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Special issue: Gender in Economic History

Gender in Economic History

Work, Institutions, and Inequality in International Perspective

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Introduction

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel awarded to Professor Claudia Goldin in 2023 highlighted the importance of understanding the evolution and drivers of gender differences in our societies. Goldin's work has advanced our knowledge of women's labor force participation, the determinants of the gender wage gap, and the interplay of education, family, and institutions in conditioning opportunities across time. Her research demonstrates that gender is not a peripheral dimension of economic history, but a structuring force in the evolution of labor markets, households, and welfare systems (Perrin, 2024).

This special issue of *Investigaciones de Historia Económica – Economic History Research* (IHE-EHR) honors Professor Goldin's work while presenting new historical research on the causes and consequences of gender disparities across diverse contexts. It builds on a growing number of gender-focused contributions published in *IHE-EHR* in recent years, which includes studies related to migration (Yamamichi and Solà Parera, 2024), living standards (Olguín and Bragoni, 2023; Meisel-Roca, Ramírez-Giraldo and Lasso-Jaramillo, 2023), inequality (Mas-Ferrer, 2023), and discrimination (Catalán Martínez, 2023). The five articles included in this special issue explore the dynamics of women's work, earnings, and agency from the eighteenth to the twentieth centuries, in Europe and Asia. Collectively, they show that gender influenced the organization of production, the distribution of resources within households, and the ability of women to carve out spaces of autonomy. They also highlight the persistence of barriers – legal, cultural, and institutional – that constrained women's economic roles, even as new opportunities emerged.

The issue opens with the article by **Elise Nederveen Meerkerk and Wenju Yu**, who examine women's earnings and economic roles in the Yangtze Delta between 1756 and 1930.

Using newly reconstructed wage series from archival and secondary sources, they track the contribution of women's textile labor – whether in hand spinning, weaving with imported yarn, or factory work – to household incomes and living standards. Their findings reveal that women's labor often raised families well above subsistence and, at certain moments, strengthened women's bargaining power and decision-making within households. Yet these gains were fragile: industrialization and global competition generated both opportunities and losses, with married women in handicraft production particularly vulnerable. By connecting women's work in China within global debates on industrialization and the Great Divergence, the article demonstrates that women's contributions were both significant and transformative.

A European perspective is offered by **Suvi Heikkuri, Svante Prado, and Yoshihiro Sato**, who study mechanization and its impact on female and child labor in late nineteenth-century Sweden. Drawing on cross-sectional plant-level data from the 1879 manufacturing survey, they show that larger establishments were more likely to employ women and children, as the division of labor in big factories created repetitive tasks that were easier to learn, shifting demand away from skilled male workers. Mechanization itself, however, shows no independent association with women or children employment once establishment size is taken into account. Sectoral variation also mattered: in textiles, women had long been involved in spinning and weaving under the putting-out system, explaining their predominance in textile factories. Overall, the study challenges the simple deskilling narrative of industrialization, showing that the rise of female and child labor was driven more by establishment size, industrial traditions, and wage structures than by mechanization alone.

The theme of institutional barriers is further developed in **Johanne Arnfred's** study of legal reforms in mid-nineteenth-century Sweden. She investigates whether the liberalization of artisan trades increased women's access to workshop ownership. Using establishment censuses across four southern towns, Arnfred shows that the share of female owners did not rise systematically after the reforms. The persistence of constraints – whether in social norms, capital requirements, or marital restrictions – suggests that formal legal changes were insufficient to alter entrenched gendered inequalities in economic life. While the sources do not allow for a consistent assessment of married women's activity or of those registered as self-employed, the evidence overall supports a pessimistic interpretation of the consequences of artisan trade liberalization for women. Her work demonstrates the importance of looking beyond legislation to the deeper structures conditioning women's opportunities.

Turning to Southern Europe, two articles examine female labor market outcomes. **Luisa Muñoz and Mónica Carballal** analyze women's employment in the fish processing sector in Vigo during the first half of the twentieth century. Using records from two major companies in the sector, they document a strongly feminized but highly segmented labor market, in which women were employed seasonally and faced a substantial gender wage gap of 50–60% for comparable occupations. This gap narrowed only gradually, falling to about 20% by the 1950s. By reconstructing family budgets, the authors show that women workers contributed close to 15% of household income (even more if including self-consumption), challenging the male-breadwinner model often assumed for the period. Their results resonate with broader

debates on the insufficiency of male wages in industrializing economies and the indispensable role of women's earnings in sustaining families.

The second article on Southern Europe, by **Paula Barbero**, considers female labor participation rates and occupational structure in Tenerife. The author leverages a local population register containing detailed individual-level information on women's occupation, age and civil status. She finds comparatively high levels of employment in the region, even greater than those of their male counterparts in the youngest age categories. The high rates of economic activity by women, however, were mostly present in low-paid textile jobs (e.g., spinner) in line with a traditional gendered division of labor. This was the result of marked male regional migration and the need to find a non-seasonal source of income that could ensure the subsistence of the household.

Together, the articles in this issue highlight both continuity and change in women's economic roles. They demonstrate how women's work contributed to household survival, industrial transformation, and community well-being, while also revealing the structural barriers that limited equality. By covering regions as diverse as China, Sweden, and Spain, the contributions illustrate the global relevance of a gendered perspective in economic history.

Several articles speak directly to Claudia Goldin's central theme of **labor force participation**, showing how women's work – whether in China's textile sector, Swedish factories, or Spanish fish processing – was crucial yet influenced by sectoral and institutional contexts. The persistent and evolving **gender wage gap** is evident not only in Vigo but also in the broader dynamics of industrial and handicraft production. Finally, the role of **institutions and social norms** emerges forcefully: reforms in artisan trades failed to open real opportunities for women, and mechanization reorganized labor markets in gender-segmented ways. Collectively, these articles pay tribute to Goldin's contributions by extending her research agenda into new geographies, sectors, and time periods, reaffirming the importance of gender as a fundamental dimension for the study of economic history and long-run development.

References

- CATALÁN MARTÍNEZ, E. (2023). *Were there missing girls in Biscay? Sex ratios in Northern Spain, 1550–1899*. *Investigaciones de Historia Económica*, 19(3), 13–24. <https://doi.org/10.33231/j.ihe.2023.03.004>
- MAS-FERRER, J. (2023). *In search of the ideal husband. Could inequality in the pre-industrial era be measured through dowries? North-eastern Catalonia, 1750–1825*. *Investigaciones de Historia Económica*, 19(3), 25–37. <https://doi.org/10.33231/j.ihe.2023.03.001>
- MEISEL-ROCA, A., RAMÍREZ-GIRALDO, M. T., & LASSO-JARAMILLO, D. (2023). *Gender height dimorphism: An approximation of the living standards in Colombia, 1920–1990*. *Investigaciones de Historia Económica*, 19(2), 124–139. <https://doi.org/10.33231/j.ihe.2023.03.002>
- OLGUÍN, P., & BRAGONI, B. (2023). *Salarios de mujeres e ingreso familiar de subsistencia*

en Mendoza (Argentina) a principios del siglo xx. Investigaciones de Historia Económica, 19(2), 105–123. <https://doi.org/10.33231/j.ihe.2023.04.001>

PERRIN, F. (2024). *Claudia Goldin: Nobel Prize 2023 paving the way for women and gender perspectives in economics. Cliometrica*, 18, 327–333.

YAMAMICHI, Y., & SOLÀ PARERA, À. (2024). *Migración y género en las familias artesanas de Barcelona, 1770–1817. Investigaciones de Historia Económica*, 20(1), 7–17. <https://doi.org/10.33231/j.ihe.2023.07.001>

Textile Wages, Women's Earning Power, and Household Living Standards in the Yangtze Delta, 1756–c.1930

Wenjun Yu

Elise van Nederveen Meerkerk 

ABSTRACT: *This article combines three datasets of women's real earnings in Yangtze Delta textile production between 1756 and 1930. We evaluate the instrumental and intrinsic value of women's work, considering its impact on household economies and women's status in a period of societal and economic change. Although women's real income generally declined throughout the investigated period, industrialization and globalization offered opportunities for specific groups of women. They contributed substantially to household living standards, depending on their age and marital status. Adult women engaging in handweaving could support a family of five well beyond subsistence level in the late nineteenth century, and so could female spinning factory workers in the 1920s. In modern factories, young female workers increased their autonomy in marriage or household decision-making. The article thus delivers new insights into women's earning capacity as well as fresh data, enriching Chinese as well as recent international historiography on household wellbeing. (JEL CODES: J16, N35, N65.)*

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Salarios textiles, capacidad de ingresos de las mujeres y niveles de vida de los hogares en el Delta del Yangtsé, 1756-c. 1930

Wenjun Yu

Elise van Nederveen Meerkerk 

RESUMEN: *Este trabajo combina tres datasets sobre los ingresos reales de las mujeres empleadas en la producción textil del Delta del Yangtsé entre 1756 y 1930. Con esta información, se evalúa el valor del trabajo femenino, considerando su impacto en las economías domésticas y en la posición social de las mujeres en ese periodo. Aunque los ingresos reales disminuyeron en general a lo largo del periodo analizado, la industrialización y la globalización ofrecieron oportunidades a grupos específicos de mujeres. Su contribución a los niveles de vida de los hogares fue sustancial, dependiendo de su edad y estado civil. Las mujeres adultas dedicadas al tejido manual podían mantener a una familia de cinco miembros por encima del nivel de subsistencia, y lo mismo sucedía con las trabajadoras de las fábricas de hilado en la década de 1920. En las fábricas modernas, las jóvenes trabajadoras ampliaron su autonomía en las decisiones matrimoniales o del hogar.*

(CÓDIGOS JEL: J16, N35, N65)

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1. Introduction

In his seminal book *Development as Freedom*, Amartya Sen (2000) distinguishes two definitions of women's agency and equality: "intrinsic" (for the good of a woman's position itself) and "instrumental" (for the benefit of the economy and society as a whole). Studying the instrumental as well as the intrinsic aspects of women's economic activities in the past is highly important. Recent work on the economic history of Europe has emphasized women's earning capacity and their economic remunerations as significant indicators for household welfare as well as for women's freedom (e.g. van Nederveen Meerkerk 2010; Ågren, 2017; Drelichman and Agudo, 2020; Gary and Olsson, 2020; de Pleijt and van Zanden, 2021). While earlier research on household living standards largely relied on men's wages, focusing on urban unskilled wage laborers, and ignoring household life cycles (e.g. Allen, 2009a), recent studies have criticized such one-sided approaches by including the incomes of women and children and adding a life-cycle dimension (Humphries and Weisdorf, 2015; Boter, 2020; Horrell, Humphries, and Weisdorf, 2022). In this article, we want to extend this approach to the Chinese case, most notably the economically advanced region of the Yangtze Delta. Some excellent studies notwithstanding (e.g. Li, 2009; Kung and Lee, 2010), the scholarship on Chinese women as economic contributors as well as women's agency in its own right, is comparatively underdeveloped. Especially the analysis of long-run developments, bridging preindustrial and industrialized societies, deserves further attention.¹

In light of the instrumental value of women's work, several scholars on European history have argued that its contributions to the household economy may have been vital for the transition from a preindustrial to an industrial society (e.g. De Vries, 1994; Allen 2015). Others are more critical of this optimistic story, suggesting that women's income was crucial for the survival of households, and thus induced by poverty instead of economic efflorescence (e.g. van Nederveen Meerkerk, 2008; Humphries and Schneider, 2019). Whether to survive or thrive, women's contributions mattered greatly for the household economy of industrializing European societies.

This brings us to the intrinsic opportunities that industrialization created for women, which varied according to their life cycle. For Britain, Humphries and Weisdorf (2015, 429) conclude that there was a clear distinction between, on the one hand, married women and children, whose labor market options declined with the waning of handspun textiles. On the other hand, for young adult unmarried women, they note rising wages and job opportunities. De Pleijt and van Zanden (2021, 634), who extend Humphries' and Weisdorf's long-term analysis of Britain to compare wage developments in different parts of Europe, also establish a clear relationship between marital status and the *gender wage ratio* – a proxy for women's economic status. In Southern Europe, women received lower wages than in Northwestern Europe, relating to different patterns of family formation: later marriage and smaller families in the latter. They conclude from this that as women earned more, they had a greater say in whom they married and at which point in their lives.

How can we translate these insights to Chinese economic history? At present, scholars are divided on the instrumental effects of women's work on economic development in China.

Allen (2009b) has argued that, as opposed to what happened in Europe, the real earnings of female textile workers in the Yangtze Delta declined since the 1850s, leading to a stark household immiseration already before China industrialized. His argument was largely based on Li (2009) and aimed to contribute to the comparison of European-Chinese household living standards. In contrast, earlier regional studies found that in the period in which China opened to global trade and started to industrialize, women's income from both rural and (proto) industrial economic activities were sizable: ranging from 14 to 20 per cent of total household income (Buck, 1937; Johnson, et al., 1987; Mann, 1992).

Apart from the importance for the Chinese (household) economy it is also highly relevant to assess women's longer-term economic involvement in the context of one of the most prominent debates in global economic history: the Great Divergence between Asia (China) and Europe (Britain). Scholars such as Huang (1990), adhering to an "involution" view, insist that Yangtze farming households hovered around subsistence level for centuries, not least because of the small income of female household members. However, this argument was refuted by Pomeranz (2000, 320) and Li (2009, 388), who contended that female earnings from textile production were not below subsistence, at least in eighteenth-century China.

Regarding the intrinsic value of Chinese women's economic contributions, historians have debated their status in the light of the male breadwinner model. Many scholars argue that in the agrarian society China was, men for centuries formed the primary agricultural labor force that predominantly provided for the household income. In addition, Confucian ethics and other social controls, symbolized by the old Chinese saying 男主外, 女主内 ("men work outside and women manage domestic affairs"), supposedly confined Chinese women to domestic tasks and undermined their economic importance (Buck, 1937; Goldstone, 1996). In contrast, scholars like Benjamin and Brandt (1995) and Kung and Lee (2010) have found for different local communities that women's contributions to total household income were similar to men's, thus undermining the idea that China *in practice* was a male breadwinner society. Also, for industrializing areas, Mann (1992) found that foreign trade and industrialization enhanced women's work opportunities, premised on their class, locality, household consumption and life cycle stage. Like in the European case, Chinese women's contributions did not always enhance their position. For example, Bell (1994) argues that although women's income was vital for household economic viability, their social status was likely to be depressed by local culture and norms. But overall, we expect that enhanced earning capacity worked in favor of Chinese women's agency.

In order to contribute to these international as well as national discussions on the instrumental and intrinsic value of women's economic contributions, this article has three objectives: first, it compiles new empirical wage data drawn from the archives and from secondary literature. Thus, it attempts to make a *long-term reconstruction* of women's real incomes, that has so far been lacking due to fragmented case studies. We delineate trends in women's income and wage as well as their household economic contributions in the Yangtze Delta over the period 1756-1930. Second, the article analyzes the instrumental value of women's wages, by looking at three sources of textile income simultaneously, rather than separately, enabling a

more accurate assessment of the economic effects of women's wages on the household and the wider economy. Third, we assess the effects on women's position and status through a life-cycle perspective, using age and marital status as explanatory factors. While we by no means suggest that our data and analysis are exhaustive, our approach will hopefully spur further debates on the role of women in China's industrializing economy and society in the longer run.

We focus on female cotton textile laborers in the Yangtze Delta for several reasons. First, women had been predominant in cotton textile manufacturing in the household handicraft industry for centuries, and were – with a few exceptions – also prevalent in modern textile mills. Analyzing the textile sector not only enables long-term reconstructions of female economic remuneration, but also facilitates comparison of women's earning capacity from different modes of production. Second, the typical household labor division of “men plough and women weave” had become prevalent in the weaving center of Yangtze Delta since the mid-Qing period (Li, 1996, 106).² This means that even if women are not explicitly mentioned in the sources, their economic contributions can be assumed, because they generated the overwhelming share of income from cotton textile production.³ Third, cotton textile production experienced several major changes in the highly commercialized and industrialized Yangtze Delta from the late nineteenth century to the 1930s, which provides opportunities to comprehend and compare different mechanisms driving temporal changes. Last but not least, the prominent economic role of the Yangtze Delta in Chinese history makes this region a widely discussed case study for international comparison on various issues of economic history (Pomeranz, 2000; Allen et al., 2011). By gauging the long-term evolution of textile women's income in the Yangtze Delta, we offer new Chinese evidence to the global comparison.

This article proceeds as follows. Section 2 starts with a brief description of the household economy and textile production in the Yangtze Delta. It describes the historical development of household labor allocation, the technology of textile production and productivity changes. This forms important context for measuring the different modes of textile production women engaged in, their daily output and corresponding income. Section 3 first explains the data sources and then provides long-term estimates of women's earnings between 1750 and 1930. Section 4 relates women's economic contributions to household subsistence. Section 5 concludes and puts our findings in a wider international perspective.

2. Labor allocation and textile productivity in Yangtze textile households

In imperial China, the Yangtze Delta geographically included eight prefectures: Suzhou, Songjiang, Changzhou, Zhenjiang, Yingtian (Jiangning), Hangzhou, Jiaxing and Huzhou (Li, 1998, 3, see Map 1). In the early seventeenth century, ecological crises such as floods, droughts and plant diseases (Li, 1998, 58), and difficulties surrounding irrigation forced Yangtze farming households to cultivate cotton instead of rice, particularly in the higher terrains of

Songjiang prefecture and Taicang department. Cotton production increasingly prevailed in the Yangtze area, providing a major source of income-supplementing agriculture in the context of high population density and decreasing land resources.⁴ During the mid-eighteenth and nineteenth centuries, Songjiang had become the major internal export region for cotton cloth: to North China via the Grand Canal, to Jiangxi and Hubei-Hunan and thence to Guangdong and Guangxi in the south. Whereas until 1860 around 45% of all households throughout China engaged in cotton textile production, the proportion of textile households reached 65% in Jiangsu and a notable 90% in Songjiang (Xu, 1992, 211).⁵

MAP 1. Yangtze Delta (1644-1911)



SOURCE: Administrative map of the Yangtze Delta during the Qing dynasty (Li, 1998, xviii).

The commercialization of cotton production, together with the introduction of the double cropping system and the subdivision of farms contributed to a pronounced gendered labor division between agricultural and cotton textile production since the mid-Qing dynasty. According to Bozhong Li (1997, 11), the average size of paddy land per Yangtze farming household had decreased to 10 *mu* (1.6 acres) since the early-Qing period.⁶ An adult male laborer could undertake all agricultural tasks on this arable land without the help of female household members.⁷ This largely excluded women from land farming and diverted their labor to cotton spinning and weaving. Even during agricultural peak season, women were rarely seen in the fields. Instead, households increasingly hired male seasonal farm hands, resolving labor

scarcity peaks while women spun and wove at home. A family of five normally deployed one adult woman exclusively for cotton handweaving. The elderly and child female members assisted with hand-spinning. Although girls possessed less physical strength than adult women, these auxiliary workers produced much of the necessary yarn for the female handweaver (Bosson and Gates, 2017).

Since the late nineteenth century, hand-spinning's competitiveness declined under the pressure of cheap foreign (and later domestic) machine-made yarn. In 1894, the consumption of mechanized yarn for handweaving was only 23.4% of all consumed yarn throughout rural China, but this rapidly rose to 72.3% in 1913 (Xu, 1992, 237). Several customs reports between 1868 and 1890 reflect that hand-spinning became unprofitable: the price of homespun yarn dropped 50% while the price of raw cotton remained the same. In addition, Indian machine-made yarn had a similar price as Chinese raw cotton.⁸ This displaced hand-spinning in many Chinese provinces, but many former spinners became handweavers. Ultimately, handweaving would also wither away, but its decline was slower (Myers, 1965, 621-622). Until the 1920s, many handweavers used cheaper foreign machine-made yarn to weave native cloth, both reducing input costs *and* producing more glossy and durable cloth, which enhanced the competitiveness of handweaving (Myers, 1965, 620-621, Yan, 1955, 80). The preference for machine-made yarn induced Chinese capitalists to invest in domestic spinning factories. In the early twentieth century, Chinese cotton spinning mills, with an increasing female labor force, expanded rapidly, while handweaving persisted in many villages.

Household labor division developed in various ways within the Yangtze Delta. In the handweaving center of Nantong 南通, weavers were predominantly male, with women as subsidiary labor; in Songjiang 松江 and Taicang 太仓 areas, many textile men and women searched factory jobs in Shanghai especially in the early twentieth century (Ma and Wright, 2010). For small farm households with little arable land in the Shanghai outskirts, labor allocation also changed: married women were inclined to weave (sometimes next to field work) at home with their husbands working outside, whereas young unmarried girls were the first female group migrating to cotton mills (Xu, 1992; Yu and van Nederveen Meerkerk, 2025).

Technological change also influenced the gender division of family labor, their productivity and the corresponding nominal earnings. In Ming and early Qing China, textile technology had consisted of the spinning wheel and handloom. Most Yangtze textile households had replaced the hanging spindle with the simple spinning wheel during the Ming period.⁹ The Jiaxing Prefecture Annals recorded that the average daily production of cotton yarn for a female spinner was around four to five *liang* 两 (between 2.8 and 3.5 pounds).¹⁰ In the later Qing period, adult women increasingly used multiple-spindle wheels, roughly doubling their yarn production (Li, 2000, 48). However, historians doubt whether multiple-spindle wheels were widely used in rural Yangtze households. Xu (1992, 46) states that the three-spindle wheel was utilized in some Yangtze areas such as Shanghai 上海, Puxi 浦西, Baoshan 宝山 and Jiading 嘉定, but did not become widespread in the whole Yangtze region because of its high requirements of manual strength and spinning skills. Li (2000, 46) concludes that the multiple-spindle wheel was predominantly employed in the most commercialized regions in the Delta.

On the other hand, weaving technology developed only slowly. Shuttle looms were used for handweaving in both the Ming and Qing periods.¹¹ Producing one bolt of native cloth commonly required 18-20 liang (12.6-14 pounds) of cotton yarn, which means that four spinners working on a single spindle wheel satisfied one weaver's yarn demand (Li, 2000, 48). According to local gazetteers, three types of native cloth prevailed in the region, namely “大布 (large cloth)”, “小布 (small cloth)” and “阔布 (wide cloth)”. One bolt of native cloth used 10-14 count warp and weft yarns, the size ranged between 16-22 feet long and 1-1.2 feet wide.¹² Xu (1992, 51, 246, 397-398) summarizes some key developments in household textile productivity.¹³ First, between the 1660s and 1720s when rural households both spun and wove, they normally required seven days to produce one bolt of cloth altogether. In later periods, working days were reduced to six, four of which were needed for spinning, another for preparation activities such as ginning, fluffing and sizing and one day for weaving. Second, between 1900 and 1910, some Yangtze handweavers introduced the hand-operated loom from Japan and productivity improved by around 50% (Xu, 1992). Almost simultaneously, the iron gear loom was adopted in the Yangtze Delta, which raised productivity by 50% to 100% compared to the hand-operated loom.¹⁴ Third, as foreign factory-made yarns poured into Yangtze market, household weavers that abandoned the use of hand-spun yarn for imported machine-made yarn doubled their output. The daily production of native cloth for a female weaver was between 1.5 and 2 bolts, and if the time saved by abandoning hand-spinning was devoted to handweaving, the output of handwoven cloth increased markedly.¹⁵ As we will now show, higher handweaving production drove up Yangtze women's real earnings even in the face of competition from foreign textile products in the early twentieth century.

3. Female Yangtze textile workers' real earnings

This section delineates Yangtze women's textile incomes from the 1750s to the 1930s, comparing their earning capacity in household textile production in the eighteenth and early nineteenth centuries, and then examining the period of foreign competition later in the century. As many Yangtze women started to work in the modern urban cotton mills that emerged in the 1890s, we will also analyze wages in textile factories since then and compare these to women's earnings from handicraft production. This allows us to gauge the impact of globalization, industrialization and household-level changes on women's earning capacity.

To calculate women's daily income from handicraft textile production, we subtract production costs from the market prices of textile products, assuming the productivity levels discussed in the previous section. Other historians have also applied this method to estimate Chinese women's earning power for particular regions and periods (Shi, 1987; Xu, 1992; Li, 2009). For the early Qing period (1644-1735), Shi calculated the net profit of one bolt of native cloth by subtracting the price of ginned cotton (1.125 catty) from the price of cloth per bolt.¹⁶ She then converted the net income data into volumes of rice based on the price of rice per “*shi* 石”¹⁷ for different periods. According to Xu (1992, 88, 209-210), one bolt of standard

native cloth in the Yangtze Delta weighed 1.09 catty.¹⁸ The gazetteer of Zidi village 紫堤村志 (1961, 68) recorded that one catty of ginned cotton was made from three catties of raw cotton, and yielded one catty of handmade yarn which in turn could be used to manufacture one catty of native cloth.¹⁹ Thus, one bolt or catty of native cloth entailed one catty of ginned cotton or cotton yarn. As previously discussed, in the Qing period, one bolt/catty of native cloth equaled 6 workdays by using the single spindle wheel. Therefore, the daily net income from textile production was the price of one bolt or catty of native cloth minus the price of one catty of ginned cotton divided by 6. When factory yarn was used since the late nineteenth century, the productivity of handweaving improved to 1.5 bolts of native cloth per day. The daily net profit of each textile woman was the price of 1.5 bolts of cloth minus the cost of 1.5 catty of mechanized yarn. In both cases, the labor cost of additional textile household members was not taken into account, as it was usually unpaid (Bossen and Gates, 2017).

Modern social surveys were not conducted on a large scale before the twentieth century, which makes data collection of textile women's income in imperial China highly challenging. We thus estimated women's daily income from varying modes of textile production more indirectly, by subtracting average regional input costs from sale prices on the (local) market, divided by the number of days needed to produce cloth. To then arrive at real wages, we used local rice prices to express the wages in the purchasing power of basic food. We collected price data of exported native cloth and imported yarn (for handweaving only), as well as the price of ginned cotton (if women still spun themselves).

The relevant information comes from many scattered sources: first, for women who both spun and wove (traditional mode), Shi (1987) mentions price data of ginned cotton, native cloth per bolt and the price of rice between 1756 and 1849. We revisited the primary sources in her work and extracted the data from local gazetteers like Chongming gazetteer 崇明县志 and Shatouli gazetteer 沙头里志, Fahua village gazetteer 法华乡志, Shanghai county gazetteer 上海县志, memorials to the emperor 宫中档乾隆朝奏折, old collections of archives in Qing dynasty like 阅世编, 历年记 and 一斑录·杂述. For traditional production between 1875 and 1920, we took price data of ginned cotton, native cloth and rice from Xu (1992), Xu's book is a collection of primary sources on the historical development of native cloth production in the Yangtze Delta. These price data primarily come from reports on customs trade, newspapers, local gazetteers and oral archives, to which other historians also often refer. Because Xu's price data is limited, we extended them with additional sources, such as the customs records compiled by the Second Historical Archives. These provide price data of machine-made yarn and native cloth from 1914 to 1930, as well as the price of ginned cotton and native cloth between 1912 and 1930, which enabled us to construct women's income for both traditional handspun cloth, and hand-woven cloth from machine-made yarn in this later period. Additionally, wage data of female textile workers in the early twentieth century comes from the Yearbook of Chinese Labor Statistics and social surveys.²⁰ Finally, we use rice price data compiled by Wang (1992) to convert women's income in terms of rice in different periods.

Obviously, this article benefits from earlier works by Shi (1987), Xu (1992) and Li (2000, 2009) that provide important data about prices and productivities. Nevertheless, apart from

bringing together as well as adding new data, we believe we also contribute by offering a new focus. In contrast to the abovementioned studies, we center women's economic role under different labor relations in textile production over a long time stretch, that includes both pre-industrial and industrial textile production. Moreover, we include the perspectives of the life cycle as well as human capital to explain women's economic contributions to the household.

TABLE 1. The net income from handweaving between 1756 to 1849

year	price of raw cotton (<i>wen</i> /catty)	cost of native cloth per bolt (<i>wen</i>)	price of native cloth (<i>wen</i> /bolt)	net income of native cloth per bolt (<i>wen</i>)	price of rice (<i>wen</i> / <i>shi</i>)	net income of one bolt native cloth (rice: <i>dou</i>)
1756-1776	33.00	85.50	250.00-270.00	227.00-252.00	1440.00	1.26-1.40
1776-1796	40.00	103.60	200.00-400.00	96.40-296.40	4000.00	0.24-0.74
1800-1820				200.00	4000.00	0.50
1840	50.00	129.50	300.00	170.50	2000.00	0.85
1849	121.60	210.00	250.00 ²	40.00	6000.00	0.07

SOURCE: Shi (1987), 79.

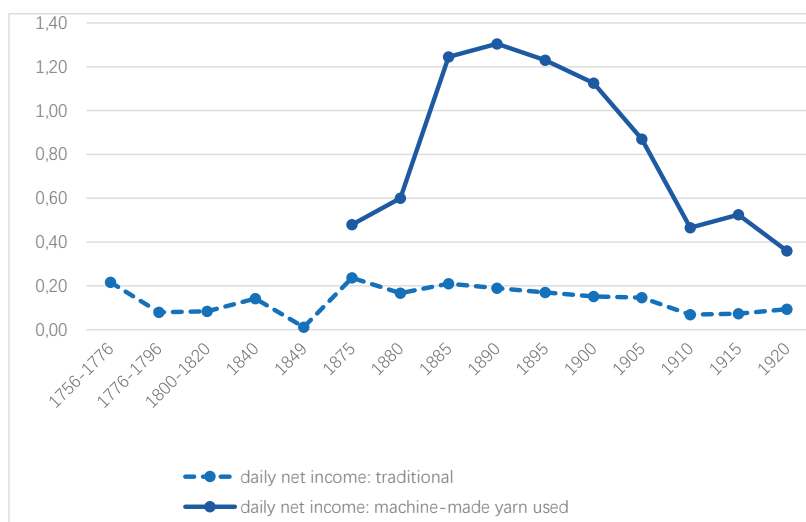
NOTE 1. The units of prices and volumes in the text were converted into their equivalents according to rates as follows: 1 *shi* 石 = 10 *dou* 斗 (both the measure of volume for grain), 1 *shi* of milled rice weighed approximately 175–195 pounds, 1 *liang* 两 (tael) = 1000–1300 *wen* 文, 1 *liang* = 10 *qian* 钱 = 100 fen 分. “*liang* (tael) 两” and “*wen* 文” (Chinese monetary units for uncoined silver money and copper cash in imperial and republic period). Variations in different regions and periods apply. Rawski and Li (1992), p. xv.

NOTE 2. For the data in 1849, the price of native cloth was for “*xiaobu*”, another kind of native cloth with smaller size. 1 bolt of “*xiaobu*” was around 1.2 catty.

Following the estimation method previously discussed, we first construct the daily income of hand-spinning and -weaving between 1756 and 1849. Shi (1987) calculated textile women's real income in volumes of rice in this period (Table 1). We verified Shi's primary sources and consequently used her income data to detect women's daily income, by dividing the profits from one bolt of cotton by 6 (working days).

As a next step, we extended Shi's dataset by adding women's daily income estimates for hand-spinning and -weaving in the period between 1875 and 1920, based on additional sources mentioned above.²¹ Xu provides price data of exported native cloth and ginned cotton as well as the price of rice in Shanghai for several points in time between 1867 and 1920, allowing us to use the same method to calculate women's daily income for this later period. We used price data on raw cotton and cotton products (cotton yarn and cloth) at five-year intervals. This extended series is represented by the dashed line in Figure 1. However, since the late 1870s, imported yarn also increasingly spread among Yangtze handweavers. Therefore, we also calculate these women's daily earnings by using price data of factory cotton yarn for native cloth production, shown as the solid line in Figure 1.

FIGURE 1. Women's daily real income, two ways of cotton textile production, 1756-1920 (rice: *dou*)



SOURCES: For the day net income by traditional way (women both hand-spinning and hand-weaving), Shi (1987), 79. Xu (1992), 176, tables 2-15. For the day income by using (Indian) factory yarn, Xu (1992), 177, tables 2-16.

NOTE 1. Figure 1 includes Shi's estimations between 1756 and 1849, but for the data in 1849, the price of cloth was for the native cloth with smaller size, this explains why the daily net income in 1849 was much lower than the one in 1840.

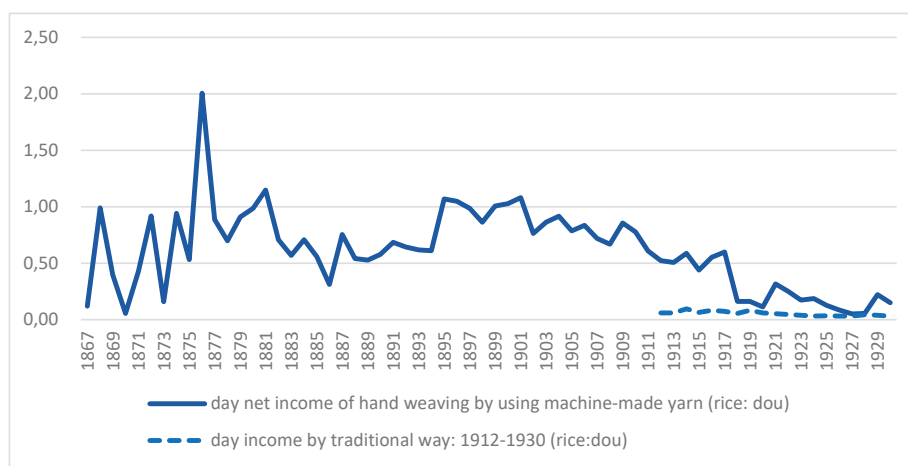
NOTE 2. The traditional way of textile production here means that textile households still spun native yarn for handweaving by themselves, this is the same as follows when we refer to the "traditional way".

Taken together, women's daily rice income in "traditional" handicraft production (using hand-spun yarns) shows a downward trend from the mid-eighteenth century to the mid-nineteenth century with a brief rebound between 1840 and 1875. The rising prices of cotton and rice contributed to the declining profitability of textile production in this period, in combination with the presumably negative influence of The Taiping Rebellion (1851-1864) on the economic trend. From 1875 to 1910, women's average daily income was around 0.15 *dou* of rice, and again gradually decreased. On the other hand, if handweavers used imported yarn, their daily remuneration was notably higher, reaching a peak in 1890 (1.31 *dou* of rice). Although it tapered off afterwards, the average income remained much higher than that from traditional production (hand-spinning and -weaving).

Figure 2 presents more detailed estimates of the daily net income of handweaving using factory yarn between 1867 and 1913, based on the prices of native cloth and imported yarn. From 1867 to 1894, producing one bolt of cloth entailed 1.3 workdays and this productivity improved to 1.5 bolts of cloth per day since 1895 (Xu, 1992, 216, 246).²² Likewise, Li asserts that textile labor productivity had doubled by the late nineteenth century (Li, 2009, 394).

Furthermore, Figure 2 displays women's daily remunerations from handicraft spinning and weaving between 1912 and 1930, enabling a comparison of net incomes in the two forms of production under emerging textile industrialization and global trade.

FIGURE 2. The day net income of textile women, two ways of production, 1867-1930



SOURCES: 1) The total value and amount of native cloth exported per year between 1867 and 1930, see Xu (1992), 106-113, tables 1-7. 2) The total value and amount of machine-made yarn imported per year between 1867 and 1913, see Xu (1992), 121-124, tables 2-3 and tables 2-5. 3) The value and amount of imported machine-made yarn and exported native cloth between 1914 and 1930, see customs data by the Second Historical Archives, vol, 67-109. 4) The value and amount of exported ginned cotton between 1912 and 1930, also see the customs data by the Second Historical Archives, vol, 63-109. 5) The price of rice, see Wang (1992), 40-48.

NOTE 1. The estimation method: according to the value and amount of machine-made yarn, native cloth and ginned cotton per year, we calculated the prices of one catty of cotton yarn, one bolt of native cloth and one catty of ginned cotton, then we used the estimation method discussed previously to estimate the day net income of women who only wove (based on sources 1, 2 and 3) and who both spun and wove (based on sources 1 and 4). As source 2 provides limited data from 1867 to 1913, we use data from source 3 to compensate for this lack of daily handweaving income data after 1913. Source 4 refers to ginned cotton, based on which we estimate the daily income of women who used ginned cotton to spin and then wove. Source 5 was used to convert women's daily income into volumes of rice.

NOTE 2. Unit conversion: 1 tael = 0.99 Haikwan tael = 1.10 Shanghai taels = 1.39 *yuan*, and 1 *shi* = 1.4 piculs = 0.926 Shanghai *shi* (Wang, 1992, 48). 1 Haikwan picul=1.2096 piculs (Xu, 1992, p.174).

NOTE 3. The price data of imported yarn of 1869 was mistaken according to Xu, so we adjusted it by consulting Chinese customs data of 1869. See Second Historical Archives.

The real earnings of Yangtze female weavers using factory yarns show a volatile development between the 1860s and the 1910s, but the general trend was still downward. Handweaving with machine-made yarn experienced an obvious decline into the early twentieth century. This was largely due to the shrunken price gap between mechanized yarn and native cloth.

Contemporary testimonies reveal that the price of one bolt of cloth increased from 0.6 *yuan* to 0.7 *yuan* between 1903 and 1915 in the Shanghai suburb Sanlintang, yet the imported yarn price rose from less than 0.30 *yuan* per catty to 0.32-0.33 *yuan* per catty. Around 1920, the price of imported yarn went up to around 0.6 *yuan* per catty, while the selling price of cloth remained between 0.7-0.8 *yuan* per bolt, barely covering its production cost (Xu, 1992, 294).

Textile households using imported yarn for handweaving had an average daily income of around 0.75 *dou* of rice between 1867 and 1913, far exceeding that of traditional production in this period. For instance, the real income per day in “traditional” textile production between 1875 and 1915 was merely 0.16 *dou* of rice (see Figure 1). Rational households in this case would abandon hand-spinning and exclusively focus on handweaving to maximize their textile income. As previously discussed, since total Chinese consumption of machine-made yarn for handweaving had increased to over 70% by 1913, this share must have been much higher in the front-running weaving districts of the Yangtze Delta. One result of the introduction of machine-made yarn into household textile production was the enhancement of women’s earning power by producing hand-woven cloth. Conversely, women who both spun and wove in the later period, saw their real income drop even more sharply since 1920, decreasing from the equivalent of 0.06 *dou* of rice in 1920 to 0.03 *dou* by 1930. Assuming that the basic consumption of rice for one adult was 3 *dou* per month, or 0.1 *dou* per day, we must conclude that the income from traditional textile production could no longer support one person’s subsistence.²³

FIGURE 3. Women workers’ day wages in Shanghai cotton mills, 1920-1930 (rice: *dou*)



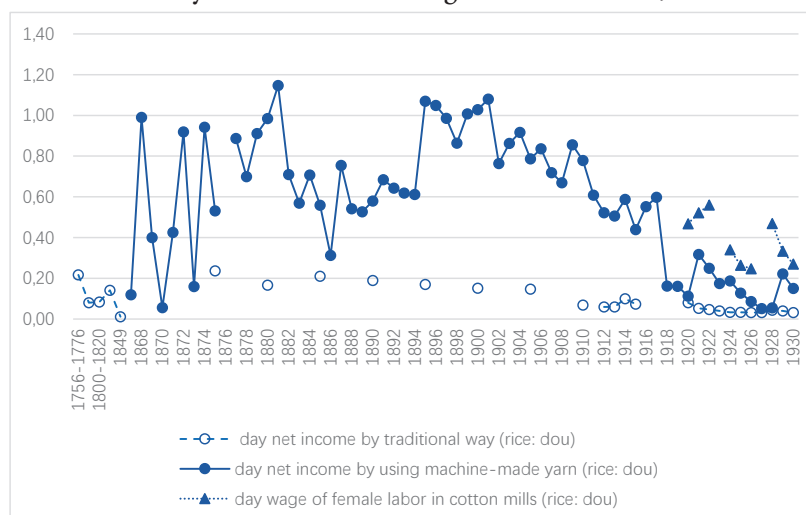
SOURCE: The wage data between 1920 and 1925 is from Wang et al. (1928), 59-65. The 1930 data is from “National Survey of Workers’ Living and Industrial Production” in National Library (2013), 43. The 1929 data is from Xing (1932), 43. Gu (1929), 4-10. The data for 1928 refers to: Shanghai Local Association (1933), 2. The data for 1926 is from: Liu (1985), 401. The price data of rice is collected from Shanghai Economic Institute (1958), 120.

NOTE: The wages were spinning wages in general without distinguishing more specific tasks.

The wage data of industrial female textile workers in Shanghai between 1920 and 1930 are depicted in Figure 3, in order to analyze the impact of industrialization on women's earning power. The data are collected from statistical books and secondary literature (Yu and van Nederveen Meerkerk, 2025).

Figure 3 shows that the average daily wage of female factory workers was 0.39 *dou* of rice – sufficient to support the rice consumption of three family members. Women's daily remuneration was very high in the early 1920s, but dropped quickly between 1922 and 1926, pointing to their vulnerable position. After the May Thirtieth Movement²⁴ in 1925, a series of strikes resulted in higher textile wages, translating into rice wages of 0.47 *dou* in 1928. From 1928 to 1930 women's rice income suffered a decline under the impact of the global economic crisis, but even in the low-remunerated year 1930, their wage could still support two people's daily rice consumption. Urban textile jobs thus became an attractive option for (part of the) rural textile households when the returns from hand-spinning and -weaving increasingly diminished.

FIGURE 4. Combined daily income series of Yangtze textile women, 1756-1930



SOURCE: see Figures 1, 2 and 3.

NOTE: Excluding one outlier value (2.01) for women weavers using machine-made yarn in 1876.

Based on women's real income by type of textile production in various periods, we now reconstruct their earnings over the long run by synthesizing the income data presented in this section. Traditional handicraft textile production (both hand-spinning and -weaving) may have coexisted with handweaving with machine-made yarn. Similarly, handweaving could persist simultaneously with some women, particularly young skilled women, working in the modern textile industry.²⁵ Projecting all income series in a single graph (Figure 4) allows us to compare women's earning capacity in the different modes of production, and to comprehend

the changes of textile women's work through time, also related to the life cycle. Figure 4 highlights that the traditional way of hand-spinning and -weaving yielded the lowest income in most observed years.

Particularly since the second half of the nineteenth century, traditional production constituted a large income gap compared to handweaving with machine-made yarn.²⁶ It was also from this time on that elderly women (normally aged above fifty) became the main labor force of hand-spinning and weaving in the house, their income was indeed the lowest. Little girls below 13 years old probably also spun at home unremunerated.²⁷ From 1894 to 1917, the real income of textile women by adopting machine-made yarn for handweaving, though experiencing a fluctuating decline, was still above 0.5 *dou* of rice per day, and enough to support the daily minimal grain consumption of a family of five. Adult women (married or single) were usually the handweavers as this production demanded manual strength and proficiency. Factory work became the most profitable between 1920 and 1930, the wage curve in Figure 4 primarily reflects the income of adult women normally up to 30 years old.

We found additional survey data, showing that in Japanese-owned spinning factories in Shanghai, workers aged between 16 and 25 accounted for about 56% of all workforce, and workers who were older than 31 comprised no more than 9% (Fong, 1932, 116). This proportion was similar in Chinese spinning factories, in general, the average age of female spinners was about 16 and 17 (Liu, 1985, 191-192).²⁸ Nevertheless, life cycle effects also existed in factory textile production, as Table 2 shows.

Table 2. Day wages of spinners by age and gender in Hengfeng factory (1912)

Age	Male		Female	
	wage (yuan)	Number	wage (yuan)	number
0-10	0.21	6	0.19	11
10-14	0.22	40	0.20	94
15-20	0.25	59		
20+	0.30	105	0.22	573

SOURCE: Wang (2016), 1230.

Table 2 shows that wages increased with age both for male and female workers. Although the wages of child laborers were not much lower than those of adults, they were much fewer in number, presumably because Shanghai mill owners found child labor less efficient (Honig, 1986, 51). In addition to age, marital status and fertility also influenced women's employment. Many spinning mills dismissed pregnant women workers, female workers were not granted maternity leave before the 1930s, and childcare was almost non-existent in the early twentieth century (Song et al., 2011, 57-58, 164). This partly explains why older married women were highly underrepresented in the factories. However, as the age of marriage was

low, this simultaneously means that many married Chinese girls and women worked in the factories before they had children. A 1930 survey confirms that of all factory girls in Shanghai aged 5-19, 12% were married, and this share was over 50% in the 20-24 age category (Liu, 1985, 559). Even if married women were underrepresented among textile workers compared to the entire Yangtze population, the working married women among them were at least accepted as breadwinning spouses until they had children, and they got to be outdoors and socialize with others. Conversely, the non-married among them probably managed to postpone marriage, suggesting they had more independence and life experience once they would get married.

In addition to life-cycle effects, proficiency was also important in the labor market. Perhaps unsurprisingly, the more skilled (and seemingly more literate) women of Songjiang and Taicang received higher payments in Shanghai cotton mills than women from other Yangtze districts. Meanwhile, the regional supply of women to the factories was highly determined by household labor allocation choices depending on local agricultural and industrial development, as the example of the farming households in the Shanghai outskirts discussed above demonstrates. From our available sources, we cannot know how much influence married and unmarried women themselves had on such choices, but it can be assumed that their economic opportunities (e.g. from the quite lucrative weaving with factory yarns), and thus their status in the household, gave them a say in such decisions.²⁹

4. The economic role of textile women in Yangtze households

How many family members could a woman's textile income support? In order to answer this question, we have applied Robert Allen's method of calculating subsistence baskets for a family of five persons, as was the median family in the region under investigation. According to Allen et al. (2011, 21), a barebone subsistence basket in the Chinese context consisted mainly of rice, but also of beans, very little meat and other consumables such as oil and fuel.

In Table 3, we indicate the subsistence units of all these goods, and transferred Allen's annual per capita data into the average daily needs for a household of five, to make the average consumption more relatable.³⁰ Using these standardized subsistence needs, we consequently calculated how many baskets for a household of five the daily wage of female textile workers could buy. We deflated the baskets with Allen et al.'s price data for the period 1737-1923.³¹ We used our nominal wage data and related these to the price of a basket in the years for which we were able to collect wages. Because for the early periods we have only decadal averages, we used the average of the price of the baskets for these periods. For the later periods where we have more serial data, we took five-year (unweighted) averages of both prices and wages to smooth out certain outliers in the data. Based on what we know from Li (1998, 149-150), we averaged the number of working days for women in textiles to be 200 per year.³² Figure 5 shows our findings, leading to some interesting observations.

TABLE 3. Subsistence needs in China, per annum (individual) and per day (family of 5)

	per year	family of 5 per day
Rice (kg)	179	2.45
Beans (kg)	20	0.27
meat/fish (kg)	3	0.04
oil (kg)	3	0.04
soap (kg)	1.3	0.02
cotton (m)	3	0.04
candles (kg)	1.3	0.02
lamp oil (kg)	1.3	0.02
fuel (M BTU)	3	0.04

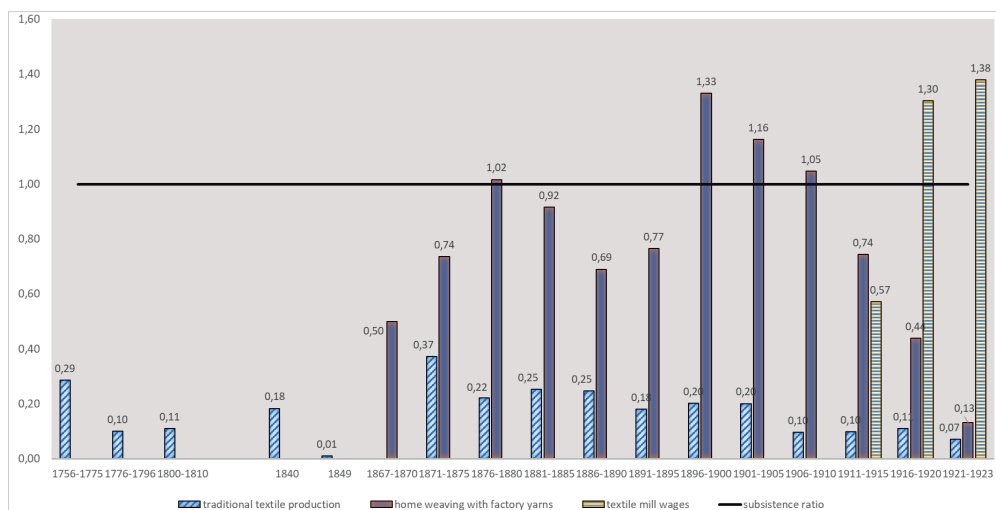
SOURCE: Allen et al. (2011), 21.

NOTE: kg = kilograms; m = meters; M BTU = millions British thermal unit.

First of all, even if the “traditional” way of textile production (household members spinning and weaving at home) was much less rewarding than the other types of textile work, we nevertheless see that throughout the period, up until 1900, this type of work could in many periods sustain one household member’s subsistence needs. However, as noted above, we can assume that young girls were also helping with the spinning, so it would be a bit misleading to say that a female textile worker could maintain herself, as she needed the labor input from other family members.

With the rise of imported (and later China-produced) factory yarns, it is clear that a woman weaving could contribute substantially to the household income especially in the period of transition to modern industrialization. If she wove for 200 days, she could on average (almost) maintain a whole household, at least between the 1870s and 1910s. As prices of consumer goods determined both male and female wages, it is interesting to see that the developments of men’s and women’s wages largely coincided (Allen et al. 2011, 28). Together, an unskilled male laborer and his weaving wife could sustain over 2 hypothetical households of five, meaning that if they had 2 or 3 children, or a live-in parent, they could lead a fairly comfortable life at the end of the nineteenth and early twentieth century. It should be noted, though, that – as our wage data trends are smoothened out – the contributions from both forms of handicraft textile work were rather volatile, and could easily be distorted by political turmoil and/or market fluctuations (see also Figure 4). Trends seem to have fluctuated more for women than for men (Allen et al., 2011), which may have to do with the fact that women were more confined to specific sectors, most notably textiles, thus hampering their position both in terms of economic contributions to the household and perceived social status following from this. Historians have discerned similar mechanisms of indirect wage discrimination for other parts of the world (van Nederveen Meerkerk, 2010; de Pleijt and van Zanden, 2021, 635).

FIGURE 5. Welfare ratios of Yangtze women's textile wages, 3 different forms of production, 1756-1923



SOURCES: See Figures 1, 2 and 3. Price data: Allen et al. 2011 dataset.

Thirdly, it is evident that with the rise of modern industry, the income-generating opportunities in the traditional sector *and especially* handweaving with factory yarns rapidly declined at the beginning of the twentieth century. This was exactly the period when working in a Shanghai spinning factory started to become rewarding for women. Especially in the early 1920s, cotton mill workers could more than sustain their household's subsistence from their wage. This was probably an extraordinary period, in which the demand for women laborers was high, translating into rapid wage increases. But even a fall in textile wages later in the decade still allowed women to contribute significantly to the household income: assuming they would work 300 days per year, female mill workers' earnings hovered between 0.75 and 1 welfare ratio until 1930.³³ A hypothetical family from a Shanghai suburb with a wife handweaving at home, the husband doing unskilled work in the city and a daughter spinning in one of the mills, would even be able to attain a welfare ratio between 2.5 and 3 in the 1910s and 1920s.

Finally, to say something about the potential bargaining position women had, it is relevant to compare their contributions to the household to those of men. To this end, we make a comparison of real earnings (in terms of welfare ratios) between the textile women in our dataset and male unskilled laborers, based on Allen et al. (2011).

TABLE 4. Percentage of real earnings by female textile workers compared to male unskilled workers, 1756-1923

Period	Male wage/traditional textile production	Male wage/home weaving with factory yarns	Male wage/textile mill wages
1756-1775	22.2		
1776-1796	8.1		
1800-1810	9.6		
1840	18.6		
1849	1.7		
1867-1870	55.9		
1871-1875	39.2	77.4	
1876-1880	18.8	86.4	
1881-1885	19.8	71.8	
1886-1890	15.7	43.9	
1891-1895	11.0	46.8	
1896-1900	12.0	79.5	
1901-1905	11.8	68.2	
1906-1910	6.9	75.3	
1911-1915	7.8	58.9	45.3
1916-1920	8.4	33.6	100.1
1921-1923	5.6	10.5	109.3

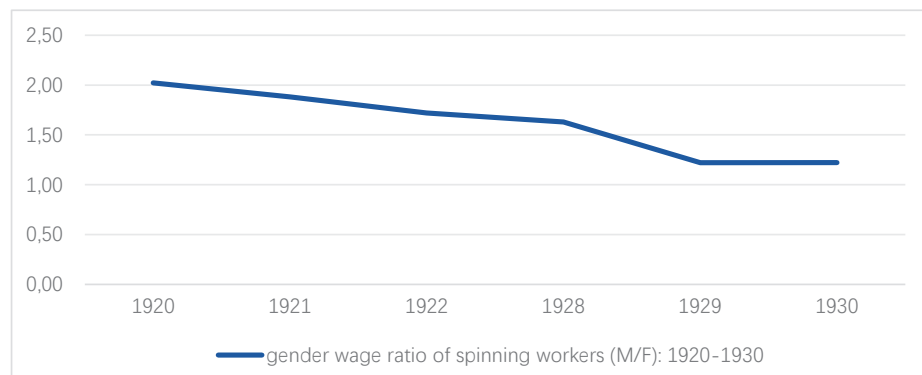
SOURCES: See Figure 5.

