HOUSEHOLD PRODUCTION AS AN ECONOMIC RESOURCE FOR LOW–INCOME FAMILIES

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Abstract

Household disposable income and the level of consumption are the main indicators of households’ economic resources. Both of these measures exclude goods and services that households produce for themselves, such as meals, accommodation, care, and clean clothes. These are basic necessities of life, which have to be provided in one way or another. The economic contribution of these goods and services is estimated by household satellite accounts compiled in several countries. Based on economic theory it is assumed that poor people consume more household production than wealthier ones because of their lower productivity in the labour markets. However, the empirical evidence is fragmented and scarce. This paper does two things. Firstly, it examines the volume of household production in different income groups using Finland as a case study. Secondly, it reviews international research on household production in relation to poverty.

Data for the Finnish case study is drawn from the Finnish household satellite accounts 2001, which applies the theoretical framework of the SNA. Comparisons are based on the values of household production by income quintile formed by (A) gross income of households and (B) gross income of households per capita. The results show that high–income families actually produce more household services than low–income families when using the (A) quintiles. The amount of work is more evenly divided between income groups than raw materials and durables needed to service production, which were clearly higher in the highest income quintile households. With the (B) quintiles, household production was highest in the middle quintiles. However, the results vary by type of service: for meals, the differences between income groups are smaller than, for instance, for care. The results indicate that factors influencing the amount and value of household production are multifaceted and are only to small extent due to household income. Household production is often
assumed to fall to a minimum in wealthy societies due to outsourcing. This does not seem to be the case, which indicates that we do not know enough about the dynamics of household activity and decision making related to the production of services.

A review of the literature on household production reveals that a great deal of research has been done in European countries and on other continents. However, it is not possible to make comparisons between countries concerning the relative shares of household production to GDP due to the slightly different methods applied or described. There is a need for an agreement among researchers in the field to examine the scope for harmonising the method, at least on some level. This would help us make better use of the research already done and of future research.

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Introduction

Household disposable income per consumer unit is widely used as a measure of economic resources. The other side of people’s economic resources and wellbeing is consumption, measured as the level of consumption and availability of goods and services. Both of these measures exclude goods and services that households produce for their own consumption: meals, accommodation, care, clean clothes, etc. No one denies the impact of consumption of these goods and services on individual wellbeing, but somehow they have not been interesting or important enough to be included in the official consumption figures.

The reasons for the reluctance to include household production in official figures, and consequently their invisibility may be many and diverse. The provision of these services is more or less the responsibility of families and individuals. Only if they are totally incapable of providing them will the community step in to help. These services have also been called ‘life care services’ because of their fundamental nature (Ireland & Riccardi 2003).

Household production and, especially, domestic work is strongly related to gender. In many developing countries, women and girls bear the responsibility for housework and child care in a family. Domestic work is seen to impede women’s and girls’ efforts to obtain education and participate in paid work. Combining paid and domestic work is difficult because of undeveloped infrastructure. Poor water and fuel supply increases the time needed for domestic work (Cash,
Sellers and Claps 2005; Global Conference… 2005, p.30). In this way, household production can be seen to keep people in poverty and not the other way round. But what would be the alternative? If meals and accommodation must be purchased instead of providing them oneself, money is needed. So it is a vicious circle.

In developed countries, the work–life balance is a much discussed issue. In the Nordic welfare state model, governments provide more services than in other models: the public sector provides social services such as child care and elderly care, school meals, etc., at a low price or free of charge. Markets, in turn, offer services and goods which facilitate outsourcing of life care services, e.g. meals (eating out) and services for home maintenance. So, in richer countries there are a number of options available to families in choosing how life care services are provided. But again: they are services that we cannot do without.

The economic approach to household production focuses on individuals’ rational choices between paid and unpaid work in time allocation. The studies have very much applied Becker’s theory on the allocation of time. People specialise in work in which they are most productive. This is based on the hypothesis of rational behaviour and utility maximisation in the allocation of time. Time and money are regarded as total substitutes for each other. The theory has, however, been applied mostly to the division of paid and unpaid work between men and women in a family, and consequently to the distribution of welfare within families (e.g. Saunders, O’Connor and Smeeding 1998). Research also suggests that when intra–household resource allocation is taken into account in the measurement of poverty, women “lose” and men and children “gain” because of the unequal sharing of resources in the household (Findlay and Wright 1996).

Frazis and Stewart (2005) examined the influence of household production on inequality measures in the USA without referring to intra–household allocation of resources. The starting point was household production models (e.g. Gronau 1986). The models predict that high–wage workers will spend less time on household production than low–wage workers. Their results indicated that trade–offs between money income and household production did not tend to play a large role. Data problems made the calculations difficult as time use data for “real” households were not generally available.

An interesting case study of the relative weight of domestic work in household economies has been carried out for the area of Barcelona, Spain (Carrasco et al, 1990). Based on a household survey, the study estimates for three income categories of households: (a) the value of domestic work, (b) the
value of social services received (social wage), and (c) total household earnings. The results show that, although the absolute value of domestic work is higher for the middle income category (followed by the lower category), its relative weight within the total of (a), (b), and (c) is greatest among the lower-income households (50.9%), followed by middle-income (40.9%) and higher income (20.5%) groups.

