



Regional spending on Covid- response economic policy

Methodology note

March 2021

This note sets out the methods and sources used to estimate the regional distribution of spending on certain government policies as reported in [CPP's third levelling up outlook](#).¹

Common approach

We aimed to estimate the regional distribution of spending that has occurred as a result of certain government policy decisions in response to the pandemic. The policies are:

- Furlough (the Coronavirus Job Retention Scheme)
- Self-Employment Income Support Scheme (SEISS)
- Business loans (specifically just CBILS and BBLs)
- Universal Credit £20 (i.e. increase in Standard Allowances)

We do not attempt to measure the increased spending resulting from the effects of the pandemic interacting with existing policy (e.g. spend resulting from more Universal Credit claimants) as this does not reflect a government policy decision.

We adopt a similar approach for estimating the impact of the proposed super deduction tax relief, although in this case we look at projected spending, rather than spending to date.

Timing

We attempted to measure spending of which people have already seen benefit. Based on available data, this meant we estimate spend up to the end of January 2021 (except for business loans where data is available to 10 January 2021).

Regional allocation

In each case, we assign spending to the address of the individual or business receiving the financial support.

Spending where the region of the recipient is unknown in the source data is spread across regions proportionately with known spending.

Output measures

In all cases we present figures per head of resident population. Whilst we acknowledge that other measures (such as demographics) are relevant to particular policies, we believe this is the clearest and fairest baseline from which to present the distribution of spending by region. We calculate this using ONS' most recent regional population estimates, for mid-2019.²

To show the scale of differences, we also present the total amount spent in a region v. what would have been spent if the same total amount was evenly distributed in line with resident population. For example, London has 13% of the UK's population. If it had 13% of furlough

¹ Centre for Progressive Policy (2021), Levelling up outlook #3, <https://www.progressive-policy.net/publications/the-levelling-up-outlook-3>

² ONS (2020) *Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland*. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

spend, that would be £7.2bn. However, our estimate is that it has had £11.4bn. So our graph shows London has had £4.2bn more than it would have had with even distribution.

Policy choice

We have not conducted a comprehensive analysis of all government spending on economic support in response to the pandemic, limited by data availability and capacity. Instead we chose the three financially largest policies as well as the Universal Credit £20 as this has been politically significant and also as an example of a policy that displays a different regional profile.

We have omitted some very expensive policies, such as Business Loan support (initially estimated at a cost of £12bn) as well as well known but cheaper policies such as Eat Out to Help Out.

Data, estimates and robustness

In all cases our estimates are built off government administrative or survey data. In some cases, we directly use government figures for spend by region. However, for some policies not all the relevant data has been published, meaning CPP has made estimates resulting from modelling of available data. (Details for individual policies below)

Where we have done this, we have tested different assumptions and found that our conclusions are robust to these, but that they will result in small differences in the modelled figures.

Policy specific assumptions

Furlough

The government has published a wide range of furlough statistics, including the total value of claims of £54bn to the end of January. However, this data does not include the value of claims split by region meaning that CPP has had to model this from available data.

Our model is built by multiplying two metrics: the number of claim days, and the average value of a claim per day (“the average value”). The regional split of claim days by region is published, but only for days since July, meaning this has to be partially modelled. The government has not published any data on average value by region, despite doing so for industry and firm size, meaning that CPP has had to model these based on the prevalence of furlough in different industries in each region, the average claim value in each industry, and the pre-pandemic earnings in each industry region.

All data used on furlough, unless stated, is from the February release which covers a period up to 31 January 2021 (“the HMRC dataset”).³

Claim days

The number of claim days is simply the sum of the number of people claiming furlough each day from the beginning of the scheme until 31 January 2021.

HMRC publish this data, split by region, for the period from 1 July 2020.

For the months before 1 July 2020, we estimated the regional split by multiplying a matrix of furlough days by region and industry by the number of furlough days (from March to June) by industry. The latter is published directly (Table 3 of HMRC dataset).

We estimated matrix of furlough days by region and industry based on published data for the number of furloughs (not furlough days) for November, December and January and separately cumulatively for the period to July.⁴ As these inputs are based on furloughs, not furlough days, we then calibrate our approximation so that it correctly models the number of claim days by region from July, which we have exact data for (Table 4 of HMRC dataset).

³ HMRC (2021). *Coronavirus Job Retention Scheme statistics: February 2021* Available at: <https://www.gov.uk/government/statistics/coronavirus-job-retention-scheme-statistics-february-2021>

⁴ See Tables 17 and 18 of the February release, and Table 16 of the January release. The last datapoint is from Table 6 of the August release of the same statistics. Available at: <https://www.gov.uk/government/statistics/coronavirus-job-retention-scheme-statistics-august-2020>

Average claim

The average claim was calculated for each region industry combination. These were then used to calculate a region average using the industry split of claim days described above.

Average claims were calculated relative to each other, rather than in absolute terms, and then calibrated to the total cost of the scheme to January 2021, £53bn.

The relative value of claims for each industry region combination is based on the reported average value of claims for each industry and the relative wages in those industries between regions.

