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Instructions Relevant for Replication

“Working from home, wages, and regional inequality in the light of COVID-19”

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The paper uses data from the BIBB/BAuA Employment Survey of the Working Population on Qualification and Working Conditions in Germany 2018, doi: 10.7803/501.18.1.1.10. The Survey was conducted by the Federal Institute for Vocational Education and Training (BIBB), and the Federal Institute for Occupational Safety and Health (BAuA). For further details, see <https://www.bibb.de/de/65740.php> and the BIBB-FDZ Data and methodological Report at <https://www.bibb.de/veroeffentlichungen/de/publication/show/16563>.

The data access was provided via a Scientific-Use-File (called ZA7574_v1-0-0.dta) of the Data Research Centre at the Federal Institute for Vocational Training and Education (BIBB-FDZ). The data are confidential, but not exclusive. To apply for data access, please follow the instructions at <https://www.bibb.de/de/120401.php>.

To replicate the results reported in the paper, access to this data set must be obtained from the data provider.

The STATA do-file “ik_replication.do” (also available as txt-file “ik_replication.txt”) is replicating all results presented in the paper. It first makes use of the BIBB-BAuA source file “ZA7574_v1-0-0.dta” (see above) to generate and label all relevant variables, specifies the sample, and finally generates a working data set. In a second step, this working data is used to generate the results. Thereby, the analysis makes use of several auxiliary data sets, which can be merged to the working data. These auxiliary data sets have been obtained and constructed from alternative data sources (which we make available as part of the replication package).

A. Google mobility report

https://www.gstatic.com/covid19/mobility/2020-03-29_DE_Mobility_Report_en.pdf

Google prepared this report to provide information on the responses to social distancing guidance related to COVID-19. We use information for the first weeks of the shutdown on mobility trend changes for places of work on March 29, 2020, relative to a baseline value. The respective numbers are already included in the do-file to replicate the results in the paper and the pdf-file is part of the replication folder (see Source Files/2020-03-29_DE_Mobility_Report_en.pdf).

B. Unemployment across occupations – Data files ba_jul.dta / ba_jul.txt

We use information from the report “Arbeitsmarkt nach Berufen” from July 2020 provided by the Federal Employment Agency (BA) to obtain yearly changes in unemployment for occupations at the three digit level according to the occupation classification KldB 2010. The original file is part of the replication folder (see Source Files/berufe-heft-klb2010-d-0-202007-xlsx). We use information from sheet 1.1 for number of unemployed persons in July 2020 and 2019 and the respective difference. This information is merged to the working data using the data file “ba_jul.dta” (or “ba_jul.txt”). It contains the following variables:

- kldb2010_3d: 3-digit KldB 2010 occupation code (also available in working data)
- jul_2020: number of unemployed persons in July 2020
- jul_2019: number of unemployed persons in July 2020
- delta_abs_jul: difference between 2020 and 2019

C. Fadinger and Schymik (2020) – Data files wfh_sch.dta / wfh_sch.txt

To generate Figure A.9 in the Appendix, we rely on estimates provided in recent work by Fadinger and Schymik (2020)¹, who use an alternative measure for the WFH potential at the NUTS2 level. This information is merged to the working data using the data file “wfh_sch.dta” (or “wfh_sch.txt”). It contains the following variables:

- GEO: Name of NUTS2 region
- shr_homewk_pssb: Estimates on WFH share from Fadinger and Schymik (2020)
- region: NUTS2 number (also available in working data)

D. Spatial Autocorrelation – Data files geo_data.dta / geo_data.txt

To check for spatial autocorrelation across the 38 NUTS2 regions in Germany, we compute Moran’s I statistic which requires information on the longitude and latitude of NUTS2 regions. This information can be merged to the working data using the data file “geo_data.dta” (or “geo_data.txt”). It contains the following variables:

- nuts_id: NUTS2 code
- region: NUTS2 number (also available in working data)
- longitude: Longitude position
- latitude: Latitude position

¹ Fadinger, Harald and Jan Schymik, “The Costs and Benefits of Home Office during the Covid-19 pandemic: Evidence from Infections and an Input-output Model for Germany,” COVID Economics: Vetted and Real-Time Papers, 2020, 9, 107–134