

THE ROLE OF WOMEN IN THE EARLY YEARS OF THE CANNING INDUSTRY IN SPAIN

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Abstract

Women have played an important role in fishing communities all over the developed world and they also play an important role in developing economies. Our analysis focuses on this role. The purpose of this article is to look at the role of women in the Spanish fish canning industry. To do so, our analysis focuses on Spain's primary fishing and canning region: the Ría de Vigo, a large estuary in Galicia (the north-western part of Spain). Our analysis is also limited to the historical period of its consolidation, in the late 19th century and the first decade of the 20th century. The development of a new female labour force in the first decade of the 20th century is one of our most significant conclusions.

Keywords: Women and work, feminization of the labor, manufacturing industry, end of XIX century and first decades of XX century, Spain.

JEL: J16, N53, B54

1. Introduction

In History – as in other fields of study – gender is becoming an increasingly frequent category for analysis. As regards social changes and gender relations, it can be said that historical research has been primarily concerned with subjects like the impact of industrialisation on employment levels; the relationship between women's work, the sexual division of labour and dependence/autonomy; and also the significance of protective regulations affecting female and child labour¹.

The study of job offers for females work has been dealt with since the mid 19th century by Mill (1848). This author, considered the precursor of *economic feminism*, is favourable to social equality between sexes at work as a means to raise the general standard of living of a society, affirming that there is no justification to exclude women from the freedom to compete in the work market (Mill, 1848, 1943: 355). At the end of the 19th century, Penny (1869) explained the division of work by sexes and the opening of new jobs for women². And at the beginning of the 20th century, female work is dealt with in the research carried out for the Women's Bureau of the US Labor Department, among which we can highlight those of Anderson (1920) and especially Anderson

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¹ For a review of the literature on the role of women in the history of Spain, see Pilar Díaz Sánchez and Pilar Domínguez Prats (1988); for the literature on women's history, see Georges Duby and Michelle Perrot (1993), Josefina Cuesta Bustillo (2003) and Cristina Borderías (2009). As for women in the labour markets, see Lina Gálvez Muñoz and Carmen Sarasúa García (2003), Cristina Borderías (2007) and Luisa Muñoz (2010). For a global perspective, the research by Lourdes Benería (2005) and Cristina Carrasco (2009) is especially interesting.

² See for example: Virginia Penny (1869) the chapters, "Division of labor", 13-18 and "Opening of new employments to women", 19-23, in *Think and Act. A series of articles pertaining to men and women, work and wages*.

(1925)³. Currently, the neoclassical paradigm represents the willingness to work of different members of society, but from an androcentric point of view. The limitations of this theory required the incorporation of variables and categories that would enable the special characteristics of female work on offer to be understood. The principal contributions that enlarge the original neoclassical model are: the theory of human capital, the theories of discrimination –although originally devised to explain other social inequalities: racial and ethnic, and the models that incorporate family relationships.

One of the models that incorporate family relationships is the New Economy of the Family “NEF” by the School of Chicago which, however, is a change in the treatment of domestic work, considering this work as an economic category. The basis of the theory can be found in Gary Becker’s work (1957, 1964). Thus the NEF is integrated in the neoclassical paradigm, studying the behaviour of the family members using the methodological and conceptual instruments of micro-economy: Families are considered units of decision that maximise a utility function subject to restrictions. The NEF represents progress in the treatment of work available for married women because their participation in the work market is determined together with the time dedicated to domestic work.

With regard to the concepts such as activity, employment and paid employment of women, historiography and economy have concentrated much more on the problem of employment rather than work, without distinguishing conceptually. Thus, some studies have been presented as studies about female work when they are really about employment. It is possible to distinguish between the term “employment”: ways to access the work market -activity, non-activity, insecurity, stability, unemployment, part time work; and the term “work”:-sectors of activity, qualifications, professional career, salaries, forms of organization, socio-work relations.

The willingness of women to work outside their home is not the same in the different historical periods, and it also varies in different areas. If we ask about the variables that influence how women are more or less willing to work outside the home, this question is dealt with by specialists in work economy. The differences being the human capital, the different productive structures of regions, or the type of companies, the factors that explain the divergences such as willingness to work outside the home, or different remuneration for men and women.

Therefore, it is necessary to take into account offers of employment for women. There are sectors and professions in which female labour is predominant, and others in which the opposite is true. If we take into account locations, areas or regions, it is important to refer to the productive structure of these places.

Thus, the main issues currently addressed in studies on women include gender inequality at the workplace, differences in remuneration, the real status of equal

³ In *Facts about working women*, Mary Anderson collects the census of occupied women in USA from 1880 to 1920.

opportunity, and the division of labour that results in remunerated work for men and housework for women.

