

## Canada

*Regions and Cities at a Glance* provides a comprehensive assessment of how regions and cities across the OECD are progressing in a number of aspects connected to economic development, health, well-being and the net zero-carbon transition. It presents indicators on individual regions and cities to assess disparities within countries and their evolution since the turn of the new millennium. Each indicator is illustrated by graphs and maps. The report covers all OECD countries and, where data is available, partner countries and economies.

### Territorial definitions

The data in this note reflect different sub-national geographic levels in OECD countries:

- **Regions** are classified on two territorial levels reflecting the administrative organisation of countries: large regions (TL2) and small regions (TL3). Small regions are classified according to their access to metropolitan areas (Fadic et al. 2019).
- **Functional urban areas** consist of cities – defined as densely populated local units with at least 50 000 inhabitants – and adjacent local units connected to the city (commuting zones) in terms of commuting flows (Dijkstra, Poelman, and Veneri 2019). Metropolitan areas refer to functional urban areas above 250 000 inhabitants.

In addition, some indicators use the degree of urbanisation classification (OECD et al. 2021), which defines three types of areas:

- **Cities** consist of contiguous grid cells that have a density of at least 1 500 inhabitants per km<sup>2</sup> or are at least 50% built up, with a population of at least 50 000.
- **Towns and semi-dense areas** consist of contiguous grid cells with a density of at least 300 inhabitants per km<sup>2</sup> and are at least 3% built up, with a total population of at least 5 000.
- **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 km<sup>2</sup>.

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# Regional economic trends

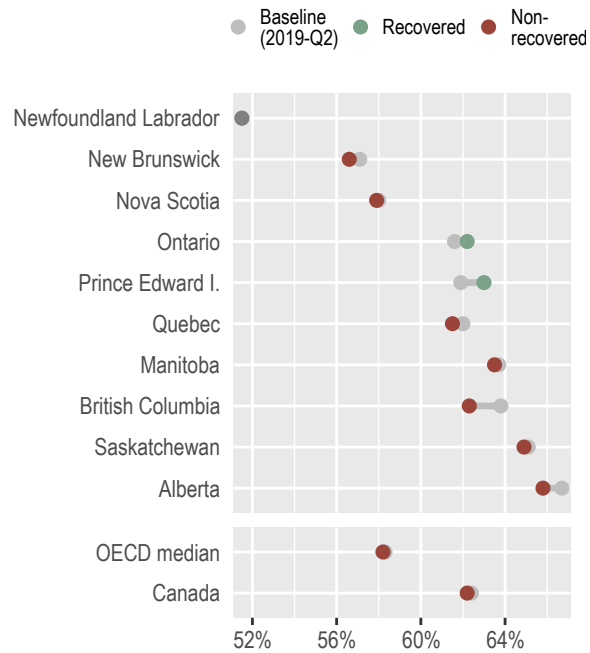
## Employment and unemployment rates in regions

In Canada, regional disparities in unemployment rates are stark compared to other OECD countries. While in Newfoundland and Labrador 10.8% of the working force was unemployed in 2022Q2, the share was 4.1% in Quebec.

Meanwhile, the difference in employment rate between the regions with the highest (Alberta) and lowest (Newfoundland and Labrador) employment rates reached 14 percentage points in 2022. This places Canada among the top 10 OECD countries in terms of regional disparities in employment.



Figure 1: Unemployment rates in large regions, 2022Q2



**Figure 2: Change in employment rates in large regions, 2019Q2-2022Q2**

Note: Harmonised employment and unemployment rates, aged 15 and over. The OECD median corresponds to the median employment rate in large regions.

Source: OECD (2022), "Short-term regional statistics", *OECD Regional Statistics* (database)

### ***The first year of COVID-19 on GDP per capita***

The first year of COVID-19 resulted in a decrease in GDP per capita in most Canadian regions. Alberta, a region with a GDP per capita 15% above the national average (50 333 vs. 43 817 USD PPP), experienced the largest decrease in GDP among Canadian regions, of approximately -17%.

