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Family incomes in the industrial periphery. The urban centres of rural Mallorca and the Menorcan cities, ca. 1920-30

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Abstract
This article estimates the income of working families in the rural manufacturing and agricultural districts of Mallorca and Menorca. It focuses on day labourer households consisting of a conjugal unit and dependent children (classified as type 3b in Laslett's classification), a life stage marked by vulnerability. With this focus, we examine the relative contribution of the male head's income in working-class households and explore whether contemporary socioeconomic changes affected manufacturing or rural families more profoundly. The findings highlight the significant challenges most households faced in purchasing basic goods, demonstrating that male income alone was insufficient to ensure family subsistence. This underscores the critical role of subsistence production, particularly within rural communities, as a form of shadow income that played a pivotal role in sustaining these households.

Key words: Household budgets, living standards, population registers, Mallorca, Menorca, breadwinner model

Presupuestos familiares en la periferia industrial. Los núcleos urbanos de la Mallorca rural y las ciudades menorquinas, ca. 1920-30

Resumen
Este artículo estima los ingresos de las familias trabajadoras de los distritos rurales manufactureros y agrícolas de Mallorca y Menorca. Se centra en los hogares de jornaleros formados por una unidad conyugal e hijos a cargo (clasificados como tipo 3b en la clasificación de Laslett), una etapa de la vida marcada por una especial vulnerabilidad. Con este enfoque, examinamos la contribución relativa de los ingresos del jefe masculino en los hogares de clase trabajadora y exploramos si los cambios socioeconómicos contemporáneos afectaron más profundamente a las familias manufactureras o rurales. Los resultados ponen de relieve los importantes desafíos a los que se enfrentaron la mayoría de los hogares para comprar bienes básicos, lo que demuestra que los ingresos masculinos por sí solos fueron insuficientes para garantizar la subsistencia familiar. Esto subraya el papel fundamental de la producción de subsistencia, particularmente dentro de las comunidades rurales, como una forma de ingreso en la sombra que desempeñó un papel fundamental en el sostenimiento de estos hogares.

Palabras clave: Presupuestos familiares, niveles de vida, padrones de población, Mallorca, Menorca, modelo del ganador de pan

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Family incomes in the industrial periphery. The urban centres of rural Mallorca and the Menorcan cities, ca. 1920-30[1]

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1. Contextualization of the case study. Theoretical, geographical and socioeconomic frameworks circa 1920

In recent years, considerable literature has analysed the viability of family subsistence in different historical periods, based on the income of a sole male breadwinner. Key contributions include the pioneering studies of Allen (2001, 2015) and Humphries (2013) on England, and the work of Borderías and Muñoz-Abeledo (2018) on Spain. These researchers reconstructed the incomes of numerous families to assess whether they could meet basic needs. They also explored the composition and cost of working-class diets, finding that alongside the male breadwinner, other family members—wives, children and other relatives—often had to contribute to household consumption. Even then, many households struggled to achieve financial stability, prompting strategies such as food self-sufficiency, taking in boarders, fostering and simplifying diets.

Building on this theoretical framework, the purpose of this article is to elucidate some of these aspects in the Balearic Islands. Unlike for regions such as Catalonia and Galicia, no prior studies have examined the relationship there between family income and the cost of basic goods. Furthermore, few studies have investigated the dietary composition of different groups, aside from the standard menus published by Escartín (2001a) and Molina (2003), which do not address family budget reconstruction. This study aims to contribute to the central debate on this particular issue by analysing a sample of households from municipalities of varying economic types, based on the 1924 population registers and other supplementary sources.

In the 1920s, the Balearic Islands were predominantly industrious as opposed to industrial, undergoing significant social and economic changes, with notable differences between the islands (Manera and Parejo Barranco, 2012). Trade protection, war-driven demand and urbanisation fostered the development of new districts and industrial sectors, some of which, such as footwear and vegetable canning, were oriented towards export (Manera, 2002; Morey and Seguí, 2022). This period has been described as one of productive intensification, characterised by the use of an abundant, low-cost urban and rural labour force. In a sense, it could be considered a late second industrious revolution (Manera 2001, 2006; Molina 2003).

Industriousness in manufacturing in Mallorca was accompanied by significant changes in land ownership. By the early twentieth century, a substantial segment of the peasantry had secured access to land, a process gradually initiated by liberal agrarian reforms and partially financed by commercial capital (Murray *et al.* 2019). These land parcelling arrangements were often structured by means of emphyteutic leases, which required purchasers to pay an initial fee and annual rents[2]. In parallel, demand for labour grew in urban manufacturing centres, and to a lesser extent in areas where domestic industry gained new momentum,

1 This article falls within the framework of four parallel research projects: PID2022-139652NB-I00 financed by MCIN/AEI/10.13039/501100011033 and "FEDER Una manera de hacer Europa"; PID2021-123129NB-C41 and PID2021 -1280100B-I00, both funded by the Spanish Ministry of Science and Innovation and a Grant from IME, Inv. 2021-22.

2 MCOCIN, 1939: 155; 1947: 21; Bisson, 1977; Cela 1979; Rosselló Verger 1982; Florit 1984; Habsburg-Lorena 1984: vol. 5: 33; Suau 1991; Morey 1999; Jover and Morey 2003; Pastor 2016; Morro 2017; Morey and Jover 2018.

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particularly in footwear and canning, both closely linked to agricultural intensification and the emergence of new agri-food sub-sectors (Manera, 2005; Morro, 2017; Morey and Fornés, 2022; Morey and Seguí, 2022).

Menorca, in contrast, had a distinctly manufacturing profile, especially in comparison with most Mallorcan municipalities and other nearby island economies (Casasnovas, 1998a, 2006). The growing share of the labour force in the secondary sector, particularly footwear production, which originated in the late nineteenth century, became firmly established in the early twentieth century, persisting despite economic fluctuations (Casasnovas, 2006).

These developments across both islands led to an early demographic transition, notably marked by a decline in infant mortality and positive biophysical indicators (Bujosa *et al.* 2000; Pujadas-Mora 2009; Martínez-Carrión and María-Dolores, 2017). Since the mid-nineteenth century, life expectancy in the Balearic Islands had been among the longest in Spain, and by 1900 it was the longest, rising from 51.61 to 54.44 years between 1920 and 1930 (Dopico and Reher, 1998). The Balearic Islands also led Spain in terms of height, the average male standing at 164.25 cm in 1913 (Martínez-Carrión *et al.*, 2016). However, these improvements coincided with significant internal and external migration. In early twentieth-century Mallorca, the interior and northern regions lost population partly to Palma (Pujadas-Mora, 2009) and partly due to emigration overseas (Albertí Genovart, 2017). In Menorca, despite economic dynamism, many municipalities experienced depopulation between 1920 and 1940 due to the disparity between declining fertility and mortality rates (Vidal Bendito, 2006; Casasnovas, 2001).

These changes prompt questions about the identity of the breadwinners and the role of women in domestic economies—two issues with significant implications for accurately measuring GDP and employment rates. Examining these aspects also allows a closer look at families' living standards during this demographic transition, a period marked by sharp disparities between metropolitan areas and peripheral regions in the global economy (Van Nederveen Meerkerk, 2019). We contend that estimating household income composition, family members' contributions and households' capacity to achieve an adequate diet can help clarify the impact of these changes on contemporary households and social groups.

This article offers an estimate of the incomes of working-class families in the rural manufacturing and agricultural districts of Mallorca and Menorca (Morey and Seguí, 2024). It focuses on day labourer households at a particularly vulnerable life stage, selecting families with a conjugal unit and dependent children of type 3b in Laslett's classification. With this in mind, we aim to assess the relative importance of the male head's income in working-class households, and to determine whether contemporary changes impacted manufacturing or rural families more significantly.

