

# **Occupations and economic labour activities of nineteenth century Dutch women: limits and possibilities**

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## **Abstract**

Several nineteenth century population records offer numerous indications of male and female occupations. In this paper I explore critically to what extent the occupation of a woman mentioned in the sources is an indication for her economic activities. A division is made between occupations mentioned in birth, death and marriage records, Population Registers and censuses. For the province of Groningen the content of these sources is critically assessed using large databases covering the period from 1811 to the first half of the twentieth century. All these databases show a sharp fall in the share of females with an occupation from the first half of the nineteenth century to the first half of the twentieth century. The relevance of these sources, however, is seriously limited as they are characterized by a large extent of clustering of female occupations. Dutch nineteenth and early twentieth century female occupation data from official population records often merely reflect the view on female labour of the civil servant registering these occupations, than of the actual size of female labour participation.

For the Groningen countryside, and especially for agriculture, information from other sources gives a more accurate view of (economic) labour participation of females in the nineteenth century. Essential is it to divide the female population in different groups taking into account their civil status, position in the household, and the occupation of the head of this household. The widespread part-time economic activities of females in the nineteenth century could not be captured clearly by a rigid system of whether or not to mention an occupation for a female. Nevertheless, other data also suggest a large fall in female labour participation in the Groningen countryside, due to a fall in the number of live-in servants, and a fall in the number of agricultural working days of female labourers; a fall in the participation of female relatives (wives and daughters) in farmer households. This development will have been reinforced by fall in the share of households with a business of their own, diminishing the possibilities of wives to be economically active in this business. These developments are not in any way compensated by the rather limited rise in female wage work.

## **1. Introduction**

Nineteenth century Dutch population sources offer numerous indications of occupations, both for men and women. Individuals mentioned in these sources were usually described by first name, surname, age and occupation. Frequently, researchers take these sources for

occupational activities as the starting point for their analysis.<sup>1</sup> Consequently, research on the nineteenth century extent of female labour market participation is usually heavily based on these kinds of sources, while they are also used to establish if specific women worked in longitudinal research, for instance on social mobility.

In this paper I explore critically what the actual meaning of a female occupation stated in population sources really is. To what extent is it an indication for her economic activities? What does it mean if the sources mention “no occupation” or “housewife”? Is a female labourer or a female farmer full-time economically active or is it just an indication of social status. Does “no occupation” mean that someone is totally unemployed or performing no economic activities at that moment? Economic activities are defined as those activities aimed at market production, or those which diminish necessary market purchases for the household, with the exception of reproductive activities and housework in one’s own (family) household.

For the sake of simplicity this paper will confine itself to the province of Groningen in the nineteenth century and early twentieth century, although most of the observations on the quality of the sources and the structure of nineteenth century female labour are also relevant for the whole of the Netherlands, and often even for large parts of the rest of Western-Europe. Using alternative sources, several strategies will be applied to shed light on the meaning of female occupations reported. Micro-data from accounts and receipts will be used to compare actual economic activities of specific (married and unmarried) women with statements about their occupation.

First we will consider the quality and development of female occupations mentioned in four different sources: the mortality, birth and marriage registers as part of the Civil Registration (“Burgerlijke Stand”), which are available in the Netherlands from 1811 onwards, and the nineteenth century census registers and Population Registers (“Bevolkingsregister”). After that a simple framework is presented to look at female activities, which is used to present estimates on the development of female economic activities in the Groningen clay area from 1800 to 1860. Finally we will go more into depth into the long term development of two important categories of rural female labour: (unmarried) farm maids and (married) female farm labourers.

## **2. Mortality registers**

Although mortality registers seem less attractive to study female occupational patterns as we only find statements of those women dying, this source has some clear-cut advantages. In contrast with birth registers, it at least treats men and women separately, which results in relatively numerous indications of female occupations. Marriage registers on the other hand only provide information on female occupations at a very specific moment in the life course, where the scanty and perhaps accidental information in the mortality registers can relate to

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<sup>1</sup> For instance Walhout and Van Poppel (2003); Van Leeuwen and Maas (2006).

any time in the life course. This was even more so, as mortality chances were high over the whole life span from birth to old age until the last decades of the nineteenth century.

Let's start with a small investigation of the 180 deceased of 10 years and older in the mortality registers of the municipality of Appingedam (comprising next to a small town several rural villages) over the years 1812-1814 make a few points very clear. The youngest child with an occupation was 14 years, younger girls and boys never had an occupation. All the 23 dying unmarried boys and men between 15 and 60 years had an occupation in the registers, occupational titles widely diverged. There were only 9 unmarried girls of this age group in the mortality register, and of these, a third had no occupation, as they were living with their father, two were farmers and one owned a lime-kiln.

Interesting is the treatment of married women. Rudolph Pabus Cleveringa (1763-1818) administered as mayor of Appingedam all the death records. He started with a policy of mentioning in the majority of cases (9 out of 14) an occupation for a deceased married wife. Deceased wives of farmers or labourers were always entitled "boerin" (female farmer) or "arbeidster" (female labourer), and also a seamstress, a skipper's woman and a shoemaker's woman were reported in the period until July 1813. However, in the period from August 1813 until the beginning of May 1814 he changed this, and none of the 9 married women dying in this period were given an occupation, notwithstanding this group included four wives of labourers and one of a farmer. From May onwards Cleveringa returned by and large to his previous procedure mentioning 7 times an occupation out of a group of 12 deceased married females. Most of the wives of artisans and those active in services were not supposed to have an occupation in Appingedam.

The occupations of widows were treated differently. From the thirteen dying widows between the age of 40 and 71, only in one case of a Jewish widow of a lottery merchant no occupation was mentioned. Even nearly half the widows in the age group 72-75 had an occupation. We encounter spinsters, female farmers and labourers, several female merchants, but also a female shipbuilder of 67 and a female baker of 75. Taking into account Cleveringa's reluctance to mention occupations of women, these findings strongly suggest that women frequently stayed in charge of the business, especially when it was a farm, but also often in other cases. This might be an indication that numerous women were already heavily involved in the business of their husband in services or industry if the last one was still alive. Nevertheless, it is difficult or even impossible to establish how much women worked in these businesses.

The detailed example of Appingedam 1812-1814 is of course illuminating. Fortunately, we can test a large part of the findings quantitatively using the Genlias database for Groningen.<sup>2</sup> The Genlias database consists, among others, of nearly all the deaths recorded in the province of Groningen from August 1811 to 1959.<sup>3</sup> The data were assembled by volunteers organised

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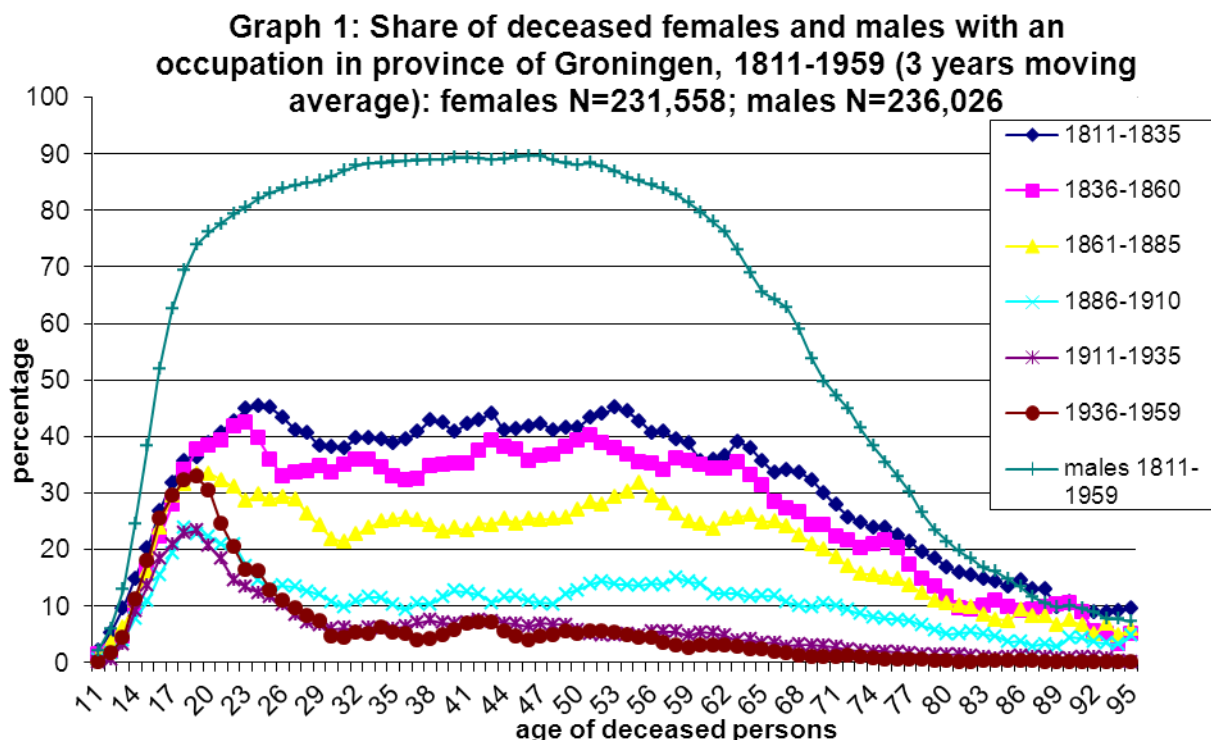
<sup>2</sup> The Groningen Genlias database was very kindly provided as Access files by Albert Beuse of the Groninger Archieven. Erwin Karel integrated them into one database.

