

### Regions facing COVID-19 lockdowns: The potential for remote working

#### Cities and capital regions have the highest capacity for remote working.

The COVID-19 pandemic has affected regional economies in OECD countries with a significant and unprecedented severity. Widespread measures of social distancing to contain the spread of COVID-19 have required many workplaces to remain shut. While lockdowns practically forced many people to stop working, others were able to continue their activities from home. In this context, not all regions were equally prepared to adapt to remote working and therefore mitigate the economic disruptions due to the lockdown. The extent to which jobs are amenable to remote working depends on the nature of the tasks carried out by workers, meaning on the type of occupation. In turn, occupations that can be performed remotely are not evenly spread across space, with some places being able to shift a much larger share of employment to remote working than other places.

The share of jobs amenable to remote working varies greatly both between and within OECD countries (Figure 2.1, panel A). For example, while 50% of the employed people can potentially work from home in Luxembourg, only 20% can do so in Colombia. Within countries, there is, on average, a 15-percentage point difference between the regions with the highest and lowest shares of employed people that can potentially work remotely. This difference reaches more than 20 percentage points in the Czech Republic, France, Hungary, and the United States, driven by the much higher potential for remote working in those countries' capitals. In general, capital regions have the highest potential for remote working, with rates that are 8 percentage points higher than the respective country average.

The potential for remote working is also higher in more densely populated areas. Using the "degree of urbanisation" to distinguish different types of settlement for European countries, cities – defined as local units above 50 000 inhabitants with a population density of over 1 500 inhabitants per square kilometre – have a 13-percentage point higher share of jobs amenable to remote working than rural areas (Figure 2.1, panel B). This city-rural gap is particularly significant in Croatia, Finland, Hungary and Luxembourg, where the difference is larger than 17 percentage points.

The skill requirement of occupations correlates to their amenability to being performed remotely. As a result, the share of the employed population that can potentially work remotely across regions reflects the skill composition of the local workforce. Figure 2.2 illustrates this relationship across regions by plotting regions' levels of potential remote working (vertical axis) against the share of workers with tertiary education (horizontal axis). The trend line shows that, as the share of workers with tertiary education increases, the share of jobs amenable to remote working also increases at a similar rate. However, there are some exceptions. In some countries (e.g. Canada, Spain or Turkey) all regions appear below the trend line, indicating that the share of jobs amenable to remote working in these regions is lower than expected given the

education levels of the workforce. On the other hand, regions in other countries (e.g. Germany) tend to be above the trend line, indicating higher rates of jobs amenable to remote working than expected from the skill composition of the workforce. While these differences require further analysis, the industrial composition of the regional economies might play a role.

#### Definition

The degree of urbanisation definition acknowledges the urban-rural continuum and proposes three classes of settlements instead of the traditional urban vs. rural dichotomy. The three classes are: i) cities (or densely populated areas); ii) towns and semi-dense areas (or intermediate density areas); and iii) rural areas (or thinly populated areas).

Potential for remote working: The assessment of regions' capacity to adapt to remote working is based on the diversity of tasks performed in different types of occupations.

#### Source

OECD calculations based on the American Community Survey (ACS), Australian Labour Force Survey (LFS), Canadian LFS, European LFS, Turkish Household LFS, Turkish Statistical Institute and Occupational Information Network data (accessed in April 2020). Data for Colombia are based on Colombian Household Survey estimated by Cardenas and Montana (2020).

See methodology to estimate the potential for remote working in Annex C.

#### Reference years and territorial level

2018, large regions (TL2).

#### Further information

Cardenas J. and J. Montana (2020), "Possible effects of Coronavirus in the Colombian labour market", *Documento de Trabajo d'Alianza*, EFI – Colombia Científica.

Dingel, J. and B. Neiman (2020), "How many jobs can be done at home?", *Becker Friedman Institute White Paper*, March, <https://bfi.uchicago.edu/working-paper/how-many-jobs-can-be-done-at-home/>.

