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The living standards of the labouring classes in Sweden, 1750–1900: Evidence from rural probate inventories

Erik Bengtsson & Patrick Svensson

The living standards of the labouring classes in Sweden, 1750–1900: Evidence from rural probate inventories*

*Erik Bengtsson** and *Patrick Svensson*^

Abstract

This paper presents new estimates of the living standards among the rural labouring classes in Sweden from 1750 to 1900. Starting with a database of more than 1,000 probate inventories of rural landless and semi-landless people from the benchmark years 1750, 1800, 1850 and 1900, we study the development for crofters in particular. We measure their assets and debts in great detail, mapping the development of material living standards over time. We show that the typically used real wage approach to living standards gives only a partial impression of the development of proletarian living standards. Above all, the decline of Swedish living standards from 1750 to 1800 is overestimated because of overreliance on grain prices for the CPI. We show the advantages of using probate inventories for studying living standards, since they give a composite estimate of households' material conditions, no matter what combinations of wage-labour, subsistence work and by-employment are used. This has relevance not only for Sweden, but for studies of historical living standards in general.

Keywords: living standards, wealth, poverty, inequality, probate inventories, Sweden, rural workers

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1. Introduction

The development of the living standards of the labouring classes are among the most important debates in economic history. The debate continues to be very lively today (e.g. Hatcher and Stephenson 2018). The purpose of this paper is to study working-class living standards in Sweden from 1750 to 1900. We want to know who obtained the fruits of economic development; whether the living standards of the lower classes improved with the so-called agrarian revolution of rising agricultural output after 1750 (Gadd 2000) and how the rural lower classes were affected by industrialization, urbanization and emigration to America, all of which all took off after 1870?

We focus on the rural lower classes and especially the group of crofters, i.e. people who were tenants of small areas of land, not enough to subsist on; instead, they worked in various ways for the landowner (corvée labour) and for other employers. Studying crofters in detail is relevant since the Swedish population in 1800 was 90 per cent rural, and in 1900 80 per cent.¹ By 1800, the crofters as a class formed a larger share of the population than the total of urban dwellers. The methodology chosen has been to study probate inventories, i.e. lists (with valuations) of the goods owned and bequeathed by the deceased. This has more typically been used to study middle-class people (e.g. Weatherill 1988), but as Muldrew (2011: 13) has observed in England, while it is true that the poorer classes were less likely to be probated than the wealthier, in absolute numbers their probates are a rich source for the working classes too. We have looked at about 1,000 inventories for the rural landless and semi-landless that date from our four benchmark years: 1750, 1800, 1850 and 1900.

Our approach to the probate inventories starts with estimates of the evolution of living standards, building on the way that the crofters' "real wealth" – i.e. net wealth deflated by a consumer price index – develops over time. However, we believe that this approach has flaws, due to the difficulties of historical CPIs, as well as the assumption that people bought, rather than produced, food. Therefore, the main purpose of the paper is to take a more "item-oriented" approach to the inventories.

The contribution of the paper, then, is twofold. Its first – empirical – contribution of the paper is to give a partly new picture of Swedish working-class living standards from 1750–1900. The second contribution is methodological: to show what a household economy approach based on probate inventories can add to the real wages-dominated literature on

¹ This according to the official statistics (SCB 1969: 46). By this definition, only established cities and towns count as "urban", which underestimates the level of urbanization in 1900, since new industrial towns emerged over the nineteenth century. The degree of urbanization in 1900 was nevertheless low.

historical living standards. The aim is to combine the comparability of the “real wage” or, in our case, “real wealth” approach, with the realism of a more granular, item-oriented approach. While our empirical study is concerned with Sweden, a relatively peripheral case in the literature on historical living standards, it has methodological and analytical implications for the general debate.

2. Methodological approaches in studying historical living standards

2.1 Real wages

The leading methodology in research on historical living standards is studying real wages, namely, the money wage of a worker group (typically building workers in long-run studies) deflated by the price of grain, or by a more complex basket of goods. This parsimonious approach has great advantages because it facilitates comparisons of living standards between countries, as Allen’s (2001) influential paper does, and over long stretches of time, as does Humphries and Weisdorf’s (2015, 2019) recent study of English wages since the 1200s.

In the great debate on the living standards of the British working class during the industrial revolution, a debate which was intense in the mid-twentieth century and at least up to the 1980s, the real wage approach (e.g. Flinn 1974) was contrasted with a more composite measure of living standards, taking into account various factors such as health, housing, wages, access to amenities, etc. This composite approach has also been used in Swedish research, on, for example, the living standards of saw-mill workers in the north of the country in the final third of the nineteenth century (Gustafsson 1965). Since the 1980s, the real wage approach has dominated research (as discussed by Griffin 2018).

In this paper, we do not intend to go into the debate between the real wage approach and the composite approach. Instead, we test the possibilities of an approach that focuses on the material living standards, as measured by ownership of household and capital goods. This, like the real wage approach, is an “economic” one and can be boiled down to a monetary measure, but it looks at living standards from a somewhat different perspective. Thus we believe that it can contribute something interesting. By offering the possibility of summarizing the living standard measure in monetary terms, it becomes comparable with the real wage approach, and it also facilitates a discussion of the shortcomings of the money-based approaches.

For there are reasons to look at other approaches too, in this context of real wage dominance in research on living standards. The current real wage debate – Hatcher (2018)

provides a thorough discussion – has shown several possible shortcomings in the real wage approach. One is that we very rarely have information both on wage rates and on *available hours for working* (Stephenson 2018; Humphries and Weisdorf 2019). Of course, a good hourly rate is not of much help if it rewards only a few hours. The availability of work predictably varies over time and it is difficult to control for this when studying wages as indicators of living standards. Another problem is that the wage sources used most often apply to adult male workers (cf. Gary 2018: 28-32), and it is difficult to draw conclusions on actual living standards if one does not have the relevant information about the work and pay of women and children (Humphries and Weisdorf 2015). The wage data also cannot comprehend the importance (or not) of opportunities for by-employment. In the Swedish context, the investigation by Gary (2018: 69-75), for example, suggests that construction work between 1500 and 1800 was markedly seasonal and for a family to survive such work must have been combined with other income/subsistence sources. Thus, several employments and other income sources were standard for the Swedish pre-industrial working classes (Gadd 2000: 86-91; Lindström, Friebranz and Rydén 2017; Lindström 2018).

