

Johanna Varjonen – Kristiina Aalto

Household Production and Consumption in Finland 2001

Household Satellite Account

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Foreword

The national accounts are a comprehensive set of statistics that provide an overview of the size and development of the economy. Their availability is a crucial issue for economic analysis. Since Finland joined the European Union in 1995, the importance of national accounts has further increased because of needs of comparability of economic data on different countries.

In the national accounts, statistics on production, income formation and income expenditure are compiled separately for different sectors, one of which is the household sector. The household sector has a dual role in the national accounts. On the one hand households have a consumer role in that they purchase goods produced in the market. On the other hand, households provide a significant share of goods and services produced in the economy. Households engage in activities that create added value and that generate welfare. However, only part of this work is included in the national accounts. For decades now national and international experts have debated the possibility of measuring household production in its entirety and showing the results in the same accounting framework with other production. Extended national accounts that incorporate household production could help to give a more comprehensive picture of the interplay and interaction between different sectors and also show what kind of shifts in economic activity occur between the sectors. Furthermore, they could improve the comparability of national economies both over time and between different countries. These are some of the key aims of the proposed Household Satellite Account.

The Household Satellite Account has been developed on the basis of the method discussion that has been going on within Eurostat (Statistical Office of the European Communities). Finnish experts have made a valuable contribution to this discussion: among them are Eeva Hamunen and Iris Niemi from Statistics Finland and Johanna Varjonen from the National Consumer Research Centre, who have been closely involved in compiling the present report. A number of other experts from these two organisations have also contributed to the development of the national satellite account at hand. The enthusiasm and excellent cooperation of all the people involved has made possible this pioneering project and given it access to extensive datasets and interpretations of those data. Statistics Finland and the National Consumer Research Centre have been pleased to have the country's leading experts and partners on the project steering group; they have all shown great commitment to the work of this group. Not only was the steering group a huge source of inspiration to the research team, but it also provided intelligent advice and directions on where it should head with its work.

On behalf of Statistics Finland and the National Consumer Research Centre it is our great pleasure to thank Johanna Varjonen and Kristiina Aalto for writing up this report as well as the whole project team and the steering group. The aim now is to build on this partnership and to compile household satellite accounts on a regular basis at a five-year interval or more often. We hope that this English translation of the original Finnish report will provide useful clues for teams in other countries working to develop their own satellite accounts.

Helsinki, November 2005

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Household satellite account: the project team

The Finnish Household Satellite Account was compiled in a joint effort between Statistics Finland and the National Consumer Research Centre. The latter was represented by two project team members: Johanna Varjonen who was in charge of the team, and Kristiina Aalto. The other team members were experts from Statistics Finland: Iris Niemi and Hannu Pääkkönen, representing the Time Use Survey; Kirsti Ahlqvist and Mari-Anna Berg (Household Budget Survey); and Eeva Hamunen, Taru Sandström, Katri Soinne, Sami Niemeläinen and Veli-Matti Törmälehto (National accounts). Furthermore, Seppo Varjonen of the OECD Statistical Division was consulted in his capacity as a National accounts expert.

The project steering group was chaired by Professor Eila Kilpiö, Director of the National Consumer Research Centre. Its other members were Jouko Kajanoja, Head of Social Research at the Social Insurance Institution; Jukka Lassila, Research Director (later substituted by Olli-Pekka Ruuskanen, Researcher) at the Research Institute of the Finnish Economy; Johanna Leskinen, Research Director at the National Consumer Research Centre; Immo Pohjola, Director, Ministry of Finance; Marja Riihelä, Senior Researcher, Government Institute for Economic Research; Jussi Simpura, Director of Social Statistics at Statistics Finland; Riitta Sääntti, Senior Researcher at the Ministry of Social Affairs and Health; and Ari Tyrkkö, Director of Economic Statistics at Statistics Finland. The steering group contributed actively to the project and to key decisions made in compiling the Household Satellite Account.

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Summary

The Household Satellite Account aims to make visible the non-market production of households, which is only partially covered in the National Accounts. All economic analyses depend on systematic data compiled in a given, structured format. However, no such data have been available for household production, so far. The purpose of the satellite account is to fill this gap.

The Household Satellite Account measures and describes the value of the goods and services produced by households for their own final consumption. The main part of household production is outside the scope of GDP. Satellite Account is conceptually consistent with the core national accounts, and it enables to produce extended national accounts that include both core accounts and household production. Such extended national accounts give a somewhat different picture of economic development than the core national accounts. They are of particular interest in the analysis of long-term economic development or in the comparison of levels of production in different economies.

The Finnish Household Satellite Account has been compiled in compliance with Eurostat and SNA93 guidelines. Some effort has also been made to further develop the Eurostat method. Accounts have been compiled for ten different types of households and for different principal functions of household production, i.e. providing housing, meals and snacks, clothing, care, and volunteer work. Also shopping and travel related to unpaid work are shown separately. The Finnish Household Satellite Account describes household production in 2001.

Production not included in the national accounts is valued by using the input method. The data sources used in compiling the account were Statistics Finland's Time Use Survey in 1999–2000, the 2001–2002 Household Budget Survey, wage and salary statistics as well as National Accounts figures for 2001.

The total output value of household production in 2001 was 81.6 billion euros. Gross value added in household production was 62.8 billion euros, of which 13 per cent was included in the national accounts. The GDP is increased by 40 per cent and household consumption by almost 60 per cent when production excluded from the national accounts are included in the figures. Among the various principal functions of household production, the highest gross value added figure was recorded for housing. Its share was 43 per cent of all household production. Meals and snacks accounted 27 per cent of household production.

The volume of output varied in different types of households. Output was highest in families with small children and lowest in young single-person households. Output increased markedly with the age of the household's reference person, both among people living alone and couples. Household structure and the age of household members had a greater impact on output than gross household income.

Extended national accounts time series will provide a valuable tool for monitoring changes in economic development. In the future the aim is to compile household satellite accounts on a regular basis at a five-year interval or more often using data from the national accounts, the Household Budget Survey and the Time Use Survey.

1 *Household satellite account: needs and applications*

The Household Satellite Account describes the volume, type and monetary value of goods and services produced by households for their own use. The results are presented in a format that allows for easy comparison with figures in the national accounts. This means they can be used in analyses that cover the whole economy, including household production (Household production... 2003).

The integration of household production into the national accounts helps us to shed light on the extent of household production in relation to market production; the volume of household production as a proportion of the total supply of services and goods; and on total household consumption.

In the longer term, once time series are available on household production, we will be able to analyse the interplay between market production and household production and their relative changes. This will shed light on how new market and social innovations impact the production of households, what kinds of products move out into the marketplace and accordingly what kind of production is taken on by households. Furthermore, we will be able to study the impacts of these shifts in different types of households and in different socio-economic classes.

Extended national accounts that incorporate household production will also facilitate comparisons of economic development over time. After all, part of the changes seen in GDP are simply due to the fact that part of the work done in households has shifted to the markets and vice versa. Accounting allows for long-term economic analyses of real economic growth, productivity, income distribution and fixed capital formation. Time series provide also the possibility to examine shifts occurring between households and markets in different business cycles.

The amount of production that remains outside the national accounts varies from one country to the next, owing to differences in the stage of market economy development and family policy measures. The overall long-term trend has seen a shift in emphasis towards market production, among other things as a result of women taking on full-time employment outside the home. This has spurred GDP growth, although partly this is an indication of a shift in production from the informal to the formal economy (Taimio 1991, Varjonen & Varjonen 2003). Access to figures on the value of household production and its contribution to the economy will also facilitate comparisons of national economies. This, however, will require harmonised, transparent methods of calculation that can be applicable in all countries (Household production... 2003).

Furthermore, the Satellite Account can provide information on financial planning in households and families as well as on the various welfare decisions they make during their life cycle, for example on household consumption and investment and on the substitution of own labour for market-produced goods. The results also have direct application in such areas as family, equality and labour policy (see Landefeld and McCulla 2000).

2 *Definitions and boundaries*

Household production

Household production refers to the production of goods and services for the household's own use. Examples include preparing meals for oneself or for family members; the care of clothing; childcare; building or renovating a house for oneself; and growing berries and vegetables in one's own garden.

Productive activities are distinguished from leisure or personal activities on the basis of the third party criterion. This distinction is followed in the classification for the Harmonised European Time Use Survey (HETUS). Statistics Finland's time use data that are used in this Satellite Account follow this same classification. All activities that come under the heading of domestic work are productive activities. Studying and other forms of self-development are excluded from household production, even though they are an investment in human capital. This is based on the third party criterion: it cannot be delegated to another person. The same applies to going to the hairdresser, visiting a doctor and physical fitness exercise, i.e. "investing" in one's own physical health. The issues surrounding human capital are an area of study in its own right, and indeed human capital is singled out in SNA93 as a candidate for a separate satellite account.

Household

The economic unit in the satellite account is the household. According to Statistics Finland's definition, a household is formed by people who live together and share meals or who otherwise spend their income together. The national accounts define the household in somewhat more detail as a small group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food (SNA 1993, 4.132). A person who lives alone also constitutes a household because that household is a separate economic unit. In the National accounts, households collectively make up the household sector. Persons permanently resident in institutions were excluded from the Satellite Account, even though their households are included in the household sector.

In the national accounts households have a dual role: all households are consumers, but some households additionally take part in production. The latter are either market producers (e.g. farmers, self-employed people) or own-account producers (goods, housing services produced by owner-occupiers). In the satellite account household production is extended to comprise all services produced by households for their own use, and consequently it could be said that all households are both producers and consumers.

Satellite account

Satellite accounts are maintained separately from core accounts, yet conceptually the two systems are analogous. Their purpose is to allow for a more accurate focus on a certain field or aspect of economic and social life than is possible in the context of national accounts (SNA 1993, 2.246). Satellite accounting methods have been developed by various international organisations in collaboration with experts in this field. Guidelines jointly issued by the EU, UN, OECD and WTO are now in place for the compilation of a tourism satellite account. Finland published its first tourism satellite account in 2004 (Savela et al. 2004).

In the past decade or so much effort has been devoted to developing the methods of household satellite accounting. Eurostat has commissioned and funded two methods reports (Varjonen et al. 1999 and Household production ...2003). The present Satellite Account draws on the guidelines of these publications.

Scope of Household Satellite Account

The Household Satellite Account covers the components of household production that are included in the core national accounts as well as those that are excluded from the core accounts. In other words, it includes all production by households for their own use.

Table 1 illustrates the scope of the Household Satellite Account as well as the partial overlap between the satellite account and the core national accounts. Activities shown in italics are included in both accounts. This overlap is taken into account when the satellite account is integrated with the core accounts so as to avoid double counting.

Table 1. Scope of the Household Satellite Account					
SNA production			Non-SNA production		
Market production	Household Satellite Account				
	<i>Volunteer production (goods)</i>	Household production for own use			Volunteer production (services)
		<i>Housing services produced by owner-occupiers</i>	<i>Own-account production (goods, particularly own-account construction of dwellings)</i>	Other services produced for own use	

3 Methods and their development

In Finland the first separate account of household production was compiled in 1943 when Valter Lindberg (1943) published his figures on the Finnish national income and household production (the value of labour) for 1926–1938. Since then the value of household labour has been measured in an extensive Housework Study by the Ministry of Social Affairs and Health (Kilpiö 1981, Sääntti et al. 1982) and in Statistics Finland’s Household Satellite Account for 1990 (Vihavainen 1995). Hilka Taimio (1991) at the Research Institute of the Finnish Economy compiled a historical series for the years 1860–1980. The above studies differ from one another both in terms of their methods and coverage.

One of the novelties of the current satellite account is that calculations have been made separately for different types of households. Furthermore, production is divided between *principal functions* of household production: housing, meals and snacks, clothing, care, and volunteer work. The principal functions and their contents are described in more detail in Chapter 4.3. Furthermore, household production is *integrated* with the household sector in the core national accounts and to a certain extent with the whole economy. This allows us to see how the inclusion of household production in the accounts impacts overall consumption and household saving, for example.

Valuation method

No market value is attributed to household production because the output from this production is consumed in the same unit as it is produced. For this reason we need to use some other method to determine a value for this production. There are two alternative approaches: the input method that is based on costs or production inputs, and the output method. The respective formulae are presented below:

INPUT APPROACH	OUTPUT APPROACH
Value of labour (hours worked x imputed hourly wage rates)	Value of outputs (quantity x price) at market equivalent prices
+ other taxes on production	– intermediate consumption
– other subsidies on production	= <i>gross value added</i>
= <i>net value added</i>	– consumption of fixed capital
+ consumption of fixed capital	= <i>net value added</i>
= <i>gross value added</i>	– other taxes on production
+ intermediate consumption	+ other subsidies on production
= <i>value of total output (sum of costs)</i>	= <i>mixed income (including compensation of labour and capital)</i>

The most interesting results, from a methods development point of view, are obtained by using both approaches and comparing results. Particularly, it is interesting to compare hourly incomes received by labour in each of the methods. The procedure has been tried out on a few occasions. It seems that for the preparation of meals and snacks, use of input approach results in higher value added compared to output approach whereas the opposite is true for the production of care and clothing (Holloway 2002, Varjonen & Aalto 2005).

In the present Satellite Account we have opted to use the input approach. This decision was made because figures on time use were available, and also because earlier studies in 1979 and 1990 used the same method (Säntti et al. 1982, Vihavainen 1995). The input method has also been used in Germany and Hungary, where satellite accounts for 2001 have already been completed (Schäfer 2004 and Sik & Szép 2003).

4 Household satellite account 2001

4.1 Data sources

Time use data

Data on time use are a key source in determining the value of labour. This Household Satellite Account relies on time use data collected by Statistics Finland in 1999–2000. This material was collected in a sample of households by interviewing all household members aged 10 or over and by giving them time use diaries to fill out. Household members kept a detailed record of their time use on the same two, randomly selected days, one of which was a weekday and the other either a Saturday or Sunday. The respondents recorded in their own words how they had spent their time during those days to an accuracy of 10 minutes. Most of the structural and background data on households and their members were collected in computer-aided interviews at the households concerned. Data on income were obtained from administrative registers.

For the Satellite Account a dataset on time use was compiled at the household level. This dataset included all households for which data were obtained on the time use of all household members aged 10 or over for at least one same day. The time use figures for different household members on that same day were summed up. The dataset comprises 4,420 household days from 2,240 different households (see Table 2). This dataset and the methods employed have been described in more detail in *Time Use in Families* (Pääkkönen 2005; in Finnish). Households were grouped into ten different types and into income quintiles on the basis of their income subject to state tax. Household time use was divided into 29 categories, which were further grouped into the six principal functions of household production. Chapter 4.2 provides a more detailed description of how this dataset was used in the Satellite Account. The time use classification and average time use in different household types are presented in Appendix 1.

Household Budget Survey data

The micro data collected for Statistics Finland's Household Budget Survey were used in compiling the Household Satellite Account for different household types. Particularly, these data were used in the allocation of intermediate consumption and household capital to different types of households and to the principal functions of household production. The Household Budget Survey is a sample-based survey that is conducted at regular intervals with a view to measuring household consumption expenditure and exploring changes in the structure of that expenditure. In addition to household consumption expenditure, it covers data on income, housing conditions, indebtedness and ownership of consumer durables. Data are also compiled on place of residence and household structure as well as on the socio-demographic characteristics of household members. Most of the

household data are collected in computer-aided personal interviews and by means of diaries in which households keep a record of their consumption expenditure over a two-week period. Data on income are obtained from administrative registers. The latest dataset covering some 5,500 households was compiled in 2001–2002. The Satellite Account was compiled using this dataset. A more detailed description of the Household Budget Survey datasets and methods is available in *Kulutustutkimus 2001–2002. Laatuselvitys* (Tilastokeskus 2004; in Finnish).

Similar adjustments were made to the Household Budget Survey dataset as to the time use dataset for purposes of compiling the Household Satellite Account: (1) A new classification of household types was developed. The content of the classification and the number of households in the sample and at the population level are described in Table 2. (2) An income variable was constructed i.e. income quintile per household. It was calculated as all household members' combined income subject to state tax.

Table 2. Types of households in the Satellite Account

	Number of households in Household Budget Survey sample	Number of households in population	Number of research days in Time Use Survey
All households	5 495	2 381 500	4 420
Persons living alone, under 45 yrs	473	317 093	512
Persons living alone, 45–64 yrs	355	270 927	319
Persons living alone, 65+ yrs	420	309 985	346
Couples, reference person under 45 yrs	436	196 231	426
Couples, reference person 45–64 yrs	822	310 906	650
Couples, reference person 65+ yrs	514	189 146	395
Single-parent families	145	80 110	161
Two-parent families, youngest child 0–6 yrs	724	257 159	582
Two-parent families, youngest child 7–17 yrs	880	245 176	587
Other households	726	204 768	442

Data from the National Accounts

National accounts figures were used in several different ways. Items from the core national accounts, such as housing services produced by owner-occupiers and own-account house construction, were drawn directly from the accounts (SNA housing). The same method was used for agricultural produce produced for own use, hunting, fishing and picking wild berries and mushrooms (SNA food). These figures for the whole country were broken down between different types of households using the corresponding proportions from the Household Budget Survey.

Figures on household consumption were another key source of information. In order to produce figures for different types of households, it was necessary first of all to combine Household Budget Survey and national accounts statistics. As a general rule, data on consumption levels were drawn from the national accounts, while detailed breakdowns by consumption category were obtained from the Household Budget Survey. Thirdly, national accounts figures were used in order to produce figures on household capital and to calculate taxes and subsidies on production.

4.2 Compilation of production and generation of income account

Determining the value of labour

In the input approach, *the amount of labour* is usually based on the amount of time spent in work. The data here have been obtained from Statistics Finland's Time Use Survey in 1999–2000. Only time spent in primary activities is included. It has been suggested that time spent in secondary activities should also be included because their exclusion greatly underestimates the total volume of labour (e.g. Floro & Miles 2003). As long as they are excluded, much of the work that is done particularly in the care of children and the frail elderly will continue to be ignored. If, however, secondary activities were to be included, a decision would be needed on how to weight these activities. Does, for instance, keeping an eye on children simultaneously with some other activity carry the same value as full-time childcare? Furthermore, if a monetary value were given to a secondary activity, should the share of that activity be deducted from the value of the primary activity? If this were the case, the calculations should be expanded to cover all other activities as well, since the primary activity may consist of unpaid work and a secondary activity may be a leisure or personal activity and vice versa. There is no general agreement on these issues this far. Therefore the amount of time for primary activities has been included in its entirety in the Household Satellite Account.

Critics point out that time use reveals nothing about either the efficiency of production or the quality of the output. In the literature there is some discussion about how the volume of labour is influenced by whether people enjoy the work they are doing, or how the amount of time at one's disposal

influences the efficiency of labour input (e.g. Robinson 1982, Ruuskanen 2004). For example, in a survey on the leisure time use, most respondents (61%) felt that cooking was “at least sometimes a pleasure and a hobby”, and the same was true for gardening. In the same survey, about one-half of the respondents said they regarded doing the laundry and cleaning “always as a routine and a duty”. On the other hand more than one-quarter said they never helped with the laundry and one in ten said they never did any cleaning up (Hanifi 2005, 128).

The international literature on satellite accounts works from the assumption that as far as household production is concerned, it is irrelevant whether people enjoy the work they are doing or whether they consider it simply a chore and a duty (e.g. Goldschmidt-Clermont 1994). After all the same goes for wage employment: it is very rarely that people are paid on the basis of whether or not they enjoy the job they are doing. Preparing a meal at home therefore has economic significance regardless of the cook’s mood, and a well-tended garden increases the value of housing services even if people did their gardening simply because they enjoyed it (see also Chapter 4.3). It is also noteworthy that the data collected for the Time Use Survey is so extensive that it probably includes people who take very different views on this matter and that these fluctuations will be smoothed away in averages.

The value of labour is calculated by multiplying the amount of time spent in unpaid work by the hourly wage of a person in an equivalent paid job. For this study we opted to use the hourly pay of generalist housekeeper/ home helper, which in the International Standard Classification of Occupations (ISCO) comes under category 51331. Earlier studies in Finland have also used this same wage to determine the value of unpaid work (Säntti et al. 1982, Vihavainen 1995). According to 2001 wage statistics, the gross hourly wage of a housekeeper and home helper, excluding employer’s social insurance contributions, was 9.99 euros/hour.

There has been much debate in the international literature on the choice of the most appropriate *wage concept* that would be compatible with national accounting principles (see e.g. Blades 1997, Varjonen et al. 1999). Should we use net wages or gross wages, or perhaps gross wages with employer contributions. Here a case in point has been the wage concept used in calculating outputs in the public sector and in non-profit institutions serving households. These calculations use gross wages including all employer contributions.

Analogously, then, we might use the same wage concept to determine the value of household production. It has also been suggested that different wage concepts might be used depending on the end-use of the results. If the purpose is to describe the expenditure incurred to a household from purchasing a service from the market instead of producing that service itself, then the most appropriate choice is gross wage plus employer costs because all these costs are included in the price of the product. If, on the other hand, the purpose is to describe changes in the household’s disposable income when it produces a service instead of buying that service, net wage might be a more appropriate choice: this is because in this activity the household does not generate social security, nor does it add to public sector tax revenue.

Different studies have applied different wage concepts to estimate the value of labour. In Germany, calculations have been based on nine different wage concepts (net wage with and without absence from work, gross wage with employer contributions, the wages of generalist housekeeper, specialised worker and average wages). Analyses of the structure of production, on the other hand, have used the net wages of housekeeper without holiday or sickness pay. The same procedure has been followed in integrating gross value added in household production into the national accounts (Schäfer 2004).

In Finland, earlier studies have used gross wage figures or gross wage plus employer contributions. The problem in determining net wages is that tax rates vary not only between different areas and regions, but also individually depending on various tax deductions.

Net wage, gross wage and gross wage including employer contributions can be determined by imputation. The following shows the figures for different wage concepts in Finland in euros per hour:

Net wage ¹ (tax % 27.9)	7.20
Gross wage, including absences (sickness, holiday)	9.99
Gross wage, including employer contributions (+20%)	11.99

In this Satellite Account the value of labour is based on gross wage excluding employer's social insurance contributions (i.e. 9.99 euros/hour), i.e. we have opted for the middle road.² The figure includes holiday compensation. However, only actual working time is included in time spent in unpaid work; all breaks, which are ordinarily included in wage earners' daily working hours, are excluded. Household production values based on different wage concepts are shown in Appendix 4.

1 Tax percentages are based on figures from the Taxpayers' Association of Finland, whose calculations were based on a monthly income of 1,500 euros and tax rates for 2001. No other tax deductions were made from annual wages than those made by the authorities, and the calculations were based on average municipal and church tax rates.

2 The one exception is that the development of the value of unpaid work from 1980 to 2001 is described on the basis of gross wages *including employer contributions*, because that is what has been used in earlier studies (see Table 7).

Consumption

Three types of consumption are distinguished in the household satellite account. Firstly, there is *final* consumption, which means the actual using up of a product: wearing clothes, eating food. Secondly, there is *intermediate* consumption, which refers to use of the product as part of the production process. Thirdly, consumption consists of the *capital* services produced by the appliances and machines required in the production process, i.e. services offered by the means of production in question throughout their service life. Capital services consist of two items: consumption of fixed capital, i.e. depreciation of machinery and equipment, and interest corresponding to the acquisition of capital. Only the *consumption of fixed capital* is included in the Satellite Account.³

For the purposes of the Satellite Account consumption of goods and services (defined as final consumption in national accounts) were divided into three groups: 1) those that are used directly to final consumption; 2) those that are used as intermediate consumption goods in household production; and 3) those that are used as capital goods in household production (durable and semi-durable goods). The principles of product classification are set out in Appendix 2 and a detailed classification by principal functions is presented in Appendix 3.

Gross fixed capital formation and consumption

Household capital goods were defined as durables and semi-durable goods that are used in household production. Calculations of capital consumption were carried out by Statistics Finland using the Perpetual Inventory Method (PIM), with an assumption that consumption is linear. Capital goods, the proportion of these goods used in household production and their estimated service lives are shown in table 3.

Estimates of service life are based on expert opinions (e.g. Work Efficiency Institute TTS,⁴ home appliance repair shops), estimates published in the Eurostat methods report (Varjonen et al. 1999) as well as figures used in German and UK satellite accounts. The service life for cars is based on average scrap age according to Finnish Central Organisation for Motor Trades and Repairs statistics in 2002.

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- 3 In principle it might be possible to consider including interest payable on capital so that the value of production calculated on a cost basis would correspond to the value of production based on the output method. After all, any normal market operation is expected to produce an operating surplus. This can be seen for instance by comparing the purchase of household appliances and equipment with leasing and rental values: the sum total of all rental payments exceeds the value of the appliances because whoever is renting them out will want to get enough money to cover not only the value of the appliances and equipment, but also the interest payable on capital; otherwise the operation will not make financial sense. However interest payable on capital is excluded from the analysis here, first, because for the time being the national accounts do not use it in the measurement of non-market production (although discussions are currently underway on the possibility of revising SNA recommendations in this respect) and, second, because the determination of the right interest rate is not straightforward.
- 4 Rytönen A, Reisbacka A (1995) Kotitalouskoneiden kestoikään vaikuttavat tekijät. Työtehoseuran julkaisu 341.

Table 3. Household capital goods, estimates of service life and proportion allocated to household production

		Service life, years	Percentage
C05111D	Furniture	15	100
C05112D	Garden and other outdoor furniture	10	100
C05113D	Lamps and shades	10	100
C05114D	Art objects	10	100
C05115D	Decorations, mirrors	10	100
C05120D	Carpets and other floor coverings	12	100
C05311D	Ovens, stoves, sauna stoves	15	100
C05312D	Refrigerators and freezers	13	100
C05313D	Washing machines, dishwashers, tumble dryers	12	100
C05314D	Sewing machines	20	100
C05315D	Electric cookers, microwave ovens, vacuum cleaners	15	100
C05510D	Garden appliances, other work appliances	10	100
C06131D	Glasses, contact lenses, prostheses, hearing aids	5	21
C06132D	Other therapeutic appliances and equipment	5	21
C07110D	Motor cars	18	30
C07120D	Motorcycles and snowmobiles	10	30
C07130D	Bicycles	10	30
C08120D	Telecommunication equipment	5	3
C09111D	Radios, sound reproduction equipment, etc.	10	100
C09112D	Televisions and video recorders	10	100
C09130D	Personal computers, calculators and typewriters	5	3
C05211SD	Textiles	10	100
C05212SD	Mattresses	10	100
C05320SD	Small electric household appliances	7	100
C05411SD	Dishes, cooking dishes, etc.	15	100
C05412SD	Table cutlery and cooking utensils	15	100
C05413SD	Other household articles	15	100
C05521SD	Household utensils and tools	10	100
C05522SD	Small electric accessories	10	100
C09320SD	Fishing and hunting equipment	7	100
C09342SD	Pets and pet supplies	8	100
C1222SD	Baby carriages, car seats, back and front carriers, etc.	3	100

Allocation of eyeglasses, other therapeutic appliances, motor cars, motorcycles and bicycles to household production and final consumption is based on time-use information.

Taxes and subsidies on production

Only a small proportion of charges paid by households to the public sector are related to their productive activities. Examples of such charges include the annual vehicle tax, real estate tax, dog tax and various fishing and hunting licence fees.

Among the production-related subsidies received by households from the public sector are the child homecare allowance and family nursing support. These subsidies are paid “as a consequence of engaging in production” (European System of Accounts, ESA 1995, 4.36). Figures on these items have been obtained from Statistics Finland. Parents’ allowance was also included among subsidies on production because it is paid to parents so that they can look after their child or children at home rather than taking them to day care. The data on parents’ allowance are from the Ministry of Social Affairs and Health. No figures were available on care allowances for the disabled in distinction from child home care allowances. Therefore they were excluded from the Household Satellite Account.

The purpose of subsidies and allowances is to reduce production costs. When the value of output is calculated on a cost basis, subsidies are deducted for the calculation of net value added. Value added is thus obtained at factor cost and equivalent to the valuation used for market production.

