple occupations declared by the active population; however, it appears that the 1860 census also failed to solve this problem.

Among the strictly new census variables included in the 1860 census, two were of particular note: a) *level of literacy* by sex, although not by age: determination of the literate population - the segment which knew how to read and write - rendered it possible to assess various social, economic, cultural and other aspects, since the statistics were available by sex and at municipal, judicial district and provincial level; and b) the *census «registration certificates»*, which were equivalent to the current concept of household.

Variation between the population included in the 1857 census and that in the 1860 census indicated an increase at national level (0.42% annually) that was to be expected within the old demographic regime. At the provincial level, these variations were more questionable, especially for the 14 provinces with very high intercensal rates (between 0.81 and 1.66% annually), probably due to the correction in 1860 of very obvious intercensal omissions in 1857. These omissions were particularly evident in the provinces of Pontevedra, Oviedo, Santander, Lugo and Vizcaya, since their high intercensal increases were “contradicted” by their very low *sex ratio* in 1860 among the population aged 11 and older - from 71.0 in Pontevedra to 89.9 in Vizcaya, a circumstance which could be attributed to intense emigration from these areas to America. In these provinces, under-declaration in 1857 was facilitated by the dispersed nature of the population, as the Commission acknowledged, and the lack of a census infrastructure. Only in Cadiz (0.97%) and Madrid (0.94%) was this marked increase explicable, in part, by male immigration, attracted by the opportunities offered by a port and a capital city, respectively; although Spain still did not have official statistics on migration in 1860, the high *sex ratio* in Cadiz and Madrid among the population aged 11 and older (113.6 and 109.5) could only be explained by male immigration. At the other end of the spectrum, despite the Commission's fears about possible under-declaration, another 14 provinces showed a decline in the population between 1857 and 1860 (from -0.1% to -0.94% annually); these provinces were mainly located along the border with Portugal, an area subject to intense poverty and its consequences, and thus migration may have been the main cause of a decrease in the 1860 census.

III. SCHOOL ATTENDANCE AND LITERACY

The 1860 census included information on the population attending schools, on teachers and on literacy levels. Spain's most pressing educational problem at the time was its high illiteracy rate, and consequently the most complete census data on education referred to literacy level and its "source", in other words, the children who attended primary schools and their teachers.

On a national level, 2,408,620 men and 715,790 women declared that they were literate; thus, *42% of men aged 11 and older were literate, but only 12% of women*. Besides these sex differences, there were also marked contrasts between provinces and according to place of residence, in this case between the urban population residing in provincial capitals and the rural population resident in the rest of the province. In provincial capitals, which accounted for 11.8% of the total Spanish population included in the census, both sexes presented much higher literacy rates; 58.5% of men and 30.2% of women. In rural populations, however, the literacy rate among men fell to 39% and to 9% among women.

Discrimination against women in schooling and primary education was evidenced both in the population census of 1860 and in the Law on Public Instruction of September 9, 1857 (the Moyano Law). The eradication of discrimination against women was still far from being one of the priorities of society or the government. In fact, although the Moyano Law made primary education obligatory for all children of both sexes aged between 6 and 9 years old (art. 7), according to the census there were exactly twice as many male teachers in primary education (15,536) as female teachers (7,789); such a numerical disparity between male and female primary school teachers could hardly ensure equal schooling and learning for boys and girls. Specifically, the *nationwide schooling or school attendance rate, calculated as the number of children that according to the census attended school, accounted for 41% of boys and only 27% of girls aged between 6 and 15 years of age*. Despite the legally compulsory nature of schooling for children aged between 6 and 9 years old and the insufficient number of female primary school teachers, which inevitably meant that they had too much work, these suffered economic discrimination in their official salary, because according to the Moyano Law (art. 194), female teachers would be paid a third less than their male colleagues.

School attendance. The «children attending school» included in the 1860 census must be understood as representing school attendance, because the census did not collect information on the regularity of school attendance, the duration of studies or the age of the school children. For the present article, school attendance was assessed using census statistics on «primary school» teachers (15,536 male teachers and 7,789 female teachers), the children who attended school (667,100 boys and 434,478 girls), the children aged between 6 and 9 years old (943,812 boys and 823,286 girls) and all children aged between 6 and 15 years old (1,639,106 boys and 1,588,312 girls).

