Statistical bulletin

Household satellite account, UK: 2023

Measures the value of unpaid household services, such as caring for adults and children, clothing and laundry, transport, and volunteering.

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1 . Main points

- The value of unpaid household services was £1.2 trillion, or about 62% the size of gross domestic product (GDP), in 2014 and £1.7 trillion, or 61% of GDP in 2023.

- The relative value of unpaid household services compared with GDP, peaked during the coronavirus (COVID-19) pandemic, reaching the equivalent of 66% of GDP in 2020.

- While the value of unpaid transport services dropped during 2020, it contributed 6% of the total growth in unpaid household services from 2019 to 2023, the highest contribution of any of the unpaid services over that period.

- During the COVID-19 pandemic, the value of unpaid adult care rose 24% between 2019 and 2020 and continued to grow, amounting to an increase of 81% between 2019 and 2023.

- During the COVID-19 pandemic, formal care hours per child were reduced by 45% between 2019 and 2020, but returned to 2019 levels again by 2023.

- Volunteering is the only service to see a trend of decreasing output volume over the full time series, with volunteering hours falling by over 40% between 2014 and 2023.

Caution should be applied if directly comparing growth with dates earlier than 2014, because of the break in the series.

2 . The value of unpaid services and the total economy

The Household Satellite Account (HHSA) extends the System of National Accounts (SNA) to include the value of unpaid household service work, providing a more complete view of economic activity. It recognises all contributions, especially those from households, for users seeking comprehensive data on total output. These activities are not captured in the core national accounts production boundary so are not typically reflected in GDP. For example, the unpaid:

- childcare

- adult care

- cooking

- gardening

- repair work in the home

- transport

- other services provided by unpaid individuals outside of business or government

By quantifying the contribution of these unpaid services, the HHSA supports better policy making by providing a more comprehensive understanding of the nation's economic activity. It also highlights the importance of household production in everyday life.
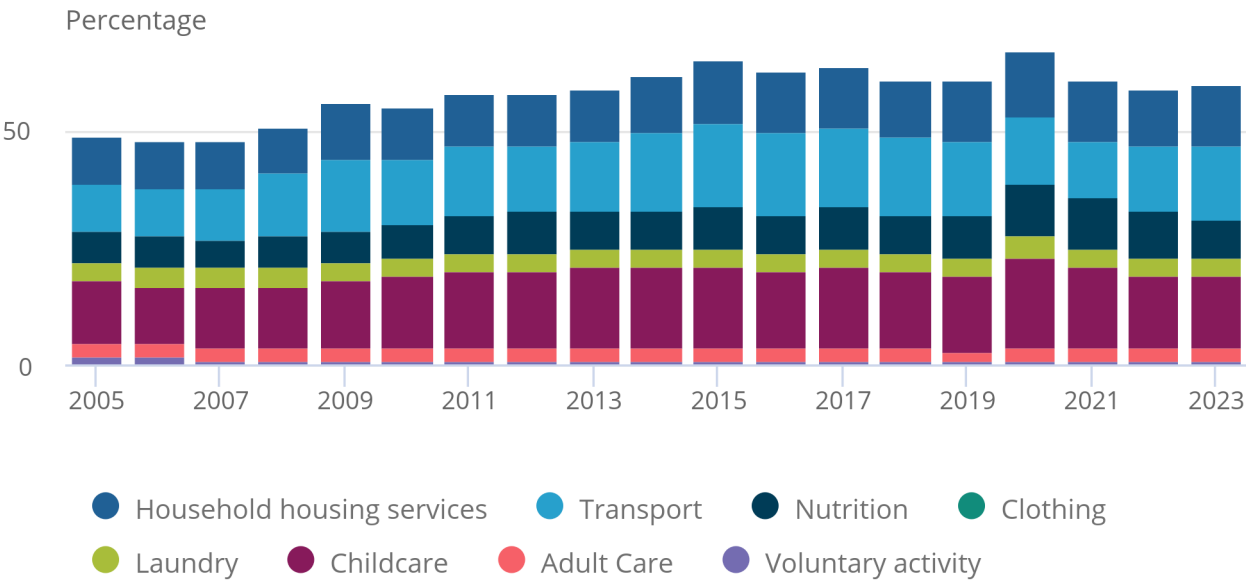
In this release, data have been revised between 2014 and 2022, because of improvements to the data and methodology used in measuring unpaid childcare, housing services and nutrition. The impact of these revisions on the overall value of unpaid household services is small, although the changes are more pronounced for individual services. More information can be found in the quality and methodology section. Most analysis will either be framed across the period 2014 to 2023, with some analysis covering the initial COVID-19 pandemic impact (2019 to 2020) and longer-term changes reflecting recovery since the COVID-19 pandemic (2019 to 2023).

Figure 1: The relative value of unpaid household services, compared with gross domestic product (GDP), peaked during the COVID-19 pandemic, reaching the equivalent of 66% of GDP in 2020

Proportionate size of unpaid household service value relative to GDP, UK, 2005 to 2023

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Proportionate size of unpaid household service value relative to GDP, UK, 2005 to 2023

Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Unpaid Household Service output is not seasonally adjusted.