Integration with other accounts

The financial significance of household production to households themselves can be demonstrated by calculating their “extended individual consumption” and “extended disposable income”. The terminology is not yet completely established, but it seems that the international literature is leaning towards the term “extended” for purposes of showing that household production figures have been added to the accounts (Goldschmidt-Clermont & Pagnossin-Aligisakis 1995, Household production... 2003, Ironmonger 2003). Ultimately what these terms are about is that services produced in households are consumed within those same households and therefore they also increase household consumption. Accordingly, households produce imputed income for themselves by doing it themselves rather than by buying from the marketplace. Savings figures also change from those shown in the national accounts primarily because household capital goods are transferred from consumption to investment. Saving is defined as the part of disposable income that is not used up in final consumption, so this transfer pushes up the share of saving (see Chapter 7, Appendix 9).

4.3 Principal functions of household production

As mentioned before, the Household Satellite Account aims give a meaningful overview of household production. For this reason it makes sense to allocate the household's numerous activities to a few core areas. Similar classifications are used for the functions of general government, for example (COFOG: education, health care, environmental protection, defence, etc.)⁵. The international research and education tradition in the field of home economics makes a distinction between economic, social and cultural functions of households and families. The economic function is further divided between productive activities and consumption and saving. The social function deals with relationships between household members and their socialisation with the surrounding community. The cultural function of households, then, consists in the development of household members' intellectual capacities, the maintenance of community values and cultural heritage and handing them down from generation to generation (e.g. Blosser-Reisen 1975, Hallman 1991).

The Household Satellite Account focuses on the economic function. Since the economic, social and cultural functions are in practice closely interwoven, the economic component is distinguished from the others using the third party criterion. Unpaid work is valued only as an economic activity (if the work were done by someone else, how much would it be worth); any other objectives embedded in this activity are ignored, as whether unpaid work is liked or not (Goldschmidt-Clermont 1994).

Analyses of economic functions in the household sector have traditionally applied an activity-based classification. Classifications applied in time use surveys are based on this same tradition as far as unpaid work is concerned. Even before EU-harmonised classification, domestic work in time use surveys included the following activities: providing meals, family and childcare, sewing and care of clothes, housing-related activities as well as shopping and management. Housing-related activities have been grouped in various ways, but most classifications include cleaning, repairs and gardening. Travel related to unpaid work is rarely mentioned separately; it is obviously included in the activity that it serves (see Kilpiö 1981, 68-69) ⁶. On the basis of this tradition the principal functions of household production were developed (Ironmonger 1997 and Varjonen et. al. 1999). Similar description of household production has been used in the UK, Basque and Hungarian household satellite accounts as well as in calculating the value of unpaid work in New Zealand and Australia.

5 The Classification of the Functions of Government, COFOG, is used for describing economic activities in the public sector. The classification is included in the United Nations System of National accounts (SNA) 1993.

6 The classifications described by Kilpiö were drawn from the following studies: Cowles & Dietz 1956, Oinonen 1973, Walker & Woods 1976, Robinson 1977, Konsumentverket 1977.

The principal functions of household production are illustrated in Table 4. The underlying premise for the definition of these functions was that the services are needed for the well-being of household members. It was also considered important that services corresponding to the function have equivalent market services available. Volunteer work differs from ordinary household production in that the services produced are consumed in another household. However since it is an unpaid and value-generating activity, it is included in the accounts under a separate category. Furthermore, shopping, services and transportation as well as vehicle maintenance are also included. Travel related to unpaid work is linked with the function to which it serves. In the same way, shopping and services usually have to do with housing, providing meals, clothing or care, or with leisure needs, and they are allocated to the area of household production that they serve.

Table 4 provides an overview of the content of each principal function. More detailed descriptions and the calculation methods are presented after Tables 4 and 5.

Productive activities included in the core national accounts are shown in *italics*.

Table 4. Principal functions of household production

	Providing housing	Providing meals and snacks	Providing clothing and clothing care	Providing care	Volunteer work
Main activity	<i>Purchase of housing.</i> <i>Own-account construction and renovation of dwelling.</i>	<i>Growing foodstuffs, picking berries, mushrooms, etc., hunting and fishing.</i>	Production of clothing.	Childcare.	Neighbourly help.
	Decorating, cleaning and maintaining dwelling, maintenance of yard, gardening.	Preparing meals and snacks.	Washing and ironing clothes.	Care of adults in need of help.	Voluntary work in organisations
	Small repairs and renovations.	Baking, preserving.	Repairing clothes and other care.	Caring for pets.	
Shopping	Purchases related to renovating, maintaining and cleaning dwelling.	Buying groceries. Buying appliances and utensils for cooking.	Buying clothes, buying materials and equipment for making clothes and their care. Buying shoes.	Buying equipment related to childcare and caring for adults in need of help.	
Travel and transportation Vehicle maintenance	Travel related to acquisition and maintenance of dwelling.	Travel related to buying groceries.	Travel related to buying clothes and their care.	Transporting children and adults in need of help to care, hobbies, etc.	Travel related to volunteer work.
Household management	Planning and organising activities, services, banking, etc, apply to all principal functions.				

Travel and services related to household production and the planning and organisation of activities were allocated to different principal functions as illustrated in Table 5. This was based on data from the Time Use Survey where travel related to different functions and time spent in buying perishables and other goods are reported separately.

	Housing and maintenance	Meals and snacks	Clothing and clothing care	Care, children and adults	Volunteer work	Total %	Mean (range), min/household/day
Shopping and services (not travel)	36	40	12	12	–	100	42 (21–77)
Travel related to unpaid work and transportation	29	31	13	12	15	100	40 (16–75)
Household management	25	25	25	25	–	100	4 (2–9)

Time spent in shopping and services was not separately allocated to volunteer work because it was already classified as part of that function in time use data; the same applies to the planning and organisation of volunteer work. By contrast travel time related to volunteer work was classified separately.

Providing housing

Housing is the most diverse of the principal functions considered here. In principle every household is thought to have a dwelling-place, a sanctuary where the household members can live and relax. In practice, housing consists of a wide range of different activities that are carried out in a space called a dwelling. Part of the production of housing services is included in the core national accounts; “housing services produced by owner-occupiers” and “own-account house construction”. Housing services comprise the dwelling in the condition in which it is normally rented, i.e. unfurnished but including fitted fixtures. Non-SNA production includes all other equipment related to housing, its acquisition and own-account maintenance, in other words furnishings, maintenance, cleaning and minor repairs. Gardening and yard maintenance are also included in housing. Housing production is understood in the Satellite Account in a broad sense as including the production of comfort and everything that facilitates all the various activities that take place in homes. Furniture, ordinary art objects, textiles and televisions etc. are therefore included in housing as capital goods (Appendix 3). Only goods related to hobbies are excluded.

There are market equivalents to housing services produced for own use. Staying in a hotel is perhaps the most complete equivalent, but there are also partial equivalents. Builders and cleaners can be hired to do the maintenance work and gardeners to do gardening. Even interior decoration is sometimes being outsourced, although that is still comparatively rare.

Figures describing SNA housing have been drawn from the core national accounts. These items are calculated on the basis of output. Housing services produced by owner-occupiers are valued according to the rents of equivalent rented accommodation. The compilation of satellite accounts grants a certain freedom to adjust and modify concepts, and that discretion has been exercised in the case of taxes on production. Real estate tax was defined as a production tax in housing, even though the core national accounts place it under other direct taxes. In the allocation of figures from the core national accounts between different household types, we referred to the corresponding items of the Household Budget Survey (imputed housing costs). The categories corresponding to the intermediate consumption goods, depreciation of owner-occupied housing and imputed net rents used in the calculation of SNA housing services, are shown in Appendix 5.

Own-account house construction is valued in accordance with Statistics Finland's definition as follows⁷: "The value added of own-account construction is derived from imputed working hours in own-account construction and from the hourly wage in building construction, excluding employer's social insurance contributions and ancillary wage costs. The share of intermediate consumption is estimated at 65 per cent. Since no employees' compensation and no consumption of fixed capital is calculated for own-account consumption, value added comes out at 35 per cent of output. The output of own-account construction is the sum of value added and intermediate consumption." Own-account house construction was not divided between different household types because no relevant classification criteria were available. Therefore the figure appears only in tables for the whole country.

Non-SNA housing, then, is valued using the input method (by summing up the costs). SNA housing and non-SNA housing are reported separately.

Travel related to housing is calculated as a proportion of all travel related to unpaid work using the formula based on time use data. In the same way part of shopping and services are allocated to housing (see Table 5).

Providing meals and snacks

This function refers to the preparation of meals and snacks that are consumed within the household. In other words, the output of the service is clearly visible and tangible. This principal function also includes production that is covered in the core national accounts (SNA food) and production that is excluded from these accounts (non-SNA food). SNA food in the Satellite Account includes agricultural production for own use, thus, in addition to farmers' production of vegetables, fruits etc. for own consumption, also other products grown in gardens and allotments for personal use. Also included is

7 Tilastokeskus: Kansantalouden tilinpidon menetelmäkuvaus, s 76, 2003

food obtained through hunting, fishing, mushroom and berry picking, and consumed in the household. These data are compiled by Statistics Finland. As in the case of housing, some tax-like charges such as fishing and hunting licence fees were allocated as taxes on production to SNA food.

Non-SNA food includes the production of meals and snacks, baking, preserving and related activities, such as buying groceries and other acquisition of appliances and utensils for the preparation of food.

Market equivalents to providing meals and snack at home, include restaurant and other meal services, snacks, takeaway meals, as well as food available from kiosks. Ready-to-eat foods such as ice creams, crisps and sweets are defined in the Satellite Account as final consumption goods available in the market. Prepared meals from shops are also regarded as final consumption goods, even though some of them need to be heated before they can be consumed. Heating requires energy and a suitable appliance, such as a microwave oven, which is why prepared meals should in principle be classified as intermediate consumption goods. However the interpretation adopted in this Satellite Account is that they are generally perceived as ready-to-eat meals and therefore are not included in the household production. A detailed classification is presented in Appendix 3.

Food included in and food excluded from the core accounts are recorded separately in the Satellite Account.

Providing clothing and clothing care

Clothing production comprises both the manufacture of garments and their care. Clothing production in Finnish households is very rare. Most clothes are bought ready-made from shops: in the Household Satellite Account, therefore, provision of clothing consists mainly of the amount of time and money spent in searching, selecting and buying clothes.

The care of clothing, on the other hand, is primarily undertaken by households. This comprises washing, ironing or mangling and the repair of clothes. Market equivalent services include laundry services and clothing repair services (Appendix 3). Providing clothing consists exclusively of non-SNA production as the core national accounts do not include own-account production of clothing or its care.

Providing care

Caregiving is divided between *childcare* and the *care of adults* who require help, such as the disabled and the frail elderly. It consists of looking after children or adults who are in need of care, which primarily means assuming responsibility for these people's welfare and security. Equivalent market services include day care services for children provided privately or by the local authorities, organised playground activities and other similar services. Elderly care includes the services of day care centres and nursing homes (Appendix 3).

Production related to the care of a household member is not included as such in the national accounts. The home care of an own child or an adult in need of help is supported by means of parents' allowances, home care allowances and family nursing support. In the Satellite Account these

allowances are taken into account in the form of subsidies on production, which reduces the net value added of care.

The same concept of care may also be applied to *caring for a pet*. Opinions are bound to differ on whether or not the care of pets amounts to production that should be included in the Household Satellite Account. One argument in favour of its inclusion is that the care of pets can be delegated to another person, i.e. it meets the criterion of productive activity and it is unpaid. Once they have been brought into household, pets cannot be left without care. The output also has a market equivalent in the services offered by kennels and pet boarding services, which will look after animals while their owners are away on holiday. There are also dog-walking services.

The exclusion of pet care, on the other hand, might be justified by reference to the fact that the care of animals is not as necessary to the need satisfaction of household members as the housing, feeding, clothing and care of family members. Having animals may be regarded as a hobby that can be discontinued if for instance the household has difficulties keeping the pet.

However the decision was made to include the care of pets in the Satellite Account as a separate principal function. It is a productive activity that can be outsourced. Furthermore, the amount of time involved in pet care is not insignificant, and it also seems that market production surrounding pet care is on the increase (e.g. animal food and supplies, pet boarding facilities, animal hospitals). The care of animals included in the Satellite Account is the unpaid care of an own dog, cat or other animals. The care of farm animals is not included in the Satellite Account because that meets the criterion of market production. Walking dogs is often associated with the owner's physical exercise. For this reason dog care is limited to "compulsory" 10-minute walks at a time. Time spent beyond that is defined in the Time Use Survey as a leisure activity, which is not included in the Satellite Account.

Volunteer work

Volunteering is unpaid labour for the benefit of another household or organisation. It does therefore not count as production for own use, which otherwise is the leading criterion in the Satellite Account. However since it is unpaid, volunteer work is not recorded and remains invisible in so far as it is not included in the core national accounts. Volunteering that is aimed at the production of goods is included in the core national accounts. Building of a church by volunteers provides an example of this.

A distinction can be made between informal help or neighbourly help, which in practice may consist of childcare, preparing meals, running errands etc. on behalf of a friend or relative. On the other hand, volunteer work may consist of community help, such as handing out food aid or voluntary work at a youth club. All these are included under the function of volunteer work. Volunteer work, by definition, cannot be produced as a market commodity. When someone is hired to do voluntary work, it automatically becomes regular wage labour.

5 Value of household production

5.1 SNA and non-SNA household production

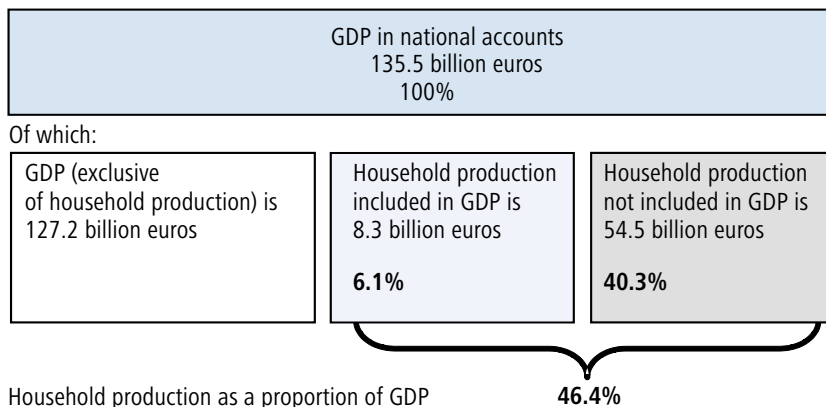
Value of production

In 2001 the value of household production (total output) in Finland was 81.6 billion euros, of which 12.7 billion euros were included in the core national accounts (Appendix 6). At the same time the total output of Finland's economy stood at 256.9 billion euros. The elements of household production are described in Table 6.

	SNA, million euros	non-SNA, million euros	Total, million euros
Value of labour (working hours x hourly wage of 9.99 euros)	.	52 355	52 355
Paid domestic staff	69	.	69
Housing services produced by owner occupiers, net mixed income	4 270	.	4 270
Own-account house construction	632	.	632
Agricultural produce for own use, fishing, hunting and berry picking, net mixed income	91	.	91
Taxes on production	140	56	196
Subsidies on production	.	-704	-704
Net value added	5 202	51 708	56 910
Consumption of fixed capital	3 095	2 839	5 934
Gross value added	8 297	54 547	62 844
Intermediate consumption	4 432	14 312	18 744
Output	12 730	68 859	81 588
Gross fixed capital formation	3 979	3 828	7 807
Time spent in production, million hours	.	5 241	.

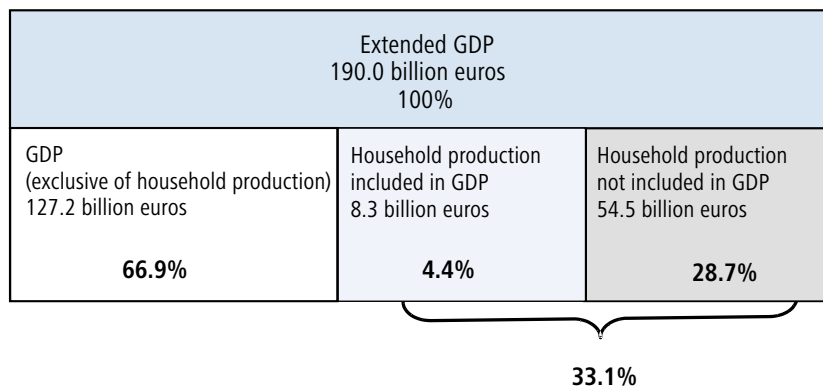
The gross value added of household production was 62.8 billion euros, of which 8.3 billion euros (13%) was included in the core national accounts. In 2001 the national accounts gross value added was 135.5 billion euros, so non-SNA household production accounted for 40 per cent of GDP.

Percentages can be calculated in different ways depending on the concept of economy to which household production is compared. This is illustrated in the figures below. If household production is examined against national accounts GDP, its share is just under half or 46 per cent.



If household production is compared to GDP exclusive of household production, the figure is about one-half or **49.4%**.

If we work with the extended concept of economy that includes household production, the results are rather different. In this case household production accounts for one-third or 33.1% of the national economy.

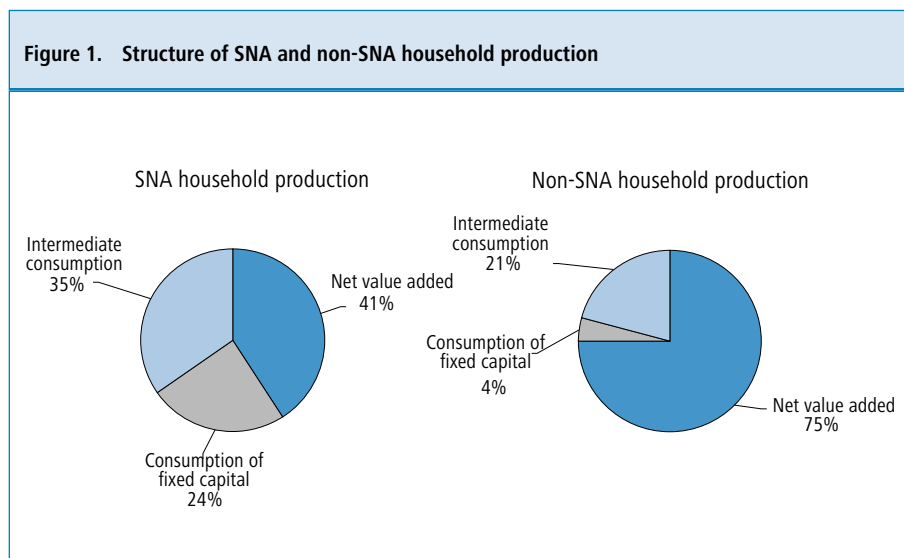


Which of these two methods is better? If we wanted to know what were to happen to the current GDP if large segments of household production were taken over by market production, the first approach would probably be the better option (see Appendix 9, Table 4). If, on the other hand, household production is seen as an integral part of the extended economy, then the latter approach gives a more accurate picture. In general, the value of household production has been compared against national accounts GDP figures, not against the extended economy.

Structure of production

The focus in the discussions below is on the structure of production. The structure of production indicates the level of interrelationship between household and market economies. Shifts from households to market economy and vice versa are shown in shares of labour and intermediate or capital consumption. The shifts between household and market sectors are also, of course, shown in proportions of market-produced final consumption products vs. household-produced products. We will discuss these issues further in the text.

Figure 1 illustrates the structural differences between SNA and non-SNA household production. SNA production appears to be far more capital-intensive than non-SNA production. This is no surprise in view of the emphasis in households on service production, which requires less capital than goods production. SNA production is comprised mostly of housing services of owner-occupiers. There, the consumption of fixed capital means the same as depreciation of owner-occupied housing. Costs incurred from the repair of dwellings and the raw materials and services of housing production show up in intermediate consumption goods and services, which account for just over one-third of the value of output.



The most decisive factor of production in non-SNA household production is labour. Childcare and the care of adults is particularly labour intensive. The structure of non-SNA household production is rather similar to that in the service sector in general.

Change in the value of household production 1980–2001

The value of unpaid work has been measured in Finland in the Housework Study of 1980 (Säntti et al. 1981) and in Statistics Finland's publication of the value of household production in 1990 (Vihavainen 1995). The following compares the estimates produced in these studies with the results of the present research and looks at how they compare with the respective GDP figures.

The 1980 Housework Study (Säntti et al. 1982) measured the value of unpaid work using the same principles as are applied in the Satellite Account. Unpaid work was defined in the same way, and data on time use were collected among household members over 10 years of age in spring 1979. The value of labour was determined on the basis of the home helper's wage, including employer's social insurance contributions. This value of labour came out at 77.8 billion marks, or around 13 billion euros. However this figure does not include SNA housing services produced by owner-occupiers.

In Statistics Finland's calculations in 1990 the value of labour was 232.5 billion marks, which translates into 39 billion euros. The value of labour was determined on the basis of the home helper's wage plus employer's social insurance contributions. This calculation gave an hourly wage of FIM 51, or around 8.5 euros. The figure includes non-SNA production only.

It is not possible to produce figures for 2001 that are fully comparable with these earlier results. Calculations in 2001 used the hourly wage for a generalist housekeeper/ home helper, which in relative terms was higher at 9.99 euros (and increasing to 11.99 euros when employer contributions were added). In 1990 the calculations only included unpaid work done by persons aged 15 or over, whereas in 2001 they covered persons aged 10 or over. Furthermore, the 2001 figures include SNA production, in where the value of housing services (net mixed income) is 4.3 billion euros.

In order to improve the comparability of labour value calculations in different years, the figures for 2001 in Table 7 only include the value of non-SNA labour, and the value of labour includes the employer's social insurance contributions as in previous calculations. The value of labour is indicated as a proportion of GDP.⁸

Table 7. Value of unpaid work and its share of GDP in 1980, 1990 and 2001

	1980	1990	2001
Hourly wage, euros	2.28	8.53	11.99
Value of unpaid work, million euros	13,092	39,097	62,826
Unpaid work as a proportion of GDP, %	41.7	45.1	46.4

8 In 1980 the value of unpaid work was FIM 13.53/hour, amounting to FIM 77,841.7 million for the whole national economy, or 41.7 per cent of preliminary GDP (Säntti et al. 1982, 61-62). In 1990 the value of unpaid work was FIM 50.71/hour, amounting to a national figure of FIM 232,459 million. (Vihavainen 1995, 16)

In other calculations shown in this report, the value of labour is determined on the basis of gross hourly wages excluding employer's social insurance contributions. In that case unpaid work accounts for 39 per cent of GDP. If work done by children aged 10–14 were added to the 1990 figures, the GDP proportion would be around 46 per cent. In spite of minor differences in the calculations, we may observe that there are only minor, but positive, changes in the extent of household production in comparison with the rest of the economy.

The Finnish result, which shows minor positive change in the value of unpaid work as a proportion of GDP from 1990 to 2001, is in sharp contrast to international trends. Although the absolute value of unpaid work has gone up in all countries, many have reported a decrease in its share of GDP over the past ten years. This suggests that the growth of other production has outpaced household production, or that wages in jobs equivalent to unpaid work have developed more slowly than other wages. In Germany the value of unpaid work as a proportion of GDP in 1992 was 52 per cent, in 2001 the figure was down to 48 per cent (net wages). In the Basque Country, correspondingly, the figures were 49 per cent in 1993, 39 per cent in 1998 and 33 per cent in 2003. In Australia, the value of unpaid work in 1992 was 51 per cent and in 1997 43 per cent of the country's GDP (Schäfer 2004, Basque Statistics Office 2004, Trewin 2000).

One possible reason why the value added of household production in Finland has changed relatively little is that the proportion of people out of work and outside the labour force has increased sharply from 1990 to 2001. It has been discovered that unemployed persons do more unpaid work than those in wage employment. Another possible explanation is that in the countries just mentioned, women moved into wage employment in greater numbers in the 1990s than was the case in Finland, where the corresponding change happened earlier.

The structure of production has changed somewhat. Although calculations for 1990 and 2001 are not fully comparable, it is interesting to examine the relationship between labour, the consumption of fixed capital and intermediate consumption.

Structure of production in non-SNA production, % of total output		
	1990	2001
Value of labour	76.4	74.2
Taxes minus subsidies	–	0.9
Consumption of fixed capital	2.2	4.1
Intermediate consumption	21.4	20.8
Value of output	100.0	100.0

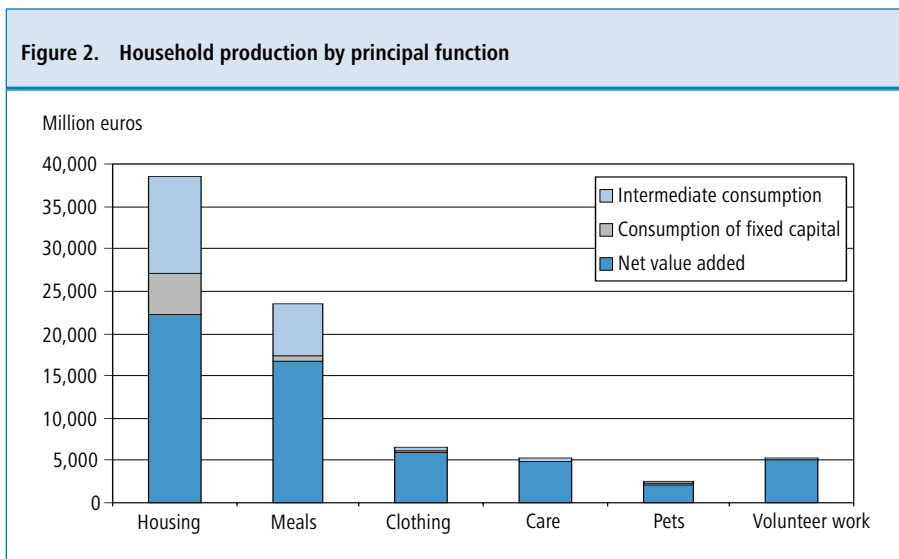
In the period from 1990 to 2001, the share of labour in household production has decreased and the share of fixed capital consumption has increased by a couple of percentage points. This might suggest that households have invested in machinery and equipment in order to reduce the amount of unpaid work. The figures are not fully comparable, however. In 2001, the household capital also included semi-durable goods, which in 1990 were placed under the heading of intermediate consumption. There are also other differences in how purchased products are divided between intermediate consumption, capital goods and final consumption goods. In 1990, taxes and subsidies were not taken into account. When the figures for 2001 are so revised that semi-durable goods are added to intermediate consumption and the corresponding reduction is made to the consumption of fixed capital, the share of intermediate consumption rises to 22 per cent and the consumption of fixed capital drops back to 3 per cent.

The structure of production is probably quite slow to change because novel household appliances that radically reduce the amount of unpaid work do not appear in the market very often. Examples of such appliances are the automatic washing machine, which began to gain ground in the 1970s, and the microwave oven some ten years later. Another factor contributing to the slow pace of change is that people are slow to change their habits and routines. Sometimes it may take a whole generation for new customs to develop. The increasing use of purchased services might be the next major step towards a reduced level of unpaid work. In 2001, such services still had only marginal significance (Varjonen et al. 2005).

5.2 Household production by principal function

Providing housing is the biggest single function in households. This may reflect the need of solid housing in Finland's harsh weather. Also, one in four households have a summer cottage as secondary dwelling, many of which have lately been equipped so that they can be used all year round (Melasniemi-Uutela 2004). The second biggest function is the production of meals and snacks. Clothing, care and volunteer work each amount to no more than around one-fifth of production in the former two categories, and the care of pets is the smallest function. Compared to 1980, the provision of meals and snacks as a proportion of total household production has decreased, while the share of housing has increased (Varjonen & Aalto 2005).

The total output of housing services is pushed up by the consumption of fixed capital (depreciation of housing as well as home furnishings and equipment) and intermediate consumption, a large proportion of which consists of rents paid, repairs and heating. Care of children and adults seems to account for a relatively modest part of total household production if considered against the media attention it attracts. However, the true value of care is greater than indicated by the figures shown here since only childcare and care of adults reported as a primary activity are included. The inclusion of care as a secondary activity would double the value of output. Moreover, the care of elderly parents who live in their own households is defined as "helping



another household” and is shown in “volunteer work”. The discussion below looks at each principal function and the structure of production within these functions in closer detail.