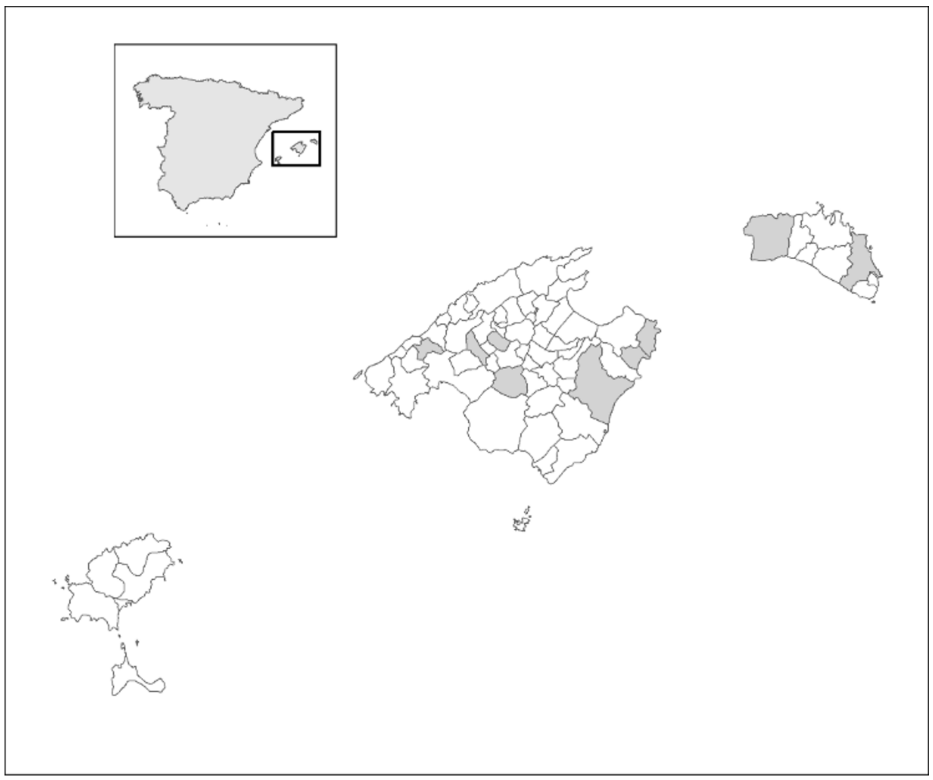
Following this introduction, the article is organised as follows. Section two presents the selected municipalities and sources. Section three discusses the demographic and socio-professional structures of households. Section four analyses occupational structures and incomes, focusing on wage data within conjugal units. Section five examines the common budgets and diets in urban and rural areas, assessing their monetary cost at market prices and their nutritional value. Last, the conclusion reflects on the difficulties most households faced in purchasing basic goods, and highlights the importance of subsistence production, particularly in rural communities.

2. Sources, municipal population sample, and methods

The 1924 population register was chosen primarily because its compilation coincides with the structural economic changes occurring in Spain at the time. It also enables the study of demographic structures, labour force composition and, in many cases, wage incomes (Borderías and Muñoz Abeledo, 2018; Muñoz-Abeledo, Mella, and Maté, 2019; Borderías, Muñoz Abeledo, and Cussó, 2022). Selection of the municipalities was based on urban characteristics and population size. In some cases, rural localities such as former agrotowns like Manacor could be considered urban, due to their size. The sectoral distribution of the labour force and recorded wages for male and female workers were also considered. These criteria, along with the

inability to access population registers from some municipalities, such as Palma where 28% of the island's population resided, reduce the representativeness of the Mallorcan sample. In contrast, the Menorcan sample includes the two most populous towns, Maó and Ciutadella (similar in size to the rural towns of Inca, and Manacor in Mallorca), representing around 70% of the island's population. Both Menorcan towns are notable for their footwear industry, albeit with some differences: Maó, as the island's capital and military base, was more linked to the tertiary sector, while Ciutadella, primarily focused on manufacturing, was the seat of the ecclesiastical authority and the residence of Menorca's landed gentry (Marquès-Marroquín 2001, 2009; Casasnovas, 2002).

Figure 1. Geographical location of the municipalities in the sample



Source: own elaboration.

Table 1. Sectoral distribution of the working population of the selected municipalities

Mallorca	1st.	2nd	3rd	Total population
Algaida	80.7	9.2	0.2	3,918
Binissalem	58.0	27.3	4.8	4,134
Capdepera	41.4	35.3	3.3	2,914
Esporles	33.7	55.9	0.4	2,845
Manacor	46.1	32.4	1.5	13,033
Santa Maria	67.3	20.6	2.1	2,966
Son Servera	63.9	9.0	7.1	2,725
Menorca	1st.	2nd	3rd	Total population
Maó	22.7	35.0	2.3	18,285
Ciutadella	26.4	50.8	2.8	9.885

Own elaboration. Sources: For Mallorca (1920): Albertí (2017: 541) and 1920 census. For Menorca (1924): Morey and Seguí (2023a).

The selected Mallorcan municipalities are mid-sized urban centres with over 2,000 inhabitants, illustrating the island's diverse regional specialisations (Figure 1 and Table 1). Algaida represents cereal production associated with orchard crops. Esporles, an olive-growing town in the Serra de Tramuntana (Muntanya), was chosen for the persistence of large estates alongside a significant textile sector, a feature observed in the same region only in Sóller and Bunyola (Escartín, 1991a, 1991b; Escartín and Serrano, 1995; Suau Font, 2014). Binissalem and Santa Maria, in the Raiguer region between Muntanya and Pla, with a historic focus on viticulture, to which can be added Alaró and Lloseta, were known for their leather and footwear industries (Manera, 2002; Pons and Bibiloni, 2004). Manacor, the island's second-largest rural town, served as a regional hub for Llevant and Migjorn. Despite being a major grain producer, it became increasingly known for its wood manufacturing and artificial pearl industry, which employed many women (Manera, Sansó, and Sansó, 2009; Sansó, 2009). Last, Son Servera and Capdepera, located in Llevant, the easternmost part of Mallorca, were highly agricultural and showed significant inequality in land distribution, although female labour in palm manufacturing was also important (Alzina Mestre, 1993, 1997; Molina and Vargas, 2023; Peñarrubia Marquès, 2022).

The population registers in this sample share many of the limitations noted for other provinces, particularly regarding professional categories and the recording of remuneration for work. They fall short of capturing the intensification and multi-activity characteristic of the period, especially in rural municipalities where low wages demanded more working hours and days (Carbonero, 1991). The underreporting of female occupations exacerbates this issue in Mallorca, where the female activity rate (FAR) was 12.60% compared to Menorca's 14.86%. This discrepancy likely reflects the biases of municipal officials who, influenced by contemporary social norms, often defaulted to categorising many women as housewives, thereby obscuring the extent of female labour presence, which is more accurately documented by private accounting and oral history (Marquès-Marroquín 2001, 2009; Sansó, 2009; Suau Font, 2014; Molina and Vargas, 2022; Ginard, 2023).

Occupational titles were standardised according to the HISCO classification and distributed by sector following Pujadas-Mora *et al.* (2014: 209-219). The sectorisation is based on 29 economic subsectors, three in the primary sector, ten in the secondary sector, and eight in the tertiary sector. However, this classification does not consider likely occupational mobility (Van Leeuwen and Maas, 2010) and poses challenges with certain categories in particular. For example, "owners" do not correspond to any of the proposed subsectors or occupations. Similarly, the label "day labourer" encompasses terms like field hand, wage labourer and day labourer, while "tenant" includes landlords, sharecroppers and tenant farmers. A specific subgroup for domestic tasks has also been created, grouping terms like "domestic worker", "household duties" and "female duties" to distinguish them from paid domestic service.

The second problem concerns the presentation of income. The source records most wages as daily salaries. However, the inclusion of annual incomes for various professional, business management and public administration positions, as well as incomes from renters and other weekly or monthly incomes, complicates data standardisation, which was carried out as follows. First, daily wages and annual incomes, which are more easily identified, were selected. Second, daily wages were converted to annual income using the following formula:

$$AI_i = DW_i \times WD_{mp}$$

considering the annual income (AI_i) and daily wage (DW_i) of an individual i, along with the number of days worked per year in sector m of population p (WD_{mp}), according to the *BOPIB* (1919-1924). Third, the daily household income (DI_h) was calculated:

$$DI_h = \frac{\sum_{i=1}^{n} AI_i}{366}$$

where n represents the number of active members in household h, and the sum is divided by 366, since 1924 was a leap year. Last, we use daily household incomes to determine the average family income (AFI_p) in a given population p.

$$AFI_p = \overline{DI_h}$$

To address the limitations of relying solely on the population registers, additional public and private sources were systematically incorporated. In terms of public sources, serial publications with statistical data were used, such as lists of consumer prices included in provincial bulletins and diets published in widely circulated weeklies and newspapers, in addition to records from the supply sections of certain municipalities. Among the private sources, the accounting records of Mallorcan agricultural enterprises stand out, as they reflect the characteristics of the peasant diet and the persistence in certain areas of in-kind compensation and the provision of food to certain agricultural workers. Other valuable sources include publications that compile interviews with rural women about their work and contemporary consumption patterns (Chamberlin, 1927; Miralles, 1973; Suau Font, 2014; Morro, 2017).