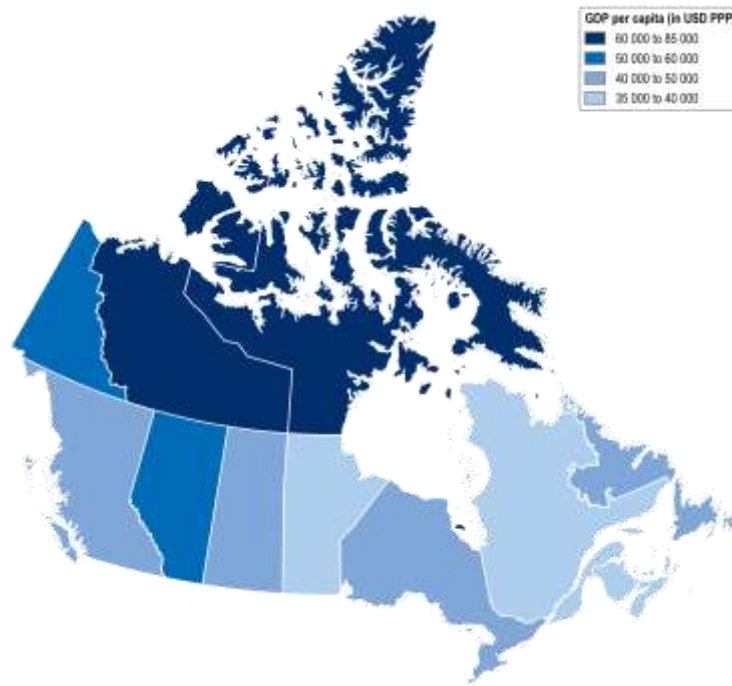


Figure 3: GDP per capita in large regions, 2020

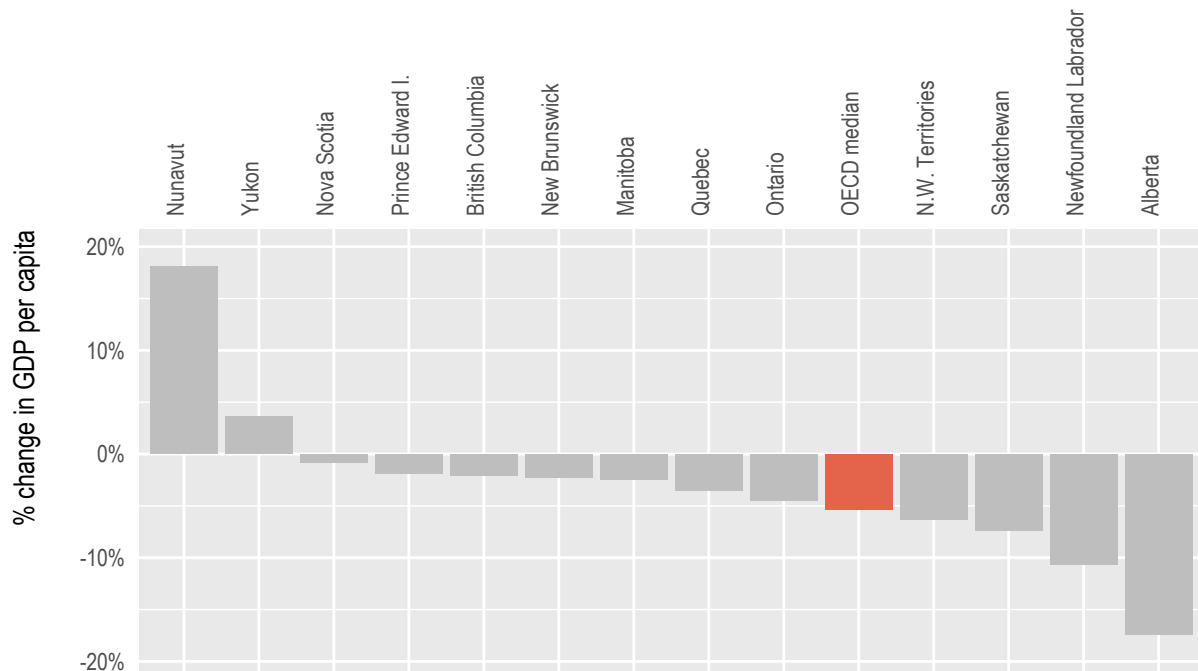
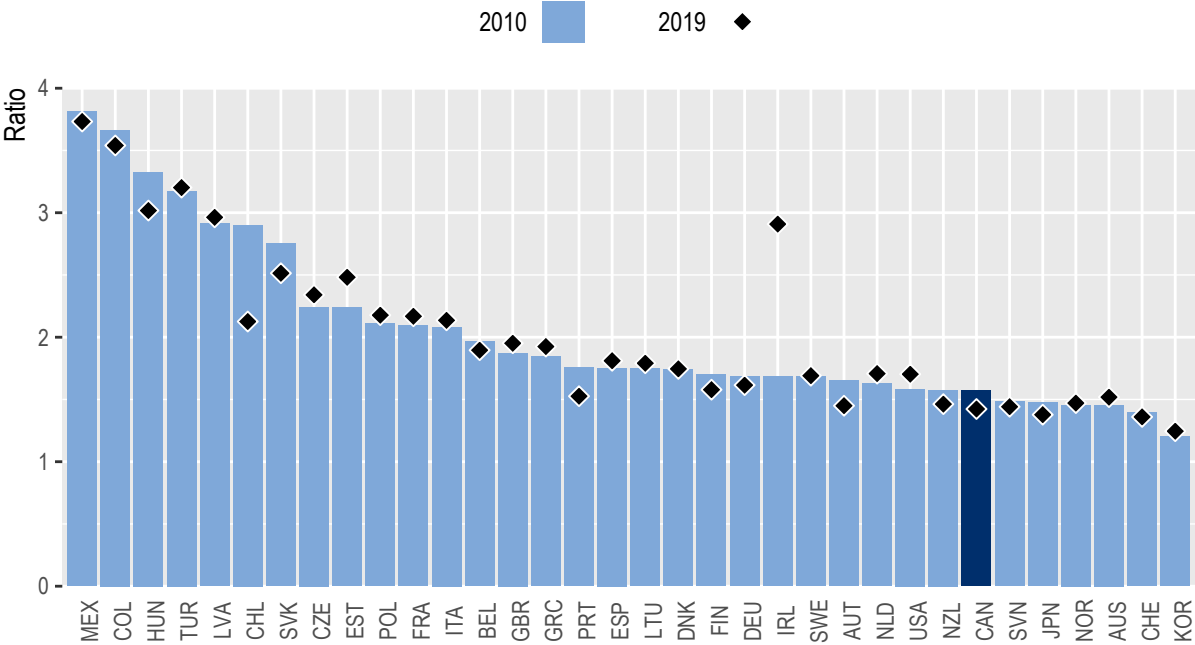