Housing

SNA housing

Housing consists of two items that are included in the national accounts – “housing services produced by owner-occupiers” and “own-account construction of dwellings” The output of housing services produced by owner-occupiers is determined in the core accounts on the basis of the market rents of corresponding dwellings. The value of these services was 10.7 billion euros. The output consists of three roughly equal items, i.e. net value added (41%), consumption of fixed capital (29%) and intermediate consumption (31%) (Figure 3). The figure for intermediate consumption includes items that belong to the maintenance and repair of buildings. Water charges are also included in the imputed rent in the core national accounts. Here, by contrast, part of the water charges are allocated to nutrition and washing clothes and roughly two-thirds to intermediate consumption in housing.

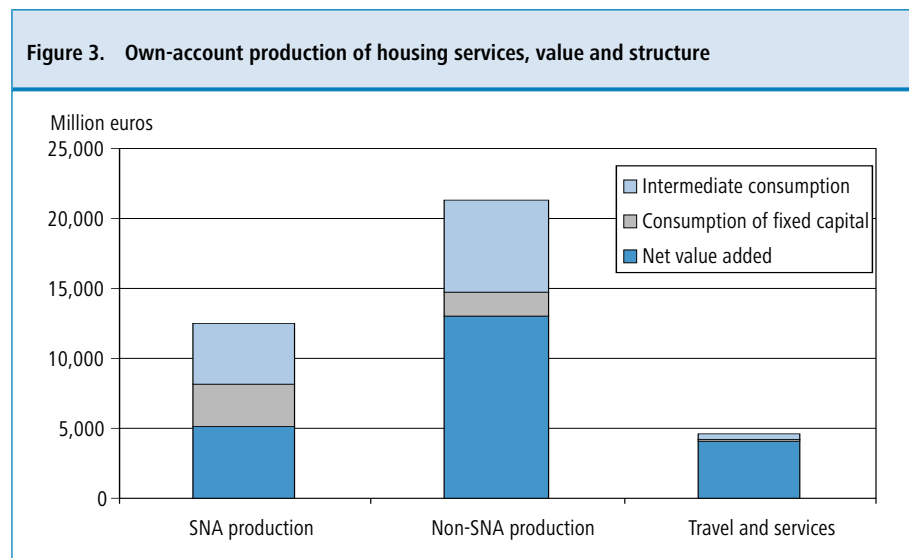
The net mixed income (net value added) includes also real estate tax as well as wages paid by households (for a cleaner etc.) These items reduce the net mixed income when compared to the figures shown in the core national accounts. In the national accounts, interests on mortgages are included in income transfers paid. Owner-occupiers paid a total of 1,337 million euros in such interests.

The output of own-account house construction at 1.8 billion euros consists primarily of intermediate consumption (65%) and to a lesser extent of net value added.

Non-SNA housing

Housing services excluded from the core national accounts comprise interior decoration, maintenance and cleaning, gardening and yard maintenance. The value of non-SNA housing services was 21.3 billion euros. Travel, shopping and services allocated to housing add a further 4.7 billion euros to this figure. They account for almost one-fifth of non-SNA housing production. Although travel and services are placed in their entirety under non-SNA housing, in reality part of them serve production that is included in the national accounts. For example, the own-account construction of a house involves a large number of acquisitions and a lot of transportation.

Figure 3 shows SNA housing production and non-SNA housing production; travel and services related to housing is furthermore presented separately for the latter. Overall, non-SNA housing production is more labour-intensive than SNA production. The total value of housing services and own-account construction is over 38 billion euros.



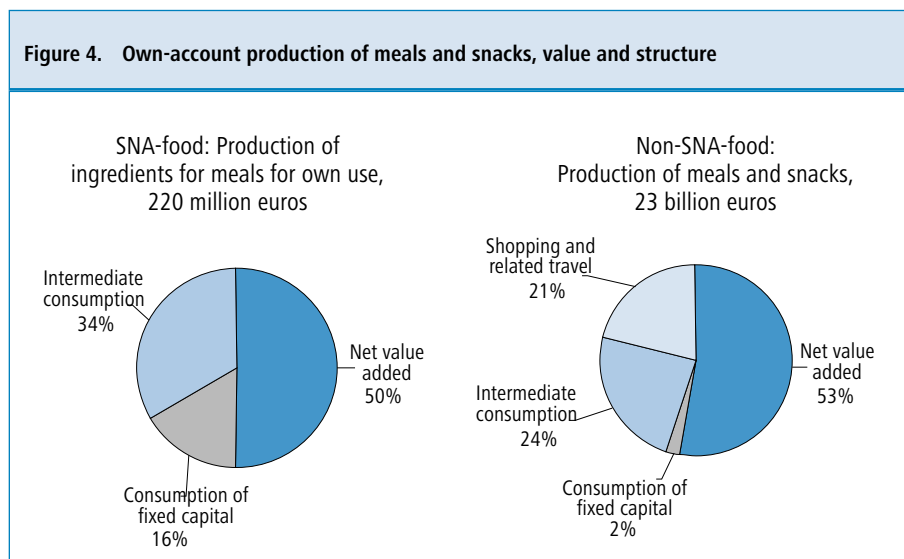
Meals and snacks

SNA food

The production of meals and snacks comprises both SNA and non-SNA production. SNA production includes the production of agricultural and garden produce as well as the output of fishing, hunting, mushroom and berry picking. The sum total is relatively modest at no more than 0.2 billion euros. In the national accounts SNA food production is calculated using the output method. Felled elk, fish catches, berry harvests, vegetables grown etc. are valued at factor costs (without taxes). Neither intermediate consumption nor consumption of fixed capital have been subtracted from output, so the value of output is equal to net value added.

In the Satellite Account, however, such items as garden soils, seeds and fertilizers as well as fishing and hunting supplies are placed under the heading of intermediate consumption. Fishing and hunting equipment, for its part, is recorded under capital goods. Fishing and hunting licence fees have been treated as taxes on production; these have been transferred to the production account from income transfers paid by households. When these items are taken into consideration, the mixed income category remains rather small and in some types of households is even negative – which goes to show that fishing and hunting are indeed above all leisure activities. In this case it is easy for people to accept that the costs can be higher than the output. (See Appendix 7, p.1,4,7)

Figure 4 illustrates the structure of SNA and non-SNA food production. The Figure illustrating non-SNA food production shows not only the various production elements, but also groceries shopping and related travel, which can be seen as a separate but necessary ancillary activity in the provision of meals. It accounts for 21 per cent of the total value of output. It includes the amount of time spent in groceries shopping and the corresponding proportion of the running costs of cars and other vehicles. The reason it is presented separately here as well as in the following structural figures is so that the share of this activity in each principal function can be demonstrated. The activity is here included under non-SNA production, even though part of it also serves SNA production. Fishing, hunting and berry picking trips usually require a car.



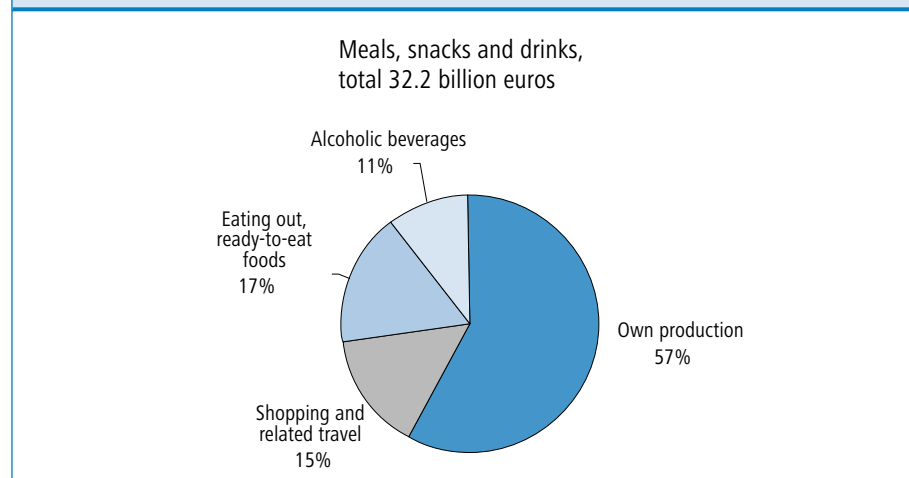
Non-SNA food

The output of non-SNA meals production amounts to 23 billion, which is around 100 times more than SNA food. It includes provision of meals and snacks in households.

Consumption of fixed capital accounts for a much smaller proportion of non-SNA food than SNA food, no more than a couple of per cent. Although households use a wide range of household appliances as well as cookware and serving dishes, these are relatively durable and consumption is therefore spread out across several years.

The preparation of meals requires a large amount of intermediate consumption goods. One-quarter of household electricity consumption and one-fifth of water consumption are allocated to the preparation of meals and snacks (Appendix 8). For purchased foods it has been necessary to make a distinction between foods used as ingredients in meal preparation, on the one hand, and foods that are ready to eat, i.e. final consumption goods, on the other. The boundary line is not always watertight. In some households some products may be eaten as snacks without any processing, in others they are used as ingredients in the preparation of meals. In the Satellite Account more than one-half of foods were defined as final consumption goods, which means that they can either be consumed as such as snacks, or they constitute a meal in their own right. However there are some foods that are both consumed as such and used as ingredients in production (e.g. milk, fruit). In the absence of detailed information, these foods are classified so that one food in the group has been chosen to represent one or the other category. For example, non-fat milk has been chosen to represent milk as a final consumption good, while other types of milk are classified as intermediate consumption goods. As for fruit, apples have been chosen to represent all the various fruits that are used in cooking or baking as intermediate consumption goods, and other fruits represent final consumption goods. (See the list of foods and their allocation to intermediate and final consumption in Appendix 3).

Figure 5. Value of meals and beverages by mode of production



The eating of snacks has become increasingly common, and for this reason it was considered necessary that these products should be identified as final consumption goods. Also all alcoholic beverages are defined as final consumption goods, although sometimes they are also used as ingredients to prepare mixed drinks, and in some households wine and beer are an integral part of meals. In the UK and Germany, all dairy products and fruits were defined as intermediate consumption goods, but bread and some vegetables (French fries) were classified as final consumption goods (Household production... 2003). In other words there may be country differences here that have to do with different food cultures.

It is important to remind here that in the input method, the number of intermediate consumption products does not affect the amount of value added, which is the sum of labour, capital and taxes on production minus subsidies. Intermediate consumption goods are, however, included in the value of the total output.

Results indicate that eating out and ready-to-eat foods still play a fairly limited role in the meal management of Finnish families. Figure 5 shows the values of the meals, snacks and alcoholic beverages consumed by households in percentage terms including the consumption of household-produced meals (SNA and non-SNA food). Shopping and related travel for the acquisition of meals is shown separately. The relative proportions of final consumption goods and intermediate consumption goods are discussed also in Chapter 6.

Clothing and clothing care

Clothing care includes washing, ironing, repairs, etc. The home production of clothes is very rare. In 2003 Kristiina Aalto reported that less than 3 per cent of women in Finland made clothes for themselves or household members on a regular basis, and 7 per cent produced textiles, sharply down on earlier figures (Aalto 2003, Niemi & Pääkkönen 2001). Most purchases now are for ready-to-wear clothes, which is reflected in shopping, services and travel accounting for a large proportion of production (Figure 6). Overall the share of intermediate consumption goods is rather low. One-fifth of it consists of energy and water consumption. Laundry accounts for 14 per cent of households' water consumption and for just over 4 per cent of electricity consumption (Appendix 8).

In 2001 people in Finland spent a total of 9.3 billion euros on clothing and clothing care. Almost three-quarters or 71 per cent of this was attributable to own production. Figure 7 shows how the overall consumption of clothing and clothing care breaks down between own household production and the purchase of clothes and related services. Own production consists mainly of washing and other care of clothes, while services purchased from market producers consist of ready-to-wear clothes and laundry services. Shopping and travel account for one-fifth.

Figure 6. Own-account production of clothing and clothing care, value and structure

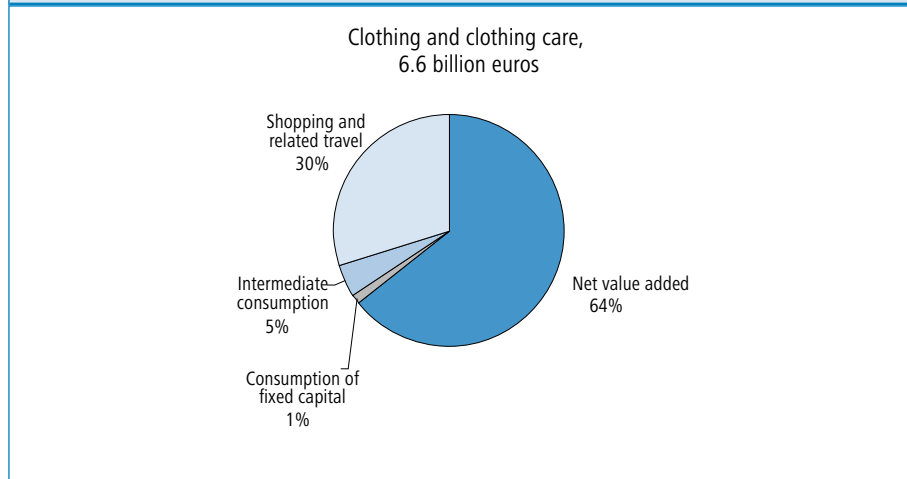
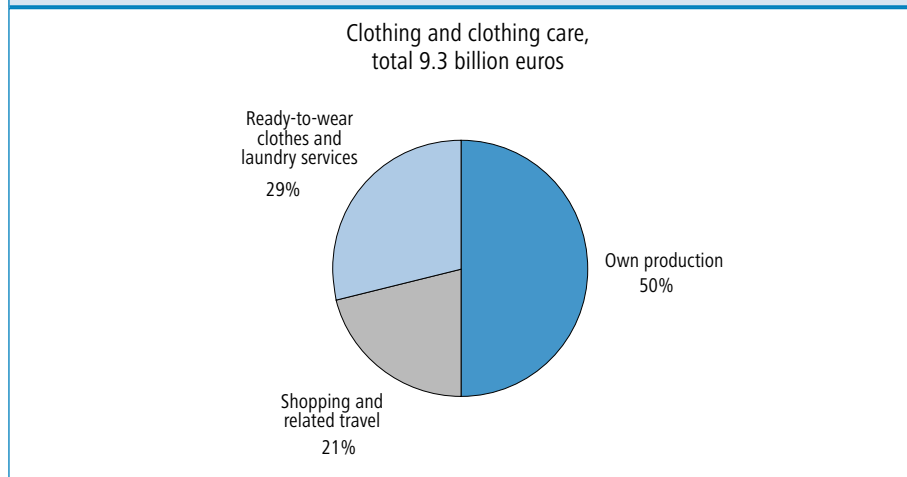


Figure 7. Total value of clothing and clothing care by mode of production



Care of children and adults

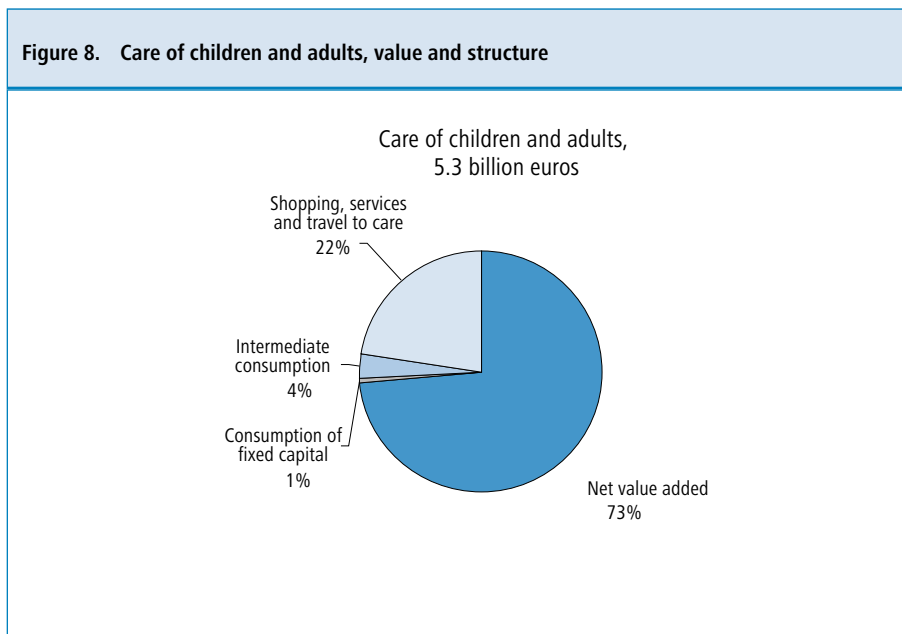
Childcare and the care of adults who are in need of help involve not only physical assistance in personal care, but also social interaction and the provision of security. Other aspects of care include transportation to health care, day care or other services.

The value of care produced at home amounts to 5.3 billion euros a year. Care provision in households has been supported from the public purse by care allowances worth a total of 704 million euros. These allowances include the home care allowance, family nursing support and parents' allowance (excluding maternity and paternity allowance). In the Satellite Account these allowances have been deducted from value added, which following this deduction amounts to 4.9 billion euros.

Figure 8 illustrates the structure of care provision. As is the case with care provision in general, the care provided by households is highly labour-intensive. The only capital goods allocated to care are baby carriages, car seats, etc. Beds and other furniture needed in the provision of care and for living in general are allocated in their entirety to housing. Likewise, food consumed by the care recipient is allocated to meals and snacks.

Children's toys and books, nappies and various baby care supplies and accessories are allocated to intermediate consumption. Driving children to day care or hobbies is placed under the heading of transportation. This accounts for almost one-fifth of the total value of output.

The provision of services in lieu of the care provided by households rests mainly with the public sector.

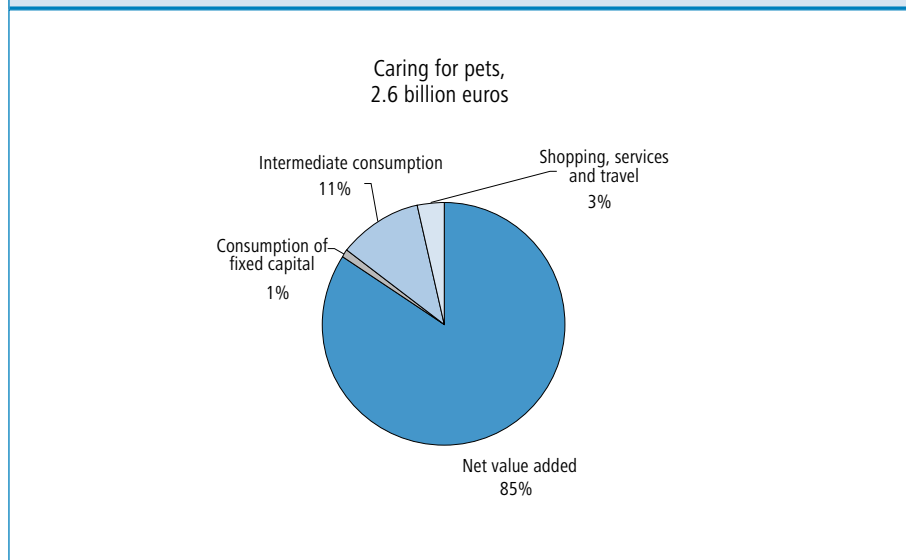


Caring for pets

Earlier studies have not reported the care of pets separately because this has been considered a marginal activity or one comparable to a leisure pursuit or hobby. This is not, however, a warranted comparison because the decision to have a pet in the household entails a commitment to the animal's welfare. According to the interview data collected for the Time Use Survey, one in five households in Finland have at least one dog and almost one in six (16%) report that they have one or more cats. No data were available on the amount of time that people spend in shopping and services related to their pets, and therefore this has not been distinguished from other shopping time. In practice, taking an animal to the vet is included in the share of labour. Therefore all trips related to care were allocated to the provision of care to children and adults rather than to pets. The one exception here was single-person households, where trips that were reported as being related to care were allocated to caring for pets. However since animals are transported to the veterinary clinic, to shows etc. by car or other vehicles, this share of transport vehicle consumption and intermediate consumption goods and services is allocated to this principal function in proportion to the amount of time spent caring for pets.

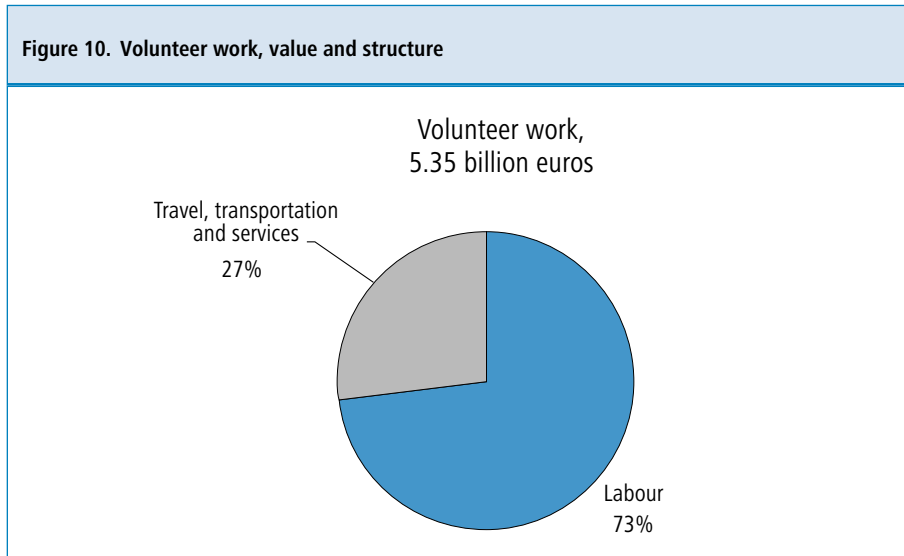
Pet food and supplies and veterinary expenses are included in intermediate consumption goods and services. Pets themselves and equipment for pets were regarded as household capital.

Figure 9. Care of pets, value and structure



Volunteer work

As the name implies, volunteer work consists primarily of labour. No intermediate consumption is allocated to this principal function because ordinarily the recipient will cover the immediate costs incurred from volunteer work. Travel and transportation costs, on the other hand, have been allocated to volunteer work as reported in the Time Use Survey

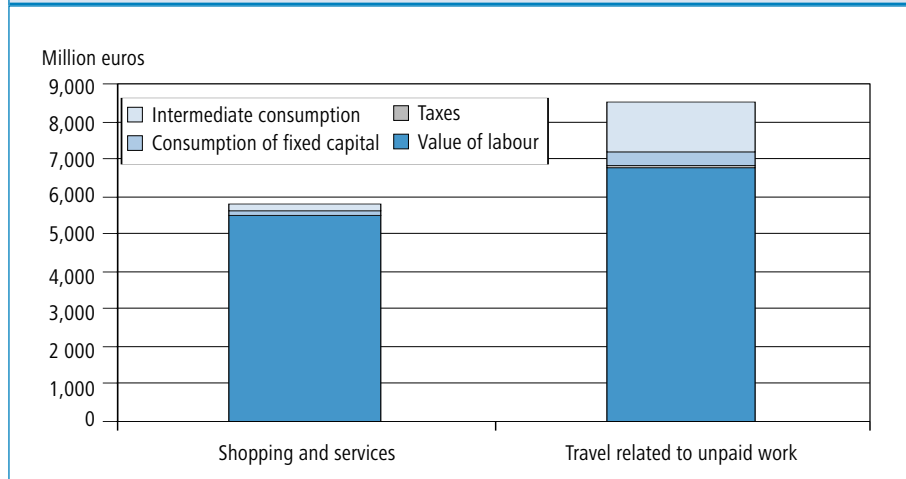


Travel and services related to unpaid work

It is interesting, finally, to look at shopping, services and travel that are related to housework. They account for a considerable proportion of production in all principal functions. This highlights the dependence of household production on market production as well as the amount of time and money that have to be invested in this interaction. Shopping, services and travel related to unpaid work account for one-fifth of total non-SNA household production. In Figure 11, shopping and services are presented separately from related travel, even though the notion of “shopping” is usually understood as comprising travel to the shops as well. Travel time to the shops accounts for over one-half of all travel, while volunteer work, the transportation of children and adults and the vehicle maintenance account for the other half.

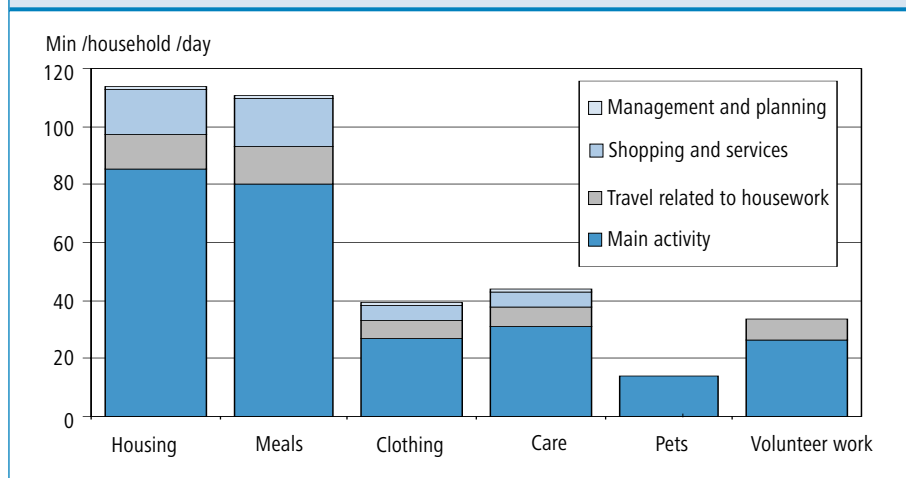
The value of travel and transportation related to unpaid work is 8.5 billion euros, of which labour accounts for almost 80 per cent. According to the Time Use Survey housework related travel accounts for about one-third of total travel time. One-third of the costs from running a car and other vehicles (fuel, maintenance and service costs), the consumption of fixed capital and vehicle tax are also allocated to unpaid work travel.

Figure 11. Shopping and travel related to unpaid work, value and structure



The value of production related to shopping and services totals 5.8 billion euros, with labour accounting for 95 per cent of that figure. Intermediate consumption items in shopping and services include bank service charges, a small proportion of postal and telephone charges, short bus rides and Internet costs. Based on an expert opinion, the decision was made to allocate three per cent of these costs to household production. The same three per cent of the consumption of telephones and PCs, which were treated as capital goods, was allocated to household production.

Figure 12. Total time spent in principal functions, min/household/day



Shopping, services and travel related to unpaid work are almost always part of some other activity. People go shopping because they need to buy food, clothing, home accessories, etc. Shopping is therefore an ancillary activity in relation to the principal function. The same applies to travel, which in this sense is an ancillary activity; it therefore makes sense to present travel in connection with the principal function that it serves. Figure 12 shows how working hours in different principal functions break down between time spent in shopping, services, travel and financial planning and the main activity.

Shopping, services and travel time account for a substantial part of all principal functions. Their combined share is greatest in clothing and clothing care (29%), followed by care and nutrition (both 27%) and housing (24%). Travel accounts for about one-fifth of the total amount of time spent in volunteer work.

6 Household production in different types of households

In Chapter 5 above, household production was examined at the national level. The discussion below describes household production in different types of households. In this analysis the figures can be presented in two different ways. First, we can look at the amount of production in one individual household and at how it breaks down between different principal functions in different types of households. This is a micro-level analysis. Secondly, we can examine different household types at the level of the national economy, in which case the results will also depend on the overall number of that particular type of household in the country. This approach allows us to compare the household production of, say, pensioner households and working-age households at the national level. The production and generation of income accounts for each type of household are compiled in Appendix 7. Households are grouped by their life-stage and the age of the reference person (Table 8). The number of households in the population and in the research material is shown in Table 2.

