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The geography of migration across OECD regions and cities

This chapter analyses the scale and distribution of migration across regions and cities in OECD countries. First, it provides an overview of the geography of migrant populations across large regions. Second, it assesses how the share of migrants has evolved in recent years and examines what type of regions have attracted further migration. Finally, using novel data, the chapter examines migration granularly, eliciting patterns and trends of migration in small regions and different types of areas within OECD countries.

In Brief

Migration has increased across the OECD in recent years, with the presence of migrants varying significantly across regions and cities within OECD countries

- The population share of foreign-born individuals has been slowly increasing in OECD countries, reaching 12% in 2019. However, the extent of migration has a strong geographic nature, with the share of migrants varying widely across regions in the same country.
- Migrants are significantly more concentrated in specific types of regions than the native-born population. More than half of the foreign-born population (53%) lives in large metropolitan regions, compared to only 40% of the native-born population.
- Between 2015 and 2019, migration has increased faster in specific OECD regions. Capital regions keep attracting a significant number of migrants and have recorded a larger increase in the population share of migrants than their respective rest of the country. Migration also increased faster in regions with dynamic labour markets characterised by recent declines in unemployment or rises in employment rates.
- While migration in recent years appears to be more dispersed throughout OECD countries' territories than in earlier periods, cities remain a major destination for migrants. In most OECD countries with available data, the share of migrants is not only larger in cities than towns and suburbs or rural areas but has also increased the most in cities over the past five years.

Introduction

The integration of migrants remains one of the most relevant and pressing policy challenges in many OECD countries. While migration and the size of migrant communities differ across countries, regional differences within countries also tend to be significant. Therefore, designing effective migrant integration policies requires precise and adequate subnational data. Subnational data on migrants' presence and their labour outcomes do not only offer insights on geographic differences but also enable an empirical assessment of existing challenges. Finally, subnational data on migrants can help evaluate policies and the impact of changes in integration measures.

This chapter builds on and extends recent OECD efforts to analyse the subnational geography of migration in OECD countries (Diaz Ramirez et al., 2018^[1]). It significantly expands the empirical scope of regional data for TL2 OECD regions on migrants' presence and their demographic background (for a definition of TL2 regions, see Box 1.1). While previous efforts were restricted to one (2015) or two (2005, 2015) points in time for the presence of migrants, this chapter is based on new comprehensive data collection efforts. Drawing on various labour force surveys as well as other sources, most derived indicators cover annual regional observations for the period of 2010-19, reaching back as far as 2000 for data on the presence of migrants (Box 1.2).

Box 1.1. What are “TL2 regions” and “TL3 regions”?

Regions within the 38 OECD countries are classified on two territorial levels reflecting the administrative organisation of countries. The 433 OECD “Territorial Level 2” (TL2) regions are those at the highest subnational administrative level, for example the federal states in Germany. The 2296 OECD “Territorial Level 3” (TL3) regions correspond to administrative regions, with the exception of Australia, Canada and the United States

Source: OECD (2021^[2]), *OECD Territorial Grids*, <http://stats.oecd.org/wbos/fileview2.aspx?IDFile=cebce94d-9474-4ffc-b72a-d731fbd75b9>.

Box 1.2. Data: Definition and sources

Data sources

This chapter uses various labour force surveys to assess the geographic distribution, educational attainment and the labour market integration of migrants across regions in OECD countries. The main data sources are the European Community Labour Force Survey (EU-LFS) for the European OECD countries, the American Community Survey for the United States (US), the Canadian Labour Force Survey for Canada, the National Survey of Occupation and Labour for Mexico, the Survey of Education and Work (SEW) for Australia, the Israel Monthly Labour Force Survey for Israel, the Encuesta Nacional de Empleo (ENE) for Chile, the Gran Encuesta Integrada de Hogares (GEIH) for Colombia and the Resident Registered Population Status Census, the Immigrant Status and Employment Survey as well as the Survey of the Economically Active Population for Korea, which all contain information on the country of birth or nationality of the local resident population. To ensure comparability, only countries with more recent data than from 2015 are included in the analysis in this chapter.

Sample

The sample of all analyses in this chapter is restricted to residents in the 15 to 64 age group. The analysis uses the common approach of defining migrants as those individuals born in a foreign country, regardless of those individuals’ arrival date to their host country. For European countries, migrants are further split into two groups based on their country of birth: those born in another European Union (EU) member country than the one where they currently work and reside (i.e. EU migrants) and those born in a country outside of the EU (i.e. non-EU migrants). Finally, anyone who was born in their country of residence is considered native-born.

Overall, the remainder of the chapter presents new evidence on three dimensions related to regional migration. First, it examines the geographic variation and concentration of the foreign-born population across OECD regions. Second, it examines how the population share of migrants has evolved over recent years and which type of regions recorded the largest increases. Finally, the chapter uses novel, geographically granular data to provide a more nuanced picture of spatial differences in migration in OECD countries.

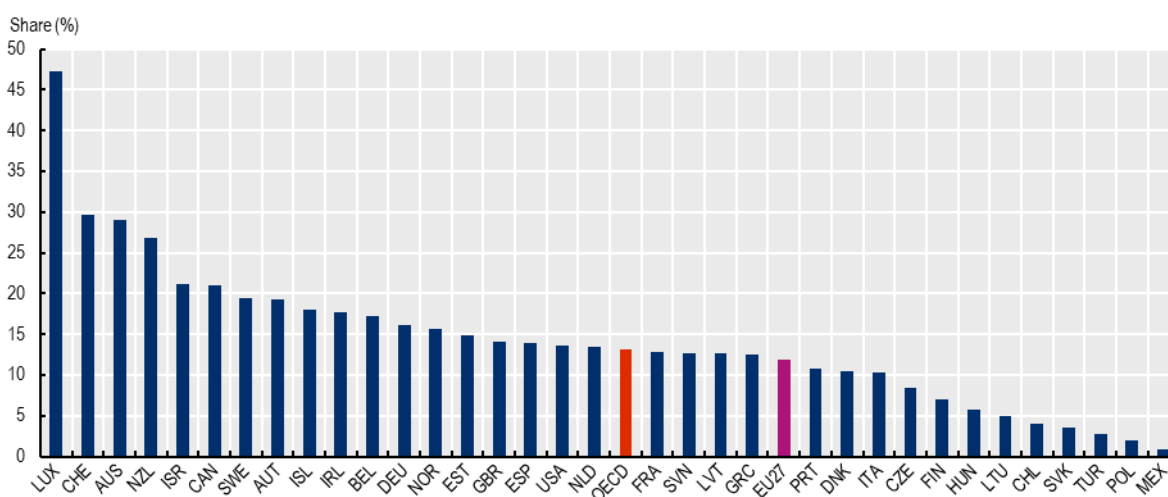
Where do migrants live? The geographic distribution of migrants across the OECD

To support effective migration policy design, policy makers need to understand the different types of challenges and difficulties migrants face. Foremost, this requires comprehensive and detailed data on migrants, in particular their geographic distribution across different regions and cities within OECD countries. As documented by previous research, the foreign-born population differs from the native-born population in terms of where they choose to live. Overall, migrants tend to be more geographically concentrated in specific regions. This chapter sheds light on the regional distribution of migrants in 30 OECD countries using new data and time-series information, complemented by novel data at a very granular geographic level (municipalities, districts and small OECD regions) that offers an even more nuanced perspective on where migrants live.

The size of migrant communities differs greatly across OECD countries. On average, migrants make up 13% of the population in OECD countries and around 12% in EU27 countries (Figure 1.1). Luxembourg, where almost half of the population are migrants (47%), records the highest share of migrants among OECD countries, followed by Switzerland (30%), Australia (29%) and New Zealand (27%). At the other end of the scale, the population share of migrants is less than 1% in Mexico and around 2% in Poland. In a third of countries with available data (13 out of 36), the share of foreign-born exceeds 15% of the total population.

Figure 1.1. Migrant population across OECD countries, 2019

Share of foreign-born population by country



Note: The figure presents the share of the foreign-born among the total population. Data are for 2019 with the exception of Mexico, New Zealand, Turkey (all 2018), Canada and Chile (2017).

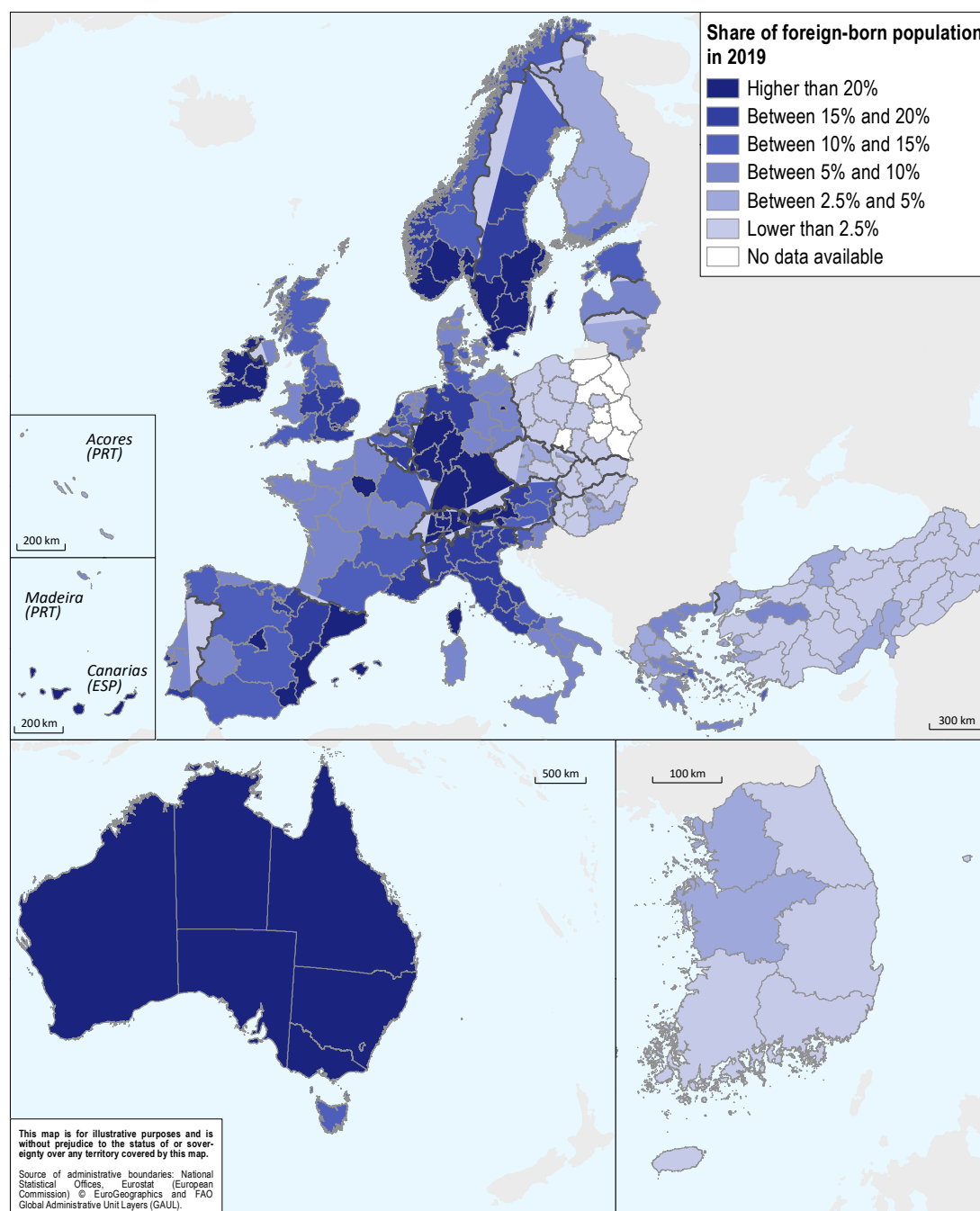
Source: OECD (2020^[3]), *International Migration Outlook 2020*, <https://dx.doi.org/10.1787/ec98f531-en>; Eurostat (2020^[4]), *Migration and Population Statistics*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics.