<sup>3</sup> The mortality database is nearly complete: missing are the municipality of Noorddijk 1811-1952 and the municipality of 't Zandt 1953-1959. Main inconsistencies in the data records due to typing mistakes have been

by the archives, and it is the same information which can be found in Allegroningers.nl and Genlias (to be changed in Wiewaswie). However, the original database comprises a lot more information than is available on internet, especially on occupations. All the occupations of the deceased and of the deceased father and mother have been transcribed. Unfortunately, the occupation of the partner which is usually also mentioned in the sources has not been copied.

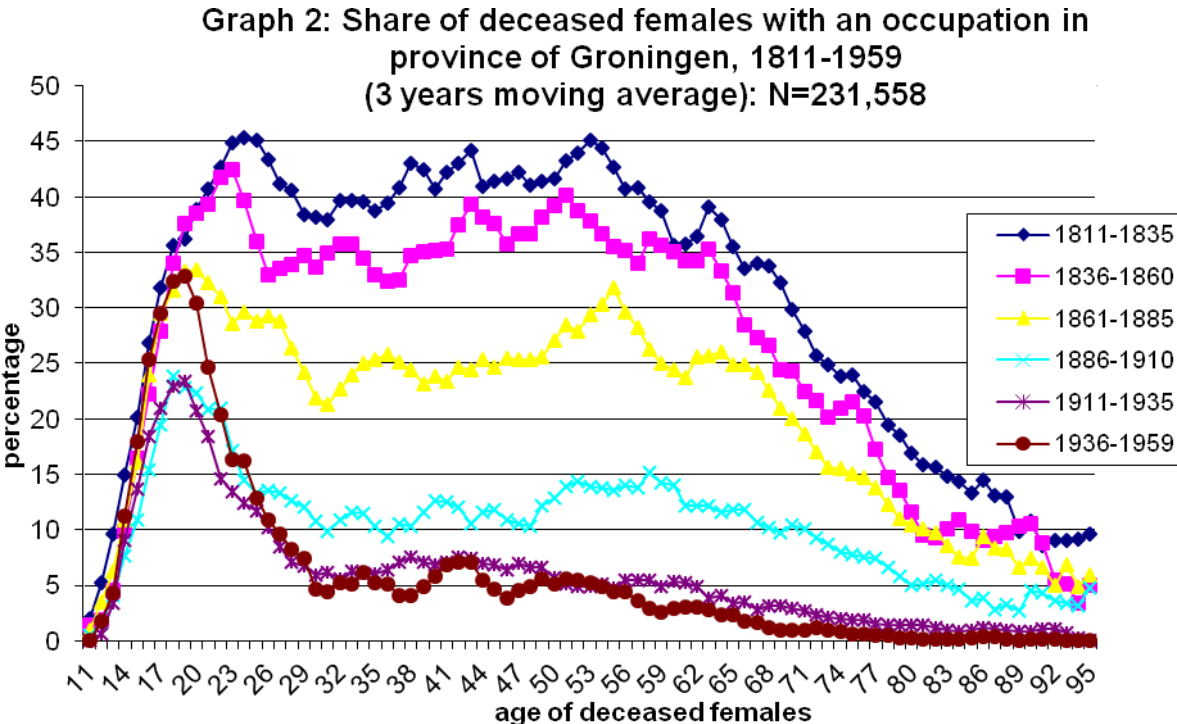
We will analyse only those deaths of which the age was known also. Only those occupations were taken into account suggesting economic activities. A part of the female occupations were directly related to the occupation of the husband, for instance: a farmer's woman ("landbouwersvrouw"), a skipper's wife ("schippersvrouw") or more often suggested such a relation: in Dutch "landbouwse" and "schipperse". These kinds of attributions were also considered to be actual occupations. The same occupational titles were used for widows, suggesting that they can be seen indeed as roper occupations. In this article we did not yet divide the deceased according to their civil status, although the database supplied information on this aspect, but not always consistently.

As this article wants to offer only a first simple analysis of this huge database with enormous possibilities, we did not make a difference between the city of Groningen and the countryside, or made even more refined geographical divisions.



solved as good as possible, although only to a limited extent cases were controlled in the source itself (scans on internet: allegroningers.nl). The number of deaths (including lifeless children) was 717,965, of whom 199,743 were from the records of the city of Groningen. Some deaths are counted double in the database, when legal acts were registered in different Groningen municipalities; especially this was the case if someone died outside his place of settlement.

Graph 1 makes clear that there were huge differences between the percentage of occupational titles mentioned for males and for females in the death registers. This already starts in the early teens, when much more boys than girls had an occupation. Some 80% to 90% of the dying males aged 20 to 65 had an occupation according to the death records. This contrasts sharply with females were even in the period 1811-1835 with the highest share of occupational titles was only about 40%. The very high incidence of occupational titles for males shows that dying people in the nineteenth century were not necessarily weak and idle people, most of them were able enough to work until shortly before their death. So, the low incidence of occupational titles of dying women only to a limited extent had something to do with physical incapability to work.



Graph 2 shows that according to the death registers the share of females with an occupation was not only already quite low in the first half of the nineteenth century, but also declined considerably and continuously over more than a century. The great fall in female occupations happened from the period 1861/1885 to the period 1886/1910, continuing to reach extreme low levels in the period 1911/35. Interestingly, it was from 1886 onwards that a pattern emerged that the chances of young (often unmarried) women to have an occupation became bigger than that of older (often unmarried) women. This pattern was reinforced in the period 1936/1959, when the share of young dying females with an occupation recovered, while the share of females aged 30 and over with an occupation remained around 5% or less for any age group.

However, does graph 2 indeed reflect the extent and development of the female occupational structure? Can we take this source serious for the measurement of female economic activities? A simple analysis of the source makes clear that an important part of the high share of occupations in the first half of the nineteenth century was not the result of a consistent policy of mentioning occupations for women. It was mainly caused by the fact that more civil servants registering the death records were inclined to mention an occupation for a dead woman. Occupational registrations of deceased females were clustered to a large extent, and the same was the case with the practise of preferably not writing down an occupation for a deceased woman.

We restricted our analysis to dying woman aged 10 and over,<sup>4</sup> for whom we compared the registration of an occupation with the three females who were previously reported dead in the Civil Registration. Table 1 shows perfectly clear that the chance that an occupation for a deceased woman was mentioned was strongly influenced by the event that one the previous deceased females also was presumed to have an occupation. We find exactly the same effect for the mentioning of a female occupation two legal acts before or three legal acts before. If, however, in the previous three acts of deceased females no occupation was mentioned than the chance that a woman also had an occupation was much lower. If this source would give a reliable view of occupations of women, one would not expect such a strong relation of two events which were only to a very limited extent related. The similarity in time and space of succeeding death records should only result in a very small amount of clustering.

