Office for National Statistics

Statistical bulletin

Public service productivity, quarterly, UK: July to September 2025

UK total public service productivity, inputs and output, to provide a short-term, timely indicator of annual productivity estimates. These are official statistics in development.

Contact:
Public Service Productivity team
psp@ons.gov.uk
+44 3456 013034

Release date:
6 February 2026

Next release:
May 2026

Notice

6 February 2026

This release does not include quarterly breakdowns for healthcare, as we are currently working on improving this series by reducing erratic quarter-to-quarter movements, seen across the first three quarters of 2025. We aim to reintroduce these breakdowns in our next quarterly release, scheduled to be published in May 2026. Learn more in Section 2: About these estimates.

Table of contents

1 . Main points

- Our latest annualised estimates of total public service productivity in the UK show growth of 0.8% in 2023, revised down from 0.9%, and 0.0% in 2024, revised down from 0.3%.
- Total public service productivity was 3.4% lower in 2024 than the 2019 level (compared with 3.0% lower, as previously published).
- Healthcare public service productivity was 7.9% lower in 2024 than the 2019 level (compared with 7.8% lower, as previously published).
- Revisions are mainly caused by updated national accounts data, and the incorporation of a new data source for hospital activity that improves our healthcare output estimate.
- Total public service productivity in the UK grew by 0.1% in Quarter 3 (July to Sept) 2025, compared with Quarter 3 2024.
- Our quarterly estimates are official statistics in development and are subject to continuous development and revision as more timely data and new sources become available.
- We are not publishing quarterly healthcare breakdowns in this release while we work with our data suppliers to further develop health inputs data, which have been erratic in recent quarters; this will build on improvements over the last 12 months to health output estimates, and coherence with national accounts and our annual release.

These are official statistics in development, and are subject to revision. Use caution when comparing quarterly estimates in 2023 and 2024 (which are official statistics in development) with earlier annual estimates (which are accredited official statistics), as some sources, methods, and the structure of inputs and output differ. Read more in Section 9: Data sources and quality

2 . About these estimates

Our quarterly estimates are official statistics in development and provide a short-term, timely indicator of total public service and healthcare productivity. These statistics take no further account of changes to the quality of public services in periods beyond the latest statistics published for 2022 in our annual total public service productivity article, which are accredited official statistics.

We incorporate data consistent with the UK National Accounts unless otherwise specified, such as in cases where we have more timely data available to inform our estimates. Methodological differences between the annual and quarterly estimates, and a description of the quarterly data, can be found in our Sources and methods for public service productivity estimates methodology.

This release does not include quarterly breakdowns for healthcare, as we are currently working on improving this series by reducing erratic quarter-to-quarter movements, seen across the first three quarters of 2025.

While some evidence points to growth in health inputs remaining relatively high into 2025, compared with other service areas, and compared with estimates published by NHS England (as discussed in the next paragraph), the erratic quarter-to-quarter movements require further assurance that quarterly healthcare productivity during that period provides a good signal of quarter-on quarter and quarter-on-year movements. This does not affect the use of our annualised estimates for 2023 and 2024, though we advise caution when using previously published quarterly healthcare estimates for Quarter 1 (Jan to Mar) and Quarter 2 (Apr to June) 2025 until we undertake further work with our data suppliers and reintroduce them.

Reasons our estimates of healthcare productivity may differ from in-year productivity estimates produced by NHS England include:

- we cover a range of UK-wide healthcare services, while the NHS England measure looks specifically at England; for example, our estimates include spend from Integrated Care Boards (ICBs) and NHS England financial performance reports, which suggest growth in spend by ICBs is rising faster than that of NHS Trusts

- we primarily use data drawn from central government accounting systems for government spending, such as the Online System for Central Accounting and Reporting (OSCAR), through our national accounts framework, as the data source for inputs expenditure, while NHS England use more up-to-date, internal data

- our methodology adheres to national accounts best practice (for example, deflation, chain-linking aggregation, and seasonal adjustment processes) while NHS England use other approaches (including inflation adjustments and reconciling with published NHS trust accounts)

We will work with colleagues at the Department for Health and Social Care, NHS England, and HM Treasury to further minimise differences in coverage and timeliness between our estimates on healthcare inputs. The aim is to reintroduce quarterly healthcare breakdowns in our next quarterly release, scheduled to be published in May 2026.

