



UNIVERSITY OF
Southampton

Covid-19 and the predicted employment pandemic in the UK

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ERC Starting Grant 639403 WORKANDHOME

How will Coronavirus affect jobs in different parts of the country?

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BROOKINGS

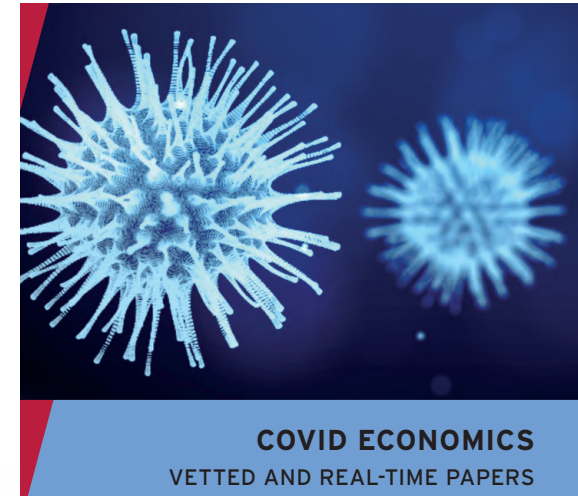
AI POLICY 2020 CITIES & REGIONS GLOBAL DEV INTL AFFAIRS



FUTURE DEVELOPMENT

When face-to-face interactions become an occupational hazard: Jobs in the time of COVID-19

Besart Avdiu and Gaurav Nayyar - Monday, March 30, 2020



COVID ECONOMICS

VETTED AND REAL-TIME PAPERS

Resolution
Foundation
BRIEFING

Risky business

Economic impacts of the coronavirus crisis
on different groups of workers

Maja Gustafsson & Charlie McCurdy
April 2020

Which local authorities face the biggest immediate economic hit?

CPP analysis finds that the economic
impact of coronavirus will vary
significantly across the country

The effect of the
COVID-19 pandemic
on our towns and
cities

Centre
For **Towns**

“Covid-19 has turned cities’ main economic assets into their worst enemies”



<https://blogs.lse.ac.uk/euoppblog/2020/04/27/covid-19-has-turned-cities-main-economic-assets-into-their-worst-enemies/>

Sectoral contraction

Commentary on the
**OBR coronavirus
reference scenario**

Office for
**Budget
Responsibility**

14 April 2020

Coronavirus lockdown to deliver large (but hopefully temporary) shock to the economy and public finances

Table 1.2: Output losses by sector in the second quarter of 2020

Sector	Per cent	
	Weight in whole economy value added	Effect on output relative to baseline
Agriculture	0.7	0
Mining, energy and water supply	3.4	-20
Manufacturing	10.2	-55
Construction	6.1	-70
Wholesale, retail and motor trades	10.5	-50
Transport and storage	4.2	-35
Accommodation and food services	2.8	-85
Information and communication	6.6	-45
Financial and insurance services	7.2	-5
Real estate	14.0	-20
Professional, scientific and technical activities	7.6	-40
Administrative and support activities	5.1	-40
Public administration and defence	4.9	-20
Education	5.8	-90
Human health and social activities	7.5	50
Other services	3.5	-60
Whole economy	100.0	-35