Table 4 shows that women's earning capacity in textile production in the mid- to late Qing period was always below men's, but compared to them they were no negligible players in the household economy. Especially in the late nineteenth century, both by traditional (home-spinning and -weaving), and more specifically by handweaving with factory-made yarns, women could earn a significant proportion of the real earnings men made, up to almost 87% in the period 1876-1880. This aligns with Li's argument that women were able to earn 75% of a male agricultural laborer's wage with handicraft weaving if they worked 200 days a year, and up to 100% if they worked 240 days per annum (Li, 1998, 149-150). For the short period we can compare women's urban textile mill wages with the earnings of unskilled male construction workers, we can even conclude that these were roughly on par in the period directly after World War I. As said, this was an exceptional period for the development of female wages, and they were to decline over the 1920s, just as male construction workers' wages in Beijing that Allen et al. used declined quite drastically in this period.

In order to come to a more balanced comparison for the later period, we therefore look at male and female factory spinning wages between 1920 and 1930 (Figure 6). This comparison confirms that the early 1920s were a period of exceptionally high wages for women and men in the recently established textile mills. However, it is also clear that male wages dropped more

steeply than those of women. On the one hand, this could signify that women's position and status relative to men in the mills increased. On the other hand, there are also indications that a feminization of textile factory work occurred (Yu and van Nederveen Meerkerk 2025), suggesting that most men sought opportunities in other, perhaps more rewarding sectors.

FIGURE 6. Male and female cotton spinners' wages in Shanghai mills, 1920-1930



SOURCE: the data for 1920-1922 are from Wang (1928), 47. The data of 1928 and 1929 are from Xing (1932), 39, 43. The 1930 data is from The National Library (2013), 43.

NOTE: The gender wage data are collected from various sources that probably used different survey methods and standards, but the male and female wage data in the same year is from the same source, to reflect a reliable indication of gender wage inequality.

We have very little information on how these more equal gender ratios, as well as the relatively high earning capacity of women in the emerging factories, impacted their social position. However, a qualitative survey taken in the 1920s among Wuxi migrant women working in the Shanghai mills provides some evidence. About half of the interviewed women (23 out of 47) reported having more decision-making power than their husbands within the household, while another eight stated that they had an equal say. Furthermore, quite a few women stated that they would not obey to their mother-in-law, thus defying customary norms regarding hierarchical family relations. Although these women may not have been fully representative, as they were not afraid to give their opinion, about 16 respondents said that they lived within a traditional patriarchal family situation, so these were also interviewed and presumably answering honestly (Liu, 1985, 559). Therefore, we can assume that at least for many women working in textile mills, their economic input correlated with an enhanced social status and agency within the household.

5. Conclusion: Yangtze textile workers' wages in international perspective

Our analysis shows that women in the Yangtze Delta contributed significantly to the household income by textile production in any form during most of the late Qing and early Republican eras. With traditional spinning and weaving, women could generally earn the barebones subsistence needs of at least one person in the household, although they were probably assisted by children in the work. Handweaving with factory-made yarns, which entered the scene in the Delta by the mid-nineteenth century, was even more lucrative. In the later decades of the nineteenth century, earnings from this type of textile production in theory allowed for the sustenance of an entire household of five, though this fluctuated somewhat. If a female handweaver was widowed, this implied that she could maintain her children and/or an elderly parent if necessary. In the more likely case that she was married, even when she was not the single breadwinner, her extra income formed a welcome addition to her husband's, allowing such households to rise significantly above subsistence level, and perhaps even obtain a "respectability basket" with more luxurious consumption goods (Allen, 2009a). Likewise, in the early 1920s, the wage of female spinners in modern mills could more than sustain their households' subsistence. This attests to what Amartya Sen would call the instrumental value of women's income-generating activities for the household economy and beyond, as consumption levels in the region most probably increased. In a broader sense, women's labor supply also contributed to the early development of China's textile industrialization.

Simultaneously, women's intrinsic value was enhanced by engaging in handweaving or factory spinning. Female textile workers could bargain higher bride prices and gained more respect at home when their textile income made a major contribution to household welfare since the later nineteenth century. This value was most obvious for female mill spinners in the early twentieth century: female laborers could escape from patriarchal control by working at the factory, and their importance as wage earners may have allowed them to postpone marriage and childbearing. Reportedly, they also saw themselves as the main decision-maker within the household. All these quantitative and qualitative findings imply a relatively higher social status for female textile workers, at least within their own households.

Women's instrumental and intrinsic values were nevertheless affected by exogenous factors (foreign trade and industrialization), as well as by endogenous factors (age, skill and gender). We showed that imports of cotton yarns diminished profits for hand-spinners, while sustaining a respectable income for female handweavers since the late nineteenth century. However, in the first decades of the twentieth century, when modern textile factories were established in Shanghai, handweavers' real incomes rapidly fell. A similar pattern has been discerned in the European context on the eve of the Industrial Revolution. In Britain, for example, especially married women saw their economic position deteriorate with the transition from home-based to factory textile production (Humphries and Weisdorf, 2015). As the Yangtze Delta was the first in China to open up to globalization and industrialization, we can see that here too, these

global processes both created *opportunities* – with the entry of imported yarns in the nineteenth century – and again caused *restrictions* for married women when handicraft textiles declined in the early twentieth century. Nonetheless, we also show that modern factories in the 1920s provided new earning opportunities for young women, both unmarried and married, who did not (yet) have children to care for. Exactly in a period when unskilled male wages were declining towards subsistence level (Allen et al. 2011, 28), daughters or wives could earn substantially in the factories. Gender wage ratios in the spinning mills became almost equal towards the end of the 1920s.

Internal factors including age, skill, marital status and gender, played a role in women's earning capacity under such transitions caused by globalization and industrialization. That is why young adult women with higher literacy and skills, usually seized better-remunerated work and thus increased their capabilities. We should however be careful not to paint a too rosy picture. As other historians have indicated for Europe, preindustrial and industrializing labor markets were highly segmented according to gender, leading to indirect mechanisms of discrimination, as women were generally crowded into only a few sectors, most notably textiles (van Nederveen Meerkerk, 2006). As a consequence, “women profited disproportionately from a tight labor market, and their wages declined disproportionately when there was a surplus” (de Pleijt and van Zanden, 2021, 635), meaning that wages could suddenly rise in times of labor scarcity, but might just as abruptly fall again. We also see such volatility reflected in our Yangtze wage series (e.g. Figure 4), indicating that Chinese women too, suffered from fluctuations in textile demand, as well as from disruptions due to political or social turmoil. Nevertheless, our differentiated analysis of female textile workers' contributions also shows that over most of the late eighteenth to early twentieth centuries, these were seldom negligible and sometimes even raised the living standards of Yangtze households to levels well above subsistence. In this respect, we extend Pomeranz's and Li's claim that including women's earnings into broader debates on economic development and diversification, such as the Great Divergence, is a worthwhile enterprise that hopefully leads to more meaningful long-term and global comparisons in the future.

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References

- ÅGREN, Maria. 2017. *Making a living, making a difference: Gender and work in early modern European society*. Oxford: Oxford University Press.
- ALLEN, Robert. 2009a. *The British Industrial Revolution in global perspective*. Cambridge: Cambridge University Press.
- ALLEN, Robert. 2009b. Agricultural productivity and rural incomes in England and the Yangtze Delta, c.1620–c.1820. *The Economic History Review* 62 (3): 525–550. DOI: <https://doi.org/10.1111/j.1468-0289.2008.00443.x>
- ALLEN, Robert. 2015. The high wage economy and the Industrial Revolution: A restatement. *The Economic History Review* 68 (1): 1–22. DOI: <https://doi.org/10.1111/ehr.12079>
- ALLEN, Robert; BASSINO, Jean-Pascal; MA, Debin; MOLL-MURATA, Christine; VAN ZANDEN, Jan Luiten. 2011. Wages, prices, and living standards in China, 1738–1925: in comparison with Europe, Japan, and India. *The Economic History Review* 64 (S1): 8–38. DOI: <https://doi.org/10.1111/j.1468-0289.2010.00515.x>
- BOSSEN, Laurel; GATES, Hill. 2017. *Bound feet, young hands: Tracking the demise of footbinding in village China*. Stanford: Stanford University Press.
- BOTER, Corinne. 2020. Living standards and the life-cycle: reconstructing household income and consumption in the early twentieth century Netherlands. *Economic History Review* 73 (4): 1050–1073. DOI: <https://doi.org/10.1111/ehr.12997>
- BELL, Lynda S. 1994. For better, for worse: Women and the world market in rural China. *Modern China* 20 (2): 180–210. DOI: <https://doi.org/10.1177/009770049402000203>
- BUCK, John Lossing. 1937. *Land utilization in China*. Nanking: University of Nanking.
- BENJAMIN, Dwayne; BRANDT, Loren. 1995. Markets, discrimination, and the economic contribution of women in China: Historical evidence. *Economic Development and Cultural Change* 44 (1): 63–104. DOI: <https://doi.org/10.1086/452201>
- CHEN, Jiru (ed.). 1630. *The gazetteer of Songjiang prefecture*. 松江府志.
- CHEN, Qiyu; FAN, Zhongxiang; LU, Chuande (eds). 2010. 中国地方志集成 (*The collection of Chinese local gazetteers*). Shanghai: Shanghai Bookstore Publisher.
- DE VRIES, Jan. 1994. The Industrial and the Industrious Revolution. *The Journal of Economic History* 54 (2): 249–270. DOI: <https://doi.org/10.1017/S0022050700014467>
- DRELICHMAN, Mauricio; GONZÁLEZ AGUDO, David. 2020. The gender wage gap in early modern Toledo, 1550–1650. *The Journal of Economic History* 80 (2): 351–385. DOI: <https://doi.org/10.1017/S0022050720000145>
- FANG, Xing. 1996. 清代江南农民的消费 (The consumption of Jiangnan peasants in Qing China). *中国经济史研究* (3): 91–98.
- FONG, H.D. 1932. *Cotton industry and trade in China*. Tianjin: The Chihli Press.
- GAO, Qi (ed.). 1932. *The gazetteer of Shanghai prefecture*. 上海县志.
- GARY, Kathryn E.; OLSSON, Mats. 2020. Men at work. Wages and industriousness in southern Sweden 1500–1850. *Scandinavian Economic History Review* 68 (2): 112–128. DOI: <https://doi.org/10.1080/03585522.2019.1704859>

- GOLDSTONE, Jack. A. 1996. Gender, work, and culture: Why the Industrial Revolution came early to England but late to China. *Sociological Perspectives* 39 (1): 1-21. DOI: <https://doi.org/10.2307/1389340>
- GROVE, Linda. 1993. Mechanization and women's work in early twentieth century China. In the Compilation committee of the collection of essays in honor of Mr. Yanagida Setsuko (ed), 中国传统 社会与家族: 柳田節子先生古稀纪念 (*Traditional Chinese society and the family: Essays in honor of Yanagida Setsuko*). Tokyo: 汲古书院, 95-120.
- GU, Binyuan. 1929. 上海的女工问题 (The problems of Shanghai women workers). *女青年月刊* 8 (5): 4-10.
- GU, Yanwu. 1901. *The Jiading gazetteer*. 嘉定县志.
- HONIG, Emily. 1986. *Sisters and strangers: Women in the Shanghai cotton mills, 1919- 1949*. Stanford: Stanford University Press.
- HORRELL, Sarah; HUMPHRIES, Jane; WEISDORF, Jacob. 2022. Beyond the male breadwinner: Life-cycle living standards of intact and disrupted English working families, 1260- 1850. *The Economic History Review* 75 (2): 530-560. DOI: <https://doi.org/10.1111/ehr.13105>
- HU, Renfeng. (ed.). 1922. *The gazetteer of Fabua village*. 法华乡志.
- HUANG, Philip C. 1990. *The peasant family and rural development in the Yangtze Delta, 1350-1988*. Stanford: Stanford University Press.
- HUMPHRIES, Jane; WEISDORF, Jacob. 2015. The wages of women in England, 1260- 1850. *The Journal of Economic History* 75 (2): 405-447. DOI: <https://doi.org/10.1017/S0022050715000662>
- HUMPHRIES, Jane; SCHNEIDER, Benjamin. 2019. Spinning the Industrial Revolution. *The Economic History Review* 72 (1): 126-155. DOI: <https://doi.org/10.1111/ehr.12693>
- HUNTER, Janet. 2004. *Women and the labour market in Japan's industrializing economy: the textile industry before the Pacific War*. London etc., Routledge.
- JOHNSON, Marshall; PARISH, William L.; LIN, Elizabeth. 1987. Chinese women, rural society, and external markets. *Economic Development and Cultural Change* 35 (2): 257-277. DOI: <https://doi.org/10.1086/451585>
- KUNG, James Kai-Sing; LEE, Daniel Yiu-Fai. 2010. Women's contributions to the household economy in pre-1949 China: Evidence from the Lower Yangzi Region. *Modern China* 36 (2): 210-238. DOI: <https://doi.org/10.1177/0097700409355798>
- LI, Bozhong. 1996. 从‘夫妇并作’到‘男耕女织’: 明清江南农家妇女劳动问题探讨之一 (From ‘Husband and wife working together’ to ‘Man ploughed and woman wove’: A discussion on the labor problems of female farmers in Ming and Qing Jiangnan). *中国经济史研究* 3: 99-107.
- LI, Bozhong. 1997. ‘男耕女织’与‘妇女半边天’角色的形成: 明清江南农家妇女劳动问题探讨之二 (The formation of the role of ‘Man ploughed and women wove’ and ‘women's economic power’: A discussion on the labor problems of rural women in Ming and Qing Jiangnan). *中国经济史研究* 3: 10- 22.
- LI, Bozhong. 1998. *Agricultural development in Jiangnan, 1620-1850*. New York: St. Martin's Press Inc.

- LI, Bozhong. 2000. 江南的早期工业化:1550-1850 (*Early industrialization in Jiangnan: 1550-1850*). Beijing: 社会科学文献出版社.
- LI, Bozhong. 2009. Involution and Chinese cotton textile production: Songjiang in the late eighteenth and early nineteenth centuries. In Giorgio RIELLO; Prasannan PARTHASARATHI (eds), *The spinning world: A global history of cotton textiles, 1200-1850*. Oxford: Oxford University Press, 387-395.
- LIANG, Fangzhong. 2008. 中国历代户口, 田地, 田赋统计 (*Statistics of household registration, land and land tax in China's dynasties*), Beijing: 中华书局.
- LIU, Mingkui. 1985. 中国工人阶级历史状况: 1840-1949 (*The historical situation of the working class in China*). Beijing: 中共中央党校出版社.
- LU, Songlin. (ed.). 1740. *Shatouli gazetteer*. 沙头里志.
- MA, Junya; WRIGHT, Tim. 2010. Industrialization and handicraft cloth: The Jiangsu peasant economy in the late nineteenth and early twentieth centuries. *Modern Asian Studies* 44 (6): 1337-1372. DOI: <https://doi.org/10.1017/S0026749X09990333>
- MYERS, Roman H. 1965 Cotton textile handicraft and the development of the cotton textile industry in modern China. *The Economic History Review* 18 (3): 614-632. DOI: <https://doi.org/10.1111/j.1468-0289.1965.tb01760.x>
- MANN, Susan. 1992. Women's work in the Ningbo area, 1900-1936. In Thomas RAWSKI; Lilian LI (eds), *Chinese history in economic perspective*. Berkeley: University of California Press, 243-270.
- MU, Xuan; YAN, Xuexi. 1994. 大生纱厂工人生活的调查: 1899-1949 (*The investigation on workers of Dasheng Spinning Factory: 1899-1949*). Nanjing: Jiangsu renmin chubanshe.
- NATIONAL LIBRARY (ED.). 2013. 民国时期社会调查资料汇编 *Compilation of social survey data during the Republic of China*, vol 21. Beijing: The Publisher of Chinese National Library.
- NEDERVEEN MEERKERK, Elise van. 2006. Segmentation in the pre-industrial labour market: Women's work in the Dutch textile industry, 1581-1810. *International Review of Social History* 51 (2): 189-216. DOI: <https://doi.org/10.1017/S0020859006002422>
- NEDERVEEN MEERKERK, Elise van. 2008. Couples cooperating? Dutch textile workers, family labour and the 'Industrious Revolution', c. 1600-1800. *Continuity and Change* 23 (2): 237-266. DOI: <https://doi.org/10.1017/S026841600800684X>
- NEDERVEEN MEERKERK, Elise van. 2010. Market wage or discrimination? The remuneration of male and female wool spinners in the seventeenth-century Dutch Republic. *Economic History Review* 63 (1): 165-186. DOI: <https://doi.org/10.1111/j.1468-0289.2009.00500.x>
- NEDERVEEN MEERKERK, Elise van. 2019. *Women, Work and Colonialism in the Netherlands and Java. Comparisons, Contrasts, and Connections 1830-1940*. London etc: Palgrave Macmillan.
- PLEIJT, Alexandra de; ZANDEN, Jan Luiten van. 2021. Two worlds of female labor: Gender wage inequality in Western Europe, 1300-1800. *Economic History Review* 74 (3): 611-638. DOI: <https://doi.org/10.1111/ehr.13045>
- POMERANZ, Kenneth. 2000. *The Great Divergence: China, Europe, and the making of the*

- modern world economy*. Princeton: Princeton University Press.
- RAWSKI, Thomas; LI, Lillian (eds). 1992. *Chinese history in economic perspective*. Berkeley: University of California Press.
- SEN, Amartya. 2000. *Development as freedom*. Cambridge: Cambridge University Press.
- SHANGHAI ECONOMICS INSTITUTE OF THE CHINESE ACADEMY OF SCIENCE. 1958. 上海物价资料汇编: 1921-1957 (*The compilation of Shanghai price data*). Shanghai: Shanghai People's Publisher.
- SHI, Jianyun. 1987. 从棉纺织业看清前期江南小农经济的变化 (*The cotton textile industry and changes of the peasant economy in Yangtze Delta in Early Qing*). *中国经济史研究*. 3: 67-83.
- SHANGHAI LOCAL ASSOCIATION (EDS). (1933). 上海市统计 (*Shanghai Statistics*), Shanghai: 上海商务印书馆.
- SONG, Zuanyou; ZHANG, Xiuli; ZHANG, Sheng. 2011. 上海工人生活研究: 1843-1949 (*A study on the living conditions of Shanghai workers: 1843-1949*). Shanghai: 上海辞书出版社.
- TAIPEI PALACE MUSEUM (eds). 1982. 宫中档乾隆朝奏折. Taipei: Taipei Palace Museum Press.
- TOPLEY, M. 1975. Marriage Resistance in Rural Kwangtung. In Margery WOLF; Roxane WITKE (eds). *Women in Chinese society*. Stanford: Stanford University Press, 67-88.
- THE NANJING LIBRARY AND THE JIANGSU PROVINCIAL SOCIAL SCIENCE ACADEMY'S ECONOMIC RESEARCH GROUP (eds). 1987. 江苏省工业调查统计资料: 1927-1937 (*Industrial investigation and statistics of Jiangsu province: 1927-1937*). Nanjing: Nanjing gongxueyuan chubanshe.
- The Second Historical Archives of China. 2001. 中国旧海关史料: 1859-1948 (*Historical materials of China's old customs: 1859-1948*). Beijing: 京华出版社.
- WALKER, Kathyle Mons. 1993. Economic growth, peasant marginalization, and the sexual division of labor in early twentieth-century China. *Modern China*. 19 (3): 354-365. DOI: <https://doi.org/10.1177/009770049301900304>.
- WANG, Jingyu (ed). 2016. 中国近代工业史资料 1895-1914 (*Historical materials of Chinese modern industry: 1895-1914*, vol.2). Beijing: Kexue chubanshe,
- WANG, Qingbin (ed). 1928. 第一次中国劳动年鉴 (*The first yearbook of China labor statistics*). Beijing: Beiping shehui diaochabu.
- WANG, Qingmu; CAO, Binlin (eds). 1930. *The gazetteer of Chongming county*. 崇明县志.
- WANG, Yeh-Chien. 1992. Secular trends of rice prices in the Yangzi Delta, 1638-1935. In Thomas RAWSKI; Lillian LI (eds), *Chinese history in economic perspective*. California: University of California Press, 35-68.
- WANG, Yongan. 1961. 上海史料丛编: 紫堤村志 (*Shanghai historical materials collection: The gazetteer of Zidi village*). Shanghai: The Press of Shanghai Cultural Relics Preservation Committee.
- WU, Xin; HONG, Xifan; YAO, Wennan (eds). 1918. *Shanghai gazetteer expanded*. 上海县续志.

- XING, Bixin; WU, Duo; LIN, Songhe; ZHANG, Tiezheng (eds). 1932. 第二次中国劳动年鉴 (*The second yearbook of China labour statistics*). Beijing: Beiping shehui diaochabu.
- XU, Xinwu. 1992. 江南土布史 (*The history of homespun cloth in Jiangnan*). Shanghai: Shanghai shehui kexueyuan chubanshe.
- YAN, Zhongping. 1955. 中国棉纺织史稿 (*The Chinese cotton textile industry*). Beijing: Kexue chubanshe.
- YAO, Tinglin. 1982. 历年记, In Shanghai People's Publisher (ed), 清代日记汇抄. Shanghai: Shanghai People's Publisher, 39-172.
- YE, Mengzhu. 1981. 阅世编. Shanghai: Shanghai Chinese Classics Publishing House.
- YU, Xinjuan. 2010. 长江三角洲棉业外贸研究: 1912-1936 (*Study on the foreign trade of the cotton industry in Yangtze Delta: 1912- 1936*). Shanghai: Shanghai People's Publisher.
- YU, Wenjun; NEDERVEEN MEERKERK, Elise van. 2025. From home production to modern mills: Labor allocation, gender and living strategies of Chinese peasant households, ca. 1910s-1930s. *Modern Asian Studies* 59 (1): 95-121. DOI: <https://doi.org/10.1017/S0026749X2400043X>.
- ZHANG, Youyi (ed.). 2016 中国近代农业史资料: 1912-1927 (*Historical archives of modern Chinese agriculture: 1912-1927*), Beijing: Kexue chubanshe.
- ZHENG, Guangzu. 1852. 一斑录. Beijing: China Bookstore Publisher.

Notas

1. There is also scope for comparison within Asia, e.g. HUNTER (2004) or VAN NEDERVEEN MEERKERK (2019).
2. According to LI (1998, xvi), the mid-Qing period refers to 1736-1850, in this paper we take 1756 as the starting year for our analysis.
3. According to LI (1996), women both engaged in agriculture and cotton textile production before mid-Qing dynasty (1736-1850), which makes it difficult to calculate women's overall income by agriculture and home production as there was no reliable data specifying women's exact labor input in farming. In our focus on the period between the 1750s to the 1930s, the majority of household cotton textile production was performed by women. Nevertheless, women definitely devoted much time to non-measurable household work or auxiliary farm jobs, which we unfortunately cannot reconstruct due to data scarcity.
4. In 1820, the size of arable land per capita was 1.2 *mu* (0.19 acre) in Suzhou and Songjiang prefectures, barely sufficient to support a farming household with five members. LIANG (2008), table 77, 556.
5. Songjiang was an advanced cotton textile center in Jiangsu during the Qing and Republican periods.
6. Qing period: 1644-1911. Early Qing: 1644-1735, Mid Qing: 1736-1850 and Late Qing: 1851-1911.
7. LI (1997, 13) assumed the average size of arable land per household in Songjiang prefecture in late-Ming period had been 25 *mu* (4 acres), and it reduced to 10 *mu* in Qing period in the Yangtze Delta.
8. Customs reports in Xiamen 厦门 in 1868, in Yichang 宜昌 in 1890, in Hainan 海南 between 1882 and 1891, see YAN (1955, 79-83). Yan found evidence in customs reports that household textile production had two fates under the competition of foreign machine-made yarn, one was to give up spinning and weaving, the other was to stop hand spinning and continued to weave.
9. Ming period: 1368-1644.
10. Jiading Prefecture Annals 嘉定府志 (1840), vol 34, p. 6. "liang 两" and "jin 斤" were the measure of weight in China. 1 *jin* (catty) = 16 *liang* (tael) = 0.5 kilograms = 1.1 pounds (Li, 1998, p. xvii). The day production here was also largely used by many historians such as XU (1992), LI (2000).
11. In addition to shuttle loom, iron gear loom was also used in Yangtze Delta but not widespread due to its high price.
12. See the gazetteer of Songjiang prefecture 松江府志, vol 6, p. 10-11; gazetteer of Shanghai county 上海县志, vol.1, p.13; gazetteer of Chongming county 崇明县志, vol.9, p.13.
13. We believe Xu's estimation on productivity is highly reliable because it is based on many records in gazetteers of different Yangtze prefectures/counties, such as Songjiang 松江, Shanghai 上海, Jiading 嘉定, Chongming 崇明, and is widely referred by other scholars such as LI (1998, 149), ALLEN (2009, 546), POMERANZ (2000, 317-333).

14. However, the iron gear loom was not widely used by Yangtze weaving households because of its high price. Shuttle loom was still the primary tool of hand weaving in rural areas (XU, 1992, 399).
15. We assume the total days for textile production in a year did not change and the price of homespun yarn was close to that of machine-made yarn. As many sources (XU, 1992; YAN, 1955) suggest, textile household adopted machine-made yarn instead of homespun yarn because the former was cheaper.
16. According to SHI (1987, 79), producing one bolt of native cloth required around 1.125 catty of ginned cotton, and the price of ginned cotton per catty was 2.303 times as much as that of raw cotton, so the production cost of one bolt (catty) of native cloth was the price of raw cotton per catty $\times 2.303 \times 1.125$. although the price ratios of raw cotton and ginned cotton fluctuated in Qing times, they were normally maintained around 2.30 to 2.76.
17. “*shi* 石” and “*dou* 斗” were measures of grain volume in China. 1*shi*=10 *dou*. *shi* was also used to denote a weight of approximately 156 *jin*.
18. Native cloth in the Yangtze Delta normally referred to the standard of “Dongxi 东稀布”, one bolt of standard native cloth was 1.31 feet wide, 21.87 feet long and 3.63 square yards (XU, 1992, 209).
19. This ratio was also mentioned by scholars such as HUANG (1990, 84), POMERANZ (2000, 317-318), and ALLEN (2009, 546).
20. For more details on our wage data sources, see YU and VAN NEDERVEEN MEERKERK, 2025.
21. The primary data comes from the Chinese customs records and the journal 学术月刊, published in XU (1992, 176)
22. According to Xu, textile households in Guangdong province required 1.3 days to produce one bolt of cloth around 1860, but the productivity in Yangtze Delta was not mentioned, we think Yangtze textile households as living in the most advanced weaving district at least had a similar productivity as their Guangdong counterparts. furthermore, it is not clear when exactly textile productivity was improved to 1.5 bolts per day, but according to Xu’s archives, it should be around the Sino- Japanese War of 1894, so we take 1895 as the starting year for the improved productivity. The improvement of hand weaving productivity was, according to XU (1992, 216, 246), due to the innovation of weaving looms as well as the fact that machine-made yarn used to hand weaving was not easily broken.
23. The consumption amount of rice was from a folk proverb which was adopted by many scholars, see FANG XING (1996, 92).
24. The May Thirtieth Movement originated in the protest of Shanghai textile workers against the Japanese cotton mill-owners who fired Chinese workers and undercut their wages. This triggered a series of labor strikes, evolving into an anti-imperialism mass movement in China.
25. As we show elsewhere, women engaged in different forms of cotton textile production based on their age, marital status and skills. Furthermore, regional economic development affected women’s labor decision. For instance, young unmarried women with higher textile skills in Song-Tai district were most popular in Shanghai cotton mills, and many elderly women conducted hand-weaving within the household (YU and VAN NEDERVEEN MEERKERK, 2025).

26. The archive data showed that in 1894 about 77% homespun yarn were used for producing native cloth throughout China and in 1913 this proportion dropped to 28%, homespun yarn were primarily consumed for home use (XU, 1992, 237). In Yangtze Delta, the adoption of foreign yarn for hand weaving might be earlier, according to Xu, Yangtze weaving household had used foreign yarn to produce homespun cloth for commercial purpose since 1895(XU, 1992, 239).
27. Women aged 50 beyond were rarely seen in Shanghai spinning mills and little girls aged 13 or older could weave by themselves (LIU, 1985, 192; LI, 2000, 69), therefore, we infer that women aged 50 and above, or 13 and below were limited to hand spinning in the house.
28. In most cotton mills, the number of spinners was much more than weaving workers, so we generally discuss women wages as spinning workers.
29. For the gendered labor allocation in textile households and its impact on women's work, see WALKER (1993), GROVE (1993), YU and VAN NEDERVEEN MEERKERK (2025).
30. After all, the reader will probably better be able to relate to what a person (or a family) consumes per day than per year. According to FANG (1996) one agricultural wage laborer consumed on average 0.15 *dou* of rice per day, women and old parents might need less (around 0.1 *dou*/day), and children ate even less. The average day rice consumption of a family of five was around 0.5 *dou*, namely 0.1 *dou* per person on average. This would be considerably more than ALLEN et al. (2011) assume (as 0.1 *dou* equals about 800 grams, and Allen e.a. estimate 490 grams per day). Nevertheless, we decide to use Allen's estimates, first of all because he also gauges the daily intake of other consumable into the equation, which seems realistic, second of all because his data are more recent and finally, because this would allow for international comparisons, as Allen et al. compare welfare ratios in multiple locations and throughout time.
31. The actual data used for ALLEN et al. (2011) can be downloaded here: <https://datasets.iisg.amsterdam/dataset.xhtml?persistentId=hdl:10622/VY7UY3#china>.
32. The annual working days of textile women varied by time and place. We can only make a rough estimation on an average number by reliable sources. LI (1998, 149-150, 220-221) pointed out some figures of working days per year for handicraft women: 177 workdays in Songjiang 松江 around 1860 and 200 days in Shanghai in the early twentieth century. Li's figures were actually from XU (1992). Xu made such estimations of workdays based on the interviews of textile women who were born in the late nineteenth century (1992, 242), the estimation on earlier period (1750-1860) was based on local gazetteers in Songjiang, Shanghai and other counties (1992, 216). Furthermore, an investigation on Dasheng spinning mills in Nantong 南通 reflected that women workers normally had 250 working days per year (MU and YAN, 1994, 180-184). Based on these figures, we take a medium number for the annual working days.
33. Own calculations based on rice consumption only, as Allen's price data only go up to 1923. Wages are based on: WANG et al. (1928), 59-65; NATIONAL LIBRARY (2013), 43. XING (1932), 43. GU (1929), 4-10. SHANGHAI LOCAL ASSOCIATION (1933), 2. LIU (1985), 401. The price data of rice are collected from SHANGHAI ECONOMIC INSTITUTE (1958), 120.

La tasa de actividad femenina y su estructura ocupacional en los hogares rurales de Tenerife a finales del siglo XVIII

Paula Barbero 

ABSTRACT: *este artículo examina las tasas de actividad femenina y su distribución en la estructura ocupacional a partir del padrón de habitantes de Tenerife de 1779. Una valiosa fuente al proporcionar datos sobre la edad, el estado civil y el oficio de las mujeres que convivían en los hogares rurales. La información procedente de esta documentación fue vaciada en una base de datos nominativa, lo que permitió analizar las dinámicas del trabajo femenino en el mercado laboral; y apreciar la relevancia de las ocupaciones tradicionalmente feminizadas, caso de la industria textil doméstica. Los resultados de esta investigación muestran que la tasa de actividad femenina era notablemente elevada en las zonas rurales de Tenerife, en relación con las características de la economía agraria insular al término del siglo XVIII. (CÓDIGOS JEL: J16, J44, N34, O15)*

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FINANCIACIÓN: este trabajo se enmarca en nuestra investigación doctoral, la cual contó con el respaldo económico de tres becas de ayuda a estudios universitarios concedidas entre 2021-2023 por el Cabildo de Tenerife.

Female Labour Force Participation and Occupational Structure in Rural Households of Tenerife in the Late Eighteenth Century

Paula Barbero 

ABSTRACT: *This article analyses female labour force participation and its occupational distribution using the 1779 population register of Tenerife. Drawing on nominative data that record women's age, marital status and occupation within rural households, it explores the dynamics of female labour in the local economy and highlights the prominence of traditionally feminised activities, particularly domestic textile production. The results indicate that women's participation in the labour market was strikingly high in rural Tenerife, reflecting the distinctive features of the island's agrarian economy at the end of the eighteenth century. (JEL CODES: J16, J44, N34, O15)*

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ATTRIBUTION-NONCOMMERCIAL-NODERIVATIVES 4.0 INTERNATIONAL (CC BY-NC-ND 4.0) © The Author(s) 2026.

1. Introducción

La historia del trabajo femenino en las sociedades preindustriales ha ido ganando relevancia en las últimas décadas (Rial, 2003). Y eso a pesar de que su estudio se ve condicionado por la dificultad que entraña encontrar fuentes históricas con datos fiables capaces de cuantificar la aportación efectuada por las mujeres en el seno del mercado de trabajo (Rey Castela, 1994). Con todo, los especialistas recurrieron en su día a los Memoriales del Catastro de Ensenada, conservados para algunas provincias, en los que se ofrece, en ciertos casos, información detallada sobre los componentes del hogar, caso de la edad, el estado civil, las ocupaciones, los salarios y las propiedades (Sarasúa, 2018). También se valieron de diversos censos y padrones confeccionados entre los siglos XIX-XX, los cuales recogen datos similares referidos a los corresidentes del agregado doméstico (Pérez-Fuentes, 1995; Dubert y Muñoz-Abeledo, 2014; Muñoz-Abeledo *et al.*, 2019). Aun así, el extendido subregistro de las profesiones femeninas detectado en gran parte de los padrones empleados llevó a los expertos a recurrir a una variedad de fuentes complementarias, como las estadísticas generales, los libros de cuentas, los registros de fábricas o los avisos en prensa (Sarasúa y Gálvez, 2003).

Las posibilidades que brinda el análisis sistemático de las listas de habitantes, junto al cruzamiento de diversas fuentes, permitieron calcular las tasas de actividad femeninas y analizar su distribución ocupacional en determinados puntos de Galicia, el País Vasco, Castilla, Cataluña o Andalucía en distintos momentos de los siglos XVIII-XX (González Portilla *et al.*, 2003; Pareja, 2006; Borderías, 2012; Hernández García, 2013; Borrás-Llop, 2013; Campos Luque, 2014; Garrido-González, 2016; Muñoz-Abeledo, 2024).

Estas y otras aportaciones se inscriben en una línea de investigación que ha sido objeto de especial interés en el ámbito europeo, en concreto, en Inglaterra y en los Países Bajos, donde, a partir del uso de fuentes nominativas y metodologías afines, se han esforzado por estimar la participación laboral femenina en las sociedades del pasado, bien mediante la reconstrucción de sus tasas de actividad (Humphries y Sarasúa, 2012) o bien a través del análisis de los niveles y formas de participación en distintos sectores económicos (Ogilvie, 2004; Schmidt y van Nelderveen Meerkerk, 2012).

Nuestro trabajo se adscribe también a esa línea de investigación que, desde la reconstrucción de las tasas de actividad mediante listas de habitantes, busca comprender el papel de las mujeres en la economía familiar del pasado. En este sentido, la consulta del *Padrón de habitantes de Tenerife de 1779*¹ nos permitió examinar la tasa de actividad femenina y analizar su distribución ocupacional para las principales zonas rurales de la isla al final del siglo XVIII. Esta fuente ha sido utilizada en distintos estudios de carácter comarcal, socioeconómico y genealógico (Díaz Frías, 1996; García Pulido y Guzmán Rodríguez, 2014; Fariña, 2014; Barbero, 2020; Oliva López, 2024). Pese a estos esfuerzos, el potencial que ofrece el mencionado padrón para el análisis sistemático del trabajo femenino y su contribución a las economías domésticas ha sido escasamente explotado hasta la fecha (Ramírez García, 2020; Barbero, 2022).

La principal contribución de nuestro trabajo consiste en la elaboración de una base de datos nominativa a partir del citado padrón de 1779, el cual abarca 22 jurisdicciones localizadas

en el ámbito rural de Tenerife. Esta forma de proceder nos ha permitido acceder al registro de variada información sobre 11.530 mujeres que se encontraban en el tramo de edad de los 10 a los 59 años. Además, apreciamos que el 82% de ellas aparece empadronada con una actividad remunerada. Del análisis de esta información se desprende que las zonas rurales evidencian una elevada tasa de actividad femenina a lo largo de las distintas etapas del ciclo vital y familiar de las campesinas. Esta notable participación laboral de las mujeres estaba vinculada a un modelo económico articulado en torno al monocultivo vitícola de exportación. De tal modo que cuando la demanda exterior de los vinos isleños disminuía, la respuesta solía ser un incremento de la emigración masculina. Así, muchos hombres en edad laboral emprendieron el viaje desde las regiones vitícolas del norte insular. Unas salidas que se realizaban en la confianza que las mujeres sostenían con su trabajo los hogares mediante su participación en la elaboración de las manufacturas domésticas y en una diversidad de actividades productivas.

2. Las fuentes y los métodos

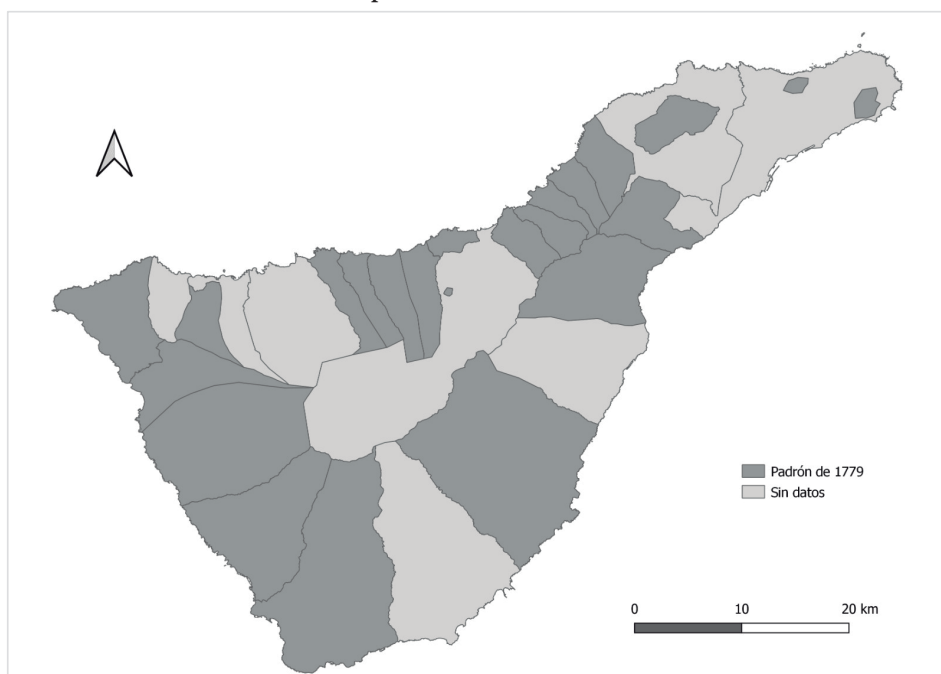
El padrón de habitantes de Tenerife de 1779 es una lista nominativa organizada por grupos domésticos la cual destaca por su elevado grado de detalle, puesto que registra –para cada componente del hogar– el sexo, la edad, el estado civil, la ocupación, «los destinos» y otras noticias. De hecho, la investigación internacional cuenta con escasos censos o padrones históricos que ofrezcan un nivel de detalle en sus informaciones capaces de referirse a los medios de subsistencia de cada corresidente del agregado doméstico, hasta el punto de poder cuantificar la participación laboral infantil y femenina dentro del mercado de trabajo (Borderías, 2012, pp. 22-23; Humphries y Sarasúa, 2012, p. 51).

La finalidad de la confección del padrón de 1779 –conocer el estado de la población y la economía insular– contribuyó a preservar su riqueza informativa, garantizando un grado de detalle elevado en la recogida de datos para el territorio que abarca, el cual se extiende por las principales zonas rurales de la isla, caso del norte, donde se incluyen las jurisdicciones de Tacoronte, El Sauzal, La Matanza, La Victoria, Santa Úrsula, Realejo Bajo, Realejo Alto, el pago de Higa², San Juan de la Rambla, La Guancha, El Tanque y Buenavista; en el sur, las de Santiago del Teide, Guía de Isora, Adeje, Vilaflor, Arico y Candelaria; y finalmente, las aldeas ubicadas al nordeste de la isla, próximas a las ciudades, esto es, Tegueste, Taganana, San Andrés y El Rosario (fig. 1)³.

Sin embargo, el padrón de 1779 presenta ciertas limitaciones geográficas, ya que no parece haberse elaborado en todo el territorio insular; además en algunas jurisdicciones no se conservaron las copias y en otras podrían encontrarse aún en archivos privados. Esas ausencias afectan a regiones del suroeste, como Güímar, y del noroeste, caso de Los Silos (fig. 1). Faltan asimismo los principales términos demográficos y socioeconómicos, es decir, Icod de los Vinos, Garachico, La Orotava, La Laguna y Santa Cruz. Esta carencia genera un vacío importante de información a nivel geográfico. Aun así, el contenido del padrón de 1779 ofrece una muestra representativa de la población isleña de finales del siglo XVIII, al incluir datos correspondientes

al 54% de los habitantes censados en Tenerife en 1787⁴. De este modo, el mencionado padrón es una fuente clave para el estudio del trabajo femenino y la composición del grupo doméstico en la mayor parte de las zonas rurales de la isla.

FIGURA 1. Extensión territorial del padrón de Tenerife de 1779



FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

En suma, la buena calidad del citado padrón explica que la información relativa a unos 7.800 hogares y 33.800 habitantes se haya vaciado en una base de datos nominativa. A partir de ella se analizaron las estructuras de los agregados domésticos y la participación laboral de sus respectivos componentes. Para enriquecer los resultados de su estudio se han utilizado otras fuentes de carácter estadístico y descriptivo, como el censo de 1787 y la *Estadística de las Islas Canarias* (1793-1806), elaborada por Francisco Escolar y Serrano⁵.

3. Las tasas de actividad femenina y la organización familiar en la economía rural

En el conjunto de las zonas agrarias de Tenerife recogidas en el padrón de 1779, la tasa de actividad para las mujeres comprendidas entre las edades de los 10 a los 59 años se situaba en el

82,1%⁶ (tabla 1). Se trata de una tasa realmente elevada, visto que superaba a la encontrada en ese año para los hombres a esas edades en la isla (78,7%)⁷.

Es más, esta era superior a la calculada para determinadas regiones del centro y sur peninsular a mediados del siglo XVIII. Así, en 1752, en Castilla-La Mancha se situaba en un 47%, en Laujar de Andarax, Almería, en un 54% y en Castilla-León, en un 66% (Borderías, 2012, pp. 30-33; Humphries y Sarasúa, 2012, p. 53; Hernández García, 2013, pp. 187-188; Campos Luque, 2014, p. 196; Garrido-González, 2016, p. 147).

TABLA 1. Tasas de actividad en el mundo rural de Tenerife, 1779

Tramos de Edad	Población			Tasas de actividad		
	Masculina	Femenina	Total	Masculina	Femenina	Total
10-12	1130	913	2043	35,6	43,5	39,1
13-15	1001	943	1944	65,0	73,0	68,9
16-19	1139	1250	2389	78,2	86,2	82,4
20-23	964	1240	2204	86,4	89,2	88,0
24-27	757	1043	1800	90,6	90,5	90,6
28-31	682	1117	1799	92,2	87,7	89,4
32-35	539	858	1397	90,7	86,6	88,2
36-39	447	781	1228	93,3	87,6	89,7
40-43	622	889	1511	89,2	86,2	87,4
44-47	485	751	1236	90,7	85,1	87,3
48-51	587	805	1392	88,2	83,2	85,3
52-55	330	488	818	90,0	82,6	85,6
56-59	292	452	744	87,0	80,5	83,1
Total	8.975	11.530	20.505	78,7	82,1	80,6

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

El padrón muestra que ocho de cada diez jóvenes de 16 años trabajaban en 1779, y a partir de esa edad la tasa de actividad femenina se situaba en un 87,8% en el norte de Tenerife, siendo ligeramente superior a la masculina en la misma edad (87,2%). Estas cifras encuentran su explicación en el contexto de las densas poblaciones rurales que reposaban en la mencionada franja norte, donde en 1787 se registraban 53,6 habitantes por km². Este peso estuvo impulsado por una agricultura de exportación basada en el cultivo de la vid desde finales del siglo XVI. Un monocultivo que requería mano de obra masculina en todas las fases del proceso productivo y en las tareas estacionales, caso del almacenaje, el transporte y el comercio, tal como también sucedía en otras regiones vitícolas (Borderías, 2012). No obstante, la progresiva caída de las exportaciones vinícolas a lo largo del siglo XVIII redujo la rentabilidad de las haciendas dedicadas a la producción de vino, y las elites isleñas respondieron incentivando la emigración masculina hacia América (Brito González, 1983, pp. 14-15).

De ahí que en las comarcas norteñas la relación de masculinidad en 1787, en el tramo de 16 a 40 años, evidencie la presencia de 70 hombres por cada 100 mujeres (tabla 2). Un índice que descendía aún más en las principales tierras del monocultivo de la vid, pues este además había desplazado las huertas destinadas a la obtención de alimentos básicos, como ocurría en Tacoronte (45), San Juan de la Rambla (51) o La Victoria (59). En cambio, otras áreas del norte desarrollaron un modelo agrícola diversificado, caso de Realejo Bajo (84), Realejo Alto (83), Los Silos (79), Buenavista (75) o Santa Úrsula (74). En estas parroquias, el viñedo coexistía con cultivos muy productivos como «el millo» o «las papas», a menudo acompañados por frutales, legumbres y una importante cabaña ganadera menor compuesta por cabras, ovejas y cerdos. Con todo, el campesinado norteño afrontaba fuertes cargas fiscales, impuestas sobre tierras en manos de grandes terratenientes laicos o eclesiásticos, hacendados viticultores y propietarios absentistas⁸ (Rodríguez Mendoza, 2004, pp. 149-152; Barbero, 2024b, p. 271).

TABLA 2. Indicadores sociodemográficos y familiares según la geografía de Tenerife, 1779 y 1787

Indicadores	Sur	Norte	Aldeas	Total
Densidad de habitantes	5,4	53,6	15	14,5
Relación de masculinidad entre los 16-40 años	91	70	77	76,8
Soltería definitiva femenina a los 50 años	13,7	19,9	7,5	17,3
Familias nucleares	80,8	74,3	80,8	76,7
Jefaturas femeninas	33,3	35,4	27,7	34,1
Tasa de actividad femenina entre los 16-59 años	72,1	87,8	84,3	83,2
Tasa de actividad masculina entre los 16-59 años	80,8	87,2	88,9	85,5

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). *Censo de 1787*. Elaboración propia.

Estas lógicas demográficas y económicas impactaron sobre las formas de convivencia de las familias norteñas, al igual que ocurría en Galicia, donde los hogares del litoral cantábrico igualmente se vieron condicionados por dinámicas similares en torno a esas fechas (Saavedra, 1989; Carmona, 1990; Dubert, 1992). En la orla vitícola del norte de Tenerife, aproximadamente una de cada cinco mujeres en 1779 llegaba a los 50 años sin haberse casado (19,9%)⁹, lo que se relaciona con el hecho de que en la región un 35,4% de los grupos domésticos estaban encabezados por una mujer (tabla 2). Si bien, el sistema familiar se basaba en las estructuras nucleares (74,3%), existía una proporción significativa de hogares de tipo solitario (8%), CLS (6,1%) y familias extensas (9,8%); cuyos componentes eran, en su mayoría, mujeres de distintas edades y estados, quienes trabajaban, sobre todo, en la industria textil doméstica, alimentada por la demanda que ejercía el comercio, el cual aprovechaba los puertos de salida del vino, en particular, el Puerto de la Cruz.

Diferente es el panorama que presentan las aldeas próximas a las ciudades ubicadas al nordeste de la isla. En esos lugares, la tasa de actividad femenina en 1779 se reducía de forma moderada a un 84,3%, situándose por debajo de la de los varones (88,9%). Estos pueblos

reflejaban en 1787 una densidad de 15 habitantes por km² debido al pequeño tamaño de las explotaciones, lo que impedía el cultivo de exportación y, a su vez, favorecía la conservación por el campesinado de parte de las tierras que labraba (Luis Yanes y León Santana, 2011; Núñez Pestano, 2014, pp. 18-20 y 30-32). En gran medida, eran cultivos de subsistencia, aunque algunas familias lograban colocar sus excedentes en los mercados locales gracias a su cercanía a las ciudades. Además, los hogares aldeanos completaban su economía con la industria textil doméstica (tabla 3, *infra*).

En este contexto, la emigración masculina entre los 16-40 años fue moderada en 1787, según delata la relación de masculinidad, que en ese año indica que había 77 hombres por cada 100 mujeres, lo cual contribuía a mantener en 1779 unos niveles reducidos de soltería definitiva femenina (7,5%). Así, en las aldeas se imponía el modelo familiar de tipo nuclear (80,8%), mientras que las demás formas de coresidencia eran el resultado de la fase final que atravesaba el ciclo vital de las citadas familias nucleares; en consecuencia, las mujeres tenían un acceso más restringido a la jefatura familiar (27,7%) (tabla 2).

En cambio, la tasa de actividad femenina descendía en el sur de Tenerife, visto que en ese año de 1779 se situaba en el 72,1%, inferior al 80,8% observado en el caso masculino. Esta región se caracterizaba en 1787 por un asentamiento disperso, en razón al relieve escarpado y a la extensión de sus jurisdicciones (5,4 habitantes por km²). Una geografía que dificultaba el desarrollo agrícola intensivo y la conexión con los circuitos comerciales de la isla. A pesar de ello, los campesinos sureños también hacían frente a la presión fiscal y al acaparamiento de la propiedad ejercido por las élites, incluso en las tierras más aisladas¹⁰.

Ante estas circunstancias, la supervivencia de las familias dependía de una agricultura de secano centrada en cultivos como el trigo, la cebada o el centeno, destinados al autoconsumo y al pequeño comercio local. Los grupos domésticos asimismo reforzaban sus medios de vida a través del pastoreo extensivo de cabras y ovejas en las zonas altas y por medio de la organización de redes de aprovechamiento lechero, cárnico y lanar. Además, las familias diversificaban sus ingresos mediante el desarrollo de otras actividades complementarias, caso de la alfarería, la pesca y las referidas manufacturas.

Estas estrategias de subsistencia contribuyeron a que, en el sur de la isla, la salida de los hombres que tenían entre 16 y 40 años fuera en 1787 de intensidad moderada o nula, visto que la relación de masculinidad en ese año era de 91 hombres por cada 100 mujeres. Ello favoreció la extensión del sistema familiar centrado en las estructuras nucleares (80,8%), el cual dejaba igualmente en manos de mujeres la dirección del 33,3% de los hogares. Eso sí, la mayoría de ellas accedía a este rol durante su vejez, a causa de la clásica mayor mortalidad masculina, agravada aquí por las duras condiciones de vida de los pastores empeñados en la trashumancia.