2. Analyses are based on monetary values in current prices.

3. GDP (YBHA) is UK gross domestic product (GDP) at current market prices.

4. Unpaid household services have been revised from 2014 to 2023.

5. Caution should be applied if directly comparing growth with dates earlier than 2014, because of the break in the series.
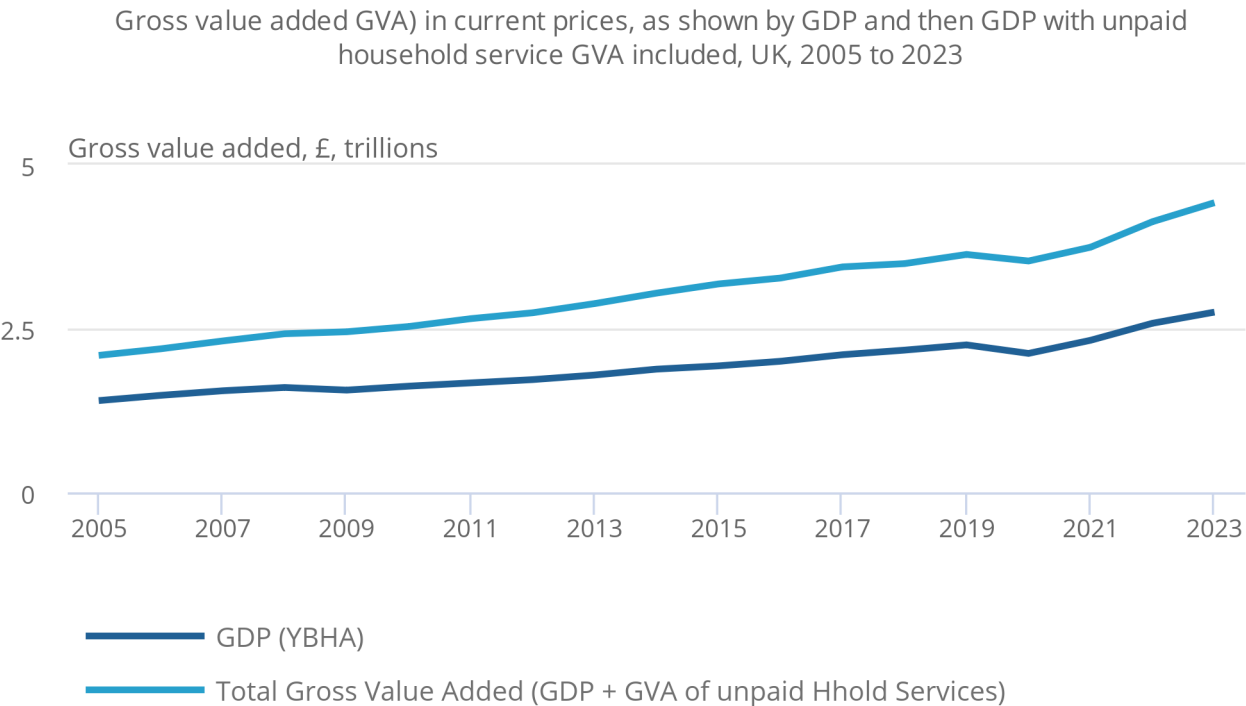
Between 2014 and 2023, the value of unpaid household services remained just over 60% the size of GDP, amounting to 62% in 2014 and 61% in 2023. The relative size peaked in 2020, at 66% the size of GDP.

In current prices, the value of household service work was £1.2 trillion in 2014, increasing to £1.7 trillion in 2023.

Figure 2: Since 2014, GDP has grown by 47%; if the economy is extended to include unpaid household services, the increase is 46%

Gross value added GVA) in current prices, as shown by GDP and then GDP with unpaid household service GVA included, UK, 2005 to 2023

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Figure 2 shows GDP compared with the total economy, which includes gross value added (GVA) from unpaid household services. Between 2014 and 2023, the total economy grew 46%, slightly less than GDP, which grew 47%. The only period in which the total economy increased by more than GDP was during 2007 and 2009, which was the period of the 2008 economic downturn. Total economic growth exceeded GDP growth because of strong and sustained increases in unpaid household services, particularly during a period when GDP experienced a substantial decline in 2008.

The proportion of total household spending on goods used in the production of unpaid household services has stayed at around 12%, as shown in Figure 3. Notably, during the COVID-19 pandemic in 2020 and 2021, spending on ingredients used in home-produced meals accounted for an additional 1% of total household expenditure compared with 2019. During the same period, spending on goods that are inputs into transport (for example, fuel), decreased, accounting for about 1% less of total household expenditure.