Figure 4: % change in GDP per capita in large regions, 2019-2020

Note: GDP per capita is measured in constant prices and constant PPPs, reference year 2015. Constant prices are calculated using national deflators. The OECD median corresponds to the median decline in GDP per capita observed across OECD large regions over the period.  
 Source: OECD (2022), "Regional economy", *OECD Regional Statistics* (database)

**Trends in regional economic disparities in the last decade**

Differences between Canadian regions in terms of GDP per capita have slightly decreased over the past nine years. Growth in the lagging and decline in the richer regions has driven such decrease.



**Figure 5: Index of regional disparities in GDP per capita (richest 20% relative to poorest 20% of regions)**

Note: The GDP per capita of the top and bottom 20% regions are defined as those with the highest/lowest GDP per capita until the equivalent of 20% of the national population is reached. A ratio of 2 means the richest regions have a GDP per capita twice as large as the poorest regions. The indicator is calculated using large regions, except for Latvia and Estonia, where small regions are used instead. Irish GDP underwent an [upwards revision](#) in 2016. Care is advised in its interpretation.  
 Source: OECD (2022), "Regional economy", *OECD Regional Statistics* (database)

**Productivity trends in the last decade**

Between 2010 and 2019, Manitoba and Alberta experienced the highest and lowest productivity growth in Canada, respectively. Manitoba saw a labour productivity increase of 1.4% per year, above the OECD average of 0.9%<sup>1</sup>. During the same period, Alberta experienced more modest growth in measured labour productivity, averaging 0.2% per year.

Less than half of Canadian regions experienced a decline in labour productivity between 2019 and 2020. Alberta experienced the largest decline, with a drop of 11.5%

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<sup>1</sup> International comparability in 2019 and 2020 is limited because of methodological differences in the calculation of employment counts during the height of the COVID-19 economic crisis.