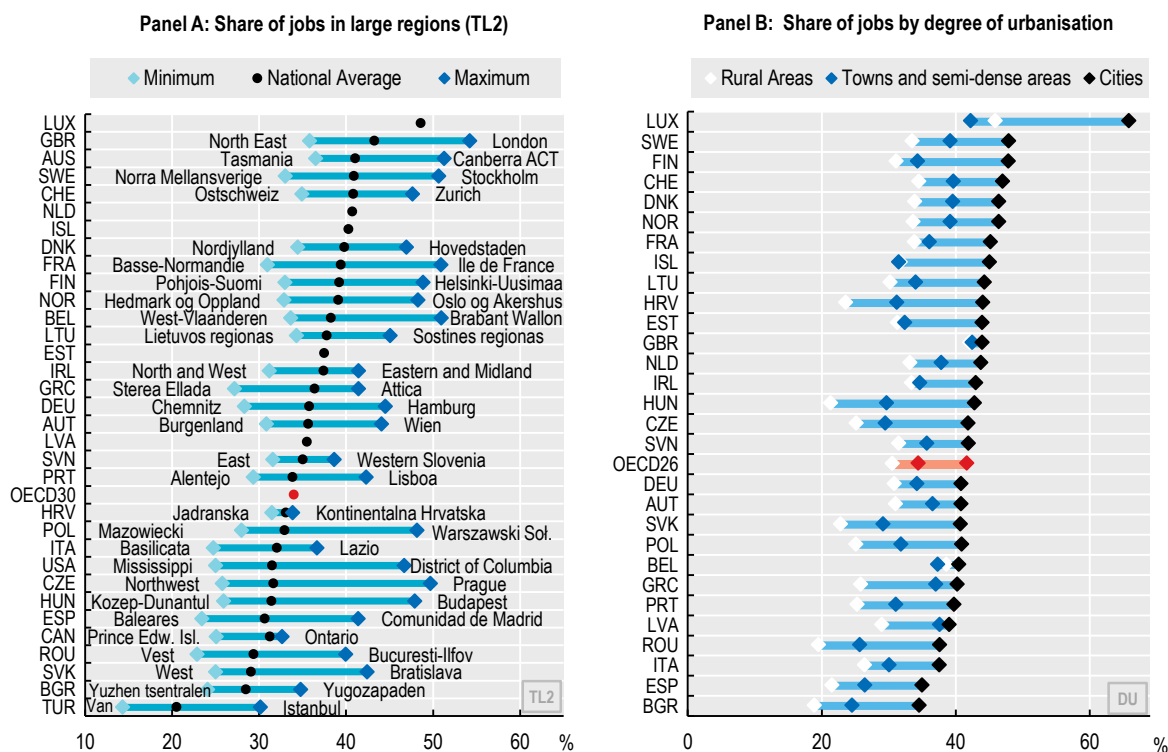
Eurostat (2013), *Urban-Rural Typology*, <http://ec.europa.eu/eurostat/web/rural-development/methodology>.

OECD (2020), "Capacity for remote working can affect shutdowns' costs differently across places", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD, Paris, <http://www.oecd.org/coronavirus/policy-responses/capacity-for-remote-working-can-affect-lockdown-costs-differently-across-places-0e85740e/>.

## 2. ECONOMIC RESILIENCE AND REGIONAL ECONOMIC DISPARITIES

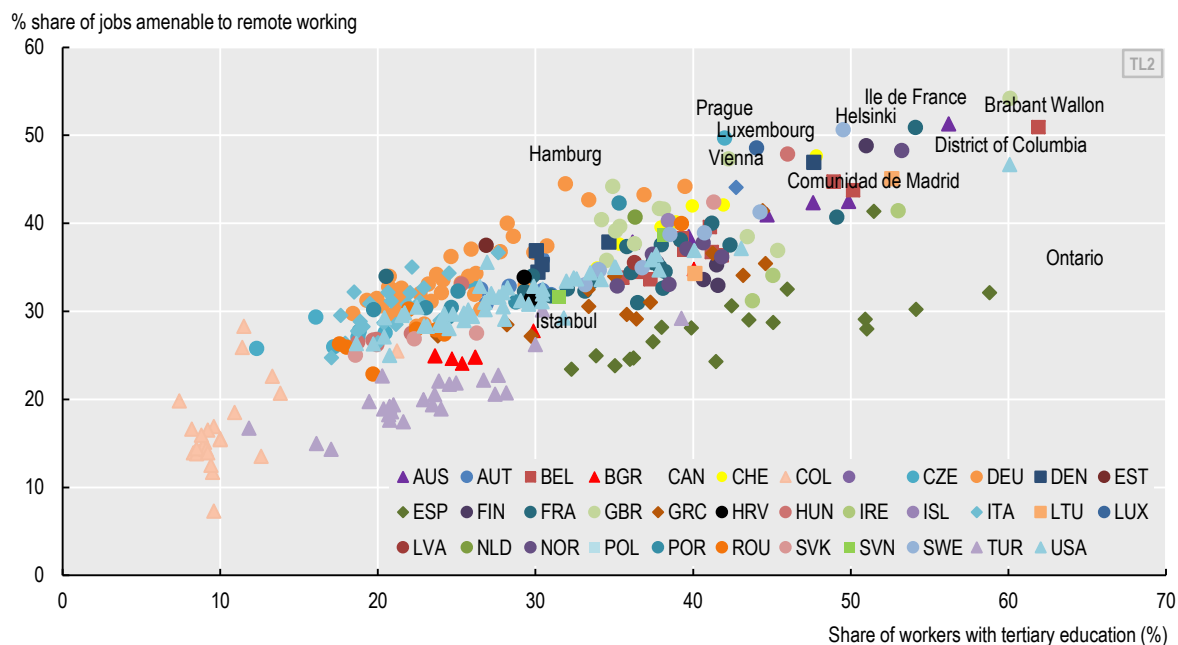
### Regions facing COVID-19 lockdowns: The potential for remote working