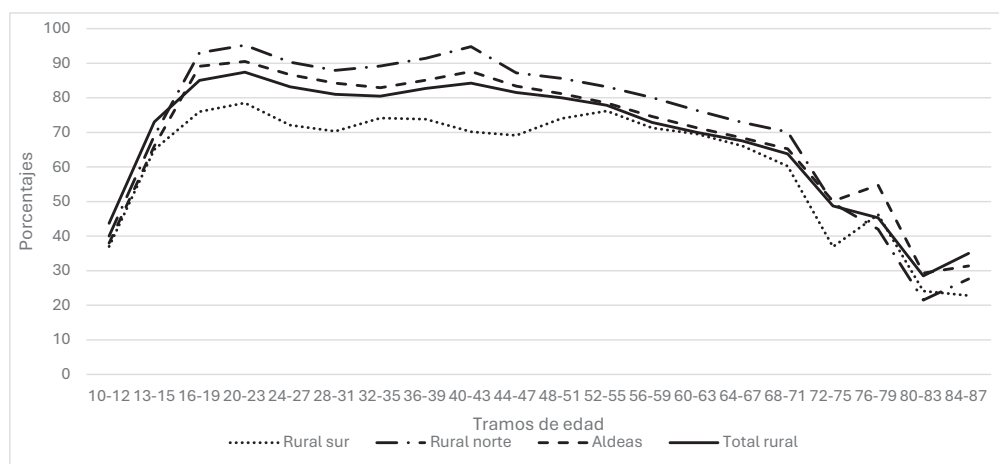
3.1. El trabajo de las mujeres a lo largo del ciclo vital

En respuesta a la situación económica y social que se vivía en Tenerife a finales del siglo XVIII, los hogares isleños pusieron en marcha diversas estrategias con el objetivo de asegurarse

la subsistencia gracias al aprovechamiento de la demanda que generaba el comercio de los textiles. De ahí que en 1779 las niñas de 10 años presentaran una tasa de actividad del 30%, frente al 24,8% de los niños. Una participación que no hacía más que aumentar a medida que las pequeñas crecían, visto que a los 12 años alcanzaban una tasa de actividad del 58,8% y al llegar a los 15 era del 73,9% (fig. 2, *infra*)¹¹. Incluso sus niveles de actividad superaban a los de los varones en todos los tramos de edad (Barbero, 2024a, pp. 7-8). Esta temprana incorporación laboral respondía a la división sexual del trabajo, que destinaba a las niñas hacia las tareas manufactureras desde edades muy tempranas, mientras que las actividades agropecuarias, asociadas al trabajo masculino, solían iniciarse algo más tarde (Rial, 2009, p. 84; Lopo y Sobrado, 2024-5)¹².

Una vez llegada la juventud, las muchachas incrementaban notablemente su presencia en los mercados laborales rurales: entre los 16-19 años tenían una tasa de actividad del 86,2%, que continuaba en ascenso hasta los 24-27 años, cuando 9 de cada 10 mujeres participaban en el mercado laboral (90,5%). Solo entonces los varones lograban igualar la tasa de actividad femenina. En buena medida, porque a partir de esa edad, las mujeres empezaban a reducir ligeramente su participación hasta aproximadamente los 35 años (86,6%), debido a su acceso al matrimonio y a la llegada de los hijos. Aunque en los siguientes años el ritmo del trabajo femenino continuaba siendo muy intenso: por encima del 85% hasta los 47 años (fig. 2). Desde entonces, se observa un descenso sostenido, pero sin una desvinculación total, pues todavía su tasa era muy alta: más del 80% hasta los 60 años, edad que marcaba el inicio de su retirada del trabajo remunerado. No obstante, esa salida se daba de forma gradual, ya que entre los 68-75 años se mantenía en torno al 50%.

FIGURA 2. Tasas de actividad femenina en el mundo rural de Tenerife por tramos de edad, 1779

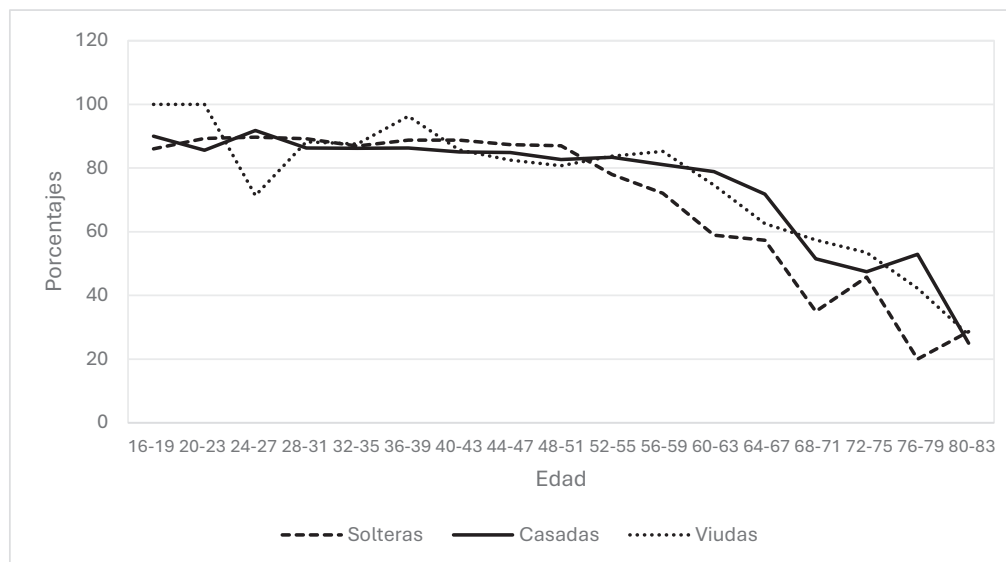


FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

Por el contrario, los hombres en la isla alcanzaban en 1779 la tasa de actividad más alta en el tramo de 36-39 años (93,3%). A partir de entonces, iniciaban su salida del mercado laboral también de forma moderada, visto que 8 de cada 10 continuaban trabajando a los 60 años (83%). Desde esa edad, la retirada se aceleraba, pues al llegar a los 80 años apenas 4 de cada 10 hombres seguían activos. En ambos casos, la continuidad laboral en edades tan avanzadas respondía a las necesidades domésticas y a la flexibilidad de ciertas tareas, que permitía a ancianos y ancianas seguir ganando un salario incluso en las fases finales de su vejez, tal como sucedía en aquel tiempo en Galicia (Rial, 2009, p. 85).

En líneas generales, la distribución de la actividad femenina según los tramos de edad en Tenerife se asemeja, por tanto, a la encontrada en otras zonas rurales del interior y sur peninsular en distintos periodos (Borderías y Pérez-Fuentes, 2009, p. 26; Campos Luque, 2014, p. 195; Garrido-González, 2016, p. 149).

FIGURA 3. Tasas de actividad femenina por estado civil en el mundo rural de Tenerife, 1779



FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

Estas trayectorias laborales en la isla estaban además condicionadas por la posición que las mujeres ocupaban en el seno de la estructura familiar¹³. En este sentido, solteras, casadas y viudas tenían una elevada participación en los mercados laborales rurales hasta los 55 años, con tasas de actividad que se situaban entre el 80-90%. A partir de esa edad, las solteras comenzaban a retirarse del mercado de trabajo, mientras que las casadas y viudas retrasaban su salida hasta superar los 60 o 65 años (fig. 3). Esa retirada más temprana de las solteras podría explicarse porque ellas asumían una menor carga familiar, pues esta tendía a recaer en viudas y

casadas (Camps, 1995; Hernández García, 2003, pp. 121 y 2013, p. 191; Erickson, 2008, pp. 292 y 294; Humphries y Sarasúa, 2012, p. 46; Borderías *et al.*, 2014, p. 111).

Además, las casadas empezaban a reducir ligeramente su participación laboral desde los 24 años, coincidiendo con la edad media de acceso al matrimonio en la isla, pero continuaban manteniendo una tasa muy elevada del 83,7% (fig. 3). Esta continuidad laboral de las casadas era típica de las zonas protoindustriales, donde el trabajo asalariado de las mujeres no desaparecía tras el matrimonio (Humphries y Sarasúa, 2012, p. 55; Schmidt y van Nederveen Meerkerk, 2012, pp. 78-79; Pérez-Fuentes, 2013, p. 170; Hernández García, 2013, p. 190; Garrido-González, 2016, p. 15). Una situación favorecida por el carácter doméstico de la producción textil, lo que facilitaba a las esposas combinar la obtención de uno o varios salarios con el desempeño de las tareas domésticas, al tiempo que contaban para ello con la ayuda de las mujeres con las que convivían y trabajaban (Ogilvie, 2004, p. 30; Borderías y Ferrer-Alòs, 2015; Sarasúa, 2023).

Esta forma de organización del trabajo femenino se correspondía con unos altos porcentajes de madres activas que vivían en los hogares nucleares con sus hijos o hijas de distintas edades: un 73,3% en el sur, un 88,5% en el norte y un 80,5% en las aldeas próximas a las ciudades. Del mismo modo, ocurría a las madres que coresidían en el seno de las familias extensas del norte de la isla (82,4%). Sin embargo, cuando los hijos eran menores de 7 años, la participación laboral de las madres que convivían en los hogares nucleares descendía de forma notable: 23,7% en el sur, 30,7% en el norte y 30,6% en las aldeas. Esto contrasta claramente con lo sucedido en las referidas familias extensas ubicadas en las zonas vitícolas del norte, visto que aquí la presencia laboral de las madres con criaturas a esas edades se mantenía muy intensa (86,5%). Todo lo cual evidencia el funcionamiento de un sistema de apoyo articulado en torno a la convivencia establecida con las mujeres de la familia con quienes vivían: madres, abuelas, hermanas, tías o sobrinas (Pérez-Fuentes, 1995, p. 236; Campos Luque, 2014, pp. 197-198).

No obstante, las madres que convivían en las familias nucleares iban asumiendo una mayor intensidad de trabajo a medida que sus criaturas superaban los primeros años de vida, hasta el punto de duplicarla cuando los pequeños cumplían 8 años (fig. 4). Una situación similar también ocurría en territorios tan distantes como Vizcaya a inicios del siglo XIX o Galicia a principios del XX (Atkinson, 2012; Pérez-Fuentes, 2013, p. 172; Muñoz-Abeledo *et al.*, 2019, pp. 175-179).

Igualmente, las mujeres con uno o dos hijos mantenían una presencia destacada en el mercado laboral isleño, puesto que la reducción de la actividad de las madres solo se aprecia en familias nucleares con tres o más hijos en edad laboral. Esto se relaciona con la carga real de los cuidados y la concepción cultural que reforzaba el papel de las esposas como principales responsables de la atención del hogar (Carrasco *et al.*, 2011). Con todo, la reducción de la actividad laboral de las madres de numerosos hijos se daba con relativa poca frecuencia, ya que las familias nucleares en 1779 tenían de media a 2,9 hijos por hogar.

Por su parte, las madres que convivían en el seno de las familias extensas del norte de la isla no reducían su participación laboral ni siquiera entre aquellas que tenían un mayor número

de hijos e hijas. En efecto, esta intensa actividad laboral de las mujeres que eran madres se sitúa en línea con lo señalado para periodos posteriores en distintos puntos de la Península (Borderías *et al.*, 2011, p. 77 y 2012; Pérez-Fuentes, 2013, p. 171; Campos Luque, 2014, pp. 197-198; Borderías y Ferrer-Alòs, 2015).

FIGURA 4. Porcentaje de madres activas corresidentes en los hogares nucleares en función de la edad de sus hijos en las zonas rurales de Tenerife, 1779



FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

4. Ocupaciones femeninas y estrategias de subsistencia en los hogares rurales

La información de los padrones de 1779 permite clasificar las ocupaciones femeninas en cinco grandes sectores: industria textil (86,3%), servicio doméstico (4,2%), comercio y transporte (3,1%), oficios artesanales (3%) y actividades del sector primario (3,5%). Esta distribución muestra un predominio absoluto de la industria textil, la cual concentraba a la inmensa mayoría de las mujeres trabajadoras en las zonas rurales, mientras que el resto de las actividades aparecían en porcentajes muy reducidos (tabla 3).

TABLA 3. Distribución ocupacional de las mujeres de todas las edades registradas en las zonas rurales de Tenerife, 1779¹⁴

Categorías ocupacionales	Sur	Norte	Aldeas	Total rural
Industria textil	85,9	90,0	60,0	86,3
Sector doméstico	4,1	4,3	2,9	4,2
Comercio y transporte	2,6	1,1	19,1	3,1
Artesanía	4,7	1,7	8,2	3,0
Sector primario	2,7	2,9	9,9	3,5
Total	100	100	100	100
Núm. Casos	2.491	7.037	969	10.497

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

4.1. La industria textil doméstica

Como vemos, esta era una ocupación muy feminizada que retenía a una proporción significativa de la mano de obra femenina de todas las edades, tal como sucedía en numerosas regiones rurales de la época (Ogilvie, 2004, p. 29; Rey Castelao y Rial, 2009, pp. 111-113; Humphries y Weisdorf, 2014; Garrido-González, 2016, p. 147).

Esta especialización productiva en la isla estuvo relacionada con las dinámicas económicas de cada zona. En este sentido, en las aldeas se empleaba el 60% de las trabajadoras rurales, frente al 85,9% del sur y el 90% del norte (tabla 3). Unas y otras se ocupaban en hilar (69%), tejer (18,7%), hacer calcetas (6,6%) o coser (4,6%) (tabla 4). Así, no es extraño que diversas fuentes se hagan eco de estos oficios, por ejemplo, en el Realejo Bajo, situado al norte de la isla, en 1805 se señalaba que «las mujeres [del lugar] se dedican a tejer lienzo y cordoncillo»¹⁵.

TABLA 4. Composición ocupacional en la industria textil doméstica rural en Tenerife, 1779

Oficios textiles	Sur	Norte	Aldeas	Total rural
Hilanderas	71,6	67,4	76,4	69,0
Tejedoras	23,3	17,4	16,4	18,7
Costureras	4,0	5,0	3,4	4,6
Calceteras	0,7	8,9	3,8	6,6
Encajeras	0,0	0,8	0,0	0,6
Sederas	0,1	0,5	0,0	0,4
Bordadoras	0,2	0,1	0,0	0,1
Total	100	100	100	100
Núm. Casos	2.140	6.333	581	9.054

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

La mayoría de las mujeres ocupadas en las manufacturas solían desempeñar a un tiempo diversas tareas textiles, sea en los procesos de elaboración del producto final o sea en otras actividades complementarias. De hecho, profesiones como hilandera, tejedora o costurera fueron los primeros oficios declarados en 1779 por un 55,6% de las trabajadoras. Una situación laboral que variaba según se tratase de las referidas aldeas (38,5%); el sur (47,8%); o el norte de Tenerife (61,5%).

Muchas tinerfeñas hilaban «para su casa», por ejemplo, en el caso de Fasnía, ubicada al sureste de la isla, se afirmaba en 1805 que «las mujeres se dedican a hilar y tejer lienzo y lana para vestirse la familia en un total de 120 telares»¹⁶. Una producción cuyo destino era tanto el uso doméstico como, lógicamente, y dado el elevado número de telares registrados en la isla en ese año (que sumaban un total de 2.914)¹⁷, el mercado interno y externo, sobre todo la América hispana. Al respecto, el alcalde del mencionado Realejo Bajo, don Juan Antonio Barroso, escribía en 1790: «en cuanto a las mujeres [...] su trabajo consistía en el comercio de América, cuando los cargadores de navíos venían por las puertas buscando medias y calcetas, porque se las pagaban con estimación [...] les daba bastante para mantenerse y vestirse [...]» (citado en Arbelo, 2004, p. 92).

Ahora bien, desconocemos cuántas horas al día dedicaban las mujeres a elaborar manufacturas, con qué periodicidad las producían, qué volumen de producción obtenían y cuál era la cuantía del salario que percibían. Y es que los padrones de 1779 solo indican que algunas mujeres hilaban, cosían o hacían medias «a jornal». Por ejemplo, en el actual municipio de La Guancha, al noroeste de la isla, encontramos el hogar de Isabel, una mujer casada de 35 años y madre de dos pequeños, quien declaraba que «su oficio es hacer medias de jornal»¹⁸. Incluso la Estadística de las Islas Canarias se limita a señalar que, en 1805, en La Matanza, jurisdicción ubicada en la vertiente norte, las tejedoras de lienzo ordinario vendían el paño a ocho reales¹⁹. En efecto, todo apunta a la existencia de salarios femeninos en el seno de la producción de las manufacturas textiles en Tenerife, lo cual se sitúa en línea con lo observado en otras zonas insulares, hispánicas y europeas de ese tiempo (Rey Castelao, 1994; Humphries y Weisdorf, 2014; Garrido-González, 2016, p. 148; Quintana Andrés y Jiménez Medina, 2022, p. 274; García Pulido, 2023, p. 38).

4.2. Comercio y transporte

Esta masiva ocupación de la mano de obra femenina en la industria textil contribuyó a relegar a un segundo plano otros trabajos que muchas mujeres también desempeñaban de forma cotidiana. Así, el comercio y el transporte ofrecían en 1779 empleo solo al 3,1% de las mujeres según la primera profesión empadronada en las zonas rurales. No obstante, las mujeres dedicadas al mercadeo tenían una mayor presencia en las aldeas cercanas a las ciudades (19,1%) (tabla 3, *supra*). Se trataba de actividades centradas en la venta ambulante (87,7% de los casos), la cual constituía una vía complementaria de ingresos para numerosas familias campesinas (tabla 5). Por ejemplo, en El Rosario, ubicado al nordeste de la isla y próximo a la ciudad de La Laguna,

se encontraba al frente del hogar María, de 31 años, casada, pero con el marido ausente; afirmaba que se dedicaba a vender y educar a su hijo de 6 años. El escribiente del padrón además apuntó que «[...] estos son pobres [y] lo pasan malamente, no tienen sino su casita y una burra con que busca su vida»²⁰.

Los hombres apenas constituían el 6,1% dentro del comercio y el transporte rural, aunque su presencia era algo mayor en las aldeas próximas a las urbes (11%). Y es que este rubro en la isla destacaba en los enclaves urbanos y sus áreas próximas, donde las mujeres dominaban los estratos más bajos de estos oficios, como ocurría también por esas fechas en otros puntos de Canarias y de la Península (Rial, 2003, pp. 69-70; Monzón Perdomo y Pérez Álvarez, 2017, pp. 248-249; Lopes, 2023, p. 6; Muñoz Navarro, 2023, p. 12).

TABLA 5. Mujeres con una ocupación declarada en el comercio y transporte en las zonas rurales de Tenerife, 1779

Categoría ocupacional	Sur	Norte	Aldeas	Total
Venta ambulante	87,5	66,7	96,2	87,7
Arrieras	7,8	0,0	0,0	1,5
Tenderas y taberneras	1,6	33,3	3,8	10,2
Grandes comerciantes	3,1	0,0	0,0	0,6
Total	100	100	100	100
Núm. Casos	64	75	185	324

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

4.3. Servicio doméstico rural

Esta profesión en el ámbito rural de Tenerife brindaba escasas salidas laborales a las campesinas, dado que su mercado de trabajo reposaba en los hogares urbanos (Rial, 2009, p. 88; Barbero, 2024b, pp. 170-177). En las regiones agrarias en 1779 ocupaba al 4,2% de las mujeres activas de todas las edades, quienes se desempeñaban como criadas (67,2% de los casos), lavanderas (19,7%), criadas textiles (8,9%), parteras (2,3%), planchadoras (0,5%) y mandaderas (0,5%) (tabla 6). Empero, en el mundo rural eran los criados de labor quienes superaban ligeramente en número a las trabajadoras domésticas, pese a que estas últimas eran las encargadas de las tareas del hogar. Para ellas, se trataba de oficios marcados por la precariedad, en tanto que apenas les permitían asegurar la subsistencia. Así, se aprecia en la situación de Micaela de la O, viuda de 50 años y vecina del barrio de Las Peñuelas, en Tegueste, un pueblo ubicado al nordeste, cercano a la ciudad de La Laguna, quien se ganaba la vida con «su oficio [de] lavar [pero se anotaba que] está pobre»; consigo convivía su hija María, soltera de 20 años, que colaboraba al sustento del hogar gracias a que «tiene el oficio de hacer medias»²¹.

TABLA 6. Distribución de las ocupaciones femeninas dentro del servicio doméstico rural de Tenerife, 1779

Profesiones	Sur	Norte	Aldeas	Total rural
Criadas	72,5	69,6	21,4	67,2
Lavanderas	9,8	19,0	64,3	19,7
Criadas del textil	11,8	7,8	10,7	8,9
Parteras	3,9	2,0	0,0	2,3
Planchadoras	2,0	0,0	0,0	0,5
Mozas de labor	0,0	0,7	0,0	0,5
Mayordomas de haciendas	0,0	0,3	3,6	0,5
Mandaderas	0,0	0,7	0,0	0,5
Total	100	100	100	100
Núm. Casos	102	306	28	436

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

4.4. Artesanado femenino

Del mismo modo que ocurría en las anteriores profesiones, pocas mujeres se dedicaban al artesanado rural (3%) (tabla 3, *supra*), pues este sector absorbía al 8,2% de las activas en las aldeas, frente al 4,7% en las áreas rurales del sur de la isla, y solo un 1,7% en las del norte. Una escasa presencia femenina en el artesanado rural, acorde con los intereses económicos de las élites, ya que los principales oficios artesanales estaban reservados a la mano de obra masculina y su mercado reposaba en el ámbito urbano de Tenerife, como el Puerto de la Cruz, la villa de La Orotava y las ciudades Santa Cruz o La Laguna (Solà, 2009, pp. 233-241; Pérez-Fuentes, 2013, p. 167).

Con todo, la mayor parte de las mujeres dedicadas al artesanado en la isla eran alfareras (75,1% del total), quienes originaron núcleos de especialización en los agregados domésticos ubicados en el sur y en las aldeas del nordeste, impulsados estos por su cercanía a las materias primas (tabla 7). Este fue el caso de San Andrés, un pueblo próximo a la ciudad de Santa Cruz, donde la alfarería daba trabajo a un 33,1% de las mujeres de todas las edades. Es más, un 27,6% de las jefas de hogar empadronadas en el lugar se ganaban la vida gracias a esta ocupación, como le ocurrió a Ana Rodríguez, vecina de ese pueblo, viuda de 43 años, que «cuida a sus hijos de 15, 12 y 8 años, todos se ejercitan en ir a vender ollas de este mismo país [San Andrés] al de Santa Cruz». Un ejemplo de trabajo familiar bien avenido, como dejó entrever el propio escribiente al señalar: «no tienen mala armonía, ganan que comer y vestir en el modo regular»²².

TABLA 7. La participación femenina en el artesanado rural de Tenerife, 1779

Artesanas	Sur	Norte	Aldeas	Total rural
Alfareras	73,7	62,5	96,2	75,1
Panaderas	21,2	19,2	3,8	16,1
Sombrereras	0,0	10,0	0,0	3,8
Sastres	0,0	4,2	0,0	1,6
Molineras	0,8	1,7	0,0	0,9
Salineras	2,5	0,0	0,0	0,9
Saladoras de pescado	1,7	0,0	0,0	0,6
Zapateras	0,0	0,8	0,0	0,3
Herrerías	0,0	0,8	0,0	0,3
Estereras	0,0	0,8	0,0	0,3
Total	100	100	100	100
Núm. Casos	118	120	79	317

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

4.5. El trabajo femenino en el sector primario

Este ámbito ocupaba apenas al 3,5% del total de mujeres activas. Entre ellas, la mayoría se identificaba como labradoras (60,4%), seguidas de jornaleras (13%) y pastoras (13,9%) (tabla 8). Una baja participación femenina que responde a que en el padrón de 1779 las ocupaciones agrarias desempeñadas por las mujeres se registraron en tercer o cuarto lugar. Incluso, este criterio fue el que se aplicó a la hora de anotar las profesiones femeninas en diferentes documentos de la época, caso de la citada Estadística de las Islas Canarias, donde se indica que, en el referido actual municipio de La Guancha, en 1805, «las mujeres además de dedicarse a fabricar loza y tejer, trabajan en las faenas agrícolas»²³. Independientemente, de cómo las fuentes hayan registrado el trabajo femenino, la historiografía ha demostrado que las mujeres permanecieron vinculadas a las actividades agrícolas en distintos territorios y periodos, como Mallorca a mediados del siglo XVI, Galicia a finales del siglo XVIII o Cataluña durante el siglo XIX (Rial, 2009; Pujadas-Mora y Jover-Avellà, 2020; Colomé-Ferrer, 2024).

En el caso de Canarias la participación femenina en las labores del campo fue especialmente significativa, la cual se acentuó en las zonas vitícolas del noroeste y norte de Tenerife, donde la emigración masculina era más acusada, como se ha señalado. En esas comarcas, mujeres y menores –considerados mano de obra barata y temporal– asumieron en una proporción aún mayor el trabajo agrícola, en concreto, en tareas como el cultivo de viñas, «papas» y «millo» (Coderch, 1975; Hernández González, 1990; Macías, 1992; Rodríguez Mendoza, 2004).

TABLA 8. Distribución de las ocupaciones femeninas del sector primario en las zonas rurales de Tenerife, 1779

Oficios declarados	Sur	Norte	Aldeas	Total rural
Labradoras	56,6	66,1	51,3	60,4
Jornaleras	12,9	17,2	3,8	13,0
Pastoras	17,7	8,6	22,5	13,9
Dedicadas a tareas agrícolas auxiliares ²⁴	11,3	1,7	13,8	6,6
Orchilleras	0,0	0,6	7,5	2,2
Viñateras	0,0	2,9	0,0	1,6
Viñateras medianeras	0,0	2,3	0,0	1,3
Medianeras	0,0	0,6	1,3	0,6
Pescadoras	1,6	0,0	0,0	0,3
Total	100	100	100	100
Núm. Casos	62	174	80	316

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

Con todo, el sector primario en 1779 ocupaba al 87,9% de la población masculina activa disponible en las zonas rurales de Tenerife, al igual que sucedía en diferentes puntos del sur peninsular por esa fecha (Garrido-González, 2016, p. 147). Los jornaleros en la isla constituían el grupo más numeroso entre los trabajadores agrícolas. La mayoría se concentraba en la mencionada franja vitícola del noroeste y norte (73,6%) y, en menor medida, en el sur (21,3%), mientras que en las aldeas cercanas a las ciudades apenas alcanzaban el 5%, ya que aquí se imponían los labradores.

Los jornaleros, según la información disponible para 1805, percibían un salario diario bajo: en La Orotava, por ejemplo, recibían 2,5 reales de vellón sin incluir comida; en cambio en Güímar un jornalero «gana a diario 7 reales de vellón y el vino». Este sueldo aumentaba cuando los braceros disponían de yunta; en este caso, en Garachico, La Esperanza o La Victoria, se les retribuía entonces con 22,5 reales más su alimentación²⁵.

Las precarias condiciones del trabajo masculino en el agro isleño –mal remunerado, estacional y dependiente del empleo de medios de trabajo aportados por el propio jornalero– reafirman la relevancia que tenía el trabajo femenino en el seno de la economía insular (Macías, 1992). Ante esto, los hogares tinerfeños desplegaron estrategias de acumulación de ingresos en las que participaban los distintos componentes del grupo doméstico mediante actividades productivas múltiples y variadas, adaptadas al ritmo de las estaciones y a las capacidades personales de cada uno de sus miembros (Ramírez Mesa, 1993, p. 192; Ferrer-Alòs, 1994, p. 214; Ascanio Sánchez, 2002, p. 1786; Borderías, 2012; Humphries y Weisdorf, 2014; Borderías y Ferrer-Alòs, 2015).

5. Conclusión

La información consignada en el padrón de 1779 revela una tasa de actividad laboral femenina muy elevada en las zonas rurales de Tenerife. Esta era incluso superior a la registrada por los hombres en ese año en la isla durante la infancia y la juventud. Es más, esa tasa sobresale al compararse con diversos territorios y otros periodos históricos.

La fuerte participación laboral femenina estuvo estrechamente vinculada al modelo económico insular, el cual variaba de una región a otra en función de la estructura agraria, los factores demográficos y sociales –como la incidencia de la emigración masculina– y la orientación del mercado laboral. Así, en la vertiente norte predominaba una agricultura vitícola en declive que coexistía con una intensiva producción manufacturera sostenida por mano de obra femenina, cuyos géneros se orientaban a los mercados interiores y exteriores. En la orla sur y en las aldeas situadas al nordeste, la elaboración de los textiles continuaba siendo la principal ocupación femenina, aunque con menor peso que en el norte, lo que favorecía una mayor participación de las mujeres en la alfarería y el comercio al por menor; actividades impulsadas por la abundancia de materias primas en los alrededores y además por la cercanía al mercado urbano que absorbía esos productos.

Asimismo, la fuerte salida de hombres de la isla y la importancia de los ingresos femeninos para la subsistencia de las familias hizo que las mujeres, desde su temprana infancia hasta las fases finales de la vejez, desempeñaran un papel crucial en actividades ligadas a la industria rural y a otros oficios muy feminizados. De este modo, las mujeres reforzaron su papel central en la organización y sostén de los agregados domésticos, como lo demuestra la destacada presencia de hogares compuestos y encabezados por mujeres jóvenes, adultas y ancianas. Una realidad que fue aún más visible en la franja vitícola del noroeste y norte de Tenerife.

Todo lo cual estuvo favorecido porque el trabajo en la industria textil no dependía únicamente del calendario agrario, lo que permitía a sus trabajadoras mantener una actividad remunerada constante a lo largo del año y, al mismo tiempo, diversificar los ingresos familiares con el desempeño de tareas agrícolas u otros oficios. Esta capacidad resultó clave para sostener la economía doméstica, sobre todo, en un contexto marcado por la inestabilidad y la escasa retribución del jornal masculino, agravado además por la crisis de rentabilidad del comercio vitícola.

Pese al evidente protagonismo económico que desempeñaron las mujeres en Canarias, este no evitó que ellas quedaran limitadas igualmente por la clásica división sexual del trabajo, que las relegaba a los escalones más bajos y peor remunerados de la jerarquía del mercado laboral. Ante ello, las mujeres desarrollaron una compleja combinación de actividades remuneradas y reproductivas para garantizar su propia supervivencia y la de sus familias. En este sentido, la incorporación del trabajo de las niñas desde edades muy tempranas completó estas estrategias cooperativas que se daban en el seno de los grupos domésticos. Asimismo, las mujeres que convivían en los hogares extensos se organizaron de forma colectiva para conseguir que las madres con criaturas pequeñas a su cargo pudieran seguir participando en el mercado de trabajo. Unas y otras apoyadas en el respaldo que ofrecían las ancianas de sus respectivas familias, quienes continuaron trabajando hasta que sus fuerzas se lo permitieron.

Estos resultados invitan a seguir profundizando en el análisis del trabajo femenino y en las lógicas de reproducción social de los agregados domésticos, prestando especial atención al trabajo familiar vinculado a la industria textil isleña. En efecto, el aprecio que estos tejidos recibieron en los mercados exteriores, favorecido por la baratura de su producción doméstica, hizo que en las regiones de la isla especializadas en su elaboración se condicionara la distribución del trabajo, se alteraran los ciclos vitales y se modificara la composición de los hogares.

Fuentes documentales

- ARCHIVO DE LA REAL SOCIEDAD ECONÓMICA DE AMIGOS DEL PAÍS DE TENERIFE (ARSEAPT). Fondo de la Real Sociedad Económica de Tenerife. *Padrones de habitantes de Tenerife (1778-1780)*. Signaturas: RS21, RS22, RS23.
- INSTITUTO NACIONAL DE ESTADÍSTICA. CENSO DE 1787. FLORIDABLANCA. TENERIFE. MADRID, 1987.
- ESCOLAR Y SERRANO, Francisco. *Estadística de las Islas Canarias (1793-1806)*, Hernández Rodríguez, Germán (ed). Las Palmas de Gran Canaria: CIES, vol. III, 1983.

Bibliografía

- ARBELO GARCÍA, Adolfo. 2004. Aproximación al estudio de los desahucios de arrendatarios y medianeros en el mundo rural tinerfeño (1770-1833). *XV Coloquio de Historia Canario-Americana*: 481-499.
- ASCANIO SÁNCHEZ, Carmen. 2002. La mujer en el medio rural grancanario. Enfoques y sistemas de invisibilidad. *XIV Coloquio de Historia Canario-Americana*: 1779-1792.
- ATKINSON, Paul. 2012. Isn't it time you were finishing? Women's Labor Force Participation and Childbearing in England, 1860–1920. *Feminist Economics* 18: 145-164. DOI: <https://doi.org/10.1080/13545701.2012.725942>
- BARBERO, Paula. 2024a. Trabajo y educación infantil en el mundo rural de Tenerife al final del siglo XVIII. *Ohm: Obradoiro de Historia Moderna* 33: 1-28. DOI: <https://doi.org/10.15304/ohm.34.10016>
- BARBERO, Paula. 2024b. *La Historia de la Familia en Tenerife al final del Antiguo Régimen*. Tesis doctoral, Universidade de Santiago de Compostela.
- BARBERO, Paula. 2022. Las nodrizas de los niños expósitos en Tenerife (siglos XVIII–XIX). En BARBERO, Paula; BARRENA GÓMEZ, Ana; LIZARDO, Rich (eds), *Hospitales durante el Antiguo Régimen: Instituciones benéfico-asistenciales, siglos XV–XIX*. Palermo: Palermo University Press, 247-263.
- BARBERO, Paula. 2020. Análisis de la mortalidad de los niños expósitos en Tenerife, siglos XVIII–XIX. *Revista de Demografía Histórica* 38(2): 7-34.

- BORDERÍAS, Cristina. 2012. La reconstrucción de la actividad femenina en Cataluña circa 1920. *Historia Contemporánea* 44: 17-47.
- BORDERÍAS, Cristina; FERRER-ALÒS, Llorenç. 2015. Hogar e industria textil. Mercado de trabajo y estrategias familiares en Catalunya (1900–1936). *Historia Social* 81: 3-27.
- BORDERÍAS, Cristina; PÉREZ-FUENTES, Pilar; SARASÚA, Carmen. 2014. La desigualdad en el consumo familiar. Diferencias de género en la España contemporánea (1850–1930). *Áreas: revista internacional de ciencias sociales* 33: 105-120.
- BORDERÍAS, Cristina; VILLAR, Conchi; GONZÁLEZ-BAGARIA, Roser. 2011. El trabajo femenino en la Cataluña industrial (1919–1930): una propuesta de reconstrucción. *Revista de Demografía Histórica* 29(1): 55-88.
- BORRÁS-LLOP, José María (ed). 2013. *El trabajo infantil en la España contemporánea (1750–1950)*. Barcelona: Icaria Editorial.
- BRITO GONZÁLEZ, Oswaldo. 1983. *Algunos estudios sobre el tránsito del Antiguo Régimen en Canarias*. Santa Cruz de Tenerife.
- CAMPOS LUQUE, Concepción. 2014. La tasa de actividad femenina a mediados del siglo XIX en Andalucía: el caso de Antequera. *Investigaciones de Historia Económica* 10(3): 191-201. DOI: <https://doi.org/10.1016/j.ihe.2013.08.003>
- CARMONA BADÍA, Joam. 1990. *El atraso industrial de Galicia: Auge y liquidación de la manufactura textil, 1750-1900*. Barcelona: Ariel.
- CARRASCO, Cristina; BORDERÍAS MONDJAR, Cristina; TORNOS MARTÍN, Teresa (coords). 2011. *El trabajo de cuidados. Historia, teoría y políticas*. Madrid: Los Libros de la Catarata.
- CODERCH FIGUEROA, Mercedes. 1975. *La evolución de la población de La Laguna entre 1750-1860*. La Laguna: Instituto de Estudios Canarios.
- COLOMÉ FERRER, Josep. 2024. Trabajo agrario femenino en Cataluña, 1830-1930. Fuentes, métodos y aproximaciones. *Historia Agraria* 90: 27-64. DOI: <https://doi.org/10.26882/histagrar.093e04c>
- DÍAZ FRÍAS, Nelson. 1996. *Historia de la playa de Los Cristianos*. La Laguna: Centro de la Cultura Popular Canaria.
- DUBERT, Isidro. 1992. *Historia de la familia en Galicia durante la época moderna, 1550-1830 (estructura, modelos hereditarios y conflictividad)*. A Coruña: Edicións do Castro.
- DUBERT, Isidro; MUÑOZ-ABELED, Luisa. 2014. Mercados laborales, profesiones y ocupaciones en la Galicia urbana del siglo XIX. *Revista de Demografía Histórica* XXXII(2): 127-158.
- ERICKSON, Amy. 2008. Married women's occupations in eighteenth-century London. *Continuity and Change* 23(2): 267-307. DOI: <https://doi.org/10.1017/S0268416008006772>
- FARIÑA PESTANO, Febe. 2014. Una visión ilustrada de Tenerife a fines del siglo XVIII: el padrón de habitantes promovido por la Real Sociedad Económica de Amigos del País de Tenerife en 1779. *V Jornadas de Genealogía de Arona*. Disponible en: <https://www.youtube.com/watch?v=m-4I9xvyTU0> [consulta: 8 de mayo de 2025].
- FERRER-ALÒS, Llorenç. 1994. Notas sobre la familia y el trabajo de la mujer en la Catalunya central (siglos XVIII-XIX). *Boletín de la Asociación de Demografía Histórica* XII(2-3): 199-232.

- GARCÍA PULIDO, Daniel. 2023. El papel de las mujeres en los primeros años de la RSEAPT. *Cliocanarias* 5: 31-41. DOI: <https://doi.org/10.53335/cliocanarias.2023.5.01>
- GARCÍA PULIDO, Daniel; GUZMÁN RODRÍGUEZ, José Manuel. 2014. Retazos históricos sobre Taganana: el padrón de 1779. En RODRÍGUEZ MORALES, Carlos (coord), *Homenaje a la profesora Constanza Negrín Delgado*. La Laguna: Instituto de Estudios Canarios, 233-248.
- GARRIDO-GONZÁLEZ, Luis. 2016. La tasa de actividad femenina en el siglo XVIII en dos municipios andaluces: Laujar de Andarax (Almería) y Úbeda (Jaén). *Economic History Research* 12: 144-153. DOI: <https://doi.org/10.1016/j.ihe.2015.08.001>
- GONZÁLEZ LOPO, Domingo Luis; SOBRADO CORREA, Hortensio. 2024/25. Niños y adolescentes gallegos en el mercado laboral de Lisboa durante el siglo XVIII. *Revista de Demografía Histórica* 43 (2): 12-40.
- GONZÁLEZ PORTILLA, Manuel; URRUTIKOETXEA LIZARRAGA, José; ZÁRRAGA SANGRÓNIZ, Karmele. 2003. *Vivir en familia, organizar la sociedad: familia y modelos familiares: las provincias vascas a las puertas de la modernización (1860)*. Bilbao: Universidad del País Vasco.
- HAJNAL, John. 1953. Age at Marriage and Proportions Marrying. *Population Studies* 7(2): 111-136. DOI: <https://doi.org/10.1080/00324728.1953.10415299>
- HENRY, Louis. 1970. *Manuel de démographie historique*. Genève/Paris: Librairie Droz.
- HERNÁNDEZ GARCÍA, Ricardo. 2013. Women's labor participation rates in the Kingdom of Castilla in the eighteenth century. *Feminist Economics* 19(4): 181-199. DOI: <https://doi.org/10.1080/13545701.2013.837579>
- HERNÁNDEZ GARCÍA, Ricardo. 2003. El trabajo en la industria textil de Tierra de Campos a mediados del siglo XVIII: la fábrica de Astudillo. En SARASÚA, Carmen; GALVÉZ, Lina (eds), *¿Privilegios o eficiencia? Mujeres y hombres en los mercados de trabajo*. Alicante: Universidad de Alicante.
- HERNÁNDEZ GONZÁLEZ, Manuel. 1990. La emigración americana y su influencia sobre la vida conyugal en Canarias durante el siglo XVIII. *Anuario de Estudios Atlánticos*: 353-376.
- HUMPHRIES, Jane; SARASÚA, Carmen. 2012. Off the record: reconstructing women's labor force participation in the European past. *Feminist Economics* 18(4): 39-67. DOI: <https://doi.org/10.1080/13545701.2012.746465>
- HUMPHRIES, Jane; WEISDORF, Jacob. 2014. The wages of women in England, 1260–1850. *Working Paper* 215: 1-43. DOI: <https://doi.org/10.1017/S0022050715000662>
- JOVER-AVELLÀ, Gabriel; PUJADAS-MORA, Joana. 2020. Mercado de trabajo, género y especialización oleícola: Mallorca a mediados del siglo XVII. *Historia Agraria* 80: 37-69. DOI: <https://doi.org/10.26882/histagrar.080e04j>
- LIVI-BACCI, Massimo. 1993. *Introducción a la demografía*. 4ª ed. Barcelona: Ariel Historia.
- LOPES, Maria Antónia. 2023. Mujeres urbanas y trabajo autónomo en la Edad Moderna portuguesa (Coímbra, 1500–1834). *Ohm: Obradoiro de Historia Moderna* 32: 1-26.
- LUIS YANES, María Jesús; LEÓN SANTANA DE, Juan Elesmí. 2011. Aproximaciones al estudio del Tegueste de mediados del siglo XIX a través de los amillaramientos. *Actas de las IV Jornadas Prebendado Pacheco de Investigación Histórica*: 499-532.

- MACÍAS HERNÁNDEZ, Antonio. 1992. *La migración canaria 1500-1980*. Colombres: Archivo de los Indianos.
- MONZÓN PERDOMO, María Eugenia; PÉREZ ÁLVAREZ, Ana Rosa. 2017. Comprar y vender en Canarias a fines del Antiguo Régimen. Aproximación al comercio al por menor en Santa Cruz de Tenerife (1750–1818). En HENAREJOS LÓPEZ, Juan Francisco; IRIGOYEN LÓPEZ, Antonio (coords), *Escenarios de familia: trayectorias, estrategias y pautas culturales, siglos XVI–XX*, 243-255.
- MUÑOZ NAVARRO, Daniel. 2023. Las mujeres del mercado. Abasto, emprendimiento y trabajo femenino en la Valencia del siglo XVIII. *Ohm: Obradoiro de Historia Moderna* 32: 1-23. DOI: <https://doi.org/10.15304/ohm.32.8731>
- MUÑOZ-ABELED, Luisa. 2024. O traballo das mulleres na Galicia litoral contemporánea. En DUBERT, Isidro (ed), *Galicia, un mar con historia*. Vigo: Xerais, 347-367.
- MUÑOZ-ABELED, Luisa; TABOADA, María Salomé; VERDUGO MATÉS, Rosa. 2019. Determinantes de la participación femenina en el mercado de trabajo en la Galicia rural y urbana de 1924. *Historia Agraria* 79: 161-186. DOI: <https://doi.org/10.26882/histagar.079e06m>
- NÚÑEZ PESTANO, Juan Ramón. 2014. Campesinado, cambio agrario y usos comunales: la dehesa de La Laguna (Tenerife), 1498–1769. *Historia Agraria: Revista de Agricultura e Historia Rural* 64: 13-41.
- OGILVIE, Sheilagh Catheren. 2004. Women and labour markets in early modern Germany. *Jahrbuch für Wirtschaftsgeschichte, Economic History Yearbook* 45(2): 25-60. DOI: <https://doi.org/10.1524/jbwg.2004.45.2.25>
- OLIVA LÓPEZ, S. (coord). 2024. *El padrón de 1779 de Candelaria (Tenerife). Transcripción y estudio genealógico*. Santa Cruz de Tenerife: Le Canarien.
- PAREJA ALONSO, Aranza. 2006. La actividad laboral y productiva de las mujeres bilbaínas en 1900. Una propuesta metodológica para su recuperación. *Vasconia* 35: 201-219.
- PÉREZ-FUENTES, Pilar. 2013. Women's economic participation on the eve of industrialization: Bizkaia, Spain, 1825. *Feminist Economics* 19(4): 160-180. DOI: <https://doi.org/10.1080/13545701.2013.834068>
- PÉREZ-FUENTES, Pilar. 1995. El trabajo de las mujeres en la España de los siglos XIX y XX. Consideraciones metodológicas. *Arenal* 2(2): 219-245.
- QUINTANA ANDRÉS, Pedro; JIMÉNEZ MEDINA, Antonio. 2022. Cultivo y elaboración artesanal del lino en Gran Canaria (siglos XVIII y XIX). *El Pajar: Cuaderno de Etnografía Canaria* 36: 269-279.
- RAMÍREZ GARCÍA, Juan Carlos. 2020. *El padrón de habitantes del Puerto de la Cruz de La Orotava del año 1779: Análisis estadístico*. Independently published.
- RAMÍREZ MESA, Eva María. 1993. *Mujer y trabajo en Tenerife a finales de la Edad Media*. Memoria de licenciatura, Universidad de La Laguna.
- REY CASTELAO, Ofelia. 1994. Mujer y sociedad en la Galicia del Antiguo Régimen. *Ohm: Obradoiro de Historia Moderna* 3: 51-70.
- REY CASTELAO, Ofelia; RIAL GARCÍA, Serrana. 2009. *Historia de las mujeres en Galicia. Siglos XVI al XIX*. Vigo: Nigratrea.

- RIAL GARCÍA, Serrana. 2009. Trabajo femenino y economía de subsistencia: el ejemplo de la Galicia moderna. *Manuscripts* 27: 77-99.
- RIAL GARCÍA, Serrana. 2003. *El trabajo de las mujeres del campo en la Galicia moderna*. Madrid: AEIHM.
- RODRÍGUEZ MENDOZA, Félix. 2004. *La emigración del noroeste de Tenerife a América durante 1750-1830*. Tesis doctoral, Universidad de La Laguna.
- SAAVEDRA, Pegerto. 1989. Industria textil rural e cambios demográficos na Galicia cantábrica, 1750-1860. *Grial: Revista Galega de Cultura* 102: 237-257.
- SANTANA PÉREZ, Germán. 1997. Las vendederas de Gran Canaria durante el reinado de Felipe IV. En MILLARES CANTERO, Agustín; LOBO CABRERA, Manuel; ATOCHE PEÑA, Pablo (coords), *Homenaje a Celso Martín de Guzmán (1946-1994)*. Las Palmas de Gran Canaria, 405-412.
- SARASÚA, Carmen. 2023. Rural Manufactures. En MACLEOD, Catorina; SHEPARD, Alexandra; ÅGREN, Maria (eds), *The Whole Economy: Work and Gender in Early Modern Europe*. Cambridge: Cambridge University Press, 115-135. DOI: <https://doi.org/10.1017/9781009359344.006>
- SARASÚA, Carmen. 2018. Women's work and structural change: occupational structure in eighteenth-century Spain. *Economic History Review* 71(2): 437-466. DOI: <https://doi.org/10.1111/ehr.12733>
- SARASÚA, Carmen. 2013. ¿Activos desde cuándo? La edad de acceso al mercado de trabajo en la España del siglo XVIII. En BORRÁS-LLOP, José María (ed), *El trabajo infantil en España (1700-1950)*. Barcelona: Universitat de Barcelona.
- SARASÚA, Carmen; GÁLVEZ, Lina (eds). 2003. *¿Privilegios o eficiencia? Mujeres y hombres en los mercados de trabajo*. Alicante: Universidad de Alicante.
- SCHMIDT, Ariadne; VAN NEDERVEEN MEERKERK, Elise. 2012. Reconsidering the first male-breadwinner economy: women's labor force participation in the Netherlands, 1600-1900. *Feminist Economics* 18(4): 69-96. DOI: <https://doi.org/10.1080/13545701.2012.734630>
- SOLÀ I PARERA, Maria Àngels. 2009. Las mujeres como productoras autónomas en el medio urbano (siglos XIV-XIX). En BORDERÍAS, Cristina (ed), *La historia de las mujeres: perspectivas actuales*. Barcelona, 225-267.

Anexo estadístico

TABLA 1. Tasas de actividad por tramos de edad en el mundo rural de Tenerife, 1779²⁶

Tramos de Edad	Población			Tasa de actividad		
	Masculina	Femenina	Total	Masculina	Femenina	Total
0-3	1296	1168	2464	0,1	0,0	0,0
4-6	1169	1185	2354	1,2	1,9	1,5
7-9	982	921	1903	9,2	11,4	10,2
10-12	1130	913	2043	35,5	43,7	39,2
13-15	1001	943	1944	64,8	73,0	68,8
16-19	1139	1250	2389	78,2	86,2	82,4
20-23	964	1240	2204	86,4	89,2	88,0
24-27	757	1043	1800	90,6	90,5	90,6
28-31	682	1117	1799	92,2	87,7	89,4
32-35	539	858	1397	90,7	86,6	88,2
36-39	447	781	1228	93,3	87,6	89,7
40-43	622	889	1511	89,2	86,2	87,4
44-47	485	751	1236	90,7	85,1	87,3
48-51	587	805	1392	88,2	83,2	85,3
52-55	330	488	818	90,0	82,6	85,6
56-59	292	452	744	87,0	80,5	83,1
60-63	353	510	863	83,0	73,5	77,4
64-67	197	311	508	82,2	65,0	71,7
68-71	174	267	441	63,2	50,9	55,8
72-75	91	135	226	56,0	50,4	52,7
76-79	56	77	133	50,0	40,3	44,4
80-83	39	55	94	38,5	27,3	31,9
84-87	18	13	31	33,3	38,5	35,5
88-91	7	11	18	14,3	9,1	11,1
92-95	3	3	6	33,3	33,3	33,3
96-99	0,0	1	1	0,0	0,0	0,0
100+	0,0	1	1	0,0	100	100
Total	9.913	12.914	22.827	78,0	79,7	79,0

FUENTE: ARSEAPT. *Padrones de Tenerife* (1779). Elaboración propia.

Notas

1. Archivo de la Real Sociedad Económica de Amigos del País de Tenerife (ARSEAPT), Fondo de la Real Sociedad Económica, *Padrones de habitantes de Tenerife* (1778-1780), signaturas RS21, RS22 y RS23. Las digitalizaciones de los tres tomos que componen el padrón se encuentran disponibles en: www.rseapt.es/es/archivo/padrones-de-habitantes-digitalizado.
2. Higa es una entidad administrativa histórica sita en el norte de Tenerife que corresponde actualmente al barrio de La Perdoma, ubicado en el municipio de La Orotava. Pero Higa en 1779 figuraba como jurisdicción menor con entidad propia, situada entre Los Realejos y La Orotava (fig. 1).
3. También incluye la villa marinera del Puerto de la Cruz, ubicada en la vertiente norte de la isla, aunque esta ha sido excluida del presente estudio por centrarse el mismo en el ámbito rural. No obstante, el análisis del trabajo femenino en el mundo urbano de Tenerife en 1779 y 1835 forma parte de nuestra tesis doctoral.
4. Instituto Nacional de Estadística. *Censo de 1787*. Floridablanca. Tenerife. Madrid, 1987.
5. Las transcripciones de los originales se han consultado gracias a la publicación de HERNÁNDEZ RODRÍGUEZ (1983).
6. Se ha optado por establecer el corte en el tramo de 10-59 años, al tratarse de la franja de edad en la que la participación laboral adquiere un peso significativo en el padrón de 1779, lo cual se sitúa en consonancia con el criterio empleado por gran parte de los especialistas a la hora de reconstruir las tasas de actividad femenina (SARASÚA y GÁLVEZ, 2003, p. 25; SARASÚA, 2013, p. 69; MUÑOZ-ABELED, 2024, p. 352).
7. En este cálculo se ha omitido a las personas que no declararon su edad. Esta exclusión no altera significativamente los resultados, ya que las tasas masculinas solo varían en torno al 78,8%, y la tasa total llega al 79%.
8. *Estadística de las Islas Canarias* (1805-1808).
9. Se ha calculado la soltería definitiva femenina a los 50 años a partir del número de solteras en los grupos de edad de 45-49 y 50-54 años que aparecen en los padrones de 1779. Para ello, aplicamos la metodología propuesta por HAJNAL (1953, pp. 112-118), también referida en otros trabajos que hemos consultado, caso de HENRY (1970, pp. 62-67) y LIVI-BACCI (1993, p. 207).
10. *Estadística de las Islas Canarias* (1805-1808).
11. Las tasas de actividad para todos los tramos de edad se presentan en la tabla 1 del Anexo.
12. El análisis del trabajo infantil en el mundo rural de Tenerife según el padrón de 1779 fue publicado en *Ohm: Obradoiro de Historia Moderna*, en el número 33, mientras que el correspondiente al ámbito urbano en 1779 y 1835 puede consultarse en nuestra tesis doctoral.
13. Las mujeres que trabajaban en el mundo rural isleño en 1779, sabemos de ellas que un 45,1% estaban casadas, un 44,2% eran solteras y un 10,7% viudas; cifras que contrastan con las de los varones, entre los cuales predominaban los casados (58,8% del total), seguidos de los solteros (38%) y con una presencia mínima de viudos (3,1%).
14. La clasificación de las categorías socioprofesionales se han adaptado a las ocupaciones registradas en el padrón de 1779.