Table 8. Types of households and their average size

Type of household	Classification by age etc.	Average size of household, persons	Average number of persons over age 10 in household*
Single-person households	under 45 yrs	1	1
	45–64 yrs	1	1
	65 yrs or over	1	1
Couples without children whose reference person	under 45 yrs	2	2
	45–64 yrs	2	2
	65 yrs or over	2	2
Families with children, with	one parent, youngest child 0–17 yrs	2.6	1.6
	two parents, youngest child 0–6 yrs	4.1	2.3
	two parents, youngest child 7–17 yrs	4.0	3.5
Other households	mainly households with more than two persons aged 18 or over	2.9	2.8

* Household time use is the combined time use of household members aged 10 or over

Table 9. Percentage of household types in income quintiles		Q1	Q2	Q3	Q4	Q5	Households in population
Single-person households	under 45 yrs	26	17	17	5	1	13
	45–64 yrs	19	16	12	6	2	11
	65 yrs or over	40	19	4	1	0	13
Couples without children whose reference person	under 45 yrs	3	6	9	14	9	8
	45–64 yrs	2	5	14	21	24	13
	65 yrs or over	1	16	14	6	3	8
Families with children, with	one parent, youngest child 0–17 yrs	5	6	4	1	1	3
	two parents, youngest child 0–6 yrs	1	5	10	21	17	11
	two parents, youngest child 7–17 yrs	1	2	7	14	28	10
Other households		2	7	9	11	15	9
%		100	100	100	100	100	100

Households were also grouped into income quintiles according to gross household income. Table 9 shows how different household types break down into the five income quintiles formed. It seems that the age of the reference person and the number of income-earners have an influence on the income quintile to which a household belongs.

The lowest income quintile seems to consist almost exclusively of people living alone. In the second income quintile, too, single-person households and pensioners make up the majority. The biggest group in the third income quintile are young people living alone as well as couples over 45. The fourth income quintile consists primarily of childless couples of working age and two-parent families with children. The fifth income quintile differs from the previous quintile in that instead of younger couples, it has a larger number of adult households, i.e. other households, and furthermore the proportion of families with school-age children is much greater than in the fourth income quintile.

6.1 Household production in individual households

The following proceeds to examine household production and its structure at micro level, in different types of households. Also the value of purchased final consumption products is included in descriptions of providing meals and clothing.

Different types of households differ widely in terms of the volume of household production. Output per household is greatest in the biggest households, i.e. two-parent families with children and specifically in those where the children are under school age. In 2001, the average value of non-SNA production in this household category was almost 45,000 euros a year. The lowest figure for non-SNA production was recorded for single-person households aged under 45, where it was less than 14,500 euros a year. For couples the corresponding figures ranged from 28,700 euros in the youngest households to more than 41,100 euros in the oldest households.

The share of SNA production, then, was highest in single-person households aged over 65 and among couples aged 45–64, standing at 17 per cent of total household production. For single-person households and couples under 45 and for single parents, the value of SNA production was lowest (Figure 13). This is mainly explained by the fact that SNA production includes imputed housing services of owner-occupiers, whereas young people and single parents primarily live in rented accommodation.

Household production increases from lower towards higher income quintiles (Figure 14). In the lowest income quintile, non-SNA household production amounts to around 19,200 euros and in the highest to almost 36,500 euros a year. Likewise, SNA production and its share of total production increase from the lowest income quintiles to the higher quintiles.

Figure 13. SNA and non-SNA household production in different types of households

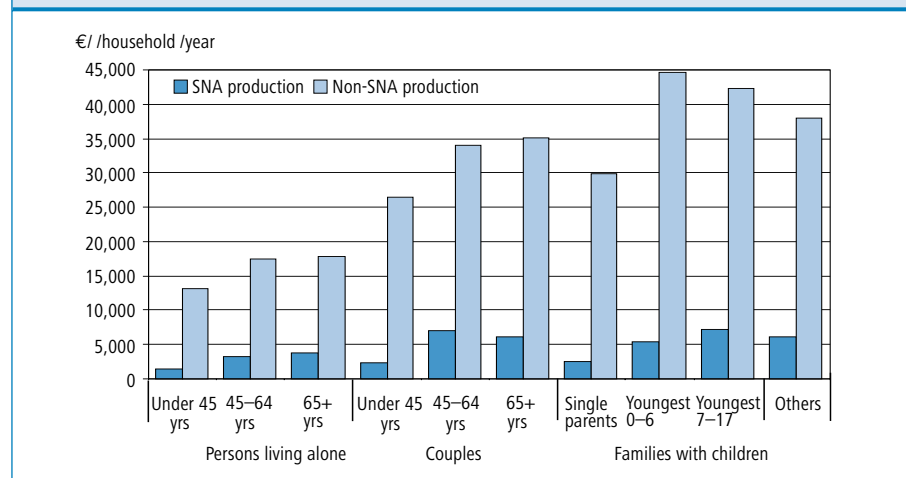
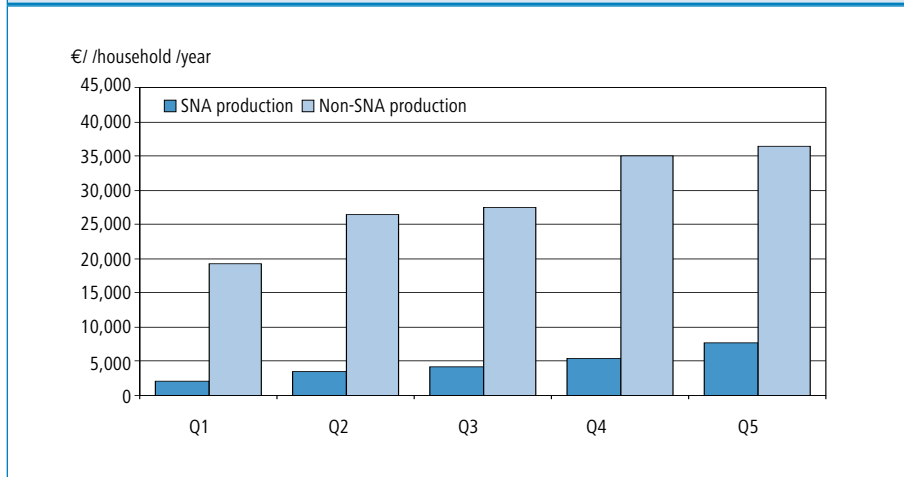


Figure 14. SNA and non-SNA household production by income quintile



In the lowest income quintile the share of SNA production is 9 per cent and in the highest income quintile almost 16 per cent.

Looking at the share of non-SNA production attributable to different principal functions, we find that housing accounted for the largest (around 40%) and the provision of meals for the second largest proportion (30–35%) of the value of household output in most household types (Figure 15). Among young people living alone, the principal function of housing accounted for about one-half of non-SNA production.

In single-person households over 65, the value of the provision of meals was somewhat greater than the value of housing. In families with small children, childcare accounted for 30 per cent of the total value of household production, while housing and the provision of meals both accounted for around 27 per cent. The share of the childcare and adult care varied widely between different household types. Among single parents the figure was 14 per cent, in families with schoolchildren 8 per cent and in others less than 4 per cent.

In most households clothing accounted for around 10 per cent of output. The figure for volunteer work was also almost 10 per cent in most households, but for elderly people living alone, young couples and time-pressed single-parent households and families with small children, the figure was no more than around 5 per cent. Pet care accounted for between 2 and 6 per cent of the value of household production. With the single exception of families with children, pet care accounted for a larger proportion of household production than the care of people.

Figure 15. Breakdown of non-SNA household production by principal function in different types of households

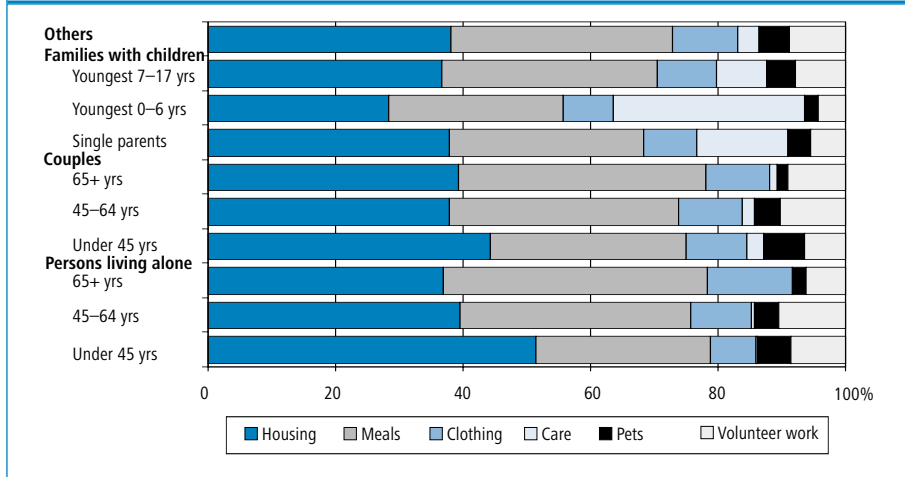
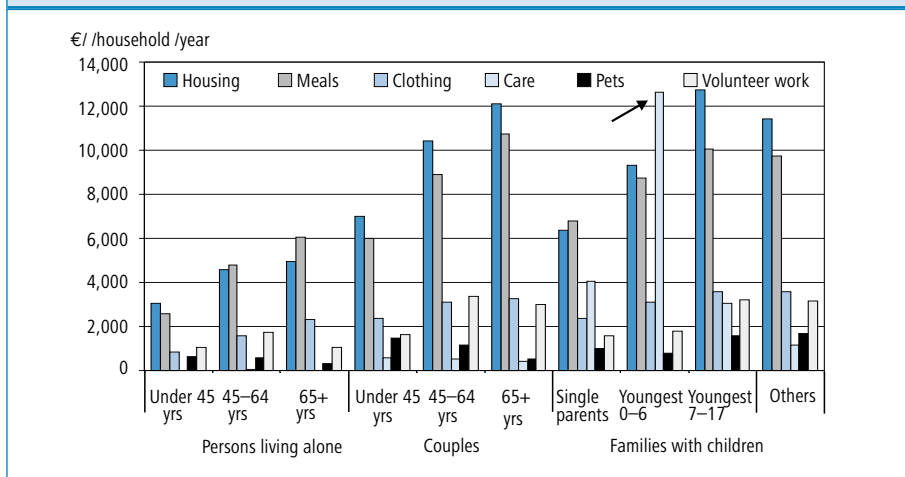


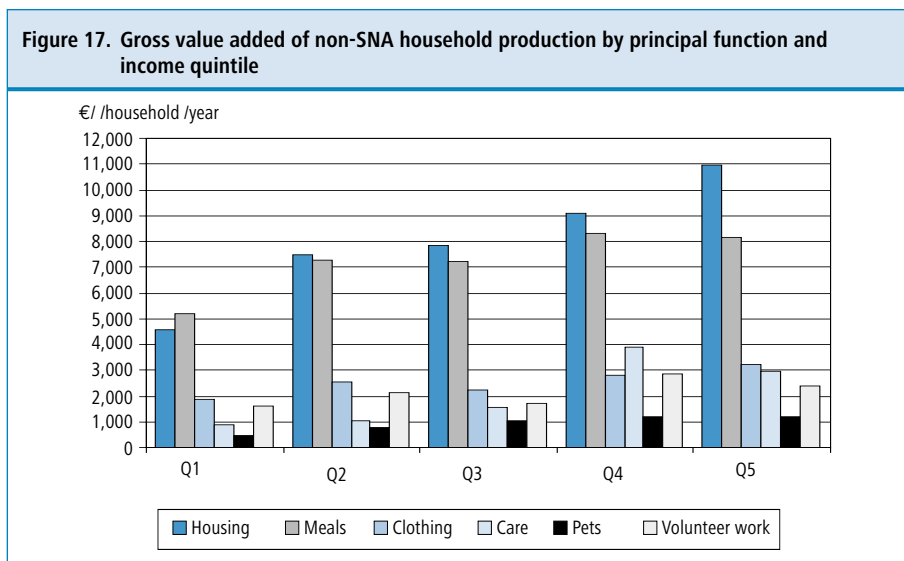
Figure 16 shows how the different principal functions compare with one another in different types of households when intermediate consumption is excluded from the equation. Especially among people living alone, the figures for housing production and the provision of meals were considerably smaller than in other household types. This Figure reiterates the major role of housing, the provision of meals and (in families with small children) childcare in the total output value of non-SNA household production.

Figure 16. Gross value added of non-SNA household production by principal function and type of household



When looking at income quintiles, the results showed that in virtually all principal functions, the share of both output, intermediate consumption goods and services, labour as well as the acquisition of final consumption products increases steadily from lower to higher income quintiles. This pattern of steady growth is most clearly disrupted in the output of care and volunteer work (Figure 17). The deviations are largely explained by the types of households belonging to the different quintiles. For example, the large amount of care in the fourth income quintile is mainly due to it having the highest proportion of families with small children (21%). It was therefore not considered necessary to examine households in greater detail on the basis of income quintiles; instead we turn our attention to the differences between different types of households.

The discussion below proceeds to examine each principal function. In figures 18–23 travel and services are shown as a separate part of the output in each principal function. It consists of the value of labour, capital consumption and intermediate consumption. The output value of travel and services as a proportion of the value of total household production ranged from 16 per cent in single-person households to 29 per cent for young couples. In most other household types transportation accounted for between 20 and 22 per cent of total output.

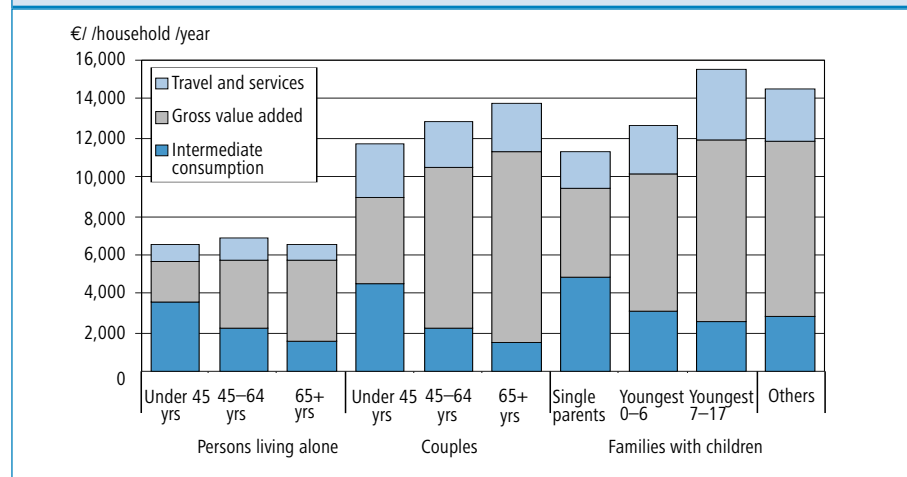


Housing

In housing, the value of non-SNA production per household ranged from 15,500 euros in families with school-age children to around 6,600 euros in the oldest single-person households (Figure 16). In most household types labour accounted for an even greater share of the value of housing production than it did of the value of meal production: in most households the figure was in excess of 50 per cent, for older couples as high as 70 per cent. Among young people living alone, labour accounted for less than one-third. Among single parents and young couples the share of labour was also lower than average. Housing includes home maintenance, including cleaning and maintenance repairs, as well as gardening and yard maintenance. The renovation and construction of houses and dwellings are in turn included in the core national accounts and constitute a significant proportion of SNA household production. However no figures are available on this renovation and construction work in different types of households.

In housing, intermediate consumption goods and services account for a larger proportion of production than in other principal functions. This is because the figures here include rents paid, most energy charges and housing costs related to owner-occupied housing (Appendix 3). Therefore figures are higher for young households who often live in rented accommodation. Older small households and families with children, for their part, live more often in owner-occupied housing where cleaning, repairs and gardening and yard maintenance take up more time and drive up the share of labour.

Figure 18. Non-SNA production of housing services by type of household



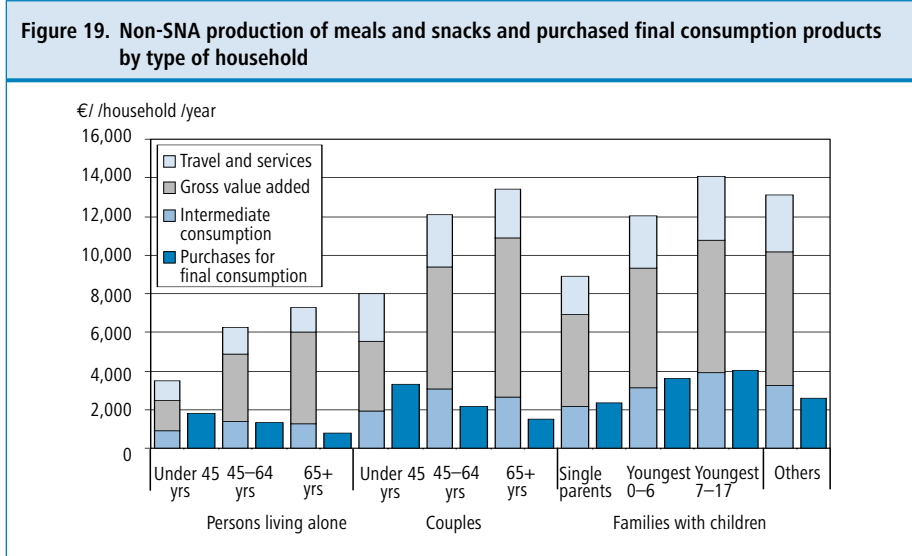
Examples of final consumption products in housing services include hotel and other accommodation, laundry services for home textiles and cut flowers. However it is only rarely that staying at a hotel is a substitute for living at home or a second home. In the principal function of housing, the sum total of final consumption products averaged less than 300 euros in all types of households. It is noteworthy that hotel nights included in package holidays are not taken into account in these calculations.

Meals and snacks

In providing meals and snacks, the value of production ranged from over 14,200 euros in families with schoolchildren to less than 3,600 euros in single-person households under 45 (Figure 19). As in other principal functions, labour accounted for the bulk (over 60%) of the value of production in meals and snacks. The share of labour was greatest and the share of intermediate consumption goods and services smallest in single-person households and couples over 65 (less than 20%). The share of labour was smallest among young people living alone and couples (45%). Travel and services and intermediate goods and services accounted for almost equally large proportions in this principal function, standing at 18 per cent for older couples and people living alone and for 22 per cent in most other types of households.

Figure 19 also shows the value of purchased final consumption products: this allows us to compare the value of ready-to-eat snacks and meals with those produced by the household.

In families with children and households under age 45, the value of purchased final consumption products was greater than the value of intermediate goods and services, whereas in other types of households the opposite was true. For young people living alone, the value of final consumption products was one-half of the total provision of meals and snacks and for families with children around 30 per cent. This is probably indicative



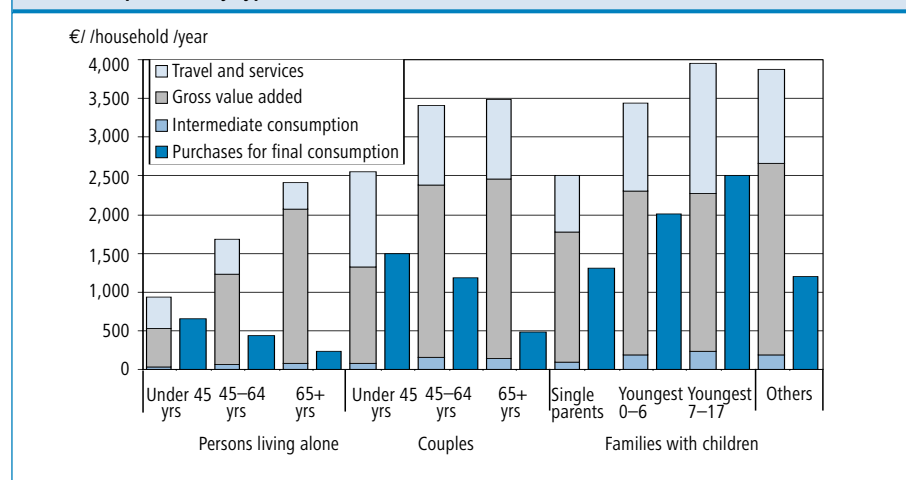
of the fact that young households and families with children purchased prepared meals for consumption at home or went out for meals more often than other households. Purchases of alcoholic beverages are not included in this analysis.

Clothing and clothing care

The value of production in clothing and clothing care was considerably lower than in the provision of housing and meals. As in most other principal functions, the highest figures were recorded for families with schoolchildren (at almost 4,000 euros) and the lowest in single-person households under 45 (less than 1,000 euros). The structure of clothing and clothing care is different from that of other principal functions. Here, the share of labour accounted for at least one-half of the value of output in all types of households; in most households it accounted for 60–70 per cent. Furthermore, travel and services related to clothing purchases accounted for a greater proportion of the output value than in other principal functions, ranging in most households from 27 to 44 per cent. The only exception was seen in single-person households over 65, where travel and services accounted for no more than 14 per cent. Intermediate consumption, such as purchases of energy, water, detergents or textiles and sewing accessories, accounted for no more than 3–6 per cent of the value of output.

In Figure 20, the value of purchased final consumption products and services is again illustrated alongside the bar describing own household production. In clothing and clothing care, the value of final consumption was exceptionally high in comparison to the value of household-produced output. Final consumption products in this category consist of clothes as well as laundry and repair charges. Older people who lived alone and older couples spent the least money on clothing and on clothing care services relative to the value of household production (10–14%). For single-person households under

Figure 20. Non-SNA production of clothing and clothing care and purchased final consumption products by type of household



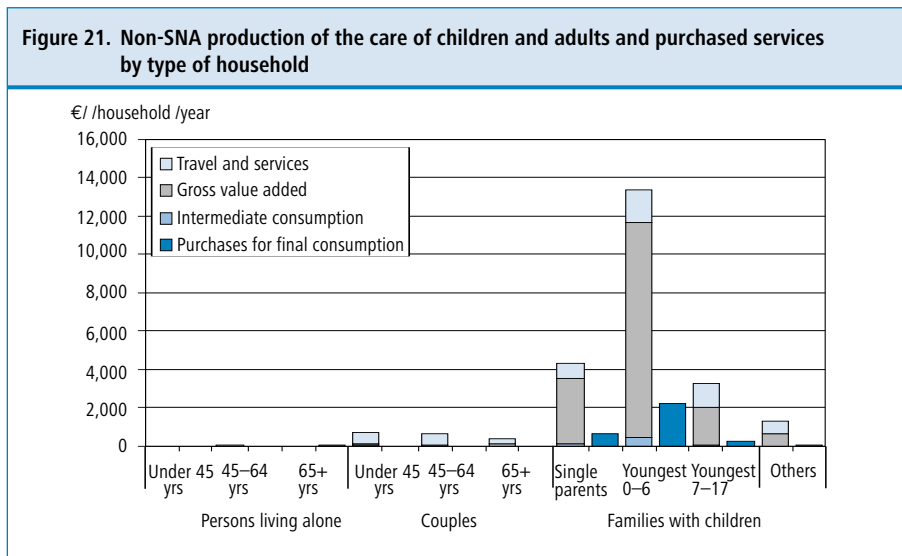
45 and families with schoolchildren, the value of final consumption products was around 70 per cent of the value of production. Expenditure on clothes and their care was highest in families with schoolchildren, with spending amounting to more than 2,500 euros a year. The differences seen between different household types suggest that young people and families with children spend quite a lot of money on clothes, whereas older people buy less clothes but devote more time to clothing care.

Care of children and adults

In families with children under school age, the value of childcare was in a class all its own. In fact, the figure was higher than that for SNA housing or meals and snacks at almost 13,400 euros (note that the scale in Figure 21 is different from the scale in Figure 20). In these families the value of childcare was around four times higher than in families with schoolchildren and almost three times higher than in single-parent families.

One factor which reduces the value of childcare and the care of adults is that allowances paid out to families are subtracted from the value of labour (regarded as subsidies). On average, families with small children got almost 2,500 euros a year in care allowances, for single-parent families the figure was almost 270 euros. In other types of households care allowances are much smaller. It also needs to be borne in mind that the public sector subsidises a significant proportion of children's day care, and consequently households only have to pay for part of the final consumption products in this principal function.

Travel and services accounted for over one-half of the value of care for adults. For people living alone, travel and services related to care were allocated to caring for pets since there are no other (permanent) residents in these households. These people do, however, have pets, which will occasionally need to be taken to the vet, for example.

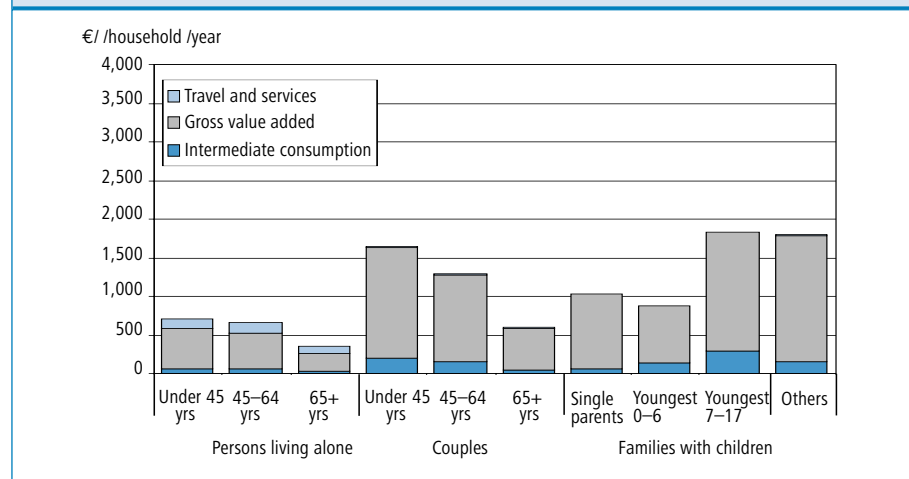


Caring for pets

The value of pet care was the highest in families with schoolchildren, in other households and in couples under 45 (1,700–1,900 euros). The lowest value was recorded for persons over 65, both those living alone and couples (less than 600 euros, Figure 22). Pet care accounted for 2–6 per cent of total household production.

Pet care is defined as consisting of care proper and compulsory walks (mainly dogs), with a maximum of 10 minutes at a time classified as time spent in pet care; longer walks are classified under physical exercise. Intermediate consumption goods and services in pet care consist of animal food, medicine and some of the accessories needed in caring for pets. Equipment with a longer service life and the pets themselves are counted as investments.

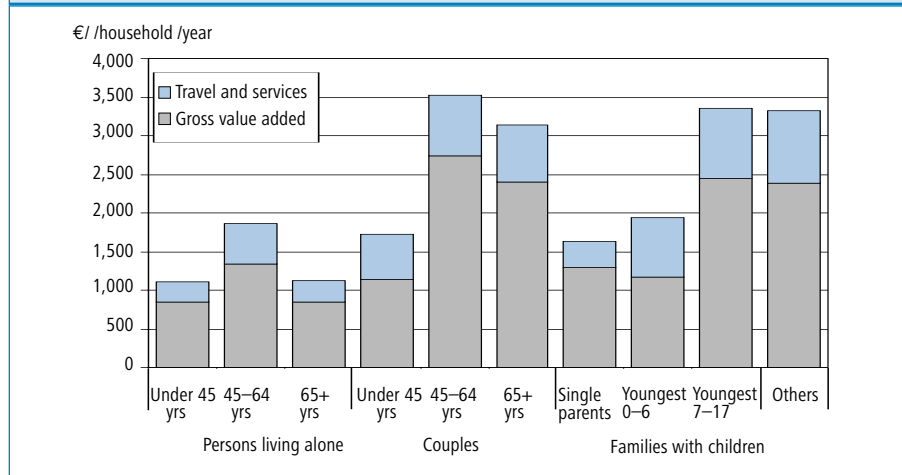
Figure 22. Non-SNA production of pet care by type of household



Volunteer work

The value of volunteer work consists primarily of labour, mainly in the shape of neighbourly help and other unpaid voluntary work, for instance at a sports club or a charity, as well as of travel related to voluntary work and the consumption of fixed capital and intermediate consumption associated with travel. Volunteer work includes no intermediate consumption because it is usually compensated separately.