In this regard probate inventories, assessing all the items held by a household, have an advantage in that they present a “composite” estimate of living standards: the final outcome of men’s, women’s and children’s work, for wages, for in-kind payment or production for domestic consumption (cf. Overton et al.. 2004). The probate inventory presents the outcome of all these endeavours, in terms of a household’s collected items, a quite direct measure of material living standards. As de Vries (2008: 29-30) emphasizes, there is no good substantial (as opposed to pragmatic, source-based) reason for historians to focus more on formal wage labour than the many other more or less informal or entrepreneurial types of work that labouring families performed, often at home.

Of course probate inventories have other weaknesses that wage sources do not have, particularly that probates cannot be used to study short-term fluctuations in welfare. Furthermore, they are biased towards the old; we partly remedy this by paying especial attention to those who died while still of working age. But that the respective strengths and weaknesses of the real wage and the probate-based approaches are so different, means that it should be fruitful to use both approaches.

2.2 Labourers without food production? The problems of historical CPIs

A drawback not discussed to a large extent in real wage studies is that the real wage approach assumes that wage earners who produce no grain production are representative of the wider population. Among the studies in historical inequality, the most important for the problematic of uniform CPIs is by Hoffman et al. (2002). Hoffman et al. do not focus on the varying consumption patterns over time, but on concurrent class-varying consumption patterns.² Different classes consume different things: while poor consumers are hurt badly if the prices for staple foods go up, it is not a problem for nobles or the wealthy who anyway consume better and more diverse food. For this reason, they argue, inequality grew even more in Europe from 1500 to 1815 than we suppose if we look only at nominal inequality, because during this period the prices of grain grew faster than the prices of luxury goods. From 1815 to 1914, the opposite was true.

However, in the historical context it is remarkable that Hoffman et al. skip the issue of the difference between people who produced their own food and people who had to buy it in the market. For grain producing peasants, the rising price of grain was not a problem – rather the opposite. The lower class households in the analysis by Hoffman et al. (2002) are all buyers, not producers, of grain. According to these household budgets, a rural worker in France in 1832 spent 49 per cent of his income on bread, and a rural worker in 1763 spent 31 per cent. Labourers in the Netherlands in the 15th century spent 40 per cent of their income on bread, and in the 18th century 30 per cent (2002: 326-327). For Swedish conditions, where urbanization was late and the separation of lower-class people from access to land was gradual, these assumptions are less valid.³ In this sense, where numbers of lower-class people may have produced more or less all their own food, to deflate their assets by a CPI that to a high degree is based on grain, seems problematic.⁴

² Hanus (2013) uses Hoffman et al.'s concept of "real inequality" to study the city of 's-Hertogenbosch, 1500–1660. "The lowest decile is assumed to consume nine shares of grain, which represents the trend in staples and necessities, and one share of industrial products. The second decile is thought to consume eight shares of grain and two industrial shares, and so on. The top decile purchases only industrial products." (2013: 747)

³ Edvinsson (2013) has pointed out that Swedish nineteenth century living standards are especially underestimated when using conventional GDP measures, because they include only monetized, market exchange products and services. Sweden was relatively rural and had a large subsistence household sector that falls by the wayside in these GDP estimates. More or less the same problem afflicts studies of Swedish living standards using real wages. From the 1750s to the 1830s, Swedish GDP was about 7 times higher than the narrow money supply (coins and central bank notes); the difference grew to about 15 times as great in the 1870s, and was about 12 times as great in 1900 (Edvinsson and Ågren 2014: 317-319). The difference between GDP and money supply suggests that most economic activities were not conducted or coordinated with cash.

⁴ On prices and probate inventories, cf. Overton (2004). However, for short-term lower-class vulnerability to grain price spikes and to harvest slumps, see Dribe, Olsson and Svensson (2017).

Furthermore, proletarians got a share of their wages in kind, not least in the form of food, and were thereby less affected by rising food prices, as shown by Lindström and Mispelaere (2015) in their study of seventeenth century mining and agrarian workers in Sweden, and by Muldrew (2011) in his study of England. In the view of Lindström and Windstorm and Mispaelere, the share of pay in cash varied from 10 to 60 per cent. Moreover, labourers often grew grain and had cattle. In England from 1550 to 1750, the share of labourers who had access to land appears to have decreased only slightly (Muldrew 2011). In Sweden, the access to some food production for the working class was probably cut off much later than 1750. The upbringing of the Socialist leader Karl Kilbom may serve as an example. Kilbom, who was born in 1885, grew up in a mill town with a father who was a blacksmith at the local iron works – a prototypical locale of nineteenth century industrialism. But in his memoirs Kilbom (1953: 27-31) remarks that after the long hours working for the company, he and his family had to take care of the sheep and hens as well as their four cows who were grazing on company-owned fields. Of course the fact that the family owned so many animals means that this stereotypically “proletarian” family actually produced a fair amount of their food themselves – as late as the 1880s, 1890s and 1900s.

To summarize, when using real wages as a measure of historical working-class living standards, we need to consider these problems: that wages were partly paid in kind, and that working-class families could often also produce food independently. These points make it necessary to think again about the use of CPIs and food prices to deflate labourers’ incomes.

2.3 Probate-based approaches

Given the remarks above, there are good reasons to believe that the labouring classes in Sweden during the eighteenth and nineteenth centuries survived by combining several different versions of labour (in the household and in the labour market; subsistence and for sale), and that the monetary value of a these people’s wages misses many dimensions of their living standards. For this reason, we provide the first study of Swedish working-class living standards based on probate. Studies of historical living standards based on probate inventories focus on the ownership of material goods (cf. Weatherill 1988; Shammas 1990; de Vries 2008; Muldrew 2011: Ch. 4; Ogilvie et al. 2016).