3 . Annualised estimates

This section focuses on the annualised estimates of our quarterly total public service productivity, inputs, and output, which are official statistics in development. The annualised estimates are based on a quarterly annualised growth rate (QAGR) approach, which produces "nowcasted" estimates for 2023 and 2024.

Annualised inputs and output estimates are derived by averaging seasonally adjusted index values across four quarters of a year. These are used to calculate productivity growth rates for 2023 and 2024 by applying them to 2022 accredited official statistics. This method is used in our Developing nowcast methodologies for public service productivity, UK article.

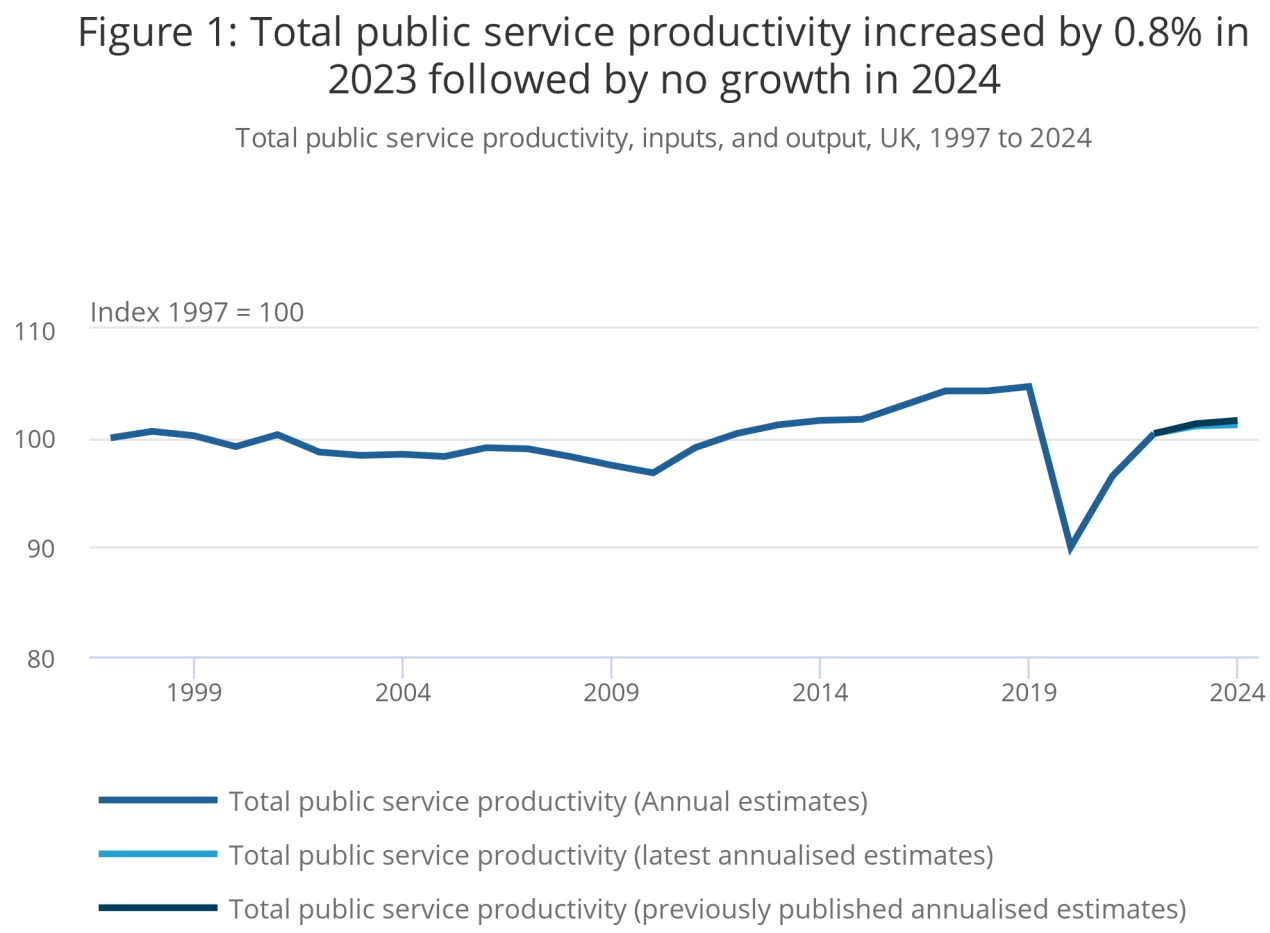
We also make pre-pandemic annual comparisons, recognising the impact the coronavirus (COVID-19) pandemic had on public services. Inputs rose in 2020, reflecting the extra resources provided to public services to deal with the pandemic. Conversely, output fell in 2020, as many services were delivered in a different way than in 2019, with additional costs and mandatory restrictions present for certain services.