3. Household and socio-professional structures

Over 70% of the families studied are nuclear, primarily subtype 3b, consisting of a couple with two or three children. Kinship relations confirm the predominance of this family type, with 40% of men recorded as heads of household, 34% of women as wives, and 49.55% and 46.69% as sons and daughters, respectively. Additionally, 65% of households within this group had inactive descendants in terms of employment. This proportion was especially high in the municipality of Son Servera, particularly compared to Santa Maria, Maó, and Ciutadella, suggesting that Mallorcan and Menorcan households might have been at different stages of the life cycle. Conversely, complex families, including stem and joint families, accounted for no more than 13-14% of the total, except in Capdepera (18%). Last, single-person (solitary) households exceeded 10% in Son Servera and Algaida and 9% in Capdepera (Table 2).

Table 2. Proportion of subtype 3b households, the percentage with dependent children (3b-dc), number of members, and FAR

Island	Municipality	3b	3b-dc	Members	Head	Wife	Son-Daughter	FAR
Mallorca	Algaida	47.92	75.16	4.83	40.40	33.53	49.82-46.19	7.11
	Binissalem	51.76	67.51	5.22	39.38	31.80	53.49-49.67	1.86
	Capdepera	45.44	63.02	4.01	51.09	44.12	41.87-36.74	12.60
	Esporles	55.49	69.31	4.60	42.96	36.59	49.27-47.19	7.14
	Manacor		71.01					12.96
	Santa Maria	49.06	31.71	5.12	41.11	34.27	53.39-47.51	72.00
	Son Servera	48.89	88.07	4.19	45.05	38.93	47.17-40.78	67.28
Menorca	Maó	44.62	47.09	4.73	35.74	31.30	40.91-41.17	13.01
	Ciutadella	52.19	36.89	4.90	40.32	32.88	52.99-47.93	16.71
Median		48.98	67.51	4.78	40.76	33.90	49.55-46.69	12.96

Own elaboration. Sources: municipal population registers. For Manacor, only 3b-dc are studied.

Families of subtype 3b with dependent children are the most common, except in the municipalities of Santa Maria, Maó and Ciutadella (Table 2), known for their industrial specialisation and significant female labour market participation. These households were in the early family life cycle stage, with the couple in their thirties and their children still inactive, reflecting a high single mean age at marriage (SMAM). In 1920, men married on average at around 28.5 years, with women marrying two years earlier (26.58). By 1930, these figures had risen slightly to 28.53 and 26.61, respectively (Cachinero, 1982). These were relatively high ages compared to many Spanish provinces, and they could be even higher in specific populations. For instance, in Algaida, Esporles, and Maó, male and female SMAM exceeded 29 and 27 years, respectively; and in Capdepera, with its predominantly agrarian economy, these ages were 27 and 25 years (Table 3).

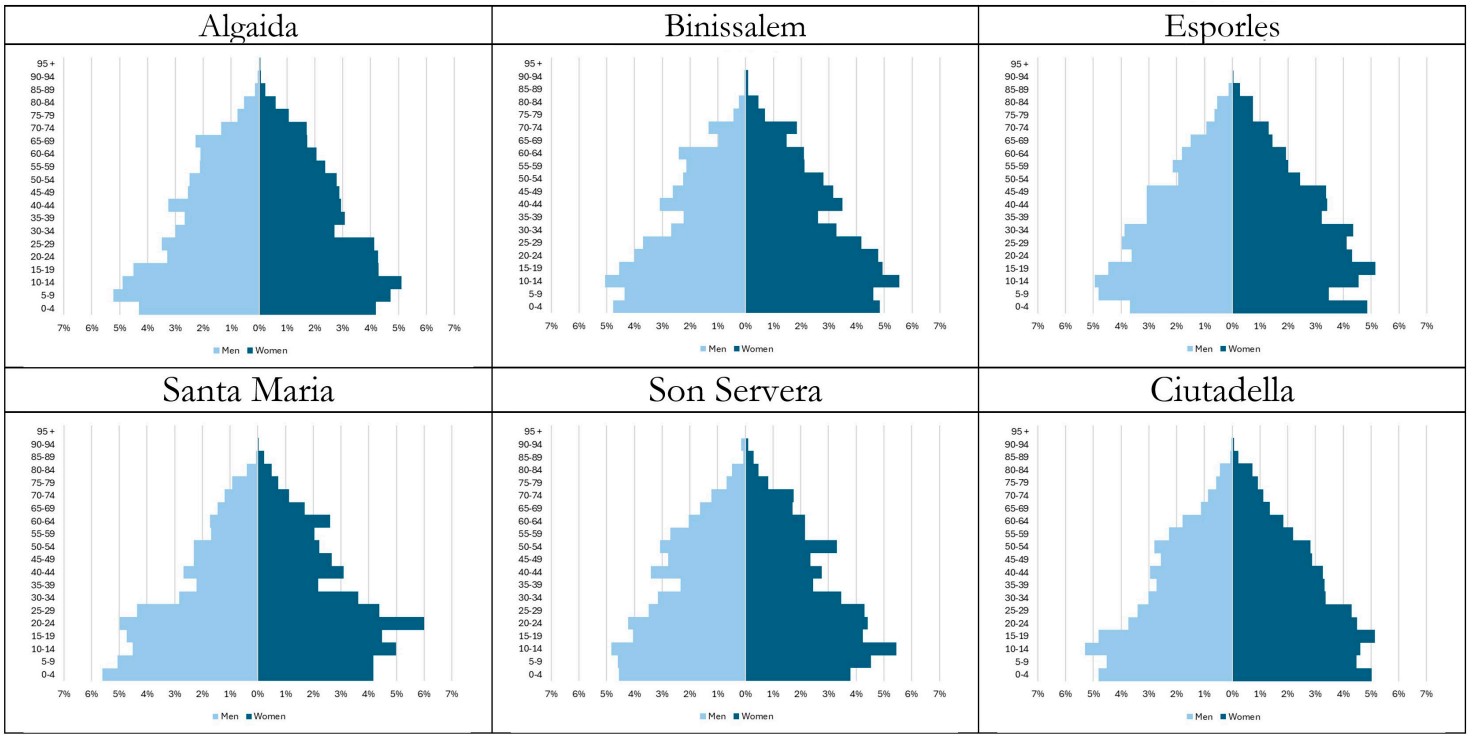
Delayed marriage explains the lower fertility seen in the bases of municipal population pyramids (Figure 2). The population aged 0 to 4 years is significantly smaller than the 5 to 9-year age group in all municipalities except among women in Santa Maria and Esporles. In Ciutadella, the phenomenon is more noticeable between the age groups 0 to 9 years and 10 to 19 years. This is further evidence of an advanced demographic transition, reflected not only in an early decline in mortality but also in a decline in fertility. Following the lead of Catalonia and the Valencian Community, the Balearic Islands was pioneer in birth control in Spain (Nicolau, 1991). Consequently, the 5 to 19-year age group is relatively large in our sample due to the lag between the decline in infant mortality and the drop in fertility (Figure 2), increasing the population in these cohorts. However, the older age groups are narrower due to the high mortality rates that prevailed prior to the demographic transition.

Table 3. Municipal SMAM. Balearic Islands (1924)

Municipality	Men	Women
Algaida	29.44	27.59
Binissalem	28.74	28.59
Capdepera	27.56	25.59
Esporles	30.63	28.82
Santa Maria	28.94	27.13
Son Severa	27.75	25.53
Ciutadella	28.95	26.06
Maó	29.39	26.82

Own elaboration. Sources: For Mallorca: municipal population registers. For Ciutadella and Maó: Morey and Seguí (2023a).

Figure 2. Municipal population pyramids. Balearic Islands (1924) – selection -.



Own elaboration. Sources: Population registers of the municipalities selected.

