The Organisation of Barcelona City Council’s Statistics Service (1902-1923)

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A hundred years have gone by since the creation of the statistics service of the Barcelona City Council in 1902, which was called the Department of Statistics, Registrations and Elections. The organisation of specialised services of a technical nature is a reliable indicator of the local administration modernization process. In Barcelona, this process appears to have taken place in the 1890s and the beginning of the twentieth century. Two peak years are meaningful: 1891, when the Municipal Institute of Hygiene was organised and 1925, the year the City Map Service was created. In between, it came to a complete remodelling of the statistic branch.

This study commemorates the hundred-year-old tradition of the Barcelona statistic service, by focussing on its initial stage: the one that goes from 1902 to 1923. The organisation of municipal statistics is one of the most interesting aspects, and also one of the lesser-known, of the process of the institutionalization of statistics. Despite the early development of urban statistics, which is the logical consequence of

the growth and transformation of European cities during the eighteenth and nineteenth centuries, the consolidation of specialised autonomous statistical services on a municipal scale was a late development, and in general, subordinated to the introduction of central statistical bodies in each country. There is a plausible explanation for such a delay. All over Europe, the fundamental condition for the institutionalization of statistics was the organisation of the modern state. And, in general, the creation of official statistical services during the 1800s ran in parallel with efforts of policy centralization, administrative homogeneity and the reinforcement of the central government system. From this perspective, municipal statistics would come to be one of the last steps in the rationalization of administrations that was pushed forward by the central agencies of government.

Nevertheless, the explanatory statistics/nation-state binomial leaves some questions unanswered. Indeed, the political arithmetic, which amounts to

1 The study is based on a previous study that we have broadened and rewritten. Luis Urteaga and Francesc Nadal: “En los orígenes de la estadística municipal: la creación de los servicios de estadística del Ayuntamiento de Barcelona”, H. Capel, J.M. López Páez and J. Pardo (eds.), Ciencia e Ideología en la ciudad (II). Valencia, Generalitat Valenciana, 1995, pp. 87-100. We thank the staff at the Administrative Archive of the Barcelona City Council for the help they gave us to examine the personal files of Manuel Ernesto Bartoli, the first director of the Statistics Department.

Dupaquier, 1975.
the science of statistics, began as a reflection on morbidity and mortality in cities, and urban statistics relied on scientific societies and social reformers from the beginning of the nineteenth century. Some elements of urban statistics, such as the populational dynamics and the economic activity in cities, have obvious importance for the state administration, and could be covered by national statistics. Other aspects of the growing interest in the sociological literature of the 1800s, such as the local variation in diseases, housing conditions, and "moral statistics", had a specifically urban significance and required a local approach in order to interpret the compilation and treatment of information. In fact, one of the pioneer publications in the field of statistics, the Recherches statistiques sur la ville de Paris (1821), has a genuine urban character, and some major cities like Berlin, Vienna, Rome and Budapest already had state or municipal offices of statistics in the 1800s: in other words, before or simultaneously with the consolidation of the central statistical services.

The quantitative knowledge of urban reality was a reiterated need proclaimed by scientists and municipal authorities during the 1800s. To sum up, its institutional consciousness had to do with, not only to the deployment of national statistics services, but also to the capacity of cities to govern themselves with the appropriate seriousness and urgency in order to solve the problems that were presented by industrial and urban development. At the same time, the peculiarities of municipal policy and local scientific traditions had to be taken into account.

The case of Spain seems to be adapted to the more general pattern of centralized institutionalization, in which municipal statistics occupy a relatively late and secondary place. However, before establishing generalizations, we need more detailed studies on the origin of the statistical services of Spanish cities, on their development and their organisational structure. The importance of the Barcelona metropolis in the system of cities in the 1800s, and the extraordinary wealth of the local tradition of urban statistical studies, make Barcelona significant when examining the institutionalization of statistics in cities.

A Brilliant Local Tradition of Statistical Studies

Preparations of a specifically statistical nature on the city were formally initiated with the appearance of Estadística de Barcelona en 1849, the work of the economist Laurea Figuerola (1816-1904), and continued brilliantly with the work of the engineer and town planner, Isidoro Cabañas (1815-1876), which culminated in his Teoría general de la urbanización (1867). The statistical achievements of Figuerola and Cabañas figure among the most brilliant contributions to the European social science of the period. In 1849, Figuerola offered the quantitative description of an industrial city by considering its productive base and sociodemographic dynamics. For his part, Cabañas developed one of the earliest general empirical work in social and urban statistics, and throughout his work, he explicitly stated the role reserved for statistical reports as a scientific basis for social theory, and also as a basis for planned intervention in the city.

As for Laurea Figuerola’s Estadística, it has been said that it is "the first quantitative research of the social and economic reality of Barcelona in the middle of the nineteenth century." The author himself was conscious of the originality of his methodological approach. When Figuerola began writing his work, the article about "Barcelona" in the monumental Diccionario geográfico, histórico y estadístico de España by Pascual Madoz (1847) had just appeared. Figuerola provided his friend Madoz with data on the province, but he did not want to participate in the writing of the article devoted to the city, which, in the end, was entrusted to Isidoro Cabañas. The reason for this is given by Figuerola:

"I already had the plan for the present study and I didn't want anyone to argue that I was providing mistaken, or too little information, as I had so much. The
work done by Mr. Madoz is statistical in the articles about Barcelona’s administration (and in a good part of Madrid’s), but in all the rest it is as if it should be a geographic work that is helped out by statistical data. Mine is essentially statistics. Madoz has drawn a portrait of Barcelona; I have tried to write about its physiology. 8