The population share of migrants does not only differ across countries but also varies across regions within OECD countries. Across the OECD, the average national difference in the migrant population share between the regions with the highest and those with the lowest share of migrants is around 15 percentage points. Belgium and the United Kingdom (UK) record the largest regional differences among OECD countries, with the population shares of migrants in Brussels and Greater London, their respective regions

with the largest foreign-born communities, exceeding those of Flanders and North East England (UK) by 40 and 37 percentage points respectively (Figures 1.2 and 1.3). In Australia, Austria, Canada, France, Germany, Spain and the US, regional differences in the size of migrant populations are also significant, ranging from 20 to 30 percentage points. Given the size of their migrant communities, the Nordic countries Denmark, Norway and Sweden, as well as Switzerland, display relatively small regional variation.

Figure 1.2. Migrant population across OECD regions, 2019

Share of foreign-born population in TL2 regions

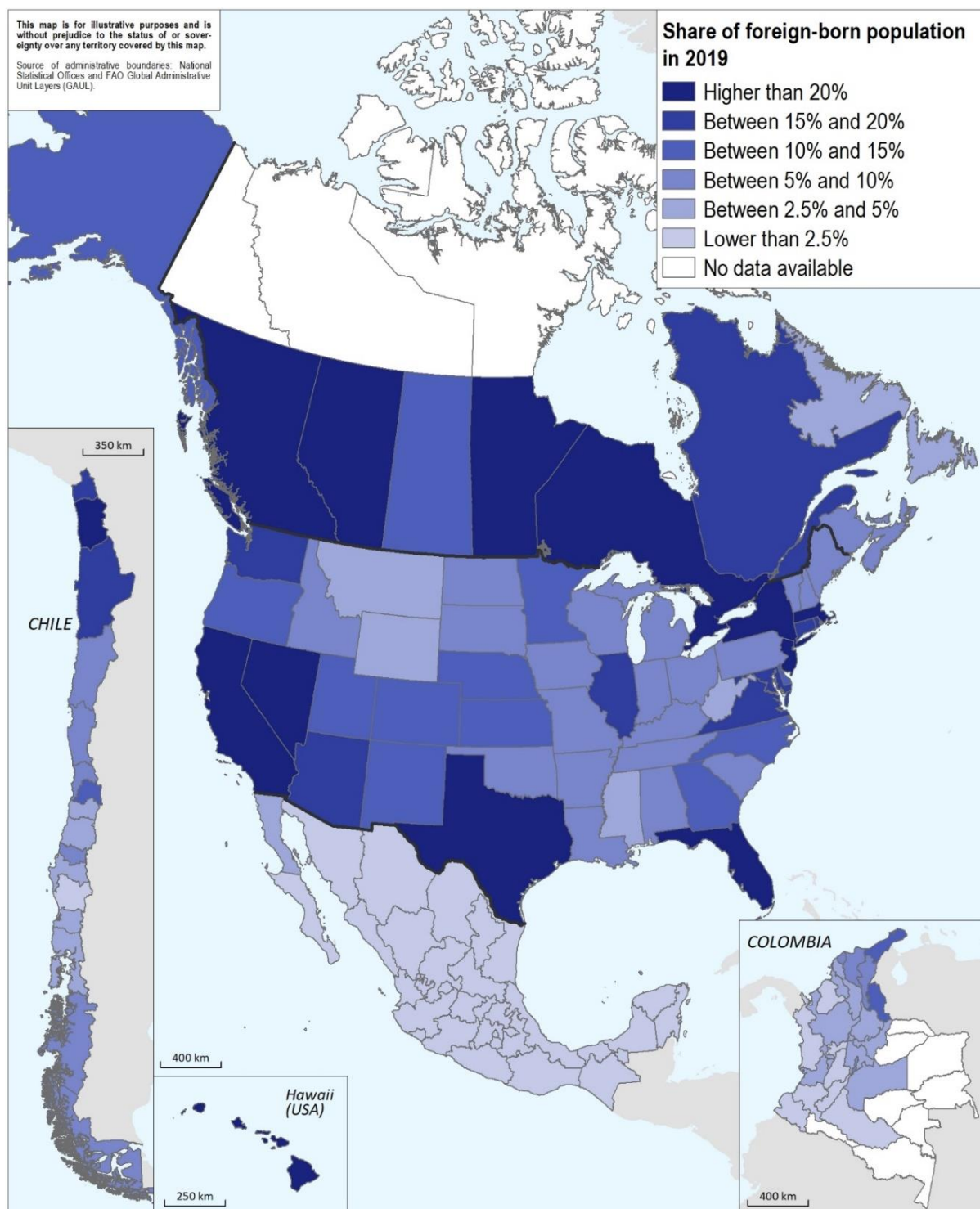


Note: The figure presents the share of foreign-born among 15-64 year-olds.

Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

Figure 1.3. Migrant population across OECD regions, 2019

Share of foreign-born population in TL2 regions



Note: The figure presents the share of foreign-born among 15-64 year-olds.

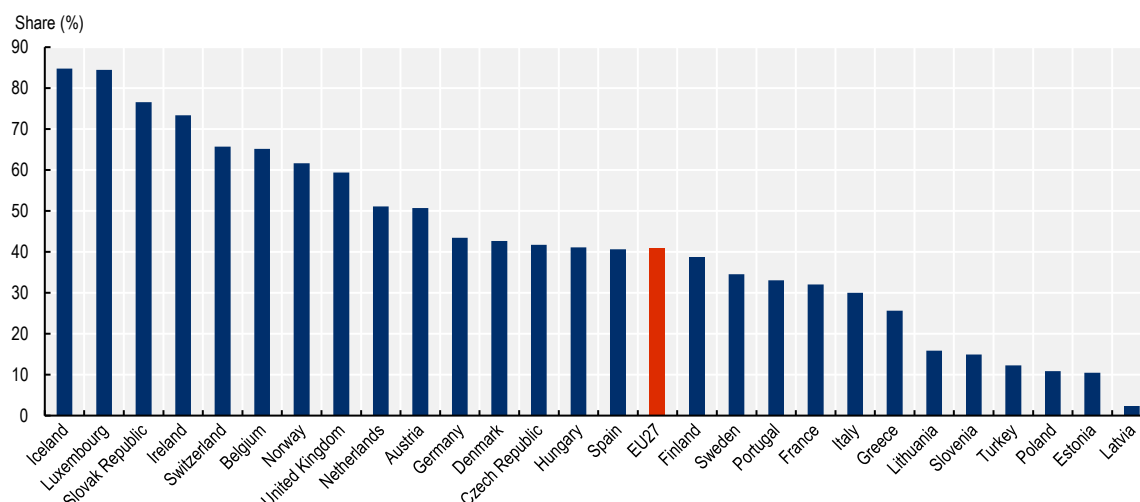
Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

As previously documented for data from 2015, the concentration of migrants remains especially strong in capital city regions (Diaz Ramirez et al., 2018^[1]). Overall, the share of migrants in capital regions exceeds 15.8%.¹ In around two-thirds of countries with available data for multiple regions, the capital city region has the largest share of foreign-born population.² In fact, the Belgian and UK capitals, Brussels and London, are the two regions with the highest population share of migrants in the OECD with 54% and 44% respectively. Additionally, Vienna, the Austrian capital, records the fourth-largest population share of foreign-born among all OECD regions. On average, migrants account for 5.3 percentage points more of the population in capital regions than in their respective countries. Additionally, migrants are also heavily concentrated in regions that concentrate a lot of economic activity within their country or contain the economic capitals of their respective country.

In 2019, around 30 million people living in EU27/European Free Trade Association (EFTA)/UK countries were born outside the EU27, EFTA or UK, representing 9.7% of all inhabitants. Additionally, 16 million people born in EU27/EFTA/UK countries resided in one of those countries, other than their place of birth, accounting for 4.9% of the population (Eurostat, 2021^[5]). The distinction between EU foreign-born and non-EU foreign-born reveals noticeable differences in the respective geographic distribution of migrants. In the EU27, 40% of all foreign-born individuals come from EU countries. In Norway, Switzerland, the UK (all non-EU countries), the proportion of migrants born in the EU even ranges from 60-66%. In Luxembourg and Switzerland, the two countries with the biggest proportion of EU-born among migrants, four out of five migrants come from other EU countries (Figure 1.4). Poland as well as the Baltic countries of Estonia and Latvia have the lowest share of EU individuals among the foreign-born population, with around 10% or less of migrants born in another EU country.