Figure 23. Volunteer work by type of household



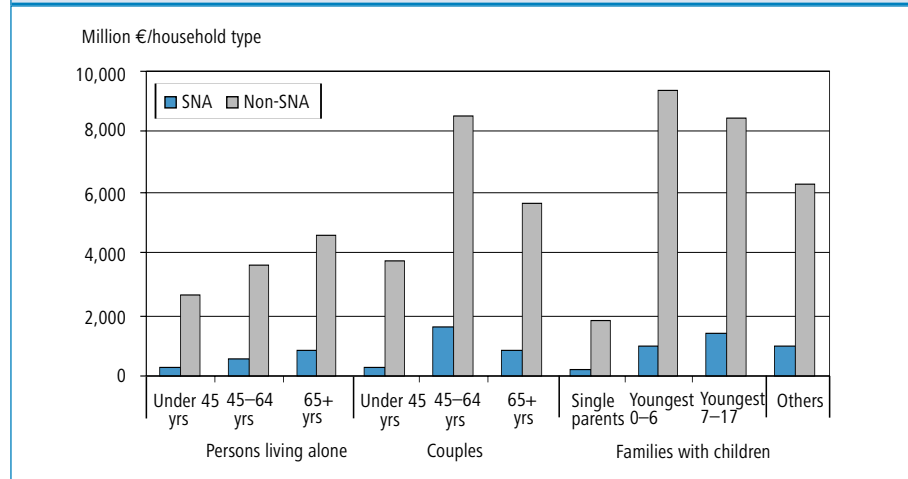
The highest volunteer production figures were recorded for couples aged 45–64 (over 3,500 euros, Figure 23). One explanation may be that these couples give informal help to their elderly parents who live in separate households. The volunteer work was also higher than average in families with schoolchildren, where the bulk of this production consists of volunteer work related to children’s leisure activities and hobbies.

6.2 Household production by types of household at national level

A household analysis at the national level yields a rather different picture than the examination of individual households. This is because the number of different types of households in our country varies. In Figure 24, the value of production by single-parent households, for example, is as low as it is because there are so few households in this category (80,110). By contrast there is a very large number of households with couples aged 45–64 (almost 311,000), so their behaviour has a major impact on the national figures for household production. The number of single-person households under 45 is higher still (317,000), but they account for a comparatively small proportion of household production owing to their small amount of unpaid work. Two-parent families with children, which number around half a million, account for one-third of the country’s total household production. Production accounts for different types of households at the national level are shown in Appendix 7. The Table also shows the average gross value added and the value of output per individual household (euros per household). (These rows are placed immediately below the value of output).

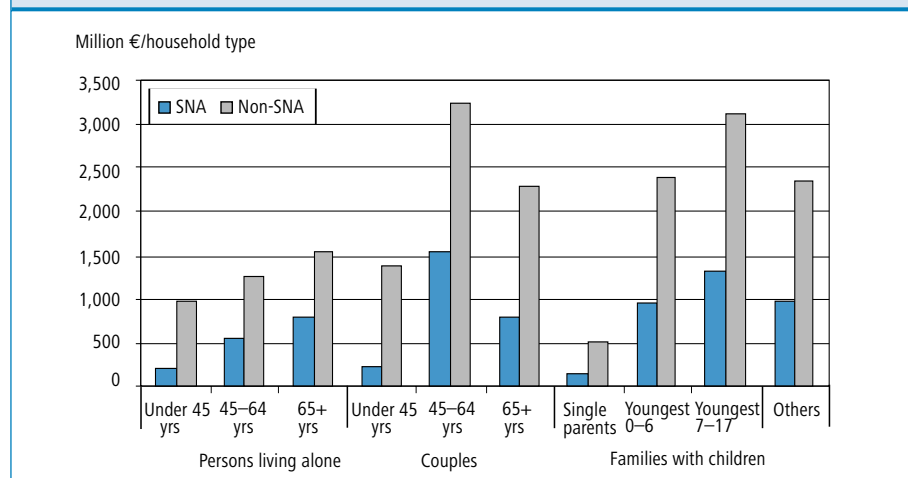
SNA production consists primarily of housing services produced by owner-occupiers. The proportions of SNA production in different types of

Figure 24. National gross value added in household production by type of household



households also reflect households' housing careers (Figure 25). Young people who live alone rarely live in owner-occupied accommodation, but with advancing age this becomes increasingly common. The most significant producers of SNA housing services are couples aged 45-64 as well as households with schoolchildren. Not only housing services, but also SNA food production is clearly higher in these households than in other household categories. In other words, the overall volume of household production is dependent first and foremost on the number of families with children, but also on the present stage of life of the baby boom generation, which typically includes living in owner-occupied accommodation, often having a second home or summer house, and fishing, berry picking and gardening.

Figure 25. National gross value added in production of own-account housing services by type of household



6.3 Conclusions by type of household

There are marked differences between different household types both with respect to the volume of production, its breakdown between different principal functions and the structure of production. Production volumes increase more or less steadily from the first to the fifth income quintile. The minor deviations seen in this pattern are explained by the types of household, suggesting that household structure and life-stage have a greater impact on household production than incomes.

The use of intermediate goods and services decreases and the share of labour increases with advancing age both among people living alone and among couples. Given the high proportion of care provision, the value of labour in families with small children exceeds the figures for other types of households.

The purchases of final consumption products are highest in relative terms in the provision of meals and snacks, second highest in clothing and third highest in housing. The one exception here is represented by families with small children, where the expenditure on childcare services is somewhat higher than expenditure on clothes and clothing care. Since day care is heavily subsidised by the public sector, the results for the proportion of final consumption purchases in this comparison are lower than the true figures. In the provision of meals, the mass production of foods is highly efficient and highly processed products provide a competitive option to household production, in both price and quality terms. The shift to market production has been even more pronounced in the manufacture of clothes. People no longer have the same skills they used to, which is another reason why DIY clothes no longer are a competitive option. Doing the laundry at home with an automatic washing machine, on the other hand, is cheaper and more convenient than using professional laundry services. Very few households reported using these services. The cleaning services market was also very much in its infancy in Finland in 2001 (Aalto 2003).

It seems then that age has an impact on the volume of household production and particularly on the share of labour in household production. However it is too early to say whether the reason for this lies in generational differences in lifestyles, or whether the difference is due to life-stage or household structure. Our focus here is primarily on life-stage and structural factors because no time series are as yet available that would describe generational differences. Single-person households and couples aged over 65 spend more time in unpaid work than younger households, and in these households, labour accounts for a larger proportion of the value of production. The older people are used to self-provisioning. They also have more time on their hands and consequently they might work more slowly. What is more, not all pensioners can take advantage of subsidised meals at service centres in the same way as people who go to work, so they often prepare their own meals.

Researchers in Australia have also calculated the value of household production for households at different life-stages (Ironmonger & Soupournas 2003). For these studies, life-stages were constructed by combining age and living with a partner/spouse. The results for 1993–94 are very similar to those reported in the current Satellite Account. In Australia the lowest value was recorded for persons aged around 20 and the highest in the age bracket 30–40, when most people have small or school-age children, while the figures were somewhat lower among persons aged 60–70 (value of production per adult 30,400, 45,400 and 36,200 Australian dollars). At all age stages people living with a partner/spouse recorded a higher value for household production than people who lived alone, even in per capita calculations.

7 *Integrating household production into the national accounts*

The basic idea of the Household Satellite Account is to calculate a monetary value for household production and to make it visible in economic terms. Further, the idea is to produce a module, a separate account that, if and where necessary, can be integrated with the national accounts. The integration of these different accounts will produce an extended account that describes the whole economy. Time series on this extended economy offer a different picture of economic development compared to the core accounts. According to research by Professor Duncan Ironmonger, household production and market production serve as buffers for each other so that during strong business cycles and increasing market production, household production will tend to recede; and during weak business cycles, the opposite is true. According to Ironmonger the ratio is not quite 1:1, but the factor value is around 0.8 (Ironmonger & Soupournas 2003). As yet no economic time series are available in Finland that cut across different business cycles.

In the long term economies are affected not only by cyclical fluctuations, but also structural changes. Production shifts from one sector to another. These shifts may vary in direction and intensity at different stages of market economy development. It is widely agreed that the main trend is for production to shift from the household sector to the market economy, but it is possible that estimates have been exaggerated. There is also movement in the opposite direction, from the public and private sector to households, which may not have been fully recognized. At least it may be said that strong business development requires increased production in the household sector, too. One example is provided by the increased amount of time spent by households in the acquisition of goods and services (Varjonen & Aalto 2005).

In the discussion that follows, household production is integrated with the household sector accounts of the national accounts and with parts of the whole system of accounts. All the figures are for 2001.⁹

7.1 *Integration with household sector accounts*

We begin by integrating household production with the household sector accounts in the system of national accounts. The sequence of household accounts is presented in detail in Tables 1 and 2 of Appendix 9. One factor that somewhat complicates the integration is that part of household production (13%) is already included in the national accounts. To avoid duplicate counting, a column has been added to the integrated tables under the heading: Adjustments (SNA – non-SNA). In the production account, generation of income account and capital account deductions are entered in

⁹ The FISIM (Financial Intermediation Services Indirectly Measured) methodological revisions made to the national accounts in summer 2005 have not been taken into account. Therefore the figures describe the situation in spring 2005.

this column to allow for the transfer of SNA production to household production. In other accounts the column shows the increase in disposable income, consumption and saving attributable to household production.

In Table 1, household production is divided between SNA and non-SNA production and volunteer work. In Table 2, household production is divided between principal functions regardless of whether part of that production is included in the core national accounts. The Tables have separate columns for the SNA household sector, household production, and extended household production. The figures shown in these Tables are discussed in the following under the headings Extended household output, Extended household consumption and Saving and gross fixed capital formation.

Extended household output

In the light of the official national accounts, household production appears to have only a marginal role; it accounts for no more than a few per cent of the national economy. By contrast the role of households on the consumption side of the accounts, is quite pronounced. According to the national accounts, the volume of individual consumption as a proportion of GDP in 2001 was 64 per cent. The extended household sector accounts change the picture by bringing more clearly to light the role of household production for own use. The value added of household production increases 4.7-fold.

Extended overall output is obtained by adding together production from the household sector in the national accounts and the output of household production. The share of household production included in the core national accounts is then subtracted. The figures are indicated in million euros in 2001. The figures that are included in the national accounts are given in *italics*.

	million euros
<i>Household output</i>	24 317
+ Output of all own-account household production	81 588
– <i>Output of household production for own use included in the national accounts</i>	12 730
= Extended household output	93 176

Using the same calculation rules, the gross value added figures change as follows:

	million euros
<i>Household sector gross value added</i>	14 582
+ Value added of all own-account household production	62 844
– <i>Value added of household production for own use included in the national accounts</i>	8 297
= Extended household gross value added	69 129

Production for own use accounts for 88 per cent of extended household sector output. The share of volunteer work is 6.5 per cent. Production for own use accounts for an ever greater share of gross value added, i.e. 91 per cent, with volunteer work representing 8 per cent of this.

Household disposable income increases by some 80 per cent by virtue of household production, i.e. from 64 billion to 116 billion euros. This, however, is an imputed increase; households do not actually get to see this money. It may be described as a “compensation” that materialises in the consumption of the goods and services that households have produced for themselves. On the other hand, if households wanted to maintain the same level of consumption without own production, they would have to buy the corresponding products in the market and the money they spent on these goods and services means that they would have less to spend on something else. So although the increase in disposable income is only imputed, its impacts are very real. Volunteer work accounts for 5 billion euros of this imputed income. It is not the household that has produced this work that reaps the benefits, but at a national level the beneficiaries are nonetheless private households.

Extended household consumption

Household consumption is also increased. It is a key characteristic of services that their production and consumption are closely intertwined with each other (SNA 1993, 6.8). It follows logically that households also consume the services that they produce for their own use (with the exception of neighbourly help and other volunteer work, which is consumed in some other household).

Extended household consumption consists of the consumption of the final products purchased by households and of the consumption of products that households have produced for themselves. Here we need to take into account the items already included in the core national accounts under consumption, i.e. the ingredients, raw materials and other intermediate consumption goods and services, as well as capital goods purchased by households in 2001. These items must be subtracted from consumption to avoid duplicate counting. In addition to household consumption, the figures include the consumption expenditure of general government, the biggest items of which are health expenditure and education. Non-profit institutions serving households include religious associations, sports clubs, etc. The individual consumption expenditure of general government and non-profit institutions is financed through social income transfers. Adding them to household consumption expenditure results in individual consumption expenditure. The figures are as follows (excluding collective consumption):

	million euros
<i>From household sector accounts</i>	
Household consumption expenditure	65 031
+ general government individual consumption expenditure	18 436
+ non-profit institutions' consumption expenditure	2 886
= Individual consumption expenditure ("actual" individual consumption)	86 353
<i>From non-SNA household production</i>	
+ value of output (household production 81 588 less its SNA component 12 730)	68 858
– intermediate consumption	14 312
– gross fixed capital formation	3 828
= Extended household consumption	137 071

Extended household consumption is one and a half times greater than SNA consumption. It is noteworthy that in this calculation, the value of products produced by households (i.e. final consumption products) does not include value added tax, which in turn is included in individual consumption figures in the national accounts.

According to the national accounts, consumption expenditure has steadily increased. Growth figures for extended consumption are probably somewhat lower. The reason for this is that when households purchase market services instead of relying on their own production, for instance go out for a meal instead of cooking themselves, there is no change in consumption itself; only the producer changes. Since 2001, it is estimated that the use of purchased services as substitutes for household production has increased considerably. The introduction of a new tax deduction for household services and domestic work in 2003 has attracted more producers into the market and increased the demand for services (Niilola et al. 2005). The impacts of this development on consumption as well as on the value added from production can only be assessed once results are available from the next household satellite accounts.

Saving and gross fixed capital formation

When consumption is subtracted from household disposable income, the remainder shows the amount of saving. Household production for own use impacts both the household's disposable income and consumption, and by the same token its saving. When household production is calculated via costs, household consumption cannot exceed the production of goods for own use. The increase in savings compared to core national accounts is explained by the fact that the goods used as investments in household production are classified in the core national accounts as final consumption goods, but in the satellite account they are transferred from consumption to gross fixed capital formation.

	million euros
<i>From household sector accounts</i>	
Disposable income	64 112
+ Social transfers in kind from	
- general government	18 436
- non-profit institutions	2 886
= Adjusted disposable income	85 434
+ Adjustment for households' pensions fund share	145
- Actual individual consumption	86 353
= Saving	- 774
<i>From non-SNA household production</i>	
Disposable income	51 708
- Actual individual consumption	50 719
= Saving	989
Extended household saving (-774+989)	215

Gross fixed capital formation refers to the value of capital goods purchased during the year. In the national accounts household sector, it consists mainly of housing ownership. In the household satellite account, it additionally includes household durable and semi-durable goods (excluding leisure, hobby etc. equipment).

	million euros
Gross fixed capital formation:	
<i>From household sector accounts</i>	
+ Gross fixed capital formation in household production	7 807
- part included in core accounts	3 979
= Extended household gross fixed capital formation	10 193

According to the national accounts, household sector savings in 2001 were negative: household spending exceeded household disposable income by 774 million euros. The savings generated by household production, on the other hand, amounted to almost one billion euros in the black. Overall then, in the extended household sector account, savings were 215 million euros in the black. Savings are used to finance gross fixed capital formation, i.e. the acquisition of household appliances, furniture etc. in households. In 2001 gross fixed capital formation exceeded capital consumption by some two billion euros, which is part of the financing of gross capital formation.

7.2 Integration with the whole national economy

International comparability is an important aim of the national accounts. Figures describing the extended economy open up a new dimension of comparability, bringing non-market production into the equation and in this way providing a clearer picture of the true size of different national economies. Extended figures also help to form a clearer assessment of GDP growth from a welfare point of view, since services produced in household production are specifically intended for household consumption. International comparability requires household satellite accounts to be compiled on the basis of harmonised principles and methods. As yet no such recommendations are in place in the European Union.

Table 3 in Appendix 9 integrates non-SNA household production with the national economy accounts (goods and services account, production account and generation of income account). The columns in this table represent the whole economy (column 1), the whole economy less SNA own-account production (6) and the extended economy (7). Table 4, then, shows the relative proportions with which the whole economy is extended when non-SNA household production is incorporated.

The inclusion of household production in the national accounts causes various changes of various magnitude in different elements of production. GDP increases by 40 per cent and real individual consumption by almost 60 per cent. The biggest increase at 79 per cent is recorded for employee compensation; this is because the value of labour in household production has been added to these figures rather than to the operating surplus (in following the logic of the input method). The relatively high proportion of labour in household production as compared to market production is reflected in the fairly modest, 10 per cent increase in intermediate consumption. Figures for gross fixed capital formation (+ 14 per cent) and for fixed capital consumption (+ 13 per cent) also underline the labour intensiveness of household production.

The impacts of incorporating household consumption in the structure of the whole economy could also be shown from the vantage point of the figures for the extended economy. In this case the share of household production would be one-third and that of non-SNA production 28.7 per cent (see Chapter 5.1).

The inclusion of household production in the national accounts drives up the share of service production. This growth derives from the increase in services related to housing, meals, clothing care and the care of children and adults. It would be particularly interesting to know how large a proportion of these services are produced by business companies, the public sector and households and what kinds of shifts occur between these different sectors. Answers can be obtained by continuing to integrate household production into the supply and use framework of the national accounts and by producing relevant time series.

8 Discussion of the results and needs for further research

8.1 Interplay of time and money in household services

The results produced by the Household Satellite Account are of a new kind, in two respects. First, the account produces quantitative information on how households combine time and money in their productive activities. Secondly, it produces monetary estimates for the value of household production in different types of households and in different principal functions.

When households make decisions on how to obtain the services they need or that make their everyday life easier, time and money are to some extent regarded as substitutes for one another. In microeconomics, researchers have sought to explain the use of time and money by means of econometric models, inspired by Becker's theory of time use allocation. The alternative use of time and money is approached not only as a resource issue, but also as a value issue that reflects households' priorities and decision-making. The models examine decision-making situations in individual activities.

The statistics compiled in the present Satellite Account describe the monetary value of the goods and services produced by all the households in the country for their own use. Its aim is not to explain why money and labour are combined in certain ways, but to describe how they were combined in 2001. In order to give more depth to the picture, production is divided into principal functions. Accounts are produced separately for ten different types of households, which represent different life-stages and family structures. The value of production is calculated on the basis of national accounting rules applying the input method: the accounts show the share of labour, the consumption of fixed capital, raw materials and other intermediate consumption and gross fixed capital formation separately. Where possible the value of goods and services substituting household production, i.e. purchased final consumption products, is indicated separately alongside the value of own production. The figures provide a clear picture of how different types of households spend their time (i.e. labour) and money when purchasing or producing goods and services.

Housing and food: the two biggest production fields

According to Household Budget Surveys the biggest consumption expenditure items in Finnish households are housing, food and transport. The Household Satellite Account shows that people also put in a lot of work towards their housing and food. The value of household production is highest in the principal function of housing, where almost one-quarter (5 billion euros) of net value added of 22 billion euros is created through housing services produced by owner-occupiers. Other basic housing requirements, apart from the dwelling itself, include furniture, household appliances and other capital goods: the value of capital consumption is almost 5 billion euros. The value of labour in the provision of meals and snacks is almost as high as in the production of housing services; net value added here is 16.6 billion euros. The share of capital consumption, on the other hand, is considerably lower at 672 million euros. At an aggregate level the other principal functions, i.e. clothing, care and volunteer work, are all much smaller, but the situation in families with small children is different.

Labour intensiveness is highest in care, purchases of final products are highest in food

The structure of production varies across the different principal functions. On average, labour accounts for 74 per cent of the value of output, which is the same as in the service industries in general. The share of labour is highest in the provision of care at over 90 per cent. The value of purchased care services amounted to no more than 14 percentage points of the value of care produced at home, as its share is reduced by day care services organised and subsidised by the public sector. Parents' allowances and home care allowances paid out from the public purse have been taken into account in calculating the value of care produced at home. Differences in subsidy mechanisms may complicate the task of comparing production of care in different countries.

The share of intermediate consumption, i.e. raw materials and supplies needed in production, is greatest in the principal functions of housing and food. In housing services, intermediate consumption goods and services consist in large part of rents, repairs and heating. In the provision of meals, intermediate consumption goods and services include various ingredients as well as the energy and water that are needed in preparing meals. High intermediate product use may be an indication of the use of expensive or highly processed ingredients, but on the other hand it may also signal that the household does a lot of cooking and uses less ready-to-eat snacks and prepared meals. Indeed it is necessary to look at the use of final consumption products and intermediate consumption side by side. The ratio of the two varies in different types of households. Persons under 45 spend more money on final food products than on intermediate ones, whereas in pensioner households the opposite is true. Families with children spend roughly the same amount of money on intermediate consumption goods and services and final consumption products.

Shopping, running errands and related travel account for around one-fifth of the value of production. Their share is greatest in families with children, reflecting the nature of activities in bigger families (e.g. the need for transporting children). The amount of time spent in these activities has increased substantially over the past few decades.

Life-stage and population structure determine household production

The relative weight of different principal functions in household production varies at different life-stages. Results at the household level show that the age of household members seems to impact the volume of household production and particularly the share of labour in that production. The share of labour increases with advancing age, both among people living alone and among couples, while the share of final consumption purchases decreases, and so does the share of housework related travel and shopping.

The volume of household production per household is lowest in single-person households under 45, where labour furthermore accounts for the smallest proportion of the value of production. In this group the housing accounts for over one-half of output, which is more than in other types of households. This suggests that household production has only a minor role in the life of young people, except of some production in housing services.

Household output is highest in families with small children. In their case almost one-third of the value of production comes from the provision of care. The high proportion of care explains why labour accounts for a larger share of the value of output than is the case in other household types. In other families with children, care accounts for less than 15 per cent of the output, in all other households the figure is less than 4 per cent.

At the national level, figures for household production are influenced not only by differences between individual households, but also by the number of different household types in the country at any given time. Forecasts of changes in the population structure can also shed light on the projected development of household production.

Couples representing the baby boom generation (aged 45–64) and families with children represent the “heavy producers” of household production. In 2001, these households together accounted for about half of Finland’s household production, even though they account for only 37 per cent of the number of households. On the other hand, single-person households also account for around 37 per cent of all households, but their share of household production was no more than one-quarter.

The volume of household production also depends on population growth because as the number of households grows, so too does the volume of production. The way that people organise and go about their everyday activities is very much dependent on their housing arrangements, and therefore every household produces at least some services for its own use.

8.2 Reliability of results

The reliability of the results reported here can be assessed against both the method and the datasets used. The value of household production has been determined using the input method, where the value of output is calculated as the sum of production costs. The most critical point is the determination of the amount and value of labour. In this Satellite Account the amount of labour is determined on the basis of the Time Use Survey. The figures are based on time spent in primary activities; secondary, simultaneous activities have not been included because there has not yet been enough discussion about how they should be defined and valued. Another reason for the exclusion of secondary activities is that the reported figures tend to vary widely, and the results of the Time Use Survey have not been considered sufficiently reliable.

The value of unpaid work depends also on the wage level applied in valuation. For the present purposes we have used the gross wage of a generalist housekeeper/home helper, including holiday compensation. The wage is 9.99 euros per hour. Other options would have been net wage and gross wage including employer contributions. Calculations based on these three different wage concepts are shown in Appendix 4. Instead of the wage of a generalist, it would be possible to use the wage of other employees with specialist skills. Producers of services compensating unpaid work include cooks, childminders, cleaners, office clerks, housekeepers, drivers, decorators, interior designers, janitors, etc. The average wage level of specialist employees is pretty close to that of the housekeeper, so it is unlikely that this change would have had very much impact on the results. By contrast the difference between net and gross wages is considerably bigger.

Furthermore, the reliability of these results can be weighed against the reliability of the data used as well as against their applicability to the measurement of household production. The datasets used here were Statistics Finland's Time Use Survey, the Household Budget Survey and national accounts data. The time use data were from 1999–2000; for the present purposes we have consulted the data at household level (Appendix 1). A more detailed account of how these data were compiled is given in Appendix 2 of the report on Time Use in Families (Väisänen 2005; in Finnish). The Household Budget Survey is from 2001–2002. A more detailed description of this dataset and the methods employed is provided in Statistics Finland's quality statement (Statistics Finland 2004).

The samples of all these datasets were considered adequate for purposes of classifying households into different types. Single-parent households were kept intact as a single category, without dividing them into groups according to the age of the youngest child. This was for reasons of ensuring an adequate sample size.

The data were well suited for the compilation of this Household Satellite Account. A major consideration in the process of harmonising the method of the European Time Use Survey was to make sure that unpaid work can be distinguished from leisure and personal activities. The Classification of Individual Consumption by Purpose (COICOP), for its part, is highly detailed and provided a sound basis for the necessary classifications; there were only a few instances where time use or consumption categories had to be divided into two or more parts on a discretionary basis. These classifications concerned (1) the allocation of a certain category between different principal functions of household production and (2) the allocation of a certain consumption category between household production and some other activity, such as leisure. The former classification impacts the relative weight of different principal functions, but not the total value of household production. The latter impacts the value of household production.

In the case of time use categories, discretionary classification was required when allocating the amount of time spent in shopping and services, household management, and to some extent travel related to unpaid work to different principal functions (see Table 5). In consumption expenditure, the use of energy and water were divided between intermediate consumption in housing, meals and clothing according to the average distribution of use (Appendix 8). Gardening products (garden soils, fertilizers, seedlings and seeds) were divided in half between housing (decorative garden) and SNA food (vegetable garden) intermediate consumption. Among final consumption products, home care and meal services for the elderly were also split equally between final care and final meal consumption. These decisions seemed to have a minor impact on the relative weight of different principal functions, but not on the total volume of household production.

Discretion was also needed in the allocation of intermediate consumption goods and services as well as capital goods between household production and non-household production. Three per cent of telephone costs, Internet costs, postal fees, short bus and train trips and newspaper subscription fees were allocated to services (running errands). Accordingly, three per cent of telephone appliances and PCs were allocated to capital goods and capital consumption. In the input method used in the Satellite Account, intermediate consumption does not affect value added, but the consumption of capital does, although its share overall is very small.

In the national accounts, household final consumption of goods includes the consumption of both foreign nationals resident in Finland and people living in institutions. Consumption by these two groups was subtracted from total consumption when compiling the Satellite Account. We had access to only rather crude estimates of these people's consumption, and therefore the allocation of that consumption to the detailed classification of the Household Budget Survey was done on a discretionary basis. This has no significant effect on the overall end-result, but it might show up in individual categories. In the future the tourism satellite account will help to shed further light on this problem. According to 2001 national accounts, these population groups accounted for around 3 per cent of total consumption expenditure.

8.3 Development needs

The data produced by the Household Satellite Account constitute an extensive cross-sectional material and as such provide a good picture of the extent of household production. As is the case all economic statistics, here also it is important to know the direction and pace of development. Time series are crucial to systematic monitoring the development of household production and its relationship to the rest of the national economy. It would be particularly important to monitor the development of households' own production versus the use of purchased services in different principal functions, because shifts in production have a major impact on business and industry, employment and services provided by the public sector. Ageing people who live in the community need care, which is now mainly produced by spouses or other relatives. Population ageing may well increase the demand for purchased services. Shopping and services as well as travel and transport related to unpaid work seem to be on the increase. These developments describe the impacts of the social structure and infrastructure on households.

The aim now is to compile household satellite accounts on a regular basis at five-year intervals or more often, for example whenever a household budget survey produces new data on changes in consumption and whenever new time use studies are conducted. Since habits of time use are relatively slow to change, and since time use studies are carried out less frequently than household budget surveys, it might be possible in the interim to use earlier data on time use that are adjusted according to changes in household structure and to update the consumption data.

Some revisions in the classifications used in the source materials would be helpful. First, it would be useful to classify the use of market and public services substituting household production by principal function (food, care, laundry, cleaning and repair services). Use of these services was still at a low level in 2001 but it is now set to increase as a result of new tax deduction rules and changes in attitudes towards using market services.