Annualised total public service and healthcare productivity

Figures 1 and 2 combine our accredited annual estimates from 1997 to 2022 with official statistics in development for 2023 and 2024, derived using the QAGR approach. Figure 1 presents total public service productivity, inputs and output annual estimates, while Figure 2 presents the same for healthcare only. Both are compared with previously published annualised estimates.

Figure 1: Total public service productivity increased by 0.8% in 2023 followed by no growth in 2024

Total public service productivity, inputs, and output, UK, 1997 to 2024



Source: Public service productivity from the Office for National Statistics

Notes:

1. Estimates from 1997 to 2022 are annual accredited official statistics.

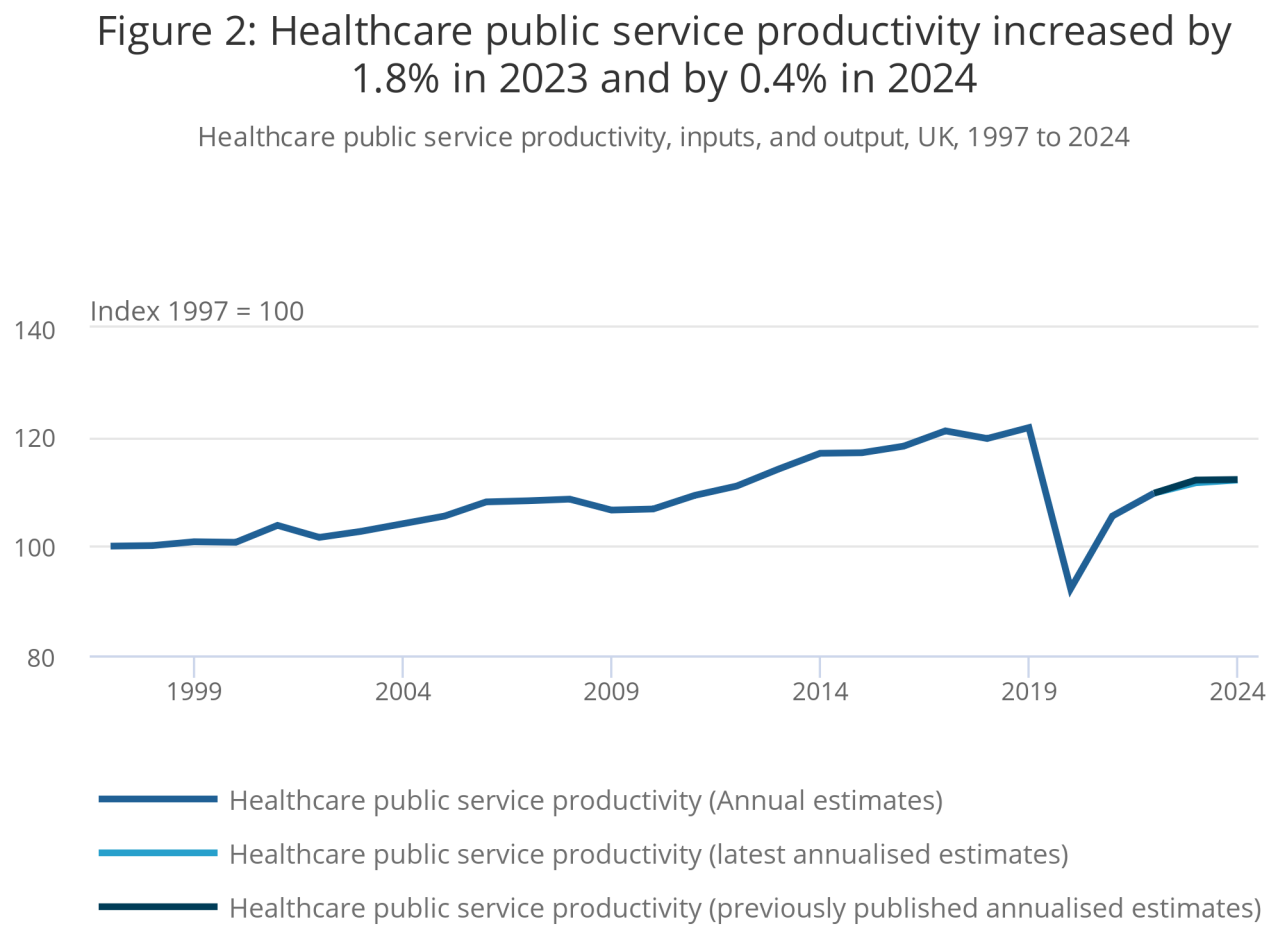
2. Estimates for 2023 and 2024 are official statistics in development and are annualised quarterly estimates.

