



RESEARCH ARTICLE

Women's Work and the Occupational Structure in Late Nineteenth-Century Sweden*

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Abstract

It has long been recognized that, in order to understand economies in the past, we need better information about women's work and tertiary sector work. It is also well known that, while valuable in many ways, nineteenth-century censuses give incomplete information about women's contributions to the economy. Consequently, censuses are a poor basis for estimating the occupational structure. This article offers a solution to these problems by triangulating census data with qualitative information extracted from court records. The result is a more reasonable estimate of the first-level occupational structure in a Swedish local society (Västerås and its surroundings) around 1880. This estimate suggests that just before the onset of industrialization, around eighty per cent of the adult population, women and men, were active in primary and tertiary sector work. Compared to the census, the analysis sets women's share in the primary and the tertiary sectors at higher levels. The article has a strong methodological focus and describes in detail how the court records were analysed and adjusted to be comparable with the census.

Introduction

Mapping changes in the occupational structure is a promising way of estimating economic development prior to large-scale industrialization. Several economic historians have used this method to pinpoint more exactly when the share of workers in agriculture started to decline. For instance, Patrick Wallis, Justin Colson, and David Chilosi have shown that the proportion of male workers employed in agriculture declined rapidly in England between the end of the sixteenth and the

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late seventeenth centuries. According to their estimates, around 48 per cent of the male labour force was employed in agriculture in the early eighteenth century.¹

It is evident, however, that, in order not to be highly misleading, estimates of occupational structures should include women's work. Based on a mid-eighteenth-century source, Carmen Sarasúa has presented results for Spain that show high female participation rates in secondary sector work (not least textile manufacture) in several communities. The implication of these findings is that previous research has overestimated the size of the primary sector as well as the importance of men's work.² Kirsi Vainio-Korhonen's results for the city of Åbo/Turku are in line with those of Sarasúa: in and around the city, women were actively engaged in many forms of secondary sector work.³ Failure to acknowledge this work will produce an incorrect picture of the economy.

A parallel problem concerns tertiary sector work. It has proved particularly difficult to capture what such work looked like in the past. In 2014, Leigh Shaw-Taylor and E.A. Wrigley wrote that

[...] whilst there have been many studies of particular parts of the tertiary sector, such as transport or retailing, the tertiary sector as a whole has, with a few exceptions [...] been somewhat neglected in studies of the industrial revolution, though its significance in the later nineteenth century has long been recognised [...].⁴

In fact, many historical studies show that a considerable part of women's work took place in the tertiary sector: trade; provision of food and accommodation; care work; and other services.⁵ Consequently, finding better data on women's work will likely kill two birds with one stone: it will allow us to supplement and correct previous results based on men's work only, and it will provide better estimates of whether, when, and where the occupational structure changed.

Finding and processing historical sources that yield better data on work is, however, difficult. A common approach has been to combine and compare evidence from different types of document. Wallis *et al.*, for instance, successfully triangulated data from probate inventories and apprenticeship records. Sarasúa relied primarily on a

¹Patrick Wallis, Justin Colson, and David Chilosi, "Structural Change and Economic Growth in the British Economy before the Industrial Revolution, 1500–1800", *Journal of Economic History*, 78:3 (2018), pp. 862–903.

²Carmen Sarasúa, "Women's Work and Structural Change: Occupational Structure in Eighteenth-century Spain", *Economic History Review*, 72:2 (2019), pp. 481–509.

³Kirsi Vainio-Korhonen, "Handicrafts as Professions and Sources of Income in Late Eighteenth and Early Nineteenth Century Turku (Åbo): A Gender Viewpoint to Economic History", *Scandinavian Economic History Review*, 48:1 (2000), pp. 40–63.

⁴Leigh Shaw-Taylor and E.A. Wrigley, "Occupational Structure and Population Change", in R. Floud, J. Humphries, and P. Johnson (eds), *The Cambridge Economic History of Modern Britain, Volume 1: 1700–1870* (Cambridge, 2014), pp. 53–88, 62.

⁵See for instance Danielle van den Heuvel, *Women and Entrepreneurship: Female Traders in the Northern Netherlands, c.1580–1815* (Amsterdam, 2007); Sofia Ling, *Konsten att försörja sig. Kvinnors arbete i Stockholm 1650–1750* (Stockholm, 2016); Margaret R. Hunt, *Women in Eighteenth-Century Europe* (Edinburgh, 2010), pp. 176–186.

state-initiated survey of property but, when possible, compared its information with information from other sources. For instance, while the state survey claimed – based on information from heads of households – that only six women baked and sold bread in a particular town, the town council reported that there were twenty women engaged in baking and selling bread.⁶ Lotta Vikström combined information from Swedish population registers with local newspapers, trade directories, and business registers to establish a more reliable picture of women's work in the late nineteenth century.⁷ This article provides another example of a triangulation of sources: censuses and court records.

For studies of the nineteenth century, censuses have been used to map the occupational structure in many countries. While the advantage of this type of source is that it covers the entire population and includes names, facilitating comparison with other sources, the disadvantages are that it underreports women's contributions of work and obfuscates the phenomena of by-employment and multiple employments.⁸ Let us take an example from mid-Sweden in 1880, the region of Västmanland (Figure 1), to illustrate how census data can give a clearly implausible picture of women's work (Table 1). While the census gives occupational descriptors for 75 per cent of the adult male population (age fifteen and above), the share is merely 20 per cent for the adult female population. Moreover, the level of precision in the data for women is frustratingly low. For the 20 per cent assigned an occupational descriptor, 84 per cent were categorized as labourers or servants.

In fact, the men behind the 1880 Swedish census were aware of some of its shortcomings and explained them with reference to the church records upon which the census was based. They admitted, for instance, that the census set the number of married women with an occupation at too low a level:

The low number is the effect of the habit of assigning occupations to married women only in some cases, for instance when they are gainfully employed by the state or the local council or have businesses in their own names. By contrast, no occupation is as a rule assigned to a married woman who runs a small business in for instance baking, ironing, etc. *Moreover, wives of small-scale farmers should be regarded as persons with an occupation rather than as being mainly or exclusively occupied with domestic work.*⁹

⁶Sarasúa, "Women's Work and Structural Change", p. 491.

⁷Lotta Vikström, "Identifying Dissonant and Complementary Data on Women through the Triangulation of Historical Sources", *International Journal of Social Research Methodology*, 13:3 (2010), pp. 211–221.

⁸Jane Humphries and Carmen Sarasúa, "Off the Record: Reconstructing Women's Labor Force Participation in the European Past", *Feminist Economics*, 18:4 (2012), pp. 39–67; Elise van Nederveen Meerkerk and Richard Paping, "Beyond the Census: Reconstructing Dutch Women's Labour Market Participation in Agriculture in the Netherlands, c.1830–1910", *History of the Family*, 19:4 (2014), pp. 447–468.

⁹*Bidrag till Sveriges officiella statistik. A. Befolkningsstatistik. Ny följd. XXII. 3. Statistiska centralbyråns underdåniga berättelse för år 1880. Tredje och sista avdelningen* (Stockholm, 1885), XXXV. In a similar manner, the men behind the 1870 census discussed how it failed to capture various forms of multiple employment. *Bidrag till Sveriges officiella statistik. A. Befolkningsstatistik. Ny följd. XII. 3. Statistiska centralbyråns underdåniga berättelse för år 1870. Tredje och sista avdelningen* (Stockholm, 1874), XXXII–XXXIV. Translated and italicized by the authors.