Figure 3: In 2020, during the COVID-19 pandemic, the proportion of household spending on goods used in unpaid nutrition services peaked at 5%

The proportion of household expenditure on goods used in the production of unpaid household services, UK, 2014 to 2023

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The proportion of household expenditure on goods used in the production of unpaid household services, UK, 2014 to 2023

Percentage

Transport   Nutrition

Total spending on intermediate goods for unpaid household services
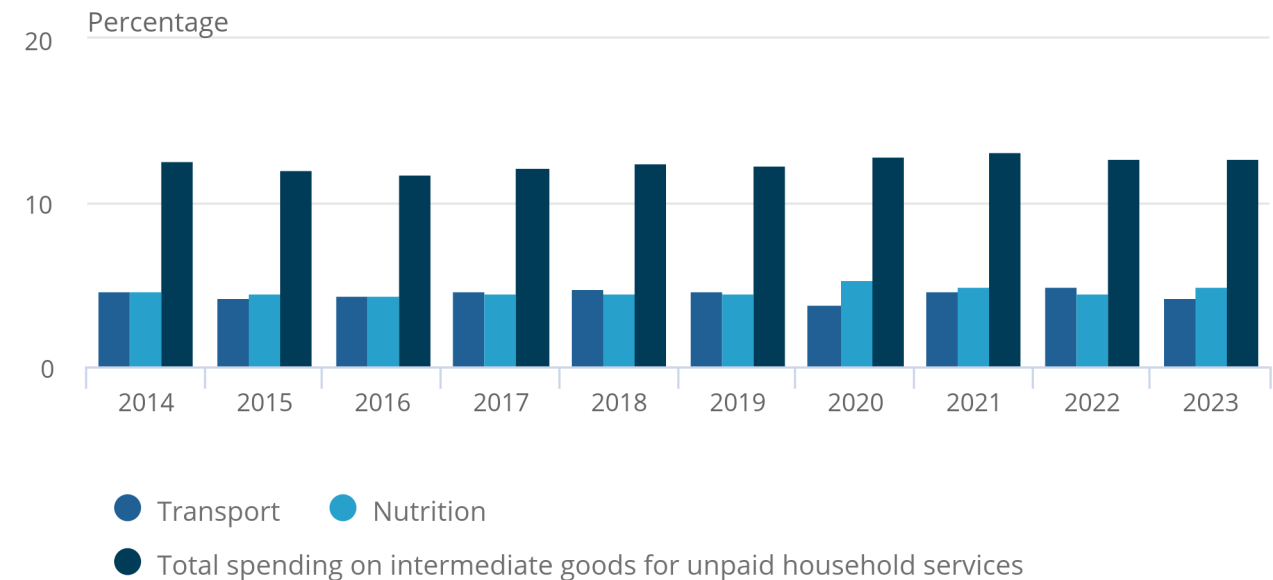
Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Total household expenditure is sourced from the ONS consumer trends release.

2. Analyses are based on monetary values in current prices.

During the COVID-19 pandemic, the balance between household, business, and government services shifted. By comparing the value of unpaid household services from 2019 to 2020 (covering the initial lockdown) and from 2019 to 2023 (post-pandemic years), we can assess both immediate and long-term impacts.

Notably, increases in the value of unpaid childcare and nutrition services both contributed most to the overall increase in unpaid household services between 2019 and 2020 (Figure 4). Conversely, despite a decrease in the value of transport between 2019 and 2020, transport was the largest contributor to overall household service growth from 2019 to 2023.

Figure 4: During the COVID-19 pandemic, the total value of unpaid household services increased by 2% between 2019 and 2020, mainly because of nutrition and childcare services

Contributions to total unpaid household service gross value added (GVA) growth, by service type, UK, 2019 to 2020 and 2019 to 2023

Figure 4: During the COVID-19 pandemic, the total value of unpaid household services increased by 2% between 2019 and 2020, mainly because of nutrition and childcare services

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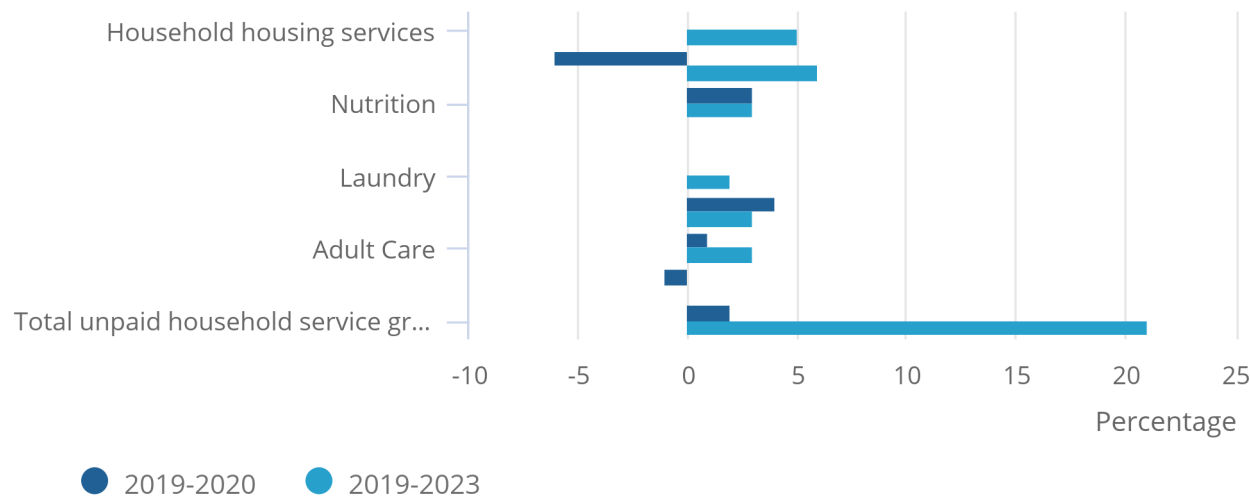
Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Growth estimates are based on the relative contributions of each service to total annual growth in unpaid household services.