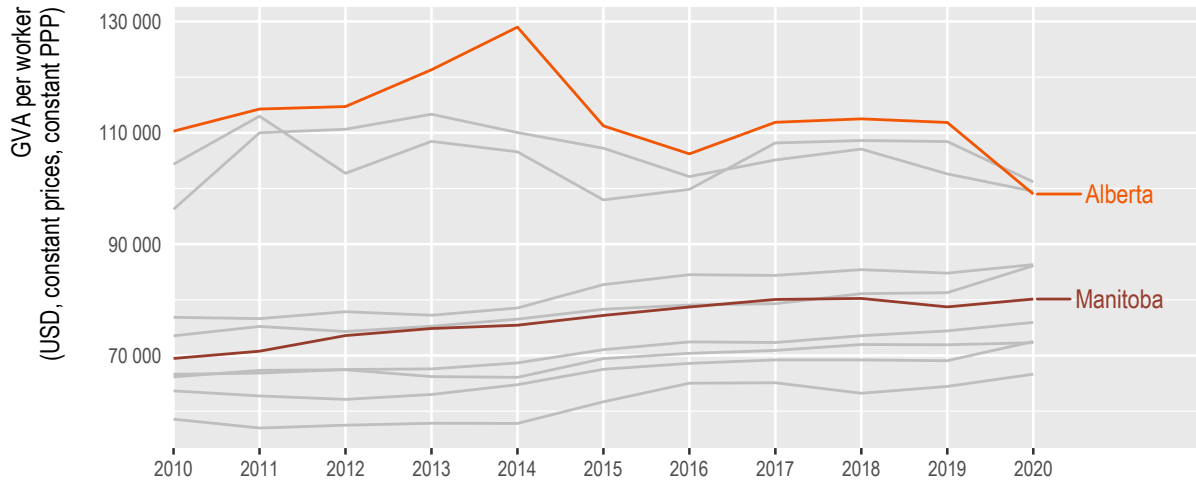


Figure 6: Regions with the highest and lowest productivity growth between 2010 and 2020

Note: Regional Gross Value Added (GVA) per worker, in USD, constant prices, constant PPP, base year 2015.  
 Source: OECD (2022), "Regional economy", *OECD Regional Statistics* (database)

## Well-being, liveability and inclusion in regions

### Regional well-being

Canada faces stark regional disparities across nine well-being dimensions, with the starkest disparities in terms of access to services, health and safety.

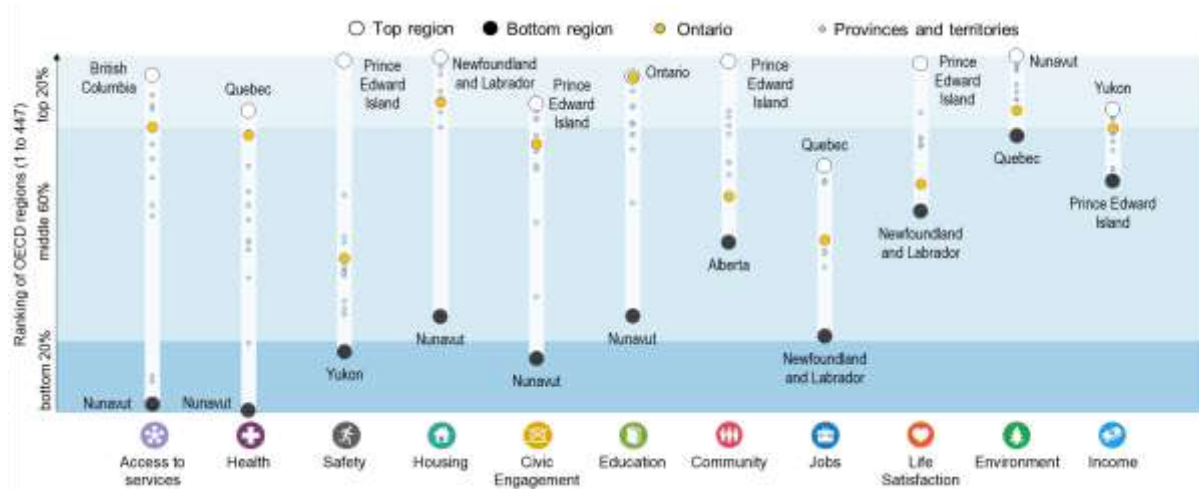


Figure 7: Regional gaps in well-being

Note: Regional indices provide a first comparative glance of well-being in OECD regions. The figure shows the relative ranking of the regions with the best and worst outcomes in the eleven well-being dimensions, relative to all OECD regions. The eleven dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Relative to other OECD regions, Canada performs best in the environment dimension, with most Canadian regions lying in the top 20% of OECD regions.

The top 20% of Canadian regions rank above the OECD median region in 13 out of 14 well-being indicators, performing best in terms of rooms per person and disposable income per capita.