Previous probate-based studies of Britain and America have shown that a “real values” approach can give misleading, or at least, partial views on living standards. Shammas (1990: 96-98) found for England from the late sixteenth to the late seventeenth century that

prices of consumer goods such as textiles fell heavily. Therefore, the measured monetary wealth of households fell, but in terms of actual living standards as evidenced by households' assets, they improved. Main and Main (1988) found the same for Connecticut and Massachusetts from 1640 to 1774: the price of many consumer goods fell, so it looked as though they grew poorer over the period, given the consumer price-deflated ("real") value of people's assets. Instead, nature of their household items – linens, fine earthenware, silverware, books, watches and clocks, etc. – suggested that the material living standards of the New Englanders in fact improved.

A problem with the probate-based approach is that it can become very time-consuming and pointillist, providing a heap of details (so many clocks, that many cows, etc.) without analysis or comparability between studies and over time. Below we try to balance the parsimony of the real wage – in our case, real wealth – approach with the more detailed look made possible by a probate approach.

3. Historical context: Sweden, 1750 to 1900

The 1750 to 1900 period was one of thorough transformation of the Swedish economy. The period from c. 1750 to 1870 is typically labelled the "agricultural revolution", with growing productivity in agriculture, the breakaway from the Malthusian trap, and the combination of a growing population and rising living standards per capita (Gadd 2000; Olsson and Svensson 2010). As in Britain (Overton 1996), it was not only a process of growing productivity, new crops, techniques and tools, but also a social transformation. In 1750, four fifths of households in the Swedish countryside were landholding peasant-farmer households, owners or tenants; by 1850, however, this share had fallen to a half (Winberg 1975). The living standards of farmers rose impressively, especially during the nineteenth century (Bengtsson and Svensson 2019), but it appears that class differences in wealth and social standing between the land-holding and the proletarian or semi-proletarian classes grew (Bengtsson et al. 2018).

Nonetheless, there are also good reasons to pre-suppose improving living standards for Swedish labourers. As mentioned, the agrarian revolution increased productivity in agriculture, and after 1850, industrialization took off. However, studies of working-class living standards during the period are typically limited to intensive studies of particular groups and locations (e.g. Gustafsson 1965), or very abstract, macro studies. For this reason, we believe that the actual living standards of the labouring classes are still an open question.

We do know that rural proletarian and semi-proletarian groups grew significantly after 1750. Table 1 shows key facts about the number of agrarian households between 1750 and 1900 in the following categories: farmers, crofters, cottagers, and contract workers.

Table 1. Agrarian class structure: numbers of households, 1750–1900

	Peasant farmers	Crofters	Cottagers and lodgers	Contract workers
1750	186 569	27 891	20 033	
1800	199 654	64 644	44 367	
1850	206 929	96 810	89 215	17 025
1900	264 242	72 252	54 238	41 900

Note: From Myrdal and Morell (2011).

In this paper, we study crofters especially. There are at least two reasons for studying crofters. One is simply that it was a big group: in 1800, there were more crofter households than the total of urban households.⁵ The second is that even though they have been described in social terms as the upper portion of the landless, in terms of wealth, their living standards were average, compared to those of the labouring classes – cottagers, contract workers and day labourers – overall.

First we should give some concrete details about the crofters. Crofts were single-family residences on someone else’s land – a farmer’s, a village’s or a nobleman’s – where a crofter family could combine several types of work. They had a degree of subsistence production, large or small, but also provided labour (or, in the later period, money rent only) to the landowner, and possibly also did other outwork or wage labour (on crofters as workers, see Utterström 1957: 786-825). In this sense, they are representative of the complex combination of work and survival strategies of the Swedish and European pre-industrial working classes (cf. de Vries 2008; Lindström, Fiebranz and Rydén 2017). In the early eighteenth century, a typical croft had about 0.4 to 1.2 *hektar* of land and one or a few cows. “The croft resembled a very small farm”, says Gadd (2000: 88), and the crofters were a “half proletarian” group, socially between the farmers and the pure rural proletariat.⁶ They had no

⁵ Assuming a household size of 4-5, applying this to the number of households in Table 1, and compared to the number of urban residents according to the SCB (1969).

⁶ This is also mentioned in the auto-biographies by the author Moa Martinson, describing her childhood around 1900, where crofters for example did invite rural artisans to coffee but never contract labourers, or other rural labourers (Martinson 1950: 222).

say, as landowners did, in village governance, and official society treated them to some extent as outsiders, but they were not the poorest of the poor (Rosén 2007).

A local study from southern Sweden 1766–1894 found that crofters stayed on their croft on average for 11 years (Lundh 2002: 118-119). Jonsson (1980: 53), in his study of contracts from two estates, finds that typically the contract termination time was 1.5 years, and for the crofters, therefore, tenant rights were very weak. Furthermore, the contracts contained vague formulations to the effect that crofters could be evicted for insubordination and the like. After 1870, fixed contracts became more common and they were typically for 7-10 years. Typically crofters owned their croft, i.e. the little house, but not the land it stood on. So when it was time to move they had to demolish the house and rebuild it elsewhere. As this indicates, housing standards were poor.