Mallorcan 3b families in the sample show greater diversification in the secondary sector compared to extended families (stem and joint types), suggesting that complex families were more significant in the agricultural sector, as observed in Catalonia (Ferrer-Alòs, 2018) (Table 4). For example, in Algaida, 19% of male heads of these households worked in agriculture, compared to 26% in complex families. In Binissalem, these figures were 9% and 11%, respectively; in Capdepera, 43% and 57%; in Esporles, 2.6% and 7.7%; in Santa Maria, 5% and 9%, and in Son Servera, 50% and 58%. These findings indicate that regardless of the municipality's economic specialisation, complex families were more involved in agriculture, which we associate with the intensive use of labour in family farms (del Campo and Rodríguez-Brioso, 2002; Gomila, 2004). In contrast, 3b families have a stronger presence in commerce and the secondary sector. In Algaida, for example, 2% of these households were involved in commerce, compared to 0.6% of complex families. In Binissalem, the figures are 4.38% versus 2.71%. Likewise, 49.11% of 3b families in Esporles worked as day labourers, many employed in the local textile industry, compared to 29% of complex families. In Santa Maria, these percentages were 52% and 45%, respectively, with a booming textile industry since the late 19th century (Ramis Canyelles, 2009).

Table 4. Male heads of household by family type (Laslett's classification) and economic specialisation.

Municipality	Family type	Agriculture, etc.	Day labourers	Manufacture	Commerce
Algaida	3b	8.99%	23.31%	11.58%	4.38%
	Stem(4)/joint(5)	11.11%	21.95%	8.67%	2.71%
Capdepera	3b	43.07%	5.20%	1.61%	2.23%
	Stem(4)/joint(5)	57.18%	3.79%	1.08%	2.44%
Esporles	3b	2.56%	49.11%	4.68%	3.12%
	Stem(4)/joint(5)	7.69%	39.05%	2.66%	3.25%
Santa Maria	3b	5.04%	52.03%	1.16%	1.16%
	Stem(4)/joint(5)	9.04%	45.21%	1.60%	1.60%
Son Servera	3b	50.24%	5.84%	1.22%	1.82%
	Stem(4)/joint(5)	58.36%	2.85%	2.14%	0.71%

Own elaboration. Sources: Mallorcan municipal population registers. Manacor is not included as the data extracted is limited to 3b families.

4. Wages and family incomes

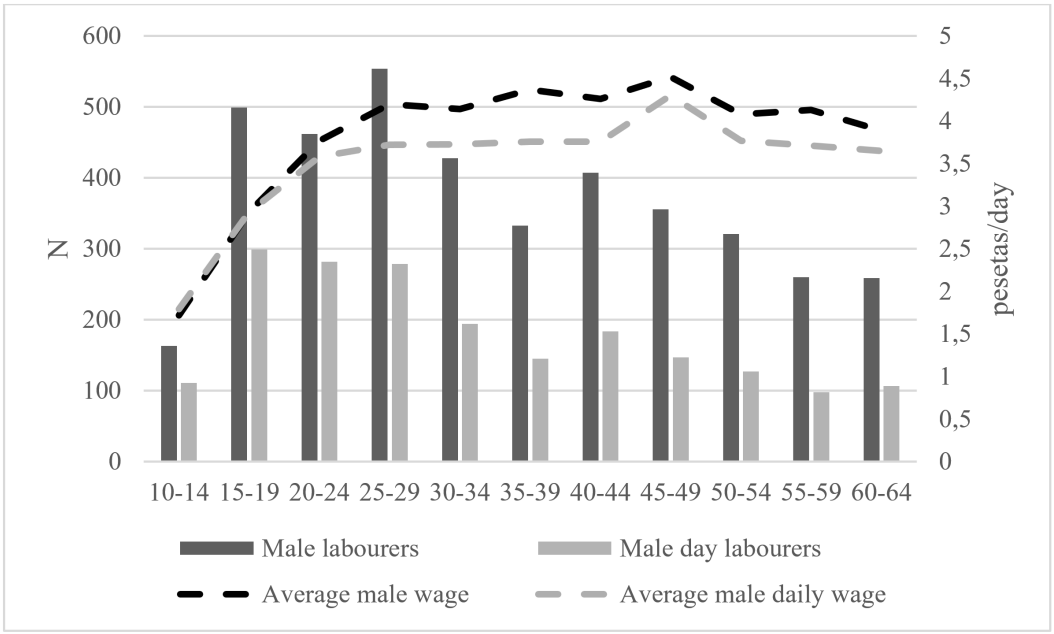
The information regarding the remuneration of occupations in Mallorcan population registers is more limited compared to Menorcan cities. The proportion of the salaried workforce is relatively low, with around 40-50% of men and 10% of women as wage earners. "Day labourers", the predominant category, is used generically, although the wage associated with it matches those of other manufacturing (weaver, shoemaker, etc.) and agricultural jobs. Consequently, the number of wages related to a specific occupation is relatively low in all municipalities, except for Santa Maria and Son Servera. The sample was standardised using only data for daily wages and annual or monthly income that could be converted into a daily wage. This limits the Mallorcan sample to a total of 5,173 wages, 4,655 male and 1,418 female. Among men, the agricultural sector and day labourers are the most represented, with 23.1% and 45% of the observations, respectively. Manufacturing occupations are underrepresented: footwear and leather (4.55%), construction

(4.9%), and textiles and clothing (0.5%). Among women, occupations with defined wages are day labourer (52.7%) and housework (20.6%). Despite the lack of disaggregated information, average male wages in populations with higher manufacturing activity notably exceed agricultural wages.

Furthermore, the slight wage differences among day labourers across municipalities suggests a growing convergence of unskilled wages, possibly related to migration, institutional interventions and labour conflicts. On contrasting manufacturing and agricultural occupations, wage differences at the municipal level and in the number of potential working days were observed, which we will be discussed later. The sample under study shows an average male wage of 3.8 pesetas, with day labourers earning 3.5 pesetas per day. For women, these figures are 2.4 pesetas per day and 2 pesetas per day for day labourers. These numbers are close to the wages calculated by Molina (2003: 79) and those recorded in private manufacturing accounts (Binimelis, Fornés, and Ordinas 2012: 365-372; Molina 2012: 361).

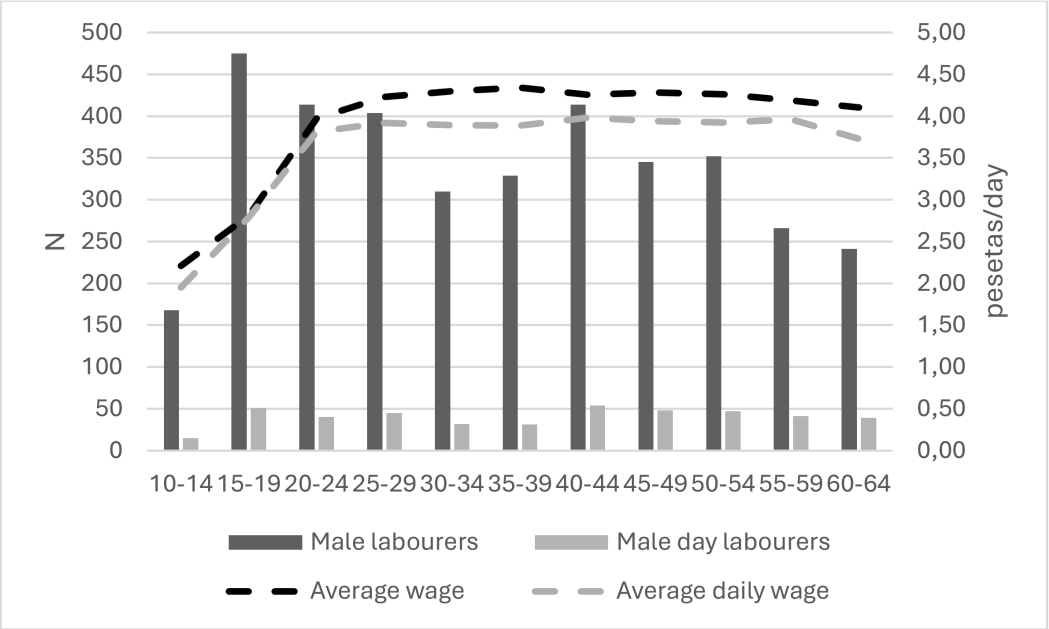
Figures 3, 4, 5 and 6 break down the average wages of day labourers by age groups from 10 to 64 years, following a broad definition of the duration of labour activity for the entire Mallorcan sample and Maó. Three variables are considered: the overall daily wage average for all occupations, the daily wage for day labourers, and the average agricultural wage for men, though this also mainly pertains to day labourers. Evidently, the sample may pose interpretation issues as it may not adequately represent all sectors across age groups (Table 4). Moreover, aggregation obscures local differences and the representativeness of the wages of each occupation in different municipalities. Nevertheless, as other contemporary sources suggest, the approach may be reasonably accurate. As shown in Figure 3, the average agricultural wage is 3.6 pesetas per day, practically equal to the male day labourer wage at 3.5 pesetas. However, average wages are considerably lower than those in major manufacturing occupations: 4.2 pesetas per day in textiles, 4.5 pesetas per day in footwear, and 4.9 pesetas per day in construction. For women, Figure 4 highlights a substantial gender wage gap, with an average wage of 2.23 pesetas per day, while female day labourers earned an average of 2 pesetas per day.