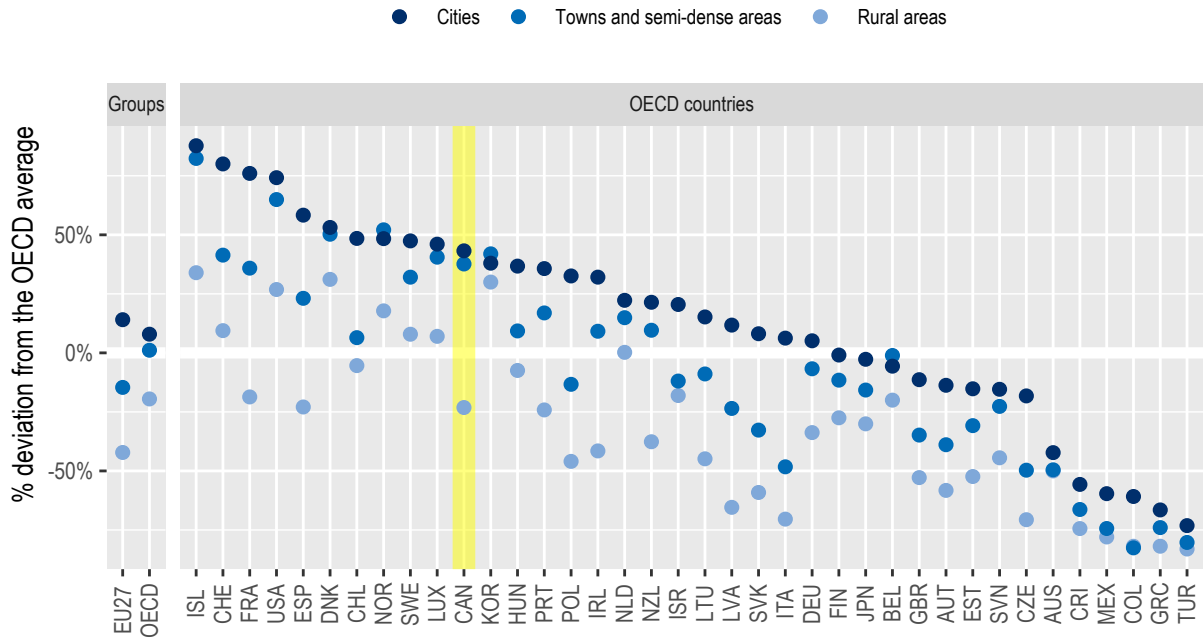
	Country average	Median OECD region	Canadian regions	
			Top 20%	Bottom 20%
<b>Access to services</b>				
Households with broadband access (%), 2019	91.0	86.0	94.5	88.1
Internet download speed: deviation from OECD average (%), 2021-Q4	+22.9	..	+39.3	+3.4
<b>Health</b>				
Life Expectancy at birth (years), 2019	82.0	80.3	82.4	80.6
Age adjusted mortality rate (per 1 000 people), 2020	7.0	8.0	6.4	8.0
<b>Safety</b>				
Homicide Rate (per 100 000 people), 2021	2.1	1.4	1.0	3.5
<b>Housing</b>				
Rooms per person, 2016	2.5	1.6	2.6	2.4
<b>Civic engagement</b>				
Voters in last national election (%), 2019	77.0	66.7	79.6	75.1
<b>Education</b>				
Population with at least upper secondary education, 25-64 year-olds (%), 2020	92.4	80.4	94.0	89.8
<b>Community</b>				
Perceived social network support (%), 2016-20	92.5	90.5	94.2	90.9
<b>Jobs</b>				
Employment rate 15 to 64 years old (%), 2021	73.2	68.5	75.5	71.1
Unemployment rate 15 to 64 years old (%), 2021	7.4	5.8	6.1	8.8
<b>Life Satisfaction</b>				
Life satisfaction (scale from 0 to 10), 2016-20	7.1	6.6	7.3	7.0
<b>Environment</b>				
Level of air pollution in PM 2.5 (µg/m³), 2020	6.6	10.8	5.2	7.7
<b>Income</b>				
Disposable income per capita (in USD PPP), 2020	25 906	20 601	28 522	23 215

Figure 8: How do the top and bottom regions fare on the well-being indicators?

Note: Regional well-being indices are affected by the availability and comparability of regional data across OECD countries. The indicators used to create the indices can therefore vary across OECD publications as new information becomes available. For more visuals, visit <https://www.oecdregionalwellbeing.org>.

### **The digital divide**

Fixed Internet connections in Canadian cities and rural areas deliver speeds significantly faster than the OECD average (43% and 23%, respectively). This gap (20 percentage points) is larger than in most other OECD countries.