Latest estimates suggest flat public service productivity growth in 2024, as growth in total inputs and output offset one another. Other than the pandemic period (2020 to 2022), growth in 2024 for total output (3.5%) and inputs (3.4%) was at their fastest rates since the mid-to-late 2000s. Outside the pandemic period, total productivity growth in 2024 (0.0%) has not been lower since 2010, when total productivity fell by 0.7%.

Healthcare was the cause of around three-fifths of the combined growth in total inputs and output in 2024, while the remaining two fifths were caused by other services, including education and social protection.

Figure 2: Healthcare public service productivity increased by 1.8% in 2023 and by 0.4% in 2024

Healthcare public service productivity, inputs, and output, UK, 1997 to 2024



Source: Public service productivity from the Office for National Statistics

Notes:

1. Estimates from 1997 to 2022 are annual accredited official statistics.

2. Estimates for 2023 and 2024 are official statistics in development and are annualised quarterly estimates.

Overall, annualised quarterly estimates show that total public service productivity in 2024 remained below pre-pandemic levels (3.4% lower than in 2019), while healthcare productivity also remained below pre-pandemic levels (7.9% lower than in 2019).

The data in this release show a slower post-pandemic rate of recovery when compared with previously published data. Revisions are explained in Section 4: Revisions to public service productivity estimates.

4 . Revisions to public service productivity estimates

In line with our National Accounts Revisions Policy, this release contains data that are consistent with our GDP quarterly national accounts, UK: July to September 2025 bulletin, unless otherwise stated. Table 1 compares our latest annualised total public service productivity estimates with previously published estimates.

Table 1: Latest and previously published estimates for total inputs, output and productivity growth

Year	Estimate	Inputs	Output	Productivity	Productivity compared with 2019
2023	Previously published	1.1%	2.1%	0.9%	3.3% lower
2023	Latest	1.1%	1.9%	0.8%	3.4% lower
2024	Previously published	3.0%	3.4%	0.3%	3.0% lower
2024	Latest	3.4%	3.5%	0.0%	3.4% lower

Source: Public service productivity from the Office for National Statistics

Notes

1. Productivity compared with 2019 looks at annualised quarterly estimates (official statistics in development) with annual 2019 estimates (accredited official statistics).

Total public service productivity growth for 2023 has been revised down from 0.9% to 0.8% growth. This was caused by downward revisions to output (from 2.1% to 1.9%) because we have moved away from using data based on published aggregate Hospital Episode Statistics (HES) to a more refined, bespoke dataset derived from Secondary Uses Service (SUS).

This new data source is also used by NHS England in the production of their own productivity measure, and includes more refined cost-weighted activity estimates for elective, non-elective, outpatient, A&E, and adult critical care. This improvement affects public service productivity measurement back to Quarter 1 (Jan to Mar) 2023, but only back to Quarter 1 2024 in the national accounts, as these statistics are subject to our National Accounts Revisions Policy. There were no revisions to input growth.

Total public service productivity for 2024 was revised down from 0.3% to 0.0% growth. This is because of upward revisions to inputs growth (from 3.0% to 3.3%), reflecting new local government data across education and social protection service areas. Total output growth was revised upward slightly (from 3.4% to 3.5%), also reflecting new local government data.

Table 2: Latest and previously published estimates for healthcare inputs, output and productivity growth

Year	Estimate	Inputs	Output	Productivity	Productivity compared with 2019
2023	Previously published	-1.4%	0.8%	2.2%	7.9% lower
2023	Latest	-1.4%	0.3%	1.8%	8.3% lower
2024	Previously published	5.4%	5.5%	0.0%	7.8% lower
2024	Latest	5.1%	5.5%	0.4%	7.9% lower

Source: Public service productivity from the Office for National Statistics

Notes

1. Productivity compared with 2019 looks at annualised quarterly estimates (official statistics in development) with annual 2019 estimates (accredited official statistics).