It can be concluded from previous research that results vary. The issue has been examined from the perspective of intra-household allocation of resources on the one hand, and the perspective of total household income on the other. The availability of appropriate data may have restricted the number of studies in this field. There is a need for a combination of data on time and expenditure and data on household income.

This paper aims to consider two questions. First, do poor households in Finland produce more household services than wealthier households, and second, is the size of household production compared to the total economy bigger in poorer countries than in richer countries?

The paper proceeds as follows. First, the method and data for estimating household production by income quintile are described. Next, results are presented by type of services produced. Then, the results are discussed and the conclusions presented. Finally, the second question is considered with reference to the relevant literature.

**Do low-income households produce more household services than high-income households?**

Finland as a case study

The question is elucidated by estimating household production by income quintile. Income quintiles were calculated in two ways. Households were ranged according to (1) gross income of the total household (QA) and (2) gross income per household member (QB). These two types of quintiles are used because time use data did not include information on family income by consumer unit. At the same time, we have no knowledge of the effect of economies of scale on housework time in larger families. So it is more explicit to use “real” incomes and incomes divided by the number of household members as a basis for ranging households by gross income.
Data

Data was drawn from the material collected and calculations made for the household satellite account produced by the input method. Time input consisted of the total time use of households (the sum of domestic work time of all members over 10 years of age). Data came from the Finnish time use survey 1999–2000, conducted by Statistics Finland. Consumption data was taken from the household budget survey 2001, again by Statistics Finland. Both surveys included information about the gross income of households. The two data sets were combined according to the income quintiles that households belonged to.

Method

Inputs into household production were then calculated by income quintile. Domestic work time was valued by the replacement cost of the generalist housekeeper. The gross wage was EUR 10/hour. According to several studies this is about the price at which households were willing to buy household services from the market (Varjonen et al 2007; Alaollitervo 2006). Consumption expenditure by income quintile was divided into three groups: raw materials (intermediate consumption), purchases of durables needed for home production, and purchases of final consumption products and services (ready–to–use products). Final consumption products do not belong to household production. They are a means of outsourcing it.

Results

The results are shown by input: value of work, spending on intermediate consumption, and durables purchased (capital consumption was not applied here) in 2001. Values of inputs are presented as euros per household per year.

Household production as a whole

Figure 1a shows that total household production increases as income increases. However, the highest income group, QA5, spends slightly less time on household production than QA4.
Figure 1a. Household production by income quintile QA

Figure 1b. Household production by income quintile QB

Figure 1b, by contrast, shows that the value of production by QB1 is higher than by QB5. The largest difference is in the value of work. Low–income households use more time to work and less money for intermediate consumption and durables than families in highest quintile B. But altogether the highest value of work seems to be found in the middle–income households.

Earlier results from household satellite accounts show that stage of life and household type are very important factors in the amount of household production. It seems that the presence of children increases the amount and the same is true for the age of the household members: the older they are,
the more time worked. Most families with children are found in income quintiles QA4 and QA5. They have relatively high incomes but they also produce a large amount of services for themselves. This may be one reason for the result.

Next, we take a closer look at meals and care services. These are very different services by nature and they are outsourced in different ways.

**Meals**

Meals and snacks can be provided in many different ways. The supply of market services such as ready–prepared meals, eating out and ready–to–eat foods is varied and abundant. Yet meal preparation takes, on average, more domestic work time than other domestic activities.

![Meal preparation](image)

**Figure 2. Meals prepared at home by QA**

In figure 2 we see that meal preparation time does not change much between income quintiles but the expenditure on ingredients is higher in high–income households. It cannot be concluded that low–income families replace money with time – they may buy less expensive ingredients for meals than high–income families. But figure 3 shows that they also outsource meal preparation less than other households. They spend less money on eating out and ready–prepared meals.

However, in the case of meals, the number of consumers in a family becomes relevant. There is usually no discount at restaurants for large families. Therefore it is interesting to see Figure 3b,
where the number of people is taken into account in producing the income quintiles. Ready-to-eat foods include foods that do not need any preparation before eating. Fruit, ice cream, sweets, chocolate, yoghurt, etc., belong to this group. Ready-prepared meals are full meals bought from the supermarket that can just be heated in the microwave before eating.

![Outsourcing of meal preparation](image)

**Figure 3a. Outsourcing of meal preparation by QA**

![Outsourcing of meal preparation](image)

**Figure 3b. Outsourcing meal preparation by QB**
Families in QB5 spend more money on eating out than in QB1 but other types of outsourcing stay roughly the same in each quintile. It is difficult to construe the difference between the figures 3a and 3b other than by concluding that everyone needs to eat and that eating habits are very similar among the Finnish population.