2. Periods 2019 to 2020 and 2019 to 2023 were selected to show initial changes during the COVID-19 pandemic and subsequent longer-term changes.

3. Analyses are based on monetary values in current prices.

Looking at the growth of different unpaid household services without adjusting for their size, we see that the value of smaller services like adult care and volunteering changed considerably. In particular, the value of adult care increased more than most other unpaid services from 2019 to 2020 and increased by 81% between 2019 and 2023.

Figure 5: The value of adult care rose 24% between 2019 and the first year of the COVID-19 pandemic, 2020, and has continued to grow, amounting to an increase of 81% by 2023

Growth in the gross value added (GVA) of individual unpaid household services, UK, 2019 to 2020 and 2019 to 2023

Figure 5: The value of adult care rose 24% between 2019 and the first year of the COVID-19 pandemic, 2020, and has continued to grow, amounting to an increase of 81% by 2023

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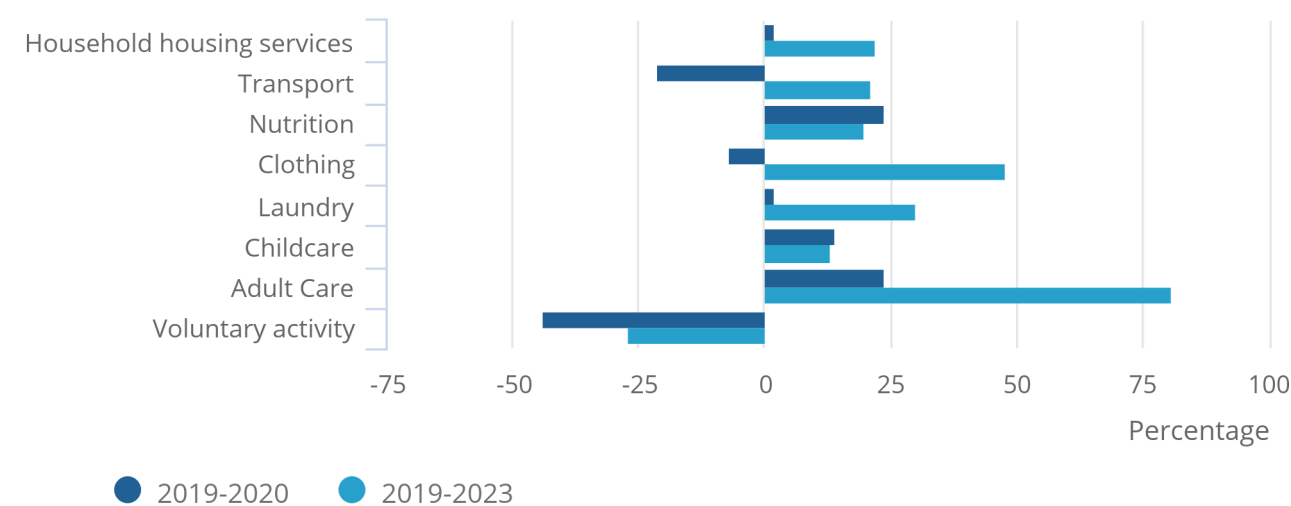
Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Periods 2019 to 2020 and 2019 to 2023 were selected to show initial changes during the COVID-19 pandemic and subsequent longer-term changes.