**Figure 9: Speed of fixed Internet connections relative to the OECD average, by degree of urbanisation, 2021Q4**

Note: Cities and rural areas are identified according to the degree of urbanisation (OECD et al. 2021). Internet speed measurements are based on speed tests performed by users around the globe via the Ookla Speedtest platform. As such, data may be subject to testing biases (e.g. fast connections being tested more frequently), or to strategic testing by ISPs in specific markets to boost averages. For a more comprehensive picture of Internet quality and connectivity across places, see OECD (2022), *"Broadband networks of the future"*.

Source: OECD calculations based on [Speedtest by Ookla Global Fixed and Mobile Network Performance Maps](#) for 2021Q4.

The average speed of fixed Internet connections is above the OECD average in 8 out of 13 Canadian regions. Within the country, residents of Newfoundland and Labrador, Alberta and British Columbia experience the fastest connections.



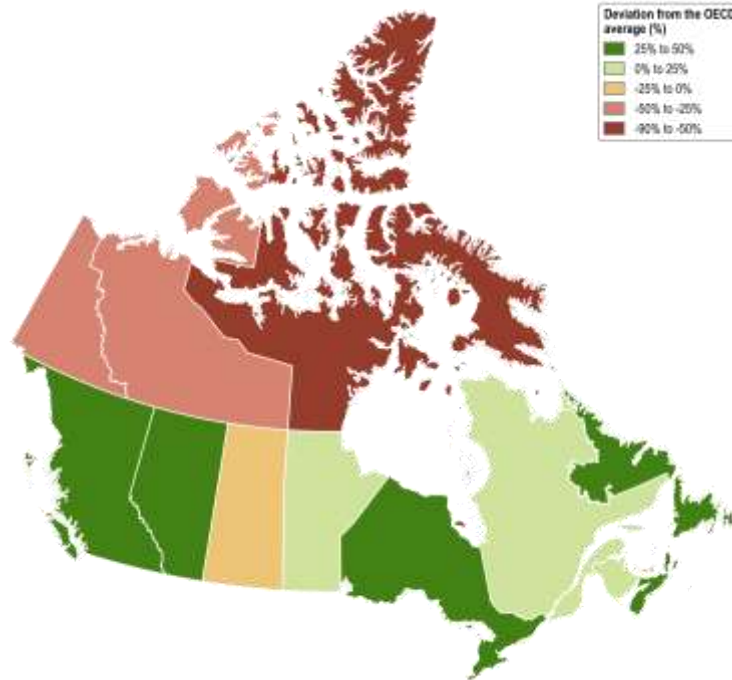


Figure 10: Speed of fixed Internet connections relative to the OECD average, in large regions (2021Q4)

### ***Relative poverty rates***

In Canada, relative poverty rates<sup>2</sup> range from 13% to 26% across regions. This 13 percentage point difference is less pronounced than the average difference observed across the 29 OECD countries with available data (16 percentage points).

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<sup>2</sup> The relative poverty rate gives the share of people – as a % of the regional population – with an income below the relative poverty line (60% of the national median income).