The Estadística de Barcelona en 1849 was published in instalments between 1849 and 1851, and was incomplete. 9 The initial plan comprised five sections devoted, respectively, to physical, industrial, moral, scientific, and administrative statistics. However, the published part is only comprised of the section on “physical statistics” (territory, climate, population, birth rates, marriage rates, death rates and consumption) and part of what corresponds to “industrial statistics” (trade and the manufacturing industry). The publication was interrupted when the chapter devoted to the cotton industry was reached at the end of 1851 or the beginning of 1852. By then, Figuerola had fully entered the controversy that set protectionists and supporters of the free market against each other by declaring a free trade opinion openly. In 1853, after obtaining a professorship in Political and Administrative Law in the Central University, he settled in Madrid. It is possible that the final sections of his work did not even get written. In spite of being an unfinished work, Figuerola’s Estadística is the broadest quantitative research that had ever been tackled in a Spanish city.

Starting from the hygienist tradition, and working in the same way as Figuerola did, Lidón Fernández Cerda drew up his own quantitative image of Barcelona 10 a few years later. Cerda worked by means of successive approximations. In the first draft on the Exemple of Barcelona, drawn up in 1855, the engineer added the first statistical groundwork, which had the unmistakable environmentalist air, which was inherited from hygienism 11; the numerical data was limited to atmospheric pressure, temperature, ventilation and demographic conditions. In 1855, Cerda traveled to Madrid as a member of a commission charged with presenting the central government with the demands of Barcelona workers. When he returned from this trip in which representatives of trade unions also took part, Cerda decided to compile statistics on the conditions of the industrial proletariat in Barcelona. 12

This research, which was finally called Monografía estadística de la clase obrera de Barcelona, en 1856, appeared in the Proyecto de Reforma y Ensanche de Barcelona presented in 1859, along with a broad investigation of housing conditions and habitability in the city. 13 Lastly, all this material would be rewritten in the famous Teoría general de la urbanización, y aplicación de sus principios y doctrinas a la reforma y ensanche de Barcelona. As is well known, this study, which was published in 1867, is as much a pioneer contribution to the theory of town planning as any meticulous statistical research about the city of Barcelona. 14 The work is divided into two volumes. The first volume presents a history of the urban phenomenon in general, and the development of the theoretic thinking of Cerda. The second volume—and what interests us here—unfolds the monumental Estadística urbana de Barcelona (1551 pages), which ends with the appendix titled Monografía estadística de la clase obrera de Barcelona (150 additional pages). Estadística urbana gathers quantitative material on urban morphology, the characteristics of the population, and habitability. The central idea of Cerda’s work is clear: to construct an emphatic allegation in favour of an urban reform that takes into account the figures of density, morbidity and mortality. Recently, two experts in demography have made the following evaluation of the statistical work of Cerda: the data gathered by Cerda represents “by itself, a treasure of information that allows for knowledge about variables like mortality, density and the size of homes, including a level of detail that we do not have for any other historical period, whether earlier or later.” 15

6 Figuerola, 1849 (1968), XI.
7 On the vicissitudes of the publication, see Gómez, 1993.
9 Cerda, 1855.
10 Cerda, 1857, p. 559.
11 Cerda, 1859.
12 Cf. Tajer, 1972. The author evaluates the work of Figuerola and Cerda as irreplaceable sources to understand the urban reality of the nineteenth century, and she makes a complete and orderly description of their studies.
The individual efforts of Laurea Figureola and Ildorons Cerdà would indicate a good path to follow for Barcelona statistics, whose consolidation was obviously dependent on the existence of institutional support in order to pursue the task of compiling, organising and publishing statistical information on a local level. This did not happen. In the hectic political life of the Barcelona City Council, it was difficult to open a satisfactory institutional channel to develop municipal statistics. Figureola used the ecclesiastical archives to obtain information on the normal movement of the population, and he had to make use of the census data provided by the Office of Public Safety, which depended directly on the Ministry of Governance. Cerdà was able to use the information from the register of inhabitants from the statistical branch of Barcelona City Council, however the municipal office did not transform the results of the wealth of information that it had gathered throughout the second half of the nineteenth century in any kind of continuous source that would make knowledge about urban reality easier to come by.

As a matter of fact, in order to find an undertaking comparable to the urban statistical work carried out in the middle of the nineteenth century, it would be necessary to wait until 1854, when Pere García Fària (1857-1927), an engineer from the Barcelona City Council, presented his Proyecto de saneamiento del subsuelo de Barcelona14 (Barcelona Subsoil Sanitation Project). García Fària’s project consists of four parts, the third of which includes an analysis of the topography and geology of the city, its meteorological conditions and ground-water hydrology, in addition to a broad demographic-sanitation study of Barcelona with morbidity and mortality data separated by streets and houses. This is a solid example of urban statistics benefiting the physical planning of the city, just like Cerdà’s study.

During the forty years that passed between the research that was carried out in 1847 and 1848 by Laurea Figureola in the ecclesiastical archives of Barcelona and the demographic-sanitation survey of García Fària, important changes were produced in the availability of quantitative information about Spanish cities and in the organisation of the official services of statistics. This matter is worth examining further.