Figure 1.4. Share of EU migrants among the foreign-born population, 2019

Share of EU migrants among the total migrant population by European OECD country



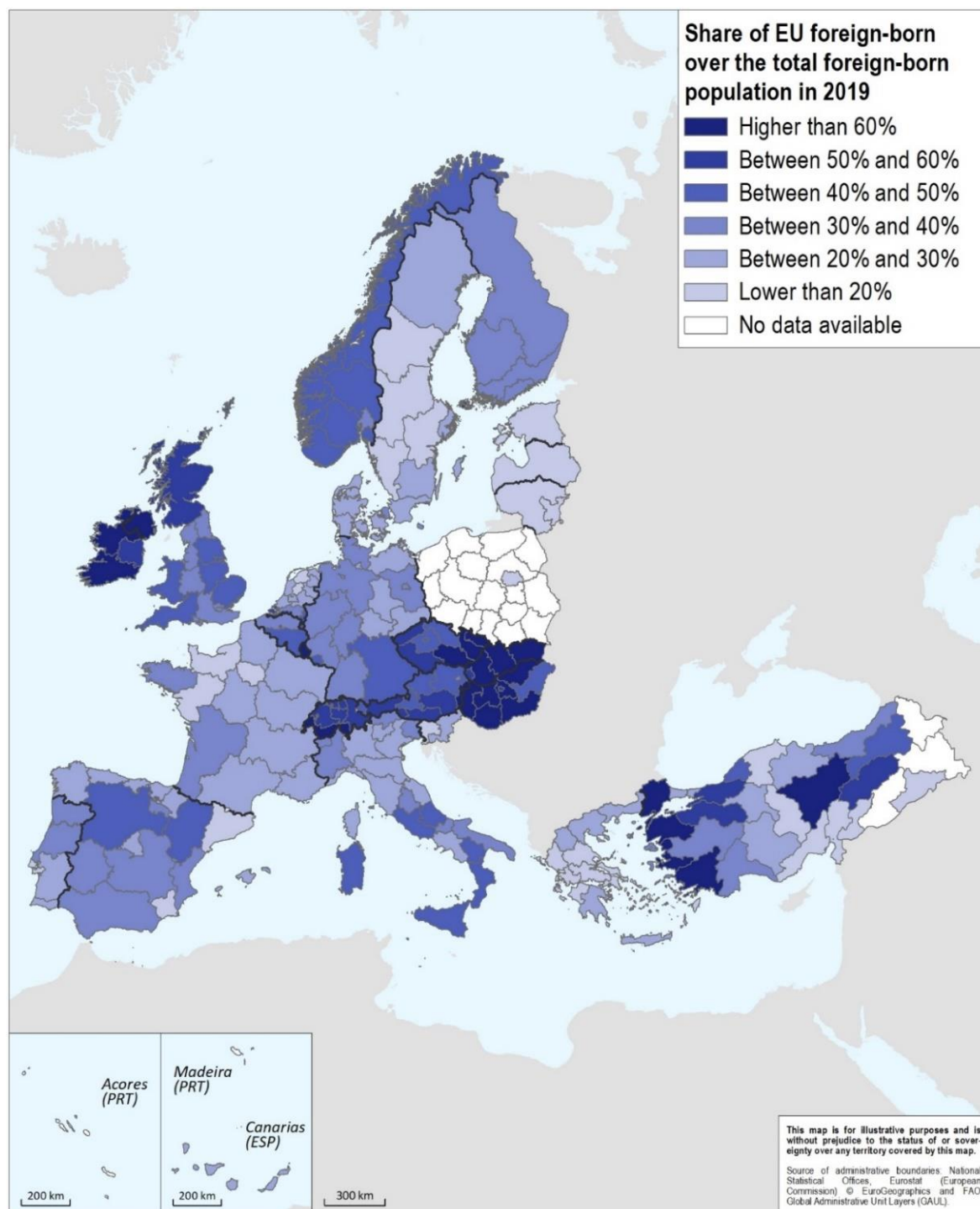
Source: Eurostat (2020^[4]), *Migration and Population Statistics*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics.

Compared to non-EU migrants, foreign-born from EU countries are more dispersed geographically within European countries. The share of EU migrants among the overall population tends to be more similar across regions within a given country than is the case for non-EU migrants. However, countries and regions still differ widely in terms of the composition of their foreign-born population divided into EU and non-EU migrants (Figure 1.5) While in Scandinavia as well as Belgium or Poland, most regions have a comparable proportion of EU migrants as a percentage of the entire migrant population, regional differences in the

relative importance of EU migrants are considerable in other European countries. The relative share of EU migrants among all migrants differs more than 30 percentage points across regions in the Czech Republic, Finland, Hungary, the Netherlands and the UK.

Figure 1.5. EU migrants in European OECD regions, 2019

Share of EU foreign-born among the total foreign-born population



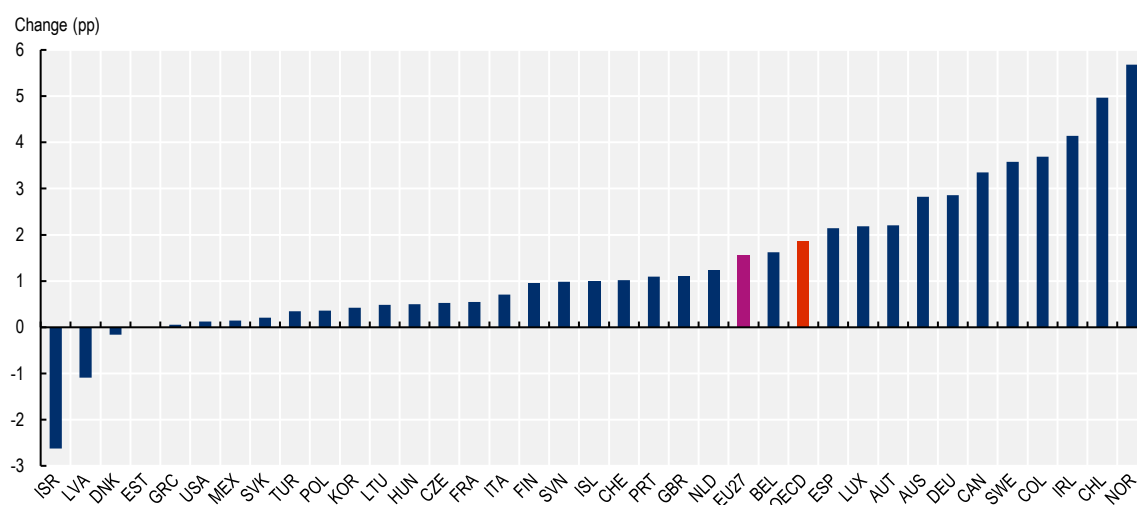
Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

How has the population share of migrants in OECD regions evolved over time?

Over the past few years, the population share of migrants has increased in most OECD countries. Between 2015 and 2019, the share of the foreign-born population rose by 1.9 percentage points in the OECD overall and by around 1.6 percentage across the EU27 countries (Figure 1.6). While Denmark, Israel or Latvia recorded a small decrease in their migrant population shares, other countries such as Chile, Ireland, Norway or Sweden experienced a rise of the share of migrants among the total population of 3.5 percentage points or more in the period 2015-19.

Figure 1.6. National population share of foreign-born, 2015-19

Percentage point (pp) change in the national foreign-born population share by country



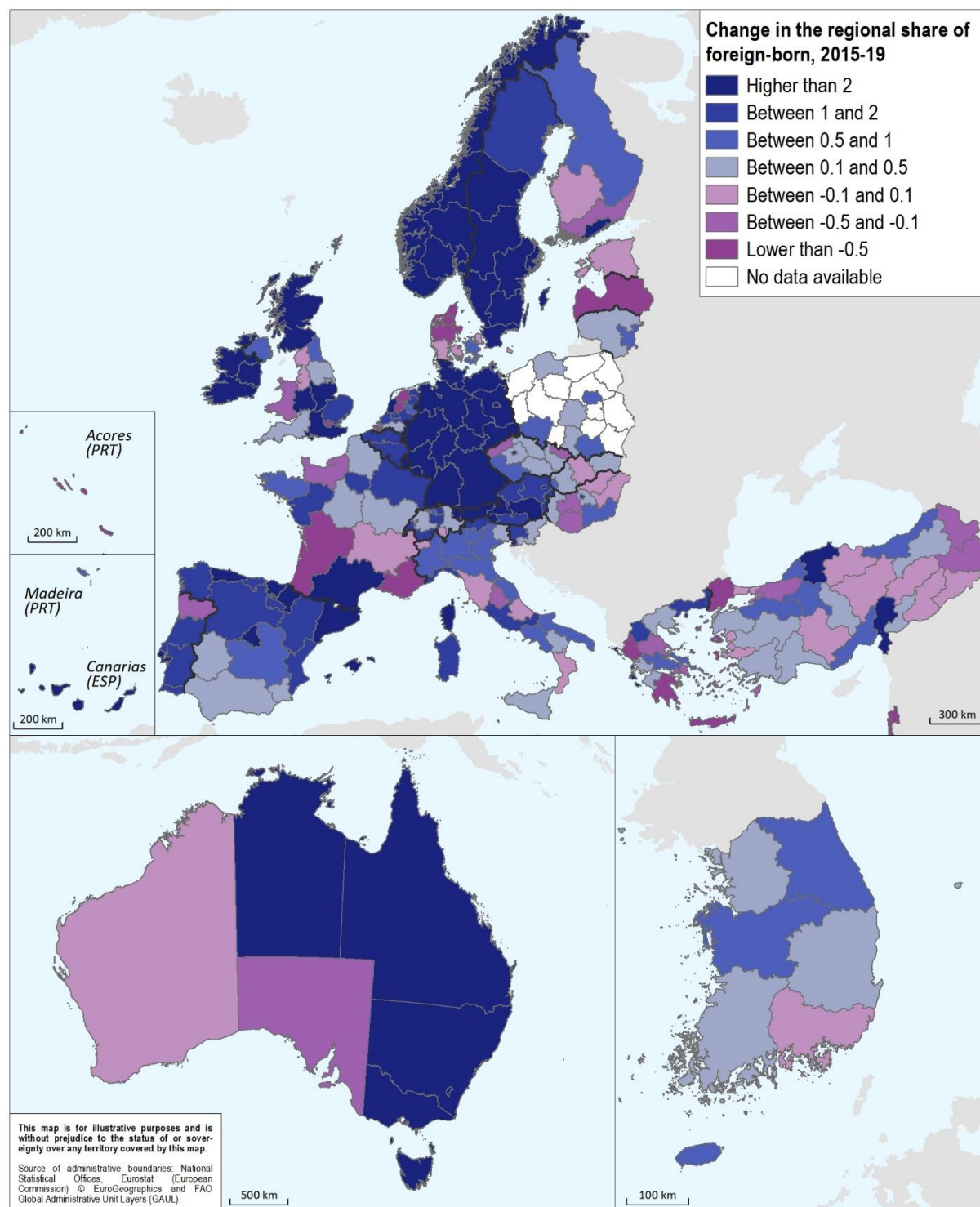
Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

In line with the national picture, most OECD regions experienced an increase in their respective foreign-born population in recent years. Only 19% out of all regions with available data, recorded a fall in the population share of migrants between 2015 and 2019. Around 42% of regions experienced an increase of more than 1 percentage point. These trends are significantly more pronounced over a longer period. Throughout the past decade, the population share of migrants increased in the vast majority of regions. Between 2010 and 2019, 61% of OECD regions saw their foreign-born population increase by at least 1 percentage point, with 14% of regions recording an increase of 5 percentage points or more.