15. *Estadística de las Islas Canarias* (1805-1808) (HERNÁNDEZ RODRÍGUEZ, 1983, p. 125).
16. *Estadística de las Islas Canarias* (1805-1808) (HERNÁNDEZ RODRÍGUEZ, 1983, p. 46).
17. *Estadística de las Islas Canarias* (1805-1808).
18. ARSEAPT. *Padrón de Tenerife* (1779), sig. RS21, f. 215r.
19. *Estadística de las Islas Canarias* (1805-1808) (HERNÁNDEZ RODRÍGUEZ, 1983, p. 107).
20. ARSEAPT. *Padrón de Tenerife* (1779), sig. RS22, f. 216r.
21. ARSEAPT. *Padrón de Tenerife* (1779), sig. RS23, f. 230v.
22. ARSEAPT. *Padrón de Tenerife* (1779), sig. RS22, f. 227v.
23. *Estadística de las Islas Canarias* (1805-1808) (HERNÁNDEZ RODRÍGUEZ, 1983, p. 72).
24. Bajo la clasificación «dedicadas a tareas agrícolas auxiliares» en realidad el padrón de 1779 se refería «hacer huertas, sembrar, cavar, coger yerba, sembrar parras, fabricar tierras, espigar y escardar».
25. *Estadística de las Islas Canarias* (1805-1808).
26. Tasas calculadas sobre la población con edad declarada y al menos con una actividad remunerada.

Female Artisans and Freedom of Trade in Southern Sweden, 1840-90

Johanne Arnfred 

ABSTRACT: *In Sweden, the number of single women increased during the 19th century. Legal changes partly aimed at giving women more ways to earn a living were enacted, which gradually opened up the artisan trades to female entrants. By using establishment censuses, this paper examines how the number of women engaged in the artisan trades changed in four towns in southern Sweden during the second half of the 19th century, after the legal changes took effect. The findings show that, while ownership increased in one town, the share of female ownership did not systematically increase, nor increase in proportion to the number of unmarried women across the four towns. This indicates that the laws did not have the intended effect, and that other barriers to entry existed. However, the number of female artisan employees did increase, which resulted in more women in the sector by the end of the period. (JEL CODES: J16, K20; N63; N93)*

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Mujeres artesanas y libertad de comercio en el sur de Suecia, 1840-90

Johanne Arnfred 

RESUMEN: *En Suecia, el número de mujeres solteras aumentó durante el siglo XIX. Con el fin de incentivar nuevas maneras de ganarse la vida, hubo cambios legales que intentaron aumentar gradualmente el acceso de solteras a trabajos artesanales. Este artículo examina cómo evolucionó el número de mujeres en trabajos artesanales en cuatro ciudades del sur de Suecia a lo largo de la segunda mitad del siglo XIX, cuando los cambios legales fueron introducidos. Usando censos de establecimientos de la época, los resultados muestran que, aunque el porcentaje de mujeres propietarias aumentó en una de las ciudades, este no aumentó sistemáticamente ni estaba relacionado con el número de mujeres solteras en las ciudades examinadas. La política, por lo tanto, no tuvo el efecto deseado, señalando otras barreras de entrada. No obstante, el número de mujeres empleadas en la artesanía creció, aumentando el número de mujeres en el sector al final del periodo.*

(CÓDIGOS JEL: J16; K20; N63; N93)

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Introduction

As in much of northern Europe, Sweden saw an increase in the number of unmarried women from the pre-industrial period onwards. The surplus of unmarried women was seen as a problem for society, because while single men were considered able to provide for themselves, unmarried women potentially needed support (Carlsson, 1977, pp. 12-13; Qvist, 1960, pp. 117-119)¹. To solve the problem, new laws regulating ownership of artisan businesses included provisions aimed at increasing access to the artisan trades for women. These laws went into effect in 1847 and 1864, incrementally increasing the possibility for women, married or unmarried, to open and run an artisan workshop. We know from previous research that the total number of artisan workshops increased during this period (Söderberg, 1955), but less is known about how the legal changes affected the number of female proprietors. Previous research has noted that the number of women workshop owners did not grow significantly, but none providing empirical evidence covering both legal changes².

This paper explores the development of female artisan proprietors in Helsingborg, Karlskrona, Landskrona, and Lund in southern Sweden. The period of study is 1840-90, starting just before the first legal change, and ending at the breakthrough of industrialisation in Sweden. The paper finds that the laws had little effect, but in considering changes at the workshop level over a longer period, it adds to our understanding of how development could have differed at the town level, due to demographic differences.

Even though much of women's work was "hidden" and does not therefore appear in the sources (Baigent, 1988; Humphries & Sarasúa, 2012), we can use the so-called craft censuses compiled by the Swedish Board of Trade (*Kommerskollegium*) to follow its development. At the national level, statistics published annually first independently as a series called Factories and manufactories (*Fabriker och manufaktur*) and later as part of the Contribution to Sweden's official statistics series (*Bidrag till Sveriges Officiella Statistik*, BiSOS), allow us to study the gender composition of artisan proprietors from 1847 onwards. Figure 1 shows the reported number of female owners of artisan workshops, the percentage share of female workshop owners, and the percentage share of female employees. Both the total number of female-owned workshops and the percentage of female proprietors declined in the years following 1847. From 1864, the total number of female-owned workshops began to rise, but the percentage of female proprietors stabilised, showing only a gradual increase. However, a different trend can be seen in the number of female workers in the artisan trades: although we only have the numbers from 1866, there is an apparent increase in the percentage of female workers from that year onwards, rising from just over 2% of the total number of employees in 1866 to over 9% in 1890.

These results seem to evidence that, considered at the national level, the changes in legislation of 1847 and 1864 did not have the desired effect with regard to giving more women the opportunity of entering the artisan trades as a workshop owner—or at least that the effect was significantly delayed, with the number of men opening a workshop being much more immediately affected. But how did it look in the years before the legislation change of 1847, when

the owner's gender was not recorded in the aggregate statistics? Furthermore, were there any differences at the town level?

To answer these questions, this paper uses the primary sources of the Board of Trade, which list the owner of each workshop. It also examines the development in four towns in southern Sweden, chosen on the basis of their distinctive characteristics. To provide demographic and occupational context, this paper also draws upon population censuses from the Statistical Committee (*Tabellverket*).

FIGURE 1. Female owners and workers in artisan workshops in Sweden, 1847-90.



SOURCE: Fabriker och manufakturier and BiSOS D Fabriker och manufakturier. Author's own calculations.

Before moving on to an overview of previous studies of women's work in Sweden, a few words about the definition of the term "artisan" as used in this paper. The data is based on the Swedish craft censuses collected by the Board of Trade, and therefore the definition of "artisan" follows the categorisation used in those sources, and their differentiation between artisan trades and factory production was that the former were traditionally controlled by guilds. In this paper, therefore, the listed owner of a workshop will be referred to as "artisan" or "proprietor", whereas his or her workers will be referred to "artisan workers" or "artisan employees".

Furthermore, if a workshop is registered under a new owner, it will be counted as a new workshop, even if it is a widow taking over a late husband's business. The categories for marital status are also based on the sources. The categories used by the Board of Trade and the Statistical Committee are not exactly the same, but both use *unmarried*, *married*, *widowed*, and *divorced*. In addition, The Board of Trade lists female individuals as, for instance, "maid" (*piga*), or uses other titles implying that the women were unmarried, such as "miss" (*fröken*, or *mamsell*); however, the Board of Trade does not apply these terms as systematically as the Statistical Committee, and some individuals do not have any title. In both series,

the “unmarried” category only contains those who *never* married; this is how the term will be used throughout this paper when discussing the data.

Women and work in Sweden

Although this paper is concerned with women’s participation in the artisan trades, it is also of interest to know what other work they could get. The most common occupation for unmarried women was being a maid (Jonsson and Sandgren, 2018); this reflects how women worked in trades which required little or no training (Ericsson, 1988, p. 76; Bladh, 1996, p. 40; Vikström and Ericsson, 2012, p. 417) or drew on skills learned in the family home (Baigent, 1988). Women living in pre-modern towns could often get unskilled work at low rates of pay, such as cleaning the streets, or working in connection with the building trades (Stadin, 1980). Although the variety of work available to poor or lower-middle-class women broadened with time, the requirement of training remained rare (Baigent, 1988). The most common jobs for unmarried women of the middle class and bourgeoisie, meanwhile, were as governesses or companions, which slowly expanded to include careers as nurses, teachers, or social workers (Widerberg, 1980, pp. 40-43). Furthermore, factories and industrialisation slowly affected women’s work; Jonsson and Sandgren (2018) find that the regions with lower shares of maids were those with more industrial enterprises, particularly in the textile industry, or in more “commercially developed” towns such as Stockholm (p. 74-75).

As well as learning skills at home, women could learn or improve skills by attending vocational training courses. Although most of these vocational schools offered courses only for men, at least a few aimed also at women; dairy schools had a high percentage of female participation, and the same was seen at a telegraph operator school. Trade courses also tended to attract a higher share of women, while from 1858, women could enrol at the Technical School of Women in Stockholm (Nilsson, 2008, pp. 106, 171, 186).

Bladh (1997) finds that the changing views on women in the 19th century meant that it became more appealing for unmarried women to work as employees – i.e. in a position that could be terminated when they married – rather than as proprietors. As such, the second half of the 19th century provided an increased potential for female employment due to industrialisation, and the emergence of new skilled jobs with training aimed at women. Employment was also less of an economic risk than opening a business (Bladh, 1997, pp. 128, 139, 141), further increasing its appeal.

However, not all women earned a living as employees. To run a restaurant or inn was considered acceptable work, and research on the Swedish towns of Örebro and Västerås shows that many women were running such establishments (Lunander, 1988, p. 90; Artæus, 1992, p. 155); indeed, some periods in Stockholm are heavily dominated by female owners (Bladh, 1996, p. 55).

Another way to start a business was in retail, and here women became active in much higher numbers (Sundin 1988; Ericsson, 1988; Lunander, 1988). A new regulation for shopkeepers

was included in the 1847 law; this did not affect the range of trades accessible to women, but it removed the need to apply for permission (Bladh, 1997, p. 131; Artæus, 1992, p. 38). For the town of Sundsvall in Sweden, Vikström and Ericsson (2012) found more women in the retail business (116) than in the artisan trades (40) during the period from 1860 to 1893 (pp. 417-418).

Women's access to the artisan trades

As in much of Europe, Swedish women had largely been excluded from the artisan trades by the guilds, which controlled the market when it came to ownership and training through apprenticeship (Ogilvie, 2004). In addition, widows were the only Swedish women who had economic independence at the beginning of the 19th century; everyone else was—at least in theory—under the guardianship of a man (Bladh, 1997; Ighe, 2007). As in many other guild-controlled countries, it was also only as widows that women could own an artisan workshop, and only then if inheriting it from her late husband. Some businesses were already open to women before the mid-19th century, mainly based on local demand, and often connected to textile production; these were commonly aimed at poor women and widows (Widerberg, 1980, p. 44). Allowing women into the artisan trades had already been attempted around 1809 (Qvist, 1960). In 1828, however, a royal decree opened up some trades: butchery, bakery, and brewery were relieved of guild restrictions, thus allowing women to enter (Qvist, 1960, p. 222).

The discussions leading up to the legislative change were not only driven by the need to create more work opportunities for women; there was also a more general movement towards freedom of trade, and for abolishing the guild system (Lindström, 1929). As a result of this movement, the Factory and Handicraft Regulation (SFS 1846:39, *Fabriks- och hantverksordning*) was passed on 22 December 1846 and went into effect on 1 July 1847. With this law, women's access to artisan trades improved, but it was still regulated: to open a workshop, a woman had to be over 25 years old, and be either unmarried, widowed or divorced, or have permission from her husband if married; she—just like the men—would also have had to take a proficiency test within certain trades. The Factory and Handicraft Regulation also made it possible to open an artisanal business as a so-called “self-employed”. This made it easier for even more people to practice as artisans, but it still came with some restrictions: the self-employed were not allowed to hire workers, though they were allowed to get help from family members (Edgren, 1996, p. 21)³.

The next stage of commercial loosening was the Decree of Extended Freedom of Trade (SFS 1864:41, *Angående ut utvidgad näringsfrihet*), passed in 1864, which removed the most significant limitations remaining after the law from 1846. Primarily aimed at strengthening freedom of trade in general, it also had some impact on women's access to the artisan trades: both proficiency tests and “protection zones” around towns disappeared, and the latter resulted in a considerable increase in the number of workshops in the countryside in the following

years (reflected in Figure 1). Concerning female artisans in particular, the new law removed the need for a husband's permission and co-responsibility for a woman to run a business (Söderberg, 1955, p. 125); in other words, while the stated intentions of the legal changes were to open up opportunities for unmarried women in particular, they ended up affecting women more broadly.

Research on development in Sweden hints that abolishing the guilds did not do much to change the distribution of ownership; for a sample of female proprietors in 1860, Qvist (1960) mostly found widows registered (p. 301). This trend has been confirmed in studies by Lunander (1988) and Artæus (1992) who find that, by 1860, the only women registered as artisan workshop owners in the Swedish towns of Västerås, Örebro, and Nora were still widows. Meanwhile, Ericsson (2001) focuses on female retailers and artisans in northern Sweden from 1865 onwards, and finds that the largest category of female retailers and artisan proprietors in 1885 was "unmarried". It is, unfortunately, not clear if this would still be true if the artisan proprietors were considered in isolation.

Other barriers to entry in the artisan trades

The guilds were one of the most important gatekeepers of the artisan trades, particularly when it came to female participation. They were eventually abolished all across Europe, starting in France shortly after the revolution. But where the guilds the *only* barrier to entry in the artisan trades? Mordt (1993) studies how freedom of trade affected women in Norway, where the first legal change allowed widows and the unmarried above the age of 40 to open a workshop at around the same date as in Sweden⁴; she argues that this had a limited effect due to the high age requirement, and to the few opportunities for women to learn the necessary skills.

In other words, Mordt is indicating another barrier to entry: that of human capital, which was needed to do artisan work and run a workshop. Since women had not been allowed to be apprentices, they had to learn the trade in different ways—for example, as wives and daughters helping in family-owned businesses. That the artisan workshop was often a family business is well understood, and the role of women in most artisan trades was important (Pinchbeck, 1930, p. 282; Bladh, 1997, p. 134; Pihl, 2011, pp. 36-37); that a widow of an artisan could—sometimes quite successfully—continue her husband's business serves to strengthen the argument that they had gained skills from helping out in the workshop. However, it was not given that a widow would run a successful workshop; Artæus (1992) concludes that only widows who either took over a well-established workshop with several employees, or who had grown sons, could effectively continue the dead husband's trade for an extended period (p. 154). Given that family was important for successfully running a male-owned artisan workshop, it could be argued that the same would likely apply to one owned by a woman. Unfortunately, this remains conjectural, as the family's role in female-owned workshops has not been researched to the same extent.

While a woman might have helped out as a child or a wife to an artisan, opening a workshop of her own would have required more than just skills: it might not have been as expensive as setting up a proper factory, but it still required tools, space, and raw materials (Sundin, 1988, p. 5). Skarin Frykman (1985) finds that the bakeries in Gothenburg at the end of the 19th century were predominantly female-owned, and argues that this was due to bakeries being a relatively cheap business to start up and run: all it required was access to an oven, and most women already knew how to bake (pp. 169-170).

Lastly, social expectations and norms were a barrier to entry. Not only were some jobs considered improper for women of a given class, it might also have been problematic for women to work at all, regardless of the trade in question. The idea of “separate spheres” with regard to the role of women has been a contested topic. In the case of Sweden, it is often argued that the role of women as mothers and housewives became more important during the 19th century, particularly among the middle class (Bladh, 1997). The legal changes discussed in this paper could be seen as a movement in the opposite direction—i.e. towards a society less divided by gender—but the “separate spheres” concept could provide a partial explanation of why the changes did not have the desired effect.

In all, it seems clear that there were barriers to entry other than the guilds, and that these were likely to affect the development of females in the artisan trades. But what other possibilities were available to women in need of an income?

Expectations based on previous research

Securing access to new ways of earning a living for a greater number of women, and particularly for widows and the unmarried, was one of the motivations for increasing freedom of trade in Sweden. If one only looked at the legislative changes, it would be logical to expect a high increase in women entering the artisan trades after 1847 and 1864. The first legal change mostly influenced the possibilities of the unmarried and widows, with the latter now permitted to open a workshop of their own. Married women could also become artisan proprietors provided their husband gave permission; with the law of 1864, this requirement for permission was removed. However, women already often ran and worked in businesses that required little training, in contrast to most artisan trades—and although previous studies have shown an increase in the number of women involved in retail trade in Swedish towns, we see a different trend in artisan trades. If the focal idea is that of the artisan workshop as a household project, the likelihood of women opening a workshop would be lower. This is especially true for single, child-free women, as married and widowed women could still receive help in the workshop from their husband or children.

The argument that women of this period often worked with skills they had learned at home will be tested in the findings section. Before the findings, however, comes a short introduction to the towns under study, and to the data and methods that this paper builds on.

Data and methods

In the study of artisanal development in Sweden, the most common approach has been to use industrial statistics, population records, or some combination of the two. This approach is applied at the town level across one or more towns, taking a quantitative approach with descriptive statistics⁵—much like the approach of this paper. There follows first a discussion of the towns under study.

Helsingborg, Karlskrona, Landskrona, and Lund

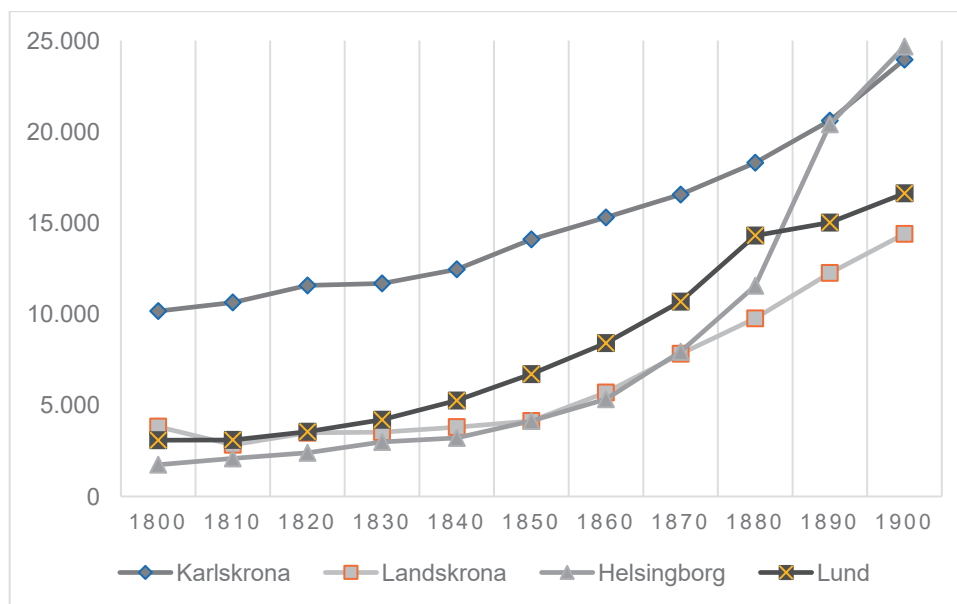
By working at the town level, we can get a more nuanced picture of any changes that might occur, and of how they relate to the demographic and occupational composition of each town. Four towns have been selected to explore the development of female participation in the artisan trades: Helsingborg, Karlskrona, Landskrona, and Lund. They were chosen primarily on the basis of an expected economic and demographic differentiation; in addition, they are all in southern Sweden, which was a requirement of the grant that supported this data work. They are not necessarily seen as representative of Swedish towns in general, but rather as examples of how development differed between towns of different sorts—a detail that gets lost when looking only at aggregate numbers.

Helsingborg, Karlskrona, Landskrona, and Lund were four among the 34 Swedish towns with more than 2,000 inhabitants in 1840. If including the naval parish—which was not included in the craft censuses—Karlskrona was one of the bigger towns in the country, whereas the rest had an average size. (Stockholm was by far the largest town at this time, with 84,161 inhabitants in 1840.)

Helsingborg had a population growth higher than the average for the region, and for the whole of Sweden. At the beginning of the 19th century, it was a small town with just over 1,700 inhabitants. However, mid-century infrastructural improvements—including a proper harbour, and a connection to the spreading railroad network—drove growth, and by the end of the century, Helsingborg was the second-largest town in the county of Scania, with 24,670 inhabitants (Skansjö, 1997, p. 215-216). In the middle of the period under study, Helsingborg was still highly agrarian, characterised by trade and crafts that provided for the town's population and the surrounding areas (Johansson, 1992, p. 146). Helsingborg and Landskrona, located only approximately 25 km apart, had similarly sized populations for a long time, with Helsingborg eventually surpassing Landskrona in 1870 (Jönsson, 1995).

Previously a garrison town, and the second largest town in the region, Landskrona entered a period of decline at the beginning of the 19th century, only to grow again from the middle of the period (Skansjö, 1997, p. 216). Jönsson (1995) even calls the decades after 1800 a period of “deep depression” (p. 8), noting that while some attempts were made to improve conditions, including opening a new shipyard, the population only recovered the peak of 1800 forty years later, in 1840. Sugar production was one of the industries that managed to thrive in the town regardless (Jönsson, 1995, pp. 63-64, 104).

FIGURE 2. Population growth, 1800-90.



The figures for Helsingborg, Karlskrona, and Landskrona include the military parishes that belonged to these towns. These are not included in the empirical parts of this paper.

SOURCE: Historisk statistik för Sverige, Del 1. Befolkning (1969).

Karlskrona is the youngest of the four towns, having been founded in 1680 to serve as a maritime hub and a base for the navy. Of the four towns under study, it is the only one on the east coast, and the only one in Blekinge county rather than Scania. When including its naval parishes, Karlskrona was much bigger than the other towns under study, with more than 10,000 inhabitants in 1800; by 1900, however, Helsingborg had surpassed it in size. Due to special legislation, people employed by the navy had a right to practise crafts (Svensson, 2017, pp. 53-58). Lund had been a university town since 1668, but was still relatively small at the beginning of the period under study, with a wide variety of artisanal production and several merchants (Skansjö, 2012, p. 275). Lund's identity as a university town, filled with students and professors, often dominates descriptions, and some of the more prominent local companies (e.g. a book printer) were indeed connected to the university—but by no means all of them. The town grew gradually in the 19th century, becoming the second largest in Scania by 1861 (Rydenfelt, 1961, p. 28), and it became more industrialised after being connected to the railroad network in the middle of the period under study (Skansjö, 1997, p. 216).

One way to trace the economic development of these four towns is to examine the total taxation on artisan and factory production as reported by the Board of Trade. In 1850, all four towns showing a much greater volume of taxes being paid by artisan workshop owners than by factory owners: in Helsingborg, Landskrona, and Lund, the artisans as a group paid 3,5-3,9 times as much tax as the factory owners, while the artisans of Karlskrona were paying

five times as much. By 1890, however, this had changed: in Landskrona, the artisans now only paid 34% of the factory owners' tax, while in Helsingborg, it was 60%; Karlskrona still saw the artisans paying slightly more (20%), while in Lund, the total tax revenue for artisans was 87% higher than that of the factory owners. These numbers indicate that the development—and the relative importance—of the artisan trades differed between the towns as expected.

FIGURE 3. Map of southern Sweden with the four towns.



Data and linking

This paper is based on a quantitative examination, drawing mainly on the dataset SSweArt, which contains craft censuses collected by the Board of Trade⁶. The information includes town, trade, name of owner, number of employees, and tax for all registered artisans; from 1847, the owner's gender was recorded, but prior to this it was indicated either through marital title or by full first name being stated⁷. The information was collected locally by the magistrates and sent to the Board of Trade.

Data has been collected for the years 1840-90. There were 1440 observations of female-owned workshops during the years 1840-90 in the four towns. The female proprietors were linked manually for the whole period (1840-90). 341 unique, female workshop owners were identified. When linking, observations listed with only an initial one year and a matching full name the next or previous year have been linked if within the same trade and town. They have also been linked if there has been a maximum gap of one year between registration in the censuses. The main challenge with the linking has been that women's names—probably more than men—are prone to change in the sources: some might first be listed as a widow under their husband's name, but later be listed under their own. Although attention has been paid

to this issue when linking, there is a risk that it could cause an overestimation of the number of workshops and an underestimation of the average years in business.

The Statistical Committee's population censuses for 1850 have been used to provide a demographic context; they contain town-level information about employment, marital status, and the number of poor⁸. The censuses are divided into several parts, including statistics about the number of establishments and workers for different types of production, workers in different sectors, the poor, women, and the estates. Due to information being drawn from different parts of the census, the numbers might not always add up when presented in this paper.

The main concerns regarding the data are under-reporting, and the reporting of inactive businesses. It is difficult to say whether these problems would have affected women proprietors more or less than artisans in general. Another challenge with the craft censuses is that some trades were not included in the craft censuses prior to 1847, because they were not under guild control; instead, the number of workshops within each of these trades are listed separately for each town. Unfortunately, gender is not recorded for these trades; they are only listed as ungendered aggregates, and many of them disappear altogether from the censuses after 1847. Based on previous research, some of these trades could be expected to have a high concentration of female ownership, including restaurant owners, seamstresses, bakers, and brewers⁹. This was, however, not the case early in the period: there was no significant jump in the number of female ownerships between 1846 and 1847, which indicates that only very few workshops were owned by women in the trades that were moved onto the "craft census proper".

As discussed above, the law of 1847 also made it possible to register as a self-employed artisan; some of the trades that disappeared in 1847 were now listed under the self-employed category, but not in all towns. The gender of the owner is only listed for three of the towns in this study. The number of female self-employed was the highest in Karlskrona, reaching a high of 17 out of a total of 87 in 1864. In Helsingborg, there were far fewer self-employed, which resulted in a female share of 31% in 1851 due to the eight seamstresses registered; this dropped to 10% in 1864, both due to fewer women registered and an increase in male-owned workshops. Lund, meanwhile, had a low overall number of female self-employed, but a high number of males registered, reaching a total of 298 in 1864.; there was a maximum of five self-employed women per year during the period, resulting in a share between 1,4% and 3,1%. For Landskrona, the gender of the owner is not clear. Of the four towns, only Helsingborg listed seamstresses, although it seems likely that they were present in all towns. In general, women are found as self-employed in fewer different trades than the men are; in Helsingborg, the afore-mentioned seamstresses are frequent, while in Karlskrona it is bakers, and in Lund, bakers and brewers. Given the problem of seamstresses not being registered in all towns, the numbers are difficult to interpret.

After 1864, when the self-employed were no longer registered as such, there is no indication that they were instead systematically included in the proper craft census; to this can be added the problems with the registration of the self-employed discussed above. The women

working as self-employed, and the impact upon them of the changes to the legal code, are important aspects in trying to understand the artisan community during this period; even so, exploring these questions is beyond the scope of this paper and dataset. This paper will therefore only examine those women registered in the regular artisan censuses.

Some researchers have criticised the craft censuses as sources, because they contain fewer artisans than the population censuses of the same period, which leads them to conclude that the craft censuses are under-reporting the number of artisans (Söderberg, 1955). While this criticism might be valid, it is based on the total number of artisans, primarily men; a completely different picture emerges regarding the women registered as workshop owners in the craft censuses. In 1880, few women were listed as artisans in the population censuses, which are available online from this year¹⁰; when examining the entries, it becomes clear that Helsingborg and Karlskrona most often register women's marital title—if not a maid or wife—as a widow to a tradesman, which makes it impossible to tell whether they are active in the trade. If one looks only at the women registered as owners, Helsingborg has one woman listed, Karlskrona three, Landskrona one, and Lund four; the majority of all of these are listed as bakers. When female individuals from the craft censuses are sought by their names in the population census, however, only a few are found—which implies that the craft censuses do a better job of reporting on women artisans than the population censuses. This under-reporting of female artisans in the population censuses is also mentioned by Schön (1988, p. 95), which confirms that the craft census is—at least in this case—the better choice of the two.

Findings

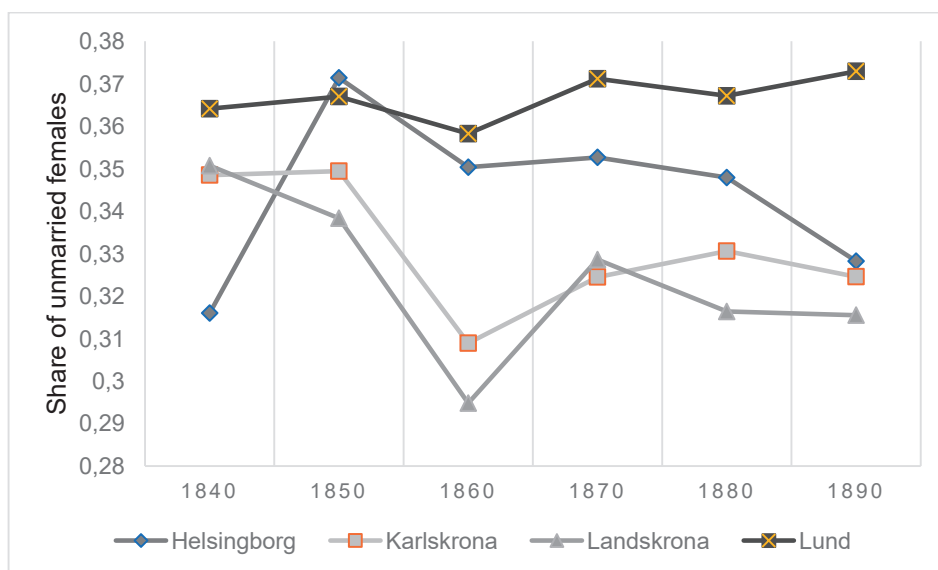
As argued above, demographic and employment structures of the four towns are a necessary context when studying whether the legal changes had the desired effect: to create income possibilities for more women, and especially the unmarried and widowed. First, however, an overview of the marital status of women during the period, followed by an examination of each town's characteristics based on the Statistical Committee's population census of 1850. Subsequently, findings related to female artisan proprietors in the craft censuses will be studied.

Women and work in the population censuses

Figure 4 shows how the share of unmarried women varied throughout the period. Although the difference in percentage points is not massive, Lund has a higher unmarried share than the other towns for most of the period. Helsingborg begins with a low share of unmarried women but soon rises, before beginning a slow decline. The patterns of Landskrona and Karlskrona are almost the opposite of that of Helsingborg; their unmarried share begins relatively high, only to see a drop in 1860, with Landskrona's share being a bit lower than that of Karlskrona.

It is worth noting that the number of women in Lund and Karlskrona is almost double that of Landskrona and Helsingborg at the beginning of the period under study, which results in a more significant number of unmarried women and widows. Overall, the share of unmarried women did not increase significantly during the period, even though the absolute number increased due to population growth. If we connect the aim of the legal changes (i.e. to make more work available for unmarried women) with these results, they indicate that Lund might have had the greatest need for opportunities, which could result in a more prominent increase in the number of female-owned workshops, compared to the other towns for most of the period.

FIGURE 4. Share of unmarried females, 1840-90.



Out of all inhabitants.

SOURCE: 1840-50 The Statistical Committee's population censuses, 1860-90 BiSOS A: Befolkningsstatistik.

A summary of the statistics related to how women made their living in 1850 can be seen in Table 1¹¹. When it comes to the unmarried, most of them have been accounted for in all towns. Unsurprisingly, a high percentage of maids in the unmarried group is apparent in all towns; on the other hand, the number of unmarried recorded as working in the artisan trades is either very low or zero. One category that varies between the towns is "other work"; here, it seems that Helsingborg and Lund had a more significant range of job possibilities for women. Although the literature often lists small-scale retail trading as an important way for many women to earn a living, this is impossible to identify from the population statistics, since they disappear into the "other work" category.

Overall, the number of widows not accounted for is much higher than for the unmarried, especially in Karlskrona and Helsingborg, where 49% and 44% are respectively listed in this category. The “continuing husband’s trade” category includes retail, factory production, restaurants, plus artisans and artists; however, the husband’s trade had been artisan or artistic production for all but one of the widows in this category¹². Regarding the widows, the group registered as doing “other work” was remarkably high in Lund and Landskrona.

Married women are mostly accounted for in the population censuses as wives to a husband within a trade¹³. The forms, however, account for the women working in a different trade than their husbands, and include those wives who lived alone. The first of these groups was recorded as either non-existent or incredibly small in 1850. The number of women who lived alone is more prominent, and while it is not clear how these women made a living, they could represent a group of married women who might need an income.

TABLE 1. Women’s way of making a living, by marital category, 1850.

	Helsingborg	Karlskrona	Landskrona	Lund
Unmarried, living on own means	8 (1%)	49 (4%)	26 (4%)	49 (4%)
Unmarried, retail and workshop worker	0 (0%)	11 (1%)	3 (0,5%)	2 (0%)
Unmarried, companion, governess and housekeeper	17 (2%)	38 (3%)	12 (2%)	74 (5%)
Unmarried, maid	392 (46%)	621 (50%)	335 (53%)	648 (46%)
Unmarried, other work	164 (19%)	94 (8%)	78 (12%)	247 (18%)
Unmarried, daughters >15 living at home	230 (27%)	331 (27%)	165 (26%)	347 (26%)
Unmarried, not accounted for	46 (5%)	95 (8%)	16 (3%)	33 (2%)
Widows, living on own means	42 (21%)	57 (15%)	30 (17%)	92 (28%)
Widows, continuing husband’s trade	8 (4%)	10 (3%)	13 (8%)	4 (1%)
Widows, retail and workshop workers	0 (0%)	12 (3%)	0 (0%)	0 (0%)
Widows, other work	63 (31%)	116 (30%)	98 (57%)	189 (59%)
Widows, not accounted for	90 (44%)	190 (50%)	31 (18%)	38 (12%)
Married, other trade than husband	0 (0%)	1 (0%)	0 (0%)	0 (0%)
Married, living alone	15 (3%)	6 (1%)	7 (2%)	29 (3%)

The data is based on women aged 15 and above. The number is the sum of women registered; the percentage in parentheses is the share of the individual marital status group.
SOURCE: The Statistical Committee’s population censuses, 1850.

For those who needed employment but could not find any, the last resort would be to get poor relief from the local community, or at a poor house. The Statistical Committee provides information about these individuals, too. In 1850, many more women than men received support. When looking at all four towns, most men (30 out of 31) were married and listed with

their spouses; by comparison, 405 unmarried women and widows were recorded as having received support. Of these women, a high number were registered in Karlskrona (201) and Helsingborg (133), whereas Landskrona had a more reasonable number (39) and Lund a very low one in terms of the size of the town (32). This could indicate that unmarried women were the most in need of help to earn a living, and that it was more difficult for that group to find work in Karlskrona and Helsingborg.

To summarise, Lund had a high ratio of unmarried women, but it was also the town where most of these (as well as the widows) were registered in the population census from 1850 as working. This could indicate that Lund had more possibilities for at least these women to earn a living, and that it was acceptable for them to work. In Helsingborg, it is indicated that a relatively high number of women worked, but it is unknown in what trades; at the same time, Helsingborg had a high number of unmarried women and widows who were registered as poor. Karlskrona is the town with the lowest percentage of unmarried women and widows working in 1850, driven mainly by very few unmarried women working. This might be connected to the high number of these receiving poor relief. Landskrona largely tracks the same developments as seen in Lund, albeit it at a lower level.

Women and work in the artisan trades

Whereas female artisans leave little mark on the population censuses, we find more information in the craft censuses. Of the 341 women in the dataset, 169 are registered as widows, 28 as wives, 11 as unmarried (*ogift*, *mamsell*, or *piga*); 133 are of unknown status¹⁴. This section will explore the development of female engagement in the artisan trades, focusing on how the legal changes affected the numbers.

Table 2 lists the trades for which the craft censuses account for any female owners, and the average years of registration of those owners in the craft censuses during the years 1840-1890¹⁵. As can be seen, the list is diverse and covers all significant trades—though Landskrona has notably fewer types of crafts, which corresponds with its low number of female artisans until the end of the 1870s (see Figure 5). Most trades listed only had a few proprietors at any given time, but as indicated by the average years in business, they would, in many cases, continue operating for at some years¹⁶. Examples include the widow Appelqvist from Landskrona, who continued her late husband's blacksmith shop during the years 1860-74, or Elna Ek from Helsingborg, who was registered as a glazier from 1862-90. The average number of years female proprietors were registered in the craft censuses is 4,8 years, while the average number of years registered for male and female owners in 1860 was 6,8, indicating that the male-owned workshop was slightly more viable.

Trades connected to food production are frequently registered under female ownership during this period. In Helsingborg, Landskrona, and Lund, the number of women engaged in these trades grew, whereas they fell in Karlskrona. Landskrona also saw a rise in women engaged in metalwork and the building trades, but this decreased at the end of the period.

TABLE 2. Number of female proprietors per trade and average years in business, 1840-90.

	Helsingborg	Karlskrona	Landskrona	Lund	Total
Bakers	7 (5,7)	38 (5,5)	9 (5,1)	51 (4,5)	105 (5,0)
Basket makers		1 (4)			1 (4)
Bookbinders	3 (7,3)	2 (6)		3 (4,3)	8 (5,9)
Brass casters		2 (1,5)			2 (1,5)
Brass workers		1 (5)			1 (5)
Brewers	4 (2,8)	16 (3,8)	1 (4)	10 (5,1)	31 (4,1)
Butchers	1 (3)	4 (5)		6 (8,2)	11 (6,5)
Cabinet makers	1 (2)	2 (3,5)	2 (1)	3 (3)	8 (2,5)
Candle-makers			2 (6)		2 (6)
Carders				1 (2)	1 (2)
Chamois makers		2 (2,5)			2 (2,5)
Coopers		4 (5)	1 (1)		5 (4,2)
Coppersmiths	1 (23)			1 (2)	2 (12,5)
Cork-makers	1 (5)			1 (2)	2 (3,5)
Dyers			1 (11)		1 (11)
Furriers	3 (4,3)	1 (4)		1 (5)	5 (4,4)
Girdle-makers	1 (8)				1 (8)
Glaziers	3 (11,3)	1 (12)		2 (4)	6 (9)
Glove-makers	10 (7,2)	2 (3)			12 (6,5)
Goldsmiths	1 (8)	1 (3)		1 (5)	3 (5,3)
Milliners	1 (3)	2 (12,5)	1 (1)	2 (2)	6 (5,5)
Joiners			1 (1)	6 (2,5)	7 (2,3)
Lace-makers	1 (3)	1 (2)			2 (2,5)
Masons	1 (2)	1 (1)		1 (4)	3 (2,3)
Painters	1 (1)	4 (2)	1 (16)	2 (3,5)	8 (4)
Pastry bakers		7 (3)	3 (3,3)	6 (2,7)	16 (2,9)
Pewterers				1 (7)	1 (7)
Ropemakers	2 (9)	2 (2)	3 (6)	1 (6)	8 (5,8)
Saddlers	1 (4)	2 (5)	4 (3,3)		7 (3,9)
Shoemakers	7 (3,9)	8 (3,9)	5 (2,2)	6 (8,7)	26 (4,7)
Sculptors		1 (2)			1 (2)
Smiths	2 (4)	2 (2)	3 (12)	3 (2,7)	10 (5,6)
Tailors		3 (7)	4 (2)	4 (3)	11 (3,7)
Tanners	4 (2,5)		2 (7)		6 (4)
Tile-makers		3 (6)		6 (6)	9 (6)
Tin smiths		3 (6)		4 (11)	7 (8,9)
Turners		1 (3)			1 (3)
Wagon-makers		1 (2)			1 (2)
Watchmakers				1 (2)	1 (2)
Wig-makers				1 (5)	1 (5)
Total	56 (5,7)	118 (4,6)	43 (4,7)	124 (4,8)	341 (4,8)

The average years in business is listed in parentheses.

SOURCE: SsweArt dataset.

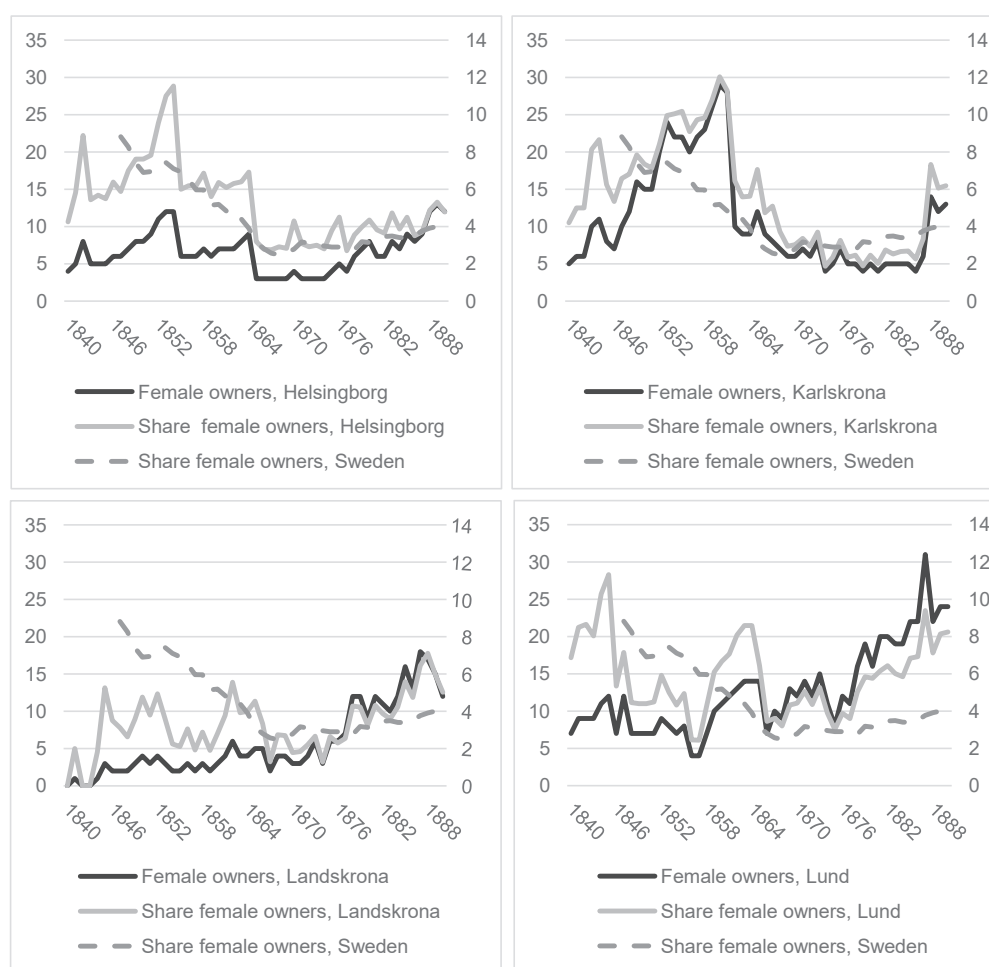
So, how was the number of female-owned workshops distributed during the period? To give an overview of the development, Figure 5 shows the absolute number and percentage share of female owners of artisan workshops for each town, and includes the national share for comparison. There are no clear trends regarding the number of workshops, apart from some increase at the very end of the period. Karlskrona, Helsingborg, and Lund each fluctuated around five to ten female-owned workshops leading up to 1847, but Landskrona shows much lower numbers than the other towns until 1864. Karlskrona's number increased significantly after 1847 and reached a maximum of 29 workshops in 1860, only to see a drop in the following years¹⁷. The increase would only be larger if we included the number of females registered as self-employed, as previously discussed.

In no individual town can we see any noticeable growth in numbers immediately after 1864. Instead, there is only a slow increase in Landskrona and Lund. From the mid-1870s, the number of female-owned workshops slowly increased in Helsingborg, Landskrona, and Lund, but Karlskrona only saw a rise in the last years of the period. The dominating positions of Karlskrona and Lund can, to some extent, be explained by the number of female bakery owners. Here, Karlskrona dominated until the late 1860s¹⁸, with Lund then taking over, rising from no female-owned bakeries in 1866 to a maximum of 24 in 1887¹⁹. With regard to the share of female owners, Karlskrona also had high numbers in the first part of the period, as well as in comparison to the national level. After the drop in the early 1860s, the share fell to that of the national level or a bit below, before seeing a small growth again in the end of the period.

More surprisingly, Helsingborg had a high share of female owners until 1864, due to a relatively low total number of workshops; this increase began before 1847 and peaked in 1854. Landskrona saw a similar increase starting before 1847, but this was less dominant than in Helsingborg. In Lund, meanwhile, the share of female-owned workshops was high in the first five years, but then saw a decrease until the mid-1850s, when the share surged again. After 1864, the Lund share went down fast, due to more male-owned workshops being registered, but only for a few years, after which the share of female owners grew, slowly but steadily, until the end of the period. As previously discussed, existing research has highlighted the role of widows as artisan proprietors after 1847. The results of this paper confirm the suggestion that many widows continued their late husband's trade—at least in the first half of the period, when we still know the marital status of most owners²⁰; this is illustrated in Figure 6, which shows the occurrence of each marital title by year²¹. The number of widows dropped drastically in the mid-1860s, to be replaced by a growing number of women with no marital title as registered in the census. It still seems clear that the aim of the 1847 legislation—to create more work possibilities for unmarried women and widows as artisan workshop owners—failed. Only 11 unmarried women are registered in the craft censuses, and although the number of widows saw some increase after 1847, it seems like many of these were artisan widows who already had the legal right to continue in the trade before the legal changes. Instead, there was an increase in the number registered as wives from around 1850 to 1860; this increase is mainly driven by Karlskrona, where several

wives are registered as bakers. After 1864, it is difficult to say anything concrete due to the uncertainty of marital status. Based on the results of Ericsson (1988), it could be expected that numbers of unmarried women would be higher toward the end of the period, but this is unfortunately difficult to confirm.

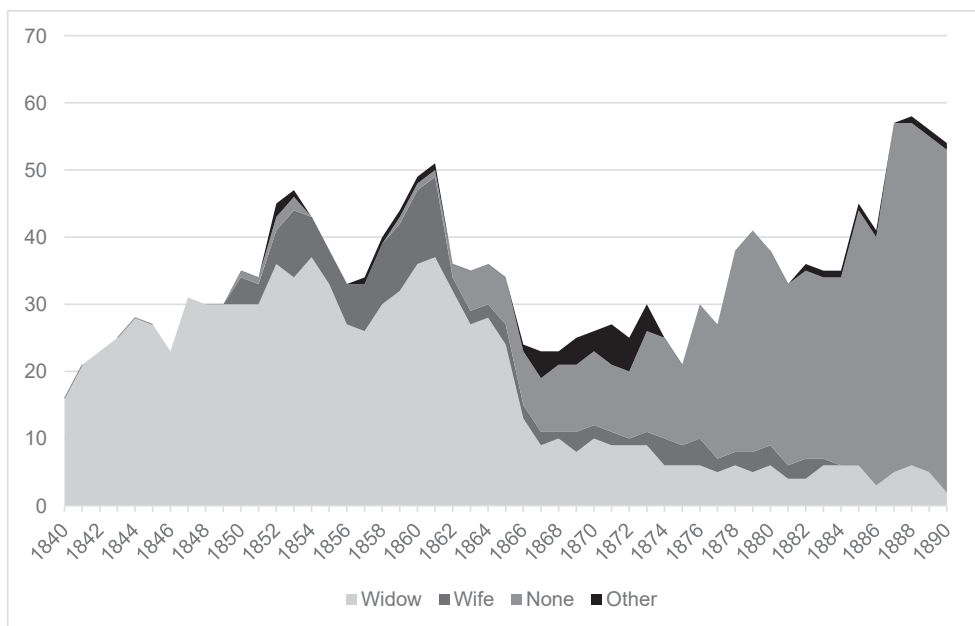
FIGURE 5. Number and percentage share of female owners in the four towns compared to national percentage share, 1840-90.



The absolute number of female-owned artisan workshops is indicated on the left-hand vertical axis, and the percentage share of female-owned workshops (for each town, and for the national level) is indicated on the right-hand vertical axis.

SOURCE: Number of workshops: SSweArt Dataset. National level of artisans 1847-57: Fabriker och manufaktur and 1858-90: BiSOS D Fabriker och manufaktur.

FIGURE 6. Marital titles of female proprietors, 1840-90.



The “other” category includes those with titles such as unmarried or maids.

SOURCE: SSweArt Dataset.

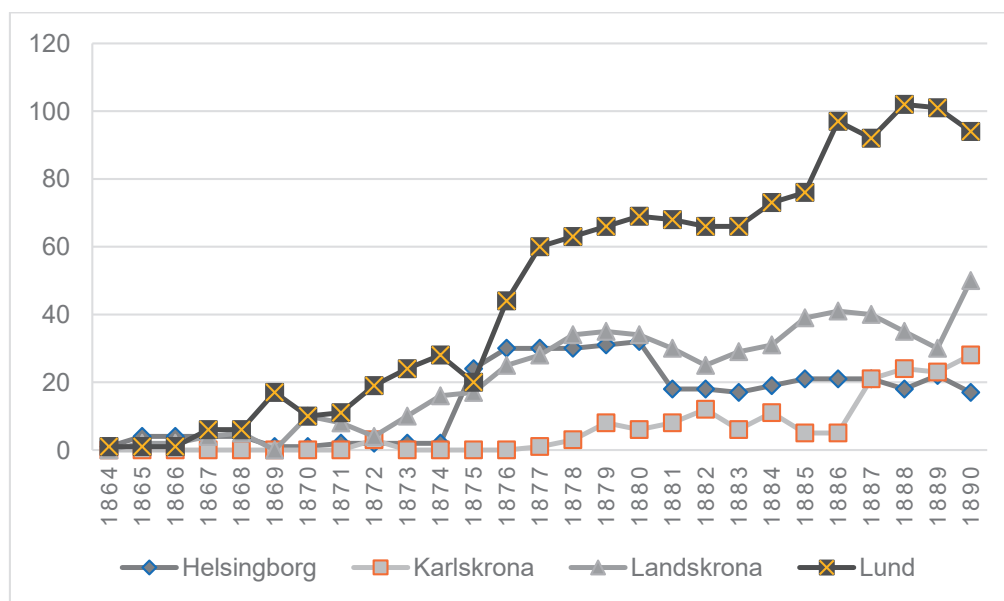
Figure 1, at the beginning of the paper, showed that the number of female employees increased at national level. How does this correspond to the development in the four towns? Figure 7 shows the absolute number of female employees, and we can see that Lund dominated the development, reaching 60 in 1877 and 102 by 1887. Karlskrona reached only 20 female employees by 1887, with a peak of 28 in 1890. Helsingborg and Landskrona both increased after 1875, with Helsingborg reaching a maximum of 34 in 1880, followed by a decline; Landskrona stayed stable at around 35-40 female employees until the end of period under study, with a maximum of 50 reached in 1890.

Previous research strongly suggests that, since baking was a skill which could be learned at home, bakeries were one of the trades in which women would likely engage. As well as being a trade with many female owners in Lund, it is also a trade in which many women were employed, especially in Lund: in 1870, 1880, and 1890, female bakery employees were recorded in all four towns yearly, except in Karlskrona during the first year. (1870 saw very few female employees, so this is not unexpected.) In Lund, almost 80% of all bakery employees were female, and Landskrona also saw growing numbers, with over 60% female employees the same year.

Otherwise, there are no clear general trends regarding exactly how women were employed, but we can see some patterns for the individual towns. In 1880 and 1890, quite a high number of women in Lund were employed by tailors (12 on the first date, ten on the second), and both

dates also saw women working in breweries, dairies, and pastry bakeries. In Helsingborg, the female employees were spread across a wider range of trades in 1880 and 1890: a reasonable number were employed by furriers (5) and glove makers (12) in 1880, while by 1890, only four were still employed as furriers, and all the women employed by glove makers had disappeared. Again, this indicates that women were employed in trades based on skills learned at home, such as sewing or cooking, echoing the results of previous research.

FIGURE 7. Number of female employees in artisan workshops, 1864-90.



SOURCE: SSweArt Dataset.

Conclusion

Even though the artisan trades were opened up with the good intentions of providing unmarried women a way to make a living, the reforms did not have any remarkable effect in the towns studied. After 1847 there was a rise in female-owned artisan workshops, mainly driven by Karlskrona, but this was due to an increase of wives registered as proprietors. (This might come as a surprise, were one to assume that running a workshop was a family venture, since businesses were more often registered in the man's name; however, we know very little about possible reasons for this to not be the case, nor what role the husband played in female-owned workshops, if any). Overall, there was only a modest rise in female ownership after the legal changes.

As on the national level, the pattern becomes even more apparent when we look at the share of female owners, which makes it clear that many more men than women entered the artisan trades in the years after the reforms; this indicates that barriers to entry other than the guilds affected women to a higher degree. Only at the end of the 19th century did more females enter the artisan trades as workshop owners in the four towns studied. Unfortunately, we do not know the marital status of many of the female proprietors in the second half of the period; as such, it is impossible to tell if the reformist intention to increase the number of *unmarried* women in the artisan trades was fulfilled, or whether it was women in general who took advantage of the new possibilities. This slow entry of women into the artisan trades could be due to several factors, with the most likely being that barriers to entry were still too high, whether in the form of the need for skills or capital, or due to the social acceptance of women in this type of business was still quite low. For many, making a living through small-scale street trading was easier and cheaper, as indicated by previous research.