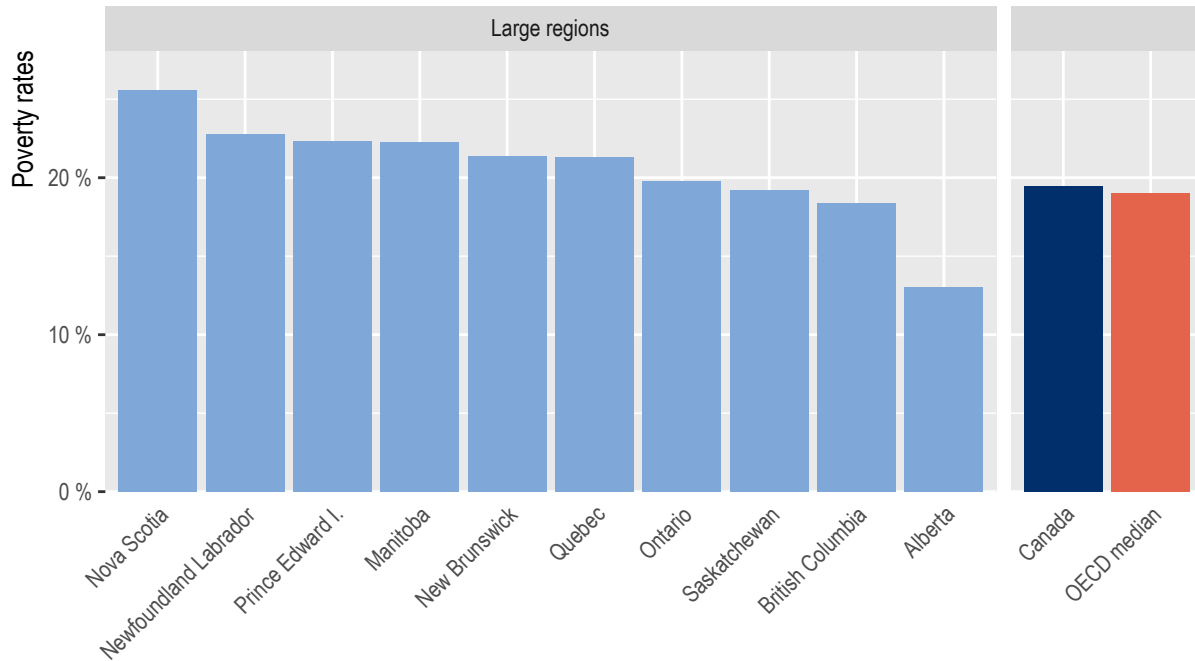


Figure 11: Relative poverty rates in 2017

Note: The OECD median gives the median relative poverty rate observed in a sample made of 326 large regions (from 28 countries), and 28 small regions (from Denmark, Lithuania and the Slovak Republic). Data corresponds to 2020 or the latest available year.

## Demographic trends in regions and cities

### **Population in cities**

Between 2010 and 2020, all cities in Canada experienced a rise in population. Population growth ranged from 0.6% per year in St Johns to 2.4% per year in Saskatoon.