*Table 1: Clustering of occupations of deceased females in death registers in the province of Groningen (share of females with an occupation), 1811-1959.*

	Share female with occupation			Share female without occupation		
	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier
1811-1835	50.6%	49.9%	49.8%	24.5%	24.9%	25.0%
1836-1860	43.5%	44.2%	43.4%	22.6%	22.3%	22.6%
1861-1885	36.6%	35.7%	35.9%	17.7%	17.9%	17.9%
1886-1910	24.8%	23.4%	23.2%	8.7%	8.8%	8.9%
1911-1935	8.1%	6.8%	7.7%	4.4%	4.5%	4.4%
1936-1959	3.5%	2.9%	3.4%	2.7%	2.7%	2.7%

NB: Only women above the age of 10.

<sup>4</sup> We did not find any reasonable registration of occupations of people younger than 10. If they were in the database, they were mistakes due to transcribing or (very rarely) to obvious mistakes in the source.

*Table 2: Comparison of higher chances (odds) of mentioning a female occupation of a deceased woman mother when the previous death certificate of a deceased woman also mentioned an occupation.*

	Previous act	Two acts earlier	Three acts earlier
1811-1835	2.1	2.0	2.0
1836-1860	1.9	2.0	1.9
1861-1885	2.1	2.0	2.0
1886-1910	2.9	2.7	2.6
1911-1935	1.8	1.5	1.7
1936-1959	1.3	1.1	1.3

NB: Comparison with the chance that previous acts did not mention an occupation of the bride. Only women above the age of 10 included.

Table 2 shows that the phenomenon of clustering diminished in importance in the first half of the nineteenth century, to nearly disappear in the period 1936-1959. Different views on female occupations between civil servants presumably played only a minor role in this last period, as the reported amount of clustering could be related to changing circumstances between 1936 and 1959 or geographical differences within the province of Groningen. Actually, by that time most of the civil servants seemed to have agreed upon the view that females preferably did not have an occupation worthwhile mentioning. Still, it must be questioned if this says a lot about the economic activities of the females concerned. It is difficult to imagine that about two out of three (unmarried) females around the age of 20 in Groningen was so little involved in economic activities, that they did not have any occupation at all. Unmarried female labour participation in the first half of the twentieth century is a topic which really needs to be investigated in much more detail.

*Table 3: clustering effects: share of females with an occupation related to the number of occupations of deceased mentioned in the three previous acts of females (percentages).*

	0 occupations	1 occupation	2 occupations	3 occupations		Share of 2/3 previous occupations in total occ.
1811-1835	17%	32%	50%	67%		50%
1836-1860	16%	30%	47%	60%		43%
1861-1885	13%	26%	41%	50%		33%
1886-1910	7%	16%	32%	45%		19%
1911-1935	4%	7%	12%	*		3%
1936-1959	3%	3%	2%	*		0%

The number of cases is less than 100.

The period 1886-1910 showed the highest incidence of clustering (table 2). Table 3 reports that if the three previous acts on deceased females of 10 and older mentioned an occupation for the deceased, than the chance was more than 6 times higher than if in the previous three acts no occupation of a deceased was given.<sup>5</sup> In the three earlier periods this chance was 'only' 3.7 to 3.9 times higher. However, the number and size of clusters diminished in the same period 1886-1910, making the overall effect of clustering less. If we measure this effect as the share of the female occupations which also had an occupation mentioned in two or three of the previous female acts, than this share declines from 50% in 1811-1835 to only 19% in 1861-1885, to become nearly negligible after 1911.

It has to be remarked that the last measure might overestimate the effect of disappearance of clustering as this share will also have fallen due to decrease in the number of female occupations mentioned. A comparison with the division which should be expected as occupations of females of 10 years and older were mentioned independently of mentioning a female occupation in former similar acts shows that the chance of finding four such acts after each other which all state an occupation for a female was 5 times as high than expected in the period 1811-1835 and 1836-1860, rising to 7 times in 1886-1910 and a tremendous 37 times in 1886-1910 and 19 times in 1911-1935 due to that some municipalities during certain periods nearly always mentioned an occupation, while others in the period after 1885 registered such occupations very rarely.<sup>6</sup> After 1935 there are no strings of four female death acts which all mention an occupation.

After the more extensive analysis of clustering within the mortality registration, we will discuss clustering effects more briefly in the next two sections on birth and marriage registration.

### 3. Birth registers

For the birth registers we have a similar Genlias database for the province of Groningen at our disposal covering the years 1811-1909. This database contains information on the occupations of fathers and mothers mentioned in birth certificates.<sup>7</sup> The database contained 694,885 useful certificates from a total of 695,159 records. In this paper we distinguish between married mothers (including recent widows) and unmarried mothers. Unmarried mothers of course can

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<sup>5</sup> It has to be noted that table 3 cannot be interpreted as proof of a fall in female occupations, corrected for cluster effects, as the age structure of the deceased females of 10 and above changes dramatically from 1886 onwards, especially in the first half of the twentieth century the share of dying unmarried young women declined enormously. In the period 1936-1959 55% of the deceased women in observation were 70 or older, whereas this was 31% in 1811-1835, 29% in 1836-1860, 30% in 1861-1885, 40% in 1886-1910, 46% in 1911-1935.

<sup>6</sup> The actual distribution of 0, 1, 2, 3 or 4 occupations in four following acts were compared with a theoretical Bayesian distribution, using the overall share of the occupation-rate as parameter. Every act was separately taken into account.

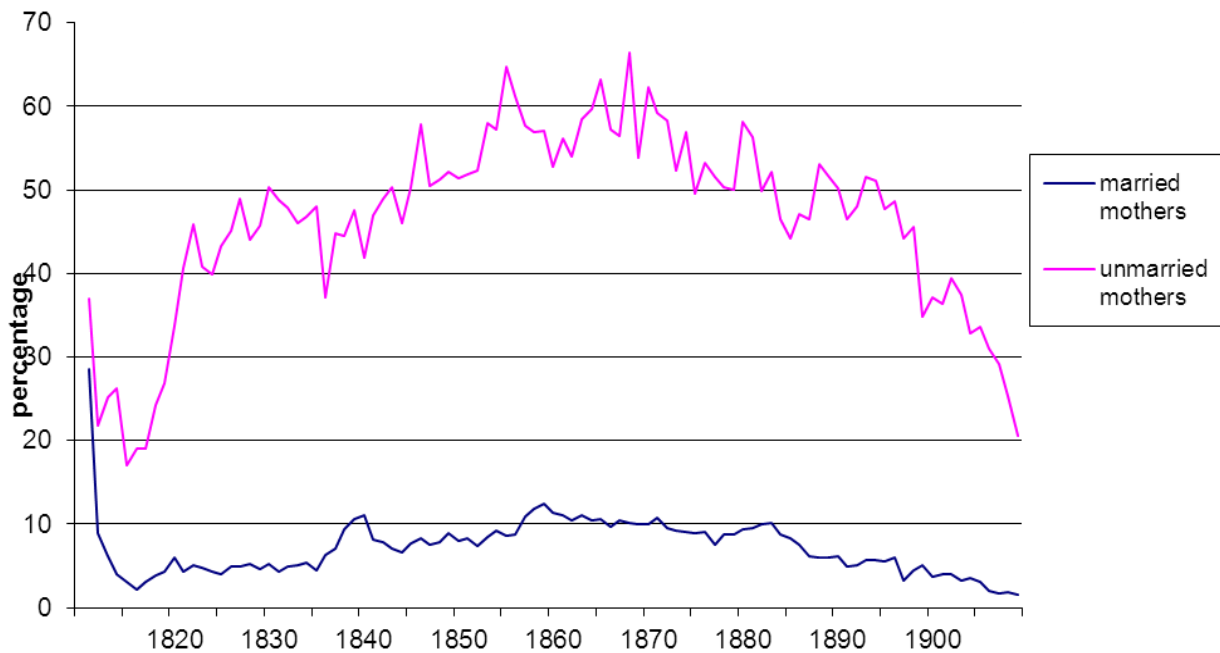
<sup>7</sup> The data for the municipality Noorddijk over the years 1811-1903 are missing. Also birth certificates containing changes in previous birth certificates and similar slightly diverging certificates were taken into account if they contain information on the mother. It proved difficult to distinguish between these certificates and original birth certificates, and they only seem to comprise one per cent or less of all the observations.



not be seen as representative for unmarried females. However, the difference between married and unmarried mothers in the mentioning of occupations was so enormously high that making a difference was inevitable.