Care

Care is different from meals in ways that make it less easy to outsource: it needs personal attendance, more or less continuously. In Finland, the public sector provides the bulk of day care for children. It is a “subjective right” for a child under school age to receive public day care. For the elderly who need it, care is available in principle but not always in practice. Market services are developing, gradually, but for most people they are not yet available, and many people just cannot afford them.

How is care provided by families in different income quintiles? In figures 4a and 4b, “transport” refers to the time spent on care–related transport, so actually it is also work time. “Expenses” includes money used to buy toys, nappies, and other items need for care. It also includes payments for private or public care services.

![Care for children and adults](image)

**Figure 4a. Care for children and adults by QA**

Care seems to be concentrated in Q4 and Q5. This may be explained by the fact that the majority of families with children are in these quintiles. The picture, however, changes radically when we look
at the quintiles by number of household members. Families with children move to the lower–income quintiles.

![Diagram of Care for children and adults]

**Figure 4b. Care for children and adults by QB**

The change is significant. What could explain the differences between figures 4a and 4b? One explanation could be that many mothers (and a few fathers) of families with small children stay at home for a couple of years and most mothers stay at home for at least one year. The income per person is low because only one parent is in paid work. These stay–at–home parents provide most of the care needed for the family. But what is the cause and what is the consequence? Do these families provide care because they have low incomes, or do they have low incomes because they have chosen to provide care? Obviously the latter is true. But this is not an exhaustive explanation because the amounts of expenses and travel related to care are nearly equal to those in other quintiles. Care for adults is minimal and does not influence the picture at all.

**Other services**

Other services that households provide – accommodation, clothing care, transport and travel, shopping – follow a more or less similar model to total household production. Therefore they are described here in general terms but not presented in detail. Household production for accommodation increases evenly by income quintiles (QA). The share of money expenditure is
larger and the value of work smaller than for other services. For clothing, the value of work is very even between all quintiles but outsourcing varies a great deal: much more money is used for clothing purchases in the highest income quintile (QA) than in lower quintiles. Volunteer work and help for other households did not follow the normal trend. The value of volunteer work was highest in Q4 and lowest Q3. The same was true regardless of the way the income quintiles were formed, in both QA and QB.

**In conclusion**, from the Finnish case, it may be said that income does not explain the amount of household production in a family, in general. More important is the type of service in question (meals, care, clothing, or transport) and, for each type of service, two questions must be considered: what are the options for outsourcing, and how attractive are these alternatives compared to domestic production? At present, in Finland, outsourcing alternatives are well established for meals only. For care there is also the alternative of public care, but the fees are lower for low–income families, and therefore the choice of whether to outsource care cannot be explained by income.

All in all, the Finnish case shows that there need to be good alternatives available for outsourcing household production. If they are not available, household production does not change much according to household income. The stage of life and size of family seem to offer a better explanation of the volume of household production.

**Is the proportion of household production in the total economy bigger in poor countries than in richer countries?**

The second viewpoint from which to consider household production by country. Satellite accounts of household production have been developed in quite a number of countries in all continents. Not all of them include all inputs (labour, intermediate consumption, capital consumption, taxes and subsidies) but the value of labour is regarded as the value added by production.

The most feasible way of comparing countries with these measures is to look at the share of GDP represented by the value added by household production. This, again, is a very rough measure because methods of estimating it vary in many ways. They may vary according to the population included in the calculations, or the valuation method, or the type of activities included. Sometimes only women are included, or age groups vary, etc. The replacement cost method gives lower estimates than the opportunity cost method; the same is true of gross wages and net wages, which have also been used. In addition, presenting household production as a share of GDP gives rise to
more questions than answers. Some countries have time series of estimates, which give more accurate information. The figures show a downward trend for some places, such as the Basque country, Australia, Canada, and Germany. But this does not mean that household production decreased, only that it has increased less than official GDP. In Finland, the share of GDP stayed the same from 1990 to 2001.

Developments in household production may depend on many country–specific issues. For instance, Benería (1991) assumed: “As labour has become more expensive in the high income countries, self–help activities such as construction, carpentry, and repairs have increased considerably; this may result in an increase in the number of hours spent on unpaid household work, as was found in a survey carried out in France for the 1975–85 period. In these countries, a tendency towards decreasing use of paid domestic work also implies a reinforcement of this trend.”

A great number of studies exist of household production in various countries and many more will obviously be carried out in the future. Complete satellite accounts have been produced for Germany, Finland, Hungary, the Basque country and most recently, for the Community of Madrid including the gender aspect (Durán et al. 2007). Each of these has developed satellite accounts further to give more specific information about household production and its contribution to the economy.

This might be a good moment to collect researchers together to think about what the possible uses are for the versatile data that household satellite accounts provide, and what more they could provide – how this rich and copious information on the economic behaviour of households could fruitfully be used to analyse poverty, for example. The basis of the methodology has already been developed and put into use but more harmonisation, at least to some extent, is needed to be able to compare results between countries with different economic conditions. Eurostat would be well placed to drive harmonisation forward in cooperation with other international organisations.
References