Writers differ on the living standards of crofters. Jonsson (1980: 55), in a study of east-central Sweden, saw them as almost equal to tenant farmers, while Söderberg (1978) in his study of southern Sweden saw them as comparatively poor. Gadd's study from western Sweden (Gadd 1983: 117, 120) found that the number of animal units (homogenized across categories) fell from 3.5 in the 1770s to 1.8 in the 1850s, and that the number of draught animals decreased from 0.9 to 0.5. Gadd argues for some polarization within the crofter group, and also shows that the number of their animals compared to farmers' stocks decreased from the 1750s to the 1850s. However, potatoes made life easier for them, as did iron ploughs. Hallén (2009) presents a full inventory for a crofter in 1800 and a farmer in the same year (2009: 67-74). The crofter home "wasn't poor, rather it had all the basics". The difference between them and farmers was that crofters had no silver – their most valuable household items were made of tin and copper. The furniture of the croft was relatively simple and probably not decorated. They had fewer and cheaper textiles than a farmer would have. But they too had expensive bedding. They had three cows, and a plough (but no oxen). In summary, the views of crofter living standards are somewhat varied, especially because of the variety among the regions. There are good reasons to expect wide variations within the group; hence, to assess their development in living standards it is essential to include crofters from all over the country.

4. Data and methodological approach

The type of source used in this study is probate inventories. In Sweden, it became mandatory in 1734 to make a probate inventory at death, for several reasons: to facilitate the inheritance process, to see to that outstanding debts were repaid, and to calculate a small tax. Swedish probate inventories are very detailed in that they include all types of assets and goods – real estate, clothing, animals, household utensils, and so on. For this reason they have been used by many researchers, on topics such as credit markets and debts (Lindgren 2002), the mechanization of Swedish agriculture (Kuuse 1970), and the clothing practices of farmers and other social groups (Tengroth Ulväng 2007). The probate inventory was made for the household of the deceased person – it lists not only his or her belongings but all the household assets, even though personal items such as clothing may be listed specifically under headings such as “spouse’s clothing”. Because of their comprehensive nature, they are very well suited to studying complex household economies such as those of crofters, building on various combinations of wage labour, corvée labour and subsistence production.

Our approach is similar to that of Horrell and Humphries (1992), who used household accounts from 1767 to 1865 to discuss the evolution of working-class living standards in Britain. For Sweden, such household accounts are not available, but probate inventories are, and they have similar advantages in that they give a comprehensive picture of the household’s living standards, in a way summarizing what the household has achieved from with all its types of work and by-employment. We may speculate that an important reason why writers on historical living standards use probate inventories so rarely is that in Britain, always the central case, probate frequency after the 1720s tailed off (Shammas 1990: 18-19), thus precluding studies of industrialization and living standards with this source. For Sweden this problem does not exist; on the contrary, probate coverage goes from rather poor in the 1730s and better in the second half of the eighteenth century to very good in the nineteenth century (cf. Gadd 1983: 56-59). We will return later on to the discussion of probate frequency and whether it may affect our results. Here, we would just add that in the Swedish received wisdom probate frequency is very much skewed to the wealthy (e.g. Lindgren 2002). We show below that its coverage is good enough for labouring people too, just as Muldrew (2011: 13) has shown for Britain.

The probate inventories come from the Bengtsson et al. (2018) dataset of about 5,000 probate inventories for 1750, 1800, 1850 and 1900. This builds on a random sample of 32 rural districts and 8 towns from all over the country; here we focus on the rural sector. We

count here as rural labouring classes the following groups: rural artisans, crofters, soldiers, cottagers, workers in factories, and servants/labourers, conditional on their residing in a rural area. To compare living standards over time, we have translated older currencies into the equivalent of the *riksdaler riksmünt/kronor* used after 1862.⁷ We then transform all values into 1800 prices by adjusting for price changes according to the historical CPI produced by Edvinsson and Söderberg (2010). Below, we discuss the issues with this type of adjustment.

5. Results: living standards, 1750–1900

We begin with a typical “monetary” or “real wage”/“real wealth” approach to living standards, i.e. we study the development of real wealth, as conventionally defined, over time. According to Table 2, living standards for rural semi-proletarian and proletarian households fell from 1750 to 1800, stayed relatively flat to 1850, then drastically improved from 1850 to 1900. It is striking that mean wealth for the rural proletariat in 1850 is half of what it was in 1750 – this in an age of agrarian revolution where from the 1780s in southern Sweden, “production growth by far outstripped population growth” (Olsson and Svensson 2010). Although most of this translated into higher incomes for the landholding class it also meant improved labour opportunities for the landless strata (Dribe, Olsson and Svensson 2017). But the finding that living standards fell between 1750 and 1800 is supported by Gadd (2000: 345), who invokes real wages (which of course face the CPI problems discussed here) and the body heights of soldiers as evidence.

Table 2. Wealth of probated rural labourers, 1750–1900

	1750	1800	1850	1900
Mean	126.6	67.2	59.8	139.3
Median	66.3	41.6	28.1	52.9
<i>Crofters only</i>				
Mean	99.8	66.4	56.3	137.7
Median	56.6	53.8	34.6	83.9

Note: All wealth in 1800 prices, as average for 1795-1805. Sample size when including crofters only: 1750, N=37; 1800, 96; 1850, 123; 1900, 87.

⁷ In the 1750 sample, estates are valued in *daler kopparmynt* or *daler silvermynt*; dkm is translated into kr by division by 18, and dsm by division by 6. *Riksdaler banco* is often used in 1800 and 1850; this is translated into kr by multiplication by 1.5. See the discussion of currencies in Edvinsson (2010).

The improvement over time is more marked in the average than in the median, which indicates lower living standards in 1900 than in 1750 for the rural working class overall. Part of the issue here is probably that the CPI used (Edvinsson and Söderberg 2010) does not fully account for the shift by the lower classes from grains to potatoes from the early 1800s onward (Gadd 2000: 256; Berger 2018). It can also be the case that many items consumed by the working classes fell in price over the period, thus giving lower “real” (CPI-adjusted) wealth even if material standards might have improved (as in Main and Main 1988). Alternatively, material standards for the working-class strikingly deteriorated during the period. Below, we compare “real” wealth with actual items owned, but first let us go into slightly more detail on the distribution within the crofter group.