In large parts of the database also the ages of fathers and to a lesser extent mothers are mentioned. For this paper, we did not use this information, which would make it possible to divide between different age groups. Especially for unmarried mothers this might be interesting, for instance to test if the mentioning of occupations falls with age. Inconvenient is the short time period of only a century for the birth records. The reason is that the databases were originally constructed for genealogical purposes. However, due to privacy regulations, Dutch birth records have to remain secret for 100 years, marriage records for 75 years and death records only for 50 years.

**Graph 3: Share of mothers with an occupation in birth certificates in the province of Groningen, 1811-1909 (N=694,885)**



Graph 3 shows that apart from the very first years of birth registration around 1811, the differences between the share of occupational titles between married and unmarried mothers was very large. According to the birth certificates only a few married mothers were considered to have had an occupation. Interestingly, the share of married women reported to have an occupation rose from a tiny 2% in 1816 to 12% around 1860, to fall again - especially after 1885 - to less than 2% after 1906.

*Table 4: Clustering of occupations of married mothers in birth registers in the province of Groningen (share of females with an occupation), 1811-1909.*

	Share female with occupation			Share female without occupation		
	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier
1811-1835	76.6%	75.9%	75.8%	1.5%	1.9%	1.5%
1836-1860	62.9%	61.9%	61.6%	3.6%	3.7%	3.7%
1861-1885	60.6%	59.7%	59.7%	4.2%	4.3%	4.3%
1886-1909	60.7%	59.4%	60.3%	1.8%	1.8%	1.8%

Unfortunately, the meaning of these observations for the actual development of labour participation of married females has to be questioned. The mentioning of occupational titles of married mothers was mostly depending on the registration policy of the civil servants in charge. Table 4 and 5 show very high clustering effects during the whole of the nineteenth century. Interesting is that within clusters where the mentioning of female occupational titles was usual, this tendency did not diminish in the last period 1886-1909. In this period, those civil servants positive on mentioning female occupations, still thought that 60% of the married mothers indeed had an occupation.

*Table 5: Comparison of higher chances (odds) of mentioning a female occupation of a married mother when the previous birth certificate with a married mother also mentioned an occupation.*

	Previous act	Two acts earlier	Three acts earlier
1811-1835	52.8	59.6	48.8
1836-1860	17.3	16.7	16.5
1861-1885	14.5	14.0	14.0
1886-1909	34.2	32.3	33.5

NB: comparison with the chance when previous acts did not mention an occupation of the bride.

The extent of clustering of female occupation listing might be related to the kind of occupation registered. To test this we did a brief and simple analysis. We divided female occupations in seven categories: 1. live-in servants, 2. female labourers (unspecified or agricultural), 3. female farmers, 4. typical female occupations in industry and services (for instance seamstresses and spinsters), 5. specified wage workers in industry and services, 6. seemingly independent workers and employers in industry (including their wives), 7. seemingly independent workers and employers in services (including their wives).

Again, we investigated if the mentioning of an occupation was related to the mentioning of a female occupation in a previous similar birth certificate. For married mothers this kind of clustering was the case in 63% of all the certificates mentioning the occupation of the mother, compared to the general 7% mothers with an occupational title for all certificates together. For the different occupational groups the first clustering-indicator diverged between a low 35% (for typical female occupations) to a high 78% for seemingly independent workers and employers in industry (including their wives). Female labourers (72% of the total number of occupational indications) and female farmers (19% of the total) as the two largest occupational groups had such a clustering-indicator of 62% and 69% respectively.

Although clustering problems were far less for unmarried mothers, they were still quite large and comparable with those in the death records. Graph 3 shows that after a steady rise from 1815 to 1860, there was a continuous decrease in the report of occupations of unmarried mothers from 60% around 1860 to 45% around 1895 en 20% around 1909. However, within the clusters with numerous occupational titles for unmarried mothers changes were only limited. Again it was the fall in importance of these clusters which caused the decrease in the share of occupational titles of unmarried mothers around the turn of the century.<sup>8</sup>

*Table 6: Clustering of occupations of unmarried mothers in birth registers in the province of Groningen (share of females with an occupation), 1811-1909.*

	Share female with occupation			Share female without occupation		
	Female occupation in previous act	Female occupation two acts earlier	Female occupation three acts earlier	Female occupation in previous act	Female occupation two acts earlier	Female occupation three acts earlier
1811-1835	63.2%	62.0%	60.5%	23.1%	23.7%	24.5%
1836-1860	66.3%	65.1%	64.5%	36.1%	37.4%	38.0%
1861-1885	69.8%	68.5%	68.6%	37.1%	38.8%	38.6%
1886-1909	65.8%	63.3%	63.9%	24.6%	26.6%	26.5%

*Table 7: Comparison of higher chances (odds) of mentioning a female occupation of an unmarried mother when the previous birth certificate with an unmarried mother also mentioned an occupation.*

	Previous act	Two acts earlier	Three acts earlier
1811-1835	2.7	2.6	2.5
1836-1860	1.8	1.7	1.7
1861-1885	1.9	1.8	1.8
1886-1909	2.7	2.4	2.4

<sup>8</sup> Table 7 shows that the intensity of clustering even increased in the last period 1886-1909.

NB: comparison with the chance when previous acts did not mention an occupation of the bride.

For unmarried mothers we can also look at the clustering effects for different occupational groups. As we have seen, clustering was less of a problem than for married mothers, as occupations of unmarried mothers were mentioned quite often in the Civil Registration (47% of all cases). We again take as clustering-indicator, the chance on the mentioning of the occupation of a mother, in the case that the previous similar act also reported an occupation. The two most important occupational groups for unmarried mothers - live-in servants (58% of the total occupations) and female labourers (35% of the total occupations) - showed a very high degree of clustering, with respectively 68% and 71% of the certificates being the successor of a certificate which reported an occupation for unmarried mothers. Nearly all the other groups (activities in industry and services and typical female occupations) showed percentages more or less comparable with the general occupational rate of 47% and their mentioning was less infected by clustering effects. However, the incidence of these occupations was only very small (7% of the total).

The last analysis also showed that the occupations of mothers mentioned in the birth certificates had in general a very specific nature. Taking married and unmarried mothers together, there were 61,836 indications of female occupations (only 9% of the total), of whom 63% female labourers, 15% live-in servants, 13% female farmers, 3% typical female occupations, 4% seemingly independent active in services, 2% seemingly independent active in industry and 0.3% specialised wage workers. These figures suggest that in nineteenth century Groningen females in their child-bearing period did not perform a lot of specialised tasks outside agriculture, except for working as a live-in servant. A better overall conclusion might be that the indications on the occupations of mothers give only to a very limited extent an indication of the economic activities of married women. They might give some useful information on the occupations of unmarried mothers, but even these data show enormous omissions on the individual level.