Healthcare public service productivity growth for 2023 has been revised down from 2.2% to 1.8%. This was caused by downward revisions to healthcare output (from 0.8% to 0.3% growth), mostly because of updated healthcare data, as mentioned previously. Health inputs growth was unrevised.

Healthcare public service productivity growth for 2024 was revised up, from 0.0% to 0.4% growth. This was because of downward revisions to inputs growth (from 5.4% to 5.1%) and no revisions to output growth (remaining at 5.5%). This is the third consecutive year of slowing healthcare productivity growth, falling below the 1.3% average annual growth rate in the decade up to 2019.

5 . Public service productivity confidence intervals

Confidence intervals (CIs) surrounding our nowcasted total and healthcare productivity estimates for 2023 and 2024 are included in Tables 3 and 4. These provide a statistical measure of uncertainty attached to our annualised growth estimates, with the interval width determined by historical differences between the growth rates of quarterly and annual estimates. We treat the years between 2019 and 2022 as outliers in our CI calculation, since growth during this period is not reflective of historical and underlying differences between our quarterly and annual estimates.

Nowcasted estimates are official statistics in development, and should be treated with caution until our 2023 and 2024 annual accredited estimates become available. Even with these refined CIs, we are unable to say with statistical confidence whether there was growth or contraction in total public service productivity in 2023 and 2024.

Table 3: Nowcast estimates for 2023 and 2024 total public service productivity, inputs and output growth rates

			95% Confidence Interval	
	Nowcast estimate for	**Central estimate**	**Lower**	**Upper**
Productivity	2023	0.8%	-0.8%	2.3%
	2024	0.0%	-1.9%	2.0%
Inputs	2023	1.1%	-0.4%	2.6%
	2024	3.4%	1.3%	5.5%
Output	2023	1.9%	1.0%	2.7%
	2024	3.5%	2.0%	4.9%

Source: Public service productivity from the Office for National Statistics

Notes

1. We use a quarterly annualised growth rate nowcast. For more details please see Developing nowcast methodologies for public service productivity, UK.

Similarly, we are unable to say with statistical confidence whether there was growth or contraction in healthcare public service productivity in 2023 and 2024. While some elements of our estimates over this period come with greater certainty, such as current price expenditure from government accounts, other elements cause large confidence intervals. This includes different deflators, time lag in certain sources, and methodological differences between our annual and quarterly datasets.

Table 4: Nowcast estimates for 2023 and 2024 healthcare productivity, inputs and output growth rates

			95% Confidence Interval	
	Nowcast estimate for	**Central estimate**	**Lower**	**Upper**
Productivity	2023	1.8%	-1.5%	5.1%
	2024	0.4%	-3.8%	4.6%
Inputs	2023	-1.4%	-3.8%	1.0%
	2024	5.1%	1.7%	8.5%
Output	2023	0.3%	-0.7%	1.4%
	2024	5.5%	3.7%	7.3%

Source: Public service productivity from the Office for National Statistics

Notes

1. We use a quarterly annualised growth rate nowcast. For more details please see Developing nowcast methodologies for public service productivity, UK.