Table 3. Median, poor and wealthy crofters 1750–1900

	mean	median	P10	P25	P75	P90
1750	99,8	56,6	27,6	45,2	99,1	210,3
1800	66,4	53,8	15,0	23,1	86,8	131,9
1850	56,3	34,6	-11,8	10,8	88,5	156,3
1900	137,7	83,9	-2,8	19,4	220,6	357,2

Note: All wealth in 1800 prices, as average for 1795-1805.

Table 3 shows the distribution of net wealth in 1800 prices for crofters; not only the mean and the median, but also the wealth at the tenth, 25th, 75th and 90th percentiles. Crofters in the tenth percentile in a year belong to the poorest ten per cent of the crofters: 90 per cent of crofters are wealthier. And conversely, crofters in the 75th percentile are in the “upper middle class” of crofters: richer than 75 per cent of their peers, but poorer than 25 per cent. The values in Table 3, then, indicate the spread within the crofter group for each of our four years. As we might have imagined from the literature review (Jonsson 1980; Söderberg 1978; Gadd 1983), the differences are rather large. Even though one cannot be a crofter and be wealthy, there is a variation within the group from being dirt poor to being a kind of “prosperous labourer” (to use the phrase from Whittle’s 2013 review of Muldrew 2011).⁸

⁸ One source of variation is that over the life course. This has been much discussed in the probate inventories literature (Lindgren 2002; Piketty et al. 2006). However, our calculations, not reported here, show that, for the crofters, the life course pattern is actually not very stark. They do not accumulate very much over the life cycle, and do not go into debt to buy land in the way that farmers did (cf. Bengtsson and Svensson 2019). We do, however, take care mainly to study crofters of working age.

The numbers in Tables 2 and 3 are very abstract. What did it mean to have a net wealth of around the mean in 1800? Let us take as an example Sissa Hansdotter, who passed away as a 48-year old in 1800. Her assets were worth 98 rdr, and she had debts of 27 rdr. Her inventory included a gold ring (1.32 rdr), several silver items, liquor-making instruments (3 rdr), six plates of porcelain and some other things of the same material (very low values), and a decent set of bed-linen (13 rdr). She furthermore had several tablecloths, curtains, and quite a few items of clothing (very low values). The list of items made of iron is fairly long, as is the list of wooden goods. She had five cows (10.16 rdr), two horses and a few sheep.

An example from 1850 is Maja Greta Isaksdotter, who died in December 1849 in Norra Vedbo hundred, part of a forested region of the south. She was 51 years old and left behind her husband Swen Johansson. Their wealth was valued at 95 *riksdaler* in 1800 prices (around p75). The copper category (1.44) included a cauldron and a bowl; the iron category three “worse and better pots” and some smaller pans. They had iron tools, such as pickaxes (*lövhacka*) and scythes, but no plough. They had quite a few carpentry tools (1.18) which makes sense, given their residence in a forested region, and many wooden vessels (*laggkärl*). The household inventory includes a table and two smaller tables, six chairs, two cupboards, six knives and five forks. To the kitchen belonged also “one small brown bottle” and six small porcelain plates; the family also had earthenware goods (*stenkärl*), namely, eight dishes (*fat*), two jars (*krus*) and six plates. They had a bible and “some old books” (0.32) and some bed-linen (4.22). Her clothing included a black dress, three skirts (*kjortlar*), two aprons, one wadmal sweater (*vadmalströja*) and two linen ditto, one fur, and some smaller items (6.36). The animals made up about two thirds of the value: a pair of oxen, two cows, and seven sheep. Overall, the inventories of the people studied here are not very extensive. People have a few animals, some tools, some clothing and some utensils. But the variation is interesting – for example Sissa Hansdotter’s five cows would place her in the category of a rather well-off crofter, and we are especially interested in the variation over time.

Guided by the stratification in Table 3, we made an in-depth analysis of probate inventories from thirty “typical” crofter households for each year, crofters who were at the poor end of the group, those who were at the median, and those who were relatively well-off. The reason why we wanted so much to choose crofters representative of the wider group in terms of wealth is that even though we studied only 120 crofter households in the in-depth study, we know that in wealth terms they stand for a much larger sample – the 1,000 proletarian and semi-proletarian households discussed above (see Table 2).

Table 4. Item count: 120 crofters 1750–1900

	1750		1800		1850		1900	
	Mean	<i>Median</i>	Mean	<i>Median</i>	Mean	<i>Median</i>	Mean	<i>Median</i>
Gold	0.1	0	0.2	0	0.3	0	0.2	0
Silver	0.8	0	1.5	0	0.6	0	0.7	0
Pewter	0.9	0	3.0	2.5	1.5	1	0.6	0
Stone and brass	0.9	0	0.8	0	0.9	0	0.4	0
Copper	1.2	1	2.9	2	3.4	3	3.7	4
Tin-plate	0.8	0	0.3	0	1.3	0	2.1	1
Glass	0.9	0	1.6	1	2.1	2	2.2	2
Porcelain	1.7	0.5	1.9	1	1.3	1	5.1	4
Personal clothes	11.4	7	20.4	19	12.1	12.5	5.7	1.5
Linen	3.2	2	2.8	0	1.3	0	3.1	3
Bedding	7.5	8	9.3	8	5.5	5	5.4	5
Iron: kitchen	3.5	3.5	4.6	3.5	5.3	5	5.9	5.5
Iron: tools	15.0	12.5	18.9	16.5	11.0	9.5	11.0	10
Wood: tools	24.8	22	22.7	20	4.2	3	4.0	4
Casks and barrels	2.1	2	3.3	2	9.6	8.5	7.5	6.5
Furniture	4.0	4	6.3	6	8.1	7	11.4	10
Wagons and agricultural tools	6.4	5	7.9	7	4.9	4	7.5	8
Books	1.1	0	1.5	1	1.1	1	1.0	1
Cattle	4.0	3	3.1	3	2.1	2	2.8	2
Horses	1.0	1	0.8	1	0.3	0	0.3	0
Sheep	4.7	5	3.3	3	2.2	2	1.3	0
Pigs	2.8	3	1.0	0	0.7	0	0.4	0
Poultry	0.3	0	0.1	0	0.4	0	3.6	0
Geese	0.3	0	0.1	0	0.0	0	0.0	0
Goats	0.8	0	0.1	0	0.0	0	0.1	0
Crops	0.8	0	0.5	0	0.6	0	1.4	1
Miscellaneous	1.7	0	3.4	2	10.6	10	8.3	6
Claims	0.1	0	0.5	0	0.7	0	0.9	0

Note: The “Miscellaneous” category includes, for example, bags, jars (*burkar*) of unspecified materials, fishing boats, pelts, rugs, wheelbarrows, and kitchen knives and forks of unspecified materials.