When we look closer at the crafts where women are registered as owners, the most common is baking, which relates well with previous research; for the years available, the same pattern is seen for the self-employed women. However, female proprietors are found in a wide range of artisan trades in all four towns. Although many female-owned workshops are not connected to what is typically categorised as “women’s work”, women’s employment in the artisan trades shows a pattern of being connected to crafts that could have been learned at home, confirming results of previous research.

Lund stands out the most: it had a high ratio of unmarried women, but many of these—including the widows—were registered as working by the Statistical Committee in 1850. At the same time, few women in the town were registered as poor, which could indicate that it was easier here than in the other towns for a woman to find work. The high number of female employees in Lund could be seen as part of a bigger story about the higher social acceptance of women as proprietors and employees in this town. On the other hand, Helsingborg’s rapid growth and industrialisation gave women a different road to employment later in the period.

The different circumstances and developments in the four towns underline the advantage of studying developments at the town level. Even though there are differences, the paper confirms the picture seen at the national level: that a perceived problem with the high number of unmarried women was not easy to fix. Many other barriers existed for women in the period, and the artisan trades seems to have been one of the areas where it was difficult for women to enter, even after the abolishment of the guilds.

Primary sources

Unpublished sources

The Swedish National Archive, The archive of the Board of Trade (*Kommerskollegium*), Kammarkontoret:

- DA4/I2: FABRIKS- OCH INDUSTRIBERÄTTELSE, Fjärde serien 1863 – 1890 [Factory and industry accounts]
- DBI/54: BERÄTTELSE OM HANDLANDE OCH HANTVERKARE, Förste serien 1750 – 1890. [Accounts of traders and artisans]

Official statistics

- Commerce-collegii Underdåniga Berättelse om Fabrikernes och Manufacturernes ställning [Board of Trade's subservient account about the status of factories and manufactories]
- BiSOS A Befolkningsstatistik [Contribution to Sweden's official statistics A Population statistic]
- BiSOS D Fabriker och manufaktur [Contribution to Sweden's official statistics D Factories and manufactories]

References

- ARTÆUS, Irene. 1992. *Kvinnorna som blev över: ensamstående stadskvinnor under 1800-talets första hälft – fallet Västerås*. Uppsala: Uppsala universitet.
- BAIGENT, Elizabeth. 1988. Work, Family and Household: Women in Nineteenth-Century Vadstena. *Geografiska Annaler: Series B, Human Geography* 70(3): 335-352. DOI: <https://doi.org/10.1080/04353684.1988.11879577>
- BLADH, Christine. 1996. The guild system and female entrepreneurship: entrepreneurship as a survival strategy for women in preindustrial Stockholm. In *Aspects of women's entrepreneurship*. Stockholm: NUTEK, 27-62.
- BLADH, Christine. 1997. Kvinna med eget företag – från 1700-talets mitt till 1800-talets slut. In Ingrid HAGMAN (ed), *Mot halva makten*. Stockholm: Fritze, 127-142.
- CARLSSON, Sten. 1977. *Fröknar, mamseller, jungfrur och pigor – ogifta kvinnor i det svenska ståndssambället*. Uppsala: Acta Universitatis Upsaliensis.
- EDGREN, Lars. 1987. *Lärling – gesäll - mästare: hantverk och hantverkare i Malmö 1750–1847*. Lund: Dialogos.
- EDGREN, Lars. 1996. Från skråhantverk till näringsfrihet. In *Hantverk i Sverige – Om bagare, kopparslagare, vagnmakare och 286 andra hantverksyrken*. Stockholm: LTs förlag, 13-21.
- ERICSSON, Tom. 1988. *Mellan kapital och arbete: småborgerligheten i Sverige 1850–1914*. Umeå: Umeå universitet.
- ERICSSON, Tom. 2001. Women, family and small business in late nineteenth century Sweden. *History of the Family* 6:225-239. DOI: [https://doi.org/10.1016/S1081-602X\(01\)00068-9](https://doi.org/10.1016/S1081-602X(01)00068-9)
- FRITZELL, Yngve. 1973. Yrkesfördelningen 1840–1855 enligt Tabellverket jämfört med andra källor. *Statistisk Tidskrift* 11(5): 358-95.

- FRITZELL, Yngve. 1976. Yrkesfördelningen 1825–1835 enligt Tabellverket och andra källor. *Statistisk Tidskrift* 14(3): 181-229.
- GÖRANSSON, Anita. 1993. Gender and Property Rights: Capital, Kin, and Owner Influence in Nineteenth- and Twentieth-Century Sweden. *Business History* 35(2): 11-32. DOI: <https://doi.org/10.1080/000767993000000048>
- Historisk statistik för Sverige, Del 1. Befolkning 1720–1976* (1969) 2nd ed. Statistiska centralbyrån.
- HUMPHRIES, Jane.; SARASÚA, Carmen. 2012. Off the Record: Reconstructing Women's Labor Force Participation in the European Past. *Feminist Economics* 18(4): 39-67. DOI: <https://doi.org/10.1080/13545701.2012.746465>
- IGHE, Ann. 2007. *I faderns ställe: genus, ekonomisk förändring och den svenska förmyndarinstitutionen ca 1700–1860*. Göteborg: Ekonomisk historiska-institutionen vid Göteborgs universitet.
- JOHANSSON, Mats. 1992. 'Kontinuitet och förnyelse: Helsingborgs näringslivsutveckling 1863–1970. In Anna Christina ULFSPARRE (ed), Helsingborgs historia VII: II Industri, försörjning, folk rörelser 1863–1970. Helsingborg: Helsingborgs stad, 11-278.
- JONSSON, Inger; SANDGREN, Fredrik. 2018. Kvinnors arbete och regionala arbetsmarknader i Sverige under 1800-talets första hälft. In Fredrik SANDGREN (ed), Kvinnors flit och slit: Kvinnors arbete under tidig svensk industrialisering. Uppsala: Historiska institutionen vid Uppsala universitet, 56–90.
- JÖNSSON, Åke. 1995. *Historien om en stad D. 2 Landskrona 1805–1899*. Landskrona: Landskrona kommun.
- LINDSTRÖM, Dag. 2012. Privilegierade eller kring skurna? Hantverkaränkor i Linköping och Norrköping 1750–1800. *Historisk tidskrift* 132(2): 218–246.
- LINDSTRÖM, Henry. 1929. *Näringsfrihetsfrågan I Sverige 1837–1864*. Göteborg: Elanders Boktryckeri Aktiebolag.
- LUNANDER, Elsa. 1988. *Borgaren blir företagare: studier kring ekonomiska, sociala och politiska förhållanden i förändringens Örebro under 1800-talet*. Uppsala: Acta historica Upsaliensia.
- MORDT, Gerd. 1993. *Kvinner og næringsrett: kvinneparagrafene i håndverksloven av 1839 og handelsloven av 1842*. Oslo: Tingboksprosjektet.
- NILSSON, Anders. 2008. *Yrkesutbildningen i Sverige 1850–1910*. Uppsala: Föreningen för svensk undervisningshistoria.
- OGILVIE, Sheilagh. 2004. How Does Social Capital Affect Women? Guilds and Communities in Early Modern Germany. *The American Historical Review* 109(2): 325-359. DOI: <http://dx.doi.org/10.1086/530335>
- OGILVIE, Sheilagh. 2019. *European Guilds: An Economic Analysis*. Princeton: Princeton University Press.
- PIHL, Christopher. 2011. Arbete och hushåll. In Benny JACOBSSON; Maria ÅGREN (eds), *Levebröd: Vad vet vi om tidigmodern könsarbetsdelning?* Uppsala: Swedish Science Press, 35-58.

- PINCHBECK, Ivy. 1930. *Women Workers and the Industrial Revolution, 1750-1850*. New York: Crofts & Co.
- QVIST, Gunnar. 1960. *Kvinnofrågan i Sverige 1809–1846: Studier rörande kvinnans näringsfrihet inom de borgerliga yrkena*. Göteborg: Elander.
- RYDENFELT, Sven. 1961. *Lund för hundra år sedan*. Lund: Nya sparbanken.
- SCHÖN, Lennart. 1988. *Historiska nationalräkenskaper för Sverige: Industri och hantverk 1800–1980*. Lund: Ekonomisk-historiska föreningen.
- SKANSJÖ, Sten. 1997. *Skånes historia*. Lund: Historiska Media.
- SKANSJÖ, Sten. 2012. *Lunds historia - staden och omlandet. 2 Tidigmodern tid: i en bördig bygd*. Mölnlycke: Elander.
- SKARIN FRYKMAN, Birgitta. 1985. *Från yrkesfamilj till klassgemenskap: om bagare i Göteborg 1800–1919*. Göteborg: Göteborg universitet.
- STADIN, Kekke. 1980. Den gömda och glömda arbetskraften. Stadskvinnor i produktionen under 1600- och 17-tallet. *Historisk tidskrift* 100(3): 298–319.
- SUNDIN, Elisabeth. 1988. Osynliggörandet av kvinnor – exemplet företagare. *Tidskrift för genusvetenskap* 9(1): 3-15. DOI: <https://doi.org/10.55870/tgv.v9i1.5401>
- SVENSSON, Harry R:son. 2017. *Fabian Philip, familjen Ruben och örlogsstaden: Entreprenörsfamiljen som grundade Mosaiska församlingen i Karlskrona 1780–1945*. Stockholm: Stockholms universitet.
- SÖDERBERG, Tom. 1955. *Hantverkarna i brytningstid 1820–1870*. Stockholm: Sveriges hantverks- och småindustriorganisations skriftserie.
- VIKSTRÖM, Lotta; ERICSSON, Tom. 2012. Like father, like daughter? Intergenerational social mobility among business- and craftswomen in Sundsvall, Sweden, 1860-1893. *Continuity and Change* 27(3): 409-431. DOI: <https://doi.org/10.1017/S0268416012000227>
- WIDERBERG, Karin. 1980. *Kvinnor, klasser och lagar 1750–1980*. Stockholm: LiberFörlag.

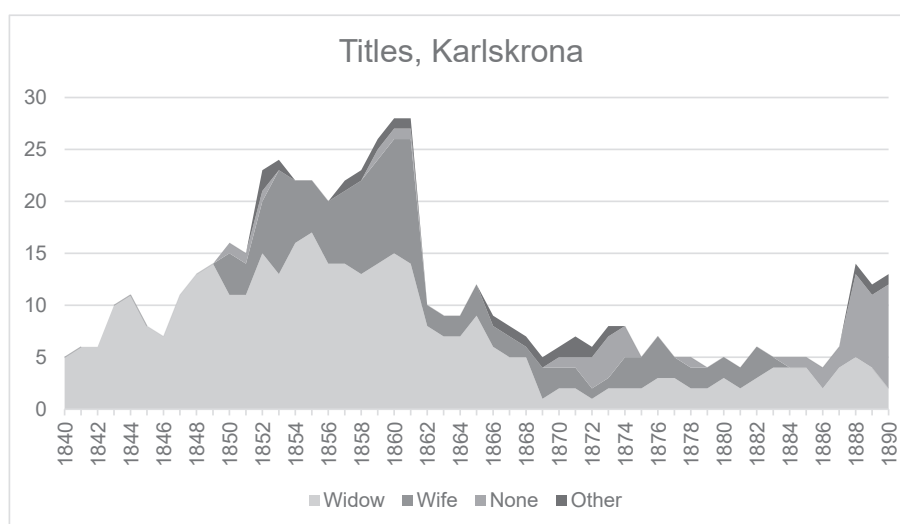
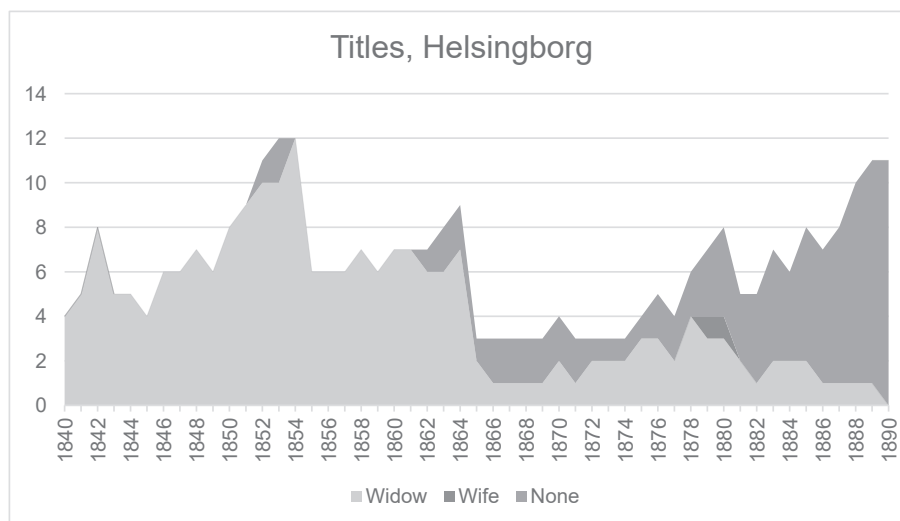
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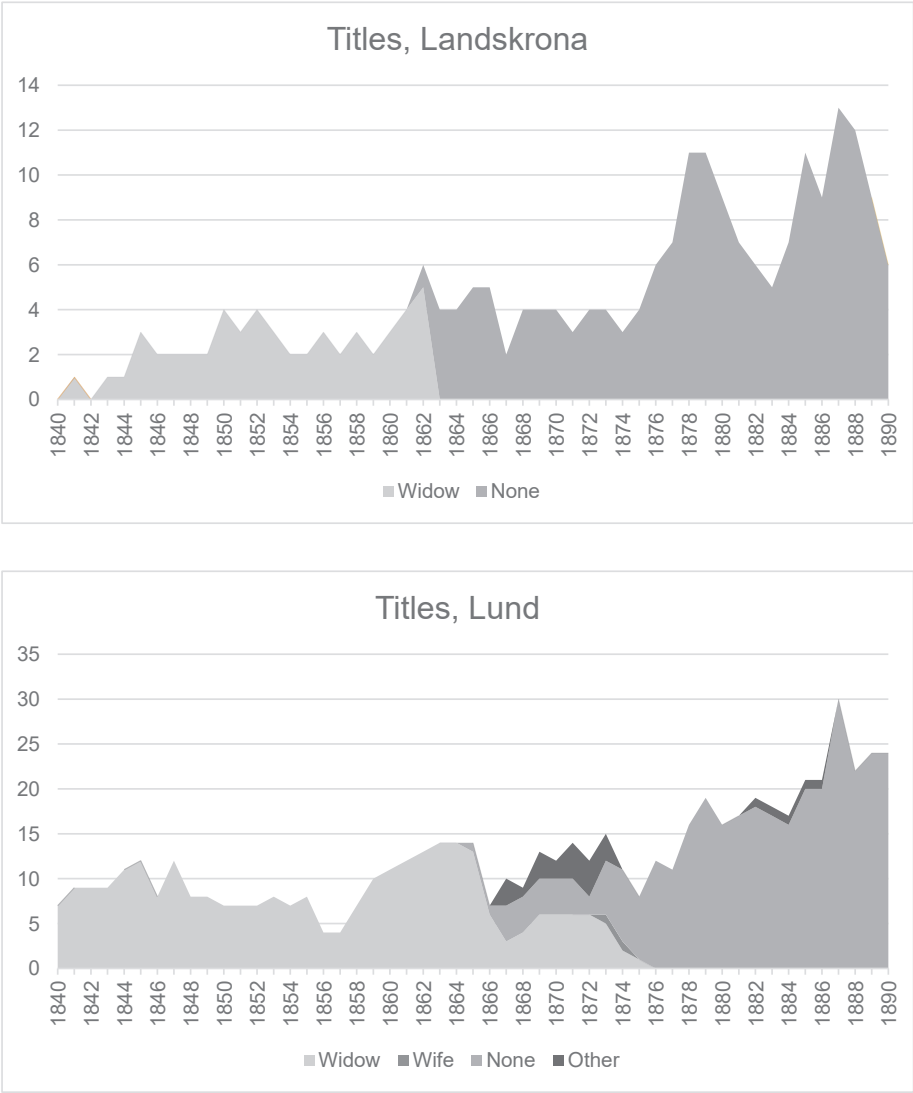
<http://rystad.ddb.umu.se:8080/Tabellverket/Tabverk> (Accessed: 15 August 2024)

<https://sok.riksarkivet.se/folkkrakningar> (Accessed: 10 February 2025)

Appendix 1

Marital titles of the female proprietors in the four towns, 1840-90





SOURCE: SSweArt Dataset.

Notas

1. The growing number of unmarried women was primarily due to fewer people getting married and, to a lesser degree, an overall surplus of women. (CARLSSON, 1977, p. 14).
2. Whereas LUNANDER (1988) and ARTÆUS (1992) study the period until 1860 and QVIST (1960) until 1864, ERICSSON's (2001) period of interest starts from 1865
3. Since the self-employed are only registered for the years 1851-64 and the gender of the self-employed is only available for three out of four towns, they will not be included in this study. A further discussion will be presented in the data section.
4. The minimum age was later lowered to 25, but this lies outside the period of Mordt's study.
5. See, for instance, ERICSSON (1988, 2011), BAIGENT (2017), EDGREN (1987), SÖDERBERG (1955, 1965), QVIST (1960), and LINDSTRÖM (2012).
6. Riksarkivet (RA), Kommerskollegium, Kammarkontoret, Da4/12: Fabriks- och industriberättelser, Fjärde serien 1863 – 1890; Db1/54: Berättelser om handlande och hantverkare, Förste serien 1750 – 1890.
7. When comparing the years 1846 and 1847, indication of gender seems to be consistent.
8. Only the Town parishes (*Stadsförsamlingar*) have been used, not the censuses from the military churches.
9. In 1847, the craft census included only bakers, butchers, brewers, and book printers. The rest of the trades were not recorded.
10. At <https://sok.riksarkivet.se/folkrakningar>.
11. Unfortunately, the population statistics do not include the same occupational information when compiled by SCB from 1858 onwards.
12. The numbers differ from those provided by the craft censuses since the categorisation of the group is not exactly alike. Examples included in the population censuses but not in the craft censuses are fishermen, actors, and carters.
13. One exception is 75 women registered in Landskrona as working with fishing—probably cleaning or selling the fish.
14. Based on the first year of registration. The marital titles do disappear for some individuals during the period of registration. There are only a few examples of titles changing to another.
15. Since the SSweArt dataset ends in 1890, the average year in business is highly likely to be underestimated in the table due to many of the later-established workshops existing after 1890. Bakers, brewers, and butchers are only included 1847-90.
16. 79 of the female proprietors were only registered in one year. (Those who first appeared in the craft censuses in 1890 have been excluded.)
17. The drop occurred across both genders, and covers several trades. The cause of this drop remains unclear.
18. The dominating role of bakeries in Karlskrona in the 1860s is only emphasised by taking the many self-employed bakers registered here into account. Helsingborg and Landskrona both had very few registered as self-employed bakers, and no bakers identified as women. Lund had 9-15

bakers per year, but with a maximum of two women. Karlskrona, on the other hand, had five women registered as self-employed bakers in 1851, with the number growing to 15 by 1864. The corresponding number for males was between three and seven.

19. This tendency is the same when we look at the percentage of female owners instead of the number of female-owned workshops.
20. An examination of the widow-owned workshops registered in 1860 shows that 26 out of 37 can be linked to a workshop owned by a man with the same last name in previous years. For many of the remaining workshops, it cannot be concluded whether or not it has previously been owned by a late husband. In three cases there seems to be evidence that a workshop has been opened by a widow, either while she was still married or in widowhood.
21. Appendix 1 provides an overview of the distribution in the four towns.

Género, brecha salarial y niveles de vida. El sector de conservas de pescado en la Ría de Vigo, 1900-1960

Luisa María Muñoz-Abeledo 

Mónica Carballal Torres 

RESUMEN: *La desigualdad salarial por motivos de género ha sido objeto de análisis y discusión por parte de numerosas investigaciones desde la historia económica y social. Asimismo, la consecuente contribución desigual de hombres y mujeres a los niveles de vida de las familias obreras también ha despertado interés en las últimas décadas. Por todo ello, este artículo tiene un doble objetivo: por un lado, mostrar el diferencial salarial por género en el sector de procesado de pescado; por otro, conocer su impacto sobre el nivel de vida de las familias que trabajaban en esta industria en la Ría de Vigo en el siglo XX. Tomando como caso de estudio las empresas Massó y Alfageme, se ha puesto de manifiesto la gran disparidad salarial, descubriendo brechas de hasta el 60%. Además, la construcción de dos presupuestos familiares, en los años veinte y cuarenta, ha evidenciado la imprescindible contribución femenina a la reproducción familiar. (JEL CODES: J31, J71, N3)*

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Gender, Wage Gap and Living Standards. The Fish-Canning Sector in Vigo Estuary, 1900-1960

Luisa María Muñoz-Abeledo 

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ABSTRACT: *Gender-based wage inequality has been the subject of analysis and discussion in numerous studies within economic and social history. Similarly, the resulting unequal contributions of men and women to the living standards of working have also garnered interest in recent decades. Therefore, the objective of this article is twofold: first, to examine the gender wage differential in the fish processing sector; and second, to understand its impact on the living standards of working families in the Vigo estuary during the first half of the 20th century. Taking as a case study the companies Massó Hermanos and Alfageme, a significant wage disparity has been revealed, with gaps of up to 60%. In addition, the construction of two family budgets (1920s and 1940s) has demonstrated the essential female contribution to family reproduction. (JEL CODES: J31, J71, N3)*

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1. Introducción

Según datos de la OIT, las mujeres ganan en promedio un 20% menos que los hombres por trabajos de igual valor, un 12% si nos referimos a mujeres pertenecientes a países de la UE (OIT, 2018). Las razones que hay detrás de la brecha salarial en la actualidad son complejas y se hallan relacionadas con factores de diversa índole. Desde la historia económica y social se han ofrecido diferentes explicaciones a este fenómeno. Durante la Revolución Industrial el diferencial salarial osciló entre uno y dos tercios, dependiendo del tipo de trabajo y del lugar (Burnette, 1997). En contra de la teoría económica neoclásica que asume que el *gender gap* evidencia las diferencias de productividad (Hicks, 1932), historiadoras económicas han criticado esta visión por no tener en cuenta otros factores, como la acción sindical y empresarial, la ideología del salario familiar y la recepción de salarios sujetos a la costumbre (Humphries y Rubery, 1984; Berg, 1985; Burnette, 2008). Goldin ha realizado importantes aportaciones al debate sobre la brecha salarial. Según esta autora, la causa hay que buscarla en la demanda de flexibilidad laboral: las mujeres, debido a su papel de cuidadoras, demandan jornadas laborales más flexibles y esto reduce la productividad por hora trabajada y, por tanto, el salario por hora (Goldin, 2014)¹. Además, esta autora encontró evidencias sobre la existencia de una curva de participación femenina en forma de U durante el proceso de desarrollo económico en el largo plazo. En áreas de bajo desarrollo, las mujeres participaban extensivamente en industrias que constituían una amplificación del trabajo doméstico (Goldin, 1995). En nuestro caso de estudio, la industria conservera, la participación femenina tomó históricamente forma de M suavizada puesto que las mujeres, que suponían la fuerza de trabajo mayoritaria en el sector, no abandonaron el mercado de trabajo ni siquiera en la etapa franquista (Muñoz-Abeledo, 2010).

En España, diferentes investigaciones sobre desigualdad han sido realizadas a nivel sectorial (Borderías y Muñoz-Abeledo, 2024). Para el sector textil catalán, la brecha salarial de género fue estable en la segunda mitad del siglo XIX en Barcelona, representando un diferencial del 50%. En otras poblaciones costeras como Vilanova i la Geltrú fue algo más oscilante (Camps, 1990; Llonch, 2024; Soler i Becerro, 1997). Para el sector de conservas de pescado se aprecia una gran brecha salarial entre hombres y mujeres, del 50% en el periodo anterior a la guerra civil, la cual obedecía a la segregación horizontal y vertical de las ocupaciones, pero también a una pura discriminación en el caso de algunas ocupaciones como soldador/a y cocinero/as (Muñoz-Abeledo, 2003; 2010). Investigaciones anteriores de esta autora calculaban la brecha salarial en ocupaciones específicas durante años concretos, mientras que este artículo presenta un estudio del diferencial salarial por categorías laborales a largo plazo.

En otros sectores intensivos en trabajo femenino, como el del calzado, las mujeres permanecían en categorías de escasa cualificación cobrando salarios bajos (Escartín, 2002; Pons y Bibiloni, 2004). En el sector del tabaco, la mayoría de las trabajadoras se concentraban en la categoría de operarias cobrando salarios inferiores a los masculinos (Gálvez, 1997). Por tanto, la brecha salarial y la segregación ocupacional se suceden en todos los sectores industriales que fueron intensivos en trabajo femenino (Gálvez, 1997; Vilar Rodríguez, 2014).

No obstante, aunque las mujeres obtuviesen inferiores salarios a los de los hombres, contribuyeron, a lo largo de la historia contemporánea, a mejorar los niveles de vida de las familias obreras, siendo los salarios masculinos insuficientes para cubrir las necesidades económicas familiares (Borderías y Muñoz-Abeledo, 2018; Borderías, Muñoz-Abeledo y Cussó, 2022; Borderías y Muñoz-Abeledo, 2024). Según estas investigaciones, lo aportado por el cabeza de familia apenas llegaba a suponer la mitad del ingreso familiar, una proporción considerablemente menor de la que se ha detectado en otras partes de Europa². En España, las mujeres trabajadoras cubrían al menos entre un 20-30% de los gastos familiares. En el primer tercio del siglo xx, las economías domésticas de las clases obreras, al menos en la Cataluña textil y en las áreas pesqueras del litoral gallego, no respondían al modelo male-breadwinner (Borderías y Muñoz-Abeledo, 2018). Tampoco lo hacían las familias obreras urbanas hasta finales de los años veinte (Borderías, Muñoz-Abeledo y Cussó, 2022; Borderías y Cussó, 2023; Beascoechea-Gangoiti, Pareja-Alonso y Serrano-Abad, 2024; Martínez López, Martínez Martín y Moya García, 2024) ni tampoco las rurales (Morey Tous, Seguí Beltrán, Pujadas-Mora, Jover-Avellà, 2024). Además, en el primer franquismo, fue imprescindible para la reproducción familiar la pluriactividad y la suma de ingresos de los diferentes miembros (Cañal-Fernández y Muñoz-Abeledo, 2023).

El presente artículo tiene un doble objetivo: mostrar el diferencial salarial entre hombres y mujeres en el sector de procesado de pescado y conocer el nivel de vida de las familias que trabajaban en esta industria en la Ría de Vigo en el siglo xx. El artículo se estructura en cinco secciones. Tras una introducción contextualizando la temática analizada, se desarrolla una segunda sección donde se explica la metodología y las fuentes empleadas. En la tercera sección se describe el crecimiento industrial de la Ría de Vigo y su impacto en la estructura laboral. A continuación, se calcula el diferencial salarial por género en el sector conservero desde comienzos del siglo xx hasta los años sesenta. Finalmente, se reconstruyen los presupuestos familiares de las clases trabajadoras en dos momentos del tiempo, los años veinte y el primer franquismo, con el fin de conocer mejor los niveles de vida de la Ría de Vigo.

2. Metodología y fuentes

La muestra de trabajadores que se ha utilizado para la reconstrucción de los salarios de hombres y de mujeres corresponde a la empresa Massó Hermanos, S.A. (en adelante Massó)³. De esta empresa han sido consultados 1.757 expedientes de trabajadores. Los salarios nominales seguidos en el tiempo son los de los trabajadores que pasaron su vida laboral en la empresa, iniciándola en los años veinte. Las observaciones empleadas para la construcción del índice son 1042 (938 mujeres y 104 hombres)⁴. A partir de estos datos, hemos construido un índice de salarios nominales diferenciando tarifas salariales por cada una de las categorías ocupacionales. Este índice pondera las tarifas de cada ocupación por el número de trabajadores que cobraba dicha tarifa (Muñoz-Abeledo, 2003)⁵. Los datos de jornales han sido contrastados con los de la empresa Alfageme⁶. Como los jornales eran muy similares, nos hemos decantado por utilizar

los datos de la empresa Massó porque la serie que permitía su reconstrucción comenzaba en 1919. Para algunos años en los que Massó no presentaba datos, se han utilizado expedientes de la empresa Alfageme (60 expedientes, 46 pertenecientes a mujeres y 14 a hombres), referidos a los trabajadores/as más antiguos en plantilla, los que comenzaron a trabajar para la empresa en la década de los treinta del siglo xx. Para las primeras décadas del siglo xx, los datos de salarios de empresa son muy fragmentarios por lo que se ha recurrido a otras fuentes para completarlos, como los informes de la Junta Local de Reformas Sociales de Vigo y datos de prensa local, concretamente del Faro de Vigo. En cuanto al periodo franquista, hemos usado los datos de ambas empresas. Aunque sabemos que existían pluses salariales (plus de puntualidad, de distancia, de trabajos penosos, etc.), no han sido considerados en esta investigación porque no existe información de estos para todo el periodo. Asimismo, hemos buscado la comparación de salarios con los reglamentos laborales para la industria conservera publicados en el BOE desde 1939.

Además de construir índices de salarios nominales, hemos calculado la brecha salarial por género en el siglo xx en el sector de transformación de pescado en el cual la mano de obra era mayoritariamente femenina. Si buscamos definir la brecha de género en el mercado laboral, por lo general, nos referimos a diferencias sistemáticas en los resultados obtenidos por hombres y mujeres, diferencias relativas tanto a su presencia en determinados sectores u ocupaciones como a sus ingresos relativos o salarios por hora (Goldin, 1992). Centrándonos en la desigualdad en la obtención de ingresos, las explicaciones que nos encontramos a este fenómeno pueden tener dos vertientes. La primera de ellas se basa en la relación entre ese *gap* de ingresos con las diferencias en productividad, es decir, diferencias desde el lado de la oferta, que pueden explicarse a partir del nivel educativo, la experiencia o las habilidades personales de cada individuo (Mincer, 1974; Becker, 1987). Esta explicación enlaza con la teoría del capital humano, asumiendo que las diferencias en los salarios de hombres y mujeres se producen por la desigual inversión inicial y continua por su diferente productividad (Lago Peñas, 2002).

La otra de las vertientes relaciona estas diferencias con la discriminación por género, es decir, trata de explicar la desigualdad salarial desde el lado de la demanda. Los propios lugares de trabajo serán los encargados de perpetuar la discriminación que se produce a nivel social, poniendo trabas al acceso de las mujeres a puestos de responsabilidad (*allocative discrimination*) o dificultando las subidas de los salarios de hombres y mujeres a igual productividad. No obstante, se ha extendido la opción de descomponer la brecha salarial en dos partes: una explicada por las diferencias de productividad observables y, la otra, relacionada con la discriminación salarial⁷. Diferentes autoras han definido esta discriminación como la brecha salarial «inexplicable» (Goldin, 2014; Burnette y Stanfors, 2020), o como la desigualdad salarial entre dos grupos con «idéntica productividad» (Becker, 1971).

En el presente análisis empírico del grado de discriminación salarial se ha optado por definir la brecha como la diferencia de salario medio entre hombres y mujeres⁸. Si bien se construyen índices de salarios nominales femeninos y masculinos como medias ponderadas de las diferentes categorías laborales, la brecha salarial se establece comparando las mismas categorías o categorías de similar cualificación entre sí.

Para el cálculo de la brecha salarial, se utilizó la siguiente fórmula:

$$\frac{\text{jornal hombre} - \text{jornal mujer}}{\text{jornal hombre}} \times 100$$

Además de presentar los salarios nominales de hombres y mujeres en el sector de transformación de pescado y calcular la brecha salarial por género, también hemos reconstruido los ingresos y gastos de estas familias obreras comparándolas con las familias de pescadores. Para la reconstrucción del ingreso hemos tenido en cuenta los días trabajados cada año: 265 en el caso de los obreros conserveros y metalúrgicos, 300 de los pescadores y 180 de las obreras conserveras (Borderías y Muñoz-Abeledo, 2018; Borderías, Muñoz-Abeledo y Cussó, 2022). En el caso de las mujeres, si sumásemos otras actividades no regladas, auxiliares a la pesca, obtendríamos 264 días trabajados (Borderías y Muñoz-Abeledo, 2018). No obstante, para este ejercicio hemos considerado el supuesto de mínimos, es decir, que las conserveras trabajasen sólo seis meses al año (180 días). La metodología empleada para la reconstrucción del gasto ha sido tomada de investigaciones recientes (Borderías, Muñoz-Abeledo y Cussó, 2022). Las partidas empleadas para la reconstrucción del gasto familiar son: alimentación, vivienda, gastos de casa y otros gastos. La principal partida de gasto es el alimentario, que suponía entre el 65-70% del gasto de las familias obreras durante el periodo de estudio. Para conocer su coste usamos los datos de precios del Anuario Estadístico de España (en adelante ANE), fuente empleada por diferentes autores para analizar el coste de la vida en algunas ciudades durante el primer tercio del siglo xx (Reher y Ballesteros, 1993, 1997; Pérez Castroviejo, 2006; Germán Zubero, 2009; Maluquer, 2013; Domingo Gallego, 2016; Borderías, Muñoz-Abeledo y Cussó, 2022). Además, contrastamos los precios del ANE registrados para la capital de la provincia, Pontevedra, con los publicados por la Cámara Oficial de Comercio y Navegación de Vigo y con los registrados en la sección de Abastos del Ayuntamiento de la ciudad de Vigo⁹. Hemos considerado los precios mínimos de los alimentos porque son los que se ajustan más a una cesta de la compra de la clase obrera.

Estimamos el coste alimentario para nuestra familia tipo (dos adultos y tres niños) utilizando la dieta empleada en la investigación de Borderías, Muñoz-Abeledo y Cussó (2022), ligeramente adaptada a las pautas de consumo del litoral sur de la región, donde se ubica Vigo. Si añadimos la cantidad de 100 gramos de sardinas al día, alimento básico de nuestras familias obreras y pescadoras, esta dieta serviría para cubrir adecuadamente las necesidades de energía y nutrientes de la unidad familiar a un coste mínimo. Los componentes de la cesta reflejan una dieta Atlántica, común a las familias de pescadores y obreros mixtos del puerto de Vigo y alrededores, y que se muestra en el apartado 5 de este artículo. Junto con los gastos de alimentación, reconstruimos otros gastos familiares (vivienda, gastos de casa y otros gastos), para, con las fuentes mencionadas, mostrar si existía déficit o superávit según el oficio del cabeza de familia, todo ello considerando las ocupaciones más representativas de las clases populares de la Ría de Vigo.

3. La industrialización de la Ría de Vigo y su estructura profesional

La Ría de Vigo se ha caracterizado por agrupar gran parte de la expansión industrial gallega, muy notablemente a partir del impulso de la pesca y su transformación. Según Abreu (2013), el sector ha estado concentrado históricamente en la Ría debido a factores como la disponibilidad de materias primas, la tradición pesquera de la región y la existencia de infraestructuras adecuadas para el transporte y la distribución de los productos pesqueros. Vigo destacó sobre los demás puertos gallegos desde comienzos del siglo xx como el principal exportador de conservas, lo que dinamizó el sector pesquero y también el industrial (astilleros, empresas metalgráficas, madera...) (Carmona Badía y Nadal, 2005; Giráldez, 2022). La Primera Guerra Mundial supuso un *boom* en los beneficios del sector conservero que continuó durante la década de los veinte con su modernización y consolidación de la integración vertical en diferentes empresas líderes, como Massó Hermanos (Carmona Badía, 2011, Muñoz-Abeledo, 2011). Asimismo, la Guerra Civil representó un auge para el sector conservero debido a la fuerte demanda bélica y a las reducidas barreras de entrada. En cambio, durante la etapa autárquica, las empresas conserveras se vieron obligadas a entregar a precios muy inferiores al de mercado gran parte de su producción y las ventas se concentraron en el territorio nacional (Carmona, 2022).

TABLA 1. Principales ocupaciones masculinas y femeninas en la Ría de Vigo (Vigo y Lavadores), 1940

Grupo	Rúbricas	Vigo		Lavadores	
		Hombres	Mujeres	Hombres	Mujeres
Pesca	Pesca	2.681	-	720	4
Forestal y agrícola	Agricultura	6.824	663	4.207	806
Industria alimentaria	Conservas	377	329	60	268
	Panadería y confitería	180	14	107	22
Confección	Modistería	-	346	-	109
	Tapicería, ropa blanca	21	9	6	57
Industria maderera	Carpintería	840	-	495	-
Industria metalúrgica	Trabajos con metales	745	-	480	6
Construcción	Albañilería	530	-	425	-
Transporte	Navegación	415	-	177	-
Comercio	Otros comercios	1.007	71	323	30
Servicio doméstico	Servicio doméstico	92	2.741	59	328
Profesiones liberales	Profesiones liberales	1.192	93	278	18

FUENTE: elaboración propia a partir de datos del censo de 1940. INE Histórico

Acompañando la estructura productiva de la Ría de Vigo, se presenta la estructura laboral de la ciudad portuaria de Vigo y Lavadores a través del censo de 1940¹⁰. A pesar de que existía un subregistro generalizado en la ocupación femenina en los censos, se consideran de utilidad para conocer, al menos, cuáles eran las principales ocupaciones masculinas y femeninas¹¹. En 1940 fueron registrados en el censo un total de 65.315 mujeres y 61.154 hombres para Vigo y Lavadores (ayuntamiento que fue incorporado a Vigo en 1945).

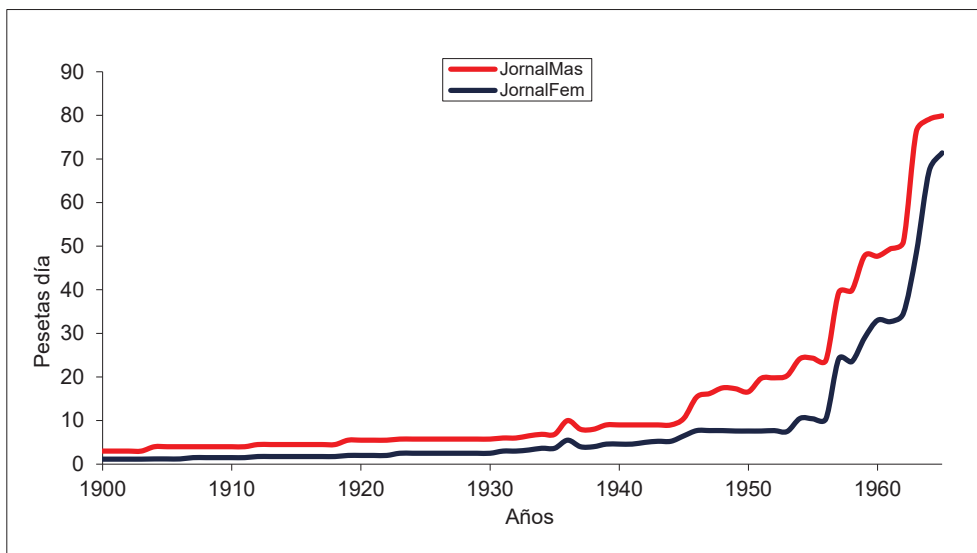
Aunque sabemos que los censos de población ocultan ocupación femenina lo cual queda demostrado por el bajísimo número de mujeres conserveras que observamos en la tabla 1, empleamos esta fuente con el único fin de establecer los trazos principales de la estructura ocupacional masculina y femenina de la Ría de Vigo. En la tabla 1, observamos la especialización femenina en cuatro actividades: agricultura, conservas, confección y servicio doméstico. Lavadores mostraba una mayor especialización en el ámbito agrario mientras que Vigo concentraba un gran número de mujeres en el servicio doméstico debido a su condición de núcleo urbano. En cuanto a la población masculina, se aprecia la fuerte imbricación de agricultura e industria, destacando todavía, el peso del sector primario en la ría de Vigo. También resaltan algunas ocupaciones industriales muy vinculadas al complejo marítimo y a las industrias relacionadas (construcción naval, metalúrgica y madera) (Muñoz-Abeledo y Verdugo-Matés, 2023). Vista la estructura ocupacional, en la siguiente sección analizamos el diferencial salarial de uno de los sectores con mayor empleo femenino: el sector de conservas de pescado.

4. Reconstrucción de la desigualdad salarial en el sector conservero vigués en el siglo xx

El estudio de la evolución de la brecha salarial y sus causas ha sido uno de los principales temas de investigación de la economía de género. En este apartado analizamos el grado de discriminación salarial existente en el sector de la conserva de la Ría de Vigo entre 1930 y 1965.

Atendiendo al *Reglamento de Trabajo en las Industrias de Conservas y Salazones de Pescados y similares*, consultado para los años 1939 y 1958, el personal del sector se dividía en diferentes categorías laborales, diferenciando hombres y mujeres. En el caso del *Reglamento* de 1939, el personal masculino era clasificado en cinco categorías: encargados de fabricación, mecánicos, oficiales de primera y segunda, peones y pinches¹². El personal femenino, a su vez, se dividía también en cinco categorías: obreras especializadas, oficiales de primera, oficiales de segunda, auxiliares y pinchas. El *Reglamento* también nos ofrece una clasificación geográfica de las retribuciones salariales. En el caso de la Ría de Pontevedra, el municipio de Bueu, donde la empresa Massó tenía ubicada una de sus fábricas, pertenecía a la zona segunda, mientras que Vigo, donde estaba ubicada la fábrica de Alfageme, se encontraba en la zona primera. Esta clasificación desapareció en el reglamento de 1958. En la tabla 2 se calcula la brecha salarial por categoría profesional comparable.

FIGURA 1. Evolución de los jornales diarios en la empresa Massó Hermanos, S.A., 1900-1965, en pesetas.



FUENTE: Elaboración propia a partir de datos extraídos de la Junta Local de Reformas Sociales de Vigo y del Faro de Vigo (1900-1918). A partir de 1919, los datos provienen del archivo Massó Hermanos, S.A. (archivo privado) y del archivo Alfageme (Museo de la Conserva, Vigo).

En el caso de los jornales obtenidos para la empresa Massó Hermanos S.A (figura 1), observamos una evolución bastante pareja, con un *gap* salarial entorno al 50%. Como excepción tendríamos la década de 1950, donde los salarios masculinos crecieron a un mayor ritmo que los femeninos. Las tasas de crecimiento para el periodo son de 1,24% en el caso del jornal masculino y 1,06% en el femenino, apreciándose un estancamiento de los salarios en las tres primeras décadas del siglo. Se observa una subida de los salarios durante la Segunda República, fruto de las negociaciones sindicales y de los convenios colectivos firmados entre patronal, UGT y CNT (Muñoz-Abeledo, 2010). A pesar de esta alza salarial, muy visible en el convenio de 1936, la evolución del salario nominal masculino y femenino se sitúa por debajo de la media ponderada nacional para la industria, calculada por Vilar Rodríguez (2004). Durante el primer franquismo, los salarios se mantuvieron bajos. El Ministerio de Trabajo raramente legisló subidas salariales, los llamados «plusones de carestía de vida», por encima del IPC en los años cuarenta, contribuyendo tanto los parcos salarios como el racionamiento y el mercado negro al empobrecimiento de la clase obrera, como veremos en la siguiente sección¹³. En 1946, en el sector de conservas de pescado se reglamentó una subida del 25% sobre los salarios nominales. En el primer quinquenio de los años cincuenta las subidas fueron más suaves. En 1956, el Ministerio elevó las rentas del trabajo en un 30% y hacia finales de la década, la Ley de Convenios Colectivos (1958) pasó a reforzar la liberación iniciada con el Decreto del 8 de junio de 1956.

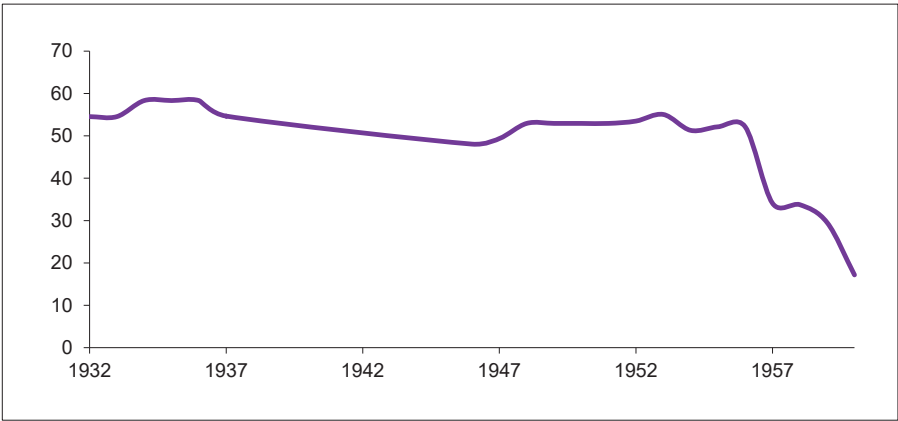
Aun así, debido a la rígida política de salarios, los empresarios trataron de hacer frente a los incrementos de precios por medio de un complejo sistema de pluses y complementos salariales (Vilar Rodríguez, 2004; 81-126), mediante los cuales se lograron mejoras en los niveles de vida de las familias conserveras.

TABLA 2. Brecha salarial de personal de fabricación y personal no especializado en la industria conservera para los años 1939¹⁴ y 1958, en%

Categoría profesional	Brecha salarial 1939	Brecha salarial 1958
Maestro/a	-	24,00
Oficial/Obrera de primera	50,00	29,89
Oficial/Obrera de segunda	49,71	30,11
Peón/Auxiliar	46,05	25,69
Pinches de 18 años	40,00	-
Pinches de 17 años	25,00	7,53
Pinches de 16 años	26,67	6,98
Pinches de 15 años	12,00	8,86
Pinches de 14 años	-10,00	9,86

FUENTE: elaboración propia a partir de datos extraídos del *Reglamento para el Trabajo en las Industrias de Conservas y Salazones de Pescados y Similares*, publicado en el BOE el 29/07/1939, págs. 4100-4101; y *Reglamentación Nacional de Trabajo en las Industrias de Conservas y Salazones de Pescado*, publicada en el BOE el 31/10/1958, págs. 1841-1842.

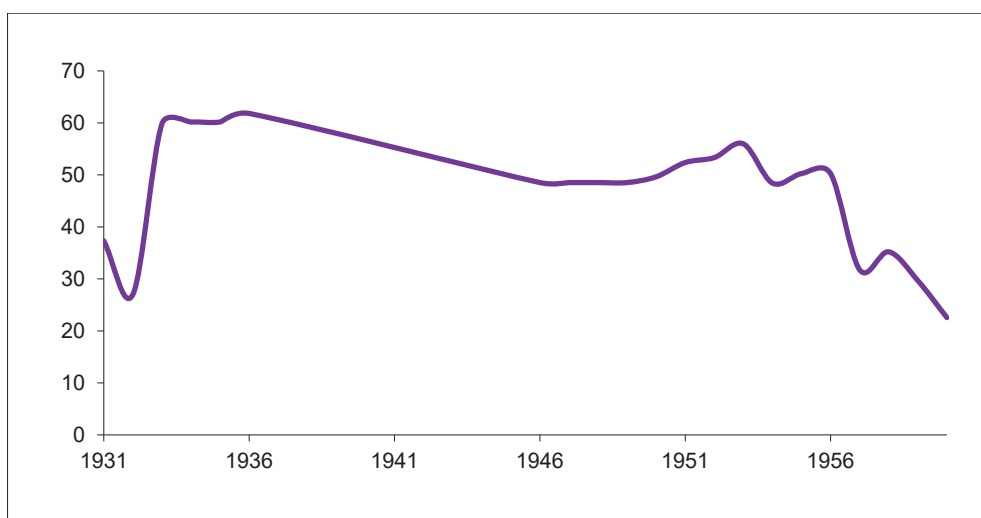
FIGURA 2. Evolución de la brecha salarial en la empresa Massó Hermanos, S.A. para la ocupación de oficiales de 2ª, 1932-1960, en términos porcentuales



FUENTE: elaboración propia a partir de datos extraídos del archivo Massó.

La tabla 2 muestra la brecha salarial entre hombres y mujeres por categoría ocupacional. En el arranque del periodo franquista, apreciamos un cambio significativo en el diferencial salarial en la gran mayoría de categorías profesionales, pasando de constituir entre un 40-50% para el primer año, a reducirse en torno a 20 puntos porcentuales en 1958. Además, para ambos años, eran las y los oficiales los que se encontraban a la cabeza en cuanto a desigualdad salarial.

FIGURA 3. Evolución de la brecha salarial en la empresa Massó Hermanos, S.A. para la ocupación de peón y auxiliar, 1931-1960, en términos porcentuales



FUENTE: elaboración propia a partir de datos extraídos del archivo Massó.

Las figuras 2 y 3 reflejan la brecha salarial existente en la empresa Massó Hermanos, S.A. En el caso de la figura 2, se representan las profesiones de oficiales de 2ª para hombres y mujeres y, en la figura 3, las ocupaciones de peón y auxiliar (femenina). Estas dos últimas categorías laborales son comparables debido a que las tareas que desarrollaban ambos grupos eran muy similares¹⁵.

Si analizamos ambos gráficos, la tendencia general es la reducción del diferencial. En el caso de la brecha calculada para los oficiales, se presentaban tasas de más del 50% en los primeros años de la serie, reduciéndose a menos del 20% en 1960. Lo mismo se puede observar en el caso de la brecha entre peones y auxiliares, reduciéndose en torno a 15 puntos porcentuales durante el periodo presentado. A partir de la década de los cincuenta, este diferencial tendió a disminuir, debido a las diferentes actualizaciones de los salarios en 1957 y 1958, fruto de la mejora en la coyuntura económica nacional y de los primeros convenios colectivos firmados en el periodo franquista¹⁶. En los años sesenta, siguiendo con el crecimiento económico y la

mayor demanda –nacional e internacional– de conservas, los salarios tendieron al alza, reduciéndose todavía más el diferencial salarial (Abreu, 2015).

Para Goldin (2006), el principal cambio que podemos encontrarnos en el mercado laboral internacional en la década de 1920 es la mayor participación de las mujeres casadas. Factores como las guerras mundiales, o la Guerra Civil en el caso español, permitieron un mayor acceso femenino al trabajo remunerado. No obstante, tanto su formación como sus salarios estuvieron muy por debajo de los masculinos. La desigualdad salarial descrita suponía valores muy elevados, encontrándonos con casos donde el hombre cobraba más del doble que la mujer realizando trabajos con una productividad similar.

Otro condicionante de la brecha salarial era el cultural, concretamente el peso de la tradición que otorgaba poco valor al trabajo femenino en sociedades pesqueras, incluso antes de la industrialización de los productos del mar (Muñoz-Abeledo, 2003). Los empresarios de la salazón en el siglo XIX aprovecharon la costumbre para remunerar a las mujeres con salarios inferiores a los de los hombres a lo largo del siglo XIX y del primer tercio del siglo XX. En un mercado de trabajo segmentado, el diferencial salarial persistió durante el régimen franquista, aunque se redujo desde finales de los años cincuenta.

5. Género y niveles de vida en el puerto de Vigo en la primera mitad del siglo XX

En esta sección, estimamos los niveles de vida de las familias obreras de la ciudad de Vigo en dos momentos del tiempo: a mediados de los años veinte y a mediados de los años cuarenta. Con la elaboración de presupuestos familiares, nuestro objetivo es conocer como vivía la población obrera y pescadora en el primer tercio del siglo XX y en el primer franquismo. La familia tipo elegida es una familia nuclear compuesta por dos adultos y tres hijos menores de 10 años y, por lo tanto, inactivos. Esta tipología de familia ha sido empleada en estudios sobre el impacto de la industrialización en los niveles de vida de la población, tanto en el ámbito internacional, como en el nacional (Allen, 2014; Borderías y Muñoz-Abeledo, 2018; Borderías, Muñoz-Abeledo y Cussó, 2022; Borderías y Cussó, 2022; Borderías y Muñoz-Abeledo, 2024; Beascochea-Gangoiti, Pareja-Alonso y Serrano-Abad, 2024; Martínez López, Martínez Martín y Moya García, 2024). Ello permite realizar comparativas con otras ciudades de España y de Europa.

Los salarios nominales masculinos y femeninos presentados en el apartado anterior, correspondientes a la categoría de oficial de segunda, son nuestra base de referencia para calcular los ingresos diarios de las familias obreras y de pescadores. En el apartado metodológico, se ha explicitado la elección de los días trabajados por grupo profesional. Queremos resaltar que, a pesar de trabajar menos días al año que los hombres y de la desigualdad salarial observada en la sección 4 del artículo, las esposas realizaban una aportación crucial para la supervivencia de las familias obreras y pescadoras (Tabla 3).