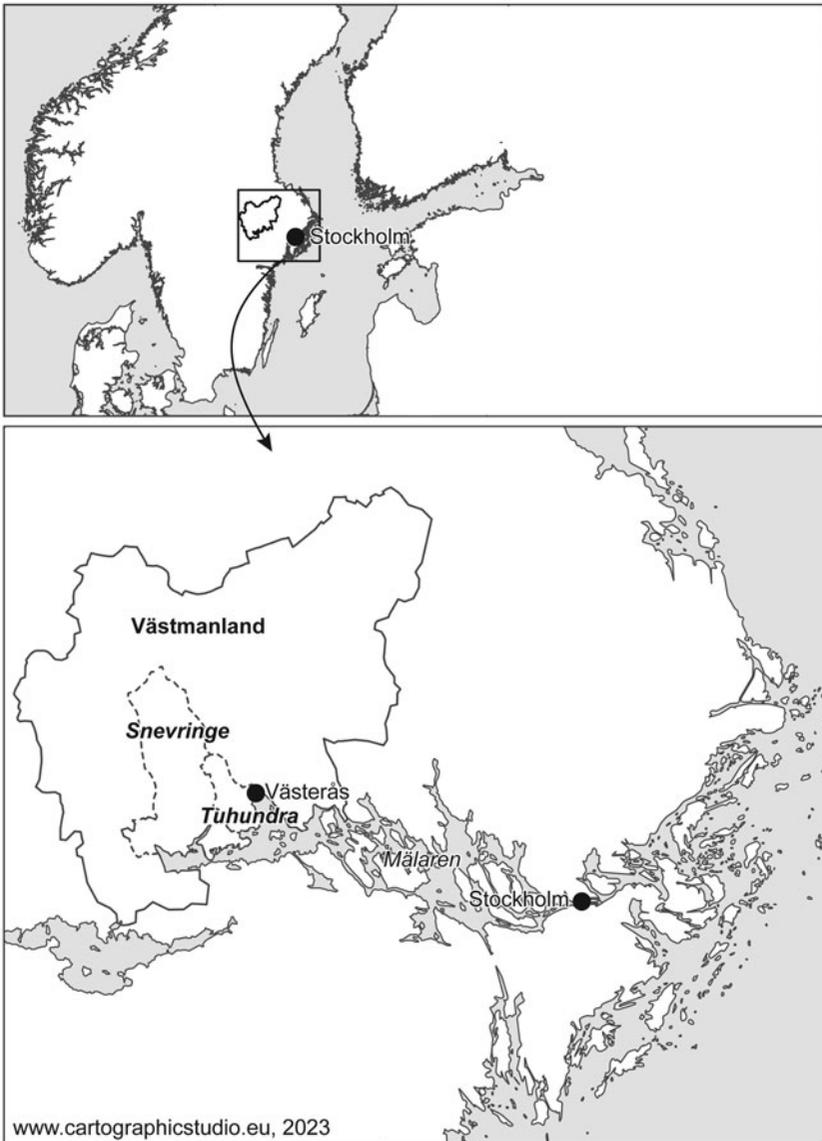


Figure 1. Map of the Västmanland region.

Clearly, the census is inherently inadequate as a source for women's work, not least the work they carried out for their households without receiving an income in their own names.¹⁰ On the other hand, it is a source that is undeniably relevant as a starting point for a discussion about the occupational structure in society, and we should try to make

¹⁰See Van Nederveen Meerkerk and Paping, "Beyond the Census"; their analysis indicates several similarities between the Swedish and Dutch censuses.

Table 1. Occupational structure in Västerås, Snevringe, and Tuhundra according to the 1880 census, percentage of individuals.

| Sector | Men | Women |
|-----------------------|------|-------|
| Primary | 32 | 4 |
| Secondary | 21 | 3 |
| Tertiary | 16 | 9 |
| Sectorally unspecific | | |
| Labourers | 16 | 10 |
| Servants | 15 | 74 |
| N | 6210 | 1960 |

Source: Minnesota Population Center, Integrated Public Use Microdata Series, International: Version 7.1 [dataset]. Minneapolis, MN: IPUMS, 2018, <https://doi.org/10.18128/D020.V7.1>.

it as useful as possible. In this article, we take the 1880 Swedish census as our starting point and compare its evidence with data from a very different type of source, namely, first-instance court records. The comparison is difficult for several reasons, one of which is the grammatical form that the information takes: while the census connects an individual with one work-related noun only (e.g. tailor, baker, midwife), the court records describe work activities with the help of verb phrases (e.g. sew trousers, bake bread, deliver baby) and may connect one individual to several verbs. The nouns give the probably deceptive impression that a person designated in a certain way spent all his or her time doing one and the same type of work only, that is, the nouns hide the phenomenon of by-employment. The verb data, by contrast, alert us to the fact that people could do many different types of tasks, but they leave us wondering whether this was the rule or the exception. Ideally, one would want to reconstruct complete daily schemes of work for specific individuals. For this, one would need detailed diary-type data however.¹¹

The data used for this article does not lend itself to complete reconstructions of daily activities; instead, it builds on what has been called “random spot observations” or the “experience-sampling method”.¹² The idea is that if the spots are randomly chosen and sufficiently many, they will allow the scholar to establish rough activity patterns typical of specific groups of people. We can, for instance, establish what women’s activity patterns typically looked like. The pattern will show variation – whether group members carried out many forms of work or were clustered around a few tasks – and suggest the relative importance of various forms of work for group members. As we will show, the pattern cannot be mapped directly onto census data, but it can still help us gauge women’s shares of occupational sectors.

¹¹Jonathan Gershuny, “Time-Use Surveys and the Measurement of National Well-Being” (2011). Available at: https://www.timeuse.org/sites/ctur/files/public/ctur_report/4486/timeusesurveysandwellbeing_tcm77-232153.pdf; last accessed 17 March 2023.

¹²*Ibid.*, p. 5; Jane Whittle and Mark Hailwood, “The Gender Division of Labour in Early Modern England”, *Economic History Review*, 73:1 (2020), pp. 3–32, 7.

It can be argued, of course, that there is an unresolvable conflict between, on the one hand, the ideal of grouping people into stable occupational sectors and, on the other hand, the acknowledgement of widespread flexibility in everyday working life. In other words, it may not be possible to translate between different types of data and sources. We are more optimistic, but admit that the task that we set ourselves in this article is complex. What we want to do is to triangulate a highly standardized type of data (occupational descriptors found in a census) with a very heterogeneous type of data (verb phrases describing work activities in court records). The results we present should be regarded as contributions to an ongoing methodological discussion about how we can establish better, if not perfect, representations of men's and women's work in the past. The article is based on Swedish sources only, but these are *types of sources* that can be found for most countries. The article also offers a *methodology* for how data should be adjusted in order to be comparable. It is our belief that the effort to make census data and court record data speak to each other can inspire scholars around the world to carry out similar comparisons.

Area, Definitions, and Data

This study is based on data from the town of Västerås and the rural judicial districts of Snevringe and Tuhundra to its west in the mid-Swedish region of Västmanland, the area used above as an example. Västmanland was chosen because of its diverse economy; large arable fields and farming characterized the southern part, while forests and mining dominated in the north. Trade and transport were important elements of the local economy. Iron was transported to Västerås and then shipped to Stockholm, from where it was often exported, and surplus grain from the fertile plains by Lake Mälaren was sold to the wooded areas up north. Trade and transport activities account not only for local people, but also for travellers from the rest of Sweden sometimes appearing in the sources. Apart from a few large manors in the south and ironworks in the north, small family farms dominated the rural landscape. Agrarian production and productivity grew strongly after 1860, with increased focus on animal husbandry. Ironworks and small factories with chartered rights ("manufactures", Swedish *manufaktur*) had existed in the area since the seventeenth century, but only on a small scale.¹³ The choice of the timespan, 1860 to 1880, is justified by historical circumstances (industrialization set in around 1880) and practical reasons (availability of digitized census data).

According to the 1880 census, the population of the study area was about 26,000, with slightly fewer than 18,000 aged fifteen and over (see [Table 2](#)). Three quarters of this population lived in the countryside and one quarter in Västerås, a town small by

¹³Jonas Lindström, Örjan Kardell, and Marie Ulväng, "Platsen, tiden, människorna", in Jonas Lindström (ed.), *Fantastiska verb. Hur man fångar uppgifter om kön och arbete, Västmanland 1720–1880* [Opuscula Historica Upsaliensia 58] (Uppsala, 2020); Mats Morell, *Agrar Revolution. Jordbruksproduktionen i Uppsala och Västmanlands län 1750–1920* [Uppsala Studies in Economic History 121] (Uppsala, 2022), pp. 323–338. For Sweden more generally, see Carl-Johan Gadd, "The Agricultural Revolution in Sweden, 1700–1870", in Janken Myrdal and Mats Morell (eds), *The Agrarian History of Sweden: From 4000 BC to AD 2000* (Lund, 2011), pp. 118–164.