Table 4 summarizes the material living standards of the 120 crofter households, by counting the number of items held in each of 28 categories (inspired by Rosén 2007). The categories vary from pewter (*tenn*), porcelain and glass and wooden vessels (*laggkärl*), wooden tools and iron tools, to cattle, horses and sheep. To get a comparable group of thirty crofters from each

year, we took care to choose those of working age (lower than sixty years or so), to include as many active crofters as possible.⁹

It does seem that over time the animal stock declined. The average number of cattle held decreased from 4.0 in 1750 and 3.1 in 1800 to 2.1 in 1850 and 2.8 in 1900. Likewise, the number of horses decreased from 1.0 to 0.8 and to only 0.3 in 1850 and 1900. The fall in the number of pigs to 1900 is also steep, from 2.8 in 1750 to 0.4 in 1900. The only type of animal which becomes more widely held is poultry, from an average of 0.3 in 1750 to 3.6 in 1900 – and this may have resulted from the under-reporting of hens in the early period, as discussed by Gadd (1983: 69-70). However, the category of wagons and agricultural tools shows no real trend over time: the average number of items in this category goes from 6.4 in 1750 to 7.9, then 4.9, and finally 7.5 in 1900. The number of tools, of iron and wood, shows a decline over time. On the whole, the crofter group shows signs of proletarianization. In terms of cattle and tools, the drop is especially located to the years between 1800 and 1850.

In contrast, several types of consumption items increase in numbers. The ownership of glass items increases on average from 0.9 in 1750 to 2.2 in 1850 and 2.1 in 1900; likewise, porcelain becomes more common, growing from 1.9 in 1800 to 5.1 items in 1900. The number of pieces of furniture increases from 4.0 in 1750 to 8.1 in 1850 and 11.4 in 1900. The number of garments decreases to 1900, but that is to a large degree the artefact of a changing method of reporting: in 1900, it is often common for inventories to report “the clothes of the deceased” as a single item, instead of a list of constituent parts, as was the custom previously. Thus, in terms of consumer goods, the picture is not all that dissimilar to de Vries’ (2008: 124) summing up of research on seventeenth- and eighteenth-century probate inventories: “a steady rise, generation by generation, of the number, range, and quality of material possessions”.

Perhaps one could then summarize the development found in Table 4 as “proletarianization without pauperization”. By 1900, the crofters have fewer animals than their 1750 or 1800 counterparts, but more consumer goods. What is clear, we believe, is that the monetary approach adopted in Table 2 – measuring “real wealth” – overstates the decline in living standards. To say that the crofters were twice as well-off in 1750 as in 1850 is at

⁹ In our 1850 sample of thirty crofters, the average age is 45.8 years (median 44.5) and the average wealth 45.7 kr in 1800 prices (median 29.5). In the 1900 sample of thirty crofters, the average age is 56.1 (median 57.5) and average wealth is 199.2 kr in 1800 prices (median 177.5). This can be compared to the average wealth (see Table 3) for all crofters of 56.3 kr in 1850 and 137.7 in 1900 (median: 34.6 and 83.9). Our special sample of 1900 is a little too wealthy, but not seriously so, and the 1850 sample is properly representative.

least partly an overstatement, driven by the idiosyncrasies of historical consumer price indices.

The pattern of proletarianization without pauperization – can we find it among our 1900 crofters? Let us consider two examples from this year. Anna Brita Nilsson was 49 years when she died in October 1899 in the village of Värhuvud in the west of Sweden, leaving behind her widower Anders and their three underage children. The household items included a copper cauldron (4 kr), two coffee pots (1 kr), some iron kitchen items (4.15), and some kitchen items of wood including some for baking and butter making (1.75). The furniture consisted of a table, a cupboard, seven chairs, a clock, a mirror, and a bookshelf. The pieces of furniture had very low values, indicating that they were probably home-made. Her clothing included a winter coat (*vinterpaletå*), a summer cardigan (*sommarkofta*), a black dress, and four cotton skirts. Here we see not only clothing of the traditional wool and linen, but also cotton, imported and bought. She had not only a woollen skirt and a wool scarf, but also a lace scarf (valued six times higher than the woollen one). She had three headscarves (*huvudduk*), and some linen. Only one pair of boots is mentioned, 0.25 kr. The buildings were listed as one old house (*manbyggnad gammal*) worth 15 kr and one old barn (*ladugård*), with very low values – the barn was worth as much as the bedding in the house. This indicates poor housing standards, probably connected to the rather uncertain right of the crofter to the land, discussed above. The animal stock was quite limited: two cows and eight hens (which were very cheap). The cows were valued more highly than the house and the barn together.