Although these aspects are certainly important, it is also necessary to look into the role of women as agents involved in the processes of economic, social and cultural modernisation.

While it is true that women, in general, are the object of differential treatment that entails elements of inequality, it is also true that not all women are affected by this fact in the same way. It thus seems more correct to speak not of general behaviours but rather of specific groups. Since women have played an important role in fishing communities all over the developed world and they also play an important role in developing economies, the aim of this research is to study some of the distinguishing characteristics of this group.

It is important to note that women in fishing communities have been responsible for performing specialised tasks, requiring time and patience, such as the manufacture and repair of nets and the selling of the catch. Also, women have been involved in the preparation of fish products, carrying out drying, salting and smoking processes, to later become employees in the processing industry, especially the canning industry. Thanks to these activities, women have had access to income that has been vital for maintaining their families and the community. Later they gained access to salaries as canning industry workers, coinciding with what is known as the feminisation of labour in this industry.

These activities, all of which are carried out in fishing communities, have shown that women have performed crucial functions and played an important role, as members of the labour force, in achieving increased productivity, modernisation and long-term economic growth.

Clearly, although the general situation of women can and should be addressed, it is also valuable to look at specific groups during short periods of time and in a given historical time and place. Since women have played a unique role in fishing communities, our analysis focuses on this role. For this reason also, our analysis focuses on Spain's primary fishing and canning region: the Ría de Vigo, a large estuary in Galicia (the north-western part of Spain). Our analysis is limited to the historical period in which this industry started to thrive and experience significant growth: the end of the 19th century and beginning of the 20th century.

It is difficult to find precise information about women in fishing communities at the end of the 19th century. Data has therefore been extracted from the information available in the *Revista de Pesca Marítima Española* (Journal of Spanish Maritime Fishing) and in the municipal records of the Vigo City Council. The data have been specifically processed and constitute the main sources for the study of the role of women working in maritime fishing activities during that historical period.

In contrast, with regard to women working in the canning industry, a quantitative methodology – consisting of a review of the sources containing information in figures – has been combined with another, qualitative methodology based on another type of exploration. In the quantitative part, the population census of 1910 and Spain's foreign trade statistics from 1890 to 1920 have been exploited. The qualitative part is the result

of processing the data provided by the archives of canning companies, the *Revista de Pesca Marítima Española*, municipal records and the records of the Union of Manufacturers of Canned Fish Products of Spain. Processing this data makes it possible to reconstruct the process that connects economic growth to the employment of women in the fishing community of the Ría de Vigo.

The purpose of this article is to further scholarly knowledge of the role of women in the aforementioned context. The paper is divided into four main parts. After the first, introductory section comes a second section that looks at the antecedents of women's activity in the fishing community of the Ría de Vigo. The third section discusses the process of feminisation of a profession through the work of women in the canning industry, looking into the main characteristics and consequences of this process. Finally, the forth and last section presents the most important conclusions.

2. Women in the fishing community of the ría de (bay of) Vigo

Women had a specific role in the economic activity of the Ría de Vigo during the last two decades of the 19th century. The increase in female presence brought about by the economic and social transformations of industrialisation make it worthwhile to give a brief explanation of the Ría de Vigo's economic situation, which in those years was determined by the early phases of the canning sector. This sector developed intensely during the first two decades of the 20th century, encouraging the growth of maritime-fishing activities, which led in turn to a modern process of industrial expansion and sector diversification. This economic growth process has evolved and progressed steadily, and remains in effect to this day.

Within both the traditional and the more pioneering canning companies, and in their auxiliary activities, women played a *singular* role as the mainstay of the labour force. These are industries that hire mostly female workers. This hiring pattern leads to the growth of the economically-active female population, comprised of the first women to join the industrialisation process. The activity performed by these women has its antecedents in the preceding decades.

The working woman became an important figure in the 19th century. The role of the working women has been discussed by various authors. Some of them posit that working women have existed since long before the arrival of industrial capitalism, because before that time they earned a living as spinners, seamstresses, nannies or maids, in the city and in the country, both in Europe and in the United States (Joan Scott, 2000). However, it is generally acknowledged that the working woman was a product of the industrial revolution, not so much because mechanisation created jobs where previously there had been none (although this was certainly the case in some regions), but because during the industrialisation process the working woman became a problematic and visible figure (Joan Scott, 2000: 427). Both perspectives question the interpretation of industrialisation as a moment that broke with the previous female work experience, and different studies have underlined the factors indicating a certain continuity between this experience in the industrial world and the work activity of women in preindustrial societies. Among them are Louise Tilly and Joan Scott (1978), Mary Nash (2000) and Joan Scott (2000).