Table 2. Individuals in activity dataset by gender and marital status, 1860–1880, compared with proportion of the total population (age fifteen and over) in Västerås, Snevringe, and Tuhundra, 1880.

| Marital status | Individuals who perform at least one observed activity | | Total population | |
|------------------|--|-------------|------------------|---------------|
| | % men | % women | % men | % women |
| Unmarried | 27 | 10 | 18 | 20 |
| Married | 48 | 8 | 26 | 26 |
| Widowed | 3 | 4 | 3 | 8 |
| Total | 78 | 22 | 47 | 53 |
| Sum (%) | | 100 | | 100 |
| N | 794 | 222 | 8300 | 9555 |
| Total (N) | | 1016 | | 17,855 |

Source: GaW database; Snevringe (Västmanland), häradsrättens protokoll 1860–1880; Tuhundra (Västmanland), häradsrättens protokoll 1860–1880; Västerås (Västmanland), rådhusrättens protokoll 1860–1880; Minnesota Population Center. Integrated Public Use Microdata Series, International: Version 7.1 [dataset]. Minneapolis, MN: IPUMS, 2018, <https://doi.org/10.18128/D020.V7.1>.

Comment: The table counts individuals who performed work activities. Since one person can perform several activities, the number of activities is higher. See Table 4. People with unknown marital status (32 women and 200 men) are not included.

international standards but considered mid-sized in Sweden. The adult population in the area had doubled since 1750, but that growth had been uneven: slow in parishes dominated by farming and faster in parishes dominated by the iron industry. The largest increase was in Västerås; between 1760 and 1880, the urban population there rose from 2,893 to 6,985.¹⁴

As a consequence of, inter alia, the seventeenth-century continental wars, sex ratios were skewed in eighteenth- and nineteenth-century Sweden.¹⁵ In the area around Västerås, there were 84 men to 100 women in the mid-eighteenth century, and the ratio was only slightly more balanced in 1850 (89 to 100). The largest surplus of women was in Västerås, where the ratio was 76 to 100 in 1850. The largest share for men was in the iron-producing parishes.¹⁶ In the

¹⁴Lindström *et al.*, “Platsen, tiden, människorna”, p. 37.

¹⁵For attempts to model the demographic development before 1749, when the *Tabellverket* was initiated, see Lennart A. Palm, *Folkmängden i Sveriges socknar och kommuner 1571–1997. Med särskild hänsyn till perioden 1571–1751* (Gotheburg, 2000); and Rodney Edvinsson, “Recalculating Swedish Pre-census Demographic Data: Was There Acceleration in Early Modern Population Growth?”, *Clometrica*, 9:2 (2015), pp. 167–191. See also Jan Lindegren, “Men, Money, and Means”, in Philippe Contamine (ed.), *War and Competition between States* (Oxford, 2000), pp. 129–162, who estimates that one third of the Swedish male population died prematurely in the period 1620 to 1719. Nils and Inga Friberg have demonstrated a large female surplus – between 77 and 83 men per 100 women – in some parishes in Västmanland in the seventeenth century. The surplus was especially large in age groups directly affected by conscription and warfare. Nils Friberg and Inga Friberg, *350 års befolkningsutveckling i Mälardalen. Tillberga* (Stockholm, 1972), pp. 37–39.

¹⁶*Tabellverket på nätet*, Umeå University. Available at: <http://rystad.ddb.umu.se:8080/Tabellverket/Tabverk>; last accessed 16 September 2023; *Historisk statistik för Sverige, 1, Befolkning 1720–1967*

country as a whole, the population was 4,565,668 in 1880, and there were 94 men to 100 women.¹⁷

In line with recent scholarship, the following analysis is based on a broad definition of “work” and does not consider only paid work. As suggested by Jan Lucassen, the word “work” should be used to designate all human pursuits that are not leisure.¹⁸ For societies in the past, this means that almost all human activities can be classified as work, excluding only some activities, such as eating and sleeping. For *operational* purposes, however, it is necessary to have a criterion that allows for efficient extraction of information from the sources. Verb phrases describing human pursuits with the specific purpose of obtaining the needs for sustenance are what we look for in the narratives found in the historical court records. The *purpose* of the pursuit/activity is the touchstone. Sex work serves as a good example of why the purpose is so important. The bodily activities in question are normally not defined as work if their purpose is sensuous enjoyment or procreation. It is only when the purpose of the activity is to obtain resources that will sustain the performer of the activity that we think of the activity as work. This operational definition allows us to handle the often heterogeneous information in the sources and to distinguish between verb phrases that should and should not be included. Thus, the dataset covers life-sustaining and income-generating activities (production of goods and services both for others and for own use) as well as the deployment of other people’s labour (managerial work) and the assertion and protection of one’s economic and legal rights (everyday administration).¹⁹

A more elaborate and less time-dependent definition is: time-use with the specific purpose of obtaining the needs for sustenance and well-being for oneself and those close to oneself. The ways in which people have supported themselves have changed over time as some tasks have disappeared and others emerged instead. It is sometimes contrary to normal linguistic practice to talk about an activity as “work” even if it does fulfil the purpose criterion. Stressing time-use rather than the work aspect is a way of handling this problem, while also highlighting the fact that time is in itself a resource. Speculation in stocks is a case in point. The speculator may not be “working” in the narrow sense of the word but does devote time that could have been used differently. Adding well-being to the definition is a way of clarifying that the purpose of work is not merely to satisfy the most basic needs such as food, drink, clothing, and shelter. Sustenance has to do with staying alive, and for this human beings often need other things as well, such as access to education and provision of care. It is often not feasible to draw a line between necessary and less necessary needs.²⁰

(Stockholm, 1969), pp. 44–45. See also the detailed study of Västerås in Iréne Artaeus, *Kvinnorna som blev över. Ensamstående stadskvinnor under 1800-talets första hälft: fallet Västerås* (Uppsala, 1992).

¹⁷Historisk statistik för Sverige, 1. Befolkning, p. 46.

¹⁸Jan Lucassen, *The Story of Work: A New History of Humankind* (New Haven, CT, 2021), pp. 1–3. See also Jane Whittle, “A Critique of Approaches to ‘Domestic Work’: Women, Work and the Pre-industrial Economy”, *Past & Present*, 243:1 (2019), pp. 35–70, 1.

¹⁹See also Andrea Komlosy, *Work: The Last 1,000 Years* (London, 2018), p. 37.

²⁰See also the definitions of work in, for example, International Labour Organization (ILO), *Resolution Concerning Statistics of Work, Employment and Labour Underutilization* (2013), § 6–7, pp. 2–3. For a

There are, of course, cases where it is difficult to decide whether an observed verb phrase should be included in the dataset or not, but in most instances the activities easily conform to the operational definition of work. Together with information about the performer of the activity, time, and place, the work activities have been registered in the tailor-made relational database GaW.²¹

The data extracted from court records for this article consist of 2,725 observations of work activities carried out during the twenty years between 1860 and 1880, i.e. 136 “spot observations” per year. Adjustments (see Table 5 on page 15) reduced the number to 1,364, i.e. 68 “spot observations” per year. These numbers should be compared with Ogilvie’s study of Württemberg (18 per year), Whittle and Hailwood’s study of southwestern England (22 per year), and the study of Sweden by Ågren *et al.* (65 per year).²² The court record data cover the same area as the census and reflect both rural and urban society. While the urban population was a quarter of the whole population, as much as 45 per cent of the observed work activities took place in towns. This is not, however, why work in agriculture is underreported (as we shall see). Both rural and urban court records foreground activities to do with transactions (e.g. trade) and interactions (e.g. transport, care work) rather than production. The problem of underreported agricultural work cannot be handled by simply multiplying the data from rural courts.