Another example from 1900 is crofter Anders Peter Månsson, who was 45 years old when he died in 1900 in Östergötland, between the fertile plains and the forested area. He left a widow, a married daughter and two underage children. The inventory included, remarkably, 110 kr in cash. They had six tea spoons of German silver, worth 1.50, and in the copper category there were two pots, three (!) [see highlighted comment above, cf. wedding presents] coffee pots, a tea plate (*tebricka*) and other items. That both coffee and tea were consumed speak, like the cash, of modernity. The iron category starts with three pots (3 kr) and also includes frying pans, a smoothing-iron, a dozen knives and forks, and two meat knives (*förskärarknivar*). The set seems quite sophisticated by Swedish nineteenth century crofter standards, as does the fact that there is a large porcelain and glass category including one and a half dozen plates, eight small plates, a soup bowl, two cream jugs, a salt shaker, and a kerosene lamp (in all, 7 kr). The furniture section is quite brief: one chest of drawers (*byrå*), two beds, a sofa, three tables, one wall clock, nine chairs and an alarm clock, in all 30 kr. The bed-linen is unremarkable (26 kr), as is linen (17), and the clothing is apparently worth no

more than 30 kr. The miscellaneous category includes two butter tubs (*smörbytta*), caskets, coffers, and a number of small tools. The farm tools category includes a major modernity in the form of a thresher worth 50 kr, which is quite normal for a Swedish farmer in 1900 (Kuuse 1970; Bengtsson and Svensson 2019), but rather remarkable for a crofter. This is the greater part of the 76 kr of the category. They had two barrels of rye, half a barrel of barley, two barrels of oats, and two barrels of potatoes. The animals comprised a pair of oxen (150 kr), two cows and a calf (155) and two sheep (20). It all added up to 764 kr in 1900 prices, but they had 160 kr in debts: 54 for the funeral, 100 for the year's rent for the croft, 2 in taxes, and 4 for the probate inventory fee.

We have moved from the very abstract – average wealth in four years – and the rather abstract – average number of items of different types held – to the very concrete: the inventories of Anna Brita Nilsson and Anders Peter Månsson. What is the upshot, what conclusions can we draw? One is that over the nineteenth century crofters probably were proletarianized. Their animal holdings declined over this period, and so they must have become more dependent on corvée labour and on wage labour. At the same time, no major fall occurs from 1750 to 1800. This puts in question the common assertion of drastically worsened living standards for the Swedish working-class and “rising poverty at the end of the eighteenth century” (Gadd 2000: 345; cf. Söderberg 2010; cf. Gary and Olsson 2019). We think that the investigation here gives reason to think twice about the hitherto rather uncritical application (with the exception of Hoffman et al. 2002) of historical consumer price indices to study the development of living standards over time. The questions of labourers' own food production (as in Muldrew 2011), and subsistence production generally (as in de Vries 2008) must be put at the forefront of the discussion.

6. Robustness: are the results driven by changing probate frequency?

One worry is that the results are driven by the changing representation of crofters in the probate inventories. If probate frequency increased over time so that in 1750 and 1800 only the most well-off crofters were probated, while in 1900 all were, then we will get a bias in our results whereby the 1750 and 1800 crofters look artificially richer than they actually were. Adjusting for such intra-group heterogeneity is difficult (Lindert 1981: 662-664).

One way to deal with the heterogeneity is to see whether the likelihood of a deceased crofter being probated increases significantly over time. If so, then we would expect that poorer crofters in the early years were not probated, and that we get a bias if we compare

probated crofters in 1750 with those probated in 1900 without taking account of the change in the probate process. To check for such possible problems, we have taken an in-depth look at three districts (*härader*) that are included in our dataset: Simtuna and Skärkind in east-central Sweden, and Östra, in the southeast. Simtuna includes six parishes, Skärkind five parishes, and Östra ten, and we have gone through the death books for each parish to match the deceased with those probated.

Table 5. Probate representation in Simtuna, Skärkind and Östra, 1750–1900

		Crofters			Overall		
		Dead	Probated	Probate frequency	Dead	Probated	Probate frequency
SIMTUNA HUNDRED	1750			n.a.	209	67	32.1%
	1800	12	8	66.7%	163	112	68.7%
	1850	15	11	73.3%	134	83	61.9%
	1900	29	20	69.0%	212	161	75.9%
SKÄRKIND HUNDRED	1750	12	5	41.7%	119	28	23.5%
	1800	27	15	55.6%	120	55	45.8%
	1850	14	5	35.7%	51	30	58.8%
	1900	24	18	75.0%	136	81	59.6%
ÖSTRA HUNDRED	1750	0	0	n.a.	156	32	20.6%
	1800	13	10	77.0%	268	102	38.0%
	1850	44	25	56.8%	378	141	37.3%
	1900	90	52	57.7%	626	317	50.6%

Note: Only residents of the parishes in question of 20 years of age or older are counted.

Probate inventories were made at some point after death, typically at some point between one week and one year later. They are not typically archived in completely chronological order, neither after the date of death nor after the date of the inventory. Instead they are archived after the judicial assembly (*ting*) in which they were accepted. The *ting* was held twice a year. That they are partly jumbled means that for each benchmark year, our probates are typically drawn from two adjacent years: 1749–50, 1799–1800, 1849–1850, and 1899–1900. For this reason, the probate frequency test here in every case here involves two years: we look for probates for all those deceased in the two-year pair as above. We go through the probate inventories for both years and at least one more (1751, 1801, 1851, 1901) to ascertain that we have found all the relevant probates. In Östra, the missing probates in 1750 results in this year's being represented by the years 1768–69.

Sources: For Skärkind, sources are church death books from the parishes Skärkind, Gistad, Gårdeby, Östra Ryd and Yxnerum, and probate inventories from Skärkind häradsrätt (district court). For Östra, the church death books from the parishes Augerum, Jämjö, Kristianopel, Lyckeby, Lösen, Ramdala, Rödeby, Sturkö, Tjurkö and Torhamn, and probate inventories from Östra häradsrätt. For Simtuna, the church books from the parishes Altuna, Enåker, Frösthult, Norrby, Simtuna, and Tärna. We exclude the parishes Västerlövsta and Nora since part of them lie outside the hundred, which complicates the comparison. The probate inventories are from Simtuna häradsrätt for 1750-1850 and from Västmanlands Östra domsagas häradsrätt for 1900. We have not found death books for Frösthult after 1894, so the 1900 study builds on the death books from the five other parishes.