#### **4. Marriage registers**

The Genlias database for Groningen contains 244,226 useful marriage certificates for the period 1811-1934, not taking into account divorces. By interpreting the figures it has to be taken into account that a part of the brides were widows, who usually had quite different occupations than previously unmarried girls. These widows were female labourers and farmers, or in charge of trade in industry or services. For most of the grooms (96%) an

occupation was registered, while this was only the case for a limited part (33%) of the brides (including the widows).<sup>9</sup>

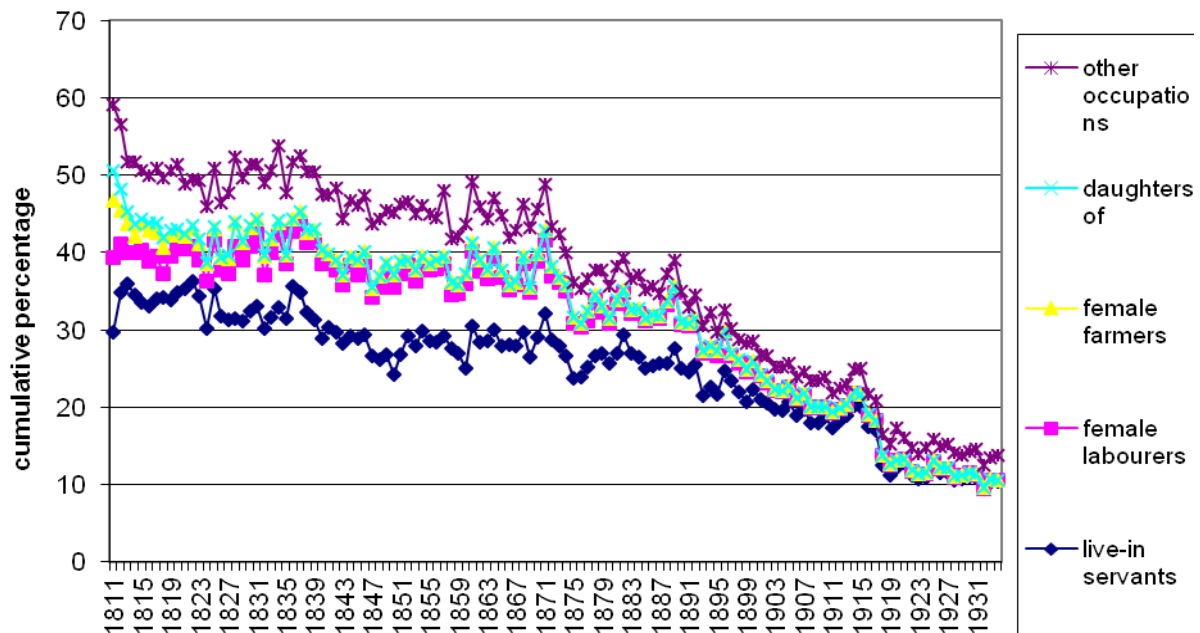
The meaning of the occupations in the marriage registers are in one way difficult to interpret. Do they reflect the occupations before marriage, or occupations to be performed after marriage? This is an important question as in the nineteenth century the moment of marriage was often used to change occupation or to change occupational status (for instance becoming from an employee an employer or self-employed). If we look at the occupations of grooms, there are traces of both policies, on the one hand we find a lot of farm hands (an occupation only performed by unmarried males), on the other hand, a relative large amount of the grooms seem to have had occupations suggesting they were already self-employed especially in industry and services.

Looking at female occupations, the registration of previous occupations seemed to have been rather common. A lot of females changed occupation upon marriage, as they were live-in maids, an occupation which was hardly performed by married females. Usually what the extent of the economic activities of females after marriage was, remained still not very clear. Complicating is also that many marriages were concluded in May. This is not surprising as this was the traditional month when for a lot of girls their annual contracts as live-in servants ended. A few brides marrying in other months already had left services some time before marriage because of pregnancy, and because of this were without occupation at the wedding.

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<sup>9</sup> In a more refined analysis it seems possible to distinguish between first and later marriages. It is, however, not yet clear if the database reported this characteristic consistently. Compare Van Leeuwen and Maas (2006) 186 for Zeeland 1816-1922: grooms 96% and brides 49%.

**Graph 4: Occupations of brides in marriage certificates in the province of Groningen, 1811-1934 (N =244,226)**



Nevertheless, live-in servant was the most frequent occupation of marrying girls. Until about 1880 around 30% of the brides were reported to have been maids. The figures suggest a slow tendency to fall before 1880. Between 1880 and 1920 their share fell to a little more than 10%.<sup>10</sup> All other occupational groups also diminished in importance from 1870 onwards. Female labourers became scarce around 1900. Female farmers (usually widows) had nearly completely disappeared from the records by that time. Even the diverse group of other occupations shrank to unimportance, as the fall in occupations of widows of tradesmen and artisans was not compensated to a similar extent by the increase in mentioning of new more modern female occupations like female teachers and the like from the end of the nineteenth century onwards. All this developments together resulted in only about 15% of the brides being reported to have an occupation at the wedding by 1920.

Interesting is the rapid disappearance of the group daughters of farmers, artisans and merchants in the first decades of the nineteenth century. Actually, brides living at home and working for instance on the parental farm, or in the family shop or workshop were nearly always registered as without occupation. As a result mainly female labourer and live-in maid were reported as occupations of first brides in the marriage registers.

<sup>10</sup> Compare Walhout and Van Poppel (2003) 313, with a quite similar continuous fall of about 40% in the 1830s to around 10% in the 1920s for a small selected sample for the whole of the Netherlands.

*Table 8: Clustering of occupations of brides in marriage registers in the province of Groningen (share of females with an occupation), 1811-1934.*

	Female with occupation			Female without occupation		
	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier	Female occupation in previous act	Female occupation on two acts earlier	Female occupation on three acts earlier
1811-1835	58.1%	56.8%	56.3%	42.8%	44.2%	44.7%
1836-1860	54.5%	52.9%	52.5%	39.3%	40.7%	40.9%
1861-1885	52.7%	51.4%	50.5%	33.1%	33.9%	34.6%
1886-1910	51.1%	49.0%	48.0%	20.1%	21.0%	21.4%
1911-1934	37.3%	35.1%	34.3%	12.7%	13.2%	13.4%

Van Leeuwen and Maas mistakenly assume that the bride and groom themselves decide on what kind of occupational was recorded in the marriage certificate.<sup>11</sup> The extent of clustering in the marriage registers make them also useless for regional comparisons based on only a few municipalities as Walhout and Van Poppel do.<sup>12</sup> The clustering effects for occupations of brides in the Groningen marriage registers over the whole period clearly show a considerable influence of the administrating servant to decide on the whether or not the bride was given an occupation in the certificate. However, clustering was until 1885 considerably less than for mothers and deceased women. There seemed to have been a mutual understanding of civil servants to register an occupation for (former) live-in servants and for widows, while daughters living at home should not be seen as having an occupation. From 1886 onwards things changed and clustering increased in importance. Presumably more and more civil servants became reluctant to register previous occupations of brides (usually maids) and occupations of widows.

*Table 9: Comparison of higher chances (odds) of mentioning an occupation of the bride when the previous marriage act also mentioned an occupation of a bride.*

	Previous act	Two acts earlier	Three acts earlier
1811-1835	1.4	1.3	1.3
1836-1860	1.4	1.3	1.3

<sup>11</sup> Van Leeuwen and Maas (2006) 184. Their argument misses the point that in practise the civil servant writing down is proved to have had an enormous room for decision on this particular subject. In this respect the suggestion of Walhout and Van Poppel (2003) 332, to investigate registers of intended marriages might be attractive, not only because of the problem of loss of females jobs just before marriage as stated by them, but also because marriage partners might have had more influence on the description of their occupations in this registers.

<sup>12</sup> Walhout and Van Poppel (2006) 322-326. They accept that occupational titles next to real participation also reflect views, however the small sample they use is in no way enough to catch the large differences in these views. Their selected municipality Midwolda is very unrepresentative with 61% brides with a reported occupation in the period 1811-1934, compared to an overall 33% for the whole of the province of Groningen.

1861-1885	1.6	1.5	1.5
1886-1910	2.6	2.3	2.2
1911-1934	2.9	2.7	2.6

NB: comparison with the chance when previous acts did not mention an occupation of the bride.