The Statistics of the State

Around the middle of the nineteenth century, Spain continued to lack reliable statistical data on any matter (whether it was demographic, economic or fiscal), and it had no administrative body that could gather them. The founding of modern statistics in Spain can be placed in 1856, when the “Comisión de Estadística General del Reino” —later called “the Junta General de Estadística”— was created; this was the origin of the present National Institute of Statistics and the National Geographic Institute. The Commission of Statistics was a characteristic creation of the mid-century liberal reformism. It began as a consulting body attached to the Presidency with the job of co-ordinating the statistical work of the administration, and as an attempt to give a uniform direction to geographical operations. Nevertheless, quite soon it began to acquire an executive nature by taking over the conducting of the census and setting up the land registry.15 In the managing group of the Commission, there were geographers and administrators with outstanding careers, such as Alejandro Olóriz, Francisco Coello, Fermín Caballero and Pascual Madrazo. From 1858 on, Laurea Figureola also appeared among the members of the Commission of Statistics, and his functions were not at all secondary. Among other duties, Figureola was in charge of the organisation of the Anuario Estadístico de España, whose first edition was published in 1859. In 1869, as the minister of finance, he had an important role in the reorganisation of the official statistical services, which culminated in the creation of the Geographic and Statistics Institute.

One of the first activities of the Commission of Statistics was the setting up of the General
Population Census of 1857. For the first time in our country, this census meant the nominal registration of the population, which included the main domicile of individuals. The registration operations were entrusted to municipal boards, as they were in the successive general censuses that took place in 1877, 1887 and 1897. If the individual registration of the population and the periodical census-taking were essential for having reliable data on total population and age structure, the secularization of the registry, which occurred in Spain with the creation of the Civil Registry in 1871, introduced the possibility of obtaining trustworthy information on normal population movement.

By standardizing the Civil Registry from the 1880s on, and regularizing census practice, the municipalities could rely on a solid basis of information of a demographic nature. In parallel, the Geographic and Statistics Institute managed to consolidate its activity under the direction of Carlos Ibáñez e Ibáñez de Ibero after a period of contradictions and ups and downs. After the consolidation of the Geographic and Statistics Institute, the central administration could rely on a stable technical body, which was provided with specialised staff, theoretically able to verify the collection, classification and analysis of all types of statistical information.

However, such institutional development contributed only partially to improving the condition of municipal statistics, although it undoubtedly meant considerable progress compared to previous stages. At the end of the nineteenth century, the advance was evident as far as the population registry was concerned, but little progress was made in the numerical knowledge of economic, social or environmental conditions in cities. There are three reasons to explain this. Firstly, the reduced budget of the Geographic and Statistics Institute was primarily used to carry out the cartographic and land registry tasks that this body was assigned to do. Secondly, the gathering of special statistics on production, consumption, trade, justice, transport, hygiene and work continued to be entrusted to distinct ministerial bodies and different levels of public administration, which operated without co-ordinating their efforts. Lastly, official bodies gave priority to national and provincial areas, but not to municipalities. The internal organisation of the Geographic and Statistics Institute reflects this situation. A department of statistics was created in every province, and the staff of the statistical body was distributed among the offices of the Directorate-General in Madrid and its provincial sections, but they did not specifically attend to the needs of urban centres.

Demographic—Health Statistics in Barcelona. In fact, in 1900, there was not one real municipal statistics service in Barcelona or in most Spanish cities. According to our research, in Madrid there was a Department of Municipal Statistics that was directed by Eugenio Jauregui. Nevertheless, the functioning of this department can be considered an exception. The most up-to-date statistical sources which city councils had were of a demographic health nature. This information was compiled by the health services. In some cases, the municipal medical services, which were concerned about the deficient health care and the epidemiological state of cities, published medical health care bulletins, in which birth rates, mortality and morbidity of their respective urban populations were detailed. This is the case of the city of Barcelona, where the Municipal Medical Corps published a scientific newspaper called the Gaceta Sanitaria de Barcelona, started in 1888, in which information on municipal medical care, a monthly statistical list on population movement, a record of diseases, and meteorological observations were published.

The Municipal Medical Corps had been reorganised in 1885 on account of the last great epidemic of cholera that affected the city. Up until then, the medical services of the Barcelona City Council had really been precarious; their staff had been reduced to eight municipal doctors and four forensic scientists.
who verified deaths in cemeteries. When it was reorganised in 1885, coinciding with the creation of the Municipal Microbiological Laboratory, the Medical Corps was increased to twenty doctors who were in charge of the services of disinfection and vaccination, visits to poverty-stricken patients, and domiciliary verification of deaths. In the following years, the staff was increased and the health care services of the City Council were consolidated. In 1891, the Medical Corps became a stable organisation with three differentiated sections: the outpatients’ clinic and welfare, the Microbiological Laboratory, and the Institute of Urban Hygiene. The latter body was entrusted with the functions of inspection and health policies, the services of disinfection and sterilization, as well as the gathering of demographic-health statistics in Barcelona.

In 1913, the state legislation on urban statistics would again be created in almost the same terms as before, which proves the steady operating ability of the 1902 decree.

From 1892, in order to carry out this work of statistical information, the Institute of Urban Hygiene had specific personnel to set up a stable service of demographic notations and registries both in the municipal court houses and in the Civil Registry Office. The figures compiled by the employees of the Institute were used as the basis for the complete studies of urban demography that were published by Lluís Comenge, Carlos Ronquillo, and Enrique Rada in the Gaceta Sanitaria de Barcelona and in other medical magazines like the Gaceta Médica Catalana.