While the gender ratio in the area was 53 to 47, it was 15 to 85 in the court record data before adjustments. The problem is particularly eye-catching for married women. Table 2 and Figure 2 show that while married women made up 26 per cent of the adult population, they constituted only 8 per cent of the people whose work was captured in the court records. Married men, in contrast, also comprised 26 per cent of the adult population but they made up 48 per cent of the people whose work was captured.

While there is a clear underrepresentation of women and their work in the court records, the various social groups seem reasonably well represented. A wholesaler and a tannery owner turn up, but so do a rag-and-bone man and a convict. Based on occupational descriptors, about 60 per cent of the men whose work we see in the court record dataset were labourers, craftsmen, farmhands, peasants/farmers, or merchants.

The 1880 Census as a Source of Data on Men’s and Women’s Work

As already pointed out, the 1880 census gives occupational descriptors for 75 per cent of the male population above the age of fifteen.²³ The first step in the analysis is to evaluate whether or not this information seems correct and can be used as the basis

useful definition of labour relations, see Karin Hofmeester and Marcel van der Linden (eds), *Handbook Global History of Work* (Berlin, 2018), pp. 2–4, 318.

²¹www.gaw.hist.uu.se.

²²Sheilagh Ogilvie, *A Bitter Living: Women, Markets, and Social Capital in Early Modern Germany* (Oxford, 2003), p. 25; Whittle and Hailwood, “The Gender Division of Labour”; Maria Ågren (ed.), *Making a Living, Making a Difference: Gender and Work in Early Modern European Society* (Oxford and New York, 2017), pp. 15–16.

²³The remaining 25 per cent were mostly young men without an occupational title and old men described as “former” + occupational title.

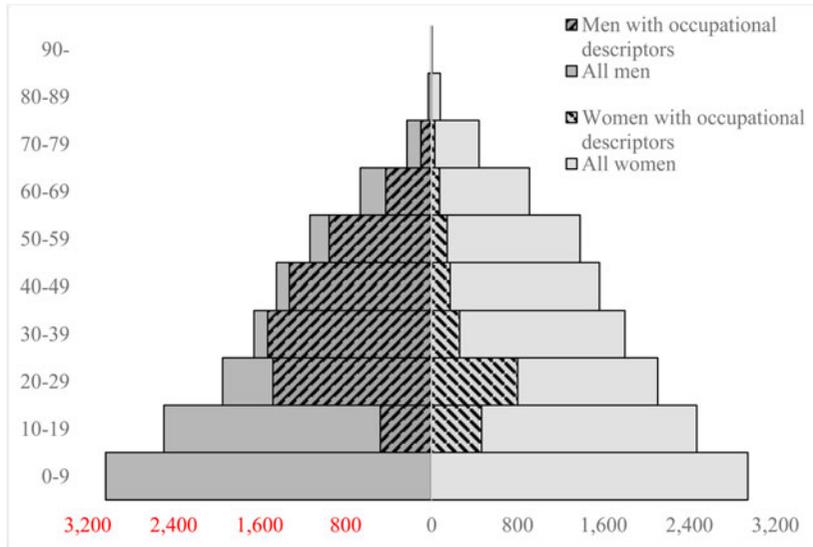


Figure 2. Proportion of people with occupational descriptors, by age group and gender, in Västerås, Snevringe, and Tuhundra, 1880.

Source: Minnesota Population Center. Integrated Public Use Microdata Series, International: Version 7.1 [dataset]. Minneapolis, MN: IPUMS, 2018, <https://doi.org/10.18128/D020.V7.1>.

for further analysis. Since the census states occupation *and name* for all registered individuals, it is possible to match and compare information in the census with information extracted from the court records. For this article, we identified 120 unique individuals from the court records of 1878–1880 in the 1880 census. The two sources support each other well in the sense that in most cases (79 per cent) occupational descriptors assigned to individuals in the court records correspond perfectly with the occupation found in the census. When there were discrepancies between the two sources, these are likely to reflect subsidiary employments or change of employment. There are few women in the verb data, and few women in the census had any occupational titles other than “maid”, but when a woman did have a more precise occupational descriptor, it corresponded well with their working activities according to the court records.²⁴

Based on these random checks, we conclude that the 1880 census is sufficiently accurate for the male population and can be used to approximate the first-level sectoral distribution of men. Men categorized in the census as “sectorally unspecific” have been distributed across the three sectors.²⁵ If we now make the

²⁴The same result is reported for the British census in Sophie McGeevor, “How Well Did the Nineteenth Century Census Record Women’s ‘Regular’ Employment in England and Wales? A Case Study of Hertfordshire in 1851”, *History of the Family*, 19:4 (2014), pp. 489–512.

²⁵Men categorized as “sectorally unspecific” (described as *drängar* or *arbetare*) have been distributed in the following way: *drängar*/male servants, equally between primary and tertiary sector, *arbetare*/labourers, equally between primary and secondary sector. Verb data shows that male servants did much transport work, and labourers were found doing both rural and craft work. If *drängar* and *arbetare* were

Table 3. Occupational structure in Västerås, Snevringe, and Tuhundra in 1880, based on the assumption that women worked as much as men and were distributed across sectors in the same proportions as men, N and percentage of individuals.

| Sector | Men N | Men % | Women N | Women % | Total N |
|-----------|----------|----------|------------|------------|------------|
| Primary | 2936 | 47.3 | 3380 | 47.3 | 6316 |
| Secondary | 1786 | 28.8 | 2056 | 28.8 | 3843 |
| Tertiary | 1487 | 24.0 | 1712 | 24.0 | 3200 |
| N | 6210 | 100.0 | 7148 | 100.0 | 13,358 |

Source: Minnesota Population Center. Integrated Public Use Microdata Series, International: Version 7.1 [dataset]. Minneapolis, MN: IPUMS, 2018, <https://doi.org/10.18128/D020.V7.1>.

preliminary assumptions that, first, men and women worked to the same extent, and, second, that there were no gender differences with respect to what types of work they did, the whole adult population can be distributed across the three first-level sectors in the way Table 3 shows. Later, we will argue that while the first assumption is reasonable, the second is not.

Table 3 gives a more plausible estimate of the occupational structure than the census (Table 1). Table 3 also acknowledges the fact that there was a female surplus in the area (as in the country as a whole), so a larger share of the total workload must reasonably have been carried out by women than men. Table 3 does not, however, take into account that there was likely a gender division of work here, as in most other places. Based on what we already know from previous research, it is reasonable, for instance, to assume that women contributed more to the tertiary sector than men did. The second step in our analysis is to muster evidence from court records to see whether it can help us refine Table 3.

Verb Data as a Source of Data on the Gender Division of Work

The extraction of information from court records is guided by principles we refer to as the verb-oriented method. This method was designed for the study of work, not least women's work, in early modern societies for which it is difficult or impossible to find sources that systematically map work.²⁶ The analysis presented in Sheilagh Ogilvie's book *A Bitter Living* inspired the verb-oriented method, and it is akin to the task-oriented approach used by Jane Whittle and Mark Hailwood.²⁷ Other scholars have used similar methods.²⁸ These various but similar methods have all proved

distributed equally between primary and secondary sectors instead, the size of the tertiary sector would decline a couple of percentage points, but the primary sector would be unaffected.

²⁶ Ågren, *Making a Living*, pp. 13–19.

²⁷ Ogilvie, *Bitter Living*; Whittle and Hailwood, "The Gender Division of Labour". The difference between the verb-oriented and the task-oriented methods is mainly that the former is based on a wider definition of "work" and consequently includes some activities the latter leaves out, for instance administrative work.

²⁸ See Barbara Hanawalt, *The Ties that Bound: Peasant Families in Medieval England* (New York, 1986); Hans-Joachim Voth, *Time and Work in England, 1750–1830* (Oxford, 2000); and Alexandra Shepard, *Accounting for Oneself: Worth, Status, and the Social Order in Early Modern England* (New York, 2015).

highly productive for studies of early modern societies, but this is the first time the verb-oriented method has been used for the post-1800 period.