The reported average value of claims for each industry is based on the HMRC dataset, dividing the total value of claims by industry for November to January (Table 10) by the number of claim days by industry for the same period (Table 3).

As furlough is calculated as a proportion of earnings, we then adjust the industry average claims in proportion to median average earnings in each region for the corresponding industry. This is based on ASHE data taken pre-pandemic so it is not circularly affected by furlough earnings reductions. For a small number of sectors, and all in Northern Ireland, the data point was missing and imputed based on regional average wage and national sector wages.⁵

Limitations

Our estimate of average claim value is constructed and so unlikely to be perfectly accurate. Significantly, it assumes relative furlough claims follow regional wage differentials (within industries). This method does not directly account for the £2,500 cap on furlough payments but this is of limited significance as furlough payments are skewed towards the bottom of the income distribution.

We also only have claim values per claim day by industry available from November. This will not be completely representative but there is no reason to believe it will systematically change the picture between regions.

Self-employment income support scheme

HM Revenue and Customs publishes monthly the distribution of claims made by region. We have simply summed the total value of claims across the three tranches up to 31 January 2021.⁶

Business loans

The government launched several loan support schemes to support business through the pandemic. Our analysis considers just the two most significant of these due to data availability. These are the Bounce Back Loan Scheme (BBLs) and the Coronavirus Business Interruption Loan Scheme (CBILs).

As these are loan support schemes, not direct payments, we present the fiscal cost of the scheme. This is calculated by multiplying the value of loans by the government's fiscal loss rate. These are approximately 30% for BBLs and 4% for CBILs.⁷

We applied these fiscal loss rates to the regional split of loan value awarded, as presented by the British Business Bank. Their data was retrieved in January 2021.⁸

Universal Credit £20

This policy decision increased the monthly standard allowance of the Universal Credit payment (and the basic element of Working Tax Credit) tax credit by £86.67.

Northern Ireland is not subject to this policy and is not included in the analysis.

We estimated the value of this policy by taking the number of households in receipt of Universal Credit each month (the allowance is paid by household), and the number receiving Working Tax Credit, and multiplying their total by the £86.67 increase.

The number of households claiming Universal Credit, and receiving payment, was extracted from the Department for Work and Pensions database for each region.⁹ We used available data for each month from April to November. In order for the time frame to be consistent with our other policy measures, we assumed the November claim figures remained constant for December and January.

⁵ We use Table 5.7a of: Earnings and hours worked, UK region by industry by two-digit SIC: ASHE Table 5 (2019 release). Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/regionbyindustry2digitsicshetable5>

⁶ From Table 5a of: HMRC (2021) *Self-Employment Income Support Scheme statistics: February 2021*. Available at: <https://www.gov.uk/government/statistics/self-employment-income-support-scheme-statistics-february-2021>

⁷ The fiscal loss rate is effectively the proportion of loan value the government expects it will not get back. Method and figures taken from Table 3.10: OBR (2020) *Fiscal Sustainability Report*. Available at: <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>

⁸ British Business Bank (2020). Coronavirus loan schemes continue to support businesses evenly across the UK, new analysis shows (18 January 2020). Available at: <https://www.british-business-bank.co.uk/coronavirus-loan-schemes-continue-to-support-businesses-evenly-across-the-uk-new-analysis-shows/>

⁹ See Households on Universal Credit series of DWP's 'Stat-Xplore' Universal Credit database. 'Payment Indicator' set to 'Yes'. Data extracted March 2021. Available at: <https://stat-xplore.dwp.gov.uk/webapi/jsf/dataCatalogueExplorer.xhtml>

Households claiming Working Tax Credit by region was based on HMRC statistics.¹⁰ This provided figures for April 2020 which we assumed were constant until January 2021. This will be to some extent an overestimate as people are moved from Working Tax Credit to Universal Credit. However, this is not affecting the broad conclusions, as the pattern of results is similar to if just Universal Credit is considered.

districts with their mid-year 2019 population totals¹⁶. (A full list of the excluded local authorities is published at the end of this document).

Super deduction

We use historic investment in machinery and equipment to forecast the likely benefit of the increased deduction announce by at Budget.

We estimate historic investment by multiplying the level of gross fixed capital formation (GFCF) in each industry in each region,¹¹ by the proportion of GFCF that is in machinery and equipment (available at a national level).¹²

We then apportion HMT's forecast total cost of the policy, £25bn, in line with the regional levels of investment, based on an assumption that future tax relief reflects future investment levels in machinery and equipment, and that these show the same regional pattern as they did in 2018.

Levelling Up Fund, Towns Fund and Community Renewal Fund

For the report, we calculate the number of people living in deprived local authorities who are not prioritised by the Levelling Up Fund, Towns Fund or Community Renewal Fund.