During the last ten years of the 1800s, there was, on the whole, a firm introduction of medical statistics, which made the lack of reliable statistical information yet more obvious in other spheres of municipal interest. This situation contrasts notably with the rapid development of local statistics that existed in the first twenty years of the twentieth century. Among the causes of this positive transformation figure were both reasons of a local nature and other reasons outside the municipality’s jurisdiction. Let us begin with the latter.

In April 1900, the Geographic and Statistics Institute became attached to the Ministry of Public Instruction and Fine Arts, necessitating a reorganisation of the statistics section. One of the new responsibilities entrusted to the reformed institutions was the establishment of statistics in major Spanish cities. A Royal Decree of 1 October 1901, signed by the Minister of Public Instruction at that time, the count of Romanones, put Department 3 of the Statistics Section of the Geographic Institute in charge hereafter of undertaking “statistics in the territory, in major cities, comparative statistics, international statistics, and in general, those that have not been assigned to other departments.” A few months later, on 25 April 1902, a new regulation established that “municipal statistics will be put into effect in cities that have 30,000 or more inhabitants and provincial capitals, in accordance with the orders and instructions of the Directorate-General of the Geographic and Statistics Institute.”

In the second article of the regulation, all the aspects that cities should include in their statistics were listed in a very detailed manner. The statistics had to account for population movement, suicide, meteorology, consumption, hygiene, first aid centres, primary education, economic movement, pawnbrokers, savings banks, credit banks, accidents in general, fires, police, prison movement, and the anthropometric service. Mayors were obliged to publish this information in the “Municipal Bulletin, if they had one, or if not, in the official bulletin of their province.”

We have not been able to verify the degree of fulfilment of these official regulations in other Spanish cities, although some evidence seems to indicate that it was low. However, the state legislation on urban statistics was soon reflected in Barcelona. As we shall see, this was due to local policy to a great extent.

The Creation of the Department of Statistics, Register, and Elections.

In the elections of November 1901, for the first time
the dominance of the dynamic parties, which had
controlled Barcelona since the monarchic resto-
ration in 1874 was ended. On 1 January 1902, a new
council with a regionalist position was formed. It had
a precarious majority of councillors from the
Regionalist League, which had to make agreements
with republican councillors or with the dynamic par-
ties in order to govern. From that moment on, the
Barcelona City Council undertook an active policy of
reforms, which included the renovation of adminis-
trative structures. One of the first reformist measures
was the creation of a Department of Statistics, which
had been lacking until then.

After adding neighbouring municipalities to the city
in 1897, Barcelona had more than half a million
inhabitants at the beginning of the twentieth century,
and a municipal district that had multiplied its size
several times over.47 Organising the new municipal
environment was the challenge of the moment. The
electoral victory of the Regionalist League was due in
part to the presentation of an ambitious programme
of urban and municipal reform. The regionalist
councillors had promised—among other things—to
carry out a plan of railway connections, the acceler-
ation of the inner city reform, the city debt conver-
sion, and the reorganisation of municipal services.48
Because of all this, the arrival of the regionalists to
the municipal government has been seen as the
opening of a new period in the urban history of
Barcelona, which would be marked by the desire to
build the “Gross-Barcelona,”49 according to the
economist, Francesc Roca.

An important chapter in new urban policy was the
reorganisation of municipal services. The first stud-
ies on the internal situation of the Barcelona City
Council were done by the League councillor, Riforma
Sunyer, who outlined the initial reform projects.
Finally, a commission made up of the regionalist
councillors, Francesc Cambó and Bonaventura M.
Plaja, along with the republican, Joan Molas, wrote
the Memoria referente a la organizacion de servicios
municipales, which was approved by the city coun-
cil in several extraordinary sessions during the
month of May 1902.49

The Memoria is totally explicit regarding the services
that required more urgent reforms: taxes and stats-
tics. The situation of the municipal tax authorities is
described in the following way: “Save for the revenue
from consumption, slaughterhouses, markets and
cemeteries, at present the revenue from municipal
taxes, which should be the true basis of the budget,
is laughable, so much so that it can be said that it
there is still a long row to hoe.”50 The service was so
badly organised that there were well-founded suspi-
cions of corruption. The commission recommended
that a new Revenue Department be created with
personnel that would be totally separated from the
rest of the City Council.

Now, to untangle the situation of the tax authorities,
the City Council had to be able to count on a proper
statistical service. The councillors expressed clearly
that the links between statistics and tax collection
were evident: “The lack of municipal statistics is not
only dishonourable for the City Council—for the delay
that it supposes—but it also deepens the grave dam-
age that it has already had on the municipal tax
authorities, which have no clear basis to make cal-
culations or to establish and collect municipal
taxes.”51

With the aim of resolving the situation, the simulta-
neous creation of two new departments was agreed
upon: the Revenue Department and the Statistics
Department. There would be an important innova-
tion in the selection of management personnel. For
the rest of the municipal services, internal staff
would be relied on. Furthermore, for the new servic-
es, it was considered necessary “to take radical
measures that would permit the freedom to hire peo-
ple with demonstrable ability to occupy posts.” In
short, a public competition was agreed on to select
“those people, whether because of the positions of

46 For the annexations of municipali-
ties carried out at the end of the
nineteenth century, see Ramos Gru-
au and Margarida Nadal, 1997, and
47 Roca, 1979, p. 20.
48 Cambó, Molas and Plaja, 1902.
49 Cambó, Molas and Plaja, 1902, p.
x3.
50 Cambó, Molas and Plaja, 1902, p.
20.
responsibility they have held or because of the attitudes they have clearly demonstrated, who offer the City Council sufficient skills to take on functions of so much importance and so much urgency. The competition to choose a suitable specialist for the Department of Statistics was carried out quickly, and was over by 25 October 1902.