2. Analyses are based on monetary values in current prices.

While it is important to understand the overall growth in the value of different services over time, as shown in earlier figures, it is also useful to understand to what extent this is largely caused by underlying changes to the quantity of service production and consumption by households, rather than factors such as price rises (inflation) and changes to the size of the population. We do this by calculating volume estimates on an overall and per-head basis, which control for these factors.
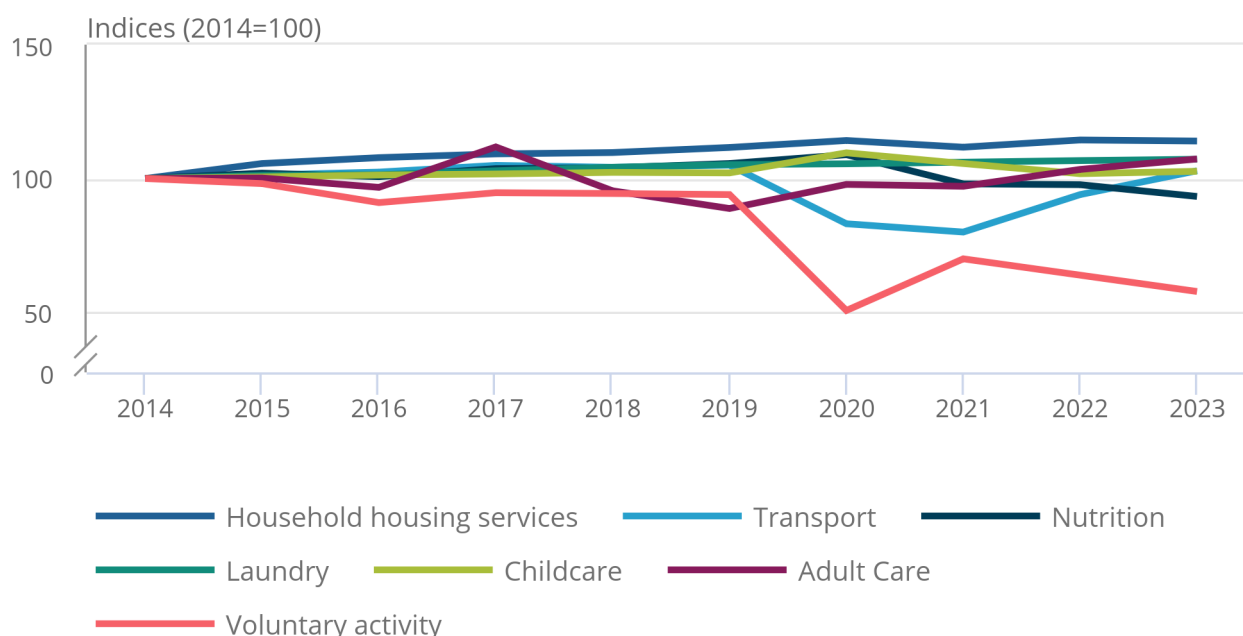
When we look at overall volume estimates between 2014 and 2023 (Figure 6), we can still see a decrease in organisation-based volunteering hours, which have fallen by 40%, suggesting changes have been largely caused by changes to underlying volume, rather than just price changes. For adult care, the volume estimates are however noticeably lower than the overall value, showing that price increases have been a large contributing factor to the growth over time.

Figure 6: The volume of volunteering hours has fallen by over 40% between 2014 and 2023

Indexed volume series for each service, based on the number of units consumed or produced, UK, 2014 to 2023 (2014=100)

Indices (2014=100)

Legend:
- Household housing services
- Transport
- Nutrition
- Laundry
- Childcare
- Adult Care
- Voluntary activity

Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. A clothing series is not included as no volume series is currently available.

2. All estimates in the UK Household Satellite Accounts are presented in current prices and are not seasonally adjusted. Price deflator series are not readily available for unpaid household services, so prices are not deflated.

3. Unpaid household services must be measured in units of service either consumed or produced, depending on the method. These units represent volume changes and so are directly comparable over time.

Looking at volume estimates recalculated on a per-head basis (Figure 7), household housing services including DIY, gardening and cleaning have seen the highest growth over that period, accounting for an 8% increase in hours of service produced per head. Transport and childcare also fall on a per-head basis, despite an increase in volume for the total UK population, implying that changes in these services may be at least partly because of population growth. The fall in the volume of volunteering hours has been larger per head than when considered for the UK population collectively.

Figure 7: Household housing services including DIY, gardening and cleaning, have seen the highest growth per head between 2014 and 2023

Changes in service volume per head of population, UK, 2014 to 2023
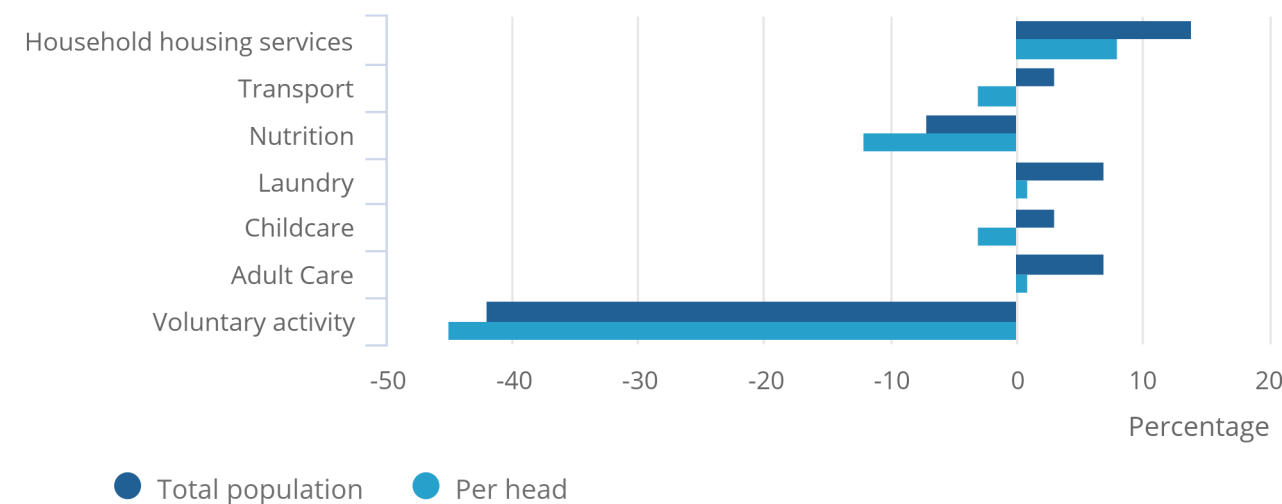
Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Population figures used in the per capita calculations are based on the total UK population and not the underlying number of people consuming or producing a service.