To do this we apply a series of filters. First they must be living in a deprived local authority which we define as being in the top 3rd of most deprived local authorities as defined by the Indices of Multiple Deprivation (IMD) all rank (2019)¹³. Then they must be in either group 2 or 3 of the Levelling Up Fund places, they must not be included in the Towns Fund or the Community Renewal fund list of places^{14,15}. We match the remaining local authority

¹⁰ Specifically, families receiving WTC only or WTC & CTC, in Table 2 of: HMRC (2020) Child and Working Tax Credit Geographical Statistics: April 2020 (Data Tables). Available at <https://www.gov.uk/government/statistics/child-and-working-tax-credits-statistics-provisional-awards-geographical-analyses-december-2013#history>

¹¹ Data for 2018. ONS (2019) *Regional Gross Fixed Capital Formation, NUTS1 and NUTS2, 2000 to 2018*. Available at: <https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/adhocs/10949regionalgrossfixedcapitalformationnuts1andnuts22000to2018>

¹² Data for 2019. ONS (2020) *Annual gross fixed capital formation by industry and asset (Dataset)*. Available at: <https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/annualgrossfixedcapitalformationbyindustryandasset>

¹³ English indices of deprivation 2019, local authority district summaries https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833995/File_10_-_JoD2019_Local_Authority_District_Summaries_lower-tier_.xlsx

¹⁴ Towns Fund local authority districts was taken from CPP Back from the Brink: https://www.progressive-policy.net/downloads/files/BackFromTheBrink_AccompanyingDataset-4.xlsx

¹⁵ Community Renewal Fund list of places take from: <https://www.gov.uk/government/publications/uk-community-renewal-fund-prospectus>

¹⁶ Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

Results

The following two tables show the data that underlies the two graphs shown in the Levelling Up Outlook.

The tables show unrounded figures for information. This does not imply that these modelled estimates are accurate to that level.

Figure 1: Modelled spending selected Covid-response economic policies, up to January 2021: Spend per head of resident population

£ per head of resident population	Furlough	Self-employment support	Business loans	Universal credit £20	Total
London	1,275	435.1	356	83	2,149
South East	846	338	212	53	1,449
East	774	349	217	57	1,397
South West	710	320	189	57	1,276
West Midlands	751	248	191	74	1,265
North West	742	230	198	80	1,250
East Midlands	692	256	180	62	1,190
Scotland	733	219	147	66	1,164
Yorkshire And The Humber	659	240	175	73	1,146
Wales	642	241	154	68	1,105
North East	620	186	150	81	1,037
Northern Ireland	645	302	199	-	-

The second graph in the Outlook compares the total amount spent in a region with what would have been spent if the same total amount was evenly distributed in line with resident population.

For example, London has 13% of the UK's population. If it had 13% of furlough spend, that would be £7.2bn. However, our estimate is that it has had £11.4bn, £4.2bn more than this.

Figure 2: Modelled spending selected Covid-response economic policies, up to January 2021: Total spend v. spend if evenly distributed by resident population

£ bn	Furlough	Self-employment support	Business loans	Universal credit £20	Total
London	4.2	1.3	1.3	0.1	6.9
South East	0.4	0.4	0.0	-0.1	0.6
East	-0.2	0.3	0.0	-0.1	0.1
Northern Ireland	-0.3	0.0	0.0	-	-0.3
South West	-0.5	0.1	-0.1	-0.1	-0.6
West Midlands	-0.3	-0.3	-0.1	0.0	-0.7
Wales	-0.5	-0.2	-0.2	0.0	-0.9
North East	-0.5	-0.3	-0.2	0.0	-0.9
East Midlands	-0.5	-0.2	-0.1	0.0	-0.9
North West	-0.5	-0.5	-0.1	0.1	-0.9
Scotland	-0.4	-0.4	-0.3	0.0	-1.2
Yorkshire And The Humber	-0.8	-0.3	-0.2	0.0	-1.3

The following table shows the estimated total spend on each policy in each region (not accounting for the population size of regions).

Figure 3: Modelled spending selected Covid-response economic policies, up to January 2021: Total spend

£ bn	Furlough	Self-employment support	Business loans	Universal credit £20	Total
London	11.4	3.9	3.2	0.7	19.3
South East	7.8	3.1	2.0	0.5	13.3
East	4.8	2.2	1.4	0.4	8.7
Northern Ireland	1.2	0.6	0.4	-	-
South West	4.0	1.8	1.1	0.3	7.2
West Midlands	4.5	1.5	1.1	0.4	7.5
Wales	2.0	0.8	0.5	0.2	3.5
North East	1.7	0.5	0.4	0.2	2.8
East Midlands	3.3	1.2	0.9	0.3	5.8
North West	5.4	1.7	1.5	0.6	9.2
Scotland	4.0	1.2	0.8	0.4	6.4
Yorkshire And The Humber	3.6	1.3	1.0	0.4	6.3

**List of places excluded from Levelling Up Fund,
Towns Fund and Community Renewal Fund**

Local authority	Region
Salford	North West
Hackney	London
Haringey	London
Tower Hamlets	London
Islington	London
Portsmouth	South East
Southampton	South East
Lewisham	London
Plymouth	South West
Bristol, City of	South West
Southwark	London
Enfield	London
Coventry	West Midlands
Brent	London
Lambeth	London
Waltham Forest	London
Bolsover	East Midlands
Greenwich	London
Lancaster	North West
Medway	South East
Isle of Wight	South East
Basildon	East of England
Slough	South East
Ealing	London