Furthermore, it would be useful to be able more fully to include public sector taxes and subsidies on household production. The present calculations have taken account of home care allowances and parents' allowances as well as certain taxes (real estate tax, vehicle and dog tax, fishing licence fees). However, services such as childcare and the care of the frail elderly are heavily subsidised from the public purse. Living in rented accommodation is supported by a housing allowance and owner-occupied accommodation by tax deductions. Conducting separate studies to determine the shares of these subsidies and their impacts on household production might be a good way to clarify the role of public sector on households' economic behaviour.

In the future, we also wish to be able to use output method to determine the value of production. That would provide important comparative data both on value added and on the competitiveness of household production relative to market production. In the present calculation labour was valued on the basis of the gross wage of housekeeper (ISCO 51331). Whatever the choice of wage,

however, it is always open to criticism because there is no such thing as a “correct” equivalent market wage. The combined use of the input and output methods, whereby the mixed income obtained by the output method is divided by the number of hours spent in work, yields a reference hourly wage. The team that compiled the UK Household Account in 2000 was in the position to use this approach. The results show that this “hourly wage” varies widely from one task-group to another. For comparative purpose it is important to take careful stock of which items are included in intermediate consumption in each of the methods because in the output method, the value of intermediate consumption goods and services has a direct bearing on value added. Kristiina Aalto has calculated hourly wages for laundry washed at home on the basis of the number of kilogrammes of laundry and the cost of professional laundry services (Varjonen & Aalto 2005). The results show that the hourly wage is higher than when calculated on the basis of inputs. Doing the laundry is a task that can be done in households with quite considerable efficiency using automatic washing machines. Therefore it will not easily move to the market sector.

In this Satellite Account housing has been approached as a single entity, without distinguishing between space used for unpaid work and leisure activities or sleeping. When the output method is used, this entity must be divided into different parts because the price of the market commodity corresponding to the output also includes facilities, e.g. meals consumed in a restaurant include kitchen and dining area costs. In the future leisure activities could be included as an extension to the Satellite Account. Then, living spaces in leisure use could also be allocated to their own principal function, as could acquisitions, travel etc. intended for leisure activities. That would help to complement the picture of economic activities in households with respect to leisure production and consumption.

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Appendix 1. Household time use by type of household, min/day

	Total	Persons living alone			Couples			Families with children			Other households
		Aged under 45	Aged 45–64	Aged 65+	Aged under 45	Aged 45–64	Aged 65+	Single-parent	Youngest child aged 0–6	Youngest child aged 7–17	
N sample	4 420	512	319	346	426	650	395	161	582	587	442
n population	2 381 500	317 093	270 927	309 985	196 231	310 906	189 146	80 110	257 159	245 176	204 768
Number of persons over 10 years in household	1.8	1	1	1	2	2	2	1.6	2.3	3.5	2.8
Number of persons in household	2.2	1	1	1	2	2	2	2.6	4.1	4	2.9
Activity											
Household upkeep	70	21	41	55	51	96	115	59	86	114	107
Repairs of dwelling	9	4	4	2	8	16	17	3	13	16	15
Tending ornamental plants	5	1	3	4	1	9	18	1	4	9	11
Other gardening and pet care	0	0	0	0	0	1	1	0	0	0	1
Housing total	85	26	49	61	60	122	150	63	102	139	134
Food preparation, baking, etc. and dishwashing	80	25	56	78	58	103	134	77	99	110	112
Unspecified gardening and pet care	0	0	0	0	0	1	0	0	0	0	0
Food management, total	80	25	56	78	58	103	134	77	99	110	112
Making and care for textiles	27	7	19	32	20	36	37	27	34	33	40
Childcare	30	0	1	0	1	1	0	60	220	30	9
Help to an adult family member	1	0	0	0	1	2	3	0	1	2	3
Care for children and adults, total	31	0	1	0	2	2	3	61	221	32	12
Pet care	4	2	2	1	9	6	3	4	5	7	8
Walking the dog (obligatory time)	10	7	6	3	14	12	6	12	7	18	18
Caring for pets, total	14	9	8	4	24	18	9	16	12	25	27
Care total	45	9	9	4	26	21	12	76	233	57	39
Volunteer work	8	1	1	7	8	11	10	7	10	16	12
Informal help to other households	19	13	21	7	11	34	29	14	10	24	27
Volunteer work and help, total	26	14	22	14	19	45	39	21	19	40	39
Vehicle repair and maintenance	6	3	2	1	8	10	6	1	8	14	11
Travel related to household care	3	1	1	2	3	5	5	2	5	3	5
Travel related to shopping and services	22	11	13	10	33	25	24	24	27	39	26
Transporting a child	3	0	0	0	0	0	0	9	16	9	1
Transporting an adult family member	1	0	0	0	3	3	1	0	2	3	3
Travel related to volunteer work	1	0	0	1	1	1	2	1	3	3	2
Travel related to informal help to other households	4	2	5	2	4	6	6	2	3	5	7
Travel related to domestic work, total	40	16	21	16	52	49	43	39	65	75	55
Shopping for groceries	18	9	12	12	20	22	23	19	23	29	27
Shopping for other goods	20	10	11	8	30	20	25	21	25	43	29
Services	3	1	2	1	4	5	5	3	3	4	5
Shopping and services, total	42	21	25	21	54	47	53	43	52	77	61
Household management	4	2	3	3	4	6	6	2	5	9	6
Domestic work (non-SNA production), total	350	120	203	229	293	429	476	349	610	540	485
Own-account house construction and renovation	5	3	1	0	2	9	5	0	13	6	4
Gardening (edible plants)	5	1	3	4	1	9	18	1	4	9	11
Hunting, fishing, picking berries and mushrooms	8	1	5	6	8	16	11	8	7	12	17
Domestic work (SNA-production), total	18	4	9	10	11	34	35	9	23	27	32
Domestic work, total	369	124	212	239	304	463	511	358	634	567	517

Appendix 2. Principles for the classification of consumption between intermediate consumption, capital goods and final consumption

Final consumption products:

- All goods that are not related to household production (leisure, personal consumption).
- In the category of food, final consumption products were defined as consisting of foods that are consumed without cooking or heating as a snack or a meal (e.g. crisps, ready-to-eat meals). However, ready-to-eat meals that are heated at home, were classified as final consumption products (prepared pizzas, microwave meals). Fruit were classified as final consumption goods even though they have to be washed and often peeled before consumption. Exception was made in apples which were classified as intermediate consumption goods. They were to represent all fruit used as ingredients in meal preparation and baking.
- Services that are purchased as a substitute for household production are classified as final consumption products (child day care, meal services, laundry services, cobbler), but if the service constitutes only part of household production, it is defined as an intermediate consumption service (babysitting at the child's home).

Intermediate consumption goods and services:

- Intermediate consumption goods and services were defined as consisting of those foods that do not in themselves constitute a snack or meal (cold cuts, condiments) or
- that require further processing other than just heating and serving.
- The repair of appliances and machines used in household production were classified as intermediate consumption services.
- Household textiles are intermediate consumption goods because they are used as accessories for housing services.

Capital goods:

Durable goods (D) and *semi-durable goods* (SD) are capital goods. For example, large household appliances are durable goods and small household appliances, tableware and other similar durable products were reclassified as semi-durable goods. These categories include those products and appliances that are needed in household production. (NB. This classification differs from the recommendations of Eurostat's HHSA task force, according to which only COICOP-Durables are defined as capital goods).

For some expenditure categories (e.g. housing, communications, transport), a percentage share is allocated to the various functions of household production in proportion to time use. For health care expenditure, only spectacles and contact lenses are included, using the same percentage as time used in household labour as a proportion of waking hours.

Appendix 3 shows the breakdown of household consumption by principal function: housing (H), meals and snacks (M), clothing (Cl) and care (C). In some cases consumption is divided between two principal functions (e.g. H/M). Furthermore, travel related to unpaid work and services are classified separately.

Appendix 3. Intermediate consumption, household capital (durables and semi-durables) and final consumption by principal function

Principal function		Role in household production	
H	Housing	IC	Intermediate consumption
M	Meals and snacks	SD	Semi durables
Cl	Clothing and clothing care	D	Durables
C	Care	F	Goods /services for final consumption

Principal function	Category	COICOP Classification	Commodity
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Housing

Intermediate consumption

H	IC	A0313103	Leather and rubber mittens
H	IC	A04111S1	Rent of rental dwelling
H	IC	A0412101	Rent of another dwelling
H	IC	A0412201	Rent of free-time residence
H	IC	A0432101	Maintenance and repair for rental dwelling
H	IC	A0432102	Maintenance and repair for dwelling provided as a benefit in kind
H / M / Cl	IC	A0451101	0,72 * Electricity for dwelling
H / M / Cl	IC	A0451102	0,72*Electricity for free-time residence
H / M / Cl	IC	A0452101	0,72 * Town gas and natural gas
H	IC	A0453101	Fuel oil for main residence
H	IC	A0453102	Oil for free-time residence
H	IC	A0454101	Firewood
H	IC	A0454102	Firewood, waste wood and peat: own or benefit in kind
H	IC	A0454103	Firewood, waste wood and peat for free-time residence
H	IC	A0513101	Repair of furniture, furnishings, rugs, etc.
H	IC	A0513101	Repair of rugs and other household textiles
H	IC	A0541105	Decorative and bathroom objects
H	IC	A05413S2	Buckets, washbowls, laundry and wastebaskets, scissors, etc.
H	IC	A05521S1	Repair of keys, locks, cashboxes, fire alarms, etc.
H	IC	A0561103	Other washing and polishing substances
H	IC	A0561104	Insecticides and insect repellents
H	IC	A0561201	Paper towels
H	IC	A0561205	Paper sheets, paper bags, self paper
H	IC	A0561207	Plastic shopping and rubbish bags, etc.
H	IC	A0561305	Candles
H	IC	A05613S1	Cleaning equipment, needles, nails, glue, etc.
H	IC	A0562201	Machinery rental, interior design, etc.
H	IC	A09151S1	Repair of television, computer, etc.
H	IC	A0932102	Houseplants and houseplant bulbs
H	IC	A0932103	Houseplant soil and fertilisers
H / M	IC	A0932104	0,5*Garden plant seedlings, seeds and bulbs
H / M	IC	A0932105	0,5*Peat, garden plant fertilisers
H	IC	A0932106	Flower pots, flower stalks, etc.
H	IC	A0942301	Television licence
H	IC	A12421S1	Insurance for household movables

Appendix 3 (cont.)

Principal function	Category	COICOP Classification	Commodity
Household capital			
H	D	A0511101	Dining tables
H	D	A0511102	Other tables
H	D	A0511103	Sofas
H	D	A0511104	Living-room sets
H	D	A0511105	Armchairs and rocking chairs
H	D	A0511106	Chairs and stools
H	D	A0511107	Bookshelves and bookcases
H	D	A0511108	Chests and wardrobes
H	D	A0511109	Beds
H	D	A0511110	Lamps and shades
H	D	A0511111	Garden furniture
H	D	A0511112	Other furniture
H	D	A0511113	Paintings and graphics, incl. frames
H	D	A0511116	Mirrors and decorative objects
H	D	A0511151	Art objects
H	D	A0512101	Rugs and carpets
H	SD	A0521101	Mattresses, quilts, blankets, counterpanes and pillows
H	SD	A0521102	Sheets and pillowcases, incl. fabrics
H	SD	A0521103	Towels and face-cloths, incl. fabrics
H	SD	A0521104	Curtains and draperies, incl. fabrics
H	SD	A0521107	Oil and plastic tablecloths, etc.
H	SD	A0521151	Rya rugs and other household textiles
H	D	A0531401	Free-standing electric, etc. heaters
H	D	A0531402	Free-standing air conditioning units
H	D	A0531551	Vacuum cleaner, floor and window washing machine
H	D	A0531701	Other major household appliances
H	D	A0551101	Electric hand tools
H	D	A0551151	Garden machinery and equipment, welding equipment, etc.
H	SD	A0552101	Hammers, axes, saws, knives, etc. hand tools
H	SD	A0552102	Garden and other outdoor tools
H	SD	A0552103	Incandescent, fluorescent and halogen lamps
H	SD	A0552104	Fuses, electric wires, sockets, etc.
H	SD	A0552105	Torches, batteries, bulbs
H	SD	A0552151	Keys, locks, cashboxes, fire alarms, etc.
H	D	A0911101	Radio and amplifier
H	D	A0911201	Television sets
Final consumption			
H	F	A0562203	Laundry services of household textiles
H	F	A0932101	Cut flowers and funeral wreaths
H	F	A1121151	Hotel expensies, farm, etc. holidays with full board in Finland
H / C	F	A1231101	0,5 * Housekeeper
H	Paid staff		0,5*Paid cleaner

Meals and snacks

Principal function	COICOP Classification	Products
SNA-production of food for own use		
M	A0111801	Wheat flower
M	A0111802	Barley flower
M	A0111803	Rye flower
M	A0111807	Oat groats, flakes and grains
M	A0112102	Meat of bovine animals, with bone
M	A0112204	Other meat of swine with bone
M	A0112301	Meat of sheep and goat
M	A0112401	Poultry
M	A0112801	Meat of reindeer
M	A0112802	Venison, other meat and game
M	A0113101	Baltic herring
M	A0113102	Small whitefish
M	A0113103	Salmon
M	A0113104	Rainbow trout
M	A0113105	Other fresh fish
M	A0113109	Fish n.e.c.
M	A01141S1	Whole milk
M	A0114701	Eggs
M	A0116301	Apples
M	A0116602	Black currants
M	A0116603	Red and white currants
M	A0116604	Strawberries
M	A0116605	Other garden berries
M	A0116606	Blueberries
M	A0116607	Lingonberries and cranberries
M	A0116608	Cloudberries and other wild berries
M	A0117102	Lettuce
M	A0117103	Fresh herbs
M	A0117104	Spinach, celery, parsley and other leaf and stem vegetables
M	A0117201	Cabbage
M	A0117202	Cauliflower
M	A0117203	Broccoli, red cabbage, Brussels sprouts and other cabbages
M	A0117301	Tomatoes
M	A0117302	Cucumbers
M	A0117303	Pepper
M	A01173S1	Peas, beans, zucchinis, pumpkins, aubergines, etc.
M	A0117401	Carrots
M	A0117405	Onion
M	A0117406	Champignons
M	A0117407	Other mushrooms
M	A01174S1	Other root crops
M	A0117701	Potatoes
M	A0118203	Honey
Intermediate consumption		
M	A0931209	Fishing and hunting supplies
M / H	A0932104	0,5*Garden plant seedlings, seeds and bulbs
M / H	A0932105	0,5*Peat, garden plant fertilisers
Household capital		
M	A0931208	Fishing and hunting gear

Principal function	Category	COICOP Classification	Commodity
Non-SNA production			
Intermediate consumption			
M	IC	A0111101	Rice, rice flakes and flour
M	IC	A0111201	Crispbread and rye crackers
M	IC	A0111202	Rye bread
M	IC	A0111203	Wheat bread
M	IC	A0111204	Other bread
M	IC	A0111205	Bread n.e.c.
M	IC	A0111208	Taco shells and tortillas, etc.
M	IC	A0111351	Macaroni, spaghetti and other pasta products
M	IC	A0111701	Pre-prepared dough, pizza dough, etc.
M	IC	A0111801	Wheat flour
M	IC	A0111802-3	Barley flour, rye flour
M	IC	A0111804	Potato flour, barley and corn starch
M	IC	A0111805	Wholemeal wheat flour
M	IC	A0111806	Other flours and mixed flour
M	IC	A0111807	Oat groats, flakes and grains
M	IC	A0111808	Semolina
M	IC	A0111851	Other groats, flakes and grains
M	IC	A0112101	Meat of bovine animals, boneless
M	IC	A0112102	Meat of bovine animals, with bone
M	IC	A0112103	Seasoned beef, uncooked
M	IC	A0112201	Meat of swine, boneless
M	IC	A0112202	Pork chops
M	IC	A0112203	Ham, uncooked
M	IC	A0112204	Other meat of swine with bone
M	IC	A0112205	Seasoned pork, uncooked
M	IC	A0112301	Meat of sheep and goat
M	IC	A0112401	Poultry
M	IC	A0112501	Salami
M	IC	A0112504	Liver pâté and pastes
M	IC	A0112505	Frankfurters
M	IC	A0112506	Ring sausages
M	IC	A0112507	Other cooking sausages
M	IC	A0112508	Sausages n.e.c.
M	IC	A0112551	Other sausages, cold cuts
M	IC	A0112605	Other cured meat
M	IC	A0112651	Grilled, smoked, cooked and cured meat
M	IC	A0112652	Grilled, cured, etc. poultry
M	IC	A0112701	Meat preserves
M	IC	A0112702	Other preserved meat preparations
M	IC	A0112703	Cabbage rolls
M	IC	A0112751	Meat balls, patties of minced meat and poultry
M	IC	A0112801	Meat of reindeer
M	IC	A0112802	Venison, other meat and game
M	IC	A0112803	Liver and kidneys
M	IC	A0112804	Blood, tongue, bone, knuckle, etc.
M	IC	A0112805	Minced meat
M	IC	A0112806	Mixed meat for Karelian stew
M	IC	A0112807	Meat n.e.c.
M	IC	A0113101	Baltic herring
M	IC	A0113102	Small whitefish
M	IC	A0113103	Salmon
M	IC	A0113104	Rainbow trout
M	IC	A0113105	Other fresh fish
M	IC	A0113106	Coley
M	IC	A0113107	Baltic herring fillets
M	IC	A0113108	Other fish fillets
M	IC	A0113109	Fish n.e.c.

Principal function	Category	COICOP Classification	Commodity
Non-SNA production Intermediate consumption (cont.)			
M	IC	A0113201	Crayfish, shrimps, squid, etc.
M	IC	A0113301	Salted fish
M	IC	A0113302	Dried or cooked cod
M	IC	A0113303	Smoked and grilled fish
M	IC	A0113304	Cooked, smoked, etc. seafood
M	IC	A0113404	Fish fingers, other breaded fish products
M	IC	A0113451	Herring and Baltic herring preserves
M	IC	A0113452	Tuna fish preserves
M	IC	A0113453	Other fish and seafood preserves
M	IC	A0114151	Whole milk
M	IC	A0114201	Low-fat and semi-skimmed milk
M	IC	A0114205	Milk n.e.c.
M	IC	A0114301	Milk powder
M	IC	A0114501	Emmenthal
M	IC	A0114502	Edam
M	IC	A0114503	Cheese rich in fat
M	IC	A0114504	Processed cheese
M	IC	A0114551	Other cheeses, curd, etc. cheese products
M	IC	A0114601	Cream, processed cream, light cream
M	IC	A0114651	Curdled, sour and cooking cream, crème fraiche
M	IC	A0114701	Eggs
M	IC	A0115101	Butter
M	IC	A0115102	Butter-vegetable oil mixture
M	IC	A0115201	Soft margarine
M	IC	A0115202	Cooking margarine
M	IC	A0115401	Edible oils
M	IC	A0116103	Other citrus fruit
M	IC	A0116301	Apples
M	IC	A0116602	Black currants
M	IC	A0116603	Red and white currants
M	IC	A0116604	Strawberries
M	IC	A0116605	Other garden berries
M	IC	A0116606	Blueberries
M	IC	A0116607	Lingonberries and cranberries
M	IC	A0116608	Cloudberries and other wild berries
M	IC	A0116609	Frozen berrymixes and berries n.e.c.
M	IC	A0116801	Nuts and almonds
M	IC	A0116802	Raisins
M	IC	A0116803	Other dried fruit and berries
M	IC	A0116901	Fruit and berry preserves
M	IC	A0117101	Chinese cabbage
M	IC	A0117102	Lettuce
M	IC	A0117103	Fresh herbs
M	IC	A0117104	Spinach, celery, parsley and other leaf and stem vegetables
M	IC	A0117201	Cabbage
M	IC	A0117202	Cauliflower
M	IC	A0117203	Broccoli, red cabbage, Brussels sprouts and other cabbages
M	IC	A0117301	Tomatoes
M	IC	A0117302	Cucumbers
M	IC	A0117303	Pepper
M	IC	A0117351	Peas, beans, zucchinis, pumpkins, aubergines, etc.
M	IC	A0117401	Carrots
M	IC	A0117405	Onion
M	IC	A0117406	Champignons
M	IC	A0117407	Other mushrooms
M	IC	A0117408	Frozen mixes of vegetables and root crops

Principal function	Category	COICOP Classification	Commodity
Non-SNA production Intermediate consumption (cont.)			
M	IC	A0117409	Vegetables n.e.c.
M	IC	A0117451	Other root crops
M	IC	A0117501	Dried peas, beans, mushrooms, vegetables and root crops
M	IC	A0117601	Pickled cucumbers
M	IC	A0117602	Pickled beetroots
M	IC	A0117603	Other vegetable and root crop preserves
M	IC	A0117701	Potatoes
M	IC	A0117801	Mashed potato flakes
M	IC	A0117803	French-fried potatoes, etc.
M	IC	A0117805	Other potato products
M	IC	A0118101	Lump sugar
M	IC	A0118102	Granulated sugar
M	IC	A0118103	Fruit sugar
M	IC	A0118104	Other sugar
M	IC	A0118201	Jams and purees
M	IC	A0118202	Marmalades
M	IC	A0118203	Honey
M	IC	A0118601	Molasses
M	IC	A0119101	Vinegar
M	IC	A0119102	Mustard
M	IC	A0119103	Ketchups
M	IC	A0119104	Mayonnaises, salad dressings and barbecue sauces
M	IC	A0119105	Gravies and sauce powders
M	IC	A0119201	Garlic (fresh or dried)
M	IC	A0119204	Spices
M	IC	A0119205	Culinary herbs
M	IC	A0119251	Salt and herbal salt
M	IC	A0119301	Yeast
M	IC	A0119302	Baking powder and baking soda
M	IC	A0119303	Preservatives and sweeteners, etc.
M	IC	A0119304	Dessert sauces, pudding powders, etc.
M	IC	A0119305	Meat stock cubes and dehydrated meat bouillon soups
M	IC	A0119306	Fish stock cubes and dehydrated fish stock soups
M	IC	A0119307	Dehydrated vegetable soups, vegetable stock cubes
M	IC	A0119410	Food products n.e.c.
M	IC	A0121151	Coffee and instant coffee
M	IC	A0121251	Tea and herbal tea
M	IC	A0121301	Cocoa, powdered chocolate and ready-to-drink chocolate
M	IC	A0122302	Berry and fruit squashes
M	IC	A0122303	Juices n.e.c.
M	IC	A0122402	Light beer and mead extracts
M	IC	A0214101	Home-made wine and home-brewed beer kits
M	IC	A0561101	Dishwashing substances and clarifiers
M	IC	A0561202	Filter bags
M	IC	A0561203	Other kitchen paper products and tin foil
M	IC	A0561204	Disposable dinnerware
M	IC	A0561206	Plastic wrap, plastic freezer bags, shelf paper
M	IC	A0561306	Charcoal, ignition liquid, oil for lamps
M / H	IC	A0533101	0,5*Repair and spare parts of household appliances
M / H	IC	A0932104	0,5*Garden plant seedlings, seeds and bulbs
M / H	IC	A0932105	0,5*Peat, garden plant fertilisers
M / H / Cl	IC	A0451101	0,24*Electricity for dwelling
M / H / Cl	IC	A0451102	0,24*Electricity for free-time residence
M / H / Cl	IC	A0452101	0,24*Town gas and natural gas
M / H / Cl	IC	A442101 +A442102	0,2*Water supply and sewage collection

Principal function	Category	COICOP Classification	Commodity
Household capital			
M	SD	A0532101	Food processors and mixers
M	SD	A0532102	Beater, blender and juicer
M	SD	A0532103	Coffee percolator and tea kettle
M	SD	A0532104	Toaster, waffle iron, etc.
M	SD	A0532106	Other household appliances
M	SD	A0541101	Drinking glasses
M	SD	A0541102	Coffee and tea cups, mugs
M	SD	A0541103	Plates and desserts bowls
M	SD	A0541104	Bowls and jugs
M	SD	A0541201	Knives, forks and spoons
M	SD	A0541202	Cooking utensils
M	SD	A05413S1	Babybottles and nipples
M	SD	A0541302	Pots, pans and coffee pots
M	SD	A0541303	Frying pans and oven casseroles
M	SD	A0541304	Other kitchen containers
M	D	A0531101	Refrigerator and refrigerator-cooler
M	D	A0531102	Refrigerator-freezer combination
M	D	A0531103	Freezer
M	D	A0531201	Dishwasher
M	D	A05313S1	Kitchen range, oven and cooking top
M	D	A0531303	Microwave oven
M	D	A0531304	Electric and gas grill, bread machine, etc.
M	D	A0531403	Cooker hoods
Final consumption (ready-to-eat foods)			
M	F	A0111102	Liver casserole
M	F	A0111103	Other rice products
M	F	A0111206	Rusks and bagels
M	F	A0111207	Biscuits and wafers
M	F	A01114S1	Pizzas, hamburgers, crepes
M	F	A01115S1	Pies, pasties and meat pasties, etc.
M	F	A0111601	Sweet bun loaf
M	F	A0111604	French pastries, cakes and sweet pies
M	F	A01116S1	Danish pastries, doughnuts and buns
M	F	A0111813	Corn flakes and other ready-to-eat breakfast cereals
M	F	A0111814	Muesli and other grain-fruit mixtures
M	F	A0111815	Pop corn and other snacks of grain
M	F	A01119S1	Ready-made gruels and porridges, Easter pudding
M	F	A0112606	Meat in aspic
M	F	A0112704	Meat cabbage and meat potato casseroles, etc.
M	F	A01127S2	Ready-to-eat soups and salads of meat, poultry, etc.
M	F	A01127S3	Blood pancakes, blood sausages, etc.
M	F	A01127S4	Ready-to-eat meals of meat and other meat preparations
M	F	A0113405	Baltic herring casseroles, etc.
M	F	A01134S4	Ready-to-eat meals and salads of fish and seafood
M	F	A0114202	Skimmed milk
M	F	A01142S1	Processed milk (low in lactose) and infant formulas
M	F	A01144S1	Curdled milk
M	F	A01144S2	Yoghurt
M	F	A0114602	Sour milk and kefir
M	F	A0114605	Puddings
M	F	A0116101	Oranges
M	F	A0116102	Mandarins
M	F	A0116201	Bananas
M	F	A0116601	Grapes
M	F	A01167S1	Other fresh fruits
M	F	A0116902	Infants' juices and purees

Appendix 3 (cont.)