Como se ha mencionado en el apartado metodológico, construimos presupuestos de familias de obreros (sector conservero y metalgráfico) y de pescadores de la Ría de Vigo. Los productos básicos de la cesta de consumo alimentario de estas familias están representados en la tabla 3. Por lo que atañe a la cesta de alimentos, los principales serían: pan, pescado, carne de vaca, habas, garbanzos, hortalizas, arroz, azúcar, leche, manteca, aceite, vino y aguardiente. Estos alimentos y cantidades son los que permitirían una *dieta óptima*¹⁷ para la familia tipo considerada (2 adultos y 3 hijos menores de 10 años) (Borderías, Muñoz-Abeledo y Cussó, 2022). Además, no se alejan de los publicados por estudiosos de la forma de vida y hábitos de consumo de los pescadores del Norte de España (Rodríguez Santamaría, 1916). Entrando en el detalle del consumo de algunos productos, sabemos que el pan era denominado «de taberna», tres o cuatro piezas de 400 gramos por familia y día¹⁸, lo que se aproximaba al consumo de pan de una familia de pescadores de Le Play¹⁹. Para nuestra cesta, hemos imputado un consumo de 1,7 kilos al día²⁰. Aunque cabe matizar que, al menos una parte del año, las familias con tierras consumían pan de maíz, pues es uno de los cultivos básicos de la provincia y esto sería considerado autoconsumo. La carne comprada en la tabajería era la de vaca de 2ª y los despojos, siendo el cordero y la ternera de consumo muy escaso, en Navidad o Pascua²¹. El tocino se usaba para el caldo, con un consumo anual de 25 kilogramos. El pescado sería el componente principal de la dieta, alrededor de 300 kilos al año (Pérez Castroviejo, 1992: 155). En cuanto a las patatas asumimos que, para una dieta óptima, el consumo de 600 gramos era suficiente. En caso de gastar más, alrededor de un kilogramo por día, no tendrían que acudir al mercado porque formaba parte de su producción doméstica. Contrastamos nuestra dieta con la publicada por Rodríguez Santamaría (1916), en la cual las patatas entraban en las principales comidas, como el caldo y el guiso de pescado, y también es similar al consumo realizado por las familias mineras vascas, que las ingerían al mediodía y a la noche²². El vino, según diversas fuentes, era de gran consumo, por ello se le ha supuesto un litro al día por familia, pues se bebía vino tinto en la comida y en la cena. También se gastaban cantidades pequeñas de aceite, arroz y garbanzos. En suma, recogidos estos productos en la tabla 3, calculamos el coste de alimentación de una dieta adaptada a las familias del litoral en cuanto al consumo de pan, pescado y patatas.

En la última columna de la tabla 3 se calcula el gasto diario de las familias teniendo en cuenta el autoconsumo. Este fue muy importante y característico de la Ría de Vigo, donde las familias obreras solían disponer de un pedazo de tierra para cultivar algunos productos básicos que no tendrían que comprar en el mercado. Esto ha sido así durante la primera mitad del siglo xx, siendo referenciado por las primeras Encuestas Familiares publicadas a finales de los años cincuenta y a comienzos de los sesenta, en las que se consideraba que el autoconsumo en Galicia era de un 40%. En el primer tercio del siglo xx, las familias obreras de Vigo y sus alrededores combinaban el trabajo en la industria con el agrario de subsistencia y la pesca. Por ello, consideramos que el autoconsumo era de un 50% para algunos alimentos que se cultivaban. Además, otros alimentos básicos entraban a formar parte del salario en especie, por ejemplo, el aceite y el pescado que recibían las obreras conserveras en las fábricas, o el pescado entregado a los pescadores después de cada marea. Este era el caso de las familias que habitaban las parro-

TABLA 3. Presupuestos para una familia obrera en Vigo, 1926, en pesetas

Gastos de la unidad familiar						
Alimento	Precios pesetas Kilo/litro	Kilogramos año	Coste medio anual	Coste medio día	Coste medio anual con autoconsumo	Coste medio día con autoconsumo
Pan común de trigo	0,55	626,5	660,3	1,8	330,13	0,90
Pan de centeno		74,0		0,0		0,00
Pan de maíz		500,0		0,0		0,00
Carne vacuno	2,00	20,49	41,0	0,1	41,0	0,11
Carne lanar	2,00	19,0	38,1	0,1	38,1	0,10
Carne cerdo	4,75	19,4	92,4	0,3	92,4	0,25
Tocino	3,50	25,8	90,3	0,2	45,16	0,12
Bacalao	1,70	14,0	23,7	0,1		0,00
Pescado	2,00	300	600	1,64		0,00
Arroz	0,70	40,9	28,7	0,1	28,66	0,08
Garbanzos	0,85	23,1	19,6	0,1	19,62	0,05
Judías	0,85	29,9	25,5	0,1	25,45	0,07
Patatas	0,20	591,3	118,3	0,3	59,13	0,16
Huevos	1,70	52,8	89,7	0,2		0,00
Azúcar	1,70	38,8	66,0	0,2	66,0	0,18
Café	10,00	1,8	17,6	0,0	17,56	0,05
Vino Común	0,60	560,0	336,0	0,9		0,00
Aceite común	2,00	52,3	104,6	0,3	52,28	0,14
Leche	0,40	267,9	107,2	0,3	107,18	0,29
Verduras y hortalizas	0,40	75,9	30,4	0,1		0,00
Frutas	0,40	184,8	73,9	0,2	73,92	0,20
Total gasto alimentación (70%)	2041,7	5,6	421,12	1,15		
Vivienda (8%)			180	0,5	0,50	0,5
Calefacción + alumbrado (2%)			90,5	0,2	0,20	0,2
Otros gastos (20%)			250	0,7	0,70	0,7
Gasto Total			2562,2	7,0	422,52	3,7
Ingresos de la unidad familiar						
		Salario día	Ingreso anual	Ingreso día		
Metalúrgico		6,75	1950	5,5		
Soldador		5,75	1725	4,7		
Pescador		5	1500	4,1		
Conservera		2,5	396	1,08		
Déficit /superávit						
Considerando sólo los ingresos del cabeza de casa						
				Sin autoconsumo	Con autoconsumo	
Metalúrgico				-1,5	1,80	
Soldador				-2,3	1,00	
Pescador				-2,9	0,40	
Sumando los ingresos de ambos esposos						
Familia metalúrgico				-0,42	2,88	
Familia soldador				-1,22	2,08	
Familia pescador				-1,82	1,48	

FUENTE. Elaboración propia en base a diversas fuentes: ANE, Faro de Vigo, Cámara Oficial del Industria Comercio y Navegación de Vigo, Sección Abastos del AHMV, Rodríguez Santamaría (1916), Estévez (1996).

quias rurales de Vigo y alrededores (Lavadores, Teis, Bouzas, etc.) que comían carne de cerdo, patatas y pan de su cosecha²³. El maíz era uno de los cereales básicos cultivados en el litoral de la región, por lo que el pan de maíz formaba parte de la dieta de las familias, denominado borona, y hecho en casa. Además, el pescado suponía un bajo porcentaje en la partida de gastos de alimentación o sencillamente su coste era cero si consideramos el autoconsumo²⁴.

De lo expuesto anteriormente, obtenemos los siguientes resultados. En primer lugar, las familias en las que el cabeza fuese un obrero metalúrgico eran las que vivían mejor. Esta ocupación concentraba bastantes obreros en Vigo: era la cuarta ocupación masculina, como hemos constatado en la tabla 1 de la segunda sección de este artículo. Los salarios de los metalúrgicos eran los más altos, no sólo de Vigo sino, en general, de las ciudades de la España de los años veinte (Borderías, Muñoz-Abeledo, Cussó, 2022). En nuestro caso de estudio, los trabajadores del metal de Vigo cubrían con sus ingresos el 78% del gasto familiar. Les seguían muy de cerca los obreros típicos de la industria conservera, los soldadores de envases, que cubrían el 67% del gasto. Por último, las familias de pescadores, con ingresos más bajos, precisaban de la contribución del salario de las esposas, generalmente conserveras o encargadas de actividades auxiliares a la pesca, para poder subsistir. En segundo lugar, confirmamos que la contribución de las esposas conserveras a la unidad familiar suponía el 15% del gasto total y el 23% del gasto en alimentación. Lo que significa, en la práctica, que aquellas familias en las que la mujer trabajase, aunque fuera de forma estacional, tenían un ligerísimo déficit presupuestario. No obstante, si tenemos en cuenta el autoconsumo alimentario, las familias obreras y pescadoras tendrían superávit siempre y cuando los gastos sociales no superasen lo supuesto en la partida de otros gastos, es decir, que los esposos no se excediesen en el consumo de alcohol o tabaco.

Para el presupuesto de 1945, surge una mayor complejidad analítica en el caso de los gastos alimenticios, considerando la situación de escasez que se vivía en la España de posguerra. El mercado y la producción se encontraban intervenidos, realizándose una redistribución estatal a través de las denominadas cartillas de racionamiento. Se establecían unos cupos diferentes para hombres, mujeres, ancianos y niños, en los que se buscaba garantizar la subsistencia de la población. En ese sentido, para la elaboración del presupuesto familiar, hemos tenido en cuenta las cantidades de alimentos repartidas en Vigo y su precio subvencionado, obteniendo los datos mediante la prensa local²⁵. Esta fuente nos proporciona cantidades y precio por kilo de los alimentos consumidos por un hombre adulto y por menores de 14 años. Para conocer el consumo alimentario de una mujer adulta se ha tenido en cuenta el criterio establecido en la Orden de Distribución de los Productos Alimenticios de 1939, según el cual las mujeres reciben el 80% del equivalente masculino²⁶. Como observamos en la tabla 4, la dieta era insuficiente. Si bien es cierto que en esta época se produjo una gran carestía entre las capas populares de la sociedad, se ha optado por la elaboración de una estimación dietética un poco más amplia. Para ello, se ha tomado como dieta «normal» el reparto que se establece en la Orden sobre Distribución de los Productos Alimenticios del 1 de julio de 1939. Teniendo en cuenta estos datos, hemos estimado la diferencia entre lo recibido y lo que haría falta para completar la dieta, además de calcular su coste total.

En cuanto a los precios de los productos, hemos utilizado diferentes fuentes. Para el caso de la carne, hemos tenido en cuenta la información de precios descrita en la Reglamentación de la Campaña Chacinera, 1948-49²⁷. En este caso, hemos seleccionado la carne de cerdo porque se corresponde con los hábitos de consumo alimentario de la población gallega, además de ser más económica que la de vacuno. Por último, para el pescado hemos empleado los precios de subasta a vendedores minoristas de la Lonja de Vigo para el año 1945. En el caso de los demás productos, el precio escogido tiene un origen hemerográfico, provenientes de la horquilla de precios establecida por el Gobierno para la venta en el comercio local, y posteriormente, publicada en el Faro de Vigo²⁸.

TABLA 4. Distribución de artículos de racionamiento efectuados en Vigo durante el mes de enero de 1945, por persona en gramos

Alimento	Hombre adulto	Mujer adulta	Menores de 14 años
Aceite	1250	1000	1250
Azúcar	300	240	180
Harina	200	160	120
Café	100	80	60
Manteca fundida	100	80	60
Patatas	8000	6400	8000
Garbanzos	100	80	60
Jabón	200	160	400
Arroz	400	320	400
Leche condensada	-	-	200

FUENTE: Faro de Vigo. 21/01/1945. N.º24.027.

La tabla 5 nos indica que, en el primer franquismo, las aportaciones femeninas no eran complementarias, sino imprescindibles, como también lo eran en el primer tercio del siglo xx, para la reproducción de las familias que trabajaban en industrias marítimas. Teniendo en cuenta el autoconsumo, que en ese periodo había incrementado su importancia como motor para la subsistencia familiar, un soldador no podía asumir él solo los gastos diarios de su hogar, presentando un déficit de -1,32 pesetas/día. No obstante, si introducimos el salario femenino de la operaria conservera, la familia pasa a poder cubrir sus necesidades básicas.

Comparando ambos presupuestos, y teniendo en cuenta la brecha salarial, las conclusiones son claras. En primer lugar, en 1926 ninguna de las familias tipo presentadas podían reproducirse sin el salario femenino y sin el autoconsumo. Si eliminásemos la brecha salarial existente el sector conservero, las familias no necesitarían recurrir a la producción familiar para su subsistencia. En 1945, seguiría siendo necesario el autoconsumo, sobreviviendo las familias gracias al mismo.

TABLA 5. Presupuestos para una familia obrera en Vigo, 1945, en pesetas

Gastos de la unidad familiar						
Alimento	Precios pesetas Kilo/litro	Kilogramos año	Coste medio anual	Coste medio día	Coste medio anual con autoconsumo	Coste medio día con autoconsumo
Pan común de trigo	0,48 122,34	509,76 0,33	244,68	0,67		
Carne cerdo	13,29	162	2.152,98	5,89	1.076,49	2,95
Tocino	17	32,4	550	1,5	275,4	0,75
Bacalao	20	64,8	1.296	3,55	648	1,76
Pescado	1,53	172,8	264,38	0,72	132,19	0,36
Legumbres	0,47	86,4	86,4	0,11	20,3	0,05
Patatas	0,3	216	64,8	0,17	32,4	0,08
Azúcar	3,25	25,92	25,92	0,23	42,12	0,11
Café	19,9	8,64	8,64	0,47	85,97	0,24
Aceite común	4,92	43,2	43,2	0,58	106,27	0,29
Total gasto alimentación (70%)	5.082	13,96	2.541,49	6,96		
Vivienda (8%)			580,8	1,59	290,4	0,8
Calefacción + alumbrado (2%)			145,2			
	0,39	72,6	0,2			
Otros gastos (20%)			1.452			
	3,98	726	1,99			
Gasto Total			7.260	19,89	3.630	9,95
Ingresos de la unidad familiar						
		Salario día	Ingreso anual	Ingreso día		
Soldador		10,5	3.150	8,63		
Conservera		6,5	1.170	3,2		
Déficit /superávit						
Considerando sólo los ingresos del cabeza de casa						
				Sin autoconsumo		Con autoconsumo
Soldador				-11,26		-1,32
Sumando los ingresos de ambos esposos						
Familia soldador y conservera				-8,06		1,88

FUENTE: elaboración propia a partir de diversas fuentes. Para la alimentación, Faro de Vigo, 21/01/1945, N.º24.027; Orden de 28 de junio de 1939 regulando la distribución de los productos alimenticios, n.º 182 del BOE, pág. 3.602, 01/07/1939; Reglamentación de la Campaña Chacinera, n.º247, de 03/09/1948, págs. 4247 a 4254; Libro de Operaciones Diarias de la Lonxa do Berbés, 02/01/1945, caja 7815, AHMV. Para la vivienda, Fondo sobre Alquileres de la Delegación de Hacienda de Vigo, AHPP, cajas G11850 y G11851. Para la calefacción, Molina Ibáñez (1977) y Pérez-Fuentes Hernández (2003). Para otros gastos, Maluquer de Motes (2013).

6. Conclusiones

En este artículo, hemos analizado la evolución de la desigualdad salarial y la segmentación laboral desde una perspectiva de género, histórica y sectorial, mostrando el diferencial salarial por género en la industria de transformación de pescado en la Ría de Vigo desde comienzos del siglo xx hasta la década de los sesenta. Así mismo, hemos cuantificado la aportación monetaria del trabajo femenino remunerado, que ha sido esencial para la reproducción familiar en el litoral de Galicia, y, especialmente, en ciudades industriales en las que la transformación de pescado dinamizó la economía portuaria, como es el caso de Vigo.

Las mujeres constituyeron la mano de obra mayoritaria en el sector conservero, jugando un papel central en el desarrollo económico del litoral de Galicia, y, en concreto, en la estructura económica y laboral de la ría de Vigo, donde se localizaba el 40% de las empresas conserveras del sector. En este artículo hemos analizado la presencia femenina en la formación de un mercado de trabajo industrial, el diferencial salarial entre hombres y mujeres en el sector de conservas de pescado y la contribución económica de las mujeres a la subsistencia familiar a través de la elaboración de salarios nominales y de presupuestos familiares en el periodo de estudio.

Hemos observado la concentración de las mujeres en el segmento secundario del mercado de trabajo con carreras profesionales discontinuas, con menor posibilidad de ascenso que los hombres y con salarios inferiores a los mismos. Pese a ello, la brecha salarial pasó de representar un 61% a inicios del siglo xx, a suponer un 32% a finales de los años cincuenta. La segmentación laboral se mantuvo en el periodo franquista, así como la ocupación de las mujeres conserveras viguesas, que no se convirtieron en amas de casa –exclusivamente– sino que siguieron trabajando en las plantas de procesado de pescado.

Además, hemos analizado los niveles de vida de la Ría de Vigo a través de la elaboración de presupuestos de familias obreras y pescadoras. Hemos demostrado que los ingresos femeninos, aunque parcos, eran imprescindibles para no incurrir en déficits o que estos fuesen muy pequeños. Esta contribución de las mujeres se produjo tanto en el primer tercio del siglo xx como en el primer franquismo. Incluso, teniendo en cuenta el autoconsumo familiar, las clases populares de la Ría de Vigo tendrían superávit. Partiendo de la base de que el grueso del presupuesto familiar corresponde a la alimentación, la aportación monetaria femenina rondaba el 20% del gasto alimentario en el primer tercio del siglo xx. Para el franquismo, la cifra ascendería al 23%, en un contexto en el que los planes del régimen para garantizar la subsistencia a través del reparto se mostraron totalmente insuficientes.

Fuentes

Censo de 1940 para la ciudad de Vigo. INE Histórico.

Faro de Vigo, 1900-1950.

Fondo sobre Alquileres de la Delegación de Hacienda de Vigo. Cajas G11850 y G11851. Archivo Histórico Provincial de Pontevedra.

La pesca marítima en España en 1920, Fernando Buen, 1922. Instituto Español de Oceanografía.

Libro de Operaciones Diarias de la Lonxa do Berbés, 02/01/1945, caja 7815. Archivo Histórico Municipal de Vigo.

Orden de 28 de junio de 1939, regulando la distribución de los productos alimenticios, n.º182 del BOE, 01/07/1939, págs. 3.602.

Reglamento de Trabajo en las Industrias de Conservas y Salazones de Pescados y similares. Publicado en el BOE el 29/07/1939, págs. 4100-4101.

Reglamentación de la Campaña Chacinera, n.º247, de 03/09/1948, págs. 4247 a 4254.

Reglamentación Nacional de Trabajo en las Industrias de Conservas y Salazones de Pescado. Publicado en el BOE el 31/10/1958, págs. 1841-1842.

Expedientes de personal de las empresas Massó Hermanos, S.A y Alfageme.

Bibliografía

- ABREU, Luisa. 2013. The fish canning sector in Spain: Galicia, Vigo estuary, 1900-2003. *Regional and Sectoral Economic Studies* 13(2): 5-18.
- ABREU, Luisa. 2015. The Massó fish canning company an innovative family business, 1883-1994. *EERS. Estudios Económicos Regionales y Sectoriales* 15(1): 5-16.
- ALLEN, Robert. 2014. The High Wage Economy and the Industrial Revolution: A Restatement. *The Economic History Review* 68(1): 1-22. DOI: <https://doi.org/10.1111/ehr.12079>
- BEASCOECHEA-GANGOITI, José María; Pareja-Alonso, Arantza; Serrano-Abad, Susana. 2024. Presupuestos de las familias trabajadoras del área de la Ría de Bilbao en 1924. *Áreas. Revista Internacional de Ciencias Sociales* (47): 69-94. DOI: <https://doi.org/10.6018/areas.630511>
- BECKER, Gary. 1971. *The Economics of Discrimination*. Chicago: University of Chicago Press.
- BECKER, Gary. 1987. *Tratado sobre la familia*. Madrid: Alianza.
- BLAU, Francine; KAHN, Lawrence. 2017. The gender wage gap: extent, trends and explanation. *Journal of Economic Literature* 55(3): 789-865. DOI: <https://doi.org/10.1257/jel.20160995>
- BENEITO, Pilar; GARCÍA-GÓMEZ, José J. 2022. Gender Gap in Wages and Mortality Rates During Industrialization: The Case of Alcoy, Spain, 1860-1914. *Feminist Economics* 28(1): 114-141. DOI: <https://doi.org/10.1080/13545701.2021.1983190>
- BORDERÍAS, Cristina; MUÑOZ-ABELED, Luisa. 2018. ¿Quién llevaba el pan a casa en la España de 1924? Trabajo y economías familiares de jornaleros y pescadores en Cataluña y Galicia. *Industrial History Review* 27 (74): 77-106. DOI: <https://doi.org/10.1344/rhi.v27i74.19921>
- BORDERÍAS, Cristina; MUÑOZ-ABELED, Luisa. 2024. *Desigualdades en perspectiva histórica. Trabajo, salarios y género en España, siglos XVI-XX*. Barcelona: Icaria.
- BORDERÍAS, Cristina; MUÑOZ-ABELED, Luisa. 2024. Family Budgets and standards of living

- among the working classes in Spain (1900-1930). *Áreas. Revista Internacional de Ciencias Sociales* (47): 5-14. DOI: <https://doi.org/10.6018/areas.644041>
- BORDERÍAS, Cristina; MUÑOZ-ABELED, Luisa; CUSSÓ, Xavier. 2022. Breadwinners in Spanish cities (1914-1930). *Revista de Historia Industrial-Industrial History Review* (84): 59-98. DOI: <https://doi.org/10.1344/rhihr.v31i84.32631>
- BURNETTE, Joyce. 1997. An investigation of the female-male wage gap during the industrial revolution in Britain. *The Economic History Review* 50 (2): 257-281. DOI: <https://doi.org/10.1111/1468-0289.00054>
- BURNETT, Joyce. 2008. *Gender, work and wages in industrial revolution Britain*. Cambridge: Cambridge University Press.
- BURNETTE, Joyce; STANFORS, Maria. 2020. Understanding the Gender Gap Further: the Case of Turn-of-the-Century Swedish Compositors. *The Journal of Economic History* 80(1): 175-206. DOI: <https://doi.org/10.1017/S002205071900086X>
- CAMPS, Enriqueta. 1990. La teoría del capital humano, una constatación empírica: La España industrial en el siglo XIX. *Revista de Historia Económica. Journal of Iberian and Latin American Economic History* 8 (2): 305-334. DOI: <https://doi.org/10.1017/S0212610900008156>
- CAÑAL-FERNÁNDEZ, Verónica; MUÑOZ-ABELED, Luisa. 2023. Escasez, hambre y racionamiento. Una reconstrucción del presupuesto familiar de la clase obrera en el Gijón de la posguerra. *Historia Social* (107): 19-44.
- CARMONA BADÍA, Xoán; NADAL, Jordi. 2005. *El empeño industrial de Galicia: 250 años de historia (1750-2000)*. A Coruña: Fundación Pedro Barrié de la Maza.
- CARMONA BADÍA, Xoán. 2022. Changes in the Spanish fish-canning industry since Spain's entry to the European Union. *Ocean & Coastal Management* 216: 1-10. DOI: <https://doi.org/10.1016/j.ocecoaman.2021.105972>
- CARRERAS, Albert. 1983. *La producció industrial española i italiana des de mitjan segle XIX fins a l'actualitat, 3 vols.* Tesis doctoral. Barcelona: Universitat Autònoma de Barcelona.
- COX, Donald; NYE, John. 1989. Male-Female Wage Discrimination in Nineteenth-Century France. *The Journal of Economic History* 49(4): 903-920. DOI: <https://doi.org/10.1017/S0022050700009499>
- CUSSÓ, Xavier; BORDERÍAS, Cristina. 2023. Male wages, household budgets and living standards of Barcelona working class. *Investigaciones en Historia Económica* 19: 3-21. DOI: <https://doi.org/10.33231/j.ihe.2023.05.007>
- FERNÁNDEZ GONZÁLEZ, Manuel. 2005. *Dinámica sociopolítica en Vigo durante la Segunda República*. Tesis doctoral. Santiago de Compostela: Universidade de Santiago de Compostela.
- GALLEGO MARTÍNEZ, Domingo. 2016. Obstáculos comerciales y salariales a la transición nutricional en la España de comienzos del siglo XX. *Investigaciones de Historia Económica* 12: 154-164. DOI: <https://doi.org/10.1016/j.ihe.2015.10.001>
- GÁLVEZ, Lina. 1997. Breadwinning Patterns and Family Exogenous Factors: Workers at the Tobacco Factory of Seville During the Industrialization Process, 1887-1945. *International Review of Social History* 42: 87-128. DOI: <https://doi.org/10.1017/S0020859000114804>

- GOLDIN, Claudia. 1992. *Understanding the gender gap: an economic history of American women*. New York: Oxford University Press.
- GOLDIN, Claudia. 1995. The U-Shaped Female Labour Function in Economic Development and Economic History. NBER Working Paper n.º4707. National Bureau of Economic Research, Cambridge, MA. In: T. Paul Schultz (ed.), *Investment in Women's Human Capital and Economic Development*. Chicago: University of Chicago Press, 61-90. DOI: <https://www.doi.org/10.3386/w4707>
- GOLDIN, Claudia. 2006. The Quiet Revolution That Transformed Women's Employment, Education, and Family. *American Economic Review* 96(2): 1-21. DOI: <https://www.doi.org/10.1257/000282806777212350>
- GOLDIN, Claudia. 2014. A grand gender convergence: It's last chapter. *American Economic Review* 104(4): 1091-1119. DOI: <https://www.doi.org/10.1257/aer.104.4.1091>
- GERMÁN ZUBERO, Luis. 2009. Coste de la vida y poder adquisitivo de los trabajadores en Zaragoza durante el primer tercio del siglo XX. En Carlos FORCADELL ALVAREZ (ed.), *Razones de historiador. Magisterio y presencia de Juan José Carreras*. Zaragoza: IFC, 373-390.
- HICKS, John. 1932. *The Theory of Wages*. London: Macmillan.
- HORELL, Sara; HUMPHRIES, Jane. 1992. Old questions, new data, and alternative perspectives: Families living standards in the Industrial Revolution. *The Journal of Economic History* 52(4): 849-880. DOI: <https://doi.org/10.1017/S0022050700011931>
- HORELL, Sara; HUMPHRIES, Jane. 1995. Women's labour force participation and the transition to the male-breadwinner family, 1790-1865. *Economic History Review* 68(1): 89-117. DOI: <https://doi.org/10.2307/2597872>
- HUMPHRIES, Jane; RUBERY, Jill. 1984. The reconstruction of the supply of the labor market: the relative autonomy of social reproduction. *Cambridge Journal of Economics* 8(4): 331-346. DOI: <https://doi.org/10.1093/oxfordjournals.cje.a035554>
- LAGO PEÑAS, Ignacio. 2002. La discriminación salarial por razones de género: un análisis empírico del sector privado en España. *Reis* (98): 171-196.
- LE PLAY, Frederick. 1990. *Campeños y pescadores del norte de España: tres monografías de familias trabajadoras a mediados del siglo XIX*. Madrid: MAPA.
- LLONCH, Montserrat. 2024. Brecha salarial, estructura ocupacional y género en la industria textil algodonera catalana (1891-1936). En Cristina Borderías y Luisa Muñoz-Abeledo (eds.): *Desigualdades en perspectiva histórica. Trabajo, salarios y género en España, siglos XVI-XX*. Barcelona: Icaria, 111-135.
- MALUQUER, Jordi. 2013. La inflación en España. Un índice de precios de consumo, 1830-2012. *Banco de España. Estudios de Historia Económica* (64): 1-147.
- MARTÍNEZ LÓPEZ, David; MARTÍNEZ MARTÍN, Manuel; MOYA GARCÍA, Gracia. 2024. Trabajo, presupuesto familiar y nivel de vida en la Andalucía urbana durante el «Trienio Bolchevique»: Jaén, 1920. *Áreas. Revista Internacional de Ciencias Sociales* (47): 95-122. DOI: <https://doi.org/10.6018/areas.638361>
- MINCER, Jacob. 1974. *Schooling, Experience and Earnings*. Columbia: Columbia University Press.

- MOLINERO, Carme; YSÀS, Pere. 1998. La historia social de la época franquista: Una aproximación. *Historia social* (30): 133-154.
- MORA-SITJA, Natalia. 2020. The occupational structure of Spain, 1877-1981. Working Paper. University of Cambridge. DOI: <https://doi.org/10.17863/CAM.62629>
- MOREY, Antònia; SEGUÍ BELTRÁN, Andreu; PUJADAS-MORA, Joana; JOVER-AVELLÀ, Gabriel. 2024. Presupuestos familiares en la periferia industrial. Los núcleos urbanos de la Mallorca rural y las ciudades menorquinas, ca. 1920-30. *Áreas. Revista Internacional de Ciencias Sociales* (47): 45-68. DOI: <https://doi.org/10.6018/areas.629051>
- MUÑOZ-ABELED, Luisa. 2003. Hombres, mujeres y latas: la segmentación laboral en la industria de conservas de pescado. En Carmen Sarasúa y Lina Gálvez (coords.), *¿Privilegios o eficiencia? Mujeres y hombres en los mercados de trabajo*. Alicante: Universidad de Alicante, 279-306.
- MUÑOZ-ABELED, Luisa. 2010. *Género y niveles de vida en la industria conservera de Galicia: 1870-1970*. Barcelona, Icaria.
- MUÑOZ-ABELED, Luisa. 2011. Los Massó. Dos siglos y cuatro generaciones de dinámica empresarial. En Xoán Carmona Badía (coord.), *Las familias de la conserva. El sector de las conservas de pescados a través de sus sagas familiares*. Pontevedra: Diputación de Pontevedra y Fundación Clúster de Conservación de Productos del Mar, 114-145.
- MUÑOZ-ABELED, Luisa; VERDUGO MATÉS, Rosa. 2023. New Evidence for Women's Labor Participation and Occupational Structure in Northwest Spain, 1877-1930. *The Journal of Interdisciplinary History* 53(4): 571-598. DOI: https://doi.org/10.1162/jinh_a_01906
- MUÑOZ-ABELED, Luisa. 2024. Presupuestos familiares y niveles de vida en una ciudad portuaria del norte de España: A Coruña, 1924. *Áreas. Revista Internacional de Ciencias Sociales* (47): 155-168. DOI: <https://doi.org/10.6018/areas.638441>
- OAXACA, Ronald. 1973. Male-female wage differentials in urban labour markets. *International Economic Review* 14(3): 693-709. DOI: <https://doi.org/10.2307/2525981>
- PAREJA ALONSO, Arantza. 2012. Las mujeres y sus negocios en la gran ciudad contemporánea. Bilbao a principios del siglo xx. *Historia Contemporánea* (44): 145-181. DOI: <https://doi.org/10.1387/hc.6608>
- PÉREZ CASTROVIEJO, Pedro. 2006. Poder adquisitivo y calidad de vida de los trabajadores vizcaínos, 1876-1936. *Revista de Historia Industrial-Industrial History Review* 15(30): 103-142.
- WACHTER, Michael; GORDON, R.A.; PTORE, Michael J.; HALL, Robert E. 1974. Primary and Secondary Labor Markets: A Critique of the Dual Approach. *Brookings Papers on Economic Activity* (3): 637-693. DOI: <https://doi.org/10.2307/2534250>
- PONS, Jerònia; BIBILONI, Andrés. 2004. El mercat de treball a la indústria del calçat a Mallorca (1900-1970). El cas de Lloseta. *Estudis baleàrics* 78-79: 141-159.
- PRADOS DE LA ESCOSURA, Leandro. 2003. *El progreso económico de España (1850-2000)*. Madrid: Fundación BBVA.
- REHER, David; BALLESTEROS, Esmeralda. 1993. Precios y salarios en Castilla la Nueva: La construcción de un índice de salarios reales, 1501-1991. *Revista de Historia Económica*

- ca-Journal of Iberian and Latin American Economic History* 11 (1), 101-151. DOI: <https://doi.org/10.1017/S0212610900003803>
- RODRÍGUEZ SANTAMARÍA, Benigno. 1916. *Los pescadores del norte y noroeste de España: su vida social y particular por provincias*. Madrid: Imprenta Alemana.
- ROJO CAGIGAL, Juan Carlos; HOUPH HUNGER, Stefan. 2011. Hunger in Hell's Kitchen: Family Living Conditions during Spanish Industrialization. The Bilbao Estuary, 1914-1935. *Working Papers in Economic History*. USM. WP n.º 11-04.
- SERRANO, Ángel; MALO DE MOLINA, José Luis. 1979. *Salarios y mercado de trabajo en España*. Madrid: Blume.
- SILVESTRE, Javier. 2005. El grado de discriminación salarial de las mujeres en España, 1930: una primera aproximación. *Investigaciones de Historia Económica* 1(2): 105-143. DOI: [https://doi.org/10.1016/S1698-6989\(05\)70004-7](https://doi.org/10.1016/S1698-6989(05)70004-7)
- SOLER I BECERRO, Raimon. 1997. La evolución del salario en una empresa textil algodonera. La fábrica de La Rambla de Vilanova i la Geltrú (1891-1925). *Revista de Historia Económica-Journal of Iberian and Latin American Economic History* 15 (2): 399-411.
- VILAR RODRÍGUEZ, Margarita. 2004. La ruptura posbélica a través del comportamiento de los salarios industriales: nueva evidencia cuantitativa (1908-1963). *Revista de Historia Industrial-Industrial History Review* (25): 81-126.
- VILAR RODRÍGUEZ, Margarita. 2014. Los diferenciales salariales entre mujeres y hombres en España (c.1850-1975): un análisis provisional. *AREAS: Revista Internacional de Ciencias Sociales* (33): 63-85.

Notas

1. GOLDIN (2006) dividió el mercado laboral femenino estadounidense del siglo xx en tres diferentes fases evolutivas, culminando en una cuarta fase revolucionaria (*the quiet revolution*) que comenzaba a finales de la década de los setenta. Tras el proceso revolucionario se inaugura un cambio de rol femenino: de simples sujetos pasivos, que tienen que aceptar una distribución de ingresos y tiempo dada, perjudicada por su papel de cuidadoras, a la de sujetos activos, pudiendo negociar tanto en el hogar como en el mercado laboral.
2. En la industria del algodón y lino de Gante, los cabezas de familia contribuían con un 61 y 59%, respectivamente. Otros ejemplos serían los oficios del metal (70%) y los artesanos (77%) (VAN DEN EECHHOUT, 1993). En el caso británico, durante el proceso de industrialización la media de contribución de los cabezas de familia era de un 76% (HUMPHRIES, 1995), un 66% los trabajadores de fábrica y un 85% los jornaleros agrícolas (HORRELL y HUMPHRIES, 1992, 1995).
3. La empresa Massó nace en 1816 como empresa familiar de salazones de pescado. La familia Massó, procedente de Blanes, constituía un ejemplo paradigmático de las numerosas familias catalanas que se asentaron entre la segunda mitad del siglo xvii y comienzos del siglo xix en la costa de Galicia, con el fin de explotar la salazón de sardina. Más adelante, a finales del siglo xix, hicieron la transición de la salazón a la conserva hermética de pescado. A partir de aquí, esta saga familiar se convirtió en líder del sector conservero, junto con otros pocos empresarios vigueses (Curbera, Valcárcel, Antonio Alonso), y así se mantuvieron a lo largo del siglo xx (MUÑOZ-ABELED, 2011).
4. Este es el número máximo de observaciones en periodo de estudio. Ello es debido a que el número de mujeres contratadas variaba cada año oscilando entre las seiscientas y las novecientas. La contratación femenina dependía de las costeras de sardina y de la cantidad de pescado que entrase en la fábrica. Así, las empresas conserveras llamarían a un número mayor o menor de mujeres según la afluencia de pescado. En cuanto a las observaciones masculinas la oscilación es menor, entre ochenta y cien, pues sus ocupaciones estaban más relacionadas con la producción de envases, maquinaria, carpintería, etc., por lo que su trabajo era más continuado.
5. El índice ha sido construido ponderando las tarifas pagadas a las diferentes categorías laborales (pinche, auxiliar, oficial 2º, oficial 1º y maestro/maestra) por el número de trabajadores/as de cada tarifa. Véase Reglamentación Nacional de Trabajo en las industrias de conservas y salazones de pescado y similares. Orden del 17 de Julio de 1939, B.O.E , 29/7/1939.
6. La empresa familiar Alfageme se funda en la localidad de Candás (Asturias) en 1873 por Bernardo Alfageme Pérez, quién comenzó la actividad conservera, además de actuar de trajinero entre los puertos marítimos asturianos y el interior peninsular. Tras la Primera Guerra Mundial, Alfageme decide trasladar definitivamente la empresa a Bouzas (Vigo), donde comienza su actividad en 1931. La empresa se hizo más fuerte durante la etapa franquista, convirtiéndose en una de las empresas más importantes del sector.
7. Este método para medir la brecha salarial es conocido como método de OAXACA (1973). No

obstante, el cálculo de la brecha salarial utilizando este método no está libre de críticas, debido a la existencia de variables omitidas (SILVESTRE, 2005).

8. GOLDIN (2014); BLAU y KAHN (2017).
9. Fuente: Tarifas de precios, Abastos y Comercio, Ab-Com 14, Archivo Histórico Municipal Vigo (AHMV). Memorias de la Cámara de Comercio de Vigo, 1926.
10. A partir de mediados del siglo XIX, los censos comienzan a subregistrar la presencia laboral femenina debido a la generalización del discurso de la domesticidad (FERNÁNDEZ GONZÁLEZ, 2005; PAREJA ALONSO, 2012; MORA-SITJA, 2020; MUÑOZ ABELEDO y VERDUGO MATÉS, 2023).
11. Si nos centramos únicamente en el análisis de la población activa femenina, la tasa de actividad oficial (TAF) rondaría el 15%. No obstante, sabemos que existe mucho subregistro y que las censadas como “sus labores” estaban trabajando, entre otros, en el sector conservero o metalgráfico (MUÑOZ, 2004; 2010).
12. Los oficiales se clasificaban a su vez en oficiales de primera y de segunda. Los lateros, cerradores y soldadores-reparadores se encontraban en la segunda.
13. Para el desplome de los salarios véase MOLINERO e YSÀS (1998:23) y VILAR RODRÍGUEZ (2004: 81-125).
14. En 1939, al clasificarse los salarios por zonas, se ha realizado una media entre la zona 1 y la 2, en el caso de existir disparidades.
15. Según el *Reglamento* de 1939, entendemos por peones “aquellos trabajadores mayores de dieciocho años que realizan los trabajos que se les encomienda sin especificación determinada y que hayan trabajado un mínimo de seis meses en industrias similares”. En el caso de las auxiliares, se las describe como “obreras de más de dieciocho años que ayudan a su labor a las de los grupos anteriores.”
16. La Ley de 24 de abril de 1958, sobre convenios sindicales y su Reglamento promulgado el 22 de julio del mismo año, determina el régimen legal de la contratación colectiva. BOE, nº99, 25/94/1958. Su regulación se adaptaba a la reglamentación general de las relaciones laborales españolas, en particular a la estructura de los sindicatos verticales (SERRANO y MALO DE MOLINA, 1979:50).
17. Esta es el tipo de dieta similar a la considerada como *respectability basket* por Robert ALLEN (2014).
18. Fuente: Exp. 1910. Peticiones del gremio de fabricantes de pan. Sesión municipal 31/5/1910. Abastos y Comercio, AB-COM 10, AHMV.
19. Una familia de 5 miembros consumiría al día 1,5 de trigo evaluado como pan. (LE PLAY, 1990: 148).
20. Este consumo de pan es superior al considerado en BORDERÍAS, MUÑOZ-ABELED0 y CUSSÓ (2022); pero esto es lógico porque en la dieta atlántica el consumo de pan y patatas fue superior al de la mediterránea en buena parte del siglo XX, como así lo apuntan las primeras encuestas de presupuestos familiares. *Encuesta de presupuestos familiares*, 1958. INE.
21. Fuente: Documentación referente al precio de la carne. Junta Local de Subsistencias. Precios Abastos y Comercio, AB-COM 14, AHMV.
22. Pérez Castroviejo basándose en las dietas de Sanz Escartín, Salillas y Puyol Alonso realizadas para el IRS lo considera así también. Véase PÉREZ CASTROVIEJO (2006).

23. Queda reflejado en Rodríguez Santamaría: “Tratándose de pescadores de aldea, casi todos tienen cerdos que matan anualmente y con su carne dan más sustancia y gusto a este caldo, a la par que toman tocino sobre el pan que les sirve, como ellos dicen, de compango.” RODRÍGUEZ SANTAMARÍA (1916), p. 304.
24. Las familias adquirirían en el mercado algunos pescados, como el bacalao o pescado fresco, antes de la costera de la sardina.
25. Faro de Vigo. 21/01/1945. Nº24.027.
26. Número 182 del BOE, pág. 3.602, 01/07/1939.
27. BOE, nº247, de 03/09/1948, págs. 4247 a 4254.
28. Faro de Vigo, nº24.027, 21/01/1945; Faro de Vigo, nº24.047, 10/02/1945

Women and Children in Factories: Did Mechanization Increase the Demand for Low-Cost Labor in Sweden?

Suvi Heikkuri 

Svante Prado 

Yoshihiro Sato

ABSTRACT: *Did mechanization affect the employment of women and minors in the late nineteenth century? In this paper, we explore the idea that early factories used mechanization to substitute women and children for adult men to save on labor costs. We use a survey conducted in Sweden in 1879 to build a cross-sectional dataset that consists of establishments across different industries. We show a positive association between establishment size and the employment of women and minors. However, we do not find a meaningful association between mechanization and the employment of women and minors independent of establishment size. Instead, we show that the effect of mechanization was more likely mediated through establishment size. Industry-specific factors also played an important role, as some industries had a long history of being female-intensive. (JEL*

CODES: N34, N64, J24, J31)

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Mujeres y niños en las fábricas: ¿Aumentó la mecanización la demanda de mano de obra barata en Suecia?

Suvi Heikkuri 

Svante Prado 

Yoshihiro Sato

RESUMEN: *¿Afectó la mecanización al empleo de mujeres y menores a finales del siglo XIX? En este trabajo analizamos si las primeras fábricas utilizaron la mecanización para sustituir a los hombres adultos por mujeres y niños con el fin de ahorrar costes laborales. Para ello, nos basamos en una encuesta realizada en Suecia en 1879 para construir una base de datos que incluye establecimientos de diferentes industrias. Con esta información mostramos una asociación positiva entre el tamaño del establecimiento y el empleo de mujeres y menores. No obstante, no encontramos una relación entre la mecanización y el empleo de mujeres y menores independientemente del tamaño del establecimiento. En lugar de ello, se observa que la mecanización estuvo más condicionada por el tamaño del establecimiento. Los factores específicos de la industria también desempeñaron un papel importante, ya que algunas industrias tenían una larga tradición en el empleo de mujeres.* (CODIGOS JEL: N34, N64, J24, J31)

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1. Introduction

A notable characteristic of nineteenth-century industrialization was the rise of large-scale mechanized factories. There was a gradual transition from artisanal workshops to larger production units that involved a higher division of labour and mechanization (Berger and Ostermeyer, 2024; Goldin and Katz, 1998; Sokoloff, 1984). As Goldin and Sokoloff (1982) show, this transition from artisanal shops to factories was associated with greater employment of women and children – due to both greater division of labour and to deskilling technological change. Thus, the increased employment of women and children in factories as a corollary to mechanization is linked to the deskilling hypothesis of nineteenth-century technologies (Acemoglu, 2002). Women and children could be considered unskilled workers because they were, in general, less experienced than men. Their lack of experience was in turn a consequence of age (they were usually younger than men) and employment time (women in particular had a shorter working life than men).

Two complexities challenge the claimed deskilling attribute of mechanization. First, it is important to disentangle two effects of mechanization; besides decreasing the importance of muscle power, mechanization also served to replace the repetitive and manual tasks performed by unskilled labour, which implies that increased mechanization may equally well have spelled the end of child labour use and tempered the demand for female workers (Olsson, 1995). Second, in addition to the double-edged impact of mechanization, the size of the establishment and the degree of mechanization were positively correlated in the era when steam and water wheels were used to generate mechanical power, making it difficult to separate their respective roles in the changing composition of the workforce (Katz and Margo, 2014). If female and child employment increase in parallel with mechanization, the prime cause might instead be increasing establishment size.

This paper aims to differentiate between the relative roles of mechanization and the size of establishments in explaining the extent of female and child labour. To achieve this aim, we have employed cross-sectional plant-level data for Swedish manufacturing in 1879, provided by a public enquiry by the so-called Tariff Commission, which include information on installed horsepower attributable to steam engines and hydropower. By then, Sweden was starting to catch up with the industrial core. Although Sweden is typically depicted as a country whose convergence with the industrial core occurred because of globalization and the technologies of the second industrial revolution, recent research traces the dynamic properties of manufacturing further back in time (Hamark and Prado, 2024). Early mechanization depended on waterpower because of the short domestic supply of coal. Steam engines were adopted rather late – the first one was installed in 1850 – but their diffusion was relatively fast, peaking at the end of the nineteenth century (Jörberg, 1961; Prado, 2014). Women and children made up a relatively large share of the Swedish industrial workforce. Women accounted for nearly 20 percent, whereas children accounted for five percent (Karlsson, 1996; Olsson, 1995). Public statistics, such as the annual industrial statistics, have a long history in Sweden, as well as public enquiries such as the one we draw upon. Therefore, it is worth examining the statistical

evidence provided by Sweden in order to gain additional insights into the effects of industrialization on the employment of female and child labour, especially if we take into account that few other countries provide data for the period under examination.

Our results show that large establishments were indeed more likely to have higher proportions of women and minors in their workforce. Even though this result is in line with the findings of Goldin and Sokoloff (1982) for the US in 1820–1850, we find no evidence that mechanization was associated with the employment of women and minors when we control for the effect of establishment size. The independent role attributed to establishment size also contrasts with Katz and Margo (2014: Table 1.2), who find a negative association between steam engines and female employment, after controlling for establishment size, for US manufacturing. They argue that mechanization required skilled workers for machine maintenance and installation, who were typically adult men.

Our interpretation is different. We argue that the association between establishment size and female workers had to do with labour division and industry-specific trajectories. First, larger establishments allowed for fine-grained labour division, which implied specialized and repetitive tasks quick to learn and master. This development shifted the demand for labour from men, who were skilled handicraft workers, to women and children, who had little to no previous experience in manufacturing work. Second, industry-specific factors played an important role, as some industries were more likely to employ women and children regardless of mechanization or plant size. This is particularly true for the textile industry, in which women started as home weavers and spinners before shifting to work in large textile factories (Karlsson, 1996; Nilsson, 2015; Schön, 1979). Many of the establishments in the textile industry had little mechanization but employed large numbers of workers.

Finally, our results also reinforce the view that women and minors were paid, on average, less than men. This result suggests that a potential reason why they were employed in both large and small establishments was the reduction of labour costs.¹ Others have argued that women were, on average, less productive than men because of their lower skills, explaining their inferior monetary gains (Burnette, 2015). Yet, for unskilled tasks, the productivity differentials may have been lower, and therefore, women with lower wages could have become an attractive option for saving on labour costs. This applied, above all, to large establishments because of their higher division of labour that favoured the demand for unskilled workers. We conclude, therefore, that the division of labour made possible by large plants, industry-specific trajectories, and cost advantage relative to male workers offer an explanation of why minors and women made up an important part of the labour force during nineteenth-century industrialization.

2. Mechanization and employment of women and children

Our point of departure is the study of Goldin and Sokoloff (1982) on the relationship between mechanization and the employment of women and children in the United States. Whi-

le the authors connect the increase in establishment size to mechanization, we consider these factors separately. In other words, we associate establishment size as an indication of a more intricate division of labour, which itself could drive the employment of women and children, and mechanization as an indication of technological advances in production methods.

Goldin and Sokoloff (1982) argue that American manufacturing relied on female and child labour as an alternative to the more expensive male labour in the early nineteenth century. According to their argument, large-scale production methods facilitated both “more intricate division of labour” and “the substitution of unskilled for skilled labour” (p. 742-743). Women and children at the time were, on average, less skilled than men, either by default (in the case of children) or by custom (in the case of women). The authors show that women made up as much as 30 percent of the manufacturing labour force in the northeast of the United States in 1820, growing to a peak of 40 percent between the 1830s and 1840s, after which it fell to 21 percent in 1860. In comparison, one-fifth of the labour force in Sweden at the turn of the twentieth century were women, and almost an equal share were minors under the age of 18 (Karlsson, 1996). Children under the age of 14 made up as much as five percent of the labour force around the same time (Olsson, 1995).²

Katz and Margo (2014) test the idea that large, mechanized establishments would have employed more women and children in the late nineteenth-century US manufacturing. Their results show that while mechanization, proxied by steam power use, is positively and statistically significantly associated with the employment of women and children, this association turns negative once controlling for establishment size. The authors suggest that the installation and maintenance of the special-purpose machinery required skilled labour, which was typically male. Gregg and Matiashvili (2022) explore similar aspects in Imperial Russia’s manufacturing sector and show that there was a negative association with capital intensity, which they use as a proxy for machinery, and female employment. However, factories with greater mechanization were more likely to employ children. The authors suggest that machinery was potentially more complementary to child labour, whereas women were substitutes for male workers.

The possible link between technological change and the substitution of women and children for adult male workers hinges on the assumption that technological change in the nineteenth century was deskilling. In the parlance of economics, workers’ skills are considered a factor of production, and new technologies may favour one factor of production over another in the process of “directed technical change.” In the instance of deskilling, machines (capital and technology) replace humans in processes that were previously performed by skilled artisans, leaving the menial tasks, such as carrying fuel and semi-finished goods across the factory floor, to the unskilled workers (Atack et al., 2004; Goldin and Katz, 1998). Many of these tasks were suitable for women and children (Humphries, 2013). Overall, the recent empirical research focusing on steam engines has offered mixed results in support of the deskilling hypothesis. De Pleijt and Weisdorf (2017) present evidence of de-skilling in Britain as labor moved from workshops to factories, whereas De Pleijt et al. (2020) show that steam engines themselves increased employment in skilled occupations but had a negative effect on schooling and literacy.

Franck and Galor (2021) show that steam engines resulted in greater human capital attainment in terms of primary school enrolment and literacy in France. Ridolfi et al. (2023) further show that steam engines had a positive impact on both employment and wages in France.

Equating “unskilled” with women and children and “skilled” with adult men is naturally a crude way to classify the two groups. Goldin and Sokoloff (1982) themselves admit that it is not necessarily true, at least not at the level of the individual. Atack et al. (2004), who also have objections, argue that since not all industries employed women, it would be hazardous to conclude that all adult men would be skilled workers. However, there are good reasons to believe that women and children were on average less experienced. This is true by default for child workers, and the contemporary social norm of women leaving work when they married meant that most female workers were in their late teens or early twenties.³ The labour force participation of wives and mothers was much lower than that of single childless women (Karlsson, 1995). The age profile of female workers offers an explanation why they were more inexperienced and were therefore offered tasks that we classify as unskilled. Although high-skill positions were not entirely out of reach, most of the time women had to accept repetitive work that required little on-the-job training (Stanfors and Karlsson, 2011).

The influence of discrimination as a factor explaining the gender wage gap has been widely discussed. Burnette (2015) argues that the typical gender wage gap could well be attributable to a lack of information on unobservable characteristics that determine productivity. She further shows that wage discrimination did not take place until late in the nineteenth century, which is in line with Goldin (1990). The discrimination in the late nineteenth and early twentieth centuries was largely limited to white-collar female workers and did not extend to blue-collar workers. Stanfors and Karlsson (2011) and Stanfors et al. (2014) examine gender pay differences within the tobacco industry in Sweden. They conclude that women are paid less than men only in hourly rates, whereas piece rates were the same for both genders. On average, women tended to be younger, unmarried, and performed tasks that required less skill. Burnette (2015) shows that most of the gender wage gap in American manufacturing can be explained by women’s lower productivity in comparison with men’s. Burnette and Stanfors (2020) find that women in the Swedish printing industry earned about 70 percent of the male wage, and they argue that most of this gap is explained by individual- and job-specific characteristics. The gender wage gap thus seems to be explained mainly by differences in the tasks performed by men and women.

Goldin and Sokoloff seem reluctant to associate women and children with unskilled workers, and for good reasons. As this review of the deskilling hypothesis has shown, the intricacies of the relations between mechanization on the one hand and the division of labour and the composition of workers’ skills on the other question both the deskilling hypothesis and the deskilling label conferred on female workers. In the following sections, we aim to bring some clarity to these complexities through a look at establishment-level data for Sweden in 1879.