In brief, the verb-oriented method is designed to identify concrete descriptions of work in historical texts, descriptions that, as a rule, take the form of a verb phrase. To qualify for inclusion in the dataset, a verb phrase has to (i) describe a sustenance activity, and (ii) be possible to link to a real person who, according to the source, carried out the activity in question. These conditions have implications for the types of sources to which the method can be applied. Normative sources, such as advice books and laws, are generally unsuitable because they do not fulfil the second condition. Likewise, topographic descriptions that do not mention concrete agents are problematic; for instance, “people produce cheese in this parish” does not qualify because it is impossible to know to whom “people” refers.

Here, the method is applied to records from Swedish first-instance courts. These courts were not highly specialized in the early modern period or the nineteenth century. In principle, any matter could be brought to their attention: various forms of crime; administrative matters; and litigation.²⁹ There were some specialized first-instance courts – for instance, those dealing with mining and metal production and those in charge of customs and excise – but the vast majority of cases were handled by the ordinary, non-specialized first-instance courts (*häradsrätter*, *rådhusrätter*) – the type of courts we rely on in this article. The low degree of specialization is an advantage as it increases the likelihood that any form of work will be mentioned. There was a considerable lay influence, with “ordinary” men taking part in the jury-like *nämnd*. The records from the first-instance courts were submitted for approval to the next level of the judiciary, the appeals courts. Before serious punishments were meted out, an appeals court had to confirm the verdict. This two-tier system explains how even serious cases that might lead to capital punishment could be handled by non-experts at the first level of the judiciary.³⁰

Table 4 shows the unadjusted numbers for the area under discussion in the period 1860 to 1880. The observations, i.e. the 2,725 verb phrases, have been grouped into

Early work by Swedish ethnologist Agneta Boqvist has also served as an inspiration: Agneta Boqvist, *Den dolda ekonomin. En etnologisk studie av näringsstrukturen i Bollebygd 1850–1950* (Lund, 1978).

²⁹Ogilvie’s claim (in 2003) that practically any kind of work *could* be reported to the German court she studied has proved to be correct in principle for other courts and countries as well. Even relatively small datasets based on court records encompass a surprisingly broad spectrum of work tasks. Nevertheless, caution is necessary. For England, it has been shown that different types of court made different kinds of work visible. The local economy affected the types of sustenance activities mentioned in court records, and courts could also have special responsibility for some types of cases. Whittle and Hailwood, “Gender Division of Labour”, illustrates how the prevalence of sheep-farming in the area of investigation affected what types of crime turned up in the court records. Amy L. Erickson, “Married Women’s Occupations in Eighteenth-century London”, *Continuity and Change*, 23:2 (2008), pp. 267–307, offers another example of how the type of court mattered. See also Marie Ulväng *et al.*, “Domböcker”, in Lindström, *Fantastiska verb*, pp. 117–143.

³⁰Rudolf Thunander, *Hovrätt i funktion: Göta Hovrätt och brottmålen 1635–1699* (Lund, 1993), pp. 7–15; Ditlev Tamm *et al.*, “The Law and the Judicial System”, in Eva Österberg and Sølvi Bauge Sogner (eds), *People Meet the Law: Control and Conflict-handling in the Courts: The Nordic Countries in the Post-Reformation and Pre-Industrial Period* (Lund, 2000), pp. 27–56; Heikki Pihlajamäki, *Conquest and the Law in Swedish Livonia (ca. 1630–1710): A Case of Legal Pluralism in Early Modern Europe* (Leiden, 2017), pp. 64–75.

Table 4. Women's and men's shares of activities in sixteen types of work. Västerås, Snevringe, and Tuhundra, 1860–1880, percentage of activities.

| Sub-dataset | All observations | | |
|--|-----------------------------|---------------------------|------|
| | Women's share of activities | Men's share of activities | N |
| Administrative | 7 | 93 | 201 |
| Agriculture, forestry | 19 | 81 | 175 |
| Care | 47 | 53 | 34 |
| Crafts, construction | 1 | 99 | 218 |
| Credit | 6 | 94 | 128 |
| Food, accommodation | 41 | 59 | 132 |
| Hunting, fishing | 0 | 100 | 19 |
| Managerial | 12 | 88 | 125 |
| Military work | 0 | 100 | 22 |
| Teaching | 10 | 90 | 20 |
| Theft, etc. | 11 | 89 | 278 |
| Trade | 18 | 82 | 587 |
| Trade in real estate | 16 | 84 | 25 |
| Transport | 7 | 94 | 246 |
| Other specified work (including housework) | 28 | 72 | 221 |
| Unspecified work | 19 | 81 | 294 |
| Total | 15 | 85 | 2725 |

Sources: GaW database; Snevringe (Västmanland), häradsrättens protokoll 1860–1880; Tuhundra (Västmanland), häradsrättens protokoll 1860–1880; Västerås (Västmanland), rådhusrättens protokoll 1860–1880.

sixteen heuristic categories (or data subsets), only some of which will be relevant to the discussion here (see Table 6). Agriculture, forestry, hunting, and fishing represent primary sector work, while craft and construction represent secondary sector work. The numbers show that while no woman was ever observed in hunting, fishing, or military work, both women and men were observed in all other types of work. This is an indication of a flexible gender division of work.

Table 4 suggests that women's share in agriculture and forestry was 19 per cent, which is much lower than in Table 3. Table 4 should not, however, be read as a direct reflection of the quantitative importance of various types of work. Some activities simply stood a better chance of being observed and described in court records. Administrative work stood a better chance of being mentioned than housework, for instance, and men's work stood a better chance of being mentioned than women's. The third step in the analysis is, therefore, to adjust the numbers in Table 4: minor adjustments to handle the problem of sudden spikes in the court record evidence and major adjustments to correct the gender balance. These

adjustments are “mechanical”, in the sense that we apply them to all categories of work in the same way. They do not take into account the possibility that the reliability of the numbers based on court record data might vary from one category of work to another.

A reason for sudden spikes in court-record evidence is the verbosity of some case records. One source may describe a certain type of work in much greater detail, as when transport work was itemized as “fetching the wagon”, “harnessing the horse”, “loading sacks of grain onto the wagon”, and “travelling to Västerås”, whereas another source might describe the same activity more succinctly. For our purposes in this article, it does not make sense to count four cases of transport work in the former case.³¹ Another reason for sudden spikes can be enforcement waves orchestrated by legal authorities to curb certain economic activities. Such enforcement waves may produce a hundred examples of a certain type of work one particular year and then never again. Consequently, the data have to be adjusted in a way that removes the distorting effects of sudden verbosity, enforcement waves, etc.

Table 5 shows, firstly, the effects of the minor mechanical adjustments.³² The total number of observations declined between columns 1 and 3 and, as a consequence, women’s share of the observations increased from 15 to 21 per cent. As the share for men is the inverse of that for women, Table 5 gives indirect information about men too. That the male share declined after the adjustments means that in general, men’s work tended to be described in more detail than women’s.³³ After the two adjustments were made, women’s shares rose, not dramatically but consistently across all types of work. For agriculture, for instance, women’s share increased from 19 to 26 per cent.

The difference between the first and the third columns in Table 5 illustrates a point made by Carus and Ogilvie, namely, that court records are not “naturally” countable. Unlike a wage list, for instance, the units of a court record “are not clearly suggested by the physical arrangement of the source itself; therefore, their identification requires conceptual intermediation”.³⁴ In our case, the units we want to count are observations of work carried out by men and women, but in order to do this we have to make a number of decisions about how to handle repetitive and superfluous information (verbosity) and over-abundant information (enforcement waves).

Table 5 shows, secondly, the effects of assuming that women worked as much as men did. Whether or not this assumption is reasonable depends on how “work” is defined, and on what kind of economy we have in mind. The historical literature provides examples of both a narrow and a broad definition of work. When, for instance, Horrell, Humphries, and Weisdorf argue that married women did not work as much as men in England in the period 1280 to 1850, they do so with a

³¹The GaW database was constructed as a research infrastructure of broad interest to scholars in the humanities and social sciences. While some of the observations registered in the database are omitted from the present article since they would otherwise skew the quantitative analysis, they are nevertheless of great interest for other research purposes.

³²The second column handles the problem of verbosity and the third handles the problem of enforcement waves.

³³This problem is also discussed in Whittle and Hailwood, “Gender Division of Labour”.