Manuel Escudé Bartoli, the First Head of the Statistics Service.

The person chosen to direct the Department of Statistics was Manuel Escudé Bartoli (Reus, 1856 - Barcelona, 1930). The municipal commission that was in charge of running the competition to select the person for the post justified this choice for two reasons: the first, "having directed statistical work in this very city"; the second, "having published important work". The two reasons were entirely true.

Escudé Bartoli was a veteran expert in statistics when he joined the Barcelona City Council. He was born in Reus on 1 October 1856, and came from an artisan family that was originally from Baix Camp. His father, Pablo Antonio Escudé, was a carpenter in Reus; his mother, María Josefa Bartoli, came from Selva del Camp. After finishing his secondary education, Manuel Escudé went to Madrid, where he passed a competitive examination to enter the Statistical Corps. This was in May 1878. His starting salary as a "second level assistant" was 1,500 pesetas yearly.

At that time, the statistics profession was new in Spain. The Statistical Scientific Corps, organised within the Geographic Institute, was hardly one year old. It had been created to make the most of a favourable situation: the taking of the general census in 1877. That year's census was the third demographic count carried out with modern criteria in Spain. The first two counts had been done 1857 and 1860 respectively. The third count, initially was planned for 1865, and then postponed until 1870; it was not carried out until 1877. Its execution was charged to a Geographic and Statistics Institute that was already fully consolidated under the direction of Carlos Ibáñez e Ibáñez de Ibero. The first two censuses had been conducted quite hurriedly, relying on the bureaucratic resorts of the state administration: essentially the personnel of civil government and civil servants from the judicial administration in the central administrative districts. For the census of 1877, the state service of statistics could rely on a group of specialists recruited by competitive examinations. Escudé Bartoli was a member of this first generation of statistics specialists. And his first job happened to consist of the tabulation and treatment of the 1877 census.

In the Geographic and Statistics Institute, Manuel Escudé followed the usual career of a civil servant in a scientific body, becoming a first-level assistant in 1887, and a third-level officer in 1891. He was sent to the Statistics Section in the province of Girona, and in June 1897, he was moved to the Statistics Section in the province of Barcelona, as "chief for life" of the provincial statistical work. However, from the beginning of his professional activity, he combined statistical work with work as a writer and as a publicist involved in an intense activity in both spheres. If statistics was his means of earning a living, his intellectual calling tended towards economic geography and social studies.

His first publications were about physical geography, and they appeared in the Revista Geográfica y Estadística, which was the first periodical publication of a statistical nature that had ever come out in Barcelona. Manuel Escudé was an assiduous collaborator in the magazine. Little by little, he became more interested in economic studies. The result of this interest was two books: España y sus colonias (1891) and La producción española en el siglo xix (1895).

Throughout the 1890s, Escudé was deeply involved as a publicist. He signed numerous articles on eco-
nomic subjects in the El Diario Mercantil of Barcelona, and in the magazine El Trabajo Nacional. This magazine, which was founded in 1892, was the mouthpiece of the Fomento del Trabajo Nacional, the employers’ organisation devoted to the defence of protectionist interests. Manuel Escudé was one of its main writers, acting as its virtual director in practice. His activity in El Trabajo Nacional allowed him to meet the principal economists and intellectuals of the Catalan industrial bourgeoisie, such as Frederic Rahola, and to make a place for himself in the employers’ organisation. In August 1902, he was appointed vice secretary of the Fomento del Trabajo Nacional.

In parallel to his studies of an economic nature, he carried out some demographic work focused on an analysis of the population of Barcelona. Thus in 1899, he wrote the Memoria estadística de la población de Barcelona, which would be presented at the IX International Congress of Hygiene and Demography held in Madrid in 1899. A short time later, in 1901, he published a monographic work titled La natalidad en Barcelona.

Since he had this work experience as a statistics and demographic expert and a close relationship with the Catalan industrial bourgeoisie, it is not odd that in November 1902, the Barcelona City Council, which was reorganised by the Regionalist League, proposed him as head of the Department of Statistics, Register and Elections, a few years later called simply the “Department of Statistics”. The commission that recommended his appointment was made up of Jaume Carné, Francesc Casamor, Climent Selvas, Joan Moles and Ramón Albó.

Escudé Bartolí took up his post on 1 December 1902. Despite the diverse political changes in the Barcelona City Council, he stayed as the head of the statistical service for more than twenty years, marking a stage in the service that was particularly fruitful. His departure was caused by compulsory retirement because of age on 31 October 1923. By then, the political situation was very different from the beginning of the century.

The Department of Statistics had within its sphere of responsibility the Municipal Register of Inhabitants, the electoral census, and the gathering of sectorial statistics on different aspects of municipal life. During Escudé Bartolí’s term of office, the publication of the Anuario Estadístico de la Ciudad de Barcelona, which gathered the most relevant quantitative information on the city, was begun. We shall treat its contents in the next section.

In order to fulfill these functions, Escudé Bartolí relied on a reduced number of staff. At the beginning of the 1920s, Escudé had an assistant, Josep Bru Jardí, and a clerk, Juan Rubio Caselles, under his direct orders. Nevertheless, it is true that the registry office had a larger staff available. In any case, Manuel Escudé was able to make the most of the statistical work carried out by other municipal services that had not been discontinued.