Notwithstanding the general pattern, a closer look at regional data reveals considerable regional differences in various OECD countries. For example, French regions differed widely in the extent to which their foreign-born population share changed in 2015-19 (Figures 1.7 and 1.8). While the regional population share of foreign-born individuals fell by more than 1 percentage point in Nouvelle-Aquitaine and Provence-Alpes-Côte d'Azur, Corsica saw a rapid increase of around 12 percentage points, reaching around 26% in 2019, on par with the capital region Ile-de-France. In Germany, the share of migrants rose by around 2 to 2.5 percentage points in most regions, whereas Berlin and Baden-Württemberg attracted significantly more migrants, with the share of foreign-born rising by 4.1 and 3.5 percentage points respectively. In the US, the situation has not changed dramatically over the period 2015-19. The vast majority of US regions recorded either marginal increases or marginal decreases in the population share of migrants.

Figure 1.7. Change in the share of foreign-born population across OECD regions, 2015-19

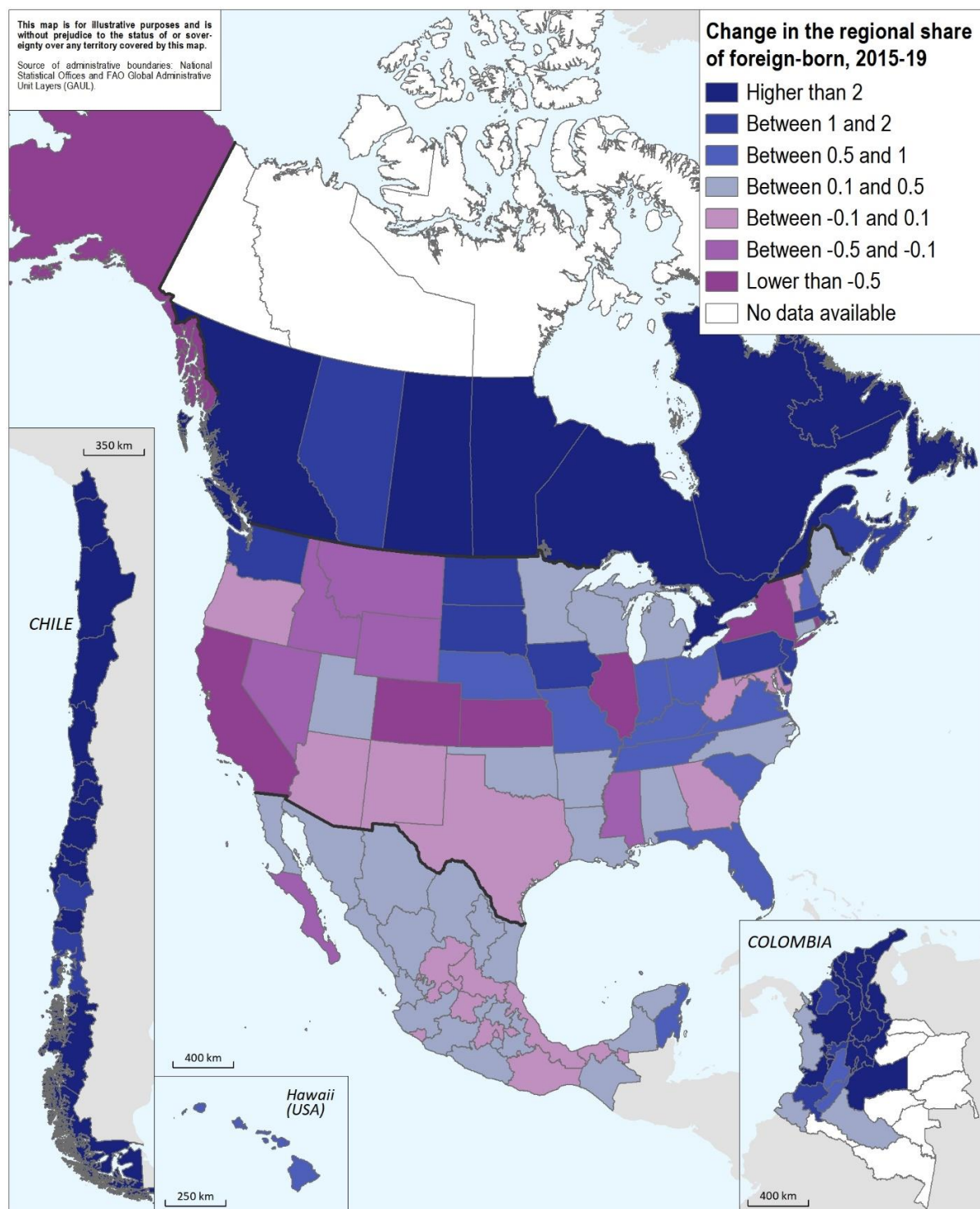
Percentage point share in the regional foreign-born population



Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

Figure 1.8. Change in the share of foreign-born population across OECD regions, 2015-19

Percentage point share in the regional foreign-born population



Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

Which regional factors have attracted migrants?

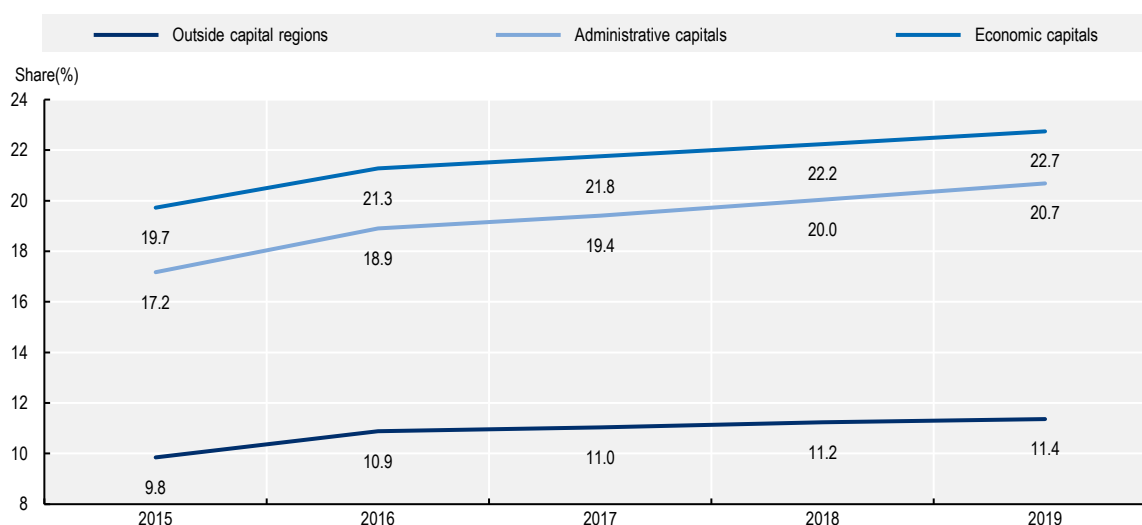
Historically, migration across the OECD has often concentrated on specific areas within countries. Various push factors motivate people to leave their countries and a range of pull factors help explain where they migrate to. Among such pull factors, both regions' demographic and economic characteristics have played an important role in attracting migration.

The presence of established migrant networks has historically been an important pull factor for migrant flows, as pre-existing migrant communities can provide support networks for new arrivals (Simpson, 2017^[6]). In OECD countries, the presence of migrants from specific nationalities or countries of origin, appear to explain more than 70% of the variation in migrant flows (Beine, Docquier and Özden, 2011^[7]). Regional economic conditions are another important pull factor that helps to explain migration flows. More specifically, higher wages and better income opportunities are key determinants of where migrants move (Bansak, Simpson and Zavodny, 2020^[8]). Furthermore, migrants often move to regions with relatively strong labour markets, i.e. low unemployment, while economic recessions appear to deter migration (Hunt, 2006^[9]).

Across OECD countries, capital city regions and those regions home to the countries' largest city or centres of economic activity offer a high attraction to migrants. The foreign-born population share in OECD countries' capitals is not only almost twice as high as in the rest of the country but has also grown faster over recent years (Figure 1.9). Between 2015 and 2019, it rose by 3.5 percentage points reaching 20.7%, equivalent to an increase of 21%. In contrast, the share of the foreign-born population only increased by around 16% outside of capital cities. Regions that contain their country's largest city and most important economic centre have an even higher share of migrants than capitals, amounting to around 22.7% in 2019. In these regions, the migrant population grew by 15% between 2015 and 2019, a slower rate than in capital regions but comparable to that of the respective rest of the country.

Figure 1.9. Share of the foreign-born population in OECD capitals and the rest of the country, 2015-19

Weighted average of the foreign-born population in administrative and economic capitals



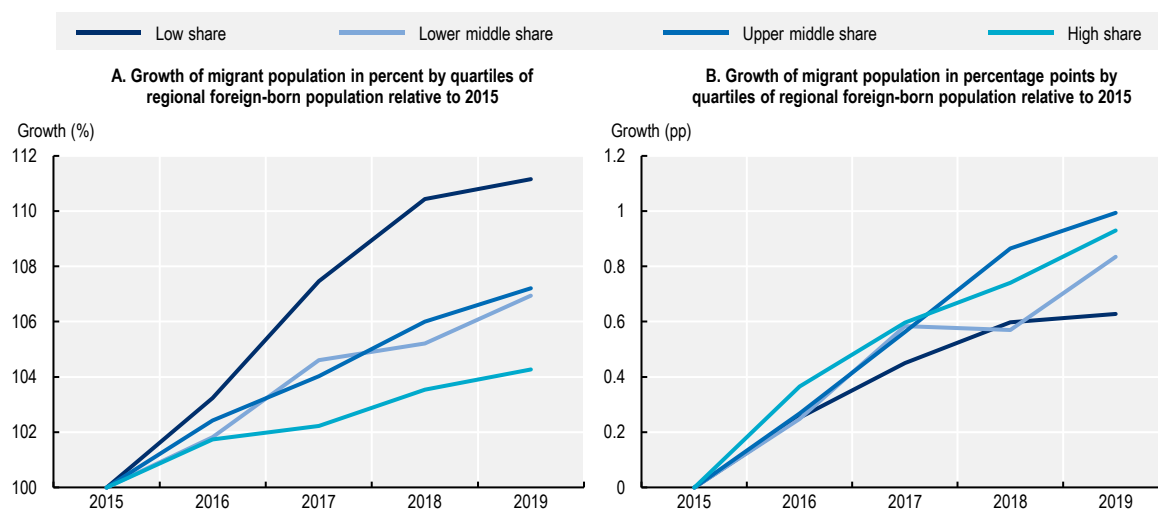
Note: Population-weighted OECD averages of the population share of foreign-born from 2015 to 2019. Data cover 27 OECD countries with available information. Countries without regional breakdown are excluded. Economic capitals are defined as the regions containing the largest city of their country. Economic capitals differ from administrative capitals in the following countries: Australia (New South Wales), Israel (Tel Aviv District), Italy (Lombardy), the Netherlands (North Holland), Switzerland (Zurich), Turkey (Istanbul) and the US (New York).

Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

In line with previous migration cycles (Simpson, 2017^[6]), the population of foreign-born has grown the fastest in those OECD regions with relatively larger pre-existing migrant communities. Those regions with larger migration populations also experienced a larger percentage point increase in the share of migrants between 2015 and 2019. However, the relative increase of migration to OECD regions has been faster in places with smaller migrant communities (Figure 1.10, Panel A). Between 2015 and 2019, the 25% of regions with the lowest share of foreign-born population in 2015 recorded a growth of 11% of their migrant population with most of the growth occurring in 2015-17. Overall, the evolution of the foreign-born population share follows a clear gradient across the distribution of regions (divided into quartiles) based on their respective migrant population shares in 2015. While regions with smaller migrant communities saw their migrant populations growing fastest, those regions that had the highest foreign-born population shares in 2015, exceeding 18.5%, recorded only an increase of 4% in the population share of migrants. When examining the absolute change (percentage point increase) in the population share of migrants, the pattern is different (Figure 1.10, Panel B). In fact, those regions in the second-highest quartile in terms of their pre-existing migrant communities recorded the largest increase. Based on a smaller share of migrants in 2015, the regions with the fewest migrants recorded a smaller absolute increase in their migrant populations (in percentage points) compared to other regions.

Three factors could explain the observed dispersion of migration across OECD regions. First, regions with a lower share of migrants can achieve a faster relative increase more easily for statistical reasons due to a lower starting base. Second, countries with only a recent history of immigration, and therefore regions with small migrant communities, appear to have recorded relatively large migration flows since 2013. However, the patterns hold even when countries or regions with small migrant populations are excluded. Third, evidence from the literature suggests that migrant networks have the largest effects when migrant stocks are small and dampen with increasingly large migrant populations (Clark, Hatton and Williamson, 2007^[10]).

Figure 1.10. Increase in the foreign-born population in 2015-19 and the size of migrant communities



Note: The figure displays the growth in the population share of migrants between 2015 and 2019 based on the quartiles of regions according to their respective population share of foreign-born in 2015. Regions with small migrant populations (less than 3% in 2015) are excluded. In the bottom quartile, the foreign-born population ranges from 3% to 7.9%. In the second quartile, it ranges from 7.9% to 12.1%. In the third quartile, the share of migrants falls between 12.2% and 18.4%. In the top quartile, migrants account for between 18.5% to 53.4% of the regional population. Panel A displays the growth in percentage relative to the starting point in 2015. The panel displays the absolute growth in percentage points compared to the starting point in 2015.

Source: OECD calculations based on labour force surveys. See Box 1.2 for detailed information on sources.

Employment opportunities are an important driver of migration, with those OECD regions with more dynamic labour markets being key destinations for foreign-born individuals. Overall, the foreign-born population rose faster in regions with more favourable labour market conditions. Between 2013 and 2019, regions with relatively lower unemployment rates in the preceding year recorded significantly higher increases in the share of the foreign-born population (see Annex Table 1.A.1). Similarly, regions with more job opportunities, as measured by higher overall employment rates in the preceding year, experienced statistically significantly faster growth of their foreign-born population. In contrast, previous faster economic growth in terms of regional gross domestic product (GDP) per capita and GDP was not linked to increases in the migrant population, suggesting the relatively greater relevance of economic opportunities as a key factor in attracting migrants.

The COVID-19 pandemic will at least have led to a temporary reduction of migration to OECD regions and cities. It has led to a significant fall in international migration to OECD countries in 2020. Based on initial estimates, the number of new residence permits granted to migrants during the first half of 2020 was 46% below the number observed in 2019 (OECD, 2020^[3]). With the pandemic continuing and many member countries facing a second or third wave, international travel remains highly restricted, which curtails international migration. As a consequence, the documented rise in the number of foreign-born across OECD regions over the past decade is likely to stagnate or even decrease slightly in 2020 and 2021.

Going granular: In which type of areas do migrants live?

While data for large regions (i.e. TL2) offer a broad and effective picture of how migrants are distributed within OECD countries, it can in some cases only provide relatively coarse spatial information. For example, some TL2 regions in populous OECD countries such as Germany or the US have a population of 10 million inhabitants or more and extend for tens of thousands square kilometre. As a result, data for such large territories and populations cannot reveal potentially interesting and meaningful intraregional discrepancies and also inhibit cross-country analysis of trends by regional typologies based on commonalities of OECD regions.

To fill this void of granular subnational migration data, the OECD has engaged in an extensive data collection effort. The resulting novel dataset offers unprecedentedly detailed information on the subnational geography of migration in OECD countries. It consists of granular subnational data on the presence of migrants in 20 OECD countries, primarily at the level of municipalities with a few exceptions such as Germany (districts, *Kreise*) and the USA and Canada (census tracts/census subdivisions) (see Box 1.3 for more detail).

Box 1.3. Municipal/census tract dataset on migration

The dataset contains information on migrants and their population share in municipalities (or census tracts) in 22 OECD countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the UK, USA).

For most countries, the data coverage starts in 2010 and ends in 2019. The main characteristics available at the municipal level include country of origin, age and gender. The statistics on foreign-born are based on the resident population. The main data sources are countries' population surveys, complemented by census data in countries without continuous population surveys.

Contrary to the data for large (TL2) regions, the indicators for more granular levels of geography cover the entire resident population. Thus, they are not limited to the working-age population but offer insights into the local share of migrants for all age groups.

Source: Astruc-Le Souder et al. (forthcoming^[11]), "Going granular - A new database on migration in municipalities across the OECD", OECD Publishing, Paris.

Based on data from continuous population registers as well as censuses, the new dataset offers an unprecedentedly granular perspective on the geography of migration within OECD countries. While the level of granularity depends on the number of municipalities or census tracts in each country, the new dataset provides additional insightful spatial information as it can be aggregated to larger geographic levels, thus enabling a consistent international comparison of migration trends across small regions (i.e. TL3) or metropolitan areas. Furthermore, the data allow for an analysis of changes in migration by different types of regions based on the OECD regional typologies, which classify regions according to their access to a metropolitan area (see Box 1.4 for a detailed explanation) or distinguishes between predominantly rural or urban regions.

Box 1.4. Classification of small regions by access to metropolitan areas

The OECD metropolitan/non-metropolitan typology for small regions (TL3) helps to assess differences in socio-economic trends in regions – both within and across countries – by controlling for the presence/absence of metropolitan areas and the extent to which the latter is accessible by the population living in each region. The method relies on publicly available grid-level population data and localised information on driving conditions. According to such typology, TL3 regions are classified as metropolitan if more than half of their population lives in a functional urban area (FUA) of at least 250 000 inhabitants and classified as non-metropolitan otherwise. A metropolitan region becomes a large metropolitan region if the FUA accounting for more than half of the regional population has over 1.5 million inhabitants.

Table 1.1. Overview: Regional classification and access to FUAs

Acronym	Grouping	Macro grouping	Access to FUAs
MR-L	Large metropolitan region	Metro region	50% of population in FUA above 1.5 million inhabitants
MR-M	Metropolitan region	Metro region	50% of population in FUA above 250 000
NM-M	Region near a metropolitan area	Non-metro region	50% of population can reach FUA above 250 000 within an hour
NM-S	Region with/near a small-medium city	Non-metro region	50% of population can reach FUA of 50 000-250 000 within an hour
NM-R	Remote region	Non-metro region	No FUA within an hour for half of the population

Source: OECD (2020^[12]), *OECD Regions and Cities at a Glance 2020*, <https://doi.org/10.1787/959d5ba0-en>; method based on Fadic, M. et al. (2019^[13]), "Classifying small (TL3) regions based on metropolitan population, low density and remoteness", <https://doi.org/10.1787/b902cc00-en>.

In turn, the typology further classifies non-metropolitan regions based on the size of the FUA that is most accessible to the regional population. More specifically, non-metropolitan TL3 regions are sub-classified into three possible types:

1. With access to a metropolitan area, if at least half of the regional population can reach an FUA of at least 250 000 inhabitants within a 60-minute car ride.

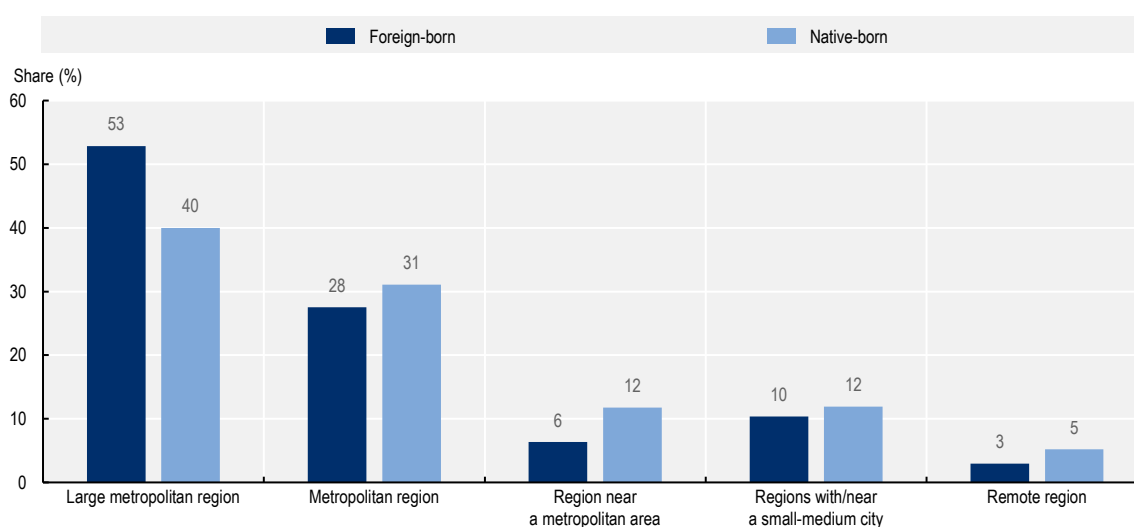
2. With access to a small/medium city, if at least half of the regional population can reach an FUA between 50 000 and 250 000 inhabitants within a 60-minute car ride.
3. Remote, if reaching the closest FUA by car takes more than 60 minutes for more than half of the regional population.