#### 2.1. Share of jobs amenable to remote working, 2018



#### 2.2. Share of potential remote working increases with skill-levels in the region, 2018

Share of jobs that can be performed remotely (%) and workers with tertiary education (%), large regions (TL2)

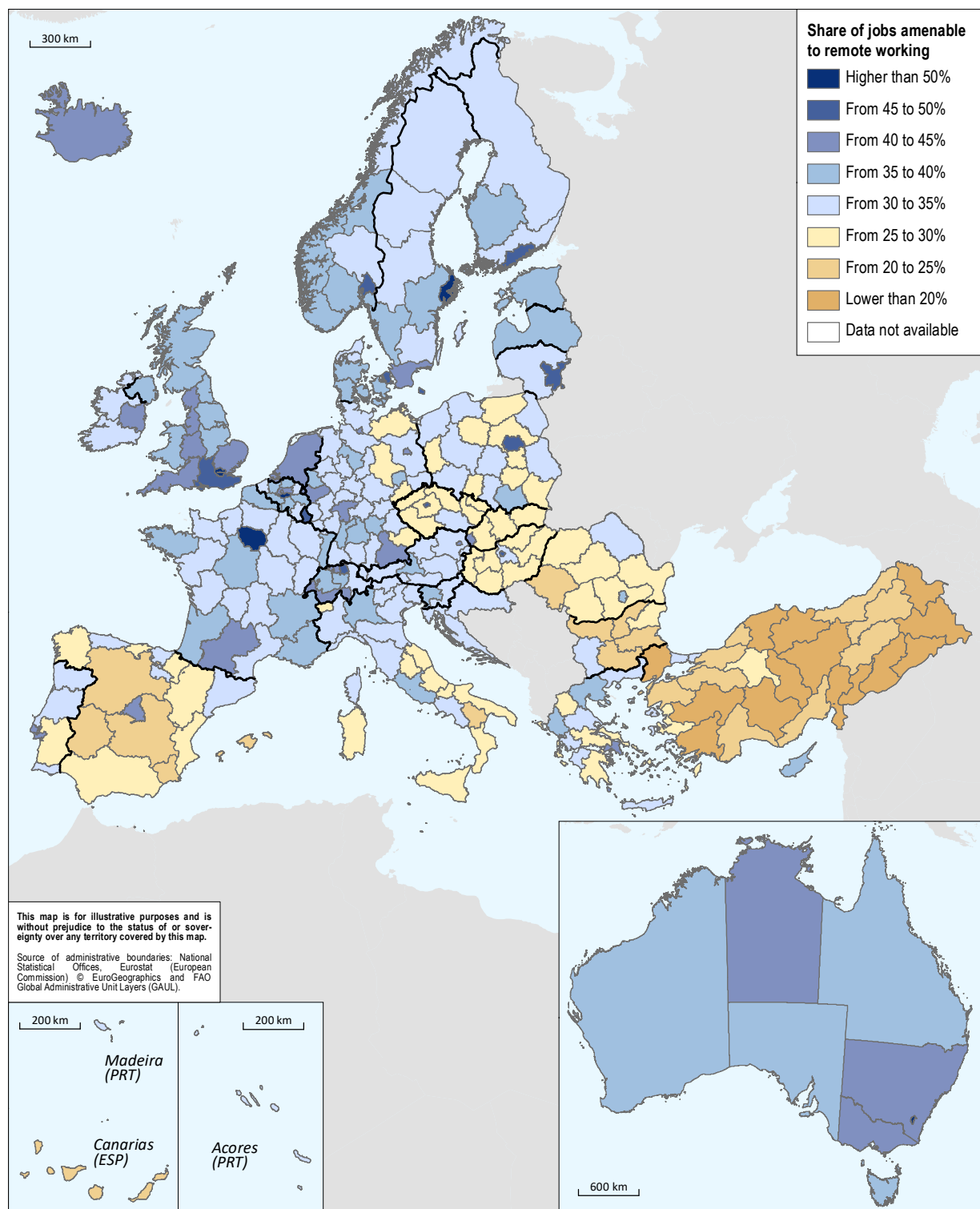


## 2. ECONOMIC RESILIENCE AND REGIONAL ECONOMIC DISPARITIES

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#### 2.3. Jobs amenable to remote working in selected European and OECD countries, 2018