Nonetheless, the specific contributions on the subject of fishing communities recognize that, traditionally, the distribution of the roles and the activities associated with this sector led to women participating heavily in the cleaning and drying of fish. Authors such as Dona Lee Davis and Jane Nadel-Klein (1988: 30) are referring to exactly this when they state that "women in fishing economies are perhaps most widely known for their involvement in fish processing and marketing. Women in almost every fishing community play some role in processing, gutting, sun-drying, smoking, pickling, canning, or freezing fish so that it can be preserved either for sale or use."

The industrialisation of the Ría de Vigo began at the end of the 19th century and the type of industrialisation taking place did not limit but rather stimulated and increased the hiring of women. The type of jobs found in the Ría de Vigo at the time is *singular*, in that the primary industrial sector is the canning industry and this industry recruits mainly women workers. Female employment grows during the entire period, since more and more workers are required by the industry as it expands. These women workers are not complementary labour but rather the mainstay of the labour force, indicating that their employment responds to an industrial logic.

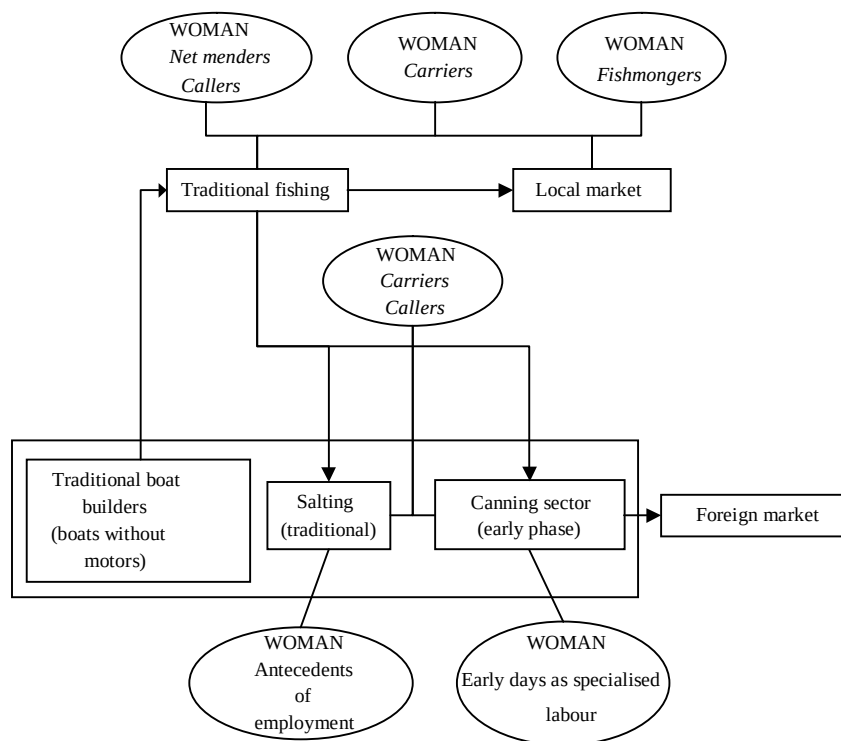
The antecedents of generalised female employment in the canning industry in the Ría de Vigo can be found in the role that women have always been assigned in fishing communities, a role conditioned by the incipient maritime-fishing activities. We have determined that there were three economic circuits; first, traditional fishing-local market, second, traditional fishing-salting activity, and finally, traditional fishing-canning sector.

Figure 1 represents the economic activity of women in the Ría de Vigo during the 1880-1900 period. Within the economic circuit of traditional fishing-local market there were the *rederas* (*net menders*), who were the women in charge of repairing nets, the *llamadoras* (*callers*), who were the women in charge of informing the crew of imminent departure and taking the tackle to the fishing boats, the *acarreadoras* (*carriers*), who were the women who carried the catch, loaded into baskets, to the local market, and finally the *pescantinas* (*fishmongers*), who were the women engaged in the retail sale of the fish at the market.

The economic circuit formed by traditional fishing-salting activity includes the figures of *acarreadoras* (*carriers*), the women who carried the catch in baskets from the fishing boats to the salting factories and also the women *employed* at such factories.

The economic circuit formed by the traditional fishing-canning sector (then in its early phases) includes the figures of *llamadoras* (*callers*), the women in charge of informing the rest of the women of the arrival of fishing boats at the dock, the *acarreadoras* (*carriers*), the women who carried the fish in baskets from the boats to the factories and the women *employed* as *specialised* labour at the canning factories. The tasks performed by the women employed at the canning factories included the cleaning of the fish upon its arrival, gutting and heading it, airing or drying it, grilling or frying it, placing it in tins, taking the tins to the autoclave (upon leaving the autoclave the tin is technically perfect) and the classification of tins by type and size. It can be asserted that women's activity in the incipient canning industry in the Ría de Vigo constitutes their first incursion into specialised labour.