Figure 3. Average male wages and age structure: Mallorca.



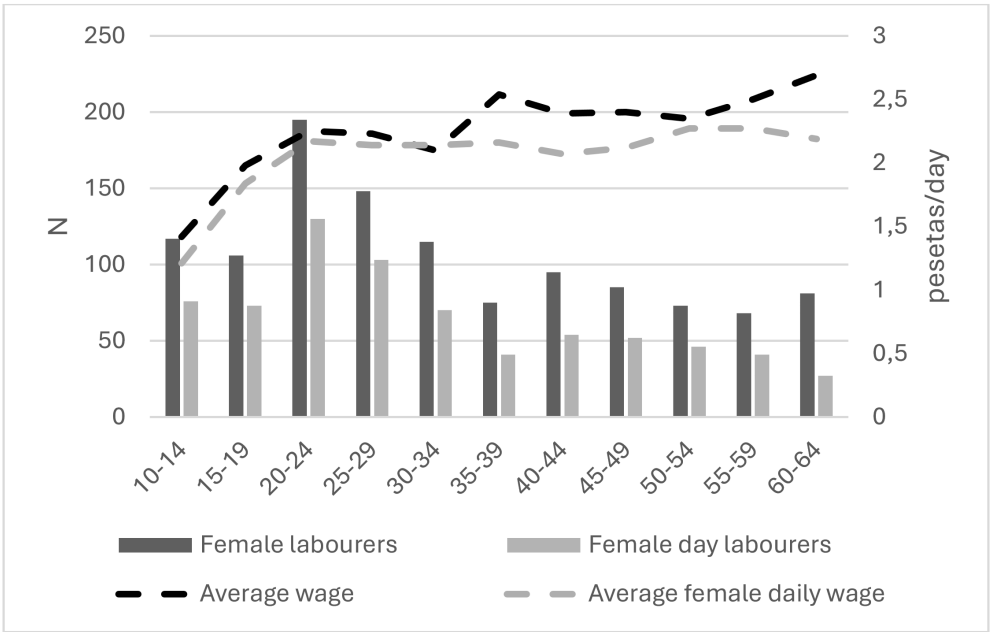
Own elaboration. Sources: Mallorcan population registers.

Figure 4. Average male wages and age structure: Maó.



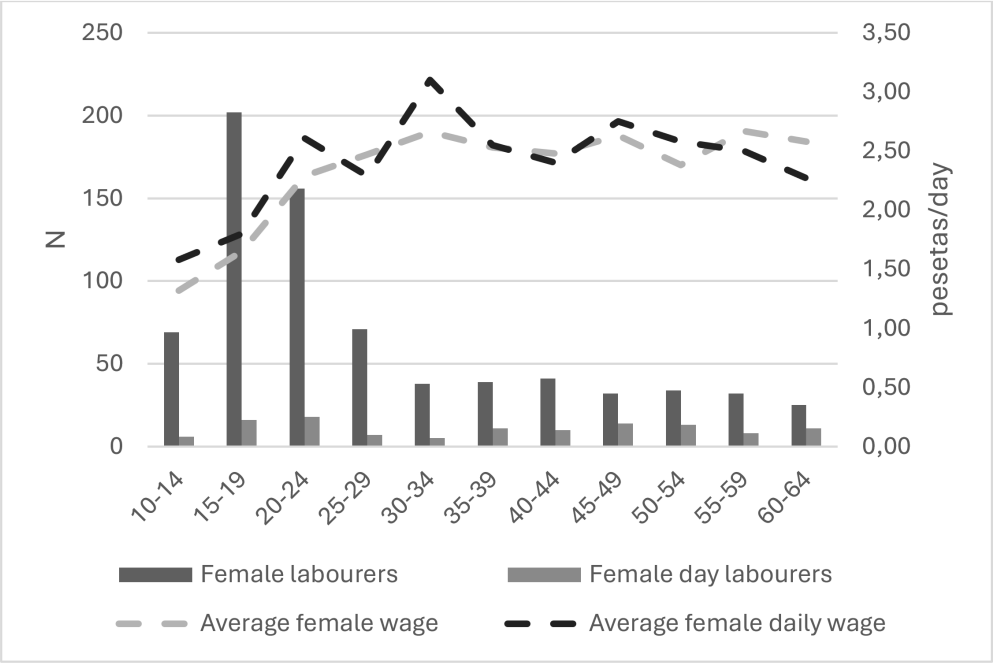
Own elaboration. Sources: Population register of Maó.

Figure 5. Average female wages and age structure: Mallorca.



Own elaboration. Sources: Mallorcan population registers.

Figure 6. Average female wages and age structure: Maó.



Own elaboration. Sources: population registers of Maó.

There are similarities in the figures for entry and exit from the labour market and wage evolution throughout the working life cycle. Most wages are concentrated between the ages of 15 to 19 years and 30 to 34 years, after which the wage proportion by age group decreases. Among men, the wage trajectory increases between the age ranges of 10 to 14 years and 25 to 29 years, then remains stable until the curve slopes downward as physical capacity declines. Male wages are consistently higher than day labourer earnings, a difference induced by the inclusion of more qualified wages in the average figures, even though they represent a small share. The wage gap between the average wage and day labourers' wages widens in early stages of the life cycle, possibly distinguishing the workers who acquired specific skills or worked in better-paying sectors from those in low-skilled jobs. However, the differences also narrow in the later stages of the working period. For women, wage growth occurs earlier, between the ages of 10 to 14 and 20 to 24 years, stagnating thereafter and only slightly increasing again between 30 and 34 years. This stagnation and subsequent rise may relate to leaving the labour market on marriage and re-entering after motherhood, possibly in better-paid jobs than those held previously. In contrast to male wages, the gap between the average wage and day labourer earnings for women also widens slightly in this period, supporting this hypothesis. Last, the wage evolution in rural Mallorcan areas is similar to that in Maó, although Menorcan women appear to leave the workforce earlier (Figures 5 and 6).

Having determined the family structure, occupation and average wages, we calculated a labourer family's average income for a working day. This required estimating the number of days worked per year by a married couple, the foundation of the 3b family type, although sources provide diverse data. For instance, the Esporles population register indicates a total of 300 days a year, a figure also reported in the Manacor pearl industry records for men and women hired year-round[3]. However, it is likely that this figure was only achieved by those working continuously in a single occupation or business, while the population in both rural and urban areas most likely worked only around 260 days a year, as contract interruptions, part-time work (piecework and half days) and holding multiple jobs were common, especially among women (Escartín 2001a; Molina 2003; Morey and Seguí 2023a). Due to the challenge of finding a consensus figure across

3 In the Manacor pearl factories, workers laboured six days a week for 8 to 9 hours daily, with an average income for a female worker in 1,928 of 938 pesetas. When divided by the daily wage, this figure would correspond to 304 days of work (Sansó 2009: 182-185).

various sectors and occupations, we used the averages provided in utility tax estimates for the sampled populations[4].

This source estimates the average number of working days per sector between 1919 and 1924, but the information requires certain considerations. First, as noted, the estimated days for men (200-250) exceeds the figure for women (150-200), reflecting a shorter formal working life cycle for the latter, often interrupted by marriage and motherhood, as illustrated in the previous figures. Second, significant differences are seen between municipalities and sectors, without any apparent underlying cause, as municipalities with high manufacturing activity (Esporles, 240 days) are attributed the same workdays as others with primarily dryland agriculture (Algaida, 250 days). Third, it is important to note that workdays varied from year to year. Last, the average workdays for men in Mallorca were 243 in industry and 208 in agriculture, compared to 290 and 270 days, respectively, in Menorca. This discrepancy suggests that Menorca's larger manufacturing base promoted greater labour force participation in the paid labour market. In contrast, the Mallorcan sample may be biased by the predominance of rural municipalities and a higher proportion of non-market occupations, especially in agriculture.