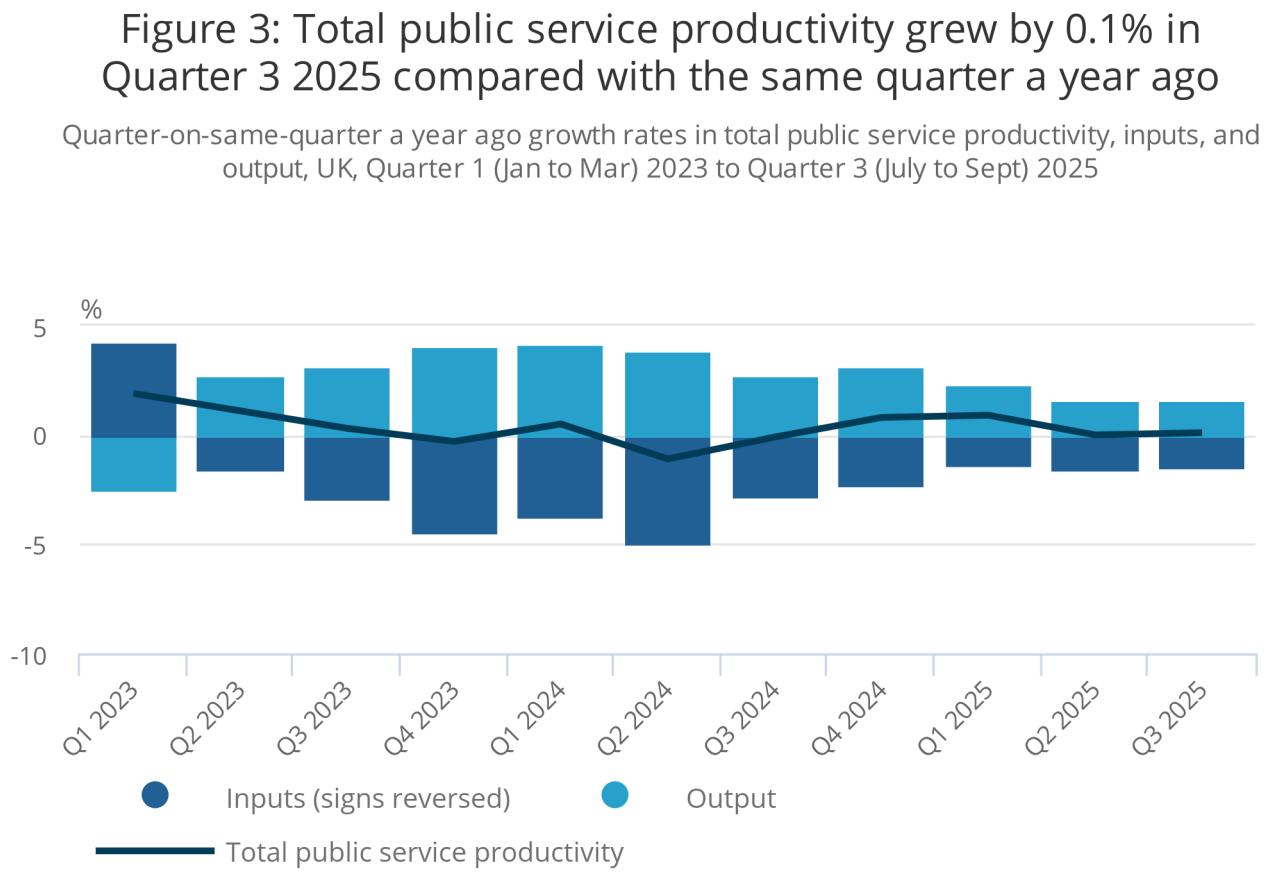
6 . Quarter-on-previous-year productivity estimates

In this section, we focus on movements between the quarter and the same quarter one year before. This comparison reflects underlying productivity trends and minimises effects of short-term volatility better than comparing a quarter with the previous quarter.

Latest estimates suggest broadly flat total public service productivity growth in recent quarters. Total public service productivity in the UK was estimated to have grown by 0.1% in Quarter 3 (July to Sept) 2025, compared with the same quarter in 2024, following 0.0% growth in Quarter 2 (Apr to June) 2025. Over this period, inputs grew by 1.5%, and output by 1.6%.

Figure 3: Total public service productivity grew by 0.1% in Quarter 3 2025 compared with the same quarter a year ago

Quarter-on-same-quarter a year ago growth rates in total public service productivity, inputs, and output, UK, Quarter 1 (Jan to Mar) 2023 to Quarter 3 (July to Sept) 2025



Source: Public service productivity from the Office for National Statistics

Notes:

1. Quarterly estimates of productivity are calculated using seasonally adjusted inputs and output.
2. This chart inverts the growth rates of inputs as positive inputs growth contributes negatively to productivity.
3. Q1 refers to Quarter 1 (Jan to Mar), Q2 refers to Quarter 2 (Apr to June), Q3 refers to Quarter 3 (July to Sept), Q4 refers to Quarter 4 (Oct to Dec).

7 . Data on public service productivity

Public service productivity, quarterly, UK: July to September 2025
Dataset | Released 6 February 2026
UK total public service productivity and healthcare productivity. Includes estimates of inputs, output, productivity, and revisions. These are official statistics in development.

8 . Glossary

Deflator

A price index used to remove inflation effects from current price estimates of expenditure to provide a volume estimate.

Direct output measurement

Output is estimated using an activity-based index, typically weighted by cost, such as the number of students in state schools, adjusted for attendance and weighted by the cost of different phases of schooling. This differs from an indirect output measurement, where output is assumed to equal inputs.