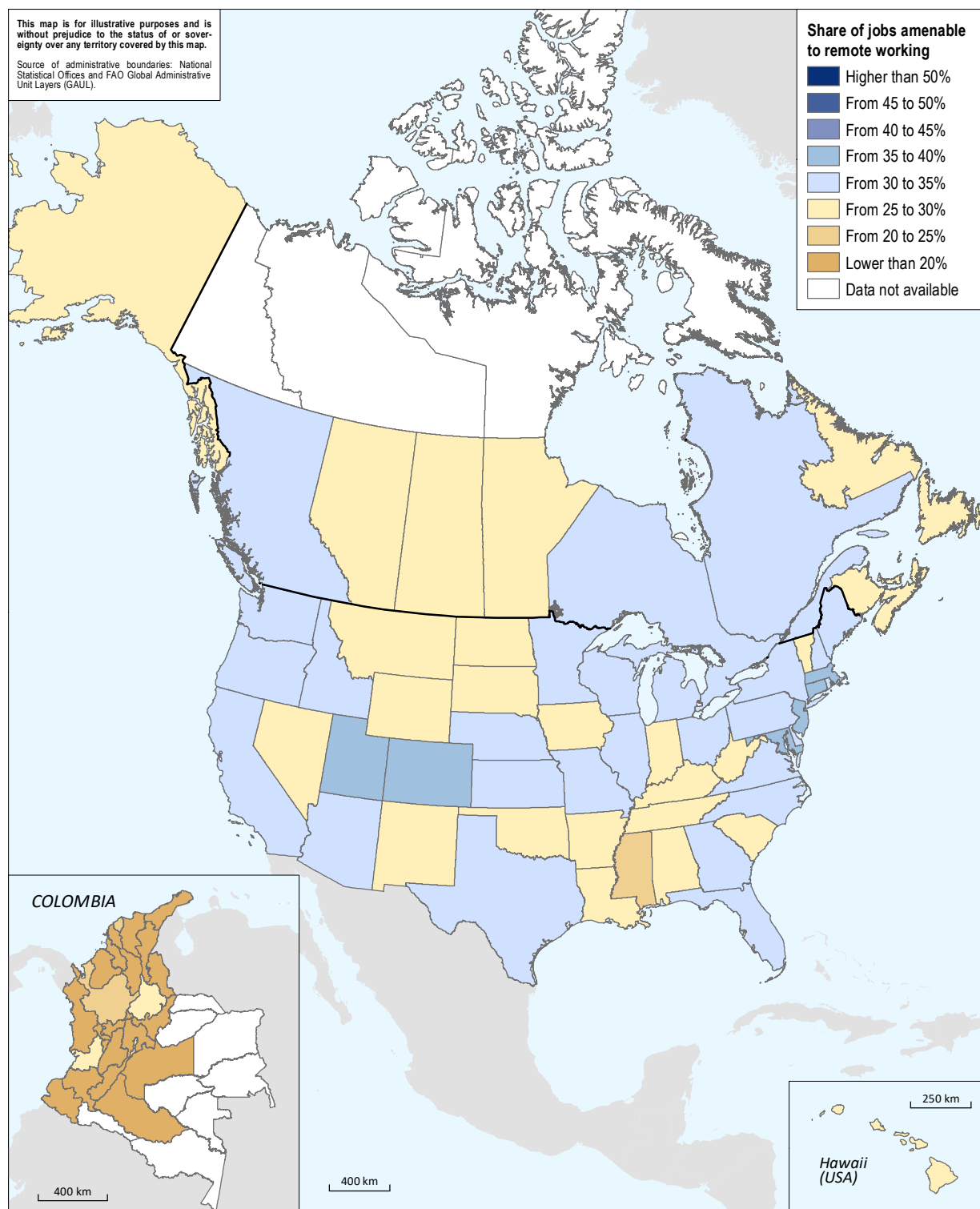
Share of total employment (%), large regions (TL2)



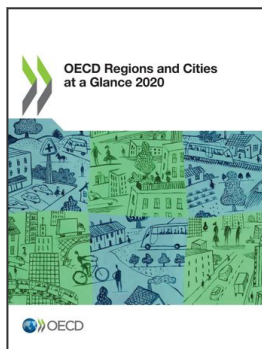
StatLink <https://doi.org/10.1787/888934189621>

#### 2.4. Jobs amenable to remote working in Canada, Colombia and the United States, 2018

Share of total employment (%), large regions (TL2)



StatLink <https://doi.org/10.1787/888934189640>



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