Regarding the FAR reflected in the population registers (Table 2), several considerations should be made. Beyond the issue of underreporting, it is acknowledged and reflected in private sources that a common labour situation for the time was women engaged in paid work to a greater extent than officially recorded. This was both possible and necessary for several reasons. First, oral histories from the 1920s evidence that most women worked a "double day", doing the household chores before leaving home or after their workday being the norm among the working class (Genovard, 1988; Suau, 2014). Second, household and caregiving tasks were sometimes performed by older daughters or close relatives, not necessarily cohabitants, and occasionally even became paid work (Whittle, 2019; Whittle and Hailwood, 2020). This was compatible with flexible schedules (part-time), or piecework done at home. Last, the 1909 education law mandated school attendance until age 12, leaving some room for girls to engage in activities outside the home (Gálvez, 1994). Considering these factors, Table 6 is based on the workdays indicated by utility statistics and the wages recorded in the sample's registers. The table provides an estimate of the daily income average for the head of the household (AIHH), the average daily family income (AFI), and the contribution of the spouses to the formation of the latter, according to workdays in industry (WD-I) and agriculture (WD-A), as well as the head of the household's income, by municipality, and for 3b families with dependent children (3b-dc) and no children (3b-ndc).

Territorial differences in AFI and family typologies are significant. The contrasts between Ciutadella and Son Servera exemplify the differences between an urban-industrial municipality and an agricultural one dominated by large estates. In Son Servera, limited opportunities largely confined residents to either working sporadically on large estates or migrating seasonally overseas (Caro and Pons, 2002). This migration was generally to save enough capital to purchase a small plot of land, which would mitigate the vulnerability of the family unit. Beyond these extreme cases, there are also other notable variations. In Menorca, for instance, Ciutadella's average income was twice that of Maó. This disparity, particularly evident in the footwear sector, can be attributed to men working longer hours in Ciutadella. As a result, the role of female earnings in the family income varied: in Ciutadella, women's earnings improved living standards, while in Maó they often compensated for the shortfall in men's income. In contrast, income variations across Mallorcan municipalities are less pronounced. Excluding spousal contributions, Maó's income situation did not differ significantly from in Algaida, Binissalem, Capdepera, Manacor and Santa Maria. The underlying question, however, remains- whether couples with inactive children could meet their basic needs solely through wage income, an issue explored in the following section.

4 The tax was introduced following Fernández Villaverde's tax reform of 1900, applying different rates to income from labour, capital and industry. It was calculated based on the number of working days in each sector, tailored to the specific conditions of each municipality (Portillo 1997: 141-142). Results were periodically published in official bulletins, with distinctions by category (such as master craftsman, skilled worker, and labourer in construction) and by age (up to 55 years) in industry. BOPIB, nos. 8,202-8,954 (1919-1924).

Table 5. Average wage income of the 3b families in Mallorca and Menorca.

Island	Municipality	WD-I	WD-A	AIHH (ptas./day)	AFI (ptas./day)	3b-dc (ptas./day)	Head%	Wife%	3b-ndc (ptas./day)
Mallorca	Algaida	250	200	1.88	5.59	3.71	93.94	6.06	8.06
	Binissalem	250	200	2.53	6.00	4.78	99.77	0.23	9.09
	Capdepera	220	200	2.20	4.43	2.75	98.72	1.28	4.43
	Esporles	240	200	3.30	7.34	3.63	98.12	1.88	7.34
	Manacor	220	200	2.05	5.72	4.39	98.64	1.36	5.72
	Santa Maria	180	180	1.90	4.89	3.43	63.60	34.69	5.51
	Son Servera	220	200	2.01	2.61	0.95	98.57	1.43	2.61
Menorca	Ciutadella	290	270	6.67	9.73	8.64	99.37	0.63	12.66
	Maó	290	270	3.29	4.96	3.60	99.51	0.49	7.12
Median		240	200	2.20	5.59	3.63	93.94	6.06	7.12

Own elaboration. Sources: Mallorcan municipal population registers. Note: the lack of the WD for some Mallorcan municipalities was resolved by using the WD of neighbouring municipalities and, failing that, the average for the whole island.

5. Family budgets

In the Balearic Islands, as in other Spanish provinces in the early twentieth century, various publications documented the hardships faced by the working classes. The workers' press echoed the protests from different industrial sectors, publishing several budgets to demonstrate the impossibility of a household with two children surviving solely on the wages earned by the head of the family working 300 days a year (Table 6).

Table 6. Budget of the working-class families of Palma and Maó (1905-1920)

Year	1905	1913	1915	1920
Place	Palma	Maó	Palma	Palma
Daily wage	2.25	2.25	2.05	6.00
Expenditures	2.42	2.54	3.45	8.33
Balance	-0.17	-0.29	-1,40	-2.33
Food	77.23%	53.08%	66.67%	65.71%
Clothing	-	7.08%	7.25%	12.86%
Housing	12.42%	19.66%	11.59%	7.20%
Energy	10.35%	-	7.25%	6.52%
Hygiene	-	9.04%	4.35%	5.14%
Education	-	6.55%	-	2.57%
Others	-	7.08%	2.90%	-

Own elaboration. Sources: Última Hora (27-5-1905: 1); *Alquitara* (13-12-1913: 2); *El Obrero Balear* (11-12-1915: 2); *Cultura Obrera* (27-11-1920).

On average, the budgets published for Palma and Maó between 1905 and 1920 attributed nearly 65.67% of family spending to food. The remaining 34.33% was allocated to clothing (9.06%), housing (12.72%), energy (8.04%), hygiene (6.18%), education (4.56%) and other unspecified expenses (4.99%). Conditions in the Balearic Islands reflected the national reality (Borderías, Muñoz-Abeledo, and Cussó

2022: 67), although there were significant regional variations (Borderías and Muñoz-Abeledo 2018: 95; Martínez-Soto *et al.* 2023: 141). Food was the most significant budget item[5], accounting for nearly two-thirds of family expenses in the Balearic Islands between 1913 and 1920 (Molina 2003: 163). However, the composition of the urban diet differed from that of rural diets[6]. In both contexts, families were expected to achieve a "balanced and physiological diet" by combining various nutrients, according to the available resources and each household's consumption capacity.

The sample menus in Table 7 illustrate the variation in food choices and prices according to household means and the importance they placed on food expenditure. Contemporary interviews indicate that many rural families prioritised saving over what were considered superfluous expenses, aiming to purchase land or meet payments on previously acquired plots (Morro 2017: 34).

Table 7. Cost of working-class meals in Palma (1905) in pesetas for 1924

Menu	First	Second	Third
Mid-morning lunch			
Bread rolls	0.69	0.34	0.51
Cold meat		0.34	
Olive oil			0.17
Sardines			0.17
Lunch			
Rice	0.42		
Potatoes	0.17	0.17	0.26
Bread	0.51	0.51	0.43
Seasoning	0.17		
Legumes		0.43	
Vegetables		0.26	0.17
Meat			0.60
Dinner			
Bread	0.43		0.34
Olives	0.09		
Sopes		0.26	0.26
Dried cod		0.51	
Seasoning from midday meat		0.26	0.26
Total	2.48	3.08	3.17

Own elaboration. Sources: *Última Hora* (27-5-1905): 1. Escartín (2001a: 328-329).
Note: 1905 prices converted to 1924 using the price index in Molina (2003: 169).

Urban diets consisted mainly of cereals, oil, vegetables and meat, closely mirroring common foods in rural areas[7]. In the city, cereals were mostly consumed as bread rolls, whereas in the countryside they were mainly eaten as *sopes* —a combination of bread, seasonal vegetables and greens (Miralles 1973; Morro 2017). These foods accounted for around 60-80% of daily caloric and protein intake, a higher percentage than the Spanish national average in 1930 of 45.8%. To compensate for the high cost of other foods, parti-

5 Depending on his lifestyle, an adult male weighing between 65 and 70 kg required between 1,812 and 3,254 calories a day. *La Almudaina* (12-12-1907: 1); *La Voz de Menorca* (12-6-1909: 1); Escartín (2001a: 333-335). This range is wider than the 2,504–3,562 calories indicated by Cussó and Garrabou (2007: 77).

6 *Última Hora* (12-9-1906: 2). *La Voz de Menorca* (12-6-1909: 1). González Castro (1917: 14-15).

7 *La tarde* (22-6-1911): 1.

cularly meat, families increased their consumption of legumes, also surpassing the national average (Cussó and Garrabou 2007: 79, 85; Borderías, Muñoz-Abeledo, and Cussó 2022, 75). Diets also included fish, eggs and potatoes, as well as alcoholic beverages such as wine, spirits and occasionally beer (Molina 2003: 67-68, 78-80).