To test the quality and meaning of occupations in marriage records in a different way, we also did a detailed investigation of the occupations in the marriage certificates of girls who were known to have been a maid on a farm earlier in life. Using the wage registration on live-in servants of the Nieuw-Scheemda farm of Jannes Van Cingel and Grietje Meihuizen over the period 1869-1901, it was possible to identify 44 girls who also married (2 others died unmarried).<sup>13</sup> At their marriage date 20 of them were reported to be live-in servants (45%), 6 were called female labourers (14%) and a huge 18 were stated to have been without occupation (41%). Of course it is possible that some stopped working completely some time before their marriage, but that this had happened in 41% of the cases is difficult to believe.

For some girls there are indications that being “without occupation” might have been a rather misleading description of their previous economic activities, as they had been working for Van Cingel until shortly before their marriage. Grietje B. (born 1880) for instance left the farm as a maid 15 September 1900, to bear an illegal child 23 October, having no occupation. Shortly afterwards she married on 19 January 1901, again having no occupation. Anna D. (born 1875) was hired May 1893, but did not show up, or left after a few months. On 21 December 1893 she married having no occupation. Trijntje K. (born 1872) left the farm in October 1897, to marry without an occupation 4 November 1897 and to deliver a child on 21 December 1897. An interesting case on the quality of marriage registers is also Zwaantje W. (born 1840) who worked for Van Cingel from May 1872 to May 1873, but was nevertheless called a female labourer when she married 1 May 1873. The numbers are very small, but interesting is that this sample shows an increasing tendency in the last decades of the nineteenth century to enlist former live-in servants as being without occupation at their marriage date.<sup>14</sup>

It has to be concluded that the occupations of brides on the one hand often do not give an accurate description of their former economic activities, while they also usually do not give any clue about their future economic activities. There is a severe under registration of live-in female servants, while daughters active in the parental farm or other business are nearly consistently called without occupation, not taking any account of their possible involvement in that family business. The numerous females without occupation could have done any economic activity. The registration of live-in servants was still the most frequent; however, because this job was nearly completely restricted to unmarried females, we do not know at all what these women were going to do after marriage.

<sup>13</sup> Farm account Van Cingel in private possession; copy of the original by the author.

<sup>14</sup> Period 1872-79 30% (n=10); 1880-89 31% (n=16); 1890-99 50% (n=10); 1900-1906 67% (n=6).



## 5. Population Registers and census data

In the Netherlands we dispose of Population Registers from 1850 onwards, while there are also census lists for the first half of the nineteenth century. Most of the original counting lists from 1859 onwards have been lost, and we only have the end results at our disposal in the form of official statistics. Unfortunately, to test the quality of data we do not have such very large databases at our disposal as for the Civil Registration records. However, there are good reasons to believe that these sources are characterized by clustering, too.

The Population Registers starting in 1850 were made up using the official census listings of end of 1849. For five Groningen municipalities we analysed the occupations reported for married women (table 10). Clearly there were very diverging registration policies between municipalities. In Zuidhorn farmers' wives were nearly always reported working, while in nearby Hoogkerk no farmers' wife was, as was also the case in Appingedam and to large extent in Stedum. Wives of labourers had an occupation in Uithuizen and Zuidhorn, but not in Hoogkerk and rarely in Appingedam. In Uithuizen a large minority of 42% of the wives of those husbands employed in industry and services were reported to have an occupation. In Hoogkerk and Appingedam nearly any such wife was mentioned with an occupation.

*Table 10: Mentioning of occupations of married women in 1850 population registers, based upon the census data of end of 1849.*

	Farmers	Labourers	Others	Total
Appingedam	0%	9%	1%	2%
Hoogkerk	0%	0%	0%	0%
Stedum	2%	35%	5%	18%
Uithuizen	25%	98%	42%	66%
Zuidhorn	95%	95%	25%	64%

Source: Paping (1995) 462.

The registration of live-in servants was very good in these sources in all municipalities due to their position in a different household; there was not much discussion possible on their occupational status. However, policies for the registration of occupations of married women and also of live-in daughters diverged enormously in 1849/1850. In a lot of municipalities in Groningen these groups were also counted to have an occupation, resulting in a relatively high female labour participation for Groningen in 1849 compared with later years (see also table 12).<sup>15</sup> In later censuses these groups more consistently were excluded from receiving occupations, which resulted in a large fall in female labour participation in Groningen, especially in the agricultural sector.

<sup>15</sup> Compare Trienekens (1993); Klep (1981; 1982); Jansen (1984) 18-22.

## 6. Estimating female labour participation: an alternative approach

We have seen that the on first sight most promising more or less statistical sources for counting female labour participation do not offer extremely reliable information. All sources were defected because of severe and inconsistent under registration of female occupational activities. None showed consistent registration of female labour over time, as they seemed in many cases more to reflect specific views of the civil servant in charge than actual economic activity. There were also large difference in the treatment of the most important female groups over time.

Clearly, measuring female labour activity has to use other sources and methods also. In my 1995 thesis on the Groningen clay area in the period 1770-1860 I already suggested how this could be done.<sup>16</sup> Important is the observation that for married females and daughters living at home, the occupation of husband and father seem to offer more consistent information on their economic activities than the occupations these women were attributed in the official government sources. In general females can be divided into several groups taking into account their civil status, economic activities and living situation:

1. Unmarried women working as live-in servants
2. Unmarried daughters (and other unmarried female relatives) living at home and contributing to the parental business
3. Unmarried daughters (and other unmarried female relatives) living at home, but having paid work elsewhere
4. Unmarried women living independently (including board and lodging) doing paid work for others or working for their own account.
5. Married women contributing in one way or another to household business,
6. Married women doing paid work for others.
7. Married women having an independent (non-wage-owning) economic activity different from their male partner (rare)
8. Widows working in their own business (often, but not always the headship was taken over from the deceased husband)
9. Widows doing paid work for others.

*Table 11. Scheme with possible female working activities.*

	Live-in servant	Active in household business	Doing wage work outside household	Having an independent business
Unmarried women	X	X	X	Rarely

<sup>16</sup> Paping (1995) 68-69, 328-331.

Married women	-	X	X	Rarely
Widows	Very rare	-	X	X

The registration of unmarried servants in the governmental sources was by far the best, although in the Civil registration there seems to have been some under registration, especially in the marriage registers. The economic activities of the large group of unmarried daughters living at home were, as we have seen, usually not registered at all. The registration of occupations of unmarried females living independently might have been better, but the group was rather small in the nineteenth century. The large majority of married women was also reported as being without occupation, although in some parts of the Civil Registration and the Censuses occupation of married women were indeed listed. In those cases more than 60% of the married were having a occupation (compare table 4 and table 10). Although we did not investigate this in detail, occupations of widows seemed to have been mentioned much more often than for married women, for instance in the death records and in the population censuses. As widows were usually head of the household, they were considered as cost-winners having an occupation.

The total agricultural labour force in Groningen has been estimated previously by Van Zanden and Gooren and Heger using mainly census data.<sup>17</sup> Both estimates report only a limited female agricultural labour force. However, if we include in the labour force all persons who were economically active at least 50 days a year, not distinguishing between paid work elsewhere and unpaid work in the family enterprise, or for instance working on your own piece of agricultural land, than the share of females economically active increases to a considerable extent. There are good reasons to conclude that nineteenth century wives and daughters were reported as being without occupation, while they presumably have worked in the family business during at least part of the year. This is for instance the case for wives and daughters<sup>18</sup> of farmers and of those employers and self-employed working in the economic services (trade and transport).<sup>19</sup> Also there are good reasons to include wives and older daughters living in labourer families in the labour force. The economic activities of most of the wives and daughters still at home of husbands/fathers working in industry and in societal services were not taken into account. According to nearly all sources these women in the province of Groningen were nearly ever mentioned to have an occupation, and because of the activities of their husbands and fathers it was difficult to contribute to a large extent to his income earning activities. It has to be remarked that this situation can differ a lot in proto-industrial regions, where a lot of females were also active in for instance textile-industry.

Using all kind of different demographical and occupational information the size of each of these female groups has been estimated for several years for the Groningen clay area in the

<sup>17</sup> Van Zanden (1985, 62-78 and 426-429) and Gooren and Heger (1993, 53-69).