FIGURE 1. THE ECONOMIC ACTIVITY OF WOMEN IN THE RÍA DE VIGO, 1880-1900



Source: Prepared by the author

The nature of the work done by women in the final decades of the 19th century suggests that they played a primary role in the economic activities of the Ría de Vigo (as do women at the beginning of the 21st century in the case of fishing communities in developing economies): *rederas* (net menders), *pescantinas* (fishmongers), *llamadoras* (callers), employees in the salting factories and in the incipient canning sector.

This has important repercussions in terms of gender analysis, and the interpretations of the significance of the industrialisation process for women, in terms of their adaptability to the new work situation, coincide that the experience was different for the two sexes. It is well known that the development of industrial production, with its transfer of production from the home to the factory and the resulting displacement of the household as the economic unit of production, had a specific significance for women, in that it made it difficult to reconcile their remunerated work with their domestic work (Mary Nash, 2000).

This suggests that the historical study of working women must take as its point of departure both the material and cultural significance of domestic responsibilities and also the significance of the different modes of women's work for the economy as a whole, in this case those related to the activities of a maritime-fishing economy.

TABLE 1
OCCUPATION AND SALARIES IN THE SALTED FISH FACTORIES IN RIA DE VIGO, 1889.

	Women	Men
Occupation per factory	20	100
Total occupation	800	4.000
Daily salary in reales	4	5
Monthly salary in pesetas	30	38
Annual salary in pesetas	120	152
Whole annual salaries in pesetas	96.000	600.000

Note: The total amount of active factories was forty, the activity period of the factories was four months per year. Source: Prepared by the author, from Journal of Spanish Maritime Fishing, number 28, February 1889.

Studies from the period mention the limitations imposed on women's action, such as existing legislation and legal discrimination⁴, but they also give considerable weight to the discourse of domesticity as the ideological basis of gender in that society, since the most frequent representation of women was the *angel of the home*, an ethereal and self-sacrificing figure. If the cultural identity of women was not based on identification with a job, but rather on the assumption of the responsibilities associated with the figure of mother and wife, the following question must be posed: what would such identity be in the case of the *acarreadoras* (carriers), *pescantinas* (fishmongers), and employees of the salting and canning factories who did not correspond to the standard of femininity defined by the model of mother, wife and housekeeper? Paraphrasing Mary Nash (2000) it can be said that ideological dissuasion and social pressure were the mechanisms commonly used to reinforce the cultural identity of women as wives and mothers, but the presence of women in the labour market, and particularly in that of fishing communities, underlines the inefficiency of these deterrent social control mechanisms.

Moreover, and as regards the cultural norms of the period, the question arises in the following terms: what social consideration was given to those pioneering working women whose place of work was not only inside the home? In other words, what place did they occupy in the cultural discourse regarding gender in the final decades of the 19th century?

The response to these questions is to be found in the break with the past. These women, the first women to be employed in the canning and salting industries, the *acarreadoras* (carriers) and *pescantinas* (fishmongers), become *visible* and break the socially-accepted norms of conduct, while at the same time they become part of, without conflict, the labour market of this fishing community.

3. The role of women in the canning industry

Mary Nash (2000: 590) states that the proportion of economically-active women in Spain at the end of the 19th century was about seventeen percent, a figure indicative of the weight that the female workforce was beginning to have, despite the traditional

⁴ These aspects in Spain were analysed by female authors of the period such as Pardo Bazán (1890) and Arenal (1895).

invisibility of women in official statistics, in the industrialisation process of the Spanish economy.

The industrialisation of the Ría de Vigo began in the first decade of the 20th century, with the establishment and concentration of small companies specialised in the manufacture of preserved fish products (Fernanda Abreu 1983). The canning industry turned out to be the foundation of Vigo's economic development and it is the sector with the highest demand for female workers.

In terms of the gender perspective, the definition of women's work is questioned in the early decades of the 20th century. During these years, a new gender model is formulated and described as the *Modern Woman*. This model is more in consonance with the structural changes caused by the modernisation process affecting Spanish society and it gives rise to a redefinition of women's work and a certain reformulation of the foundations of the 19th century model of domesticity and gender roles (Mary Nash 2000: 595). This new discourse is no doubt facilitated by the extension and diversification of the industrial fabric, which entails the establishment of a new women's role in industrialisation processes, which in this study are those of the fishing community of the Ría de Vigo.