Principal function	Category	COICOP Classification	Commodity
M	F	A0116903	Read-to-eat berry and fruit soups and puddings
M	F	A0117606	Vegetable and root crop salads
M	F	A0117651	Vegetarian patties and other ready-to-eat meals of vegetables
M	F	A0117652	Vegetable and root crop soups, casseroles, etc.
M	F	A0117802	Potato crisps, etc.
M	F	A0117804	Potato salad
M	F	A0118301	Chocolate bars and confectionery
M	F	A0118401	Sweets, lozenges, etc. confectionery
M	F	A0118402	Chewing gums
M	F	A0118503	Fruit-flavoured ice lollies
M	F	A0118551	Ice cream
M	F	A0119308	Meat, fish, vegetable foods for infants
M	F	A0122101	Mineral waters
M	F	A0122201	Soft drinks
M	F	A0122301	Juice drinks, juices and nectars
M	F	A0122401	Vegetable juices
M	F	A0122403	Other non-alcoholic drinks
M	F	A1111101	Meat steaks and cutlets
M	F	A1111102	Ground beef patties, meat balls
M	F	A1111103	Meat and sausage soups
M	F	A1111104	Meat, etc. casseroles and risottos
M	F	A1111105	Fish, fried or boiled
M	F	A1111106	Fish soup
M	F	A1111107	Fish casserole, risotto, etc.
M	F	A1111110	Other vegetable preparations
M	F	A1111111	Salads
M	F	A1111113	Pizzas
M	F	A1111114	Meat pasties, hot dogs, etc.
M	F	A1111117	Lunch, buffet-style meals
M	F	A1111118	Meal in restaurant unspecified, tips, service charges
M	F	A1111126	Milk and sour milk
M	F	A1111151	Pea soup and other vegetable soups
M	F	A1111152	Hamburgers, hamburger meals, French-fried potatoes
M	F	A1111153	Dessert, ice cream, etc.
M	F	A1111154	Coffee, tea, cocoa and pastry
M	F	A1111155	Other non-alcoholic beverages
M	F	A1112101	Food benefit, subsidised meals
M	F	A1112102	Paid subsidised meals
M	F	A1112103	Drinks and snacks at work
M	F	A1112104	Paid school lunches
M	F	A1112151	Other paid meals and snacks
M / C	F	A1231102	0,5* Meals, day care, etc. services for the aged

Alcoholic beverages

M	F	A0211151	Spirits and liqueurs
M	F	A0212101	Ciders
M	F	A0212102	Wines
M	F	A0212201	Long drinks and other light drink mixes
M	F	A0213101	Light beer
M	F	A0213102	Medium-strength beer
M	F	A0213103	Strong beer
M	F	A1111130	Beer
M	F	A1111131	Other alcoholic beverages

Clothing and clothing care

Principal function	Category	COICOP Classification	Commodity
Intermediate consumption			
CI	IC	A0311101	Clothing materials
CI	IC	A0313106	Wool and cotton yarns, etc.
CI	IC	A0313107	Sewing supplies
CI / H / M	IC	A442101 +A442102	0,14*Water supply and sewage collection
CI / H / M	IC	A0451101	0,044*Electricity for dwelling
CI / H / M	IC	A0451102	0,044*Electricity for free-time residence
CI / H / M	IC	A0452101	0,044*Town gas and natural gas
CI / M	IC	A0533101	0,5*Repair and spare parts of household appliances
CI	IC	A0561102	Washing, rinsing and dyeing substances for textiles
CI	IC	A0562202	Laundrette and mangle rental
Household capital			
CI	D	A0531202	Washing machines, tumble dryers and drying cabinets
CI	D	A0531203	Mangle and ironing machine
CI	D	A0531601	Sewing and knitting machines, hand looms
CI	SD	A0532105	Irons and ironing centres
Final consumption			
CI	F	A0312331	Baby clothes (0 to 2 years)
CI	F	A0312S01	Winter, fur, poplin and duffel coats, burberries, etc. overcoats
CI	F	A0312S02	Thermal and wind garments, rainwear
CI	F	A0312S03	Blazers, suits, two-piece suits and trousers
CI	F	A0312S04	Dresses, skirts, trouser skirts, etc.
CI	F	A0312S05	Pullovers, cardigans and knitwaists
CI	F	A0312S06	Shirts, blouses and waists
CI	F	A0312S07	T-shirts
CI	F	A0312S08	Denim jeans and overalls
CI	F	A0312S09	Shorts and shorts overalls
CI	F	A0312S10	Sweatshirts and track suits
CI	F	A0312S11	Gym and swimming costumes, beach wear
CI	F	A0312S12	Dressing gowns, bathrobes, dungarees
CI	F	A0312S13	Underwear
CI	F	A0312S14	Night garments
CI	F	A0312S15	Socks, stockings and tights
CI	F	A0312S20	Garments n.e.c.
CI	F	A0313101	Scarves, ties, belts, braces, etc.
CI	F	A0313102	Gloves and mittens
CI	F	A0313104	Headgear
CI	F	A0313105	Earmuffs, sleeve protectors, loose collars, etc.
CI	F	A0314101	Cleaning, repair and hire of clothing
CI	F	A0321S01	Winter shoes
CI	F	A0321S02	Walking and party shoes
CI	F	A0321S03	Rubber and plastic boots
CI	F	A0321S04	Running shoes
CI	F	A0321S05	Other footwear, soles, laces, etc.
CI	F	A0322101	Repair and hire of footwear

Childcare and care of adults in need

Principal function	Category	COICOP Classification	Commodity
Intermediate consumption			
C	V	A09311S1	Toys, minor musical instruments, Gameboys
C	V	A1212223	Other infant care articles
C	V	A12122S4	Nappies and dummies, etc.
Household capital			
C	SD	A12222S1	Baby carriages, car seats, back and front carriers, etc.
Final consumption			
C / H	F	A1231101	0,5*Housekeeper
C / M	F	A1231102	0,5* Meals, day care, etc. services for the aged
C	F	A1231203	Municipal family day care
C	F	A1231204	Private family day care
C	F	A12312S1	Day care centres
C	F	A12312S2	Play schools, playgrounds, etc.
Caring for pets			
Intermediate consumption			
C	IC	A0933104	0,5*Supplies and medicines for pets
C	IC	A09331S1	Pet food
C	IC	A0942401	Veterinary and other services for pets
Household capital			
C	SD	A0933101	Dogs, cats and other pets
C	SD	A0933104	0,5*Supplies and medicines for pets

Travel related to housework

Category	COICOP Classification	Commodity
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(Share of travel related to housework accounts for 30 per cent of all households' travels)

Intermediate consumption

IC	A0721101	Car spare parts
IC	A0721102	Car accessories and repair tools, etc.
IC	A07211S1	Spare parts and accessories of other vehicles
IC	A0722101	Petrol
IC	A0722102	Other fuels
IC	A07221S1	Lubricants, coolants and antifreezes, etc.
IC	A0723101	Car maintenance
IC	A07231S1	Repair of transport equipment
IC	A0724101	Rent of garage or equivalent
IC	A0724102	Road maintenance charges for owner-occupied dwelling
IC	A0724103	Road maintenance charges for free-time residence
IC	A0724104	Parking fees, bridge tolls, etc.
IC	A0724105	Car rentals, etc. operating expenses for private vehicles
IC	A0724108	Motor vehicle inspection fees
IC	A0724109	Other stamp duties and statutory fees
IC	A1244101	Compulsory third-party motor insurance
IC	A1244102	Other motor vehicle insurance
IC	A1244103	Motor vehicle insurance n.e.c.

Household capital

D	A0711101	Purchase of new motor cars
D	A0711201	Purchase of second-hand motor cars
D	A0712101	Motor cycles
D	A0712102	Mopeds
D	A0712103	Snow mobiles
D	A0713101	Bicycles

Final consumption

F	A0730101	Overseas travel tickets
F	A0731103	Long-distance train trips (50 km or more)
F	A0732103	Long-distance coach trips (50 km or more)
F	A0732104	Taxi fares
F	A0733101	Passanger transport by air, sea and inland waterway in Finland
F	A0735101	Transport of goods, luggage storage
F	A0736101	Vehicle provided as a benefit in kind

Shopping and services

Category	Proportion of total expenditure for shopping and services	COICOP Classification	Commodity
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Share of expenses related to household services, %

Intermediate consumption

IC	3%	A07311S1	Short-distance train trips
IC	3%	A07321S1	Short-distance bus trips
IC	3%	A0811101	Postal services
IC	3%	A0813101	Telephone bills: main residence
IC	3%	A0813102	Telephone bills: free-time residence
IC	3%	A0813103	Mobile call charges
IC	3%	A08131S1	Pay cards, slot telephones and telegrams
IC	3%	A08131S2	Internet services
IC	3%	A09521S1	Newspapers
IC	3%	A09521S2	Periodicals
IC	100%	A1251101	Bank service charges, etc.

Household capital

D	21%	A0611301	Spectacles and contact lenses
D	21%	A06113s1	Other therapeutic appliances and equipment
D	3%	A0812101	Mobile phones
D	3%	A0812102	Telephones, answering machines, pagers
D	3%	A0812103	Telefax equipment
D	3%	A0913101	Personal computers, peripherals, programmes and software

Appendix 4. Value of Non-SNA production using different wage concepts

Table 1. Value of Non-SNA production using different wage concepts

Gross wages

	Housing	Meals and snacks	Clothing	Care	Pet care	Volunteer work	Total
Value of labour (incl. related travel and errands), housekeepers' gross wages 9.99 euros/hour	17 107	16 559	5 914	5 570	2 159	5 046	52 355
Taxes on production	14	15	7	6	6	8	56
Subsidies on production				-704			-704
Value added, net	17 121	16 573	5 922	4 872	2 165	5 055	51 708
Consumption of fixed capital	1 897	637	135	66	62	41	2 839
Value added, gross	19 018	17 210	6 057	4 938	2 227	5 096	54 547
Intermediate consumption	6 901	5 959	521	351	325	255	14 312
Value of output	25 919	23 169	6 578	5 290	2 552	5 351	68 859

Gross gross wages

	Housing	Meals and snacks	Clothing	Care	Pet care	Volunteer work	Total
Value of labour (incl. related travel and errands), housekeepers' gross wages 11.99 euros/hour	20 528	19 870	7 097	6 684	2 591	6 056	62 826
Taxes on production	14	15	7	6	6	8	56
Subsidies on production				-704			-704
Value added, net	20 542	19 885	7 104	5 986	2 597	6 064	62 179
Consumption of fixed capital	1 897	637	135	66	62	41	2 839
Value added, gross	22 440	20 522	7 240	6 052	2 659	6 105	65 018
Intermediate consumption	6 936	5 700	480	402	302	254	14 075
Value of output	29 382	26 230	7 722	6 559	2 839	6 360	79 092

Net wages *)

	Housing	Meals and snacks	Clothing	Care	Pet care	Volunteer work	Total
Value of labour (incl. related travel and errands), housekeepers' net wages 7.20 euros/hour	12 334	11 939	4 264	4 016	1 557	3 638	37 748
Taxes on production	14	15	7	6	6	8	56
Subsidies on production				-704			-704
Value added, net	12 348	11 953	4 271	3 318	1 563	3 647	37 101
Consumption of fixed capital	1 897	637	135	66	62	41	2 839
Value added, gross	14 245	12 591	4 407	3 384	1 624	3 688	39 940
Intermediate consumption	6 936	5 700	480	402	302	254	14 075
Value of output	21 181	18 291	4 887	3 787	1 927	3 941	54 014

Table 2. Gross value added of household production as a proportion of the total economy using different wage concepts

	Gross value added of household production, Million euros	Value added of non-SNA household production, proportion of GDP, %	Gross value added of total household production (SNA + non-SNA), proportion of GDP, %
Gross gross wages	65 018	48.0	57.6
Gross wages	54 547	40.3	49.4
Net wages (income tax 27.9 %)	39 940	29.5	37.9
GDP in 2001	135 500		
GDP in 2001 without SNA household production for own use (135 500 – 8 292)	127 208	8 292	

* Tax percentage is based on figures from Taxpayers' Association of Finland, whose calculations were based on a monthly income of 1,500 euros and tax rates for 2001. No other tax deductions were made from annual wages than those made by the authorities, and the calculations were based on average municipal and church tax rates.

Appendix 5. Housing services produced by owner-occupiers in the National Accounts and Household Budget Survey, million euros in 2001

National accounts concepts	million euros	Household Budget Survey concepts	million euros
Value of output (Output for own final use)	10 714	Imputed gross rent	10 694
– Consumption of capital	3 060	– Depreciation	2 373
(Real estate tax)	(121)	(Real estate tax)	(121)
– Intermediate consumption goods and services, including water and waste management and chimney sweeping	3 270	– Intermediate consumption goods and services that are included in estimated rent (code 042), i.e. capital and maintenance charges, share of insurance premiums and repairs	2 304
		– Intermediate consumption goods and services carried over from true consumption expenditure (water, waste management, hot water, chimney sweeping)	563
= Net operating surplus	4 384	= Imputed net rent	5 454

Capital charges of 96.2 million euros and interests on mortgages (1,337 million euros) are included in other household sector accounts.

The figures from the Household Budget Survey were raised to the national accounting level by factors obtained from the ratio of the national accounts and Household Budget Survey figures above.

Appendix 6. Production and generation of income account, all households

All households

Million euros, year 2001 Principal function	Housing			Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	Services of owner-occupied dwellings, SNA	Own-account house construction, SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Value of labour (work hours * housekeeper's wage 9,99 €/h; incl. related travel and errands)			17 107		16 559	5 914	5 570	2 159	5 046		52 355	52 355
Compensation of paid domestic staff (SNA)	69									69		
Services of owner-occupied dwellings (SNA)	4 270									4 270		4 270
Own-account construction of dwellings (SNA)		632								632		632
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)				91							91	91
Taxes on production (real estate tax, fishing/ hunting licence fees, dog tax)	121		–	18	–			4		140	4	144
Taxes on production (proportion of annual vehicle tax)			14		15	7	6	2	8		52	52
Subsidies on production							–704				–704	–704
Value added, net	4 460	632	17 121	110	16 573	5 922	4 872	2 165	5 055	5 202	51 708	56 910
Consumption of fixed capital	3 060		1 763	35	503	88	30	44		3 095	2 427	5 522
Consumption of fixed capital (proportion of vehicles)			109		108	39	30	14	33		332	332
Consumption of fixed capital (proportion of durables for running errands)			26		26	9	7	4	8		79	79
Consumption of fixed capital, total	3 060		1 897	35	637	135	66	62	41	3 095	2 839	5 934
Value added, gross	7 520	632	19 018	145	17 210	6 057	4 938	2 227	5 096	8 297	54 547	62 844
Intermediate consumption	3 194	1 164	6 491	75	5 523	312	194	260		4 432	12 779	17 211
IC proportion of housework related travel			361		383	184	133	63	225		1 349	1 349
IC proportion of housework related errands			49		52	25	24	2	31		184	184
Intermediate consumption, total	3 194	1 164	6 901	75	5 959	521	351	325	255	4 432	14 312	18 744
Output	10 714	1 796	25 919	220	23 169	6 578	5 290	2 552	5 351	12 730	68 859	81 588
Interests of mortgages	1 337											
Capital charges for housing	96											
Gross fixed capital formation, total	3 934	–	2 464	45	796	258	137	53	119	3 979	3 828	7 807
Durables			1 934		571	253	105		119		2 983	
Semidurables			530	45	225	5	32	53			845	
Time used to unpaid work, million hours		72	1 712		1 658	592	558	216	505		5 241	

Appendix 7. Production and income generation accounts by household type and income quintile

PERSONS LIVING ALONE, under 45 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Production account											
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	4	767		756	258	6	197	331	4	2 316	2 321
Services of owner-occupied dwellings (SNA)	156								156		156
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)				-3						-3	-3
Taxes on production	2			1				0,2	3	0,2	3
Taxes on production (proportion of annual vehicle tax)				1	0,3	0,0		0,2		2	2
Subsidies on production								0,4		-	-
Value added, net	162	767	-2	757	259	6	198	331	160	2 319	2 479
Consumption of fixed capital	45	194	4	56	10	-	3		49		
Consumption of fixed capital (proportion of vehicles)			6	6	2	0	2	3		20	
Consumption of fixed capital (proportion of durables for running errands)			3	3	1	0	1	1		9	
Consumption of fixed capital, total	45	204	4	65	13	0	5	4	49	291	340
Value added, gross	208	971	2	822	272	6	203	335	210	2 609	2 819
Intermediate consumption	229	1 136	2	282	13	3	15		230	1 445	
IC proportion of housework related travel			22	23	11		4	13		73	
IC proportion of housework related errands			5	5	2		1	3		15	
Intermediate consumption, total	229	1 163	2	310	26	3	19	15	230	1 533	1 763
Output	436	2 134	4	1 132	297	9	222	351	440	4 142	4 582
Gross value added /household, €	655	3 063	7	2 592	856	20	640	1 058	661	8 229	8 890
Value of output /household, €	1 375	6 731	13	3 569	937	30	701	1 106	1 388	13 063	14 451
Gross fixed capital formation, total		146	5	26	12	-	4	-		193	
Durables		123		10	11						
Semidurables		23		16	1		4				
Vehicles (proportion)										32	
Durables for errands (proportion)										2	
Purchases for final consumption		20		565	213	-				798	
Time used to unpaid work, million hours		77		76	26	1	20	33		232	

PERSONS LIVING ALONE, 45–64 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	4	1 065		1 233	409	14	156	464	4	3 341	3 345
Services of owner-occupied dwellings (SNA)	394								394		394
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			3						3		3
Taxes on production	8		1				0,4		9	0	10
Taxes on production (proportion of annual vehicle tax)			1	1	0,5	0,0	0,2	1		4	4
Subsidies on production						–				–	–
Value added, net	406	1 066	4	1 234	410	14	157	464	411	3 345	3 755
Consumption of fixed capital	148	169	3	48	8	–	2		152		
Consumption of fixed capital (proportion of vehicles)		10		11	4	0,1	1	4		31	
Consumption of fixed capital (proportion of durables for running errands)		2		3	1	0,0	0,4	1		8	
Consumption of fixed capital, total	148	181	3	62	13	0	4	5	152	266	418
Value added, gross	554	1 247	8	1 297	423	14	161	470	562	3 611	4 173
Intermediate consumption	336	593	3	383	18	2	15		338	1 008	
IC proportion of housework related travel		28		32	12		5	26		103	
IC proportion of housework related errands		6		6	2		1	6		21	
Intermediate consumption, total	336	626	3	421	32	2	20	32	338	1 132	1 470
Output	890	1 873	11	1 718	455	15	181	502	901	4 743	5 643
Gross value added /household, €	2 046	4 603	29	4 786	1 561	51	594	1 734	2 075	13 328	15 403
Value of output /household, €	3 285	6 913	39	6 342	1 679	57	669	1 851	3 324	17 505	20 829
Gross fixed capital formation, total		132	2	36	6	–	3	–		179	
Durables		106		28	6						
Semidurables		26		8	0		3				
Vehicles (proportion)										49	
Durables for errands (proportion)										1	
Purchases for final consumption		39		365	120	6				530	
Time used to unpaid work, million hours		107		123	41	1	16	46		334	

PERSONS LIVING ALONE, 65+ years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	24	1 370		1 811	700	–	100	330	24	4 310	4 334
Services of owner-occupied dwellings (SNA)	565								565		565
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			5						5		5
Taxes on production	8		0,3						8	–	8
Taxes on production (proportion of annual vehicle tax)		1		1	0,5	0,0	0,1	0,3		3	3
Subsidies on production						–				–	–
Value added, net	597	1 370	5	1 812	700	0	100	330	601	4 313	4 915
Consumption of fixed capital	203	151	3	43	7	–	1		206		
Consumption of fixed capital (proportion of vehicles)		13		18	7	–	1	3		42	
Consumption of fixed capital (proportion of durables for running errands)		2		3	1	–	0,2	1		7	
Consumption of fixed capital, total	203	166	3	64	15	–	2	4	206	252	458
Value added, gross	800	1 537	8	1 876	716	0	102	334	808	4 565	5 372
Intermediate consumption	337	496	2	387	25	–	7		339	913	
IC proportion of housework related travel		11		17	5	–	1	8		43	
IC proportion of housework related errands		4		6	2	–	1	2		14	
Intermediate consumption, total	337	511	2	409	32	–	9	11	339	970	1 309
Output	1 137	2 047	10	2 285	747	0	112	345	1 147	5 535	6 681
Gross value added /household, €	2 580	4 957	26	6 052	2 309	0	330	1 078	2 605	14 726	17 331
Value of output /household, €	3 667	6 605	32	7 372	2 411	0	360	1 112	3 699	17 855	21 554
Gross fixed capital formation, total		63	1	390	6	–	2	–		462	
Durables		48		3	6						
Semidurables		15		387	0		2				
Liikennekestopulustavarat, kotityöosuus										1	
Durables for errands (proportion)										7	
Purchases for final consumption		48		234	75	37				394	
Time used to unpaid work, million hours		137		181	70	–	10	33		431	

COUPLES, under 45 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	–	1 207		1 121	453	117	281	317	–	3 495	3 495
Services of owner-occupied dwellings (SNA)	139								139		139
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			–5						–5		–5
Taxes on production	3		1				1		4	1	5
Taxes on production (proportion of annual vehicle tax)		1		1	1	0,1	0,3	1		4	4
Subsidies on production						–6				–6	–6
Value added, net	142	1 208	–3	1 122	453	111	282	318	139	3 494	3 632
Consumption of fixed capital	92	154	3	44	8	2	6		95		
Consumption of fixed capital (proportion of vehicles)		8		8	3	1	2	2		24	
Consumption of fixed capital (proportion of durables for running errands)		2		2	1	0,2	1	1		7	
Consumption of fixed capital, total	92	165	3	54	12	3	9	3	95	245	340
Value added, gross	234	1 373	–0	1 176	465	114	291	321	234	3 739	3 973
Intermediate consumption	228	893	7	381	15	9	35		235	1 331	
IC proportion of housework related travel		39		35	19	7	7	16		124	
IC proportion of housework related errands		5		4	2	3	–	2		16	
Intermediate consumption, total	228	937	7	420	37	20	42	18	235	1 471	1 705
Output	462	2 310	7	1 596	502	133	332	339	468	5 209	5 678
Gross value added /household, €	1 193	6 999	–1	5 992	2 369	579	1 481	1 635	1 192	19 054	20 245
Value of output /household, €	2 354	11 760	33	8 132	2 558	680	1 692	1 725	2 387	26 548	28 935
Gross fixed capital formation, total		224	5	46	16	2	9	–		303	
Durables		177		22	16						
Semidurables		47		24	1	2	9				
Vehicles (proportion)										76	
Durables for errands (proportion)										12	
Purchases for final consumption		34		650	298	–				982	
Time used to unpaid work, million hours		121		112	45	12	28	32		350	

COUPLES, 45–64 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	4	2 940		2 659	945	179	349	1 031	4	8 103	8 107
Services of owner-occupied dwellings (SNA)	880								880		880
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			27						27		27
Taxes on production	26		4				1		30	1	31
Taxes on production (proportion of annual vehicle tax)		3		3	1	0,2	0,5	2		11	11
Subsidies on production						–13				–13	–13
Value added, net	909	2 944	31	2 663	946	167	350	1 033	941	8 102	9 043
Consumption of fixed capital	639	264	5	75	13	1	7		644		
Consumption of fixed capital (proportion of vehicles)		20		18	7	1	2	7		56	
Consumption of fixed capital (proportion of durables for running errands)		4		4	1	0	1	2		12	
Consumption of fixed capital, total	639	288	5	98	21	2	10	9	644	428	1 073
Value added, gross	1 548	3 232	37	2 760	967	169	361	1 041	1 585	8 531	10 116
Intermediate consumption	565	690	18	953	53	2	45		583	1 742	
IC proportion of housework related travel		72		80	37	18	12	45		264	
IC proportion of housework related errands		10		11	5	3	–	6		36	
Intermediate consumption, total	565	773	18	1 044	95	24	57	51	583	2 042	2 626
Output	2 114	4 005	55	3 804	1 063	193	418	1 093	2 168	10 573	12 742
Gross value added /household, €	4 980	10 396	118	8 878	3 111	544	1 160	3 349	5 098	27 438	32 536
Value of output /household, €	6 799	12 882	176	12 236	3 418	620	1 344	3 515	6 974	34 008	40 982
Gross fixed capital formation, total		351	8	98	23	1	7	–		488	
Durables		243		61	23						
Semidurables		108		37	1	1	7				
Vehicles (proportion)										171	
Durables for errands (proportion)										17	
Purchases for final consumption		50		681	374	2				1 106	
Time used to unpaid work, million hours		294		266	95	18	35	103		811	

COUPLES, 65+ years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	4	2 139		1 974	604	91	101	565	4	5 475	5 480
Services of owner-occupied dwellings (SNA)	483								483		483
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			8						8		8
Taxes on production	13		1					0,2	15	0	15
Taxes on production (proportion of annual vehicle tax)		2		2	1	0,1		0,1		6	6
Subsidies on production						-16				-16	-16
Value added, net	501	2 141	9	1 976	605	75	102	566	509	5 465	5 974
Consumption of fixed capital	311	134	3	38	7	-		2	314		
Consumption of fixed capital (proportion of vehicles)		14		13	4	1		1		35	
Consumption of fixed capital (proportion of durables for running errands)		2		2	1	0,1		0,1		6	
Consumption of fixed capital, total	311	150	3	53	11	1		2	314	222	536
Value added, gross	812	2 292	11	2 029	616	76	104	570	823	5 687	6 511
Intermediate consumption	323	284	11	504	29	1		9	335	826	
IC proportion of housework related travel		31		32	16	5		2		105	
IC proportion of housework related errands		2		2	1	1		-		6	
Intermediate consumption, total	323	316	11	538	45	6		11	335	938	1 272
Output	1 135	2 608	23	2 567	662	82	115	592	1 158	6 625	7 783
Gross value added /household, €	4 293	12 116	60	10 728	3 258	399		550	4 354	30 067	34 421
Value of output /household, €	6 003	13 788	120	13 572	3 498	433		607	6 123	35 024	41 147
Gross fixed capital formation, total		156	3	32	8	-		2		201	
Durables		100		18	8						
Semidurables		56		13	0	-		2			
Vehicles (proportion)										32	
Durables for errands (proportion)										7	
Purchases for final consumption		41		286	92	4				423	
Time used to unpaid work, million hours		214		198	60	9		10		57	548

SINGLE-PARENT FAMILIES, youngest child 0–17 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	–	444		521	184	345	78	126	–	1 698	1 698
Services of owner-occupied dwellings (SNA)	77								77		77
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			–1						–1		–1
Taxes on production	2		0,1					0,1	2	0	2
Taxes on production (proportion of annual vehicle tax)		0,2		0,3	0,1	0,2	0,0	0,1		1	1
Subsidies on production						–23				–23	–23
Value added, net	79	444	–1	521	184	322	78	126	78	1 676	1 753
Consumption of fixed capital	56	62	1	18	3	1	1		57		
Consumption of fixed capital (proportion of vehicles)		3		3	1	2	0,5	1		12	
Consumption of fixed capital (proportion of durables for running errands)		1		1	0	1	0,1	0,2		3	
Consumption of fixed capital, total	56	65	1	22	5	4	1	1	57	98	155
Value added, gross	134	509	0	543	189	326	79	127	134	1 773	1 908
Intermediate consumption	70	391	1	172	7	12	4		71	585	
IC proportion of housework related travel		8		9	4	5	1	3		30	
IC proportion of housework related errands		1		1	0,5	1	–	0,4		4	
Intermediate consumption, total	70	400	1	182	11	18	5	3	71	619	691
Output	205	910	1	725	200	344	84	131	206	2 393	2 598
Gross value added /household, €	1 678	6 360	0	6 774	2 358	4 072	985	1 589	1 678	22 138	23 817
Value of output /household, €	2 554	11 355	17	9 051	2 501	4 290	1 052	1 631	2 571	29 865	32 436
Gross fixed capital formation, total		49	1	8	4	1	1	–		64	
Durables		45		5	3						
Semidurables		5		3	0	1	1				
Vehicles (proportion)										10	
Durables for errands (proportion)										5	
Purchases for final consumption		21		189	107	51				367	
Time used to unpaid work, million hours		44		52	18	35	8	13		170	

FAMILIES WITH CHILDREN, youngest child 0–6 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	16	2 144		2 169	782	3 798	190	455	16	9 538	9 554
Services of owner-occupied dwellings (SNA)	437								437		437
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			15						15		15
Taxes on production	18		3				1		20	1	21
Taxes on production (proportion of annual vehicle tax)		2		2	1	4	0,2	1		10	10
Subsidies on production							-605			-605	-605
Value added, net	471	2 146	17	2 171	783	3 197	190	456	488	8 944	9 432
Consumption of fixed capital	476	232	5	66	12	26	6		481		
Consumption of fixed capital (proportion of vehicles)		12		12	4	20	1	2		51	
Consumption of fixed capital (proportion of durables for running errands)		2		2	1	4	0,2	0,5		10	
Consumption of fixed capital, total	476	246	5	80	17	50	7	3	481	403	884
Value added, gross	947	2 392	22	2 252	799	3 248	197	459	968	9 347	10 315
Intermediate consumption	421	796	9	814	52	128	31		431	1 820	
IC proportion of housework related travel		60		67	32	60	15	37		272	
IC proportion of housework related errands		4		5	2	6	-	3		20	
Intermediate consumption, total	421	861	9	885	87	195	46	40	431	2 113	2 544
Output	1 368	3 253	31	3 137	886	3 442	243	499	1 399	11 460	12 859
Gross value added /household, €	3 681	9 304	85	8 756	3 108	12 628	767	1 783	3 766	36 347	40 113
Value of output /household, €	5 319	12 650	122	12 199	3 445	13 386	945	1 939	5 441	44 564	50 004
Gross fixed capital formation, total		399	8	90	25	27	10	-		559	
Durables		285		44	25						
Semidurables		114		46	1	27	10				
Vehicles (proportion)										176	
Durables for errands (proportion)										15	
Purchases for final consumption		56		936	526	577				2 096	
Time used to unpaid work, million hours		215		217	78	380	19	46		955	