Intermediate inputs

Also referred to as "goods and services", or "intermediate consumption" (the national accounts term). Intermediate inputs include goods and services used up in the provision of a public service, such as utilities, energy, professional services, and medical supplies, among others.

Public services

These are services delivered by or paid for by government (central or local). If paid for by the government, they may be delivered by a private body, for example, the provision of nursery places by the private sector, where these places were funded by the government.

Quality adjustment

A statistical estimate of the change in the quality of a public service, using an appropriate metric, such as safety in prisons as part of the public order and safety adjustment.

Service area

The way we refer to the breakdown of public services into seven areas, closely following standard industrial classification (SIC) codes.

Standard industrial classification

The industrial classification applied to the collection and publication of a wide range of economic statistics.

9 . Data sources and quality

Data sources

We use different sources and methods to produce our official statistics in development quarterly statistics and our annual accredited official statistics.

This bulletin uses expenditure data from quarterly UK national accounts, split into seven categories:

- healthcare
- education
- social protection
- justice and fire
- military defence
- central government services
- local government services

Data sources and methods differ from the annual publication, depending on data availability and appropriateness on a quarterly or annual basis. For example, some inputs measures that are available on an annual basis as direct measures are not available on a quarterly basis. These missing quarterly direct input measures may only be obtainable using indirect measures (deflated expenditure).

Our annual total public service productivity (accredited official statistics) also use different deflators to estimate volumes of inputs other than those used in this release. As such, estimates are not directly comparable between the quarterly and annual publications. Estimates of productivity, inputs and output up to 2022 are reported on an annual basis and use data from our Public service productivity, total, UK, 2022 article. Further information about our annual accredited official statistics can be found in our Public service productivity: total, UK, quality and methodology information (QMI).

Seasonal adjustment

Our quarterly estimates of public service productivity contain systematic, calendar-related variation. Therefore, for comparability, we apply seasonal adjustment. Please see our seasonal adjustment methodology for more information. For our quarterly estimates, we use the X11 algorithm in the X-13 ARIMA-SEATS software to perform seasonal adjustment.

Since 2023, the non-seasonally adjusted data on public service productivity, particularly inputs, show a different seasonal pattern than earlier data. This is because of policies and measures adopted by government departments following the coronavirus (COVID-19) pandemic. This new seasonality was not properly captured by the seasonal adjustment model for inputs, which produced estimates that do not appear to fully reflect the current economic scenario.

To revise the seasonal adjustment fully, we need more quarters of post-pandemic data, allowing us to re-estimate the trend of the new seasonality. For this reason, supported by experts on seasonal adjustment, we previously treated data on healthcare inputs from Quarter 2 (Apr to June) 2020 until the latest quarter as outliers, reflecting the effects of the pandemic and post-pandemic periods.

However, publications after November 2025 regard Quarter 2 2020 to Quarter 2 2022 as outliers. This reflects advice from time series experts, given the current data and length of time series available since 2022.

We also apply indirect seasonal adjustment consistent with other areas of national accounts. This step uses the chain-linking aggregation approach to aggregate the seasonally adjusted service areas, and ensures additivity across our service area estimates and the total. These estimates will be subject to continued assessment as new data become available, and as we work to further align ourselves with national accounts best practice.

Measuring public service productivity

These estimates are not a measure of the productivity of an individual worker within the public sector. Instead, they reflect the volume of services delivered to end users, relative to the volume of total inputs required to deliver these services.

Productivity will increase when more output is being produced for each unit of inputs used. Estimates of inputs, output, and productivity are given both as growth rates between consecutive periods and as indices, showing the cumulative trend over time.

For total UK public services, estimates of inputs are made up of aggregated series for individual public services, weighted together by their relative share of total expenditure on public services in current price (expenditure weight).

Inputs include labour, goods and services, social transfers in kind, and consumption of fixed capital. Expenditure data, used to estimate most inputs growth, are taken from our GDP quarterly national accounts, UK bulletin.

Output in our productivity estimates reflects total general government final consumption expenditure (GGFCE). The quarterly national accounts produce estimates of government output, based on direct measures where they are available, and indirect measures where they are not.

Inputs for healthcare are calculated from the volume growth of healthcare labour inputs weighted according to its current price expenditure share relative to other health inputs components. We adopt the same approach to calculate the intermediate consumption, capital, and social transfer in kind (STIK). The sum of these components leads to the healthcare inputs volume growth in each period.