Within OECD countries, significant spatial differences in migration exist. Figures 1.12 and 1.13 display the share of migrants among the local population across OECD countries with granular population data on foreign-born individuals. Especially in countries with a detailed geographic breakdown (i.e. information on small administrative units), such as France, Italy or Spain, the new dataset reveals clear geographic differences. In France, migrants are particularly concentrated in and around large cities. In Spain, the data show the large concentration in municipalities that surround the major cities such as Barcelona, Madrid or Valencia as well as in the communities along the Mediterranean coast.

Aggregating the municipal/census data demonstrates that migrants are significantly more concentrated in specific types of regions than the native-born population is. More than half of the foreign-born population (53%) in the 22 OECD countries with available data live in large metropolitan regions, i.e. regions that contain a metropolitan area of more than 1.5 million inhabitants, which is home to at least 50% of the regional population (see Box 1.4 for the definition of the classification of TL3 regions) (Figure 1.11). In comparison, only 40% of native-born individuals live in large metropolitan regions. In contrast, migrants appear to be less likely than the native-born population to settle outside of metropolitan regions. Less than a fifth of migrants (19%) reside in non-metropolitan regions, compared to almost 30% of the native-born population. The difference in the location of migrants and native-born residents is particularly striking in regions near a metropolitan area and remote regions, where only 6% and 3% of migrants live respectively. Among the native-born, those regions account instead for 12% (regions near a metropolitan area) and 5% (remote regions) of the entire population.

Figure 1.11. Distribution of the foreign- and native-born population by type of TL3 region, 2019

Distribution of foreign- and native-born population by type of OECD (TL3) region, based on latest available year

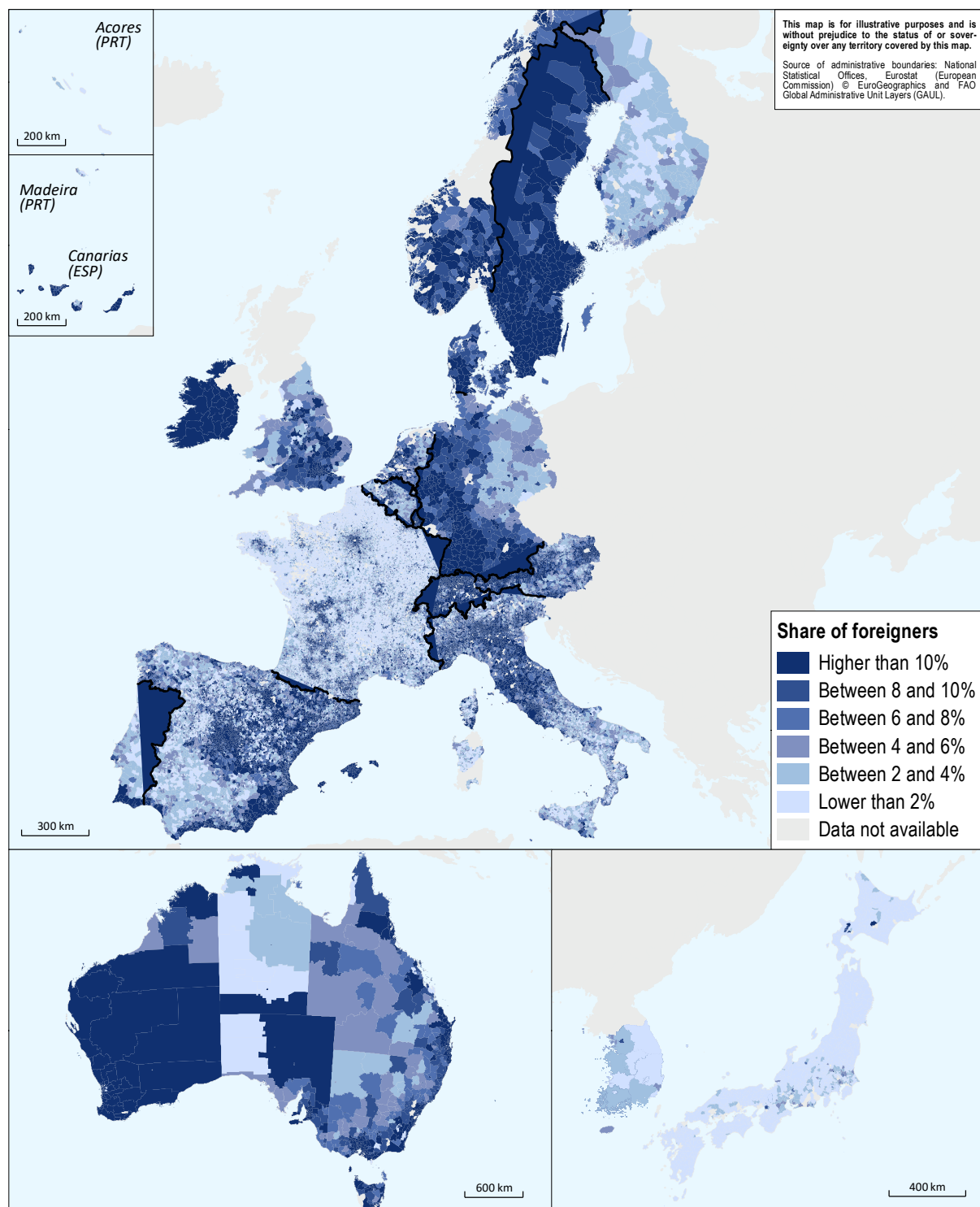


Note: Box 1.4 describes and explains the classification of small (TL3) regions by their access to metropolitan areas. The underlying sample covers the entire local resident population.

Source: Author's elaboration based on data described in Box 1.3.

Figure 1.12. Share of foreign-born population in municipalities and census tracts in OECD countries, 2019

Population share of foreign-born across municipalities and census tracts, 2019 or latest available year

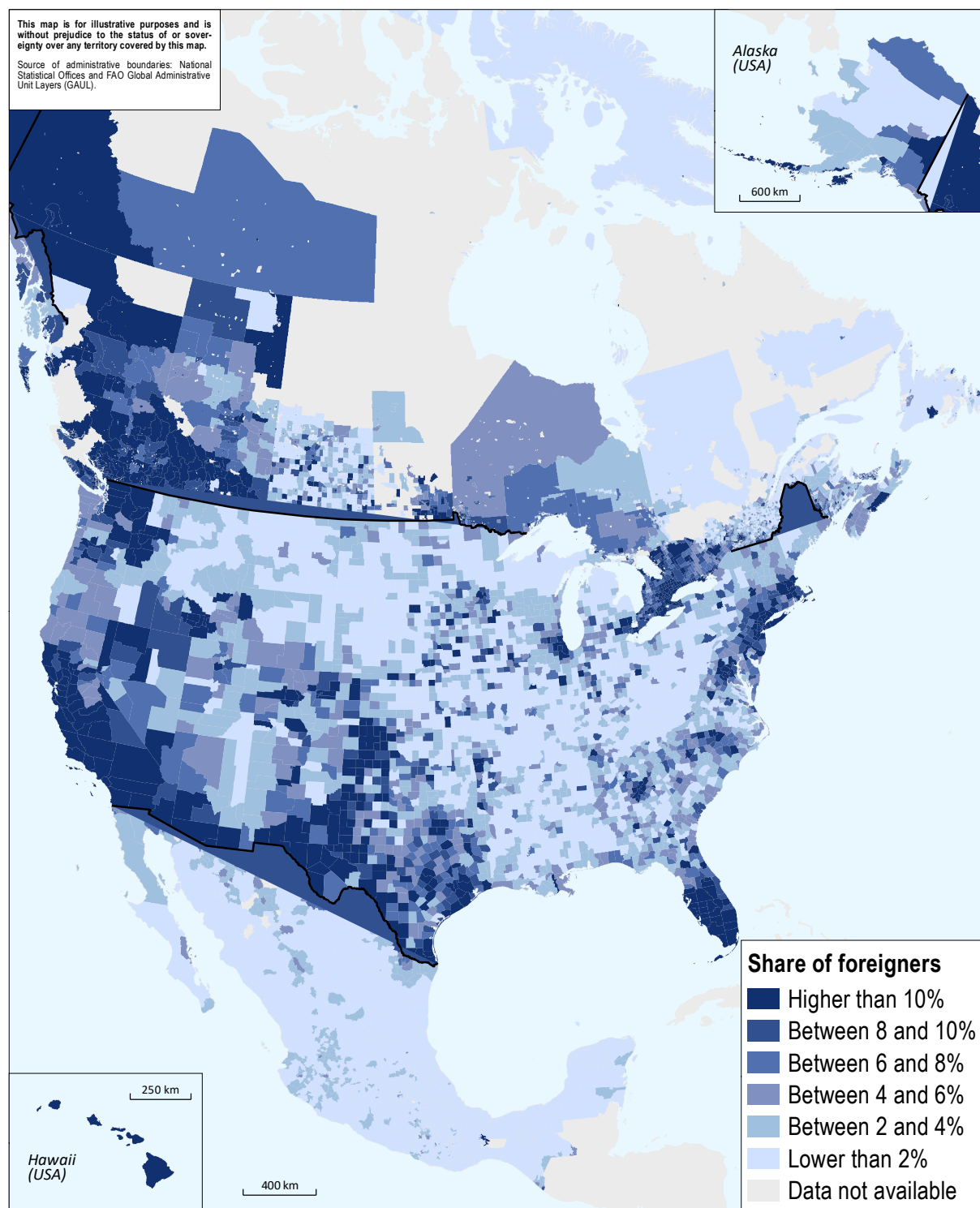


Note: The maps show the population share of foreign-born individuals across municipalities or other granular administrative units in OECD countries. Data are for 2019 or the latest available year. The underlying sample covers the entire local resident population.