Indeed, the creation of the Department of Statistics did not mean a paralysis in the medical demography work that was being carried out by the Institute of Urban Hygiene. The director of the institute, Lluís Comenge Ferrer, who had carried on with the statistical studies of Nin Pulés, continued promoting overall city health statistics and publishing monthly tables on birth, mortality and marriage rates in the Gaceta Sanitaria de Barcelona. From 1902 on, Dr Enrique Radul started working in the Institute of Hygiene, and he soon directed his attention exclusively to the field of demographic statistics. A proof of continuity, and the strengthening of the statistical activity of the Institute of Urban Hygiene, is the publication of the Boletín Estadístico from the beginning of 1904. This was a monthly publication of a strictly demographic-health nature, which came out for several years, duplicating, in practice, the contents of the Gaceta Sanitaria de Barcelona.

38 See Escudé, 1892, 1894, 1896, 1897, 1898, 1899 and 1900.
39 Escudé Bartolí’s professional trajectory presents a surprising parallelism with the outstanding demographer, Ada Ferriero Weber, who directed the statistical services of New York City during those same years. For the work of this specialist, see Weber, 1899.
40 MAB, File, 1.78.
41 See Rodriguez Guerra, 1915.
Sanitaria that was published by the Barcelona City Council.

In 1907, the Barcelona City Council created an Office of Demography, Statistics and Health Register, coinciding with Lluís Comenge’s relinquishing of all responsibility at the Institute of Hygiene. The management of the Office of Demography was entrusted to Enrique Radul; this Office was formally attached to the Institute of Urban Hygiene, but in practice, it enjoyed broad autonomy. From 1907 on, Radul gradually managed to increase the staff of this body, which reached ten employees (seven assistants for demographic work and three clerks) in 1911. We have not been able to verify if there ever was functional co-ordination between the Department of Statistics directed by Escudé and the Office of Demography, but the fact that the statistics on population movement appeared in the Anuario Estadístico de la Ciudad de Barcelona signed by the Office of Demography indicates (at least, from 1907) that there must have been a tacit division of tasks between both municipal bodies: demographic-health statistics would be the responsibility of the Medical Corps, whilst other aspects of urban statistics were directed by Escudé Bartoll.

The initiatives to promote municipal statistical information were not exhausted with what has been explained above. In November 1903, the republicans had managed to snatch the political majority in the Barcelona City Council. At the beginning of the next year, a Commission of Municipal Statistics was made up of the republican councillors, Josep M. Serraclara, Joan Moles, Ramon Altayo and Albert Bastardes. On 15 April 1904, this commission presented a report on the need to promote the statistical publications of the Council. It stated in the report that: “The first work of this kind has been the recent publication of the Anuario Estadístico de la Ciudad de Barcelona in 1902 (...). This work will also continue to be published in the ensuing years.” Now, along with the Anuario for the year ahead, the publication of the Municipal Bulletin was recommended “to make certain useful data are better known in the community.” The outcome of this republican initiative was the publication of the Boletín Municipal de Barcelona: Administración, Legislación y Estadística, which appeared in 1904. This bulletin, which did not have an exclusively statistical nature, but rather was full of general municipal information, would have continuity years later in the Gaceta Municipal de Barcelona. The proliferation of periodical publications of an institutional nature (See Table 1), was excellent proof of the positive change that was operating the field of statistics at the beginning of the twentieth century.

Other Statistics Institutions

In reality, improvement was not seen only in the sphere of municipal statistics. In the first and second decades of the 1900s, new institutions and new publications appeared in Barcelona that were dedicated to statistics (See Table 1). This is the case of social statistics, a field that began to develop autonomously in these years because of the enthusiasm of the local administration.

The considerable social tensions and conflicts that Barcelona society was experiencing at the beginning of the century obliged the regionalist politicians to undertake an active policy of social reforms, which made it opportune to have social statistics available. In 1908, the Barcelona Provincial Council decided to create a Chair of Social Economy; they put Josep M. Tallada (1884-1945), the economist and demographer, as the head; he was Prat de la Riba’s right-hand man and closely linked to the world of finance. The next step was to set up, in 1909, the Barcelona Social Museum, an institution created through a joint initiative of the Barcelona City Council and the Barcelona Provincial Council. The Museum was planned to be a replica of other social museums that were already open in European cities like Paris and Brussels.
The Social Museum of Barcelona came into being as a result of a 1907 proposal by the provincial representative of the Regionalist League, Ramon Albió Martí, one of the main promoters of Catholic social reform in Catalonia and the editor of the magazine *Aurora Social* (Social Dawn), which was backed by the Barcelona Catholic trade unions. The creation of social museums was one of the basic endeavours of the denominational social reform movement. It was inspired by the thinking of the French sociologist, F. Le Play, whose work on empirical sociology had a notable influence on the development of European social statistics at the end of the 1800s.⁴⁴

Josep M. Tallada, who already occupied the Chair of Social Economy, was put in charge of the Social Museum of Barcelona, an institution that had the function — among others — of organising a statistical service based on social statistics. One of the main undertakings of his statistics office was the publication in 1912 of *Anuari d’Estadística Social de Catalunya*, whose editor was Tallada himself. This *Anuari* gathered not only statistical information from the municipality of Barcelona, but also from Catalan cities that had more than 10,000 inhabitants at that time, such as Badalona, Sabadell, Reus and Lleida. In addition to the succinct demographic information in its pages, detailed statistical information on subjects like housing prices, the cost of living, unemployment and social institutions were compiled.