Nutritionally, contemporaries observed that higher food costs required a "legume-heavy" diet characteristic of the period before the nutritional transition, with calories derived mainly from potatoes, legumes and alcohol[8]. In Maó, however, there were some variations (Table 8, panels A and B).

Table 8. Daily diet of Maó workers (1917), estimated in pesetas from 1924.

Panel A. Components of the diet, quantities and prices.

Food	Grams	Price 1924
Mahonese bread	500	0.30
Beef	250	0.81
Milk	500	0.33
Rice	300	0.26
Potatoes	300	0.12
Legumes	300	0.66
Beer	500	0.34
Coffee or tea	50	0.43
Total		3.24

Own elaboration. Sources: *BOPIB* (October 1924); *El bien público* (08/08/1924: 2); (29/03/1924: 2); *BIRS*. *La Almudaina* (25-5-1903: 2).

Panel B. Variations in the nutritional composition of the Maonese working-class diet (1917)

Diet	Energy (kcal)	Protein (g)	Calcium (mg)	Iron (mg)	Vitamin A (ug)	Zinc (mg)	Vitamin D (ug)	Folic acid (ug)
Arroz (wo-b)	3,156.00	140.55	1,177.50	22.63	327.50	17.29	0.40	302,50
Patatas (wo-b)	2,220.00	126.69	1,168.02	23.17	327.50	12.01	0.40	267,49
Garbanzos (wo-b)	3,075.00	146.25	1,315.50	29.53	339.50	14.89	0.40	542,50
Arroz (w-b)	3,366.00	143.05	1,217.50	22.68	332.50	17.32	0.40	334,00
Patatas (w-b)	2,430.00	129.19	1,208.02	23.22	332.50	12.04	0.40	298,99
Garbanzos (w-b)	3,285.00	148.75	1,355.50	29.58	344.50	14.92	0.40	574,00

Own elaboration. Abbreviations: wo-b/w-b (with/without beer). Sources: *El defensor del pueblo* (7-9-1917: 1). Molina (2003: 289-312). 2. BEDCA.

Based on its composition and the daily energy and nutritional requirements detailed by Borderías, Muñoz-Abeledo and Cussó (2022: 72-74), the diets of working families in Mallorca and Menorca generally met the caloric needs of industrial labour. In terms of nutrients, levels of iron, zinc and folic acid were adequate, while calcium levels were slightly below optimum, and protein levels were somewhat above. The

8 *Las Baleares: diario republicano* (8-8-1891): 1-2. The high cost of meat forced working-class families to seek alternatives: *La Tarde* (22-6-1911: 1); *Última Hora* (12-9-1906: 2). In this context, González Castro (1917: 15) highlights the value of certain vegetables and legumes in rural diets, which provided triple the caloric value at a significantly lower price.

most notable deficiencies were in vitamin intake. A vitamins, and vitamin D in particular, were obtained mainly from supplementary foods (such as canned or salted sardines, eggs and milk) and from seasonal vegetables used to prepare traditional dishes like Mallorcan *sopes* and Menorcan *oli i aigua*. Reports in the press characterised vitamin deficiencies as typical of the working-class diet. A lack of vitamin A increased vulnerability to ophthalmological diseases, while insufficient levels of vitamin D and/or calcium were linked to conditions like rickets and osteomalacia (Escartín 2001a: 333-334, 338-339; Cussó 2002: 93-96). This deficiency was partially offset by the consumption of leafy green vegetables and, more generally across Mediterranean regions, by regular sun exposure, particularly among agricultural workers (Molina 2003: 78; Koepke and Batten 2005; Candela-Martínez *et al.* 2022; Martínez Carrión and Ramon-Muñoz 2023). However, this deficit was likely less pronounced in Menorcan diets (Tables 8-9) as dairy consumption was comparable to that of northern Spain (Nicolau and Pujol 2006: 541).

Table 9. Comparison of the caloric and nutritional intake of the working-class diets of Palma and Maó with the optimum values, according to the activity.

Diet	Energy (kcal)	Protein (g)	Calcium (mg)	Iron (mg)	Vitamin A (ug)	Zinc (mg)	Vitamin D (ug)	Folic acid (ug)
Maó	3,027.00	140.33	1,260.34	25.16	336.50	14.76	0.40	402.33
Palma	2,448.04	88.80	704.68	25.39	292.76	10.11	4.84	422.16
Media	2,737.52	114.57	982.51	25.27	314.63	12.44	2.62	412.25
MIW	2,288.00	43.10	1,047.00	12.50	787.00	13.80	15.50	354.00
IW	2,378.00	43.10	1,047.00	12.50	787.00	13.80	15.50	354.00
OAI	3,300.00	83.80	1,076.50	27.70	970.60	17.00	8.26	429.26

Own elaboration. Abbreviations. MIW: Moderately Intense Work. IW: Intense Work. OAI: Optimal Apparent Intake. Sources: *El defensor del pueblo* (7-9-1917: 1). Molina (2003, 160). Borderías, Muñoz-Abeledo and Cussó (2022, 72-74). BEDCA.

Contemporary reports largely overlooked the unique aspects of rural diets. This fact, combined with the high degree of subsistence production, makes it challenging to make a precise estimate of costs and caloric intake (Table 9). Nonetheless, a comparison of food expenditures across the municipalities studied, arranged according to prices of basic goods by judicial district, confirms that rural costs were lower. These differences likely stemmed from the important part played by home-grown foods, with many manufacturing workers and most agricultural day labourers having access to small plots and animal pens, as well as opportunities for foraging, hunting and fishing in nearby areas (Miralles 1973; Molina 2003: 147-152; Suau Font 2014: 63). Considering these factors, a standard rural diet accessible to families in rural Mallorcan municipalities is outlined (Table 10). It includes seasonal animal and plant products, fresh or salted fish[9], and a wide range of fruits that commonly complemented rural meals[10] (Miralles 1973: 133, 139, 165, 185, 207; Genovard Darder 1987; Suau Font 2014: 64; Morro 2017: 37; Suàrez 2018).

9 Access to less in-demand fish was relatively affordable in coastal towns (Molina 2003: 79). To prevent price gouging, some town councils capped prices for different grades and types of food (Mahon Town Council, unnumbered records from the supplies section). Salted cod was also commonly consumed, although more modest households often opted for herring (Molina 2003: 81).
10 Olives and figs were staples that complemented every meal, especially in rural households (Molina 2003: 74-75; Morro 2017: 38).

Table 10. Approximation of the composition of the diet and its cost by judicial district

Meal	Food	Grams	Judicial district			
			Palma	Inca	Manacor	Maó
Breakfast	*Sopes*	140	0.11	0.10	0.10	0.11
Lunch	Broad beans	70	0.03	0.02	0.02	0.03
	Chickpeas	35	0.05	0.04	0.03	0.08
	Beans	70	0.08	0.07	0.07	0.08
	Noodles	50	0.08	0.07	0.07	0.08
	Cold meat	50	0.35	0.30	0.32	0.35
	Bacon	50	0.24	0.21	0.24	0.18
	Beef	50	0.23	0.20	0.21	0.15
	Fish	50	0.12	0.11	0.11	0.12
Dinner	*Sopes*	140	0.11	0.10	0.10	0.11
	Potatoes	175	0.06	0.05	0.05	0.06
	Cold meat	50	0.35	0.30	0.32	0.35
Holidays	Rice	50	0.04	0.04	0.04	0.04
	Beef	50	0.23	0.20	0.21	0.15
Drinks	Wine	500	0.20	0.20	0.15	0.33
	Chocolate	50	0.15	0.13	0.14	0.15
Seasoning	Olive oil	30	0.08	0.07	0.08	0.09
	Salt	5	0.00	0.00	0.00	0.00
	Vinegar	5	0.00	0.00	0.00	0.00
	Olives	30	0.08	0.07	0.07	0.08
	Fruits	30	0.00	0.00	0.00	0.00
	Dried figs	80	0.00	0.00	0.00	0.00
Food			2.57	2.27	2.34	2.51
Other expenses			1.95	1.72	1.77	1.90
Total expenditure			4.52	3.98	4.11	4.42

Own elaboration. Sources: *BOPIB* (nos. 8,928 and 9,401). Molina (2003). The cost estimation by judicial districts is based on the price lists from the different markets (*BOPIB*, no. 9,401). For the remaining food items, the cost is determined using the cost-of-living index (Ballesteros 1997: 373) and the prices published by Molina (2003).