<sup>18</sup> In the estimates only daughters of 16 and older were included for the sake of simplicity. Female servants and other females with an explicit occupation beneath the age of 16 according to censuses were nevertheless taken into account.

<sup>19</sup> It can be shown using census data that the number of gender-division between live-in servants was strongly related to the gender-division of older farmers' children living at home: Collenteur and Paping (1997) \*\*\*.

period 1770-1860.<sup>20</sup> Using this information it was possible to come with alternative estimates for the female occupational structure in the years 1850 and 1860 which could be compared with the available census-data (table 12). The new estimates result in about a doubling of the female labour force in the Groningen countryside.<sup>21</sup> This was mainly due to a major increase in the counting of married women and live-in daughters, who were only partly (1849), or nearly not (1859) taken into account in the official statistic results.

*Table 12: Comparison of female labour in the Groningen countryside (census data) and the Groningen clay region (reconstruction) age 16 and older.*

	Census Groningen countryside 1849	Reconstruction Groningen Clay region 1850	Census Groningen countryside 1859	Reconstruction Groningen Clay region 1860
Industry	3.2%	3.8%	2.9%	3.8%
Services	8.6%	16.5%	6.3%	16.5%
Agriculture	11.6%	24.8%	11.8%	24.8%
Labourers	12.1%	25.1%	9.2%	25.9%
Without occupation	64.5%	29.8%	69.8%	29.0%

Paping (1995) 328-330.

The results of table 12 are also not completely satisfying, as we now counted a lot of wives and daughters as fulltime economically active, which seems also not to reflect reality. To solve this we have weighed different groups according to their estimated amount of working days. In my thesis I tried to make some reasonable guesses on the amount of these working days, which are presented in table 13.

*Table 13: Tentative estimates of average female labour input in the Groningen clay region (in days a year)*

	<b>1820</b>	<b>1822/28</b>	<b>1840</b>	<b>1860</b>
Live-in maids	285	285	285	285
Farmers wives and farmers daughters	200	200	190	150
Female labourers	125	100	115	140
Female heads of households active in industry and services	285	270	282	285
Female family members working in	150	100	136	150

<sup>20</sup> Paping (1995) 328-331.

<sup>21</sup> Uncomfortably, the results of the 1849 and 1859 census are not available on municipality level, so the comparison is rather rough, however, it has to be taken into account that the Groningen clay region comprised more than half of the Groningen countryside.

industry and services				
<b>Average females</b>	<b>149</b>	<b>136</b>	<b>139</b>	<b>140</b>
<b>Average males</b>	<b>272</b>	<b>257</b>	<b>263</b>	<b>266</b>

Paping (1995) 332-333. For the calculation of the average number of days the total number of working days has been compared with the total estimated number of persons in the age-group 16-70 year plus the number of persons with an occupation beneath the age of 16.

This exercise suggested a small decrease in the female labour participation from about 50% in 1820 to 46-47% in 1860. The same was done for males resulting in a fall in labour participation from 91% to 89% of the potential labour force.<sup>22</sup> This calculated share of about 50% or less is still considerably higher than the 35% (1849) or 30% (1859) female labour participation reported by the census data.

Unfortunately, we lack at the moment the information to extend these estimates for the years after 1860. The great decrease in female economic labour participation because of the rise in the male cost-winner model, however, will presumably have happened in that period. To get an idea of these developments, we will investigate in the rest of the paper more in detail what happened with two very important categories of female economic labour for the Groningen countryside: live-in maids in agriculture and often married female labourers working on farms. Both occupational female groups are also of considerable importance for the rest of the rural Netherlands.

## 7. Female live-in servants in agriculture

In table 14 estimates are presented for the development in the number of live-in maids on farmer in the Groningen clay region between 1829 and 1909. Actually, in this rural region as in others most live-in maids were farm maids, so the development in live-in female farm maids gives a good indication of the overall development of female live-in positions. Table 14 clearly shows that the number of farm maids started to fall from 1860 onwards, despite continuing rapid population growth until about 1880. The share of farm maids in the total female population fell considerably from 9% in 1862 to less than 3% in 1909.

*Table 14: Estimated number of live-in farm servants in the Groningen clay area, 1829-1909.*

	1829	1849	1862	1869	1886/1889	1909
Farm maids	3,200	3,500	4,211	3,500	3,100	1,800
Farm-hands	4,300	4,300	5,134	4,000	3,800	1,000

<sup>22</sup> The potential labour force was measured as the age group 16-70 year plus an estimate of those working beneath the age of 16 using census data. A normal year consists of 300 working days.

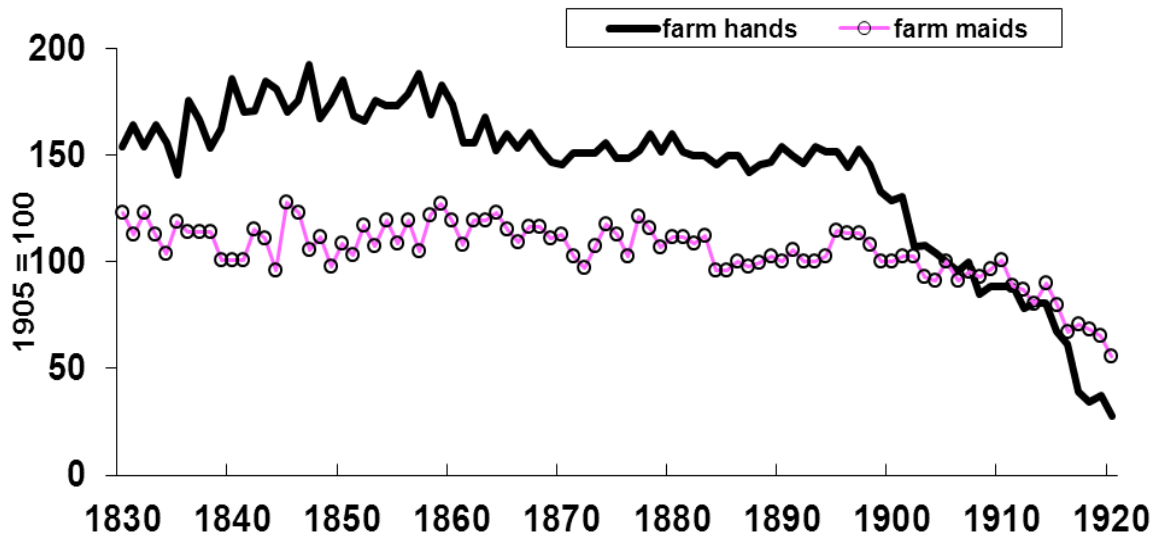
Total personnel	7,500	7,800	9,345	7,500	6,900	2,800
Maids pro farm	1.1	1.2	1,3	1,0	0,8	0,5
Hands pro farm	1.5	1.5	1,6	1,1	1,0	0,3
Total pro farm	2.7	2.7	2,9	2,1	1,9	0,8
% of population	11%	9%	10%	8%	6%	2%

Source: Collenteur and Paping (1997: 101). The estimates are, except for 1862, based upon the detailed analysis of the census data for 3 to 8 of the 36 municipalities in the Groningen clay area.

The diminishing of live-in farm maids between 1860 and 1910 also meant a fall in female labour participation. There are no reasons to think that this decrease was compensated by a strong increase in the rise of live-in servants outside agriculture. Also as we will see in section 9 for the Dallinga farm, there are only limited signs that the demand for other female agricultural wage labour increased in this period. May be more important is that live-in servants worked full-time while female farm labourers living outside the farm were only hired for a few months each year.

The number of female farm servants decreased less than the males after 1890. If we look to a sample of the hiring of live-in servants by large farms only (graph 5), it can be noticed that their number nearly did not fell before 1905 when most of these farms were still employing two to three maids. However, fifteen years later on most of the large farms only one maid was left. Until the Second World War such a live-in maid doing mainly domestic work, remained a quite usual phenomenon on the richer farms. If we contrast the information of table 14 with graph 5, it seems that the live-in female farm servants in the last four decades of the 19<sup>th</sup> century first disappeared from the medium-sized farms. Only after 1900 the large farms began to dismiss their live-in personnel. However, even on these large farms the amount of live-in maids halved in about half a century.