The provincial maps of school attendance for both sexes show two large areas with different levels of schooling: there were higher rates than the national average in the central part of the northern half of the peninsular, whereas in the southern half and the islands, rates were lower than the average. Part of Catalonia and the Region of Valencia, and especially Galicia, constituted a marked exception to the rest of the northern half of the peninsula, as

their school attendance rates were also lower than the national average. In a negative sense, the low rates of schooling among girls in the interior of Galicia were especially noticeable since they were among the lowest in Spain (7.9% in Lugo and 13.5% in Orense), although it was the Canary Islands which had the lowest school attendance rates for both sexes; 17.2% of boys and 10.4% of girls. Meanwhile, from among the provinces of southern Spain, it was Almeria which had the worst record, with only 19% of boys and 12% of girls aged between 6 and 15 years of age attending school. Nationally, the school attendance rate for girls was a third lower than that for boys, standing at 27% and 41%, respectively.

Among the factors explaining the geographical differences in school attendance rates, it should be noted that the highest rates never corresponded to the largest cities, such as Madrid, Barcelona, Seville or Valencia, but rather to those in the region formed by the central provinces of the northern half of the peninsula, such as Álava, Burgos, Navarra, Segovia, Palencia, Soria, Santander and Logroño, almost all of which presented of lower urban population rates in their capital cities than the national average -11.8%.

The 1860 population census provides information that may in part explain the unequal rates of school attendance and literacy, both by sex and by region:

a) *The unequal distribution of male and female primary school teachers.* The maps with the total number of inhabitants per teacher, show that the provinces best endowed with male primary school teachers coincided with the provinces that achieved the highest rates of school attendance among boys and male literacy, indicating a logical connection between cause and effect, or educational supply and demand.

The map of female primary school teachers by province shows a much lower number of female than male teachers, with wide variations in regional distribution. The areas with the greatest deficit of female teachers (between 2,800 and 12,357 inhabitants per female teacher) were the provinces in the northern half of the peninsula and the Canary Islands, which appear to correspond, at least in part, to the provinces with a greater dependence on agricultural employment and less dependence on employment in the secondary sector. By contrast, the Mediterranean provinces all presented rates for the active population employed in the secondary sector which were above the national average - 17.4% - and usually had more favourable inhabitants per teacher ratios than the national average - 2,010 inhabitants per female primary school teacher.

b) *The secular clergy as a support for the education given in primary schools.* The provinces with the highest rates of school attendance also had a higher number secular clergy included in the census, often with rates in excess of 4 priests per 1,000 inhabitants, whereas the overall figure for Spain was 2.7. By contrast, the provinces with the lowest rates of secular clergy (between 1.1 and 1.9 priests per 1,000 inhabitants), all located in the southern half of the peninsula and the Canary Islands, clearly coincided with the provinces with lower schooling rates, especially among boys. This envisaged practice of teaching by secular clergy entailed economic benefits recognised in the Law on Public Instruction, both for the government and for the priests, since «Those in receipt of an ecclesiastical stipend will be paid only half the salary corresponding to them as teachers» (art. 176).

c) *Social class as a determinant of school attendance.* The social class of the head of household and social reproduction form a recognised explanatory indicator of regional differences in school attendance. Agricultural labourers constitute a good example of a disad-

vantaged and very representative social class in 1860 Spain. This social class had very few economic and cultural resources and held a low opinion of the benefits of schooling for the children in these households, especially in the case of girls. Provinces with a lower relative representation of these labourers, and therefore a higher proportion of agricultural owners, also presented the highest rates of school attendance and literacy in the rural environment.

Literacy by sex, place of residence and region. The maps showing literacy rates reveal very marked regional differences between the central provinces of the northern half of the peninsula, much more literate, and the southern provinces, with lower rates; however, Galicia, a wide strip of the country running along the entire Mediterranean coast and the islands also presented low literacy rates. Consequently, the regional distribution of literacy rates coincided with the previously discussed school attendance maps. *Male literacy in rural households* was 39.2% for those aged 11 and older. *Women in rural households* had very low literacy rates, between 2.6% in Orense and 23.3% in Logroño, with a national average of only 9.3%.

In the provincial capitals, literacy rates were considerably higher, especially among women: here, the average literacy rate for men was 58.5%, and 30.2% for women. As with the rural population, the highest literacy rates for provincial capitals occurred in the central part of the northern half of the peninsula, although both urban and rural environments in Cadiz and Madrid had “islands” of literate women, no doubt associated with the port and state capital functions, respectively, of these two cities. The higher level of literacy of the population residing in the capital cities was linked to the concentration in these of a population that was necessarily literate and/or had obtained a secondary or higher education due to the requirements of their occupations, including those working in the tertiary sector (excluding the mass of servants), manufacturers, industrialists and craftsmen, as well as the most prominent landowners. All these professions, which were largely concentrated in the provincial capitals, formed a social class the reproduction of which entailed higher levels of schooling for both sexes, although discrimination against women patently endured.