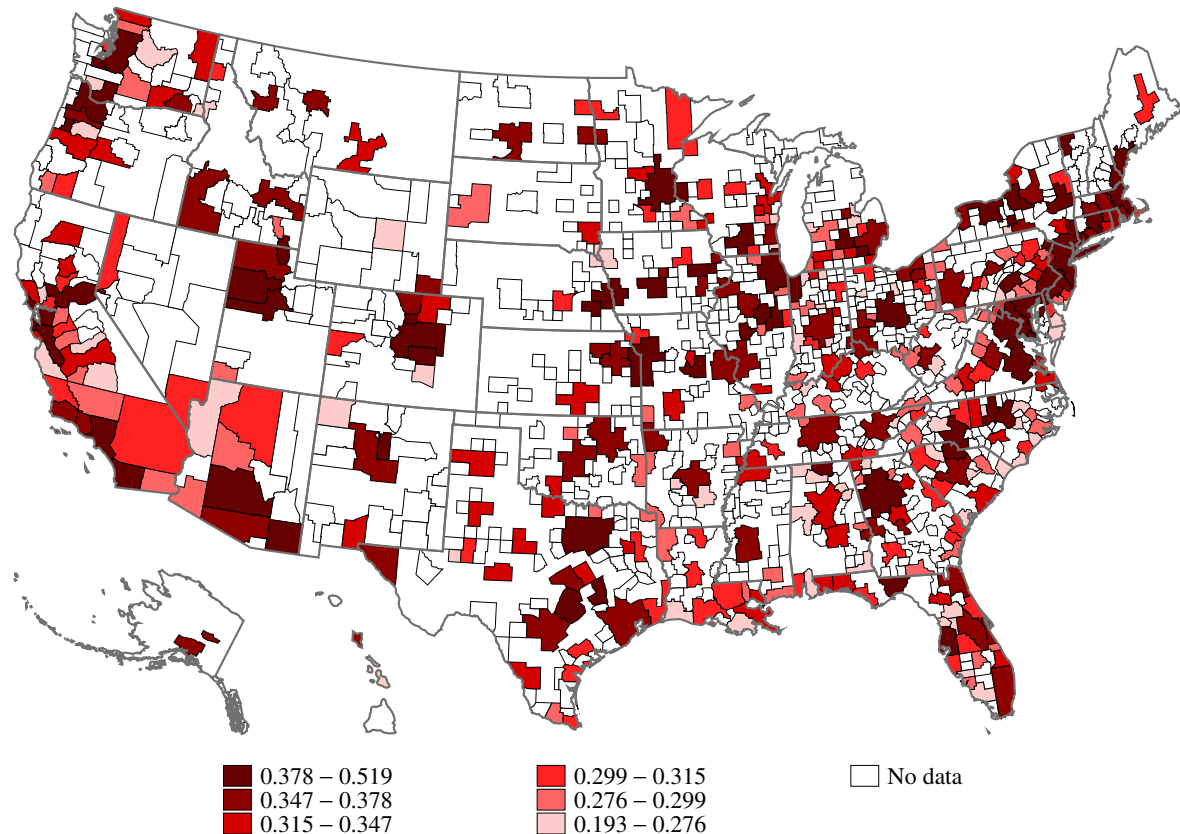
Source: OBR, 2020, 7

Existing predictions

- Young people
- Low income
- Women
- Part-time workers

**“The ability to work from home
can help cushion the impact of the
crisis.”** Adams-Prassl, A. et al. (2020)

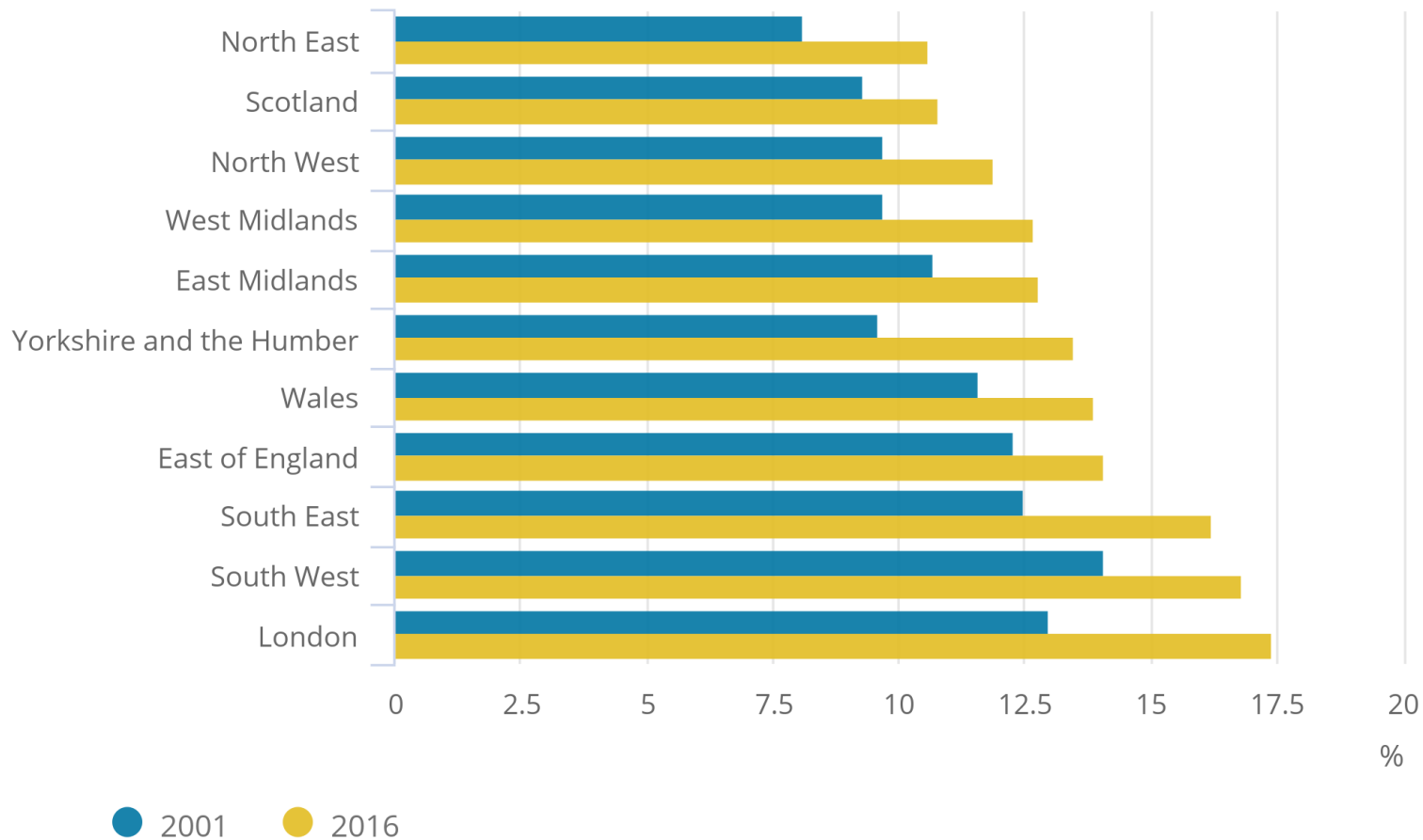
Figure 1: Share of jobs that can be done at home