To this initiative — quite fitting for the local administration — one must add others undertaken by the central administration from 1913 on, which would enrich and complete the panorama of municipal statistics in Barcelona. The *Boletín de Estadística Municipal de Barcelona* dealt with this field from 1913. The origin of this monthly publication is related to the work of the Geographic Institute, which at last made tangible the regulations on municipal statistics that appeared in the early years of the twentieth century. On 29 June 1913, the Minister of Public Instruction and Fine Arts, the liberal Joaquín Ruiz Giménez, signed the Royal Decree on gathering urban statistics, which repeated the basic contents of the legal regulations of 1901 and 1902.

Table 1
Urban Statistics. Periodical Publications Published in Barcelona (1888-1921)

<table>
<thead>
<tr>
<th>Title</th>
<th>Years</th>
<th>Periodicity</th>
<th>Publisher/Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaceta Sanitaria de Barcelona</td>
<td>1888-1910</td>
<td>Monthly</td>
<td>Municipal Medical Corps</td>
</tr>
<tr>
<td>Anuario Estadístico de la Ciudad de Barcelona</td>
<td>1902-1921</td>
<td>Yearly</td>
<td>Department of Statistics.</td>
</tr>
<tr>
<td>Boletín Municipal de Barcelona</td>
<td>1904-1906</td>
<td>Monthly</td>
<td>Barcelona City Hall</td>
</tr>
<tr>
<td>Boletín Estadístico</td>
<td>1904-1907</td>
<td>Monthly</td>
<td>Institute of Urban Hygiene</td>
</tr>
<tr>
<td>Anuari d'Estadística Social de Catalunya</td>
<td>1912-1918</td>
<td>Yearly</td>
<td>Barcelona Social Museum.</td>
</tr>
<tr>
<td>Boletín de la Estadística Municipal de Barcelona</td>
<td>1913-1918</td>
<td>Monthly</td>
<td>Geographic and Statistical Institute.</td>
</tr>
<tr>
<td>Gaceta Municipal de Barcelona</td>
<td>1914-</td>
<td></td>
<td>León de Longa</td>
</tr>
</tbody>
</table>

Source: The Authors.
However, the new decree specified the criteria for the publication of urban statistics. In its fourth article, it established that provincial heads of statistics of the Geographic Institute should form a "framework that will be called the Bulletin of Municipal Statistics and will be authorised by their signatures." Then, it went on to specify that it was the obligation of the mayors of provincial capitals "to publish the Bulletin every month and to distribute it without charge to all the centres, corporations, and entities of an official nature. In order to carry this out, the funds that are deemed necessary for this service will be allocated in the annual budget of the municipality." The decree was applied immediately, and in September of the same year, the first issue of the *Boletín de la Estadística Municipal de Barcelona* appeared in the city. The editor was Léon G. de Longoria, head of statistics for the Province of Barcelona.

The *Anuario Estadístico de la Ciudad de Barcelona* Among the publications that have been mentioned above, the most important by far was the *Anuario Estadístico de la Ciudad de Barcelona*, which was prepared by the Department of Statistics, and of which Escudé Bartoll was the editor. In the words of Escudé, the aim of the *Anuario* was very clear: "to make known to all and sundry what Barcelona is in relation to the great capitals." Its publication was an attempt to end "the embarrassment that often affected the municipal corporation of Barcelona when the city councils of other cities—not only abroad, but in Spain as well—sent the Barcelona City Council their statistical publications and asked the city for its publications in exchange." Indeed, the *Anuario Estadístico* would be a carefully crafted piece of workmanship that was illustrated with maps and photographs, and were printed at first by the prestigious Henrich printing shop. The structure of the *Anuario* was not left to chance—not entirely in the enterprising hands of Escudé Bartoll, although he surely participated in its preparation. It was the Commission of Statistics at the Barcelona City Council, made up of the councilors Cambó, Joan Mole, Jaume Carner, Ramón Albó and Climent Selvas, which approved the contents that had to be adhered to.

Between 1902 and 1923, seventeen tomes of *Anuario Estadístico de la Ciudad de Barcelona* were published, these were the first continuous statistical source of information that the city had. In Table II, it can be observed how almost all aspects of Barcelona urban life were taken into consideration, from municipal finances to the development of urban transport and social institutions. Throughout this stage, the *Anuario* also conserved a certain proportionality in the treatment of different sections, which was only altered by an increasing attention to cultural and social aspects.
Table II
Contents of the Anuario Estadístico de la Ciudad de Barcelona:
percentage of pages that are devoted each section