Source: OECD based on national continuous population registers and censuses, described in Box 1.3.

Figure 1.13. Share of foreign-born population in municipalities and census tracts in OECD countries, 2019

Population share of foreign-born across municipalities and census tracts, 2019 or latest available year



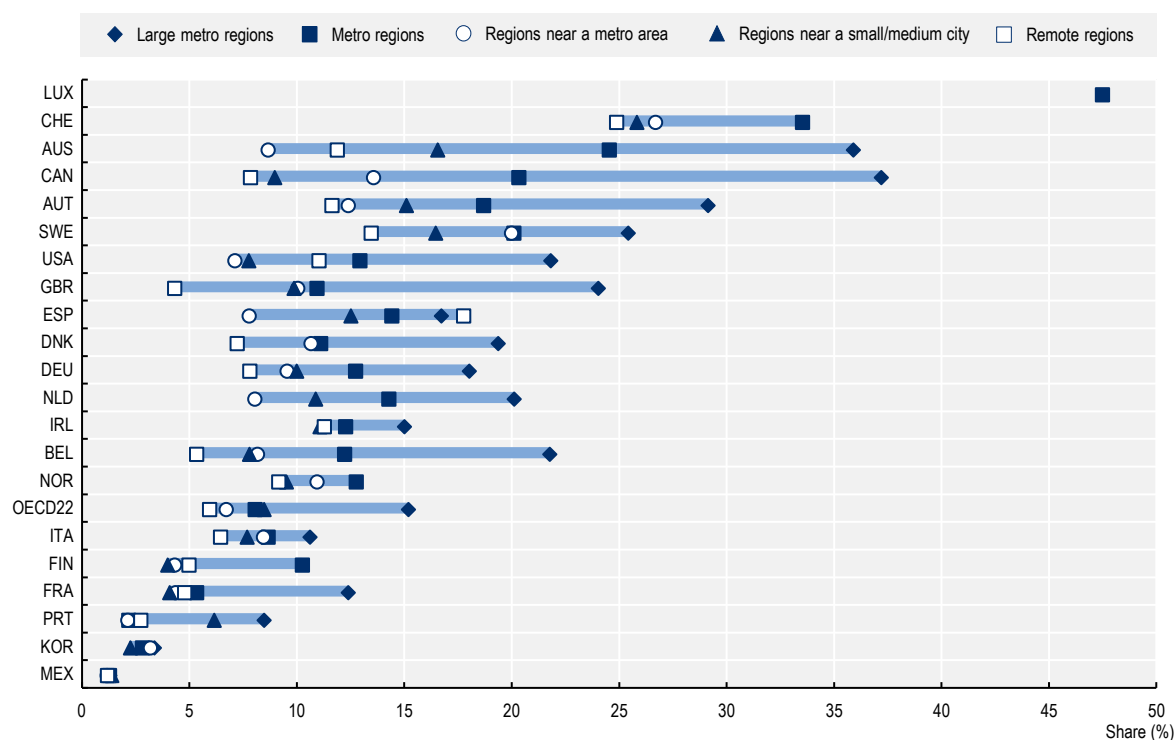
Note: The maps show the population share of foreign-born individuals across municipalities or other granular administrative units in OECD countries. Data are for 2019 or the latest available year. The underlying sample covers the entire local resident population.

Source: OECD based on national continuous population registers and censuses, described in Box 1.3.

In terms of the overall regional population share, migrants make up more than 23% of inhabitants in metropolitan regions and around 21% of inhabitants in non-metropolitan regions across 22 OECD countries (Figure 1.14). However, looking at the full spectrum of regions by their access to metropolitan areas reveals further significant geographic differences within OECD countries. For instance, in Australia and Canada, more than 35% of people living in large metropolitan regions were born abroad, compared to around 10% in remote regions. In the UK, migrants make up almost a quarter of inhabitants in large metropolitan regions, whereas their share only ranges from 4% (remote regions) to 11% (metropolitan regions) in other parts of the country. Overall, the migrant population follows a clear spatial gradient in most countries. It tends to be highest by a significant margin in large metropolitan regions or metropolitan regions in countries without a large metropolitan area. Additionally, the regional population share of migrants is lowest in almost all OECD countries in either remote regions or regions near a small- or medium-sized city.

Figure 1.14. Migrant population share by type of region and country

Share of the foreign-born population by type of region and OECD country, 2019 or latest available year



Note: Box 1.4 describes and explains the classification of small (TL3) regions by their access to metropolitan areas. 2019 or latest available year. Data for the UK are limited to England and Wales. The underlying sample covers the entire local resident population.

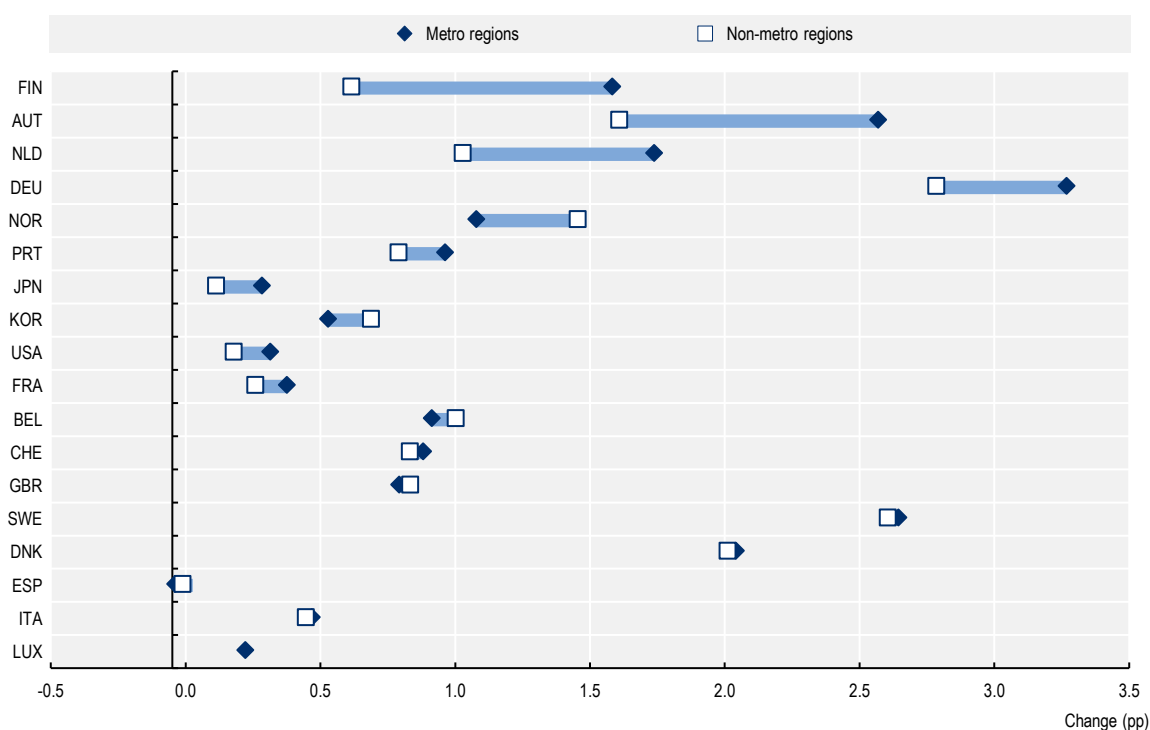
Source: Author's elaboration based on data described in Box 1.3.

Metropolitan regions not only have, on average, larger smaller migrant communities than non-metropolitan regions, they have also recorded faster growth of their foreign-born population. Between 2015 and 2019, in 12 out of 17 OECD countries with available data, metropolitan regions experienced higher growth in the population share of foreign-born than non-metropolitan regions did (Figure 1.15). While those differences were small in countries such as Denmark, Italy, Sweden or Switzerland, they were highly significant in others. In Germany for example, the share of the foreign-born population rose by almost 1.6 percentage points in metropolitan regions from 2015 to 2019 compared to around 0.6 percentage points in non-metropolitan regions. Similarly, the percentage points increase in the migrant population was also much

higher in metropolitan regions than in non-metropolitan regions in Austria, Germany and the Netherlands. However, in a number of OECD countries including Belgium, Korea and Norway, migrant communities grew the most in non-metropolitan regions. These results, while for a subset of OECD countries, seem to confirm the earlier documented finding for larger (TL2) OECD regions (see Figure 1.10) that, in various OECD countries, migrant communities and thus migration appear to become more geographically dispersed.

Figure 1.15. Change of foreign-born population in metropolitan and non-metropolitan regions, 2015-19

Percentage point (pp) change in the foreign-born population by metropolitan region and country between 2015-19 or latest available year



Note: The default time period of the analysis is 2015-19. Based on data availability, the time period differs in some countries: 2015-18 (Korea, Switzerland, the UK and the US), 2015-17 (France, Japan) and 2017-19 (Luxembourg). Data for the UK are limited to England and Wales. The underlying sample covers the entire local resident population.

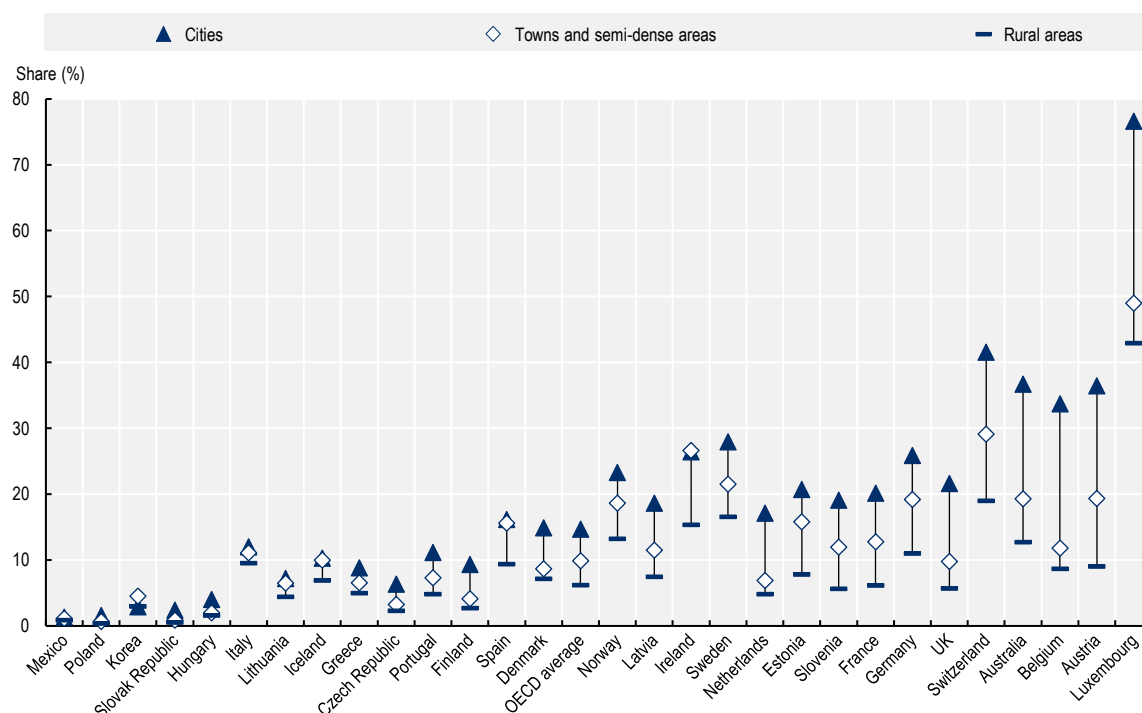
Source: Author's elaboration based on data described in Box 1.3.

