Statistical bulletin

Regional labour productivity, UK: 2020

Regional output per hour and output per job performance levels.

Correction

16 June 2022 17:00

We have corrected an error in section 2 under the heading regional productivity relative to the UK. The previous version read 'Northern Ireland had the lowest level of output per hour worked in the UK – 5.3% below the median'. It should have read 'Northern Ireland had the lowest level of output per hour worked in the UK – 5.2% below the median'

This happened because of a human error.

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1 . Main points

- Labour productivity, measured by output per hour worked or output per job, has been significantly stronger in certain regions for a prolonged period of time, and this is maintained in the latest 2020 data, with both continuing to be highest in London and the South East region.

- Output per hour worked in London was 53.1% above that of the median region, and output per job in London was 65.9% above that of the median region.

- While there have been no marked changes in the performance levels of most regions since 1998, in nominal terms Scotland has improved over the last two decades and moved up the rankings to now outperform the East of England and North West regions.

2 . Regional productivity relative to the UK

For devolved nations of the UK and English regions, these are the first estimates of relative labour productivity covering part of the coronavirus (COVID-19) period. The data report the labour productivity performance levels of UK regions relative to the overall UK. Our headline measure of productivity is output per hour worked. This article is based on output for the year 2020, as reported in the most recent annual estimates of economic activity by UK country, region and local area.

London had the highest productivity level of any UK region in 2020, with output per hour more than 50% higher than the median region, maintaining its relative strength, which can be observed in every year's data since before 1998. Output per hour worked levels for the South East, Scotland and the East of England were also above the median. Northern Ireland had the lowest level of output per hour worked in the UK – 5.2% below the median.

Figure 1: London was over 50% more productive than the median region in terms of output per hour worked

Output per hour worked by International Territorial Level 1 region relative to the median region, UK, 2020

Notes:

1. The baseline in the figure is median productivity level of all the regions.

Download the data

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Output per job is an alternative measure of labour productivity and can produce different results if average hour worked per job varies across regions, reflecting different part-time and full-time working patterns. Across the UK, many workers were furloughed for much of 2020, which generally reduced levels of output per job. Figure 2 shows the levels of output per job observed in each region compared with the median across regions. Output per job levels in London, the South East and Scotland were significantly higher than the UK median level in 2020. However, Northern Ireland performs noticeably stronger on this metric, where it is above the UK median, than it does using the output per hour measure, where it is noticeably below the UK median. Conversely, the South West has moved in the opposite direction.

Figure 2: Productivity measured as output per job was over 60% higher than the median in the UK

Output per job by International Territorial Level 1 region relative to the median region, 2020

Notes:

1. The baseline in the figure is median productivity level of all the regions.

Download the data

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Figure 3 shows how regions and devolved nations compared with UK output per hour in 1998 and in 2020. Values below 100 represent productivity levels below the UK as whole, and values above 100 represent productivity levels above the UK level, for each year. Compared with the overall UK level, London and the South East of England showed higher productivity at the start and end of the last two decades.

While there have been no marked changes in the relative performance levels of most regions since 1998, in nominal terms Scotland has improved over the last two decades and moved up the rankings to now outperform the East of England and North West regions. The East of England has seen the fastest relative decline, moving from just below the UK average in 1998, and clearly differentiated from the bulk of nations and regions, to being at the top of a relatively closely packed set of nations and regions in 2020, with only London, Scotland and the South East being at materially higher levels.

Figure 3: Output per hour and output per job measures of productivity

Annual productivity for International Territorial Level (ITL) 1 regions from 1998 to 2020, Nominal GVA per hour, UK=100

Download the data

.xlsx

Notes:

1. This figure shows annual productivity for International Territorial Level (ITL) 1 regions from 1998 to 2020.

The region by industry labour productivity dataset, which provides estimates for each industry section in each ITL 1 region of seasonally adjusted productivity hours and jobs, as well as output per hour and output per job, will be published in the next few weeks following some further quality assurance.

3 . Regional labour productivity data

Annual regional labour productivity
Dataset PRODBYREG | Released 16 June 2022
Annual estimates of output per job and output per hour relative to the UK, for the whole economy across 13 regions and nations in the UK, from 1998. Prior to July 2019, these data were published as Table 9 of dataset LPROD01.

Regional productivity time series
Dataset RPRD | Released 16 June 2022
Annual output per hour and output per job for the whole economy across 13 regions and nations in the UK.

4 . Glossary

Labour inputs

Labour inputs in this release are measured in terms of jobs ("productivity jobs") and hours worked ("productivity hours") for an industry within a geographic area.

Labour productivity

Labour productivity is calculated by dividing output by labour input.

Output

Output refers to gross value added (GVA), which is an estimate of the volume of goods and services produced by an industry within a geographic area, and in aggregate across industries for a geographic area.

Region

One of the 12 regions or devolved nations of the UK distinguished by International Territorial Level 1 (ITL1) regions.

5 . Measuring the data

For estimates of regional productivity relative to the UK, productivity jobs is calculated by summing numbers of employees, the self-employed and two smaller components, which are Her Majesty's Forces (HMF) and government-supported trainees (GST). These data come from two principal sources within the Office for National Statistics (ONS): Short-Term Employment Survey (STES) data and the Labour Force Survey (LFS). Productivity hours are derived from estimates of average hours (derived from the LFS micro-dataset) and productivity jobs.

6 . Strengths and limitations

This release reports labour productivity estimates for 2020 for International Territorial Level 1 (ITL1) regions. The index levels reported in the data are based on nominal gross value added (GVA) per unit of labour input. The data will be affected by unmeasured differences in regional prices, which might affect the relative rankings of regions once the unmeasured differences are adjusted for. More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the Labour productivity QMI.

Comparability and consistency

The output statistics in this release are consistent with the latest analysis on Regional economic activity by gross domestic product, UK, which was published on 30 May 2022. Productivity in this release uses measures of labour derived from the working population, unlike measures of regional GVA per head.

The labour input measures used in this release are estimated based on the latest Short-Term Employment Survey (STES) data and the Labour Force Survey (LFS) data from the Office for National Statistics (ONS).

7 . Related links

Quarterly regional labour productivity, gross value added, hours and jobs
Dataset | Released 9 June 2022
Regional labour productivity, gross value added, hours and jobs in the UK; annual and quarterly data.

Industry by region estimates of labour productivity: 2017
Article | Released 6 February 2019
The article presents annual productivity estimates for 16 industries in Standard Industrial Classification 2007 section groups for each of the NUTS1 regions for 1997 to 2017. It compares annual productivity growth by region, as output per hour, relative to the UK and explains how manufacturing and services have grown across the regions.

Labour market in the regions of the UK: June 2022
Bulletin | Released 14 June 2022
Regional, local authority and Parliamentary constituency breakdowns of changes in UK employment, unemployment, economic inactivity and other related statistics.

Productivity overview, UK: October to December 2021
Article | Released 7 April 2022
The main findings from official statistics and analysis of UK productivity, presenting a summary of recent developments.

Regional economic activity by gross domestic product, UK: 1998 to 2020
Bulletin | Released 30 May 2022
Annual estimates of economic activity by UK country, region and local area using gross domestic product (GDP). Estimates are available in current market prices and in chained volume measures and include a full industry breakdown of balanced regional gross value added (GVA(B)).