In conjunction with the traditional distribution of roles in fishing economies, the dynamics generated by investment in the canning sector in this region had the power to create a new female workforce, with relatively high activity rates compared to Spain's other industrial areas, such as the mining or steel regions. Studies on women working in the canning industry, such as the ones performed for the Women's Bureau of the U.S. Department of Labor by Mary Anderson (1921, 1926) and Caroline Manning (1926, 1930), and others like the one by Vicky Ruiz (1987), reveal that this industry has shown, from the very beginning and all over the world, a preference for a young, female workforce with no previous experience in the labour market. Authors such as Joan Scott (2000) are referring to precisely this when they explain that the jobs for which women were hired were defined as women's work, meaning that they were appropriate for women's physical abilities and innate productivity levels. In any case, the canning factories of the Ría de Vigo, which produced merchandise for the foreign market, showed their preference for female employees in the early years of the 20th century (Fernanda Abreu 2005).

TABLE 2
OCCUPATION IN THE CANNING AND SALTED FISH FACTORIES IN RIA DE VIGO, 1901

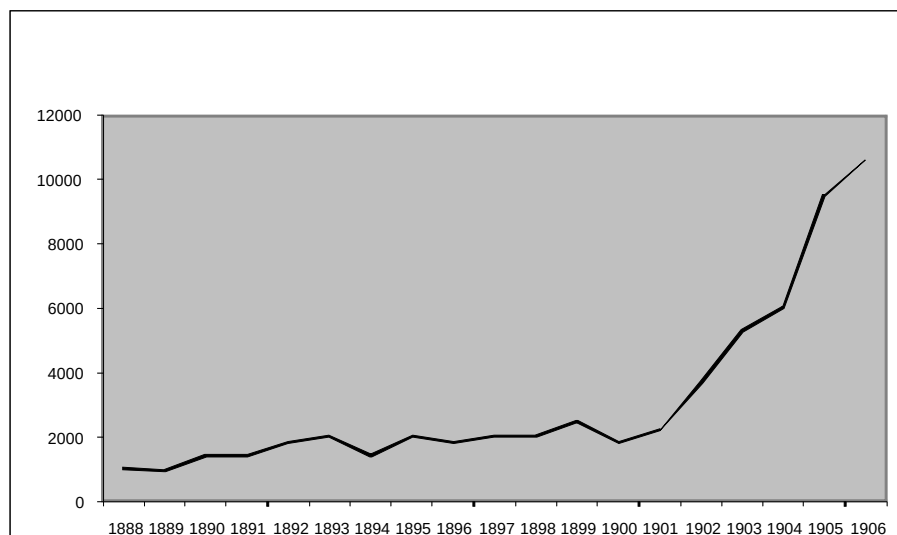
	Factories	Employment	Men	%	Women	%
Canning	18	2.250	558	25	1.692	75
Salted fish	53	2.385	318	14	2.067	86
Total	71	4.635	876	19	3.759	81

Source: Prepared by the author, from Journal of Spanish Maritime Fishing, 1901: p. 317.

The industrialisation of Vigo is founded upon the growth of industries dedicated to fishing and fish products. The number of canning factories went from eighteen in 1901 to forty in 1907, making the Ría de Vigo the most important canning centre in Spain in terms of production and export volume. In reciprocity with the growing number of canning companies, the exportation of preserved fish through the Vigo customs house

also increased, making Vigo the biggest export port in Spain (Fernanda Abreu 1983, 2002). An analysis of the amounts exported confirms their rapid growth during the first decade of the 20th century: canning production and exportation grew from two million kilos in 1900 to ten million kilos six years later. It is clear that the sector experienced a boom during the first ten years of the 20th century, and during these years Vigo's canning industry became firmly consolidated.

FIGURE 2
PRESERVED FISH EXPORTATIONS DONE BY VIGO'S CUSTOMS OFFICE (THOUSAND KG)



Source: Prepared by the author, Abreu 1983.

During the first decade of the 20th century, the eighty canning, salting and pickling factories established in Vigo generated seven thousand jobs, of which eighty percent were filled by women and the remaining twenty percent by men⁵.

The work performed by women at the canning factories in the Ría constitutes the main axis of female labour in this maritime enclave. In the first place, it is the activity with the highest demand for female workers; if in 1900 there were one thousand six hundred women working at the canneries, by 1907 the number had reached five thousand five hundred, which represents 45% of the total population of economically-active women. Secondly, the canning industry becomes the axis of Vigo's local production system in its expansion during the first few decades of the 20th century. Finally, women's employment tends to have peculiar characteristics, and this is particularly true in the canning industry.

⁵ More details about this aspect can be found in the Spanish Maritime Fishing Journal (1901): pp. 44-45. The assessment of this employment by the Spanish Maritime Fishing Journal coincides with that of the Vigo Chamber of Commerce when it states that the seventy salting and canning factories in this Ría employ 4000 workers, both male and female (Memoria COCIN, 1901: telegram to the Ministry of Commerce on 17 October).