³⁴A.W. Carus and Sheilagh Ogilvie, “Turning Qualitative into Quantitative Evidence: A Well-used Method Made Explicit”, *Economic History Review*, 62:4 (2009), pp. 893–925, 913.

Table 5. Women's shares of activities in sixteen types of work, mechanically adjusted. Västerås, Snevringe, and Tuhundra, 1860–1880, percentage of activities.

| Sub-dataset | Unadjusted | Adjustment 1 | Adjustment 2 | Adjustment 3 |
|--|------------|--------------|--------------|--------------|
| Administrative | 7 | 8 | 10 | 33 |
| Agriculture, forestry | 19 | 23 | 26 | 61 |
| Care | 47 | 58 | 50 | 81 |
| Crafts, construction | 1 | 2 | 3 | 13 |
| Credit | 6 | 8 | 13 | 39 |
| Food, accommodation | 41 | 42 | 46 | 79 |
| Hunting, fishing | 0 | 0 | 0 | 0 |
| Managerial | 12 | 14 | 16 | 45 |
| Military work | 0 | 0 | 0 | 0 |
| Teaching | 10 | 14 | 14 | 42 |
| Theft, etc. | 11 | 13 | 13 | 39 |
| Trade | 18 | 20 | 27 | 62 |
| Trade in real estate | 16 | 17 | 18 | 48 |
| Transport | 7 | 7 | 10 | 32 |
| Other specified work (including housework) | 29 | 28 | 30 | 65 |
| Unspecified work | 19 | 25 | 28 | 62 |
| Total | 15 | 18 | 21 | 53 |
| N | 2725 | 1903 | 1364 | 2306 |

Adjustment 1 = only one observation per category and individual.

Adjustment 2 = only one observation per category, gender and case.

Adjustment 3 = observations of activities carried out by women multiplied by 4.366 to get an overall gender ratio of 53/47

Sources: GaW database; Snevringe (Västmanland), häradsrättens protokoll 1860–1880; Tuhundra (Västmanland), häradsrättens protokoll 1860–1880; Västerås (Västmanland), rådhusrättens protokoll 1860–1880.

focus on labour-market work only, explicitly excluding women's domestic work for their own households.³⁵ Whittle and Hailwood, by contrast, have discussed the gender division of work in early modern England with the help of a broad definition of work that includes paid and unpaid work; moreover, their analysis deals with women in general, not just married women. The differing definitions and scopes of the studies complicate direct quantitative comparisons, but the authors agree that for long swathes of time women's various economic contributions were large and indispensable for the survival of the household.³⁶

The kind of economy Horrell, Humphries, and Weisdorf describe for early modern England was far from what we find in early modern and nineteenth-century Sweden.

³⁵Sara Horrell, Jane Humphries, and Jacob Weisdorf, "Family Standards of Living over the Long Run, England 1280–1850", *Past and Present*, 250:1 (2021), pp. 87–134, 91.

³⁶*Ibid.*, pp. 99, 132; Whittle and Hailwood, "Gender Division of Labour".

Table 6. Women's and men's shares of activities in first- and second-level sectors. Numbers adjusted to reflect the gender ratio in the area (53/47). Västerås, Snevringe, and Tuhundra, 1880, percentage of activities.

| | Men | Women |
|-------------------------|-----------|-----------|
| Primary sector | 43 | 57 |
| Agriculture, forestry | 40 | 60 |
| Hunting, fishing | 100 | 0 |
| Secondary sector | 88 | 12 |
| Crafts, construction | 88 | 12 |
| Tertiary sector | 44 | 56 |
| Administrative | 67 | 33 |
| Care | 19 | 81 |
| Food, accommodation | 21 | 79 |
| Housework | 17 | 83 |
| Military work | 100 | 0 |
| Teaching | 58 | 42 |
| Trade, credit | 42 | 58 |
| Transport | 68 | 32 |
| Total | 47 | 53 |

Comment: Table 6 only includes categories of work that are relevant to the occupational structure as it is conventionally understood. Theft, trade in real estate, and unspecified work have been excluded as well as all other specified work except housework. Trade and credit have been grouped together. See Table 5 and footnote 52 of the present article.

Sources: GaW database; Snevringe (Västmanland), häradsrättens protokoll 1860–1880; Tuhundra (Västmanland), häradsrättens protokoll 1860–1880; Västerås (Västmanland), rådhusrättens protokoll 1860–1880.

As early as 1937, Eli Heckscher, the doyen of Swedish economic history, criticized the notion that “in the past” women did not work. His main argument was the underdeveloped character of the medieval and early modern economy. It would have been simply impossible to support the population if half of it – the women – had lived “in idleness”, Heckscher claimed.³⁷ His use of the word “idleness” is telling, suggesting that he operated with a broad definition that acknowledged unpaid work; otherwise, he would probably have written “if half of the population had restricted their work activities to unpaid household work”, or something along those lines. No one has questioned his assessment of the situation. As already mentioned, the seventeenth-century wars wiped out a large proportion of the able-bodied male population and put a heavy tax burden on the remaining population, a large proportion of which was female. Discussing the situation in the late eighteenth century, Kathryn Gary makes clear that households were unable to

³⁷Eli F. Heckscher, “De svenska manufakturerna under 1700-talet”, *Ekonomisk Tidskrift*, 39:6 (1937), pp. 153–221, 202, 208.

rely on men's incomes only and that women "would have needed to be well engaged in the labor force".³⁸

The late nineteenth-century situation was not very much better, and it was aggravated by male emigration to the US. Lena Sommestad has argued that, around the turn of the century, the country was "poor and egalitarian". Male breadwinning practices were comparatively weak and female labour force participation high, not least in rural areas where "women normally toiled longer hours than men".³⁹ This was exactly the time when the men behind the 1880 census (mentioned at the beginning) wrote that "wives of small-scale farmers should be regarded as persons with an occupation rather than being mainly or exclusively occupied with domestic work". It is noteworthy that the census constructors did not even consider the possibility that these women were supported by their husbands or spent some of their time in idleness. Their insights were in line with Gerald Friedman's more recent argument that when women entered the labour market in the twentieth century, this raised their officially measured participation in the labour force but did not necessarily increase the amount of work performed in society.⁴⁰

This study is based on work activity data, not on wage data, and it considers women's and men's work in general, not just married people's work. It deals with historical Sweden, a country where the survival of the population depended on hard work by both sexes well into the early twentieth century. In a consideration of both paid and unpaid work, it could even be argued that women work more than men do, a possibility mentioned by Sommestad and, more generally, in a UN Development Report referring to small-scale agricultural societies.⁴¹ For this article, however, we make the conservative assumption that women and men put in the same amount of work. By applying a standard multiplier (4.366) to the adjusted data in Table 5 (column 3) we get the final result (column 4). The multiplier sets the share of female activities at 53 per cent of all activities, reflecting the proportion of women in the overall population. As an effect, the total number of observations increases.

It is now time to return to Table 3. As we pointed out in the introduction, the activity pattern cannot be mapped directly onto the census, for two reasons. First, some of the activities included in the dataset are not relevant to the occupational structure as it is conventionally understood. In Table 6, these have been excluded. Second, Table 5 shows women's shares by different types of observed work, such as agriculture, *not* how much of their total time they devoted to agriculture, which is what we want in order to correct Table 3. But since the share for agriculture is higher than 50, Table 5 column 4 does suggest that women did more agricultural work than men, i.e. that their share should be somewhat more than the 47 per cent

³⁸Kathryn Gary, *Work, Wages and Income: Remuneration and Labor Patterns in Sweden 1500–1850* (Lund, 2018), Paper 4, p. 27.

³⁹Lena Sommestad, "Human Reproduction and the Rise of the Welfare States: An Economic-Demographic Approach to Welfare State Formation in the United States and Sweden", *Scandinavian Economic History Review*, 46:2 (1998), pp. 97–116, 107–109.

⁴⁰Gerald Friedman, "Labor", in Joel Mokyr (ed.), *The Oxford Encyclopedia of Economic History*, vol. 3 (Oxford, 2003), p. 231.