3. The survey of the Tariff Commission

We have drawn on the survey conducted by the Tariff Commission, a governmental agency created to assess the impact of the changing Swedish trade policy of the 1860s. In 1880, the commission surveyed establishments across several sectors of the economy; in our study, however, we have considered only manufacturing.⁴ Establishments were defined as one unit of production in one place. Though the survey asked establishments to retrospectively report figures back to 1860, we use the last year of observation, 1879, as our only cross-section. Earlier years suffer from underreporting, rendering the figures reported unreliable due to survival bias. We draw on the original returns preserved at the National Archive but digitized for a previous project (Collin et al., 2019).⁵ In that project, the digitized returns were used to establish county-specific wages by industry. We have instead employed each return as a separate observation, which offers an opportunity to examine establishment-level data for manufacturing when Sweden stood on the brink of massive industrialization.

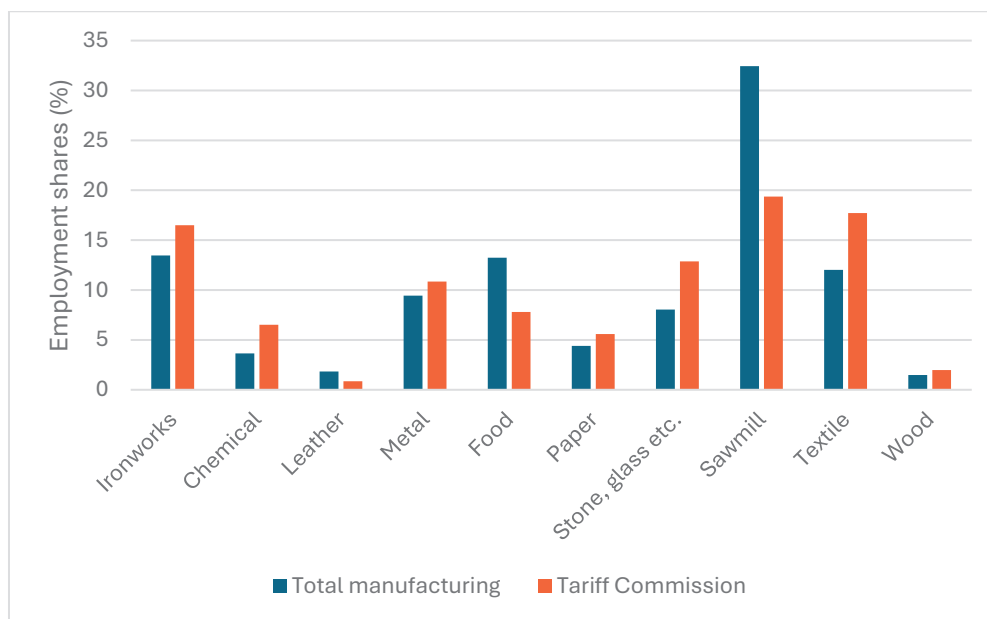
The commission's survey has some benefits. First, it asks 42 questions, covering aspects such as the composition of workers, product variety, intermediate consumption, wages, and state of market competition. Furthermore, it included all manufacturing industries. This encompassing nature of the survey sets it apart from the annual industrial statistics that left several industries – most notably the sawmills – out of account until it went through several revisions in 1913. Finally, we can observe the use of steam power and hydropower separately, whereas the industrial statistics only started to report horsepower attributed to different energy sources in 1897 (Prado, 2014).

The downside of the survey is its low response rate. Across all manufacturing industries, the average response rate was 19 percent. Thus, it is important to establish the reliability and validity of the evidence that the digitized survey provides. The response rate was calculated as the number of returns divided by the number of questionnaires sent out (Collin, 2016: p.199). In itself, the response rate does not reveal anything important about validity; therefore, in order to confirm the validity of the survey, we offer some indicative figures (Table 1). We compare the survey with the industrial statistics for 1879, on the one hand, and the estimated total for manufacturing, on the other. In the estimated total, the industrial statistics are combined with complementary information on output provided by Schön (1988) for Swedish historical national accounts (Hamark and Prado, 2024; Prado, 2008). The surveyed establishments account for 33 percent of the estimated total number of workers in manufacturing. We may compare this figure with that of the industrial statistics, which account for 55 percent of workers employed in manufacturing. Considering the distribution of employment across the different industries, in Figure 1 we compare the sample of the Tariff Commission with the estimated total. The sawmill industry is clearly underrepresented by the Commission's report, whereas the textile industry is overrepresented. For the other industries, the deviation is within reasonable error boundaries.

TABLE 1. The Tariff Commission in comparative perspective, 1879

	Estimated total			
	Tariff Commission	Industrial statistics (BiSOS D)	Handicraft excluded	Handicraft included
Workers (1000s)	44.4	74.2	134.2	255.0
Share of est. total (excl. handicraft)	33.1%	55.2%	100%	190%

FIGURE 1. Employment by industry in the manufacturing sector vis-à-vis the Tariff Commission's sample



NOTE: The employment figures of total manufacturing are constructed by adding the industrial statistics (BiSOS C and D) and contributions from Lindahl et al. (1937) and Schön (1988). A detailed description appears in Prado (2008, p. 197–227), with one notable exception: the extra output of grain milling that was added by Schön (1988) has not been included. The reason is that this output is attributable to very small grain mills that cannot be considered manufacturing plants.

In total, the dataset consists of 901 establishments, though due to missing values, not all of them are included in the analysis. The survey covers the number of workers in each establishment, divided into men, women, and children. The dataset includes 43,571 workers, of which 13 percent are women and 11 percent are minors. In comparison, Karlsson (1996) shows that 22 percent of employees in manufacturing were women and 16 percent were minors. Her percentages over-estimate the shares of females and minors because they are based entirely on the industrial statistics (BiSOS D), which at the time excluded mining, iron and steel and sawmills,

all of which were male-dominated industries accounting for more than half of total employment. Employment in mining, steel and iron industries was given in a separate publication (BiSOS C), whereas sawmills were first included in the industrial statistics (BiSOS D) in 1896.

The age of the children is not given, but in the original source they are often referred to as *gossar* (lit. boys), which refers to a young male worker, typically under the age of 14. In some cases, they were instead referred to as *minderåriga* (lit. underaged), which means under the age of 18. This inconsistency begs the question where to draw the line between a “child” worker and a young worker in his or her teens. Goldin and Sokoloff (1982) run into a similar issue, and they treat workers as child workers if they are under the age of 16 and male, or under the age of 15 and female. The child labor committee in Sweden referred to workers under the age of 15 as child workers but raised this limit to 18 years after 1863 (Olsson, 1995). Unfortunately, it is not possible to distinguish between workers under 15 years of age and those between 15 and 18 in our dataset. In the empirical part of this paper, we thus refer to these workers simply as “minors”. Given the widespread use of child labor at the time, however, it is likely that a fair share of the underage workers was significantly younger than 18 years of age. In Sweden, the minimum working age at factories was 12 years after 1846 (Olsson, 1995).

For our study, the most important variables are establishment size, share of women and minors, and the use of inanimate power. Establishment size is measured as the number of workers employed, and mechanization is measured as steam power use. Overall, the average size of an establishment is just under 54 workers. We may compare that size with the industrial statistics (BiSOS D), in which the average establishment size was 18.6 workers in 1879. As previously mentioned, this figure results from a selection of industries that is different from the Tariff Commission’s, excluding, most importantly, most of the iron and steel industry and sawmills altogether. The sawmills had a large average plant size, whereas the iron and steel industry had relatively small plants. In the Tariff Commission survey, there are 13 establishments with more than 500 workers, and five of them are sawmills. Excluding these would decrease the average establishment size by more than 10 workers. Because of the different coverage of the industrial statistics pre-1896, the true average establishment size for manufacturing at large is unknown. The average size for 1896 was 23 workers per establishment,⁶ which indicates that the Tariff Commission has oversampled large establishments.⁷

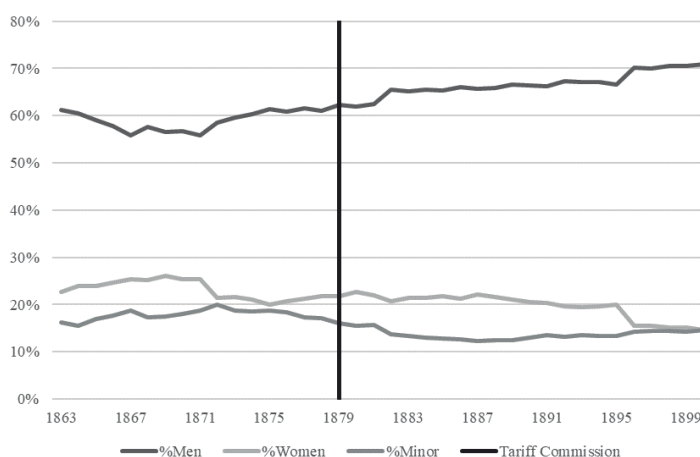
The survey includes three measures of capital. These three measures include the cost of fire insurance, the assessment value, and the acquisition value. None of them are perfect measures of capital, and they all appear in the returns with irregular frequency. The most frequently reported of them is the cost of fire insurance. Like Holmquist (2003), we use fire insurance as a measure of capital. We have employed it in all cases when it has been reported and imputed its value in all cases when it is missing and either of the other two measures have been reported. The imputation was done by regressing the log of fire insurance against the log of assessment value for all returns that included figures for both and controlling for county and industry. We then used the implied elasticity to impute a figure for the cost of fire insurance by multiplying the elasticity with the reported figure for assessment value (and adding the value of the county dummy and industry dummy).

On average, 9 percent of the workers in an establishment were women and 9 percent of them were minors, bringing their total share to 18 percent. About one-third of the establishments were steam-powered. On average, establishments used just under 14 horsepower of steam, and 31 horsepower of water. Thus, the total power usage was just under 49 horsepower. Capital per worker was on average 2,753 Swedish krona (SEK). The summary statistics are reported in Table A1 in the Appendix.

4. Mechanization and employment of women and children in Sweden

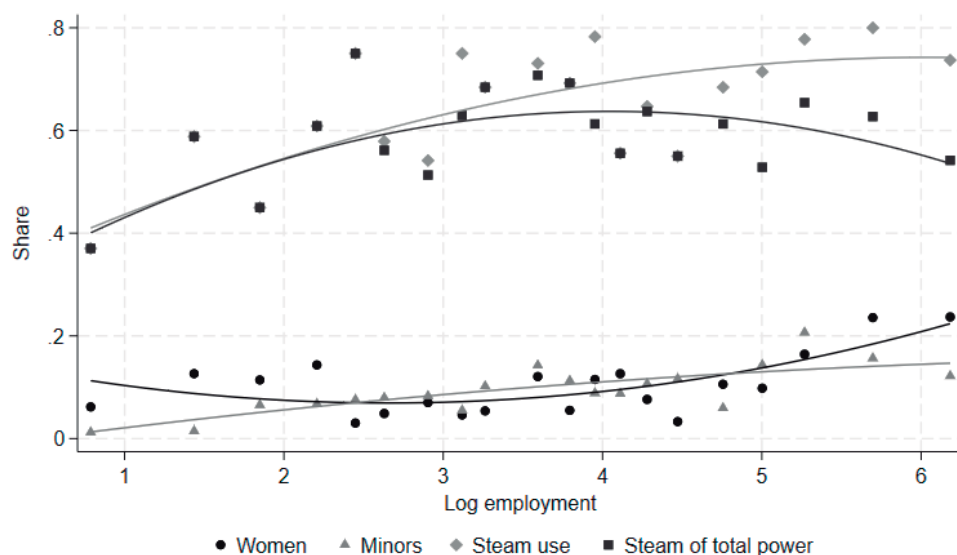
Women represented a significant share of manufacturing employment throughout the late nineteenth century. Between 1863 and 1895, their share hovered at or above 20 percent, after which it fell to around 15 percent (see Figure 2). The share of minors, which includes both boys and girls under the age of 18, was only slightly lower, ranging from 15 to 20 percent until the 1880s, during which the share fell to less than 15 percent. In fact, the composition of manufacturing employment remained remarkably stable with regard to gender and minors' shares across the last four decades of the century, considering total manufacturing employment increased almost ten-fold, from a mere 28,000 in 1863 to 257,000 in 1895 (Karlsson, 1996).

FIGURE 2. Employment of men, women, and minors.



NOTE: Minors are boys and girls under 18 years of age. The vertical line at the year 1879 represents the cross-sectional data from the Tariff Commission. Source: Karlsson (1996); BiSOS D

FIGURE 3. Employment of women and minors, and steam use by establishment size, binned scatterplot.



NOTE: The Y-axis represents the share of each variable. The X-axis is the log of the sum of all workers within an establishment. The share of women and minors reflects the number of female and underage workers divided by the total employment within establishments in each size bin. Steam use is the share of establishments using steam power in each size bin. The share of steam power is calculated by dividing steam power by the total power (measured in horsepower) in an establishment.

Our analysis begins by examining establishment size, mechanization, capital intensity and the percentages of women and minors in the workforce. Figure 3 shows that the relationship between size and the employment of women and children is not linear. Very large establishments were more likely to employ both women and minors. However, in smaller establishments, the pattern is not clear. Women were somewhat more likely to be employed in small establishments compared to medium and large establishments, whereas minors were more likely employed in medium-sized establishments.

Mechanization is the other factor possibly explaining the employment of women and minors. In Sweden, steam engines began to be used for mechanical power in sawmills by the mid-nineteenth century, gradually replacing water wheels before yielding to electric motors by the 1890s (Prado, 2014). For late nineteenth-century American manufacturing, Atack et al. (2008) show that establishment size and mechanization were positively related in such a way that large establishments were more likely to adopt steam engines than small ones. Furthermore, Berger and Ostermeyer (2024b) establish a positive connection between firm size and steam adoption in Sweden. Our evidence presented in Table 2 confirms their finding: steam power use increases by establishment size. Hydropower remained a viable option in

Sweden owing to the high number of waterfalls and rapids, which might have tempered the spread of steam engines. Indeed, steam power use made up just one-third of the total power use. By 1897, it was roughly half (Prado, 2014).

TABLE 2. The share of women and minors (%) by establishment size and steam use.

	Steam = 0				Steam = 1			
	N	Women and minors	Women	Minors	N	Women and minors	Women	Minors
Small (0-5)	239	13.7	8.0	5.7	23	19.9	19.9	0
Medium (6-15)	130	19.3	6.8	12.7	47	17.0	11.4	5.6
Large (16-99)	125	16.7	7.0	9.7	123	18.2	9.2	9.5
Very large (100+)	35	21.9	11.3	10.9	81	29.6	17.1	12.5

NOTE: Employment shares refer to the total employment by size and use of steam. The number of establishments is reported in the column "N". SOURCE: Tariff Commission

Table 2 shows cross-tabulation of steam engine use and establishment size together with the share of women and minors as a percentage of total employment. We use the same establishment size categories as Goldin and Sokoloff (1982), but with an added category for very large establishments, as in Katz and Margo (2014). Women and minors account for one-quarter of all the workers in the dataset, which is comparable to the United States in 1880, where they accounted for one-fifth of manufacturing employment (Goldin and Sokoloff, 1982: Table 1). In general, the share of women and minors was higher in steam-powered establishments. The opposite pattern is seen among medium-sized establishments, in which non-steam-powered establishments have a higher share of women and minors. Very large steam-powered establishments were most likely to employ women and children. In contrast, Berger and Ostermeyer (2024a) find that manufactories, which they define as large non-mechanized establishments, were more likely to employ women and children compared to mechanized factories. However, this is probably explained by the establishment size as their paper does not differentiate between small and large mechanized factories.

Mechanization and the employment of women and minors are positively correlated with establishment size (see Table A2 in the Appendix). The correlation between steam power use measured in horsepower and the employment of women and minors is weak. The analysis so far suggests that the difference is more meaningful between steam- and non-steam-powered establishments, whereas the degree of mechanization is less important. Furthermore, capital intensity is negatively correlated with the employment of both women and minors.

In Table 3, we adapt the regression specifications from Katz and Margo (2014: Table 1.2) to make comparisons with the United States. Their results suggest that steam power had a statistically significant positive association with female and child employment in the United States in 1870 and 1880 when controlling for waterpower and capital by value added. However, once adding establishment size as a control variable, the relationship with steam becomes

TABLE 3. OLS regression adapted from Katz and Margo (2014)

VARIABLES	(1) Percent women and minors	(2) Percent women and minors	(3) Percent women and minors	(4) Percent women	(5) Percent minors
Steam power	5.312*** (2.027)	6.098*** (2.057)	-0.960 (2.168)	1.240 (1.850)	-2.200* (1.239)
Waterpower	-4.267** (1.823)	-1.588 (2.287)	-4.290* (2.187)	-3.686** (1.702)	-0.604 (1.371)
Log K/L		-4.416*** (0.956)	-3.413*** (0.938)	-1.852*** (0.704)	-1.561** (0.637)
Log Employment			4.116*** (0.716)	2.286*** (0.555)	1.830*** (0.442)
Industry FE					
Ironworks		<i>reference</i>	<i>reference</i>	<i>reference</i>	<i>reference</i>
Chemical		9.598*** (3.604)	15.51*** (3.699)	9.723*** (2.328)	5.788** (2.644)
Leather		-4.740 (2.932)	2.840 (3.288)	3.531 (2.322)	-0.691 (2.312)
Metal		0.905 (2.316)	2.692 (2.380)	-0.583 (1.379)	3.275* (1.894)
Food		18.21*** (3.136)	23.99*** (3.142)	21.75*** (2.452)	2.245 (1.967)
Paper		21.28*** (4.010)	23.05*** (3.888)	9.687*** (2.839)	13.36*** (2.938)
Stone, glass etc.		3.460 (2.965)	6.596** (2.982)	1.534 (2.020)	5.062** (2.190)
Sawmill		-5.923*** (2.215)	-1.160 (2.453)	-1.660 (1.604)	0.500 (1.814)
Textile		32.43*** (4.228)	34.65*** (3.974)	26.04*** (3.191)	8.611*** (2.343)
Wood		17.65** (7.913)	18.59** (7.557)	11.10* (6.600)	7.486 (4.567)
Other		-2.427 (5.310)	-0.177 (5.354)	2.083 (3.505)	-2.260 (3.105)
Region FE		Yes	Yes	Yes	Yes
Constant	16.88*** (1.506)	40.89*** (8.115)	21.68** (8.554)	10.08 (6.543)	11.60* (6.237)
Observations	748	748	748	748	748
R-squared	0.025	0.297	0.334	0.312	0.180

NOTES: Steam and Water are binary variables, taking the value of 1 only if an establishment has steam or hydro power, and zero otherwise. Log capital per worker is the log of the value of capital stock divided by the number of workers. Log employment refers to the log of the number of workers per establishment. Robust standard errors in parentheses, It should read like this: *** p<0.01, ** p<0.05, * p<0.1. SOURCE: Tariff Commission.

negative, though remains statistically significant. Our results suggest the same for Sweden in 1879, but the coefficient for steam power loses its significance after adding establishment size as a control. The coefficient for waterpower, however, becomes statistically significant at a 90-percent confidence level once controlling for establishment size. Waterpower seems to be negatively associated with the employment of women and minors, possibly due to the role played by heavy industries, an issue we return to in the next section. A potential reason for the inconsistency in the coefficient for steam power is revealed when we separate women and minors: the association appears positive for women and negative for minors. The association is not statistically significant for women due to high standard error, but it is statistically significant at a 90-percent confidence level for minors. Our results are in line with Gregg and Matiashvili's (2022: Table 6), who show that machine power per worker, which they use as a proxy for capital intensity, has a negative association with female employment. We show that capital-per-worker has likewise a negative association with both female and minor employment. Capital intensity could potentially capture mechanization not directly linked to the use of inanimate power.

TABLE 4. Mediation analysis using OLS regression.

Variables	(1) % of women and minors	(2) Log employment (mediator)	(3) % of women and minors
Steam power (1/0)	5.497*** (1.915)	1.470*** (0.106)	0.323 (2.048)
Log employment			3.520*** (0.755)
Industry FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Constant	11.11** (5.559)	3.396*** (0.349)	-0.838 (6.784)
Observations	790	790	790
R-squared	0.25	0.48	0.27

NOTES: For variables, see Table 3. Robust standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. SOURCE: Tariff Commission

The use of steam power and establishment size are positively correlated with each other (Atack et al., 2008; Berger and Ostermeyer, 2024b), which means that separating their effects is challenging. If women and minors are more likely to be employed by large establishments, they are also more likely to work in a steam-powered establishment. In Table 4, we perform a simple mediation analysis based on OLS regression (Baron and Kenny, 1986).⁸ First, we regress the share of women and minors against steam power. Column (1) shows that there

TABLE 5. OLS regressions by size group.

	(1)	(2)	(3)	(4)
VARIABLES	Small	Medium	Large	Very large
Dependent variable: Percent women and minors				
Steam power	3.821 (6.078)	1.540 (4.280)	-0.234 (3.996)	-3.502 (3.787)
Waterpower	-16.94*** (4.116)	-2.265 (4.074)	1.145 (4.375)	11.63* (6.311)
Log K/L	-6.153*** (1.982)	-1.888 (1.712)	-3.302** (1.517)	1.945 (3.844)
Industry FE				
Ironworks	Reference	Reference	Reference	Reference
Chemical	-32.47*** (10.68)	15.37* (8.583)	31.37*** (7.951)	66.94*** (13.64)
Leather	-37.21*** (11.00)	-1.800 (6.745)	-0.346 (7.474)	
Metal	-19.49* (11.70)	7.775 (6.684)	7.860** (3.141)	0.336 (6.095)
Food	-11.31 (10.25)	17.83*** (6.247)	28.13*** (5.938)	29.95* (16.77)
Paper	-5.597 (14.07)	22.29*** (7.823)	25.78*** (5.433)	26.99*** (9.478)
Stone, glass etc.	-32.80*** (12.51)	9.880 (6.274)	6.833 (4.622)	25.82*** (9.668)
Sawmill	-34.03*** (11.19)	-1.632 (5.166)	2.377 (3.990)	11.87** (5.722)
Textile	1.206 (13.07)	17.47** (7.363)	35.18** (15.79)	54.89*** (7.851)
Wood	-22.19* (11.42)		27.32*** (9.693)	4.728 (12.62)
Other	-28.44** (12.99)	-11.52 (9.293)	4.500 (9.204)	-32.85*** (8.930)
Region FE	Yes	Yes	Yes	Yes
Constant	88.67*** (19.98)	26.36* (15.47)	39.92** (15.82)	-33.93 (22.98)
Observations	228	169	239	112
R-squared	0.438	0.354	0.371	0.692

NOTES: Steam and waterpower use is measured as a dummy-variable. Their reported use is indicated by value of one, and zero otherwise. Log capital per worker is the value of capital stock divided by the number of workers. Small (1-5 workers), Medium (6-15 workers), Large (16-99 workers), Very large (100+ workers). Robust standard errors in parentheses, *** p<0.01,

is indeed a positive relationship between steam use and employment of women and minors. As suspected, the relationship between the two could be driven by establishment size, which is also positively associated with steam power use, as shown in Column (2). Finally, in Column (3), where we regress the share of women and minors against both steam use and establishment size, the coefficient for steam use becomes nonsignificant, suggesting almost full mediation.

To further explore the role played by steam and waterpower on the employment of women and minors, we run the regressions for each size group separately. Table 5 shows that the association with steam power varies by size: it is positive for small establishments and negative for very large establishments, but none of the coefficients are statistically significant due to large standard errors. The relationship is reversed for waterpower: it is (strongly) negative for small establishments and positive for very large establishments.

There is little evidence that mechanization would independently explain variations in the employment of women and minors. We find instead establishment size to have a stronger positive association with women and minors, which is in line with Goldin and Sokoloff (1982). Large establishments had a more intricate division of labor, which implied more strictly defined tasks requiring only basic training, as argued by Atack et al. (2005). However, the relationship is not linear, and industry-specific factors could explain why small establishments were more likely to employ women and minors compared to medium-sized establishments. We will discuss these drivers further in the next section.

5. Accounting for variations across industries

The employment of women and minors varied across industries, and for reasons other than mechanization and establishment size. Figure 4 shows the use of steam power and the employment of women and minors by industry. On average, establishments within the textile industry were the largest, and well over half the workers in the industry were women or minors. However, the textile industry was not the greatest user of steam power. Establishments within sawmills and wood industries were more likely to use steam power. Overall, the figures reveal why there was no clear relationship between steam power and the employment of women and minors at the aggregate level: their shares depended more on the industry itself than on the level of mechanization. In this section, we will discuss historical and other economic factors that could explain why some industries employed more women and minors.

In Table 6, we interact steam power use with the industry fixed effects, which shows great variation across industries as to whether the association between mechanization and the employment of women and minors is positive or negative. We observe a statistically significant positive association in the chemical and textile industries; for textiles, however, it is only at the 90 percent confidence level. Both these industries have historical roots in employing women and children but are also highly mechanized. For ironworks, the association is statistically significant and negative, mainly because the use of steam power was relatively uncommon.

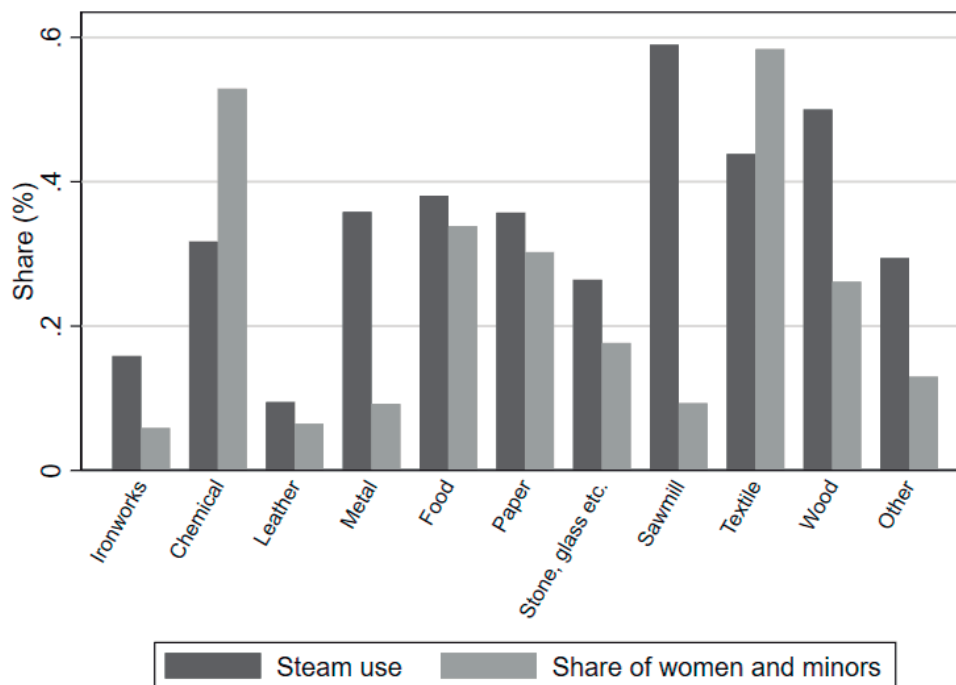
TABLE 6. Industry interactions with steam power

VARIABLES	Share of women and underage	
	Coefficient	Robust standard error
Steam (1/0)	-6.754***	(1.823)
Industry FE		
Ironworks	<i>Reference</i>	
Chemical	4.562	(3.835)
Leather	-0.205	(3.364)
Metal	3.324	(2.886)
Food	22.32***	(3.697)
Paper	25.55***	(4.911)
Stone, glass etc.	6.040*	(3.293)
Sawmill	1.345	(2.746)
Textile	29.79***	(4.930)
Wood	23.05**	(10.23)
Other	0.632	(7.502)
Industry-interactions		
Ironworks	<i>Reference</i>	
Steam x Chemical	31.48***	(5.929)
Steam x Leather	7.219	(5.201)
Steam x Metal	0.0128	(4.218)
Steam x Food	5.375	(5.157)
Steam x Paper	-3.975	(7.126)
Steam x Stone, glass, etc.	3.046	(4.851)
Steam x Sawmill	-1.603	(3.402)
Steam x Textile	13.41*	(8.072)
Steam x Wood	-6.157	(14.50)
Steam x Other	-0.243	(7.572)
Water (1/0)	-5.086**	(2.284)
Log K/L	-3.342***	(0.930)
Log Total Employment	3.663***	(0.714)
Constant	23.61***	(8.646)
Observations	748	
R-squared	0.369	

NOTES: Steam and waterpower use is measured as a dummy-variable. Their reported use is indicated by value of one, and zero otherwise. Log capital per worker is the value of capital stock divided by the number of workers. Log total employment is the log of the sum of all workers within an establishment. The interaction terms represent the coefficients for steam use by industry. Reference group is ironworks. Robust standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. SOURCE: Tariff Commission.

However, the industry did employ minors, presumably boys. Almost no women worked within ironworks.

FIGURE 4. Steam use and the employment of women and minors by industry.



NOTE: The share of steam is calculated using a binary variable for steam use by establishment. The share of women and minors is from the total industrial employment. SOURCE: Tariff Commission.

The relatively high share of women and minors in the chemical industry was largely explained by the large match factories (Beglund, 1982).⁹ *Jönköpings tändsticksfabrik* employed as many as 211 women and 275 minors in its factory of almost 900 workers, where they also used steam engines to power the belts running machinery.¹⁰ Olsson (1995) describes the work of child workers in match factories as repetitive and manual, such as making match boxes. This work was almost completely manual, and as the process was mechanized, the demand for child labor decreased. Before the emergence of textile factories, women usually produced fabrics and clothing at home for their own use and for sale (Nilsson, 2015). It was therefore a natural transition to use the existing skill base and employ women in textile factories (Schön, 1979). The textile industry employed almost half of the total female industrial labour force (Karlsson, 1996). Olsson (1995) argues that in both textile and match factories, mechanization at the end of the century reduced the need to employ child workers. Because of the cross-sectional nature of our data, we cannot rule out the possibility that the implementation

of steam engines within these industries would ultimately reduce the demand for female and child labor. In our data, large textile mills and match factories were both using steam engines and employing many women and minors.

While the food and beverage industry was female-intensive, it was not particularly mechanized in the late nineteenth century. Women, who had so far been responsible for cooking and baking at home, put their skills to work in the emerging food industry. Stanfors and Karlsson (2011) show that many unskilled tasks within the tobacco industry were almost entirely female-dominated, even though this unskilled bias did not rule out women from holding positions that required higher skills. However, while the industry employed great numbers of women and minors, the evidence of steam engine use is more mixed. Some large tobacco factories reported no use of steam power, but in sugar mills and breweries the use of steam power was more common, which explains the large standard error for the food industry in Table 6.

Up to one-third of jobs in the paper industry were held by women or minors. They were often employed by larger paper mills, but it is unclear what kind of tasks they performed. The industry was divided somewhat evenly between mechanized and non-mechanized establishments, which makes the association with the employment of women and minors inconsistent. For example, more than half of the 126 workers at *Holmens pappersbruk* were women or minors even though the factory did not use steam engines. In contrast, nearly all of the 72 workers at the steam-powered *Bergviks trämassefabrik* were men.

Heavier industries such as ironworks, sawmills, and metal working were defined by the demand for physical strength prior to large-scale mechanization. As Karlsson (1995) argues, contemporaries viewed female labor in manufacturing as undesirable because strenuous work could render women less fit to be wives and mothers and incline them to sacrifice their household duties. Heavy industries did, however, use large amounts of both hydro- and steam-power. For sawmills, steam engines were fundamental in removing the constraints imposed by sites located by streams. Using steam engines allowed them to be located closer to the ports on the coast, facilitating transportation. In the iron industry, processing of metal in large blast furnaces required much energy, which is why we see a large average use of energy within ironworks. Most of this energy came from waterpower in 1880. At that time iron production was still dominated by relatively small production units scattered across Bergslagen, an area in the middle of Sweden known for its iron deposits. The development of the iron industry from then onwards saw a dramatic increase in the average plant size and the explosive growth of the entire industry. With the innovation of a new charcoal-based method for producing bar iron, often referred to as the Swedish Lancashire process, along with the expansion of railways allowing long-distance transportation of charcoal, it became beneficial to increase establishment size. As a result, large swaths of smaller production units disappeared within a few decades (Rydén, 2005). But men continued to dominate the workforce. Upstream in the value-added chain, mechanical workshops adopted steam power to run installations such as steam hammers, matchmaking machines and milling machines. But this profession, too, remained male-dominated.

Unlike the heavy industries, the leather industry was dominated by small workshops, such as tanneries with an average of five to six workers. Most of these were adult men. We assume that the reasons are historical: artisans and craftsmen were typically male, because there were major barriers for women to enter such occupations. In general, women may have preferred industries where they had pre-existing skills, and which were perceived as appropriate for women. These did not include ironworks, leather, metalworking or sawmills.

To conclude, we see different uses of steam engines across industries, which impacts the association between mechanization and the employment of women and minors. Historical roots and path dependency also explain why some industries were more likely to employ women or minors. In other words, we cannot assert that mechanization alone would increase the demand for female and child labor.

6. Relative wages of women and minors

One of the potential arguments for employing more women and minors is cost-saving (Goldin and Sokoloff, 1982). The division of labor in larger establishments plays a role in the motivation for low-cost labor: as tasks become simpler and therefore easier and faster to learn, low-cost labor becomes more attractive. Previous research has shown that women had an inferior status when it came to earnings in the nineteenth century, although we lack systematic evidence (Bagge et al., 1933; Burnette and Stanfors, 2020; Hamark et al., 2024). In Sweden, women earned, on average, 50 percent of male wages in the textile industry during the late nineteenth century (Prado, 2010).

We can offer new evidence of pay differentials for men, women and minors drawing on the Tariff Commission's cross-section of 1879. The low number of observations that include information on daily wages poses a limit on our analysis and the conclusions we can draw from it. Given this limitation, the industry averages have a rather large error bound. We have 395 establishments that reported information both on daily wages and on employment. Of these cases, 239 reported male wages, 167 female wages, and 150 underage wages. Only 40 establishments reported both male and female wages. This small sample of gender wage ratios makes it challenging to assess the significance of establishment-specific factors. Establishments that reported information on wages were, on average larger, used more inanimate power, and had larger capital stock (see Table A3).

The weighted averages are calculated by multiplying the number of workers of a specific group (male/female/child) in an establishment, l_{je} , with the corresponding wage paid in that establishment, w_{je} , so the numerator becomes the sum product for each industry, i . The denominator represents the sum of all workers of group j in establishment e in each industry. The weighted average wage for men, women, and children for each industry is given by the quotient of the sums:

$$W_{ij} = \frac{\sum w_{je} l_{je}}{\sum l_{je}}$$

TABLE 7. Daily wages across industries in 1879 (in Swedish kronor)

Industry	Men	Women	Minors	$\frac{w_w}{w_m}$	$\frac{w_c}{w_m}$
				w_m	w_m
Ironworks	2.31 (60)	0.58 (1)	0.99 (12)	0.25	0.43
Chemical	1.81 (14)	1.02 (15)	0.71 (11)	0.56	0.39
Leather	2.06 (17)	0.84 (1)	1.25 (1)	0.41	0.61
Metal	1.98 (23)	0.83 (3)	0.80 (14)	0.42	0.40
Food	2.11 (15)	1.35 (58)	0.72 (24)	0.64	0.34
Paper	1.85 (11)	0.82 (11)	0.77 (14)	0.44	0.42
Stone & glass	2.35 (32)	1.07 (26)	0.65 (28)	0.46	0.28
Sawmills	2.57 (45)	0.84 (8)	1.04 (16)	0.33	0.41
Textile	1.65 (16)	1.02 (38)	0.72 (22)	0.62	0.44
Wood	1.81 (4)	1.33 (5)	0.91 (6)	0.73	0.50
Other	2.17 (2)	0.75 (1)	0.80 (2)	0.35	0.37
Total	2.21 (240)	1.08 (167)	0.76 (150)	0.49	0.34

NOTES: Wages weighted by the size of the establishment. Number of observations in parentheses. SOURCE: Tariff Commission.

By calculating this weighted average for three types of labor, for men, women, and children, across all 11 industries, we arrive at the average wages presented in Table 7. On average, adult men earned a daily wage of 2.21 Swedish krona (SEK) across industries, whereas women earned 1.08 and children 0.76 SEK. The highest-paying industries for men were sawmills, stone and glass, and ironworks. These industries were also among the most male-dominated. For women, the highest-paying industries were food and beverage, and wood processing. For the food and beverage industry, we have more observations, lending reliability to our findings, while for wood processing, we only have five observations for female wages. In male-dominated industries, such as ironworks and sawmills, women were worse off earnings-wise. For underage workers, the best-paying industries were leather and sawmills, whereas the lowest-paying industries were chemical, food and beverage, and textiles.

Is mechanization associated with higher or lower wages? Our earlier analysis implies that the impact of mechanization on the employment of women and minors varies by industry. Table 8 shows that steam engines do not have a statistically significant association with wages, but hydropower has a negative association with female wages. This is likely driven by the high energy use in ironworks industry, which also employs mostly men. However, we do observe a positive relationship between capital intensity and both male and female wages, which suggests that capital investments in general likely spurred labour productivity and thereby wages. Furthermore, we observe a positive association between total employment and both male and female wages, which is opposite of what Attack et al. (2004) observe for the United States between 1850 and 1880. Our results, though limited by the availability of wage observations, thus suggest that larger plant size is not associated with lower skill intensity, defined as the establishment wage by Attack et al. (2004).

TABLE 8. Wage regressions.

	(1)	(2)	(3)
	<i>Dependent variables are expressed in logs</i>		
VARIABLES	Male wages	Female wages	Underage wages
Steam power	-0.00985 (0.0556)	0.0543 (0.0632)	-0.0313 (0.0752)
Waterpower	0.0228 (0.0655)	-0.0925 (0.0776)	-0.119 (0.107)
Log Employment	0.0356** (0.0165)	0.0611*** (0.0196)	-0.000277 (0.0356)
Log K/L	0.0436* (0.0255)	0.0297 (0.0247)	0.0954** (0.0371)
Industry FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Constant	0.315 (0.252)	-0.756*** (0.237)	-0.857** (0.337)
Observations	220	155	141
R-squared	0.386	0.560	0.378

NOTES: Steam and waterpower use is measured as a dummy-variable. Their reported use is indicated by value of one, and zero otherwise. Log capital per worker is the value of capital stock divided by the number of workers. Log total employment is the log of the sum of all workers within an establishment. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, SOURCE: Tariff Commission.

The low wages of female and underage workers offered an attractive and feasible solution to slashing labor costs. We have supported the previous evidence showing that the relative wages of female workers were low; on average, female workers earned about half of the wage of male workers (Prado, 2010; Hamark et al., 2024). This gap was even larger than in agriculture, which means that the wage gap increased as the employment share of the industrial sector grew at the expense of the sectoral share of agriculture (Molinder et al. 2022). We must consider these wage ratios as raw figures, however, because we are unable to account for labor heterogeneity. Research on the tobacco industry and printing industry has shown that accounting for the effects of formal education, on-the-job training and the nature of work narrows the pay gap between male and female workers (Burnette and Stanfors, 2020; Stanfors et al., 2014). On the shop floor, where men and women performed the same labor services, the hourly wage rates barely differed by sex. However, women were excluded from higher positions, which explains the average female-male wage gap at the industry level. In general, female and male workers rarely performed the same tasks because of the gender-segregated labour market, so it is difficult to apply the tobacco case to the labor market at large. The female to male wage ratio in manufacturing was at any rate probably inherited from agriculture. If it was customary to pay female farm servants and casual workers significantly less than their male peers, factory owners have probably been very tempted to perpetuate that practice in order to economize on labor costs.

7. Concluding discussion

In this paper, we have shown that there was a positive link between establishment size and the employment of women and minors in Sweden in the late nineteenth century. This result is in line with the evidence from the United States (Goldin and Sokoloff, 1982; Katz and Margo, 2014) and suggests that larger establishments had a more intricate division of labor, which itself may have enabled the greater use of women and children as workers. However, we fail to find a statistically significant association between mechanization and the employment of women and minors, independent of capital intensity and establishment size. This result suggests that there might not be a reason to believe that employing inanimate power would increase female and child employment independently of the degree of labor division.

Our results raise the question whether women and minors were employed disproportionately in larger establishments or whether establishments that employed more women and minors became larger over time? Eriksson and Stanfors (2015) suggest that female employment offered a competitive advantage to firms because of low female wages during the turn of the twentieth century. This argument, however, rests on a case study from the tobacco industry, which had a relatively high share of women and minor workers. If women and minors offered a competitive advantage, why did not all industries employ them to a greater extent? We may attribute the higher share of women and minors in certain industries to both contemporary attitudes and historical developments. Women were thought of as being primarily wives and mothers, and there was a fear that their employment, especially in factories, would impair their qualities in these roles (Karlsson, 1995). Historical contingencies explain why certain industries employed many female and underage workers. As in the textile industry, where women were gainfully employed in the so-called putting-out system well before the rise of textile factories (Schön, 1979). The fact that many women had acquired manual dexterity in textile production explains why they continued to be employed in textile production after the formation of textile factories. The historical legacy of female employment in the production of yarn and fabric dwarfs the importance of mechanization, which offers no clues to understanding the predominance of female workers in the textile industry. This conclusion runs counter to the idea that mechanization is the propelling force in the increase of female labor force participation.

The same argument has a bearing on the up-and-down swings in the share of underage workers in the nineteenth century. It was the increased division of labor, entailing larger establishments, that enhanced the share of underage workers. Increasing mechanization in the late nineteenth century, by contrast, served to reduce the share of underage workers, as did the law regulating working conditions for minors in manufacturing and handicrafts that were issued in 1882. Olsson (1995) shows that the share of child labor in many industries declined before the law had entered into force.

Regarding the deskilling hypothesis, we cast doubt on the widely held belief that the steam engine increased the use of unskilled workers. The steam engine features often in discussions about the deskilling attribute of technology in the First Industrial Revolution. It is argued to have enabled a substitution of skilled handicraft workers with unskilled workers (Goldin and

Katz, 1998). At first sight, this notion seems to carry some sense. The first reason is that the production of goods through craftsmanship required a great deal of work experience. Adolescents were apprenticed to master craftsmen over many years to acquire the skills necessary to become a master and be able to trade skills to produce goods and services. This was a lengthy process often supervised and regulated under the guild system. In contrast, some menial tasks in a factory could be learned within a few days. The contrasting images of the refined skills of master craftsmen on the one hand and the drudgery of the factory on the other have perpetuated the deskilling notion of the industrial revolution.

The second reason is the very design of factories before the deployment of small electric motors. A factory powered by a single, centrally located prime mover, be it a steam engine or a water wheel, required a complex web of iron and steel line shafts as well as pulleys and leather belts, sometimes extending over several floors and even buildings (Devine, 1983). The entire system was in motion when the engine was running, and no matter how many machines were being operated by workers. In large factories, this complex system of moving parts required time-consuming maintenance, such as filling the drip oilers or repeatedly tightening the belts that otherwise would become too loose. Yet we have not seen any evidence that this labor service was commonly done by women and minors. Rather, it is more likely that the installation and maintenance work required skilled technicians and machine engineers. Attack et al. (2004) for example, show that mechanization is associated with increasing wages, implying that more skilled workers were employed.

On a final note: can we characterize female workers as unskilled because of their wage disadvantage relative to their male peers? The answer to this question has implications for the debate about deskilling, which often uses wages as a proxy for skills. We are inclined to respond in the negative, leaning towards an argument that is twofold. First, to equate the low wage level of female workers with inferior labor productivity, or unskilled labor services, is tautological: output is measured by value added, which equals the sum of wages and profits, the proportions of which vary by industry and establishment. Venturing to suggest that low wages are explained by low labor productivity is like saying that the low wages of female workers depend on their low wages, which is clearly nonsensical. Second, the cost of female workers was probably exogenously determined, deeply ingrained in the pre-industrial society, and carried over to the industrial society. This cost-benefit made them highly attractive for tasks that either did not require physical strength or required skills that women had previously acquired, which we argued was the case in the textile and garment industry. We should therefore eschew the notion that female workers' inferior pecuniary gains should confer on them the label of unskilled.

Bibliography

ACEMOGLU, Daron. 2022. Directed Technical Change. *The Review of Economic Studies*, 69(4): 781-809. DOI: <https://doi.org/10.1111/1467-937X.00226>

- ATACK, Jeremy; BATEMAN, Fred; MARGO, Robert A. 2004. Skill Intensity and Rising Wage Dispersion in Nineteenth-Century American Manufacturing. *Journal of Economic History*, 64(1): 172-192. DOI: <http://www.jstor.org/stable/3874946>
- ATACK, Jeremy; BATEMAN, Fred; MARGO, Robert A. 2008. Steam Power, Establishment Size, and Labor Productivity Growth in Nineteenth Century American Manufacturing. *Explorations in Economic History*, 45(2): 185-198. DOI: <https://doi.org/10.1016/j.eeh.2007.08.002>
- BAGGE, Gösta; LUNDBORG, Erik; SVENNILSON, Ingvar. 1933. *Wages in Sweden 1860-1930, Part Two*. Lonson: P. S. King & Son.
- BARON, Reuben M.; KENNY, David A. 1986 The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6): 1173. DOI: <https://doi.org/10.1037//0022-3514.51.6.1173>
- BERGER, Tor; OSTERMEYER, Vinzent. 2024a. Firm survival and the rise of the factory. *Economic History Review*. DOI: <https://doi.org/10.1111/ehr.13328>
- BERGER, Tor; OSTERMEYER, Vinzent. 2024b. Institutional innovation and the adoption of new technologies: The case of steam. CEPR Discussion Paper No. 19530. DOI: <https://cepr.org/publications/dp19530>
- BERGLUND, Bengt. 1982. *Industriarbetarklassens formering: arbete och teknisk förändring vid tre svenska fabriker under 1800-talet*. Diss. Göteborg: Göteborgs universitet.
- BURNETTE, Joyce. 2015. The paradox of progress: the emergence of wage discrimination in US manufacturing. *European Review of Economic History*, 19(2): 128-148. DOI: <https://doi.org/10.1093/ereh/hev002>
- BURNETTE, Joyce; STANFORS, Maria. 2020. Understanding the gender gap further: The case of Turn-of-the-Century Swedish composers. *Journal of Economic History*, 80(1): 175-206. DOI: <https://doi.org/10.1017/S002205071900086X>
- COLLIN, Kristoffer. 2016. *Regional wages and labour market integration in Sweden, 1732–2009*. Diss. Göteborg: University of Gothenburg.
- COLLIN, Kristoffer; LUNDH, Christer; PRADO, Svante. 2019. Exploring regional wage dispersion in Swedish manufacturing, 1860-2009. *Scandinavian Economic History Review*, 67(3): 249-68. DOI: <https://doi.org/10.1080/03585522.2018.1551242>
- DE PLEIJT, Alexandra; NUVOLARI, Alessandro; WEISDORF, Jacob. 2020. Human capital formation during the First Industrial Revolution: Evidence from the use of steam engines. *Journal of the European Economic Association*, 18(2): 829-889. DOI: <https://doi.org/10.1093/jea/jvz006>
- DE PLEIJT, Alexandra; WEISDORF, Jacob. 2017. Human capital formation from occupations: The ‘deskilling hypothesis’ revisited. *Cliometrica*, 11(1): 1-30. DOI: <https://doi.org/10.1007/s11698-016-0140-y>
- DEVINE, Warren. D. 1983. From shafts to wires: Historical perspective on electrification. *Journal of Economic History*, 43(2): 347-372. DOI: <https://www.jstor.org/stable/2120827>

- ERIKSSON, Björn; STANFORS, Maria. 2015. A winning strategy? The employment of women and firm longevity during industrialisation. *Business History*, 57(7): 988-1004. DOI: <https://doi.org/10.1080/00076791.2014.993615>
- FRANCK, Raphaël; GALOR, Oded. 2021. Technology-skill complementarity in early phases of industrialisation. *Economic Journal*, 123(642): 618-643. DOI: <https://doi.org/10.1093/ej/ueab056>
- GOLDIN, Claudia. 1990. *Understanding the gender gap: An economic history of American women*. New York: Oxford University Press.
- GOLDIN, Claudia; KATZ, Lawrence. 1998. The origins of technology-skill complementarity. *Quarterly Journal of Economics*, 113(3): 693-732. DOI: <https://www.jstor.org/stable/2586871>
- GOLDIN, Claudia; SOKOLOFF, Kenneth L. 1982. Women, children, and industrialization in the early republic: Evidence from the manufacturing censuses. *Journal of Economic History*, 42(4): 741-774. DOI: <https://www.jstor.org/stable/2121107>
- GREGG, Amanda; MATIASHVILI, Tamar. 2022. Modernization in progress: Part-year operation, mechanization, and labor force composition in Late Imperial Russia. *Journal of Economic History*, 82(4): 1143-1182. DOI: <http://doi.org/10.1017/S0022050722000341>
- HAMARK, Jesper; COLLIN, Kristoffer; PRADO, Svante. 2024. A new benchmark for industrial wages in mid-1880s Sweden. *Essays in Business and Economic History*. 42(1): 116-151
- HAMARK, Jesper; PRADO, Svante. 2025. Modifying the success story of Sweden: Revised output and labour productivity figures for manufacturing, 1869–1950. *Economic History Review*, 78(1): 113–151. DOI: <https://doi.org/10.1111/ehr.13332>
- HOLMQUIST, Svante. 2003. *Kapitalbildning i svensk industri, 1870-1930*. Diss. Lund: Lund University.
- HUMPHRIES, Jane. 2013. Childhood child labour in the British Industrial Revolution. *Economic History Review*, 66(2): 395-418. DOI: <http://www.jstor.org/stable/42921562>
- JÖRBERG, Lennart. 1961. *Growth and fluctuations of Swedish industry, 1869-1912*. Stockholm: Almqvist & Wiksell.
- KARLSSON, Lynn. 1995. *Mothers as breadwinners: Myth or reality in early Swedish industry?* Uppsala: Uppsala University.
- KARLSSON, Lynn. 1996. *Women workers in figures: A picture of Swedish industry 1863-1912*. Uppsala: Uppsala University.
- KATZ, Lawrence; MARGO, Robert A. 2014. Technical change and the relative demand for skilled labor: The United States in historical perspective. In L. P. Boustan; C. Frydman; R. A. Margo (eds), *Human capital in history: The American record*. Chicago: University of Chicago Press, 15-57.
- LINDAHL, Erik; DAHLGREN, Einar; KOCK, Karin. 1937. *National income of Sweden, 1861-1930. Part 2*. London: P. S. King & Son.
- MIZE, Trenton D. 2022. sgmediation2: Sobel-Goodman tests of mediation in Stata. DOI: <https://www.trentonmize.com/software/sgmediation2>
- NILSSON, Malin. 2015. *Taking work home: labour dynamics of women industrial homeworkers*. Lund: Lund University.