FAMILIES WITH CHILDREN, youngest child 7–17 years

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	9	2 878		2 384	863	758	374	786	9	8 043	8 052
Services of owner-occupied dwellings (SNA)	633								633		633
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			29						29		29
Taxes on production	25		4				1		29	1	30
Taxes on production (proportion of annual vehicle tax)		2		2	1	1	0,3	1		7	7
Subsidies on production						-13				-13	-13
Value added, net	667	2 880	32	2 386	864	746	375	787	700	8 038	8 738
Consumption of fixed capital	648	233	5	66	12	-	12		653		
Consumption of fixed capital (proportion of vehicles)		13		11	4	3	2	3		35	
Consumption of fixed capital (proportion of durables for running errands)		4		3	1	1	0,5	1		10	
Consumption of fixed capital, total	648	249	5	80	16	4	14	4	653	368	1 021
Value added, gross	1 316	3 129	37	2 466	881	751	388	791	1 353	8 406	9 759
Intermediate consumption	413	621	11	973	58	28	71		425	1 751	
IC proportion of housework related travel		53		49	28	24	11	28		193	
IC proportion of housework related errands		6		6	3	5	-	3		23	
Intermediate consumption, total	413	680	11	1 028	89	57	82	31	425	1 968	2 392
Output	1 729	3 809	48	3 494	970	808	470	823	1 778	10 374	12 152
Gross value added /household, €	5 367	12 763	151	10 059	3 592	3 062	1 585	3 227	5 517	34 288	39 805
Value of output /household, €	7 053	15 536	197	14 251	3 956	3 296	1 919	3 355	7 250	42 313	49 563
Gross fixed capital formation, total		321	9	107	25	-	11	-		473	
Durables		236		56	24						
Semidurables		84		51	1	-	11				
Vehicles (proportion)										118	
Durables for errands (proportion)										21	
Purchases for final consumption		66		991	627	57				1 741	
Time used to unpaid work, million hours		288		239	86	76	37	79		805	

OTHER HOUSEHOLDS

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	1	2 152		1 930	716	262	334	641	1	6 035	6 035
Services of owner-occupied dwellings (SNA)	509								509		509
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			15						15		15
Taxes on production	17		3				1		20	1	20
Taxes on production (proportion of annual vehicle tax)		2		2	1	0,2	0,3	1		6	6
Subsidies on production						-29				-29	-29
Value added, net	527	2 154	18	1 931	717	233	335	642	545	6 012	6 557
Consumption of fixed capital	441	169	3	48	8	0	5		444		
Consumption of fixed capital (proportion of vehicles)		10		9	3	1	1	3		27	
Consumption of fixed capital (proportion of durables for running errands)		3		2	1	0,3	0,4	1		8	
Consumption of fixed capital, total	441	181	3	59	12	2	7	4	444	265	709
Value added, gross	968	2 335	21	1 991	729	235	341	646	989	6 277	7 267
Intermediate consumption	271	591	8	675	41	7	28		279	1 343	
IC proportion of housework related travel		37		39	20	16	5	28		145	
IC proportion of housework related errands		7		8	4	4	-	5		28	
Intermediate consumption, total	271	635	8	721	66	27	33	33	279	1 515	1 794
Output	1 239	2 970	30	2 712	795	262	374	679	1 269	7 792	9 061
Gross value added /household, €	4 728	11 403	104	9 721	3 561	1 149	1 667	3 155	4 832	30 655	35 487
Value of output /household, €	6 052	14 504	145	13 244	3 882	1 279	1 829	3 315	6 197	38 053	44 250
Gross fixed capital formation, total		158	4	53	11	0	5	-		231	
Durables		107		32	11						
Semidurables		51		20	1	0	5				
Vehicles (proportion)										84	
Durables for errands (proportion)										14	
Purchases for final consumption		41		527	249	8				826	
Time used to unpaid work, million hours		215		193	72	26	33	64		604	

I-QUINTILE

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	19	1 917		2 386	883	461	225	757	19	6 628	6 647
Services of owner-occupied dwellings (SNA)	447								447		447
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			5						5		5
Taxes on production	7		1				0,2		8	0	8
Taxes on production (proportion of annual vehicle tax)		1		1	0,4	0,2	0,1	0,4		3	3
Subsidies on production						-32				-32	-32
Value added, net	472	1 917	6	2 387	883	429	225	758	479	6 599	7 078
Consumption of fixed capital	213	241	5	69	12	1	3		218	326	
Consumption of fixed capital (proportion of vehicles)		13		17	6	3	1	5		46	
Consumption of fixed capital (proportion of durables for running errands)		3		4	1	1	0	1		11	
Consumption of fixed capital, total	213	258	5	90	20	4	5	7	218	383	600
Value added, gross	685	2 175	11	2 476	903	433	230	764	697	6 982	7 678
Intermediate consumption	300	1 430	5	580	32	6	21		305	2 068	
IC proportion of housework related travel		20		26	10	2	3	12		73	
IC proportion of housework related errands		5		6	2	1	0,2	3		16	
Intermediate consumption, total	300	1 455	5	612	43	9	24	15	305	2 158	2 463
Output	985	3 630	17	3 088	946	442	254	779	1 002	9 140	10 142
Gross value added /household, €	1 439	4 568	24	5 200	1 896	909	483	1 605	1 463	14 661	16 124
Value of output /household, €	2 069	7 623	35	6 485	1 987	928	534	1 636	2 104	19 193	21 297
Gross fixed capital formation, total		146	2	37	11	1	2	-	2	196	
Durables		110		19	10						
Semidurables		36		17	1	1	2				
Vehicles (proportion)										10	
Durables for errands (proportion)										1	
Purchases for final consumption		58		461	162	31				712	
Time used to unpaid work, million hours		185		231	85	48	20	73		642	

II-QUINTILE

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	12	3 225		3 348	1 190	560	366	1 011	12	9 700	9 711
Services of owner-occupied dwellings (SNA)	671								671		671
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			15						15		15
Taxes on production	19		2				0,4		22	0,4	22
Taxes on production (proportion of annual vehicle tax)		2		2	1	0,4	0,3	1		8	8
Subsidies on production						-84				-84	-84
Value added, net	702	3 227	18	3 350	1 191	477	366	1 012	719	9 624	10 343
Consumption of fixed capital	432	303	6	87	15	4	6		438	414	
Consumption of fixed capital (proportion of vehicles)		22		23	8	3	2	7		65	
Consumption of fixed capital (proportion of durables for running errands)		5		5	2	1	1	1		14	
Consumption of fixed capital, total	432	330	6	114	25	7	9	8	438	492	930
Value added, gross	1 133	3 557	24	3 464	1 216	484	375	1 020	1 157	10 116	11 273
Intermediate consumption	475	1 348	9	856	49	19	32		484	2 304	
IC proportion of housework related travel		50		53	26	7	8	35		178	
IC proportion of housework related errands		9		10	5	3	0,4	6		33	
Intermediate consumption, total	475	1 407	9	918	79	29	41	41	484	2 515	2 999
Output	1 608	4 964	33	4 382	1 295	513	416	1 061	1 641	12 631	14 272
Gross value added /household, €	2 378	7 463	50	7 269	2 552	1 016	787	2 141	2 430	21 243	23 673
Value of output /household, €	3 375	10 416	69	9 196	2 718	1 076	872	2 227	3 446	26 525	29 970
Gross fixed capital formation, total		229	2	72	23	4	4	-	2	332	
Durables		179		46	22						
Semidurables		50		26	1	4	4				
Vehicles (proportion)										10	
Durables for errands (proportion)										1	
Purchases for final consumption		70		711	308	43				1 132	
Time used to unpaid work, million hours		311		324	115	58	34	97		938	

III-QUINTILE

Million euros, 2001 Principal function Production account	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	5	3 346		3 297	1 048	878	495	807	5	9 871	9 875
Services of owner-occupied dwellings (SNA)	832								832		832
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			23						23		23
Taxes on production	20		3				1		23	1	24
Taxes on production (proportion of annual vehicle tax)		3		3	2	1	1	2		12	12
Subsidies on production						-138				-138	-138
Value added, net	856	3 349	26	3 301	1 049	741	497	809	882	9 745	10 627
Consumption of fixed capital	516	361	7	103	18	5	7		523	494	
Consumption of fixed capital (proportion of vehicles)		24		24	8	5	4	6		70	
Consumption of fixed capital (proportion of durables for running errands)		5		5	2	1	1	1		16	
Consumption of fixed capital, total	516	390	7	132	28	12	11	7	523	580	1 103
Value added, gross	1 372	3 739	33	3 433	1 077	753	508	816	1 405	10 325	11 730
Intermediate consumption	612	1 286	14	1 040	55	36	40		626	2 457	
IC proportion of housework related travel		78		89	37	26	13	44		287	
IC proportion of housework related errands		8		9	4	3	0,4	5		30	
Intermediate consumption, total	612	1 372	14	1 139	97	65	53	49	626	2 773	3 399
Output	1 984	5 111	47	4 571	1 174	817	561	865	2 031	13 098	15 129
Gross value added /household, €	2 877	7 843	70	7 200	2 259	1 579	1 065	1 712	2 951	21 682	24 633
Value of output /household, €	4 161	10 720	99	9 588	2 462	1 714	1 176	1 814	4 265	27 505	31 771
Gross fixed capital formation, total		316	4	86	24	6	4	-	4	435	
Durables		243		46	23						
Semidurables		73		40	1	6	4				
Vehicles (proportion)										10	
Durables for errands (proportion)										1	
Purchases for final consumption		60		1 019	396	66				1 541	
Time used to unpaid work, million hours		323		319	101	88	46	78		955	

IV-QUINTILE

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non- SNA	Care non- SNA	Pet care non- SNA	Volunteer work non- SNA	Total		
	SNA	non- SNA	SNA	non- SNA					SNA	non- SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	9	3 884		3 801	1 306	2 108	541	1 335	9	12 973	12 982
Services of owner-occupied dwellings (SNA)	962								962		962
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			29						29		29
Taxes on production	29		5				1		35	1	36
Taxes on production (proportion of annual vehicle tax)		4		4	2	2	1	2		15	15
Subsidies on production						-282				-282	-282
Value added, net	1 000	3 887	35	3 804	1 308	1 828	542	1 337	1 035	12 707	13 742
Consumption of fixed capital	788	404	8	115	20	13	11		796	564	
Consumption of fixed capital (proportion of vehicles)		24		24	8	12	3	8		79	
Consumption of fixed capital (proportion of durables for running errands)		5		5	2	3	1	2		18	
Consumption of fixed capital, total	788	434	8	144	30	28	15	10	796	661	1 457
Value added, gross	1 788	4 321	43	3 949	1 338	1 856	557	1 347	1 830	13 368	15 199
Intermediate consumption	759	1 248	22	1 349	78	69	63		780	2 808	
IC proportion of housework related travel		109		118	54	51	20	69		421	
IC proportion of housework related errands		12		13	6	8	1	8		48	
Intermediate consumption, total	759	1 369	22	1 480	138	128	84	77	780	3 276	4 056
Output	2 546	5 690	64	5 429	1 476	1 983	641	1 424	2 611	16 644	19 255
Gross value added /household, €	3 759	9 085	90	8 303	2 812	3 902	1 172	2 833	3 844	28 072	31 916
Value of output /household, €	5 354	11 964	135	11 414	3 103	4 170	1 348	2 995	5 482	34 952	40 434
Gross fixed capital formation, total		506	6	138	34	14	8	-	6	701	
Durables		372		76	33						
Semidurables		134		62	1	14	8				
Vehicles (proportion)										10	
Durables for errands (proportion)										1	
Purchases for final consumption		90		1 369	624	228				2 311	
Time used to unpaid work, million hours		375		367	126	207	51	129		1 254	

V-QUINTILE

Million euros, 2001 Principal function	Housing		Meals and snacks		Clothing and laundry non-SNA	Care non-SNA	Pet care non-SNA	Volunteer work non-SNA	Total		
	SNA	non-SNA	SNA	non-SNA					SNA	non-SNA	Total
Value of labour (incl. related travel and errands), non-SNA; Compensation of paid domestic staff, SNA	25	4 736		3 727	1 488	1 564	533	1 136	25	13 184	13 209
Services of owner-occupied dwellings (SNA)	1 359								1 359		1 359
Agricultural production, fishing, hunting, berry picking etc. for own use (SNA)			18						18		18
Taxes on production	46		6				2		52	2	54
Taxes on production (proportion of annual vehicle tax)		4		4	2	2	1	2		15	15
Subsidies on production						-168				-168	-168
Value added, net	1 430	4 740	25	3 731	1 490	1 397	535	1 138	1 455	13 032	14 487
Consumption of fixed capital	1 112	453	9	129	23	7	18		1 121	630	
Consumption of fixed capital (proportion of vehicles)		26		21	8	7	3	6		73	
Consumption of fixed capital (proportion of durables for running errands)		7		6	2	2	1	2		20	
Consumption of fixed capital, total	1 112	486	9	156	33	17	22	8	1 121	723	1 843
Value added, gross	2 542	5 226	34	3 887	1 523	1 414	557	1 146	2 576	13 754	16 330
Intermediate consumption	1 048	1 178	25	1 698	98	64	104		1 073	3 143	
IC proportion of housework related travel		105		98	57	47	19	65		390	
IC proportion of housework related errands		15		14	8	10	1	9		57	
Intermediate consumption, total	1 048	1 298	25	1 810	163	121	124	74	1 073	3 590	4 663
Output	3 590	6 524	59	5 697	1 687	1 535	681	1 221	3 649	17 344	20 993
Gross value added /household, €	5 336	10 971	70	8 160	3 198	2 969	1 169	2 407	5 409	28 883	34 292
Value of output /household, €	7 536	13 695	123	11 960	3 540	3 222	1 429	2 563	7 662	36 422	44 084
Gross fixed capital formation, total		809	9	205	45	8	12	-	9	1 080	
Durables		572		124	44						
Semidurables		237		81	2	8	12				
Vehicles (proportion)										10	
Durables for errands (proportion)										1	
Purchases for final consumption		146		1 872	1 179	369				3 566	
Time used to unpaid work, million hours		446		360	144	155	50	110		1 264	

Appendix 8. Allocation of electricity and water costs to principal functions

Household electricity consumption and its allocation to principal functions

		Total
H	Electric heating	42.0
H	HPAC- consumption (small houses)	2.8
H	Lighting (indoors and outdoors)	10.4
H	Other electricity consumption	3.6
H	Entertainment electronics	6.9
H	Sauna with electric heating	5.2
H	Car heating	0.9
		Housing 72%
M	Meal preparation	7.4
M	Refrigerators, freezers, etc.	14.2
M	Dish washers	2.1
		Meals 24%
Cl	Washing machines	3.7
Cl	Tumble dryers and drying cabinets	0.7
		Clothing 4%
Total		100%

Source: Adato Energia Oy

Household water consumption and its allocation to principal functions

H	Washing (shower, bath, etc.)	49	Housing 66%
H	Toilet	14	
H	Other (cleaning, watering, etc.)	3	
M	Drinking	1	Meals 20%
M	Eating (meal preparation, dish washing)	19	
Cl	Laundry	14	Clothing 14%
		100%	100%

Source: Etelämäki L (1999) Veden käyttö Suomessa. (Water consumption in Finland) Finland's environmental administration, 305. Helsinki. (in Finnish)

H = Housing
M = Meals and snacks
Cl = Clothing and laundry

Appendix 9. Sequence of extended accounts

Table 1. Sequence of extended household accounts, SNA production, non-SNA-production, and volunteer work, million euros

	USES							Household accounts by SNA	RESOURCES								
	Total, extended household accounts	Total	Household production			Adjustments (SNA - non-SNA)	Household accounts by SNA		Household accounts by SNA	Adjustments (SNA - non-SNA)	Household production				Total	Total, extended household accounts	
			Services of owner-occupied dwellings, own-account house construction, SNA	Other production for own use, SNA	Household production, non-SNA						Volunteer work, non-SNA	Volunteer work, non-SNA	Household production, non-SNA	Other production for own use, SNA			Services of owner-occupied dwellings, own-account house construction, SNA
Production account	24 047	18 744	4 358	75	14 057	255	-4 432	9 735	Output	24 317	-12 730	5 351	63 508	220	12 510	81 588	93 176
	69 129	62 844	8 152	145	49 451	5 096	-8 297	14 582	Intermediate consumption								
	8 000	5 934	3 060	35	2 798	41	-3 095	5 161	Value added, gross								
	61 129	56 910	5 092	110	46 653	5 055	-5 202	9 421	Consumption of fixed capital								
									Value added, net								
Generation of income account	53 070	52 424	69	0	47 309	5 046	-69	715	Value added, net	9 421	-5 202	5 055	46 653	110	5 092	56 910	61 129
	85	196	121	18	48	8	-140	29	Compensation of employees								
	-1 788	-704	0	0	-704	0	0	-1 084	Taxes on production and imports								
	9 761	4 994	4 902	91	0	0	-4 994	9 761	Subsidies on production								
									Operating surplus/ Mixed income								
Allocation of primary income account	2 820							2 820	Operating surplus/ Mixed income	9 761	0						9 761
	133 231							80 876	Compensation of employees	66 922	52 355						119 277
									Property income	7 013							7 013
									Balance of primary incomes								
Secondary distribution of income account	41 078						-56	41 134	Balance of primary incomes	80 876	52 355						133 231
	115 820						51 708	64 112	Current transfers	24 370	-704						23 666
									Disposable income								
Redistribution of income in kind account	137 142							85 434	Disposable income	64 112	51 708						115 820
									Social transfers in kind	21 322							21 322
									Adjusted disposable income								
Use of disposable income account	115 750							65 031	Disposable income	64 112	51 708						115 820
	215							-774	Individual consumption expenditure								
									Adjustments for the change in net equity of households on pension funds	145							145
Use of adjusted disposable income account	137 072							86 353	Saving								
	215							-774	Adjusted disposable income	85 434	51 708						137 142
									Actual individual consumption								
Capital account	10 193	7 807	3 934	45	3 709	119	-3 979	6 365	Adjustments for the change in net equity of households on pension funds	145							145
	-8 000	-5 934	-3 060	-35	-2 798	-41	3 095	-5 161	Saving								
	9							9	Saving	-774	989						215
	-126							-126	Gross fixed capital formation								
	0							0	Consumption of fixed capital								
									Acquisitions less disposals of land and other tangible non-produced assets								
	-2 067	-1 873					1 873	-2 067	Changes in inventories								
									Acquisitions less disposals of valuables								
									Capital transfers, receivable	189							189
									Capital transfers, payable	-395							-395
									Net lending (+)/ net borrowing (-)								

The column of adjustments (SNA – non-SNA) :

In production account, generation of income account, and capital account the figures are to balance the production transferred to household production

In other accounts the figures indicate the difference between the extended and SNA-account

Table 2. Sequence of extended household accounts by principal function, million euros

	USES										RESOURCES												
	Total, extended household accounts	Household production								Adjust- ments (SNA - non-SNA) by SNA	House- hold accounts by SNA	Transactions and balancing items	House- hold accounts by SNA	Adjus- ments (SNA - non-SNA)	Household production					Total, extended house- hold accounts			
		Total	Housing Services of owner-occupied dwellings, own-account house- construction, SNA	Other housing services	Meals and snacks	Clothing and laundry	Care	Pet care	Volunteer work						Care	Clothing and laundry	Meals and snacks	Housing Other housing services	Services of owner-occupied dwellings, own-account house construction, SNA		Total		
Production account	24 047	18 744	4 358	6 901	6 033	521	351	325	255	-4 432	9 735	Output	24 317	-12 730	5 351	2 552	5 290	6 578	23 389	25 919	12 510	81 588	93 176
	69 129	62 844	8 152	19 018	17 355	6 057	4 938	2 227	5 096	-8 297	14 582	Intermediate consumption											
	8 000	5 934	3 060	1 897	672	135	66	62	41	-3 095	5 161	Value added, gross											
	61 129	56 910	5 092	17 121	16 683	5 922	4 872	2 165	5 055	-5 202	9 421	Consumption of fixed capital											
												Value added, net											
Generation of income account	53 070	52 424	69	17 107	16 559	5 914	5 570	2 159	5 046	-69	715	Value added, net	9 421	-5 202	5 055	2 165	4 872	5 922	16 683	17 121	5 092	56 910	61 129
	85	196	121	14	33	7	6	6	8	-140	29	Compensation of employees											
	-1 788	-704	0	0	0	0	-704	0	0	0	-1 084	Taxes on production and imports											
	9 761	4 994	4 902	0	91	0	0	0	0	-4 994	9 761	Subsidies on production											
												Operating surplus/ Mixed income											
Allocation of primary income account	2 820										2 820	Operating surplus/ Mixed income	9 761	0									9 761
	133 231										80 876	Compensation of employees	66 922	52 355									119 277
												Property income	7 013										7 013
												Balance of primary incomes											
Secondary distribution of income account	41 078									-56	41 134	Balance of primary incomes	80 876	52 355									133 231
	115 820									51 708	64 112	Current transfers	24 370	-704									23 666
												Disposable income											
Redistribution of income in kind account	137 142									51 708	85 434	Disposable income	64 112	51 708									115 820
												Social transfers in kind	21 322										21 322
												Adjusted disposable income											
Use of disposable income account	115 750									50 719	65 031	Disposable income	64 112	51 708									115 820
	215									989	-774	Individual consumption expenditure											
												Adjustments for the change in net equity of households on pension funds	145										145
												Saving											
Use of adjusted disposable income account	137 072									50 719	86 353	Adjusted disposable income	85 434	51 708									137 142
	215									989	-774	Actual individual consumption											
												Adjustments for the change in net equity of households on pension funds	145										145
												Saving											
Capital account	10 193	7 807	3 934	2 464	841	258	137	53	119	-3 979	6 365	Saving	-774	989									215
	-8 000	-5 934	-3 060	-1 897	-672	-135	-66	-62	-41	3 095	-5 161	Gross fixed capital formation											
	9										9	Consumption of fixed capital											
	-126										-126	Acquisitions less disposals of land and other tangible non-produced assets											
	0										0	Changes in inventories											
												Acquisitions less disposals of valuables											
												Capital transfers, receivable	189										189
												Capital transfers, payable	-395										-395
	-2 067	-1 873								1 873	-2 067	Net lending (+)/ net borrowing (-)											

The column of adjustments (SNA – non-SNA) :
 In production account, generation of income account, and capital account the figures are to balance the production transferred to household production
 In other accounts the figures indicate the difference between the extended and SNA-account

Table 3. Household production as part of the extended economy, million euros

	USES							RESOURCES							
	Extended total economy	Household production			Output without the SNA own account production	Adjustments: Transfer to household production (-)	National accounts Total, SNA	Transactions and balancing items	National accounts Total, SNA	Adjustments: Transfer to household production (-)	Output without the SNA own account production	Household production		Extended total economy	
		Total	Household production, SNA from (+) the column 2	Household production, non-SNA								Household production, non-SNA	Total		Household production, SNA from (+) the column 2
7(3+6)	6(4+5)	5	4	3(1+2)	2	1		1	2	3(1+2)	4	5	6(4+5)	7(3+6)	
Goods and services account															
	153 057	18 744	4 432	14 312	134 313	-4 432	138 745	Output	256 851	-12 730	244 121	68 859	12 730	81 588	325 710
	147 029	55 037	4 318	50 719	91 992	-4 318	96 310	Taxes on products	18 423		18 423				18 423
	137 072	55 037	4 318	50 719	82 035	-4 318	86 353	Subsidies on products	1 061		1 061				1 061
	9 957				9 957		9 957	Imports of goods and services	42 783		42 783				42 783
	31 557	7 807	3 979	3 828	23 750	-3 979	27 729	Intermediate consumption							
	143				143		143	Final consumption expenditure							
	0				0		0	Actual individual							
	54 069				54 069		54 069	Actual collective							
	385 855	81 588	12 730	68 859	304 266	-12 730	316 996	Gross fixed capital formation							
								Changes in inventories							
Production account								Acquisitions less disposals of valuables							
	153 057	18 744	4 432	14 312	134 313	-4 432	138 745	Export of goods and services							
	190 015	62 844	8 297	54 547	127 171	-8 297	135 468	Total	316 996	-12 730	304 266	68 859	12 730	81 588	385 855
	25 187	5 934	3 095	2 839	19 253	-3 095	22 348	Output	256 851	-12 730	244 121	68 859	12 730	81 588	325 710
	164 828	56 910	5 202	51 708	107 918	-5 202	113 120	Taxes less subsidies on products	17 362		17 362				17 362
	343 072	81 588	12 730	68 859	261 483	-12 730	274 213	Intermediate consumption							
								Value added, gross							
Generation of income account								Consumption of fixed capital							
	118 836	52 424	69	52 355	66 412	-69	66 481	Value added, net							
	18 917	196	140	56	18 721		18 721	Total	274 213	-12 730	261 483	68 859	12 730	81 588	343 072
	3 522	704	0	704	2 818		2 818	Value added, net	113 120	-5 202	107 918	51 708	5 202	56 910	164 828
	30 596	4 994	4 994	0	25 603	-5 133	30 736	Compensation of employees							
	164 828	56 910	5 202	51 708	107 918	-5 202	113 120	Taxes on production and imports							
								Subsidies							
								Operating surplus /Mixed income							
								Total	113 120	-5 202	107 918	51 708	5 202	56 910	164 828

The column of adjustments (SNA – non-SNA) :

In production account, generation of income account, and capital account the figures are to balance the production transferred to household production

In other accounts the figures indicate the difference between the extended and SNA-account

Table 4. Extension of the national accounts by non-SNA household production, million euros and %.

	USES					
	Extended total economy	%	Household production, non-SNA	%	Adjustments	Total economy, SNA
	4(1+2+3)		3		2	1
Goods and services account						
	153 057	110	14 312	10		138 745
	147 029	153	50 719	53		96 310
	137 072	159	50 719	59		86 353
	9 957	100				9 957
	31 557	114	3 828	14		27 729
	143	100				143
	54 069	100				54 069
	385 855	122	68 859	22		316 996
Production account						
	153 057	110	14 312	10		138 745
	190 015	140	54 547	40		135 468
	25 187	113	2 839	13		22 348
	164 828	146	51 708	46		113 120
	343 072	125	68 859	25		274 213
Generation of income account						
	118 836	179	52 355	79		66 481
	18 917	101	56	0	140	18 721
	3 522	125	704	25		2 818
	30 596	100	0	0	-140	30 736
	164 828	146	51 708	46	0	113 120

Transactions and balancing items	RESOURCES					
	Total economy, SNA	%	Household production, non-SNA	%	Extended total economy	%
	1		2		3 (1+2)	
Output	256 851	100	68 859	27	3257 10	127
Taxes on products	18 423	100			184 23	100
Subsidies on products	1 061	100			10 61	100
Imports of goods and services	42 783	100			427 83	100
Intermediate consumption						
Final consumption expenditure						
Actual individual						
Actual collective						
Gross fixed capital formation						
Changes in inventories						
Acquisitions less disposals of valuables						
Export of goods and services						
Total	316 996	100	68 859	22	385 855	122
Output	256 851	100	68 859	21	325 710	127
Taxes less subsidies on products	17 362	100			17 362	100
Intermediate consumption						
Value added, gross						
Consumption of fixed capital						
Value added, net						
Total	274 213	100	68 859	20	343 072	125
Value added, net	113 120	100	51 708	31	164 828	146
Compensation of employees						
Taxes on production and imports						
Subsidies						
Operating surplus /Mixed income						
Total	113 120	100	51 708	31	164 828	146

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