Our estimates of intermediate consumption, capital, and STIK are based on national accounts sources. Labour growth is based on our public sector employment data (direct implied expenditure), and deflated bank staff implied expenditure.

Our quarterly data do not currently account for staff absenteeism in our labour estimates. However, our Public service productivity: total, UK, 2022 article does account for this. More information on the differences in method and sources used in our quarterly and annual estimates of public service productivity can be found in our Public service productivity QMI.

Our public service quarterly output volume measure for healthcare is estimated based on the growth in the following types of activities in England, which have timely data collections:

- elective and non-elective treatments
- hospital outpatient first and follow-up appointments
- emergency care
- critical care services
- ambulance attendances
- community health services
- mental health treatments
- community prescribed drugs
- general practitioner (GP) consultations
- dental services
- ophthalmic services
- NHS phone and website services

More information can be found in our Improvements to healthcare volume output in the quarterly national accounts methodology.

Quarterly healthcare output growth is based on available data for a subset of services in England. Because of limited data, these indicators are assumed to reflect overall healthcare trends. Longer-term estimates are adjusted when more complete annual data become available.

Public service productivity uses the expenditure of public services, which defines GGFCE. It includes services where employees are central or local government, as well as publicly funded independent sector providers. This differs from the public sector, which includes public corporations but excludes publicly funded independent sector providers, to avoid double-counting.

Public service productivity is measured differently to labour productivity and multi-factor productivity and is not directly comparable. It reflects the volume of services delivered to end users, relative to the volume of total inputs (which include labour, intermediate consumption, and capital). The measure is dominated by healthcare and education services because of their relative size.

These estimates should be considered a first estimate of public service productivity. The Office for National Statistics, together with HM Treasury and other government departments, will continue to develop and improve its methods, which may lead to revisions of these preliminary estimates. Learn more about this process in our Public services productivity review: ONS governance and contact arrangements news article, last updated on 7 August 2023.

Recommendations from the National Statistician's Independent Review of the Measurement of Public Services Productivity

We continue to make incremental improvements to this release and accompanying datasets, in line with recommendations set out in the National Statistician's Independent Review of the Measurement of Public Services Productivity. We have made progress on:

- replacing the current "contribution to growth" compilation method with "chain volume measures", and implementing reconciliation of the quarterly estimates with the annual estimates each year to align with UK national accounts protocols and improve coherence and understanding for users (see Recommendation 18)

- applying the Quarterly cumulative Average Growth Rates (QAGR) method to provide timelier nowcast estimates for annual estimates as further research is undertaken to evaluate the efficacy of alternative methods in the light of the coronavirus pandemic (see Recommendation 19)

We will continue to work on remaining recommendations, including:

- account for available quality adjustment data and, where this is not possible, keep nowcasting models under annual review to provide the most accurate and timely data possible (see Recommendation 16)

- proceed with best practice improvements to align quarterly and annual production statistics (see Recommendation 20)

10 . Related links

Public service productivity: total, UK, 2022
Article | Released 27 March 2025
Updated measures of output, inputs and productivity for UK public services between 1997 and 2022, including service area breakdown, quality adjustment, and latest revisions.

Public Services Productivity Review, impact of improved methods on total public service productivity: 1997 to 2021
Article | Released 27 March 2025
Overview of improvements to public service productivity measures introduced by the Public Services Productivity Review, implemented in March 2025.

National Statistician's Independent Review of the Measurement of Public Services Productivity
Report | Last revised 7 May 2025
Summary of the work undertaken to review and improve the measurement of public service productivity in the UK.

GDP quarterly national accounts, UK: July to September 2025
Statistical bulletin | Released 22 December 2025
Revised quarterly estimate of gross domestic product (GDP) for the UK. Uses additional data to provide a more precise indication of economic growth than the first estimate.

Productivity flash estimate and overview, UK: July to September 2025 and April to June 2025
Article | Released 13 November 2025
Productivity flash estimates for Quarter 3 (July to Sept) 2025, based on the GDP first quarterly estimate and labour market statistics, and productivity overview for Quarter 2 (Apr to June) 2025.

Developing nowcast methodologies for public service productivity, UK
Article | Released 11 December 2024
An overview of the latest experimental methods to produce timelier estimates of annual UK public service productivity. These are official statistics in development.

11 . Cite this statistical bulletin

Office for National Statistics (ONS), released 6 February 2026, ONS website, statistical bulletin, Public service productivity, quarterly, UK: July to September 2025.