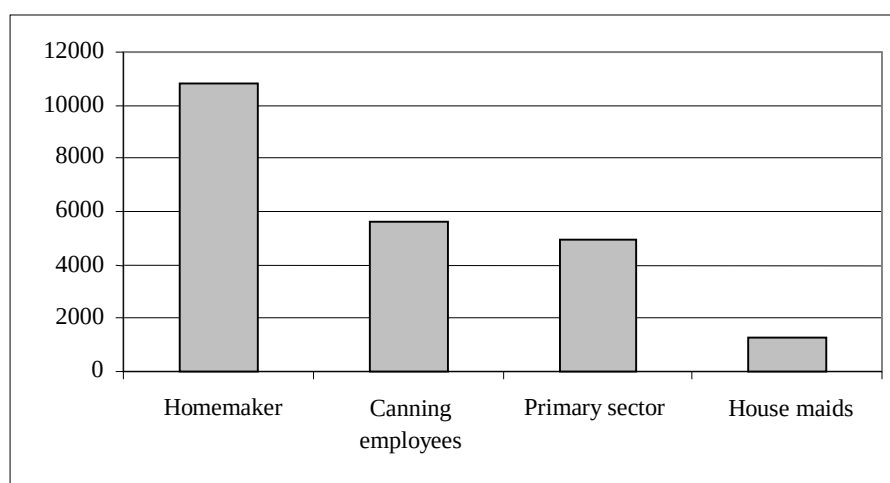
TABLE 3.
OCCUPATION IN CANNING AND SALTED FISH FACTORIES IN RIA DE VIGO, 1907.

	Factories	Employment	Men	%	Women	%
Canning (Vigo)	40	5.000	1.240	25	3.760	75
Canning (Cangas)	5	625	155	25	470	75
Canning (Bayona)	1	125	31	25	94	75
Salted pickled fish (Vigo)	22	990	132	14	858	86
Salted pickled fish (Cangas)	12	540	72	14	468	86
Total	80	7.280	1.630	22	5.650	78

Source: Prepared by the author, from Journal of Spanish Maritime Fishing, 1901: p. 317, and from A. Bernárdez (1930) pp. 639-640.

The singularity of the process in the Ría de Vigo, in the early decades of the 20th century, is due to the increase in the work available to women as a result of the enormous expansion of the canning industry and the consequential high demand for female labour, with employers showing great interest in the supply of workers from this cheap and specific pool of labour, and especially to the employment of young willing to accept seasonal work. This availability of women for seasonal jobs, that is, their occupational flexibility, allowed the canning industry to adapt its supply of jobs to the oscillations and seasonal nature of production. The canning industry offers a clear example of continuity with the practices of the past, in that it preserved certain decisive characteristics of what is known as women's work. In parallel with this process of continuity, the demand for labour by the canning industry prompted a separation between the home and the workplace, forcing women to choose between domesticity and paid work outside the home.

FIGURE 3. WORKING-AGE WOMEN IN RIA DE VIGO, 1910



Source: Prepared by the author from the population census of 1910.

The participation of women in the economically-active population of this area showed a significant upward trend during the first decade of the 20th century. In 1910, women's participation in the labour market was high, with a considerable proportion of working-age women being employed in canning. Indeed, twenty-five percent of working-age women were employed by the canning and salting industry, while twenty percent worked in the primary sector and six percent worked in the service sector (the remaining forty-nine percent in this age group had no paid employment).

The analysis highlights, as a distinguishing characteristic of the employment generated in the Ría de Vigo, the high rate of female employment in the canning and salting industry, with a figure as high as *twenty-five percent*. This figure is especially noteworthy when compared to the rate of female employment in industry in Spain as a whole, which was thirteen percent in 1900 and had only risen to thirty-one percent in 1930⁶.

With regard to the salaries paid to cannery workers, distinction must be made between welders and women. In 1904, the Union of Manufacturers of Preserved Fish Products of Vigo (which in 1917 modified its name, changing Vigo to Spain) decided that the daily wage paid to canning factory workers would be nineteen *reales* in the case of welders and five *reales* in the case of women. To explain salary differences between women and men, we agree with Virginia Valian (1999) in her theory that the advancement of women is not the same as that of men because of what she calls "gender schemas" acquired by all members of society from a very young age. Their most notable consequence in professional life is that men are overvalued and women are undervalued: what is considered to be inherent to the masculine gender gives men a small advantage, which is accumulative, while those traits associated with the female gender cause a loss of value in women, and this loss is also accumulative (Virginia Valian, 1999: 2) and this is the case of women who cleaned, gutted and canned fish. The foregoing is useful in understanding the fact that while the welding of tins required a specialised worker, and the worker thus received a higher wage, for one reason or another, although the work performed by women also required skill and specialisation, their salaries were lower: gender schemas?