<table>
<thead>
<tr>
<th>Section</th>
<th>Tome I (1902)</th>
<th>Tome V (1906)</th>
<th>Tome X (1911)</th>
<th>Tome XV (1916)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Territory</td>
<td>11.5</td>
<td>6.0</td>
<td>6.1</td>
<td>6.7</td>
</tr>
<tr>
<td>2. Population</td>
<td>23.1</td>
<td>20.3</td>
<td>8.2</td>
<td>11.4</td>
</tr>
<tr>
<td>3. Elections</td>
<td>—</td>
<td>0.9</td>
<td>2.5</td>
<td>2.1</td>
</tr>
<tr>
<td>4. Public Safety</td>
<td>2.7</td>
<td>6.3</td>
<td>1.9</td>
<td>0.9</td>
</tr>
<tr>
<td>5. Education and Culture</td>
<td>8.6</td>
<td>11.2</td>
<td>13.8</td>
<td>19.8</td>
</tr>
<tr>
<td>6. Town Planning &amp; Public Works</td>
<td>5.6</td>
<td>6.4</td>
<td>5.2</td>
<td>8.4</td>
</tr>
<tr>
<td>7. Public Assistance</td>
<td>5.0</td>
<td>4.7</td>
<td>4.2</td>
<td>3.5</td>
</tr>
<tr>
<td>8. Health</td>
<td>1.3</td>
<td>4.4</td>
<td>10.5</td>
<td>9.0</td>
</tr>
<tr>
<td>9. Justice</td>
<td>1.3</td>
<td>—</td>
<td>1.6</td>
<td>1.0</td>
</tr>
<tr>
<td>10. Municipal Finances</td>
<td>19.0</td>
<td>7.6</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>11. Provisions</td>
<td>6.0</td>
<td>3.4</td>
<td>3.3</td>
<td>3.0</td>
</tr>
<tr>
<td>12. Treasury and Treas</td>
<td>5.0</td>
<td>3.4</td>
<td>3.0</td>
<td>3.2</td>
</tr>
<tr>
<td>13. Transport &amp; Communications</td>
<td>2.5</td>
<td>3.2</td>
<td>3.6</td>
<td>4.2</td>
</tr>
<tr>
<td>14. Social Institutions</td>
<td>1.7</td>
<td>1.5</td>
<td>10.1</td>
<td>3.7</td>
</tr>
<tr>
<td>15. Other Information</td>
<td>17.0</td>
<td>19.8</td>
<td>16.7</td>
<td>14.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of pages of the Anuario</td>
<td>602</td>
<td>590</td>
<td>636</td>
<td>569</td>
</tr>
</tbody>
</table>

Source: The Authors.

Most of the information in the Anuario was published without giving recognition to the authors, hence it must be supposed that it was compiled and classified under the direction of Manuel Escudé. Along with the information of a quantitative nature, the City Council’s publication also gathers descriptive material that reflects the activity of some municipal services, such as the Institute of Urban Hygiene, the Chemical Laboratory, the Veterinary Surgeons Corps, and the museum institutions, which were occasionally signed by the people in charge of each service. In this regard, it is worth pointing out the great deal of attention paid to welfare health services, which have annual reports backed by the signatures of Pelegrín Grait, Victor Soley, González Balaguer, Lluís Comenge and Enrique Radders, all of whom were members of the Municipal Medical Corps. The frequent appearance of doctors’ names in the pages of the Anuario reflect the importance of the health and sanitary services in the municipal organisation chart.

The “Anuarios” for the years 1902 (tome i), 1906 (tome v) and 1917 (tome xvi) present the administrative divisions of the city by using maps to show the demarcations of municipal districts. The urban planning interventions of the Barcelona City Council also deserve mention, as space was devoted to León Jaussely’s Plan of Communications, the supply of drinkable water, the Example study, and the coming exhibitions in the city. On the whole, the Anuario Estadístico provides the researcher with an
exhaustive and invaluable source for the situation of Barcelona throughout the first half of the twentieth century. 57

In this respect, the social statistical work carried out by Escudé Bartoli deserves a special mention. The first, which shows no author’s name, but undoubtedly was carried out under his direction, is the Censo obrero de 1905, published in tome IV of the Anuario Estadístico. The carrying out of a Barcelona workers’ register was agreed upon by the Barcelona City Council on 24 December 1903. To this effect, a simple survey with the following information was distributed to employers: type of industry, number of employees, average salary and working hours. A total of 20,000 out of the 50,000 records collected (some of which were incomplete), which allowed the Department of Economics to outline an overall view of the industrial structure of the city at the beginning of the twentieth century. The data published in the Anuario28 goes into detail by distinguishing between kinds of industry and by indicating the number of men, women and children who work in each one of them, and their salaries.

The second study—and this one is signed by Escudé—is the “Monographic Statistics of the Working Class in Barcelona”, which was published in 1917.99 The research title unmistakably refers to Cerdà’s practice. Indeed, Escudé recognises that that “the monograph published in 1860 by Llado, Cerdà has served me as a brilliant starting point and guide.” Escudé considered himself a follower of Cerdà. In our opinion, this recognition deserves to be highlighted, since there was such a strong opposition by the regionalists to the work of Cerdà. In addition to Cerdà, Escudé Bartoli relied on the work of S. Rowntree, Ch. Booth and S. Webb. Indeed, Escudé’s work provided an overall view of the working conditions in factories (working hours and wages), as well as the living conditions of the working class in Barcelona.

Epilogue

The successive volumes of the Barcelona Anuario appeared with relative punctuality year after year until 1915. Tome XVI for 1917, on the other hand, came out after four years of delay; it was not printed until 1921. Escudé Bartoli gave a plausible explanation for such a long delay: the economic difficulties of the postwar period, and the scarcity of paper and its high cost. Nevertheless, such a long delay was a disastrous signal. Indeed, in the following decade, the XVIII, was the last one. The Albert Martín publishing house produced it in 1923: it had all the information for 1918, 1919 and 1920.

The termination of the Anuario Estadístico coincides with the retirement of Escudé Bartoli, and an evident crisis in the statistical service of the Barcelona City Council. In 1921, the Institute of Statistics and Social Policy was created, presided over initially by Escudé Bartoli. After his retirement, the Barcelona City Council agreed to the reestablishment of the offices called the Department of Statistics and Social Policy, Civil Register and Municipal Institute of Statistics into a new body that would be called the Municipal Institute of Statistics.90 The technical management of the new centre was vacant during more than a year. Later on, the statistics service of the Barcelona City Council had to be reorganised on a new basis in order to be able to attend to the needs of an industrial metropolis that was growing at breakneck speed—a million inhabitants.