At this point, it is important to consider whether the estimated incomes in Table 8 could meet the food needs of a household with dependent children. The estimated average income and expenditure of families with dependent children (Table 11) or with working offspring (Table 12) only yield a positive balance in towns like Ciutadella, where the so-called "second industrious revolution" took greater hold. Oral histories reflect the vulnerability of households at this stage in the life cycle and the need to adopt various strategies to secure both essential nutrients and access to necessary goods. Cutting food costs went beyond dietary adjustments. Food self-sufficiency, supported by small, privately owned plots (Borderías and Muñoz-Abeledo, 2022) and assistance from family and friends (Molina 2003), became especially important in low-wage municipalities like Son Servera. In addition, rural day labourers often received partial in-kind compensation and a daily meal as part of their wages. The combination of these strategies, alongside others not captured in official sources, likely helped rural households lower their living costs (Table 11).

Table 11. Average income and expenditure of 3b families with dependent children, head of household's contribution and ability to contribute to expenditure

Island	Municipality	AFI	AIHH	Household expenditure	AFI% Expenditure	Balance (AFI – Expenditure)
Mallorca	Algaida	3.71	3.48	4.52	76.99	-1.04
	Binissalem	4.78	4.77	3.98	119.85	0.79
	Capdepera	2.75	2.72	4.11	66.18	-1.39
	Esporles	3.63	3.56	4.52	78.76	-0.96
	Manacor	4.39	4.34	4.11	105.60	0.23
	Santa María	3.43	2.18	4.52	48.23	-2.34
	Son Servera	0.95	0.94	4.11	22.87	-3.17
Menorca	Ciutadella	8.64	8.59	4.42	194.34	4.17
	Maó	3.60	3.58	4.42	81.00	-0.84
Median		3.63	3.56	4.42	78.76	-0.96

Own elaboration. Sources: Population registers.

Table 12. Average income and expenditure of 3b families without dependent children, head of household's and male offspring's contributions and ability to contribute to expenditure

Island	Municipality	AFI	AIHH	AIMO	Household Expenditure	AFI% Expenditures	AIMO% Expenditures	Balance
Mallorca	Algaida	8.06	2.58	4.39	5.54	46.54	79.19	2.52
	Binissalem	9.09	4.00	5.00	4.88	81.93	102.53	4.21
	Capdepera	4.43	2.20	2.17	5.04	43.71	43.03	-0.61
	Esporles	7.34	3.63	3.49	5.54	65.49	62.97	1.80
	Manacor	5.72	1.70	2.86	5.04	33.78	56.83	0.68
	Santa María	5.51	1.92	1.49	5.54	34.59	26.98	-0.03
	Son Servera	2.61	0.72	0.96	5.04	14.22	18.97	-2.45
Menorca	Ciutadella	12.66	6.44	5.14	5.42	118.78	94.86	7.24
	Maó	7.12	3.09	3.35	5.42	57.08	61.90	1.70
Median		7.12	2.58	3.35	5.42	46.54	61.90	1.70

Own elaboration. Abbreviations: AIMO (Average Income of Male Offspring). For the rest, see table 5. Sources: Population registers.

The cost of maintaining the family increased as the children grew due to a 22.64% rise in caloric requirements, assuming a household with one son and one daughter (Borderías, Muñoz-Abeledo, and Cussó 2022). This reduced the purchasing power of the family wage, from a median of 80.54% to 47.59%, making it even more challenging for households to survive solely on the "breadwinner model" (Table 12). As shown, children's wages could contribute a median of 61.89%, preventing a household budget deficit or, in low-wage municipalities, reducing it. Earnings from older children, reaching their peak prior to marriage, also explain the tendency for some children to remain in the parental home after marriage. Such complex family structures—especially when more than one male wage earner was contributing—enabled households to cover living expenses and avoid precariousness when a child left the household. Beyond reducing expenses, especially food costs by adjusting the diet, careful family planning was essential to improve household living conditions. This helps explain the delayed age of marriage observed among Balearic Island families, with the exception of certain rural and agricultural municipalities.

6. Conclusions

Throughout this article, we highlight the primary limitations in estimating household wage income and disaggregating the contributions of different family members. Chief among these constraints are the underreporting of women's work, particularly among married women; the likely multi-activity of rural households; the existence of an informal labour market; inconsistencies in wage reporting, and discrepancies in annual calculations of days worked across sectors. However, the scarcity of alternative sources for these calculations—apart from worker budgets published in some contemporary periodicals—along with the opportunity to compare data from the Balearic Islands with those from other regions, were the motivations for this investigation. To date, studies on the standard of living among the working class in the Balearic Islands have mainly focused on the evolution of nominal wages, highlighting the gender pay gap and tracking the cost of living through price adjustments of essential goods in urban diets. The primary contribution of this article, overcoming the challenges noted, is its prioritisation of the family as the unit of analysis, enabling comparisons between rural (Mallorca) and urban (Menorca) settings.

It is important to note that the scope of these findings is limited to a specific family type: nuclear families comprising a married couple with dependent, non-working children. During this stage of the family life cycle, mothers were officially designated solely as homemakers. This focus allows us to examine the extent to which the most modest households could rely on a single "male breadwinner" income, and the degree to which wives could also contribute to household sustenance. According to population registers, these contributions generally remained below 2%, except in two specific rural municipalities.

The study's main finding suggests that reported family incomes were insufficient to meet basic needs. In 1924, the average daily cost of food for a family of four in the Balearic Islands was estimated at 2.42 pesetas, with essential expenses such as clothing, housing and energy raising the median daily cost of living to 4.42 pesetas. However, according to our calculations, the average daily family income was 3.63 pesetas, 90% of which came from the male head of the household. Consequently, and using official figures, the vast majority of families in this category could not survive on the contribution of a single "breadwinner."

The entry of children into the workforce brought about substantial changes to household dynamics. Food expenditure rose to meet increased nutritional needs as children reached adulthood, although this was partially offset by the additional income. The head of the household, whose earnings had previously constituted 90% of the family income and covered around 80% of expenses, now contributed 43% of the income, which was sufficient to meet 47% of the costs. Sons would make the most significant contribution, providing approximately 47% of the income, which could cover around 62% of expenses. The remaining 10% of average income came from the labour of wives and daughters, whose contributions, owing to the gender wage gap, were significantly lower than those of male family members.

Ultimately, a positive household balance was not only the outcome of family structure, but it also reflected the level of industrialisation in the municipalities under study. In Ciutadella, for example, extended working hours allowed incomes to exceed the cost of living, even in households still in the early stages of family formation. A similar situation was observed in some Mallorcan municipalities such as Binissalem and Manacor, although on a smaller scale. In contrast, there was a pronounced negative balance in municipalities with greater inequality in land distribution, such as Son Servera and Capdepera. In any case, as discussed in the introduction, both demographic values—particularly the evolution of life expectancy—and various biometric indicators suggest that in the industrial periphery, modest working-class family budgets did not prevent the province from achieving a notable position within the national context. This favourable standing was likely supported by calorie intake levels that corresponded with the physical intensity of labour. Although, as noted, the diet was generally low in calcium and certain vitamins, these deficiencies were likely mitigated by an increased intake of seasonal fruits and vegetables—often homegrown—and greater sun exposure among rural families, which helped mitigate these deficiencies. Future research should expand the sample examined here to incorporate the islands of Ibiza and Formentera.

Primary sources

Base de datos Española de Composición de Alimentos (BEDCA).

Population registers (1924): Algaida (AMA); Binissalem (AMB); Capdepera (AMC); Ciutadella (AMC); Esporles (AME); Maó (AMAM); Manacor (AMM); Santa Maria del Cami (AMSM); Son Servera (AMSS).

Periodical publications: *La Almudaina Alquitara; Boletín del Instituto de Reformas Sociales; Las Baleares: diario republicano*; *Boletín Oficial de la Provincia de las Baleares* (BOIB); *Cultura Obrera; El Defensor del Pueblo; Memorias de la Cámara de Comercio, Industria y Navegación de Palma* (MCOCIN); *El Obrero Balear; La tarde*; *Última Hora.*

Private archives: Calafat de Santa Maria (AC): account books of Son Torrella; Villalonga (AV): account books of Es Pagos; Solleric: accounting documents; Private documentation of the Andreu and Caldentey families (Son Servera).

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