- kers in Sweden during the Second Industrial Revolution*. Diss. Gothenburg: University of Gothenburg.
- OLSSON, Lars. 1995. *Då barn var lönsamma: om arbetsdelning, barnarbete och teknologiska förändringar i några svenska industrier under 1800- och början av 1900-talet*. Lund: Morgenrodnad.
- PRADO, Svante. 2008. *Aspiring to a higher rank: Swedish factor and prices and productivity in international perspective 1860-1950*. Diss. Gothenburg: University of Gothenburg.
- PRADO, Svante. 2010. Nominal and real wages of Swedish manufacturing workers, 1860-2007. In R. Edvinsson; T. Jacobson; D. Waldenström (eds), *Historical monetary and financial statistics for Sweden: Exchange rates, prices and wages, 1277–2008*. Stockholm: Ekerlids förlag, 479-527.
- PRADO, Svante. 2014. Yeast or mushrooms? Productivity patterns across Swedish manufacturing industries, 1869-1912. *Economic History Review*, 67(2): 382-408. DOI: <https://doi.org/10.1111/1468-0289.12018>
- RIDOLFI, Leonardo; SALVO, Carla; WEISDORF, Jacob. 2022. The impact of mechanisation on wages and employment: Evidence from the diffusion of steam power. CAGE working paper. DOI: <https://ssrn.com/abstract=4144721>
- RYDÉN, Göran. 2005. Responses to coal technology without coal: Swedish iron making in the nineteenth century. In C. Evans; G. Rydén (eds), *The Industrial Revolution in iron: The impact of British coal technology in Nineteenth-Century Europe*. Burlington, VT: Ashgate, 111-127.
- SCHÖN, Lennart. 1979. *Från hantverk till fabriksindustri: svensk textiltillverkning 1820-1870*. Diss. Lund: Lund University.
- SCHÖN, Lennart. 1988. *Industri och hantverk 1800-1980*. Lund: Lund University.
- SOKOLOFF, Kenneth. L. 1984. Was the transition from the artisanal shop to the nonmechanized factory associated with gains in efficiency? Evidence from the US manufacturing censuses of 1820 and 1850. *Explorations in Economic History*, 21(4): 351-382. DOI: [https://doi.org/10.1016/0014-4983\(84\)90002-0](https://doi.org/10.1016/0014-4983(84)90002-0)
- STANFORS, Maria; KARLSSON, Tobias. 2011. Gender, occupation, or workplace: What mattered for the gender gap in the Swedish tobacco industry? *Scandinavian Economic History Review*, 59(3): 214-231. DOI: <https://doi.org/10.1080/03585522.2011.617572>
- STANFORS, Maria; LEUNIG, Tim; ERIKSSON, Björn; KARLSSON, Tobias. 2014. Gender, productivity, and the nature of work and pay: Evidence from the late nineteenth-century tobacco industry. *Economic History Review*, 67(1): 48-65. DOI: <https://doi.org/10.1111/1468-0289.12017>

Notas

1. Women were on average less productive than men, which have been due to their lower average skills (BURNETTE, 2015). For unskilled tasks, the productivity differentials may have been lower, and therefore women with lower wages could have become an attractive option as saving on labor cost. However, with the data used in this paper, we cannot reliably estimate labor productivity differences.
2. The share of children in the labor force should be considered lower bound, as the actual figure could be underreported (OLSSON 1995). In Sweden, attempts to regulate child labour were initiated in the mid-1850s but failed because of resistance from vested interests in manufacturing. The issue was raised again in the mid-1870s, resulting in the appointment of a committee tasked with preparing a regulation covering manufacturing and handicraft that came into force in 1881. A much more comprehensive law was passed in 1900, banning the use of child labour across all sectors of the economy (OLSSON, 1995).
3. KARLSSON (1995) does find of working women surveyed in Stockholm in the late nineteenth century (N = 3200), 14 percent were married, and 7 percent widowed, and as many as 22 percent had children.
4. The survey included the following activities: manufacturing, sawmills, mining, handicraft, agriculture, and home-based craft production. When we refer to manufacturing, we also include sawmills and mining.
5. The reference to the published version of the enquiry: TULLKOMMITTÉN (1882). Tullkommitténs underdåniga betänkande af år 1882. Bihang, Statistiska tabeller öfver Sveriges industriella utveckling åren 1860–1879. Stockholm. The reference to the primary returns: Archive: Tullkommittén 1876. Sammandrag av svar och frågeformulär; vol. 3–6. Ref. code: SE/RA/310791
6. Tabulated industrial statistics (BiSOS D) reports 202,293 industrial workers and 8,812 factories, giving an average of 22.9 workers per factory.
7. This may possibly leave out small, mechanized establishments. However, if our sample of small establishments is representative of all small establishments at the time in Sweden, the share of steam engine use was relatively low. As we report later in the paper, less than nine percent of small establishments reported using steam engines. BERGER and OSTERMEYER (2024) show that the average size of a mechanized establishment was 44 workers, suggesting that size and mechanization are positively correlated.
8. Specifically, we use a Stata package developed by MIZE (2022).
9. The industrial classification used by Swedish statistics includes match factories into chemical-technical (*kemisk-teknisk*) industry due to the chemicals such as phosphorus used in the production process.
10. As illustrated at the factory, which is currently a museum in Jönköping, Sweden: <https://matchmuseum.jonkoping.se/>

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Crítica de libros

Guido Alfani

As Gods among Men. A History of the Rich in the West

PRINCETON, PRINCETON UNIVERSITY PRESS, 2023, 420 PP. ISBN. 9780691215730

Es frecuente que destacados historiadores de la economía, habituados a publicar artículos en revistas especializadas, nos brinden una monografía que recoge –para un grupo de lectores más amplio– parte de su trabajo, desprovisto ahora de los tecnicismos metodológicos propios de aquellas. Guido Alfani, un reconocido investigador y profesor de la Universidad Bocconi de Milán, nos ofrece una obra brillante, amplia y ambiciosa que parte de estos criterios. *As God Among Men* (traducción disponible ya en Ático de los Libros) exprime y amplía así relevantes hallazgos de publicaciones anteriores, singularmente *The Lion's Share-Inequality and the Rise of the Fiscal State in Preindustrial Europe*, Cambridge University Press, 2019 (con Matteo Di Tulio), que a su vez recogió artículos producidos de financiación procedente del European Research Council, concedidos sobre todo por el carácter rompedor de la propuesta.

As Gods Among Men es ciertamente un libro rompedor que, en la estela de autores como Piketty y como promete su autor (pp. 5-7), se destaca de estudios anteriores por su ambición cronológica (incluso remontándose

se a la Grecia Clásica), su interés específico por los ricos a partir sobre todo de la riqueza y no tanto del ingreso –lo que obliga a tratar la desigualdad–, y sin por ello centrarse solo en los superricos. Subraya también el autor su vocación comparativa y su interés por reconocer el papel de las mujeres en la distribución de la riqueza. El libro no analiza solo los aspectos más «económicos» de los ricos, sino también los que tienen que ver con la mentalidad social sobre la riqueza.

A ningún historiador de la economía hay que explicarle los problemas que todo ello implica en términos de vacíos de fuentes y de estudios anteriores (imprescindibles para un análisis tan amplio), en lo que se refiere a la misma contextualización del concepto (¿es lo mismo ser rico en el siglo IV a. d. C, que en 2019?), o a la continuidad temporal y espacial del análisis (imprescindibles para ofrecer conclusiones útiles más allá del anecdotario), y –lo más importante– las dificultades de tipo metodológico relacionadas con la contradicción entre la historia, como la ciencia de la evolución y los contextos, y algunas ramas de la economía, particularmente las que

explican las decisiones humanas según esos contextos pero buscan lógicas de racionalidad general.

Alfani aborda estos obstáculos, que son también expositivos, amparado en sus profundos conocimientos de la Italia moderna, la mayor abundancia de estudios para el Norte de Europa y Estados Unidos, y dejando fuera Latinoamérica, África y Asia. De ahí el subtítulo. A ello añade un vastísimo conocimiento de la historia y de la economía para ponerlas en diálogo continuo; empresa nada fácil para quien no quiera banalizar el tema.

La primera Parte se dedica a definir qué se debe entender por rico (aquel cuyos bienes materiales sobrepasan un nivel que está diez veces por encima de la mediana de la curva de distribución de la riqueza), y a constatar la tendencia en el muy largo plazo a la concentración de la posesión de bienes materiales –y no sólo por efecto del crecimiento–, aunque sea interrumpida por crisis que provocan una temporal redistribución en perjuicio de los ricos.

Afirmaciones como estas, sustentadas en estimaciones cuantitativas no siempre ideales, pero siempre las mejores disponibles, permiten explicar cuáles fueron los caminos hacia la abundancia y entrar en la *human agency* (Parte Segunda). Ello se hace mediante la elección –que algún lector discutirá– de tipos sociales asociados a características en apariencia predominantes en estos: la nobleza, un concepto que, materializado en el de aristocracia, se extiende hasta las «aristocracias» actuales –cuya dimensión global se analiza–, se vincula a la adquisición y reproducción de la riqueza por herencia y privilegio; la innovación tecnológica, que se asocia sobre todo al comercio (incluidos sus aspectos más lúgubres, como el de la trata

de esclavos y con énfasis en las innovaciones institucionales de las *joint stock companies*), a la industria (con especial atención al período de la industrialización), y a la innovación en el campo de la comunicación; y las finanzas y la banca, que se analizan asimismo como un sendero importante hacia la riqueza, en el que se dedica una parte a las mujeres. La visión diacrónica de estos capítulos se complementa con dos capítulos, el 6 y el 7, de gran importancia y lectura obligada para entender la obra. El primero trata del uso de la riqueza, contraponiendo consumo conspicuo con ahorro en diferentes etapas de la historia de Occidente, un aspecto básico para entender la pregunta central del libro: los sentimientos contradictorios de aversión y admiración que hoy produce la riqueza (véanse conclusiones). El último resume los argumentos de esta parte, pasando del anecdotario presente en los capítulos anteriores a las estadísticas, y de las visiones diacrónicas a las sincrónicas, para superar la división en categorías y grupos sociales de los capítulos 3 a 5. Italia (el norte) para la época preindustrial, el norte y centro de Europa para el siglo XIX y todos, junto a los Estados Unidos, para los siglos XX y XXI son los referentes fundamentales. Y, por supuesto, el tema de la herencia y la aparición de las mujeres (en el relato y en los padrones o listas de *Forbes*) son ineludibles.

Una vez explicado cómo se concentra la riqueza, la tercera Parte explora, a partir de los textos que se remontan a la época medieval, el modo y grado en que su concentración se ha considerado un problema social o una ventaja por parte de las élites intelectuales. El análisis del mecenazgo, la beneficencia y las donaciones de los ricos aboca a una reflexión sobre cómo estas actividades constituyen formas de altruismo o son una forma falsa de

autojustificación por parte de los ricos. Todo ello permite contraponer prácticas altruistas privadas con obligaciones públicas fiscales y entrar en las relaciones entre riqueza y política y el modo en que ambas se han entrelazado. Se cierra el libro con un análisis –algo reiterativo respecto de capítulos anteriores, pero interesante– sobre el impacto de las crisis en los ricos o, mejor dicho, en la distribución de la riqueza, que el lector debiera leer sin olvidar que morir en una crisis es peor que perder dinero, si bien esto –aunque le preocupe– no es el problema que ocupa a Alfani.

El libro contiene tesis importantes e inquietantes, como el incremento de la desigualdad patrimonial a lo largo de la historia y la cada vez menor solidaridad de los ricos a medida que ha avanzado la modernidad y los mecanismos oficiales de compensación, todo lo cual suscita un cierto pesimismo sobre el futuro, que, según el autor, conviene tener en cuenta para construir ese futuro.

As Gods among Men merece mucho más que estos comentarios y debería convertirse en un libro de referencia, pese a la tendencia de algunos historiadores económicos a citar solo artículos. Sus razonamientos y las piezas que lo componen son complejos y no cabe aquí comentar los muchos aspectos merecedores de debate y aprobación. Ello se refleja en su escritura, clara, pero a veces sinuosa por exhaustiva, que huye de la simplificación y que podría levantar opiniones sobre afirmaciones parciales.

Pero, sobre todo, este libro es un exponente de la amplitud explicativa y los límites de la historia económica. Metodológicamente, existen varios problemas (inevitables, quizás) de escalas y de aproximación. Si un rico es aquel cuyo patrimonio está por encima de diez veces la mediana de –digamos– un gru-

po de centros como Poggibonsi, ¿se le puede considerar como tal para razonamientos que se refieren a toda Italia? Más aún, si los análisis son locales y basados en padrones, ¿cómo abordamos el problema de calibrar la riqueza de un noble y banquero genovés que tiene bienes por toda Italia? ¿Y cómo afecta todo esto a las comparaciones internacionales cuando lo local lo usamos como muestra de lo ‘nacional’? En otro sentido, el libro, se basa mucho en la narración y síntesis de «stories» sobre ricos, pero ¿cómo salvamos el salto entre el relato y las ‘leyes’ de la economía cuando se habla de contextos históricos tan diferentes?

«As Gods» suscita la pregunta de si los historiadores económicos somos víctimas de un colonialismo epistémico procedente de una especie de «imperial parrochialism» que dicta lo que hay y no hay que estudiar y las variables a considerar. Por ejemplo, ¿es posible una historia de los ricos dejando fuera a la riqueza eclesiástica tan importante en la Europa católica? ¿Basta con decir que nos limitamos al estudio de los *individuos* ricos? Sin duda esto es posible, pero a costa de ocultar una realidad vital para la historia y limitar nuestro aprendizaje sobre la economía y los patrones de formación de la abundancia e incluso de su percepción. Este libro trata sobre los ricos, pero también sobre la riqueza y cómo se concentra, lo que hubiera hecho más necesario una reflexión sobre la riqueza colectiva y corporativa y quienes la controlan, pues esto forma parte esencial de cómo esos ricos acumulan abundancia y de cómo circula (en otras palabras, de la *human agency*). En otro sentido, independientemente de la importancia del mercado y la herencia en el reparto de la riqueza, en las sociedades premodernas e incluso hoy, el matrimonio

y las redes familiares han sido cruciales en la circulación de esta y en sus efectos sobre la política. En ese plano –y no sólo en este– el papel, a menudo involuntario, de las mujeres ha sido esencial y su relación con la riqueza no la podemos reducir a las que aparezcan en los padrones o las listas de *Forbes*. Si por algo se han caracterizado los estudios de género es por visibilizar a las mujeres más allá de las apariencias oficiales. Incluso una reflexión de porqué en esas listas oficiales aparecen hombres en casi un cien por cien no hubiera venido mal. O, para terminar, ¿cuál es el papel del espacio y de su fragmentación política y jurisdiccional en la formación de las grandes fortunas? Algo se insinúa en este rico volumen, pero casos como los de Elon Musk o Roman Abramovich, por no remontarnos siglos atrás, harían hoy necesario un apartado específico, más allá de discutir el carácter global de una, real o no, aristocracia actual de ricos.

Muchos lectores encontrarán en este importante libro más aspectos interesantes a discutir, y ello en beneficio de Guido Alfani, quien –posiblemente– ha llegado más allá de lo que ningún otro historiador de la economía hoy podría llegar. Esta es una obra capital que se plantea las relaciones entre historia económica, economía e historia social con valentía –pese a que echemos de menos citas clave para sus argumentos, como Bourdieu y otros muchos, lo que, simplemente, refleja el utillaje intelectual que se usa incluso por los más abiertos historiadores de la economía. *As Gods* genera la reflexión incluso más allá de su propio contenido.

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Araceli Almaraz Alvarado

La construcción del empresariado fronterizo. De intermediarios a empresarios

TIJUANA, COLEGIO DE LA FRONTERA NORTE, 2024, 306 PP. ISBN: 978-607-479-599-8

La obra *La construcción del empresario fronterizo. De intermediarios a empresarios*, de Araceli Almaraz Alvarado, se inserta en una línea de investigación que en las últimas décadas ha renovado la historia empresarial desde enfoques sociales, regionales y de redes. En este sentido, el trabajo dialoga con aportaciones de la historiografía latinoamericana (particularmente los estudios de Mario Cerutti sobre empresarios del norte de México), así como la tradición catalana de historia empresarial encabezada por Paloma Fernández y Jordi Nadal, quienes han destacado el papel de las relaciones familiares, la intermediación, las jerarquías sociales y las prácticas contractuales en la formación histórica del empresariado. No obstante, la propuesta de Almaraz amplía este marco comparativo al situar la frontera México-Estados Unidos como categoría estructurante para comprender el surgimiento de un tipo empresarial distinto, conceptualizado como empresario fronterizo. Desde esta perspectiva, el libro ofrece una contribución original al análisis de la configuración de los primeros grupos empresariales en la región norte del

país, un espacio único en el panorama económico mexicano.

A este respecto, el objetivo del libro es explicar la construcción del empresario fronterizo en el norte de México, destacando factores históricos que influyeron en los primeros negocios y en los accionistas mercantiles de Mexicali, Baja California, a principios del siglo xx. Esta primera acotación revela lo que la autora considera su eje articulador: una categoría de empresario fronterizo, caracterizado por la dualidad y la resiliencia. Por ello, el argumento central subraya que la participación de múltiples actores interesados en construir redes fronterizas impulsó las primeras vías de acumulación en Mexicali. En este proceso, los intermediarios, identificados como agentes estratégicos para la obtención y transferencia de títulos de tierras, la gestión de concesiones y los prestadores de servicios profesionales, fueron cruciales en la operación de sociedades mercantiles extranjeras y mixtas. La investigación incluyó la recolección de 395 actas constitutivas de Mexicali, Tijuana y Ensenada, así como la aplicación de un método biográfico detalla-

do para construir las características del intermediario y analizar el origen de seis familias empresariales, lo que permitió observar la continuidad de los grupos económicos.

El libro está estructurado en seis capítulos. En el primer capítulo se plantea la identificación de contactos basada en los roles y estatus de los actores, a fin de analizar las estructuras y relaciones de las sociedades mercantiles y de los grupos sociales y familiares. De esta forma, la categoría del empresario fronterizo se define por la participación de nuevos actores en espacios fronterizos caracterizados por desigualdades territoriales y sectoriales. Para entonces, concentrarse en las particularidades de la región, destacando que el desarrollo tardío y la escasa presencia colonial en el noroeste contrastaron con el dinamismo empresarial estadounidense. Posteriormente, se distingue el caso de Mexicali, cuya configuración empresarial se cimentó en las habilidades de sus intermediarios y en las redes sociales de los grupos arraigados. El modelo de Mexicali se caracterizó por una organización de negocios con alcances binacionales y por estructuras diferenciadas entre California y la propia ciudad de Mexicali.

En el capítulo dos se analizan las condiciones que facilitaron el registro de las primeras sociedades mercantiles. Esta sección se centra en Mexicali, donde se registró el mayor número de casos. Entre los sucesos que influyeron en el surgimiento del empresariado se encuentran el auge del *agribusiness* en California, la demanda global del algodón durante la Primera Guerra Mundial (1914), los efectos de la Revolución mexicana, la Ley Seca en Estados Unidos y la política de reparto agrario en el país. Con una estructura cronológica entre 1912 y 1939, el análisis resalta la conexión entre inversionistas esta-

dounidenses y chinos, así como el creciente número de empresarios mexicanos, principalmente orientados a la agroindustria.

En el capítulo tres se describen las características de la asociación empresarial en Mexicali a partir de 1912, mediante la identificación de cinco figuras clave: intermediarios-concesionarios, intermediarios de servicios profesionales, inversionistas estadounidenses, comunidad china y emprendedores mexicanos. Entre los elementos que destacan de estas figuras se encuentran los perfiles profesionales, generalmente abogados o contadores, con dominio del inglés, que tuvieron la visión de convertirse en inversionistas y, más tarde, en empresarios.

En el capítulo cuarto se examinan las estrategias de acumulación de los grupos mexicanos a través de tres vías. La primera, basada en la intermediación de servicios profesionales, se ejemplifica a través de la trayectoria de Arturo Guajardo García, prominente abogado sonoreño, quien llegó en 1914 con dominio del inglés, que actuó como traductor y apoderado antes de convertirse en accionista de compañías bancarias y agroindustriales, conformando así su propia red mercantil. La segunda vía, vinculada a los cargos públicos, se ilustra con Abelardo L. Rodríguez, quien aprovechó su posición de gestor para la compraventa de terrenos estratégicos, operaciones bancarias y la adquisición de acciones en industrias locales, como las de vinos y hielo. Además, impulsó políticas aduaneras de excepción que favorecieron a los negocios fronterizos. La tercera vía se refiere a la familia y los amigos, destacando la trayectoria de la familia Gallego, que comenzó con el comercio y la ganadería y posteriormente incursionó en la industria harinera. También resaltaron otras familias, como los Martínez-Palomera

y los Fuentes Garza, quienes utilizaron sus estructuras familiares para diversificar sus actividades empresariales.

Por su parte, en el capítulo cinco se analizan la transición generacional (1945-1950) y la perdurabilidad del empresario fronterizo mexicano. En donde se evidencia que la continuidad dependió tanto de la transferencia de capital como de la delegación de poder, y la autora sostiene un concepto amplio de capital que incluye la educación (profesionistas con dominio del inglés) y la promoción de vínculos que facilitaron la doble nacionalidad. El capítulo también revela la participación de las mujeres en la primera generación como accionistas y administradoras de bienes inmuebles. Entre los casos representativos de esta continuidad se encuentra el de Martínez-Palomera, quien, tras la súbita muerte de su padre, Eduardo Manuel Jr., vendió el negocio familiar, pero logró reinsertarse en el ámbito empresarial cofundando Parques Industriales de Mexicali (PIMSA), mostrando una resiliencia destacada. Los otros casos son los de García Franco y Silva García, quienes, en terceras generaciones, transformaron negocios y emprendieron nuevas empresas con identidad propia. El capítulo concluye señalando que el marco normativo del modelo de desarrollo de la época (1954-1981), orientado al ensamblaje simple y a la promoción del modelo de maquila, no ofreció condiciones óptimas para la expansión de estos grupos, quienes, pese a ello, demostraron capacidad de adaptación e innovación.

En el capítulo seis se delimita el concepto de empresario fronterizo, caracterizándolo como un agente arraigado, capaz de promover la continuidad productiva y de utilizar las bases de la asociación mercantil y social. Según la autora, el espíritu de este empresa-

rio está vinculado, por su relación histórica e indisoluble, a Estados Unidos. El capítulo también muestra cómo las crisis monetarias de 1982, en particular la de 1994, afectaron de manera diferenciada a estos empresarios, debido a que sus conexiones más profundas con Estados Unidos contribuyeron a mantener su endeudamiento en dólares. La devaluación de 1994 multiplicó sus deudas, pero también puso de manifiesto su identidad y resiliencia. Otro aspecto que se identifica en este capítulo acerca de la identidad del empresario fronterizo es su articulación a través de organizaciones como Canacindra y Coparmex, así como su participación en órganos locales, como la Comisión de Desarrollo Industrial de Mexicali y el Centro de Estudios Económicos del Sector Empresarial de Mexicali, que lo dotan de mayores cualidades resilientes.

A modo de conclusión, la complejidad del proceso de configuración del empresario de Mexicali se explica por su inserción en un espacio periférico y fronterizo. El análisis de distintas figuras que aportan capas al concepto de empresario fronterizo demuestra que la fortaleza de las relaciones sociales y familiares fue crucial para su configuración y supervivencia, hasta alcanzar la cuarta generación. A este respecto, parece evidente que el reto principal es conservar el tejido empresarial, fortaleciendo las capacidades de grupo y el llamado espíritu fronterizo, como lo evidencia la historia de los negocios fronterizos en Mexicali.

Por último, al situar estos hallazgos en la frontera México-Estados Unidos y utilizar esta vinculación como categoría analítica central, el libro enriquece un marco conceptual comparativo que muestra que la resiliencia y la perdurabilidad del empresario fronte-

rizo responden a una combinación singular de capital social, movilidad transnacional y adaptación institucional. En conjunto, esta obra contribuye a consolidar un campo de estudio que reconoce la frontera como un espacio privilegiado para observar la construcción histórica del tejido empresarial en contextos periféricos.

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Artesanos. Una historia social en España (siglos XVI-XIX)

GIJÓN, EDICIONES TREA; CUENCA: EDICIONES DE LA UNIVERSIDAD DE CASTILLA-LA MANCHA, 2024. 393 PP. ISBN 978-84-10263-54-3

Artesanos es una obra coral que se suma a las labores de «rescate» de la figura del artesano llevada a cabo por la historiografía europea y española en las últimas décadas. Desde la introducción, los editores reivindican la identidad artesana, caracterizada por la cualificación profesional, el dominio del oficio y la autosuficiencia laboral, enfatizando su valoración en el contexto socioeconómico histórico y no bajo los parámetros de eficiencia capitalista. Los doce capítulos que componen la obra exploran, desde un enfoque multidisciplinar y dinámico, el trabajo preindustrial, superando las tradicionales limitaciones cronológicas, conceptuales y de género que tan habitualmente limitan el análisis histórico.

La obra comienza con una sugerente propuesta conceptual de Francisco Hidalgo que revisa historiográficamente los conceptos de peligro, riesgo e incertidumbre desde un diálogo entre la Historia Social y la Sociología. El análisis de las trayectorias vitales de algunos artesanos le lleva a afirmar que, en cada toma de decisiones, estos asumían riesgos propios de un contexto de incertidumbre, constan-

temente amenazado por un futuro oscuro e incierto. Quizá por ello, los artesanos fueron capaces adaptarse a las circunstancias, de hacer y de organizar el conocimiento para poder avanzar, tal y como muestra el capítulo de Antonio Sánchez. Este, siguiendo las teorías del filósofo de la ciencia Edgar Zilsel, relaciona la tradición artesanal con el surgimiento de la ciencia moderna, argumentando que la institucionalización y regulación de los oficios relacionados con el mar fomentaron una cultura oceánica que modeló el mundo moderno, constituyendo un caso de transformación social de la ciencia liderado por artesanos.

Los siguientes capítulos están dedicados a analizar la organización del trabajo artesanal desde diferentes perspectivas. Ricardo Franch y Daniel Muñoz estudian la evolución de la estructura gremial de la ciudad de Valencia a través de dos recuentos fiscales inéditos de 1714 y 1812, complementados por los padrones municipales. Concluyen que el número de gremios en la ciudad se mantuvo estable durante el siglo XVIII, observándose una progresiva especialización sedera

alentada por la monarquía. La fortaleza del gremio de los *velluters* (sederos) provocó una fuerte endogamia profesional y la práctica desaparición de la manufactura rural, cuyos artesanos acabaron trabajando por encargo a su servicio. La autorización de importación de seda extranjera en 1784 y la supresión de las organizaciones gremiales por las Cortes de Cádiz supusieron el declive del sector con el consiguiente empobrecimiento y proletarianización de los menestrales. Paula González Fons aborda acceso a este gremio, aportando una valiosa información sobre el colectivo de los aprendices. Estos eran el grupo más numeroso y versátil en los gremios ya que para muchos jóvenes constituía una opción inmejorable de ganarse la vida, especialmente en épocas de crisis, sin que necesariamente quisieran llegar a alcanzar la oficialía. Para el gremio, los aprendices eran mano de obra barata y poco conflictiva con la que reemplazar a los oficiales en épocas de dificultad. Los aprendices del sector sedero también protagonizan el capítulo firmado por Yoshiko Yamamichi, Àngels Solà y Joana-Maria Pujadas-Mora en el que se plantean cuestiones esenciales como la movilidad geográfica, la posición social, procedencia y vías de acceso al oficio o las dificultades para llegar a la maestría. Los autores comparan el gremio con una escuela técnica descentralizada, cuyo objetivo no era alcanzar la maestría sino la posibilidad de llegar a ser expertos en un sector textil en plena transformación. La cuestión de la formación se completa con el trabajo de Jesús Agua quien examina el papel de los centros asistenciales en la formación de jóvenes sin recursos en Madrid. Por una parte, los gremios los acogían en sus talleres para formarles, pudiendo incluso habilitarse como oficiales. Pero, por otra parte, los fa-

bricantes utilizaban a huérfanos y expósitos como mano de obra gratuita, sin que tuvieran ninguna opción a promocionarse. Para finalizar este bloque, Alberto Morán ofrece el necesario contrapunto del trabajo artesanal en una pequeña ciudad como Oviedo, en un intento de superar la visión de la historiografía tradicional sobre las ciudades insertas en entornos muy ruralizados.

En una obra sobre artesanos no podía faltar el microcosmos generado en torno a la Corte donde se confeccionaba todo aquello que necesitaba el monarca y su familia. Para cubrir esta demanda contaban con un número determinado de artesanos con nómina fija que son analizados por Álvaro Romero a través de una fuente poco conocida, la media anata de mercedes (mitad del salario líquido del primer año). Esta no dejaba de ser un mecanismo elitista para restringir el acceso a un puesto de trabajo que llevaba implícitos una serie de privilegios, fuertemente jerarquizados en función de la cercanía al rey y su familia. Estos privilegios se complementaban con un ingreso monetario fijo en el tiempo y otro variable, que fluctuaba en función de la demanda suntuaria de la monarquía y su capacidad de gasto. No obstante, tal y como indica Sandra Antúnez en su análisis del sector de la confección en la Corte desde finales del siglo XVIII, este cuerpo de artesanos era incapaz de cubrir por sí solo las necesidades de trabajo, siendo necesario recurrir al mercado secundario, subcontratando personal según las necesidades. Esta situación originó profundas desigualdades en el ámbito laboral entre los que trabajaban «en» palacio y los que trabajaban «para» palacio.

El libro incluye la perspectiva de género a través de una retrospectiva historiográfica realizada por Victoria López Barahona. La

participación femenina en gremios, talleres y comercios fue habitual en la Edad Media, como evidencian los contratos de aprendizaje de la época. Sin embargo, desde el siglo XVI, el predominio del modelo patriarcal relegó a las mujeres al ámbito doméstico, excluyéndolas de los gremios como miembros de pleno derecho. No obstante, siguieron desempeñando un papel productivo esencial a través de sus dotes y, sobre todo, como trabajadoras autónomas o jornaleras. Este aspecto fue especialmente relevante en el siglo XVIII ante la necesidad de abaratar y ampliar la producción.

Los capítulos finales examinan a los artesanos como agentes de cambio en la Edad Moderna y durante la transición al capitalismo. José Antolín Nieto sostiene que, desde el siglo XVI, existía una identidad artesana con su propia lógica y un cierto grado de cohesión, donde la asociación y el conflicto eran elementos fundamentales. En línea con esto, Juanjo Romero y Brendan von Briesen analizan la capacidad de negociadora de los gremios para regular el mercado laboral y controlar los modos de producción. La creación de corporaciones propias de oficiales destinadas a defender los intereses del sector asalariado configuró el carácter dual del mercado de trabajo, característica que perduró hasta bien avanzada la industrialización.

Artesanos. Una historia social en España (siglos XVI-XIX) consigue superar ampliamente las rígidas interpretaciones del mundo artesanal, ofreciendo una visión dinámica y abriendo unas perspectivas de investigación en la Historia Social y Económica de España en el periodo preindustrial. Indudablemente, esta obra se perfila como un referente esencial para el estudio de la Edad Moderna. Su enfoque multidisciplinar y riguroso la si-

túa como una herramienta imprescindible para investigadores y estudiantes interesados en este periodo histórico.

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Juan Manuel Matés-Barco y María Vázquez-Fariñas (eds.)

Economía y globalización. Cien años de crisis económicas

VALENCIA, TIRANT HUMANIDADES, 2025, 336 PP. ISBN 9788411838368

1. Apreciaciones generales

El libro que editan J.M. Matés-Barco y M. Vázquez-Fariñas presenta estudios sobre las principales crisis económicas de los siglos XX y XXI, con el desarrollo de la globalización como hilo conductor de todas las investigaciones. El objetivo general es analizar las crisis económicas de los últimos cien años, buscando descubrir sus causas y las consecuencias sobre diferentes regiones de la economía mundial. La obra pretende ser referencia para cursos de historia económica e historia de la empresa, y material para investigadores y lectores interesados. Aunque se centra sobre todo en los Estados Unidos y la Unión Europea, también incluye análisis sobre el fin de la URSS y sobre América Latina, Asia y África. Cada crisis se estudia en términos de sus propias peculiaridades, con análisis institucionales detallados en bastantes casos.

La claridad y unicidad del concepto de crisis económica parece darse por sentado desde el principio, aunque el propio desarrollo de los capítulos va mostrando cómo el contenido del concepto no es siempre el mis-

mo. De hecho, a lo largo de la obra no queda clara la distinción entre crisis, ciclos económicos y crecimiento económico. Se echa en falta una discusión o presentación más sistemática en algún capítulo (preferiblemente, el inicial), presentando los diferentes conceptos utilizados en relación con crisis y dotándolos de una mayor unidad conceptual.

En el análisis de las crisis, es importante distinguir si el marco de análisis es una estructura de *shock* exógeno más un mecanismo de propagación (como en la macroeconomía de los ciclos), si las crisis son situaciones endógenas generadas por el desarrollo de la economía de mercado (más propio de la economía política) o si las crisis financieras tienen un patrón de desarrollo propio recurrente que acaba teniendo profundos efectos sobre la economía real (al estilo de Minsky, 1982). Algún tipo de reflexión conceptual sobre la estructura de las crisis, y cómo el análisis económico se ha aproximado a ellas en diferentes momentos habría supuesto una importante mejora. Un buen ejemplo de cómo hacerlo es, por ejemplo, el capítulo 2 de Rubini y Mihm (2010).

Aunque es un concepto menos polémico, tampoco se incluye una reflexión inicial sobre el concepto de globalización, que se puede asimilar a la mundialización de los mercados financieros y de bienes y servicios, como sucede a lo largo del libro. Sin embargo, la globalización también incluiría la mundialización de los mercados de factores de producción, en especial, la energía y el trabajo. El de la energía queda reflejado en el estudio de la crisis de los años 1970 (capítulo 4) y el de trabajo se menciona ocasionalmente con referencia a los flujos migratorios y a los impactos de la pandemia de Covid-19 (capítulo 11). Una breve discusión sobre el concepto y las fases de la globalización en la presentación habría reforzado la base del análisis.

2. Revisión de los capítulos

El libro arranca con una comparación de J. Hernández Andreu en el capítulo 1 sobre las crisis económicas en España de 1929 y 2008. Aunque centrar el análisis en España parece un acierto, el capítulo queda en una rápida descripción de trabajos previos del autor sobre el tema y no cuaja en un análisis sistemático. Esto hace bascular el libro más hacia el objetivo de proporcionar un repaso temático para lectores generales interesados que a aportar contribuciones significativas a los investigadores.

Los capítulos 2 y 3 (de J.M. Matés Barco y L. Caruana de las Cagigas y J. Tascón Fernández, respectivamente) desarrollan detallados análisis de la Gran Depresión (como crisis mundial) y la situación europea justo después de la Segunda Guerra Mundial. En ambos se encuentran buenos análisis am-

plios de los problemas de esos momentos históricos clave y las políticas (exitosas o no) realizadas por los gobiernos.

Avanzando en el tiempo, los capítulos 4, 5 y 6 (a cargo de M. Vázquez Farifías, M.J. Vargas Machuca y S. Fari, respectivamente) están dedicados a las crisis energéticas de los años 1970, las crisis de los 1980 y a las crisis de 1990. El capítulo 4 examina los dos shocks del petróleo como parte de un mismo momento histórico, lo cual es un acierto e incidiendo en la importancia de las respuestas de política económica (centradas en la lucha contra la inflación) para entender la evolución económica posterior. El capítulo 5 trata la explosión de la crisis de deuda en América Latina y explora sus consecuencias para otras regiones, como África, lo cual supone una interesante aportación. La descripción de los planes puestos en marcha para atajar esta crisis (los programas de ajuste en los países deudores, seguidos del Plan Baker y el Plan Brady) muestra la importancia de las instituciones internacionales en este tipo de crisis y también sus limitaciones. El capítulo 6 analiza el periodo más reciente de expansión de la globalización, uniendo sus aspectos comerciales y financieros. La autora muestra cómo durante esos años (que gozó de una apreciación positiva general apresurada, como explicó Stiglitz, 2004) también se desarrolló una serie de crisis, relevantes para entender los cambios en la economía mundial, en especial en sus aspectos financieros, que eran avisos locales de problemas más profundos (Krugman, 2009). En este sentido, la sección 7 del capítulo 6 es un buen ejemplo de interpretación profunda y visión de conjunto. La crisis de las empresas «dot com» de Estados Unidos se analiza en el capítulo 6 (sección 6) como el colofón de las crisis de la globa-

lización de los noventa. Se señala que es una crisis de naturaleza diferente, de tipo financiero, que más bien sería un preludio de los problemas financieros que culminan en la Gran Recesión de 2008, como también defendieron Roubini y Mihm, 2010.

El capítulo 7 (a cargo de I. Yányshev-Nésterova) cierra esta serie del siglo xx con un análisis sobre la desintegración de la URSS y la subsiguiente crisis. El capítulo muestra con claridad que el término «transición» no se compadece de la profunda y abrupta crisis que tuvo lugar, con elevadísimos costes humanos y sociales. La perspectiva adoptada de entender lo sucedido como una crisis económica permite comprenderla bastante mejor, y el resultado final es muy útil para quienes se adentren por vez primera en dicho periodo.

El libro se adentra en las crisis del siglo xxi con los capítulos 8 y 9 dedicados a la Gran Recesión. Ambos están a cargo de M.L. de Prado Herrera y L. Garrido González. El capítulo 8 se centra en los Estados Unidos y la Unión Europea, ya que la Gran Recesión arranca con el precedente de la crisis de las hipotecas *sub-prime* en EE. UU., que resultó ser la muestra de las debilidades sistémicas del sistema financiero norteamericano que llevaron a una crisis mundial a partir de finales de 2008. Esta crisis golpea a la Unión Europea al igual que al resto del mundo, pero aquí muta en 2010 en una crisis de deuda dentro de los países adheridos al euro. El tratamiento de la crisis dentro del euro es adecuado, pero se echa en falta un poco más de visión de conjunto y de las tensiones políticas canalizadas a través de la «troika» (Comisión Europea, Banco Central Europeo y Fondo Monetario Internacional), una institución no prevista en los tratados europeos.

El capítulo 9 resulta de gran interés por su análisis de la Gran Recesión en dos regiones mundiales tan diferentes como América Latina y Asia. El análisis es una buena muestra de cómo, en una economía globalizada, los análisis deberían ser más mundiales que locales. Sirve para entender la importancia de la experiencia previa de algunos países con crisis y los mecanismos de propagación. Se desarrolla un análisis sobre cómo los efectos de la Gran Recesión fueron más suaves en Latinoamérica. Con el caso asiático, se hace hincapié en la mayor velocidad de la recuperación, con la excepción de Japón.

El capítulo 11 (M. Castro Valdivia) analiza la última gran crisis, la relacionada con el Covid-19. Se presenta una gran cantidad de información, pero tal vez por su ambición, el capítulo tiene un cierto carácter de enumeración de detalles que no beneficia la interpretación de conjunto. Es también más breve que otros, lo cual limita la profundidad del análisis.

El capítulo 10 (J.A. Parrilla González y F. Cabrera Gallardo) rompe con la línea temporal que ordena los demás capítulos y analiza las crisis sucedidas en el continente africano de 1882 a 2020. Se divide de manera natural en dos grandes partes: una sobre el norte de África y otra sobre la zona subsahariana. La síntesis de un periodo tan largo y complejo se resuelve de manera adecuada, proporcionando un análisis comprensivo de la evolución de las crisis y prestando una atención especial a la evolución institucional. Tan solo ocasionalmente se echa en falta algo más de detenimiento en la interacción entre los problemas de largo plazo (crecimiento y desarrollo) y las crisis que suceden en el corto plazo.

3. Reflexiones finales

Nos encontramos ante un libro interesante que, de manera acorde con su título, intenta cubrir todo el mundo, aunque, inevitablemente, da más importancia a lo que sucede en los Estados Unidos y en la Unión Europea. La división temática por capítulos es adecuada, si bien en ocasiones se aprecia un esfuerzo de síntesis muy grande que deja algunos temas o regiones con un análisis muy somero. Dicha limitación tiene solución habitualmente con la bibliografía citada, que permitiría a los interesados profundizar en cada tema.

Los capítulos son muy independientes entre sí, lo que facilita su lectura por separado y su uso en las clases de historia económica de grado o posgrado. En este sentido, se aprecia que el objetivo docente es el que predomina. Ahora bien, teniendo en mente esa audiencia, la presentación tendría que haber incluido una revisión más detallada y precisa de los conceptos de crisis y de globalización. Esto habría redundado en un mejor cumplimiento del objetivo docente, pero también habría reforzado el objetivo de proporcionar contribuciones a los investigadores, pues habría redundado en análisis comparativos adicionales entre las crisis de corto plazo y la evolución a largo plazo de las economías. Esta limitación es clara en el capítulo 12, que queda en un epílogo un tanto apresurado de la sucesión de crisis, con escasa reflexión de conjunto.

Bibliografía

KRUGMAN, P. (2009). *The Return of Depression Economics and the Crisis of 2008*. WW Norton and Co.

MINSKY, H.P. (1982). *Can «It» Happen Again? Essays on Instability and Finance*. M.E. Sharp.

ROUBINI, N. y NIHM, S. (2010). *Crisis Economics. A Crash Course in The Future of Finance*. The Penguin Press.

STIGLITZ, J.E. (2004). *The Roaring Nineties: A New History of the World's Most Prosperous Decade*. WW Norton and Co

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Chris Wickham

El asno y la nave.

La economía mediterránea de 950 a 1180

BARCELONA, EDITORIAL CRÍTICA, 2025, 1376 PP. ISBN: 978-84-9199-705-4

La nueva publicación de Chris Wickham, *El asno y la nave*, es una reinterpretación de la economía mediterránea en lo que define como «el largo siglo XI», y que en realidad abarca 230 años, comprendiendo prácticamente dos centurias y media que se reparten la transición de la Alta a la Baja Edad Media. Como es habitual en las monografías del autor, se trata de una propuesta monumental, que nace con ambición clara: desmontar la llamada «revolución comercial», concepto acuñado por el historiador de la economía belga-americano Raymond de Roover en 1942 y popularizado por el italiano Roberto S. Lopez en las décadas siguientes. Como es bien sabido, se trata de un paradigma por el que la economía mediterránea, bajo el liderazgo de la Europa meridional, encabezada particularmente por las ciudades italianas (Amalfi, Venecia, Génova, Pisa y Florencia, con todos los matices y cronologías diferenciados entre ellas), habría experimentado una fuerte expansión económica. La base habría sido un mercantilismo incipiente y un colonialismo primitivo de las áreas objeto de explotación económica –básicamente el Me-

diterráneo islámico–, en el aprovisionamiento de materias primas y la adquisición de manufacturas elaboradas. Semejante esquema habría sido posible gracias al desarrollo de instrumentos financieros decisivos, que dieron una ventaja técnica y cualitativa a las ciudades italianas a través del impulso proporcionado por sus flotas y mercaderes. En definitiva, la propuesta de Wickham desafía la gran narrativa aceptada –con matices– de manera indiscutida por la historiografía internacional desde hace más de medio siglo, a partir de un planteamiento indudablemente provocativo, que se puede incluso calificar abiertamente de pretensión revolucionaria. Como síntesis, el profesor Wickham propone adelantar el despegue de la economía mediterránea una centuria, del siglo XII al siglo XI, despojando de todo papel pionero a los centros italianos y otorgando todo el protagonismo al Mediterráneo islámico a través del foco en el Egipto fatimí.

La estructura del volumen está muy clara: hay un primer capítulo de carácter introductorio, con consideraciones metodológicas, al que siguen otros cinco, dedicados a cada uno

de los casos de estudio escogidos, centrados en seis grandes áreas geoeconómicas (Egipto, Ifriqiya, Sicilia, Bizancio, al-Andalus y la Italia centro-septentrional), para cerrar con dos conclusivos, uno recopilatorio de todo lo expuesto y otro con valoraciones similares para periodos posteriores a los tratados en el libro. En cada capítulo de las áreas específicas sigue el mismo esquema. Así, tras abordar el análisis de la historiografía y las fuentes disponibles –de por sí, un ejercicio abrumador– pasa a desarrollar cuatro aspectos clave: en primer lugar, el papel de las construcciones políticas como actores económicos, esto es, la relación entre economía y «Estado» –entendido en un estadio pre-moderno–, pero sin que su grado de desarrollo tuviera reflejo obligado y equivalente en el grado de integración económica del territorio, ni viceversa. En segundo lugar, la relación entre la distribución del poblamiento y las redes de intercambio. En tercer lugar, la articulación de los intercambios entre espacios rurales y urbanos, con el foco en los centros de producción y demanda, que se identifican casi siempre con las ciudades. Por último, una vez establecidos los parámetros anteriores, el comercio propiamente dicho: los artículos que protagonizaban los intercambios, el volumen de circulación y los medios para el transporte, con la cerámica como indicador privilegiado de análisis.

Desde el punto de vista metodológico, no cabe duda de que lo más relevante de la propuesta es el papel fundamental otorgado a los datos arqueológicos por sí mismos, y no solo para subsanar lagunas documentales –inevitables en esta cronología–. A partir de ahí, busca hacerlos dialogar con las fuentes escritas, hasta donde es posible, teniendo en cuenta la disparidad de métodos de estudio

y de resultados obtenidos, que a la postre no siempre hacen viable una interacción razonable entre ambos, y tampoco entre los espacios escogidos, con las consiguientes discordancias.

Con una clara impostación desde la historiografía marxista, no cabe duda de que otro de los puntos fuertes del planteamiento reside en el abandono de aproximaciones eurocéntricas, impregnadas inevitablemente de ecos colonialistas, a partir de un acercamiento al mar Mediterráneo que renuncia a su concepción unitaria –la que consagró Braudel– para incidir en los planteamientos actuales que entienden el *Mare Nostrum* como un conjunto de regiones con personalidad propia –más allá de los rasgos comunes– ligadas a la división político-confesional del medio entre las civilizaciones latina, bizantina y musulmana. El resultado es una síntesis interpretativa que pone patas arriba el cuadro general comúnmente aceptado y que parte del paradigma de considerar fundamental la demanda antes que la oferta, poniendo el foco en los bienes producidos en masa (grano, lino, cerámica y cuero) y no en los artículos considerados de lujo (especias, joyas, sedas). Así, concluye el mayor peso de la economía terrestre (el asno) sobre la marítima (la nave). Una arquitectura que converge, aparentemente, en términos macroeconómicos, pero que inevitablemente presenta importantes fracturas en términos micro y aun en el cuadro teórico, entre otras razones por la complejidad y las particularidades de cada área analizada. De hecho, el análisis detallado de cada región a la postre realza más la organización del trabajo y las estructuras económicas internas que las relaciones comerciales entre ellas, al punto que tal vez sea más oportuno hablar de ‘economías medite-

rráneas', en plural, y no en singular: inevitablemente, la atención singular difumina la narrativa de conjunto.

En una obra tan monumental y compleja cada lector encontrará múltiples motivos de adhesión o rechazo. Para muestra, la polémica desatada en Italia a raíz de un ensayo crítico de Sergio Tognetti, muy sólido en sus objeciones científicas y metodológicas, que ha concitado la respuesta airada del autor en un monográfico en *Reti Medievali Rivista*, donde otros especialistas formulan críticas igualmente pertinentes, desde las áreas de conocimiento que integran el libro –los estudios árabes e islámicos, la arqueología o los estudios bizantinos–. Con todo, algunas limitaciones son claras, de extrapolar indicadores arqueológicos de áreas excavadas a la totalidad del yacimiento para llegar a conclusiones gruesas, como la importancia central del puerto fluvial de Comacchio en los intercambios entre Oriente y Occidente, a minimizar el papel del Estado en el crecimiento económico, sin valorar en profundidad los efectos de la política fiscal, por poner dos ejemplos palmarios. Además, la selección de seis macro-áreas, por importantes que fueran, inevitablemente fragmenta la imagen final de conjunto que se pretende ofrecer, así como las consideraciones sobre su integración.

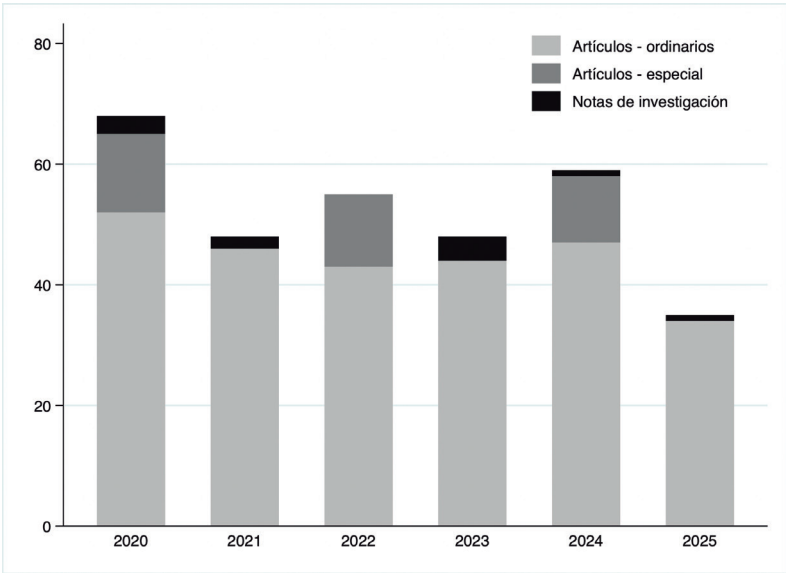
Por último, afirmar que, de la misma manera que los planteamientos económicos generales de este largo siglo XI eran erróneos, probablemente haya que reescribir toda la historia económica que le sigue, desautorizando de un plumazo décadas de historiografía, solo se puede tomar como una *boutade*. Más aún: hay serias dudas de que vaya a lograr desacreditar el modelo de la «revolución comercial» por una cuestión básica:

por pujante que fuera la economía de Egipto en el siglo XI, no tuvo los efectos globales y duraderos que sí acompañaron el impulso de las comunas italianas en el siglo XII. En definitiva, la erudición y la capacidad del autor son admirables e indiscutibles, pero, visto con perspectiva, quizá lo mejor del volumen no sea tanto la crítica que propone, como lo que está por venir: el debate científico que impulsa el conocimiento, obligando a verificar la validez de los modelos.

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Estadísticas

GRÁFICO 1. Envíos por tipo y año, 2020-25.



CUADRO 1. Estadística de envíos y primera decisión, 2020-25.

Año	Envíos totales	Rechazo interno	Enviados a externas	Enviados a externas (%)	Días entre envío y aceptación
2025	35	19	15	43	243
2024	58	22	34	59	174
2023	48	24	22	46	248
2022	55	27	28	51	223
2021	48	33	15	31	147
2020	68	39	29	43	164

NOTAS: [1] Envíos totales de artículos (incluye el Premio Ramón Carande) y notas de investigación.[2] La decisión de Rechazo interno excluye trabajos rechazados en la secretaría por formato o temática.[3] Número de días entre envío y aceptación (media) de los artículos publicados en la revista.

GRÁFICO 2. Porcentaje (%) de mujeres en autorías, reseñas y evaluaciones externas, 2005-25.

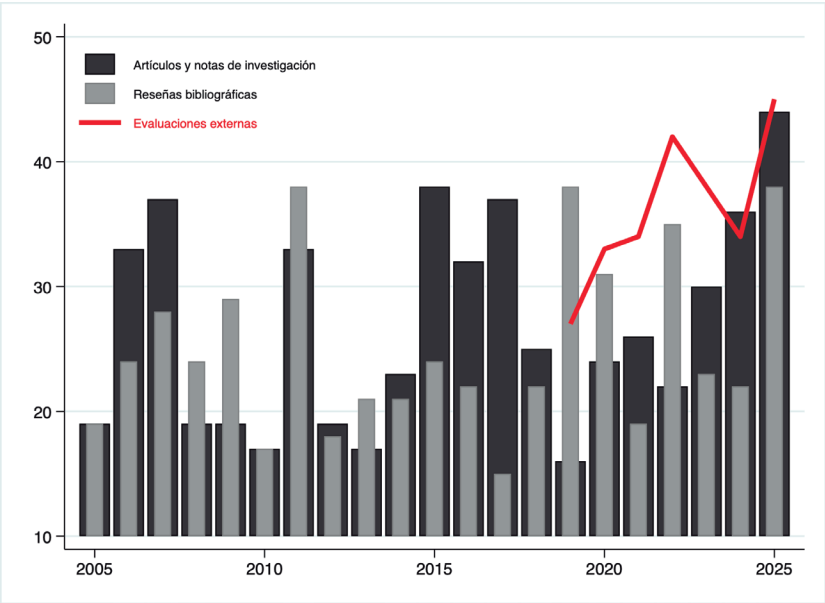
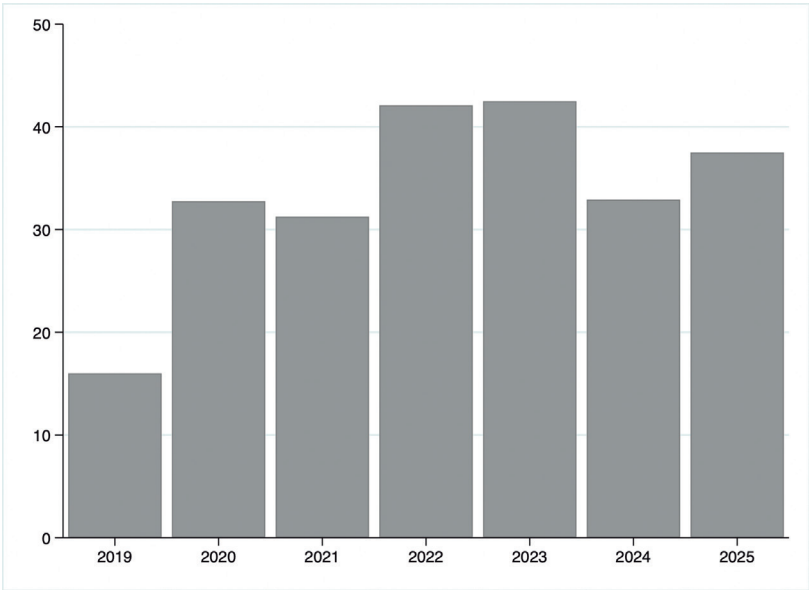


GRÁFICO 3. Porcentaje (%) de evaluaciones realizadas por investigadores internacionales, 2019-25.



NOTAS: Se define investigador/a internacional por su afiliación, es decir, si no está afiliado en el momento de la evaluación externa a un centro del Sistema Universitario Español (SUE).

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