**Graph 5. Development of the number of live-in farm hands and maids per Groningen farm, 1830-1920 (only farms with surviving farm accounts)**

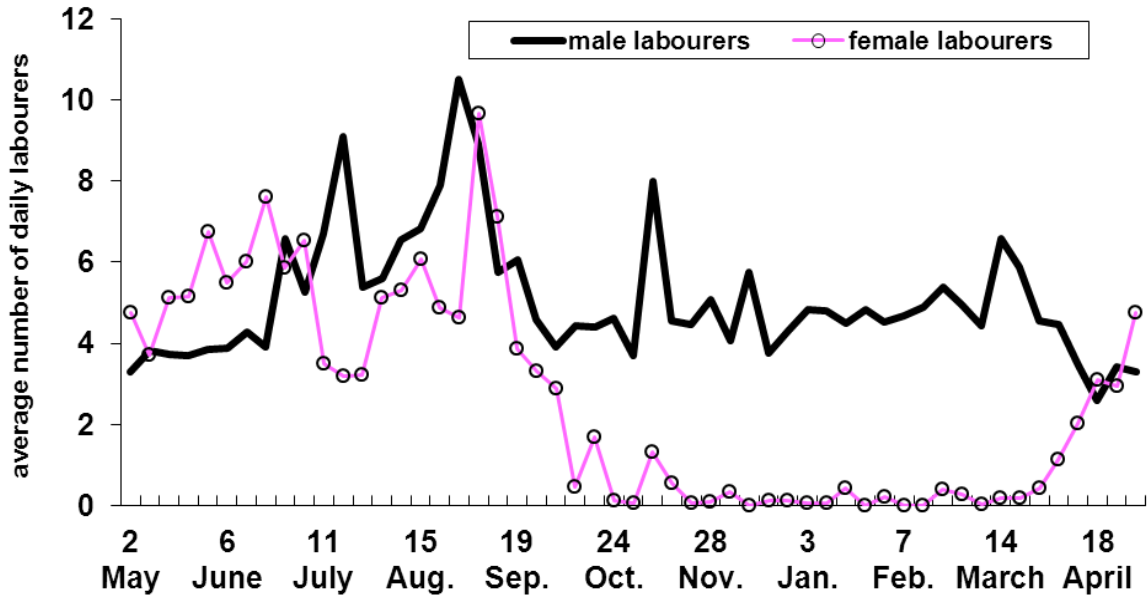


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## **8. Wage work of female farm labourers not living-in**

\*\*\*Also, more broad descriptions of economic activities will be compared with occupations of women reported in population sources.

**Graph 6: Average number of male and female daily labourers (not living in) working on a farm in Zuurdijk, 1835-1843 (weeks)**



**Graph 7: Average number of male and female labourers (not living in) working on the Dallinga farm in Nieuw-Scheemda, 1877-1905 (5-week moving average).**





*Table 15: Comparison of male and female wage work of labourers not living-in on some Groningen farms, 1770-1904.*

Years	Place	Description	Male days	Female days	Females as % of males
1770-1772	Appingedam	Farm of guesthouse	2,024	808	40%
1773-1775	Den Aniel	Farm	345	32	9%
1799-1800	Winschoten	Farm / peat digging / clay digging brick yard	7,872	2,721	35%
1803	Midwolda	Reverend's garden	148	33	22%
1803-1804	Den Aniel	Farm	202	21	10%
1816-1820	Beerta	Farm	1,890	660	32%
1835-1843	Zuurdijk	Farm	12,770	6,530	51%
1860-1863	N-Scheemda	Farm (Barlagen)	3,089	1,097	35%
1870-1874	N-Scheemda	Farm (Barlagen)	3,156	940	30%
1875-1879	N-Scheemda	Farm (Barlagen)	2,906	931	32%
1880-1881	N-Scheemda	Farm (Barlagen)	1,276	331	26%
1877-1879	N-Scheemda	Farm (Dallinga)	2,995	1,068	36%
1886-1889	N-Scheemda	Farm (Dallinga)	3,399	1,151	34%
1890-1894	N-Scheemda	Farm (Dallinga)	4,192	1,218	29%
1895-1899	N-Scheemda	Farm (Dallinga)	4,756	1,028	22%
1900-1904	N-Scheemda	Farm (Dallinga)	7,073	1,425	20%

Sources: Paping (1994) 156; Zuurdijk, estimated using wages: Groninger Archieven, Archief Torringa, nr. 6 (see also Paping 1995, 111-112, 495); idem, Archive Barlagen-De Groot; idem, Archive Dallinga.

## **9. Conclusions on the fall of female labour participation**

As became clear from the previous discussions data in the Civil Registration usually do not give a reliable description of the occupations of the females mentioned. The report of a female occupation had often much more to do with the standards of the civil servants registering these official acts, than with the actual economic activities of the female in question. More and more civil servants during the nineteenth and early twentieth century were very restrictive concerning the registration of female occupations; they rather decided to write down "without occupation". Consequently, the female labour force seemed to have diminished considerably

during this period. As there was in the same period indeed a tendency for females to perform less economic labour, the general statistics derived from these official records seem to really be in accordance with reality. However, on a micro-level they were not as most of the female economic labour in this period was part-time, a phenomenon difficult to grasp through the registration of occupations only. This part-time character of female work was confusing and created a lot of decision-room for civil servants registering official certificates.

The wives of farm labourers worked only during a part of the year, however nearly all of them participated in agricultural labour. There were nearly no married or widowed female labourers who were fulltime active in agriculture. As a result, it was difficult to say whether wives of farm labourers had an occupation or not. Presumably in the last decades of the nineteenth century the importance of female wage labour in agriculture diminished severely, at least in Groningen. For married female labourers especially the introduction of harvest machines must have resulted in less demand for their labour in summer. In general, mechanization seems to have been more detrimental for female than for male activities.

At the same time the number of live-in female farm servants started to fall shortly after 1860. Actually live-in servants were by far the most important group of females working fulltime, and possibly about half of the young unmarried women from about the age of 14-15 worked as a live-in servant. Especially around 1900 their number diminished rapidly.

It is of course dangerous to extend the conclusions on the developments of female economic labour for the Groningen countryside to the rest of the Netherlands. Nevertheless, in general some of the developments like mechanization of female agricultural labour, a fall in the number of live-in servants and a rise in the share of households depending on wage work was also visible elsewhere from the end of the nineteenth century. A more detailed investigation of the development of female wage work for different age groups and civil status in industry and services on a micro level is in that respect inevitable to create a complete and reliable picture.

For instance, female labour in textile industries in Twente at the start of the twentieth century was nearly completely restricted to unmarried females. Although a lot was and still is written on married female factory labourers having a double burden of both working and taking care of their family and household, these kind a female factory labourers were in reality an exception in Twente around 1900.<sup>23</sup> This example suggests that the rise in factory work from the second half of the nineteenth century might have been one of the reasons for the rise of the male cost-winner-model.

The actual participation of married females and live-in daughters in the business of their husband and father is also a topic that needs to be addressed much more thoroughly. We discussed shortly the role of farmer wives and daughters, a very large group in the nineteenth century Netherlands. But wives and daughters of males having an independent trade in services or industry might also have contributed actively to the family business. Official statistics are extremely unhelpful in this respect, by usually denying females such a role. Only

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<sup>23</sup> Westerveld (2012).

detailed micro-research might clarify the extent and development of this (often hidden) contribution of females to the household income. Was it only the rising relative importance of wage work in industry and services which expelled females to housekeeping and child rearing, or did their tasks also diminish in the remaining small family firms?

In conclusion, general sources do not offer a lot of possibilities to precisely describe the development of female labour participation in the nineteenth and first decades of the twentieth century. Much more detailed research has to be done into the actual participation of females on the level of different industries. Especially, the development of the participation of females in agriculture and of relatives (wives and daughters) in small family firms in industry and services seem to have been topics which have been largely neglected in literature, mainly because of the lack of 'easy' source material.

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