It is true that since the 19th century the most usual form of salary discrimination is a result of the fact that men and women do not do the same work, but rather cluster in female and male jobs. It is also true that this occupational segregation gives rise to inequality between men's and women's salaries, and this is certainly the case in the canning industry. For this reason salary differences in some cases are, more than salary discrimination, a function of the *feminisation of certain trades*, which reproduces the structural separation between men and women. This has been found to apply to the canning industry. Be that as it may, the continuity factor arising in fishing communities is especially noteworthy, since women – *rederas* (*net menders*), *pescantinas* (*fishmongers*), *salazoneras* (*women in charge of salting*)), etc. – at the end of the 19th century gained access to *income* that was necessary for the maintenance of their

⁶ As pointed out by Capel (1986: 68) in 1900, clothes, textiles and food, in that order, absorbed eighty-nine percent of the women employed in industry.

families and communities, while subsequently, at the beginning of the 20th century, they gained access to salaries, coinciding with the feminisation of the labour force in the canning industry. In any case, the high rate of female employment in the Ría de Vigo had the effect of making these women *visible*.

4. Conclusions

First, it must be said that the development of the fish canning industry anywhere in the world cannot be conceived without the presence of women. Keeping in mind that the willingness of women to work outside the home varies over different historical periods and depends on the specific characteristics of each economic space, the explanation of the high proportion of female workers in the canning industry is to be found in what has been called *gender characteristics* or *qualities attributed to women*.

Moreover, in the canning industry, explanatory factors such as gender characteristics generally refer to productivity and women's greater dexterity in certain production processes. The work of cleaning and gutting requires specific gender-associated skills, such as those related to meticulousness and patience.

The development of a new female labour force in the heart of Spain's canning sector, the Ría de Vigo, in the first decade of the 20th century is highly significant. Two conditioning factors contributed to this development; the first is found in the type of industrialisation, which does not limit but rather stimulates and expands the hiring of women, and the second is the availability of the women, due to their rural origins and situation of need. As a result, the functioning of the local labour market propitiated a supply of workers who were mainly female and efficient, in that they were well-suited to the work, competent and productive for the model of industrialisation that was taking shape.

At the beginning of the 20th century, the incorporation of women workers into the canning industry meant these employees had to go to the factory – normally by foot – in the morning and return home at night. This pattern contributed to the creation of new forms of behaviour and of acceptance of women in the social-economic context of the times. There is no doubt that previously they had been tied to work at home and in the fields, and the changes occurring at the start of the industrialisation process may have generated tensions between traditional norms and the requirements arising in connection with women's early participation in the canning industry.

Finally, there are the factors related to the flexibility of the female workforce, and especially to the employment of young women willing to accept *seasonal* work. This willingness made it possible to adapt to the varying levels of demand for female workers by the canning industry. This availability of women for seasonal jobs, that is, their occupational flexibility, allowed the canning industry to adapt its supply of jobs to the oscillations and seasonal nature of production. This may be one of the most important explanatory factors, or at least one of the most *singular* factors, of the *feminisation* of the workforce in the canning industry, from the very beginning. It is no less true that this willingness is closely related to the productivity and competitiveness of the Spanish canning industry in international markets.