The degree of urbanisation offers another insightful perspective on the geography of the presence of migrants and their change over time (see Box 1.5 for a description). 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 significantly higher migrant population shares than other areas in almost all OECD countries with available data.³ For example, in Australia, Austria, Belgium or France, migrants made up at least twice as much of the population in cities than in towns and suburbs or rural areas in 2019. The spatial differences are particularly striking in Belgium and the Netherlands, where migrants account for 33% (Belgium) and 17% (Netherlands) of the population in cities but only 12% (Belgium) and 7% (Netherlands) in towns and suburbs with rural areas reporting even lower migrant population shares. However, the migrant community is more equally spread out across the degree of urbanisation in various other OECD countries. In Italy,

differences between cities (12%), towns and suburbs (11.1%) or rural areas (9.5%) are relatively small. Additionally, cities and towns and suburbs have relatively similar migrant population shares in both Ireland and Spain.

Figure 1.16. Share of migrants across OECD countries by degree of urbanisation, 2019

Foreign-born population share by the degree of urbanisation, 2019 or latest available year



Note: 2019 or latest available year. Data for the UK are limited to England and Wales. The underlying sample covers the entire local resident population.

Source: Author's elaboration based on data described in Box 1.3 as well as Eurostat (2020^[14]), *Migration and Migrant Population Statistics*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics.

Box 1.5. The degree of urbanisation

The degree of urbanisation as approved by the UN Statistical Commission includes a first classification of grid cells and subsequent classification of local spatial units. It 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 suburbs (or intermediate density areas); and iii) rural areas (or thinly populated areas).

Using grid cell data on population size and density, the degree of urbanisation classifies areas as follows:

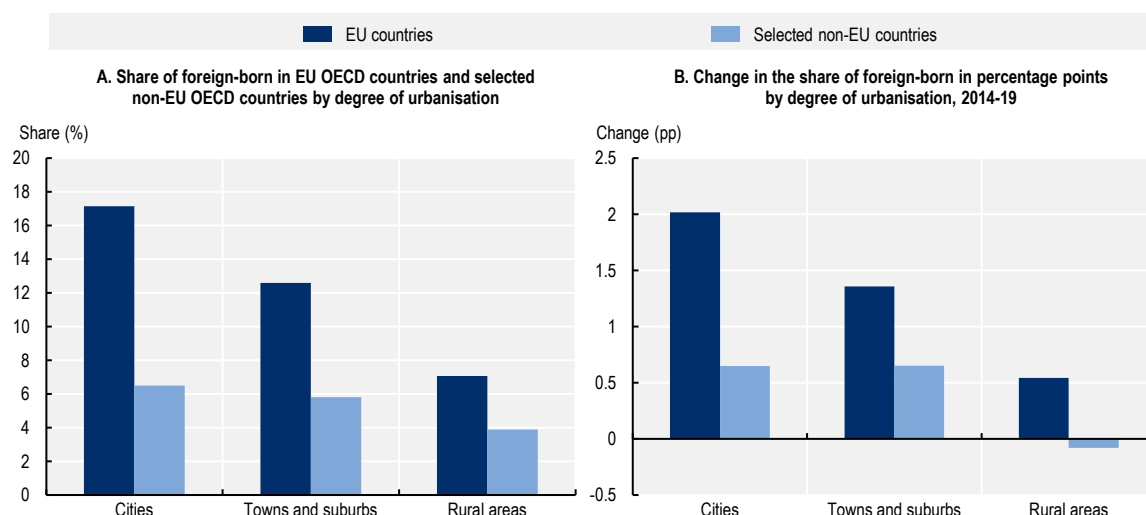
1. **Cities** consist of contiguous grid cells that have a density of at least 1 500 inhabitants per km² or are at least 50% built up. The cluster of contiguous cells must have a population of at least 50 000. Gaps in this cluster are filled and its edges are smoothed.

2. **Towns and semi-dense areas** consist of contiguous grid cells with a density of at least 300 inhabitants per km² and are at least 3% built up. This cluster of contiguous cells must have a total population of at least 5 000. Once the minimum population has been verified, city cells that are part of this cluster are removed.
3. **Rural areas** are cells that do not belong to a city or a town and semi-dense area. Most of these have a density below 300 inhabitants per km².

Source: OECD/EC (2020^[15]), *Cities in the World: A New Perspective on Urbanisation*, <https://dx.doi.org/10.1787/d0efcbda-en>.

The degree of urbanisation reveals differences in the spatial patterns in the location as well as the increase of migrant communities in a comparison of EU and non-EU countries in the OECD. Among EU member states of the OECD, migrants account for a much larger share of the population in cities in 2019 (17%) than in towns and suburbs (13%) or rural areas (7%). Furthermore, the relative size of the migrant community has grown the fastest in cities in both absolute and relative terms, rising 2 percentage points or 13% between 2014 and 2019. In contrast, the foreign-born population share is more comparable across the degree of urbanisation across those OECD countries with available data that are outside the EU. Additionally, migration appears to have been occurring at a similar pace in cities, towns and suburbs in those countries, with an increase of 0.6 percentage points between 2014 and 2019. While the results for the non-EU countries cannot be generalised to all non-European OECD countries due to a lack of data for a number of countries, the results nonetheless illustrate the potential richness of information that granular data based on grid cells or small geographic units can provide to inform localised migration policies.

Figure 1.17. Share of foreign-born by the degree of urbanisation in 2019 and its change, 2014-19



Note: The figures show the population share of migrants in 2019 as well as its change across the degree of urbanisation between 2014 and 2019. The sample of non-EU OECD countries with available data includes Australia, Iceland, Korea, Norway, Switzerland and the UK. Data for the UK are limited to England and Wales. The underlying sample covers the entire local resident population.

Source: Author's elaboration based on data described in Box 1.3 as well as Eurostat (2020^[14]), *Migration and Migrant Population Statistics*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics.

Box 1.6. Do migrant arrivals create ghettos or new communities?

While many studies focus on migrants' impact on the native-born labour market (e.g. wages or employment), migrants can also affect native-born residential choices. In fact, a large literature focusing on the phenomenon known as "white flight" (i.e. departure of white people) indicates that the arrival of migrants leads to the departure of native-born residents in rich OECD countries leading to geographical segregation of ethnic groups (Saiz and Wachter, 2011^[16]). Recently, Moraga, Ferrer-i-Carbonell and Saiz (2019^[17]) have revisited the effect of migrant arrivals on the residential mobility of the native-born population at the neighbourhood level in the context of Spain, the country that experienced the largest and fastest migration shock in the OECD in the 21st century.

The authors find that most of the migrants arriving in Spain settled in the centre of metropolitan areas. In fact, the authors show that the number of migrants setting in neighbourhoods decreases gradually as the distance to the city centre increases. Moreover, the authors find that the distance to the city centre also affects whether native-born individuals decide to leave their neighbourhood. For instance, while the native-born population living in neighbourhoods located in urban centres left as a reaction to the arrival of migrants, such reactions were not observed for native-born residents living in peripheral areas. A possible explanation put forth by the authors is that strong growth in the construction activity in the peripheral areas could absorb the increase in the migrant population without causing the native-born population to leave.

Source: Moraga, J., A. Ferrer-i-Carbonell and A. Saiz (2019^[17]), "Immigrant locations and native residential preferences: Emerging ghettos or new communities?", *Journal of Urban Economics*, Vol. 112, pp. 133-151; Saiz, A. and S. Wachter (2011^[16]), "Immigration and the neighborhood", *American Economic Journal: Economic Policy*, Vol. 3/2, pp. 169-88.

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Notes

¹ The share of migrants rises to 18.6% if Seoul and Tokyo – two capitals with very large populations but small migrant communities – are excluded.

² In 18 out of 30 countries, the capital regions have the highest share of foreign-born population.

³ Figure 1.16 and Figure 1.17 combine data provided by Eurostat for European countries with the new granular migration dataset (Box 1.3) for non-European countries. For the latter, local areas such as municipalities can be categorised by the degree of urbanisation using grid level information on population size and density of those areas (Eurostat/DG REGIO/JRC, 2021^[19]).

Annex 1.A. Regression results: Change in regional migration

The following table displays a set of pairwise first-difference model regressions results for the change in the regional population share of migrants over 2015-19. The regressions include year fixed effects and cluster standard errors by regions.

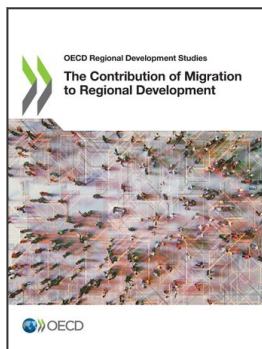
Annex Table 1.A.1. Regional factors associated with increases in the migrant population, 2015-19

Change in the share of the foreign-born population

Variable	1	2	3	4
Employment rate in the previous year	0.0010336** (0.0003885)			
Unemployment rate in the previous year		-0.0014657*** (0.0003498)		
Log GDP in the previous year			-0.649488 (0.486534)	
Percentage of foreign-born in the previous year				-0.0030981*** (0.0007828)

Note: First difference model with year fixed effects and clustered standard errors by region. *** p<0.01, ** p<0.05, *p<0.1.

Source: Author's elaboration based on OECD (2021^[18]), *Regional Statistics*, OECD, Paris.



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