⁴¹Whittle and Hailwood, "Gender Division of Labour", p. 9.

in Table 3. Exactly what the share should be cannot be deduced in a formal manner and will require a certain amount of conjecture. For this fourth step in the analysis to be credible, we must reflect critically on the sources and take in previous scholarship.

Women's Work in the Three First-Level Sectors

Table 6 suggests that women worked more than men in agriculture (but did not fish and hunt). They were conspicuously less active than men in secondary sector work (craft and construction). Finally, they were more active than men in tertiary sector activities such as care work, housework, food and accommodation, credit and trade, but they did less administrative work and transport work than men. The basis for these conclusions are sixty-seven spot observations per year during a twenty-year period. How plausible are they?

Both women's and men's work in agriculture were underreported in Swedish historical court records. Table 4 makes this obvious. The underreporting probably had to do with agricultural work not being as regulated in law as other forms of work. It was hard to commit a crime or a tort in the process of ploughing, harrowing, and sowing, and subsequently end up in court. Nor was agricultural work subject to guild regulation in Sweden. In guild-regulated work, guild members jealously policed infringement of regulations, increasing the likelihood of work activities turning up in court. Moreover, rural first-instance courts often convened far away from where people lived and normally only three times per year. This is likely to have reduced rural people's propensity to take grievances to court; instead, they may have settled privately.⁴²

With the general underrepresentation of agricultural work in mind, there is reason to think that the role of women in such work was even more underreported than that of men. Evidence from probate inventories from the area is telling: every active rural household had some animals, so clearly there was widespread need for people who took care of animals and made them useful.⁴³ It is reasonable to assume that these people were women: the court records show that while men did a large share of soil preparation, women were more active in animal husbandry and work in meadowlands. Women's responsibility for milking cows is also well-known; this was a form of work that had to be carried out on a daily basis but, for some reason, rarely turns up in court records. However, all examples of milking that *do* turn up are of women carrying out this task: the examples are few but unanimously show milking to have been a female task. Both ever-married and never-married women milked. The 1880 census shows that there were 10 per cent more female servants than farmhands in the rural parts of the area, and we know that female servants

⁴²Jan Sundin, *För Gud, staten och folket. Brott och rättskipning i Sverige 1600–1840* (Lund, 1992).

⁴³Of 321 rural households, 106 were headed by fully active adults. All these households had animals. All larger farms had draught animals, tilling equipment, and vehicles for transportation. Smaller farms and crofts had less of these resources, and cottages had none. The probate inventories cover three parishes within the area of investigation (rural Munktorp and Ramnäs, and urban Västerås), and three periods (1760 to 1763/1764, 1825 to 1828, 1877 to 1880). The total number of inventories was 773. The inventories were analysed within the Gender and Work project by Örjan Kardell. See www.gaw.hist.uu.se.

often performed agricultural work. Recent research stresses the increasing importance of animal husbandry in the region after the mid-nineteenth century.⁴⁴

In nineteenth-century Sweden in general, women were often actively engaged in agriculture. Even if this started to change in the twentieth century,⁴⁵ many married women in rural areas still had a double workload in that they were responsible for both animals and household chores.⁴⁶ The pattern was the same in many if not all parts of Europe. Margaret R. Hunt writes that in contrast to England, “between sixty and ninety percent of the female laboring population continued to work in agriculture well into the nineteenth century and beyond”.⁴⁷ The trend in many places was for agriculture to become more, not less feminized. Taken together, these circumstances lend credibility to Table 6, which indicates that agriculture took up over 47 per cent of women’s workload.

Secondary sector work, not least spinning and weaving, is known to have been a major source of income for women across Europe.⁴⁸ However, previous scholarship has pointed out that while the Swedish textile industry expanded in the first half of the nineteenth century, it was still small compared to other forms of industry.⁴⁹ This speaks in favour of the low share of observations accounted for by women in crafts in Table 6. Admittedly, probate inventories from our area give clear indications of widespread use of tools for small-scale textile production. More than 70 per cent of rural households had tools for textile production, remaining the same across time. Urban households also had such tools but to a lower degree. In households with tools for textile production there was as a rule at least one adult woman. While this observation does not in itself prove that only women made use of tools for textile production, the correlation nevertheless implies that many women were involved in textile production. Moreover, a comparison with topographic descriptions from the area of investigation shows that the latter

⁴⁴Morell, *Agrar Revolution*, p. 329.

⁴⁵Mats Morell, *Jordbruket i industrisamhället 1870–1945* (Stockholm, 2001), pp. 313–319; Anita Nyberg, “The Social Construction of Married Women’s Labour-force Participation: The Case of Sweden in the Twentieth Century”, *Continuity and Change*, 9:1 (1994), pp. 145–156. See also Jonas Lindström *et al.*, “Mistress and Maid: The Structure of Women’s Work in Sweden, 1550–1800”, *Continuity and Change*, 32:2 (2017), pp. 225–252, Fig. 3.

⁴⁶Lena Somme stad, *Agrarian Women, the Gender of Dairy Work, and the Two-Breadwinner Model in the Swedish Welfare State* (Abingdon, 2019), for example p. 122.

⁴⁷Hunt, *Women in Eighteenth-Century Europe*, p. 173.

⁴⁸See Leigh Shaw-Taylor, Keith Sugden, and Xuesheng You, “A Preliminary Estimate of the Female Occupational Structure of England and Wales 1700–1911”, published online, https://www.campop.geog.cam.ac.uk/research/occupations/outputs/preliminary/female_estimates_lst_ks_xy_2019.pdf; last accessed June 2021. Table 14 shows that 41 per cent of the female labour force in England was active in textile production in 1761, declining to c. 15 per cent in 1861. Numbers are preliminary and subject to revision. Cited with permission of the authors.

⁴⁹Pernilla Jonsson, Inger Jonsson, and Fredrik Sandgren, “The Occupational Structure of Sweden 1800–1920”, p. 5. We are grateful to the authors for having let us read this unpublished manuscript. See also Lennart Schön and Olle Krantz, *New Swedish Historical National Accounts since the 16th Century in Constant and Current Prices* [Lund Papers in Economic History 140] (2015), p. 7, <https://lucris.lub.lu.se/ws/portalfiles/portal/5872822/8228142.pdf>; last accessed 16 June 2021. Schön and Krantz use number of sheep as indicators of the size of textile production in the early modern period.

describe women spinning, weaving, constructing bonnets, and bleaching.⁵⁰ Still, in contrast to the area discussed by Sarasúa, this area was not marked by proto-industry. In addition, work in factories and at railroad construction sites became available for men exactly around 1880, and observations of such work are allocated to the category craft and construction, increasing the male share. This means that around 1880 women's work in the secondary sector is, after all, likely to have been significantly lower than around 29 per cent, which is what the census suggested for men.

Court records are particularly rich in information about tertiary sector work, making it possible to disaggregate this sector with special emphasis on the gender division of work. Table 6 gives plausible indicators of women's shares in different types of tertiary sector work, with high levels in care work, food and accommodation, and housework. Housework comprises activities such as cleaning, washing, making beds, and handling water and fire. It is likely that such activities only rarely found their way into court records, but when they did they were, notably, often presented as market services provided by women. Thus, these activities were "domestic" only, in the sense that they pertained to places where people lived, not in the sense of being unremunerated.⁵¹ This is an important result: there was a service sector in which women could support themselves.⁵² It is also important to note that even though women did around 80 per cent of all observed housework, and even though far from all housework was noted in court records, it is still very unlikely that housework dominated women's total workload. There would not have been enough time left for them to be active in other forms of tertiary sector work *and* in primary and secondary sector work. Time is a limited resource.⁵³

There is reason to comment on the surprisingly high figure for women's administrative work in Table 6. Men's professional administrative work for the state or the local community comprised about half of all observed administrative work in Table 4 (106 of 201 observations). In their capacities as household heads, men also did everyday administration (81 of 201): they prepared accounts, drew up contracts, insured their stores against fire, solicited legal advice, etc. These were all activities vital for the continued survival of the household and should be categorized as work even though they were generally unremunerated. By contrast, women only *very* seldom did administrative work as formal representatives of the state, local communities, or other individuals, but they did carry out administrative tasks on behalf of their own households (14 of 201). For instance, women prepared accounts, counted money, signed legal documents, and petitioned for divorce.