One of the more notable impacts of the COVID-19 pandemic was on the provision of childcare, with schools and other childcare settings closed to most of the population during the lockdown periods in 2020 and early 2021. These closures had a large impact on the proportion of time that children spent in formal care settings in 2020. Children aged under 5 years spent an average of 8% of the year (720 out of 8,760 hours per child per year) in formal care in 2019. In 2020, this decreased to just 4% (380 out of 8,760 hours per child per year), as shown in figure 8. For children aged 5 years to 16 years, the time they spent in formal care fell from about 17% in 2019 to around 9% in 2020. This amounted to a 46% fall in formal care hours for 5-to-10-year-olds and a 44% fall in formal care hours for 11-to-15-year-olds, between 2019 and 2020.

Figure 8: During the COVID-19 pandemic, formal care hours per child were reduced by 45% between 2019 and 2020, but returned to 2019 levels again by 2023

The proportion of all children's time spent in a formal care setting, by year and child age group, UK, 2014 to 2023

Figure 8: During the COVID-19 pandemic, formal care hours per child were reduced by 45% between 2019 and 2020, but returned to 2019 levels again by 2023

The proportion of all children's time spent in a formal care setting, by year and child age group, UK, 2014 to 2023
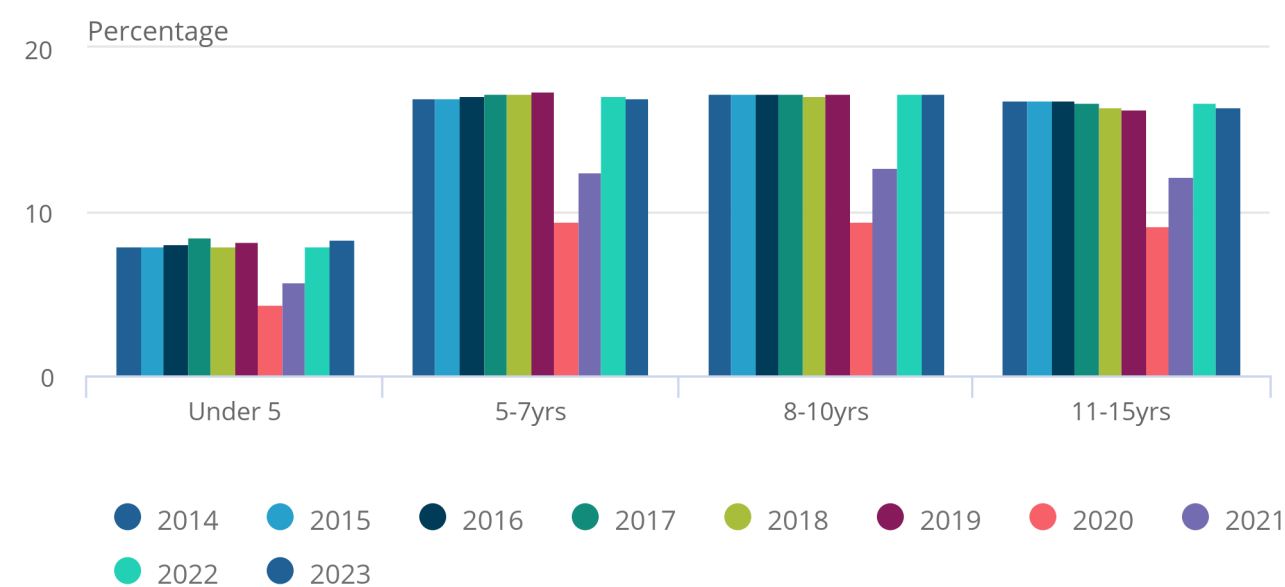
Source: UK Household Satellite Account from the Office for National Statistics

Notes:

1. Estimates show the proportion of the 8,760 hours in the year for which children are in a formal care setting such as a school, nursery, club, hospital or other care institution.

Hours of formal care time have largely recovered since 2020, particularly for children aged under 5 years, where the proportion of their time spent in formal care settings has been climbing annually. The number of hours children spend in formal care settings is directly linked to the hours for which children are receiving unpaid care, as when they are not in a nursery or school, for example, unpaid care givers are responsible for their care.

3 . Data on household satellite account, UK

Household satellite account, UK
Dataset | Released 05 December 2025
Annual data on the output, intermediate consumption and gross value added of home-produced services.

4 . Glossary

Gross domestic product (GDP)

The total value of output in the economic territory, excluding the value of unpaid household service work, as measured within the UK Household Satellite Accounts. It is the balancing item on the production account for the whole economy. Domestic product can be measured as gross or net. It is presented in the core accounts at market (or purchasers') prices.

Gross value added (GVA)

The value generated by any unit engaged in production and the contributions of individual sectors or industries to GDP. It is measured at basic prices, excluding taxes and less subsidies on products.