Self-employed as vulnerable group

- 15% in 2019
- Self-employment income support scheme (but does not start until June 2020)
- Gender differences in sectors/occupations
 - Men: construction, drivers, artistic/media
 - Women: artistic/media, hairdresser, cleaning, education/teaching
- Older workers

Regional variation in self-employment



Source: ONS, 2018, 6

Research Questions

1. How are the self-employed affected relative to employees?
2. Which groups amongst the self-employed are particularly at risk?
3. Does homeworking help to 'cushion' the self-employed from the crisis?

Data

- Quarterly Labour Force Survey Oct-Dec 19
(Jan-Mar 19)
- 'At risk' sectors using 4-digit SIC codes
(dependent variable)

Sectors directly affected by lockdown

- Non-food, non-pharmaceutical retail (4719, 4730-4772, 4776-4799);
- Passenger transport (4910, 4931-4939, 5010, 5030, 5110);
- Accommodation and food (5510- 5630);
- Travel (7911-7990);
- Childcare (8510, 8891);
- Arts and Leisure (9001-9329 except 'artistic creation' 9003);
- Personal care (9601-9609 except 'funeral and related activities' 9603);
- Domestic services (9700).

<https://www.ifs.org.uk/uploads/BN278-Sector-shutdowns-during-the-coronavirus-crisis.pdf>

Method

- Logistic regressions incl. employees and self-employed
- Covariates:
 - Sex
 - Age groups
 - Highest qualification
 - Working mainly from home
 - Regions
 - Part-time

1st Key Finding

Independent variables	Model 1		Model 2	
	OR	Stand. Error	OR	Stand. Error
Self-employed (Ref. employee)	2.036***	0.078	1.427***	0.074
Woman (Ref. male)	1.544***	0.049	1.317***	0.045
Self-employed × female	-		2.235***	0.164

(Estimates of other covariates not shown)

Self-employed women are particularly affected

- 32% of self-employed women
- 16% of self-employed men
- 15% of employees

2nd Key finding

Independent variables	Model 3	
	OR	Stand. Error
Self-employed (Ref. employee)	1.249*	0.138
Age groups (Ref. 16-29 yrs. old)		
30-44 yrs. old	0.491***	0.020
45-54 yrs. old	0.364***	0.017
55-64 yrs. old	0.353***	0.018
65+ yrs. old	0.407***	0.036
Self-employed × 30-44 yrs. old	1.694***	0.213
Self-employed × 45-54 yrs. old	1.948***	0.256
Self-employed × 55-64 yrs. old	1.857***	0.249
Self-employed × 65+ yrs. old	1.119	0.193

**Affected self-
employed are
relatively older**

(Estimates of other covariates not shown)

3rd Key Finding

Independent variables	Model 4	
	OR	Stand. Error
Self-employed (Ref. employee)	3.268***	0.590
Region (Ref. North East)		
North West	1.043	0.100
Yorkshire and Humber	1.092	0.108
East Midlands	0.891	0.092
West Midlands	1.002	0.100
East of England	1.105	0.107
London	1.452***	0.141
South East	1.164	0.109
South West	1.036	0.102
Wales	1.123	0.124
Scotland	1.227*	0.122
Northern Ireland	1.100	0.110
Self-employed × North West	0.686	0.146
Self-employed × Yorkshire & Humber	0.711	0.155
Self-employed × East Midlands	0.746	0.168
Self-employed × West Midlands	0.596*	0.132
Self-employed × East of England	0.575*	0.123
Self-employed × London	0.431***	0.090
Self-employed × South East	0.459***	0.094
Self-employed × South West	0.710	0.150
Self-employed × Wales	0.757	0.186
Self-employed × Scotland	0.881	0.193
Self-employed × Northern Ireland	0.601*	0.131

Regional impact different for the self-employed

Hardest hit: North East

Least hit: London & South East

(Estimates of other covariates not shown)

4th Key Finding

Independent variables	Model 5	
	OR	Stand. Error
Self-employed (Ref. employee)	1.916***	0.078
Working mainly from home (yes)	0.525***	0.065
Self-employed × Working mainly from home	1.991***	0.288

(Estimates of other covariates not shown)

Relative to employees, self-employed working mainly from home are significantly more at risk

No homeworking effect amongst the self-employed

Quo vadis?

- Measuring and quantifying impact
- Exposure – recovery – resilience
- Regional imbalance and entrepreneurial activities
- Long-term change in labour market choices?
- Homeworking and the economy
- Will women be discouraged from self-employment?

<https://www.enterpriseresearch.ac.uk/wp-content/uploads/2020/04/ERC-Insight-Covid-19-and-self-employment-in-the-UK.pdf>



**Covid-19 and self-employment in
the UK**

ERC Insight Paper

April 2020