A survey across historical urban Europe suggests that, on average, 18 per cent of all household heads were female, with higher shares in Norway and Spain and lower

⁵⁰Maria Ågren, "Fantastiska verb och hur man kan använda dem", in Lindström, *Fantastiska verb*, p. 211.

⁵¹Nancy Folbre and Barnett Wagman, "Counting Housework: New Estimates of Real Product in the United States, 1800–1860", *Journal of Economic History*, 53:2 (1993), pp. 275–288; Whittle, "A Critique of Approaches".

⁵²The discussion of housework is based on a larger dataset presented in chapter 7 of our book *On the Threshold of Modern Society*, currently in manuscript.

⁵³Gershuny, "Time-Use", p. 12.

Table 7. Occupational structure in Västerås, Snevringe, and Tuhundra in 1880, based on 1880 census and adjusted court record data, N and percentage of individuals.

| Sector | Men N | Men % | Women N | Women % | Total N | Total % |
|--------------|-------------|--------------|-------------|--------------|---------------|--------------|
| Primary | 2936 | 47.3 | 3574 | 50.0 | 6510 | 48.7 |
| Secondary | 1786 | 28.8 | 893 | 12.5 | 2679 | 20.1 |
| Tertiary | 1487 | 24.0 | 2681 | 37.5 | 4168 | 31.2 |
| Total | 6210 | 100.0 | 7148 | 100.0 | 13,358 | 100.0 |

Table 8. Women's and men's shares of work in primary, secondary, and tertiary sectors in Västerås, Snevringe, and Tuhundra in 1880, based on 1880 census and adjusted court record data, percentage of individuals.

| Sector | Men % | Women % | Total % |
|--------------|-------------|-------------|--------------|
| Primary | 45.1 | 54.9 | 100.0 |
| Secondary | 66.7 | 33.3 | 100.0 |
| Tertiary | 35.7 | 64.3 | 100.0 |
| Total | 46.5 | 53.5 | 100.0 |

shares in Denmark and Italy.⁵⁴ Swedish research has emphasized that a large share of the self-supporting urban population who paid taxes consisted of women: between 23 and 35 per cent in the period 1680 to 1750.⁵⁵ As heads (widows) or co-heads (wives) of households, women had to carry out everyday administrative work. Everyday administrative work was an important form of work for many adult women and has been neglected in historiography. Consequently, we consider the share for women's administrative work in Table 6 (33 per cent) to be plausible.

Tables 7 and 8 use the numbers in Table 6 to correct the hypothesis behind Table 3, namely, that women and men did exactly the same types of work. There were gender differences. Table 7 suggests that just before the onset of industrialization, when secondary (and tertiary) sector work became more important in society, around 80 per cent of the adult population were active in primary and tertiary sector work. It also shows that women made a large contribution to the economy as a whole.

Conclusion

It has long been recognized that, in order to understand economies in the past, we need better information about women's work and tertiary sector work. There is a

⁵⁴Sheilagh Ogilvie, *The European Guilds: An Economic Analysis* (Princeton, 2019), p. 250. For lower shares, see Siegfried Gruber and Mikołaj Szoltysek, "The Patriarchy Index: A Comparative Study of Power Relations across Historical Europe", *The History of the Family*, 21:2 (2016), pp. 133–174, 138, 149.

⁵⁵Kekke Stadin, "Den gömda och glömda arbetskraften: Stadskvinnor i produktionen under 1600- och 1700-talen", *Historisk Tidskrift*, 3 (1980), pp. 298–319, 315.

rich historiography on women's work, but it has not been self-evident how these insights can be quantified and transformed into occupational structures. It is also well-known that, while valuable in many ways, nineteenth-century censuses give incomplete information about women's contributions to the economy. Since women's work is assumed to have undergone radical change precisely in that century, the lack of good data is a severe obstacle. This article solves these problems by triangulating census data with more qualitative information extracted from court records. In this way, it was possible to make a reasonable estimate of the first-level occupational structure in a Swedish local society including both women and men, and to give more nuanced information about work in the tertiary sector.

The court record data were collected according to a method originally designed for studies of working life in early modern societies. With its focus on work activities described with the help of verb phrases, the method resembles anthropological methods used to capture the gender division of work in parts of the world that – like early modern societies – lack reliable occupational statistics.⁵⁶ The rationale for the verb-oriented method is that, for an assessment of the economy, it is more relevant to know what work people actually carried out than what their occupational titles were. In fact, the verb-oriented method has traits in common with the approach to distinguish between women in gainful employment and women's at-work rates. It is more relevant to know how much women actually worked than whether or not they had a job contract.⁵⁷ In both cases, the ambition is to come as close as possible to work understood as practice and time-use.

The verb phrases extracted from court records were used, first, to check the reliability of the 1880 Swedish census. This triangulation exercise suggested that the census gives reasonably accurate information about most men's work across the three first-level sectors. In the few cases where the level of detail about women's work allowed us to compare census and court record information, the match was also relatively good. This is in line with an analysis made of the British census.⁵⁸ On the whole, however, the census was unsatisfactory as it provided information only for about 20 per cent of the adult women, and, for these, 84 per cent were given vague and perfunctory occupational descriptors. This result is in line with what previous studies have said about censuses in other countries: they do not accurately capture women's work.⁵⁹

Second, the verb data were used to establish what women's work activity pattern typically looked like, and whether it differed from men's. This step required a number of mechanical adjustments to the data: minor adjustments to reduce the impact of source-specific factors and major adjustments to make the dataset gender-balanced. In addition, we reflected critically on the character of the sources to evaluate whether the results made sense. As expected, women carried out a large

⁵⁶Valeria Esquivel *et al.*, "Explorations: Time-Use Surveys in the South", *Feminist Economics*, 14:3 (2008), pp. 107–152.

⁵⁷Maria Stanfors, "Women in a Changing Economy: The Misleading Tale of Participation Rates in a Historical Perspective", *History of the Family*, 19:4 (2014), pp. 513–536.

⁵⁸McGeevor, "How Well Did the Nineteenth-Century Census Record Women's 'Regular' Employment in England and Wales?"

⁵⁹Humphries and Sarasúa, "Off the Record"; Van Nederveen Meerkerk and Paping, "Beyond the Census".

proportion of all work related to care, food and accommodation, and the home. Less expected was the high proportion of administrative work carried out by women, and the fact that much observed housework was for pay.

The activity pattern cannot be mechanically transformed into estimates for first-level occupational sectors, but it does tell us, thirdly, that women worked somewhat more than men in the primary sector, significantly less in the secondary sector, and more in the tertiary sector. These estimates are new but in line with other relevant research. Based on these insights and the numbers established for men with the help of the census, an estimate of the occupational structure in the area around Västerås in 1880 was presented. As far as we are aware, there is no other estimate available for this year, but if we compare with an estimate for the whole of Västmanland in 1850,⁶⁰ the tertiary sector is much bigger in our estimate: around 30 per cent rather than 14 per cent, with women doing a major part of this work. Several reasons may explain this difference, one of which is the larger proportion of data from an urban environment in our dataset. A more fundamental reason is that people with occupational titles indicating primary sector work, for instance farm servants, also did tertiary sector work. Most importantly, our estimates take into consideration the gender division of work and the fact that the bulk of tertiary sector work was done by women. Tertiary sector work played an important role around 1880 as well as long before. As Shaw-Taylor and Wrigley pointed out, we know less about tertiary sector work and, we add, this is because it is difficult to find good data.

While time-consuming to collect, verb-phrase data provide a useful basis for estimating work-activity patterns for both women and men. This has been shown in several studies of early modern societies, but this article is the first to demonstrate that the method works for the late nineteenth century as well. Not only does it work; it provides a basis for comparison with and evaluation of other sources, such as censuses. Thus, it provides an opportunity for translating data of different kinds and giving better assessments of women's economic contributions in the past.

⁶⁰Kerstin Enflo and Anna Missiaia, "Regional GDP Estimates for Sweden, 1571–1850", *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 51:2 (2018), pp. 115–137, esp. Table 4.