Input method/output method

The input method values services by assessing the resources used in production, such as labour hours, intermediate consumption, and, when relevant, an imputed profit. Unpaid service valuations typically use labour hours at a comparable market wage, choosing rates for jobs that could substitute unpaid work without much loss in quality. The output method estimates value by applying a relevant market price to each unit of service consumed. Market prices are typically inclusive of wages, inputs, and profits. It is essential to subtract intermediate consumption to avoid inflating value added. This approach is generally more aligned with how market services are valued in the core National Accounts.

Imputed rental/owner occupier rent

The System of National Accounts (SNA) specifies that an imputed rental on owner occupied housing should be included in the production boundary and form part of household consumption. Imputed rental is therefore the rental value of housing that is owner occupied. The SNA considers this imputed rental value as the value of the housing being consumed by owner occupiers.

Intermediate consumption

The consumption of goods and services in the production process. It may be contrasted with final consumption and capital formation.

Organisation-based volunteering

This is volunteering through an organisation set up to facilitate volunteer services. For example, a charity that relies on volunteers to raise funds or carry out services in the local area.

System of National Accounts

The internationally agreed standard system for macroeconomic accounts. The latest version is described in SNA 2008.

Unpaid adult care services

Unpaid adult care services for those aged 16 years and over, regardless of whether unpaid care is provided by household members, family, or others. This definition covers activities that may be considered direct volunteering in international guidelines. Care hours may include activities such as helping with household tasks, finances, personal care, and supervision.

Unpaid childcare services

Unpaid childcare services refer to care given to children aged 15 years and under by anyone outside a formal setting, including family or others, regardless of whether the caregiver is from the same household. This includes situations where, if the caregiver left, another carer would need to be arranged. Some of this care may be seen as direct volunteering under international guidelines.

Unpaid clothing services

Unpaid services producing or repairing clothing.

Unpaid household service work

The Household satellite account (HHSA) defines unpaid household service work using the "Third Party Criterion" (Reid, 1934; Hawrylyshyn, 1977); which describes activities that should be valued as "those economic services produced in the household and outside the market, but which could be produced by a third person hired on the market without changing their utility to the members of the household". The types of activities that meet that definition are those such as unpaid household transport services [for example driving yourself or others somewhere] childcare, cooking, cleaning, and adult care.

Unpaid housing services

Unpaid household upkeep, including unpaid DIY, gardening, and cleaning.

Unpaid transport services

Unpaid transport services involve individuals transporting themselves or others without payment. This includes activities such as driving (even with self-driving cars, as supervision is required), walking, or cycling, when these substitute for paid transport options.

Unpaid nutrition services

Unpaid cooking and preparing meals and drinks.

Unpaid laundry services

Unpaid washing of fabrics or clothes, drying and ironing.

5 . Data sources and quality

Data sources

The UK Household satellite account has a wide range of input data sources, including both administrative data and survey data. Some Office for National Statistics (ONS) data sources are used repeatedly within the accounts, including:

- our United Kingdom population mid-year estimate time series

- our Consumer Price Indices dataset

- our Families and Households datasets

- our Consumer trends: current price, not seasonally adjusted dataset

- our Gross Domestic Product estimates time series (used in the final analyses to create measures of the total economy)

Beyond these core sources, each unpaid household service usually has a bespoke mix of input data selected on the basis that it will optimise output data.

The following subsections list the main data sources we use in our UK satellite household account statistics, categorised by unpaid household service type.

For housing services, we use:

- the [Understanding Society Survey](#) for household upkeep labour hours

- our [Annual Survey of Hours and Earnings](#) for wage rates

For transport, we use:

- the [National Travel Survey](#) for miles travelled

- our [Inflation and Price Indices dataset](#) for private vehicles/taxi prices

- local taxi prices taken from various local authorities, where available

For nutrition, we use:

- our [Living Costs and Food Survey](#) for weight of food purchased

- the [Family Food datasets](#) for expenditure on food

For clothing, we use:

- our [Consumer trends datasets](#) for expenditure estimates for haberdashery materials

- estimates, which are marked up to create market value estimates

For laundry, we use:

- the number of washes per household per year, which is taken from market research data and triangulated and tested using other data sources over time (the number of 5-kilogram wash-loads per year has stayed relatively stable over time and annual volume estimates are largely caused by changes in the number of households)

- price per wash has been benchmarked from market research data for specific years and growth has then been modelled on changes in our [Inflation and price indices statistics](#)

For childcare, we use wide-ranging administrative data sources and published statistics from across the devolved administrations, including:

- childcare and early years providers/parents surveys

- hospital admissions data

- boarding school headcount data

- school census data

- social service statistics

- childminder prices per child, per hour from the [Coram Family and Childcare Survey 2023 (PDF, 6.3MB)](#)

For adult care, we use:

- the [Family resources survey](#) to estimate hours of unpaid care received

- [published costs statistics](#) for residential care facilities to derive prices

For organised-based volunteering, we use:

- the [Community Life Survey](#) to estimate the number of hours volunteered by frequent volunteers

- our [Annual Survey of Hours and Earnings (ASHE)](#) to derive different wage rates, depending on the type of volunteering being performed

Time-use data

Time-use data provides a complete record of household activities over a 24-hour period and is internationally recognised as the best source for measuring unpaid household labour. Since April 2020, the ONS, in collaboration with the Economic Statistics Centre of Excellence, has collected nine waves of such data and plans to use it to improve UK household satellite account estimates, with further analysis on unpaid household service work forthcoming.