References

- Abreu Sernández, L. F. (1983): *La formación de capital en la Ría de Vigo 1888-1940. El sector naval y la industria conservera*. Santiago de Compostela: Universidad.
- Abreu Sernández, L. F. (2002): *Iniciativas empresariales en Vigo entre 1866 y 1940*. Vigo: Publicaciones de la Universidad.
- Abreu Sernández, L. F. (2005): *Evolución del papel de la mujer en la actividad económica de Vigo entre 1880 y 1950*. Vigo: Publicaciones de la Universidad.
- Anderson, M. (1921): *Preliminary report of a Survey of wages, hours and conditions of work of the women in industry in Georgia 1920-1921*. Washington: U.S. Department of Labour. Government Printing Office.
- Anderson, M. (1925): "Facts about working women. A Graphic presentation based on census statics and studies of the women's bureau." *Bulletin of the Women's Bureau* 46 : 2-51.
- Anderson, M. (1926): "Effects of applied research upon the employment opportunities of women." *Bulletin of the Women's Bureau* 50: 52-56.
- Arenal, C. (1895): "Estado actual de la mujer." *Boletín de la Institución Libre de Enseñanza* vol. XIX: 239-251.
- Archivo del Ayuntamiento de Vigo: *Censo de Vigo año 1910*, volumes I and II. Vigo.
- Archivo Masso. *Libros copiadores de cartas comerciales 1880-1910*, Vigo.
- Archivo Unión Fabricantes de Conservas de Vigo: *Libro Actas Juntas Generales del 28 de febrero de 1904 al 21 de noviembre de 1913*. Vigo.
- Becker, G. S. (1957): *The Economics of Discrimination*. Chicago: University of Chicago Press.
- Becker, G. S. (1964): *Human Capital*. New York: NBER.
- Borderías, C. (2007): *Género y políticas del trabajo en la España contemporánea 1836-1936*. Barcelona: Publicaciones y ediciones, Universidad de Barcelona, Icaria editorial.
- Borderías, C. (2009): *La historia de las mujeres: perspectivas actuales*. Barcelona:Icaria editorial.
- Chamber of Commerce of Vigo: *Memoria COCIN 1901*. Vigo.
- Capel, R. (1986): *El trabajo y la educación de la mujer en España (1900-1930)*. Madrid: Ministerio de Cultura, Instituto de la Mujer.
- Carrasco, C. (2009): "Tiempos y trabajos desde la experiencia femenina." *Papeles de relaciones ecosociales y cambio global* 108: 45-54.
- Cuesta Bustillo, J. (2003) *Historia de las mujeres en España. Siglo XX*. Madrid: Instituto de la Mujer.
- Díaz Sánchez, P. and Domínguez, P. (1988): *Las mujeres en la historia de España*. Madrid: Instituto de la Mujer.
- Duby, G. and Perrot, M. (2000): *Historia de las Mujeres. 4 El siglo XIX*. Madrid: edición española Santillana.
- Lee Davis, D. and Nadel-Klein, J. (1988): "Terra Cognita? A Review of the Literature." In *To work and to weep. Women in fishing economies*, edited by Jane

- Nadel-Klein and Dona Lee Davis, 18-50. Canada: Institute of Social and Economic Research.
- Manning, C. (1926): "Women in the fruit-growing and canning industries in the state of Washington." *Bulletin of the Women's Bureau* 47:119-190.
- Manning, C. (1930): "The employment of Women in the pineapple canneries of Hawai." *Bulletin of the Women's Bureau* 82: 1-23.
- Mill, J. S. (1943): *Principios de economía política*. Traducción de la edición de 1848, México: Fondo de Cultura Económica.
- Muñoz, L. (2010): *Género, trabajo y niveles de vida en la industria conservera de Galicia, 1870-1979*. Barcelona: Icaria, Universidad de Barcelona.
- Nash, M. (2000): "Identidad cultural de género, discurso de la domesticidad y la definición del trabajo de las mujeres en la España del siglo XIX." In *Historia de las Mujeres. 4 El siglo XIX*, edited by Georges Duby and Michelle Perrot, 585-598. Madrid: Edición española Santillana.
- Nadel-Klein, J. and Lee Davis, D. (1988): *To work and to weep. Women in fishing economies*. Canada: Institute of Social and Economic Research.
- Nicolau, R. (2005): "Población, salud y actividad." In *Estadísticas históricas de España siglos XIX y XX*, edited by Albert Carreras and Xavier Tafunell, 100-153. Bilbao: Fundación BBVA.
- Pardo Bazán, E. (1890): "La mujer española." *La España Moderna*, año II, nº XVII: 101-113.
- Penny, V. (1869): *Think and Act. A series of articles pertaining to men and women, work and wages*. Philadelphia: Claxton, Remsen y Haffelfinger.
- Revista de Pesca Marítima (1885)*: Madrid: Imprenta Vda. e hija de Gómez Fuentenebro: 288-292.
- Revista de Pesca Marítima (1889)*: Madrid: Imprenta Vda. e hija de Gómez Fuentenebro: 54-56.
- Revista de Pesca Marítima (1901)*: Madrid: Imprenta Vda. e hija de Gómez Fuentenebro: 44-48.
- Ruiz, V. (1987): *Cannery women. Cannery lives. Mexican women, Unionization, and the California Food Processing Industry, 1930-1950*. Albuquerque: University of New Mexico Press.
- Sarasúa, C. and Gálvez, L. (2003): *¿Privilegios o eficiencia?. Mujeres y hombres en los mercados de trabajo*. Alicante: Publicaciones de la Universidad de Alicante.
- Scott, J. (2000): "La mujer trabajadora en el siglo XIX." In *Historia de las Mujeres. 4 El siglo XIX*, edited by Georges Duby and Michelle Perrot, 427-461. Madrid: Edición española Santillana.
- Tilly, L. and Scott, J. (1978): *Women, work and family*. New York: Holt-Rinehart and Winston.
- Valian, V. (1999): *Why so Slow?. The Advancement of Women*. Cambridge, Massachusetts: The MIT Press.