It should be noted that much of the picture in the previous literature of a steadily increasing frequency of probate over time has been disproportionately influenced by Isacson's (1979) findings for one single parish in north-central Sweden. (Cf. discussion in Gadd 1983: 56-57.) In the present paper, the test is reproduced for twenty-one parishes. Table 5 reports our results: the number of dead (adults) from the church death books, and the number of probates, for crofters and overall, for our four benchmark years.

The main conclusion we draw from Table 5 is that there are major regional variations in probate frequency, and in the trends of probates, but no linear increase in the likelihood of probate among the lower classes. In addition, the overall likelihood for all social groups of being probated is generally stable from 1800 to 1900. It is only between 1750 and 1800 that we find in all three districts growing probate frequency, and this is a period where we find no trend in the ownership of goods (see Table 4).

In summary, we find no reason to believe that the results of the paper are driven by a changing representation of the crofter group in the probate records.¹⁰ However, the results in Table 5 point to important regional/local differences that should be considered in future research.

7. Concluding discussion

The empirical investigation of this paper throws new light on the evolution of the living standards of the labouring classes. The divergence between actual material holdings in 1750 to 1800, and the astonishing drop in "real wealth", gives us cause to think again about the problems of historical consumer price indices, and how to think about working-class living standards in contexts where much labour is not rewarded by a money wage, and labourers partly produce their own food (here we follow the contribution of Muldrew 2011). We would

¹⁰ See also Willner's (2020) study of five parishes in south-eastern Sweden (Kronoberg county). His study indicates that among married people and widowers in the age-group 20-59 (his sampling strategy), probate frequency was 86 per cent in the 1780s, 88 per cent in the 1790s, and still the same in the 1870s and 1880s.

argue that the information one can get from probate inventories, about the ownership of animals, grain, tools and other productive goods, as well as household goods, can contribute an important dimension to a debate on living standards which has to a large degree become dominated by the real wage approach.

Our results should not be interpreted to suggest that everything was rosy for the crofters. Inequality still increased in the rural sector. According to the Bengtsson et al. (2018) dataset, the farmer/crofter wealth ratio was 2.5 in 1750, 4.6 in 1800, 5.1 in 1850 and 10.9 in 1900. Much of this was driven by land prices, which rose rapidly especially after 1850 (Bengtsson and Svensson 2019). This inflated the estimated wealth of farmers. It also meant, in a dynamic perspective, that it became more and more difficult for a crofter or rural proletarian to advance into the freeholder class. Decades of hard work were by 1900 not rewarding enough to allow a farm to be bought. Exit from agriculture *tout court*, to the cities and to industry, was the more rational route for the rural underclasses (cf. Svensson 2002: 185). We must also admit that this paper has looked at the crofters only. According to the probate inventory database they were not markedly richer than the group of rural workers and servants (in fact, for 1850 and 1900 the probated values of the latter group were superior), but the growth of the contract labourers group after 1850 probably still pushed the living standards of the average underclass rural household downwards. This highlights the need for historical studies of living standards to focus, like the literature on the real wage, on the incomes of one particular group, but also to discuss the relative weight of this group and how it changes over time. Interestingly, the partial “proletarianization” we have mapped for the crofters probably made them more dependent upon wages around 1900, which makes the real wage approach more appropriate then. In Magnuson’s (2018) telling phrase, the late nineteenth century and early twentieth century was an era of “uneven monetarization”. The crofters probably became more involved in the monetary economy from the late 1800s onwards.

We must also remember that in an unequal society, crofters’ living standards in the early 1900s were still comparatively low. The crofter cottages were better furnished and would smell of coffee more often than they had fifty years before, but there were still serious structural problems for the crofters’ living standards. When the investigative journalist Lubbe Nordström travelled around the whole country in 1938 to judge the development of living and especially housing standards in what was then an aspiring welfare society, he was frequently appalled by the housing of crofters. To an old friend he bumped into in the city of Norrköping, surrounded by historical agricultural land, the otherwise mainstream author

exclaimed: “I’m becoming a Bolshevik!” (Nordström 1938: 70). This was in response to the “stench of my experience” from the backward housing standards of the lower classes, especially agrarian workers: the houses without foundation were built directly on the soil, damp, draughty, disease-ridden. The continuously poor housing standards for crofters are also an important reason for not getting too carried away by the improvement in “real wealth” from 1850 to 1900. Crofters’ stocks of consumer goods improved, but the fundamentals of the housing situation probably did not improve much. With no ownership of the land that the croft stood on, and no certain long-run tenants’ rights (cf. Jonsson 1980; Lundh 2002), the crofters’ buildings probably did not improve much over time.

Another factor in living standards that has not been considered here is that of health and life expectancy. Browsing through the church death books of this period, one is struck by the very high death rates for new-born babies in Sweden, not least those in crofter families. On this point, living standards did improve in the second half of the nineteenth century. Public health knowledge and interventions improved in Sweden from the 1870s on, and the increased employment of qualified midwives lowered infant as well as mothers’ mortality (Lazuka 2017: 14-17). This would have been a major improvement of crofters’ living standards too.

There are several ways forward from this paper. As Hanson Jones (1984: 253) comments, real wage estimates are never “as real as we would like them to be”. To corroborate wider and more comparable quantitative estimates, more granular, detailed approaches such as the one taken here would help to advance our understanding of historical living standards. Another further research project would be to investigate the living standards of other working-class groups using probate inventories. To understand the development of working-class living standards overall, we need to consider more sub-groups than the crofters. The Swedish literature on probate inventories has often said that these disproportionately represent the wealthier segments of the population; admittedly they do, but it is also true, as Muldrew (2011: 13) says à propos of England, that the absolute number of inventories is so great that they are useful for studying the labouring classes too. This would be a promising way forward.

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Probate inventories database, available from the authors upon request. For overall discussion of the original sampling see Bengtsson et al. (2018). Probate inventories from 32 local judicial districts (*härader, tingslag, domsagor*) archived in various archives all over the country. The probate inventories have been digitalized and are available from Arkiv Digital, <https://app.arkivdigital.se>.

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