Quality and methodology

Data series have been revised back to 2014 to improve assumptions, input data and the presentation of the data tables. As part of this round of revisions, the latest published statistics available at the time of processing have been used including:

- updated population data

- prices data

- expenditure data

- data on the number of households

Additionally, an official estimate for the value of unpaid childcare services and resulting total value of unpaid household service work were estimated for 2020 for the first time, using absence from school statistics. As a result of these improvements, total unpaid household service gross value added (GVA) was increased by a maximum of 6% for 2019, with an average of 2% over all affected years. The largest changes in total unpaid household service GVA were caused by revisions in household housing services, with an increase across most years, reaching a maximum change of 28% in 2016. The second largest impact on total unpaid household service GVA was caused by downward revisions to the value of unpaid childcare, with a maximum decrease of 9.4% in 2019. The GVA of clothing services saw the largest sector-level revision, with a reduction of 44% in 2015, though this had minimal impact on overall GVA of unpaid household services, affecting totals by less than 0.2%. Other changes include:

- improved measurement of the time children spend in formal care settings, where we now have more detailed and tailored estimates of the hours and days for which children are in care, depending on the type of setting they are in

- refinement of the method used to estimate the time children spend alone

An official estimate for the value of unpaid childcare services and resulting total value of unpaid household service work was made for 2020 for the first time, using absence from school statistics. The presentation of the data tables has changed, with a new row for housing services produced by tenants. These services were previously included in the intermediate consumption row, as a form of intermediate consumption. However, they are now deducted from output (to avoid double counting with estimates in the core accounts) on their own row in the table, similarly to owner-occupier imputed rentals.

Improvements to the measurement of calories eaten at home, where data sources for calorific intake have had to be based on purchased food weight in recent years. We have now developed a calorie-per-gram rubric, which allows changes in food type consumed to be properly reflected in the calorie counts. For example, if individuals shift toward buying a more calorific ingredient, this will be reflected more accurately in calorie estimates based on a calorie-per-gram model, than in the previous interim solution of modelling total calories on the changes in total weight of food consumed alone.

Household housing services

The UK household satellite accounts output for household housing services includes actual rentals, owner-occupier imputed rentals, and utilities, providing a comprehensive valuation of household services. To prevent double counting, parts of the total housing value are subtracted from other unpaid service outputs, and the remaining values for rentals are then also deducted so they are not counted in both the core National Accounts and the UK household satellite accounts. This process means only unpaid household upkeep services like DIY, gardening, and cleaning are counted as value added for unpaid household housing services.

Intermediate consumption

Household final consumption expenditure is split to the 5-digit classification of individual consumption by purpose (COICOP) level and then proportions of these categories of spending are reclassified as intermediate consumption, depending on the judged likelihood of these goods being used in the production of unpaid household services. For example, a proportion of electricity consumption is allocated based on the typical energy consumption of appliances used when unpaid household services are being produced, relative to total energy consumption over the same period. For ingredients in cooking, depending on the ingredient type they have been classed as:

(1) Almost always an ingredient (100% allocation)

(2) Most often an ingredient (75% allocation)

(3) Could be an ingredient or a final consumption item (50% allocation)

(4) most often final consumption (25% allocation)

(5) Almost always final consumption (0% allocation)

For example, dried rice would be placed in the "almost always an ingredient" category, as it must be cooked to be consumed. However, fresh fruit would be placed in the "Could be an ingredient or a final consumption item" category, as it could either be used as an ingredient or consumed without any preparation.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our UK household satellite account quality and methodology information report planned for publication in 2026. Should you require more information about the compilation of the accounts prior to the release of the QMI, email HHSA@ons.gov.uk.

6 . Related links

Household satellite account, UK
Statistical bulletin | Released 2 October 2018
Estimates of the value of unpaid household services between 2005 and 2016.

Household satellite accounts: 2005 to 2014
Statistical bulletin | Released 27 April 2016
Estimates of the value of unpaid household services between 2005 and 2014.

Household Satellite Account (experimental)
Statistical bulletin | Released April 2002
Estimates of the value of unpaid household services for the year 2000.

Time use in the UK
Statistical bulletin | Released 9 November 2023
Average daily time spent by adults on activities including paid work, unpaid household work, unpaid care, travel and entertainment. Experimental statistics.

GDP monthly estimate, UK
Statistical bulletin | Released 13 November 2025
Gross domestic product (GDP) measures the value of goods and services produced in the UK. It estimates the size of the economy and its growth.

Consumer trends, UK
Statistical bulletin | Released 30 September 2025
Household final consumption expenditure (HHFCE) for the UK, as a measure of economic growth. Includes spending on goods and services by UK households as defined in the National Accounts.

7 . Cite this statistical bulletin

Office for National Statistics (ONS), released 05 December 2025, ONS website, statistical bulletin, Household Satellite Account, UK: 2023