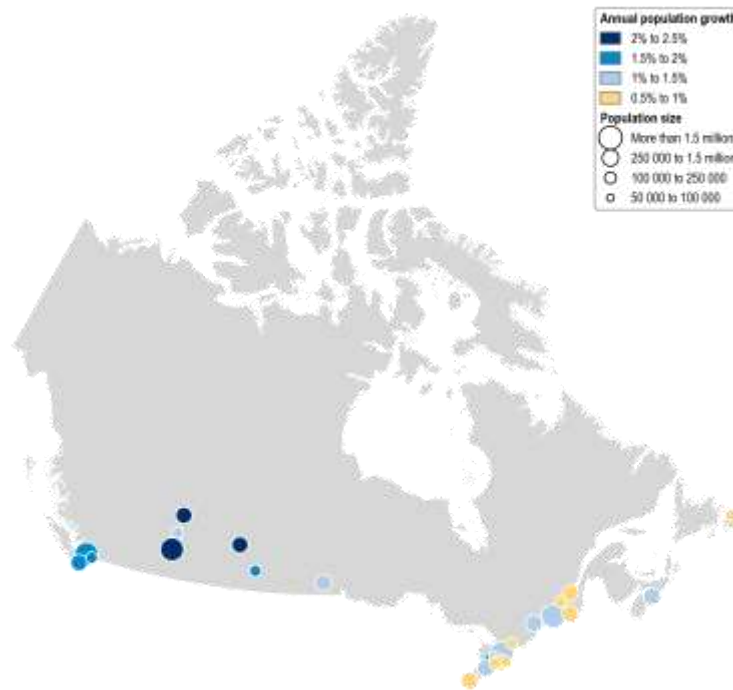


Figure 12: Population growth between 2010 and 2020

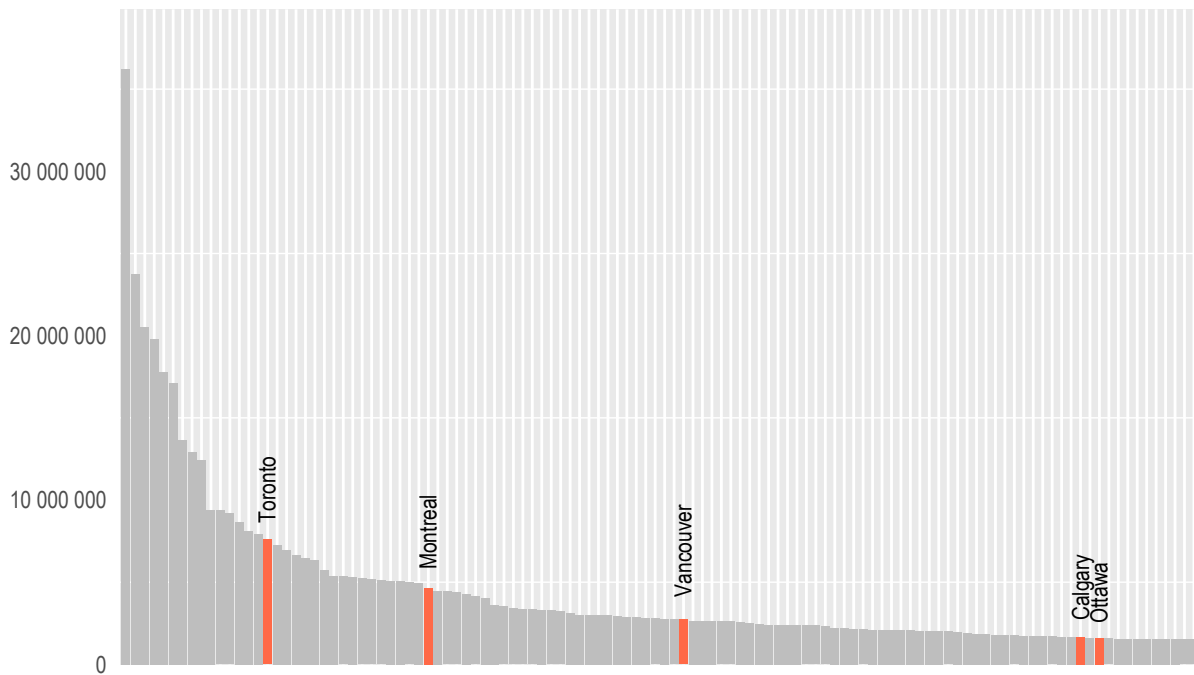


Figure 13: Population in OECD functional urban areas, 2021 or latest available year

Note: Cities refer to functional urban areas (Dijkstra, Poelman, and Veneri 2019). Population counts for the functional urban area are aggregated from administrative, municipal-level, data. For readability, only a selection of cities are labelled.

Over the past decade, the population has grown the most in Canadian cities with more than 1.5 million inhabitants. Cities with 100 000 to 250 000 inhabitants have seen their population grow, on average, but to a lesser extent.

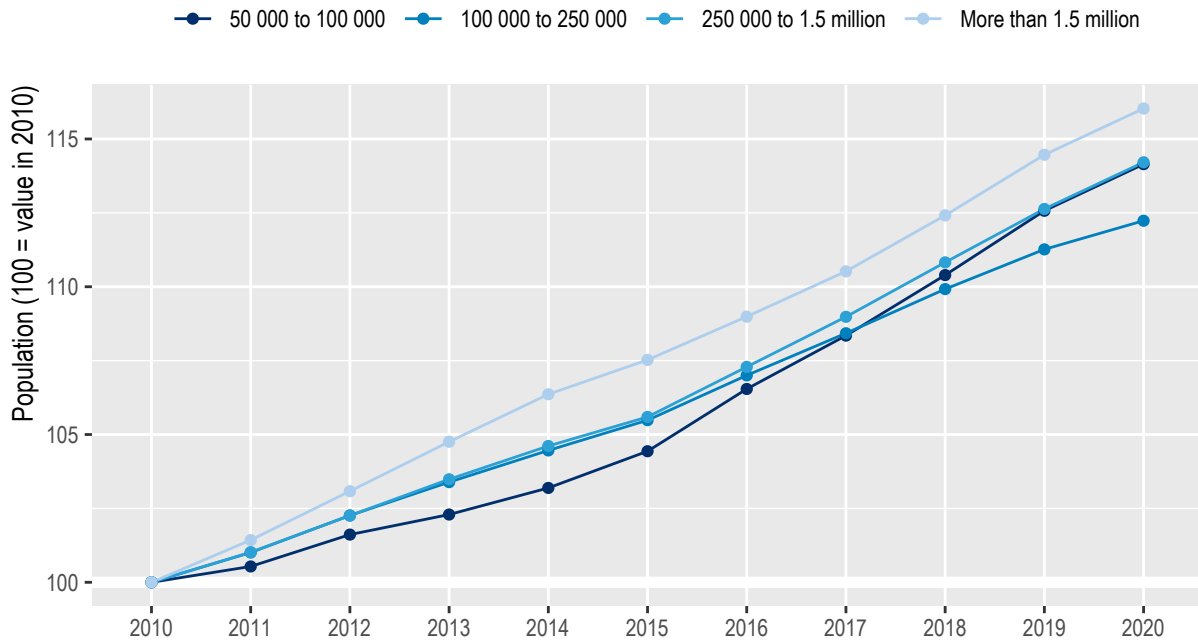
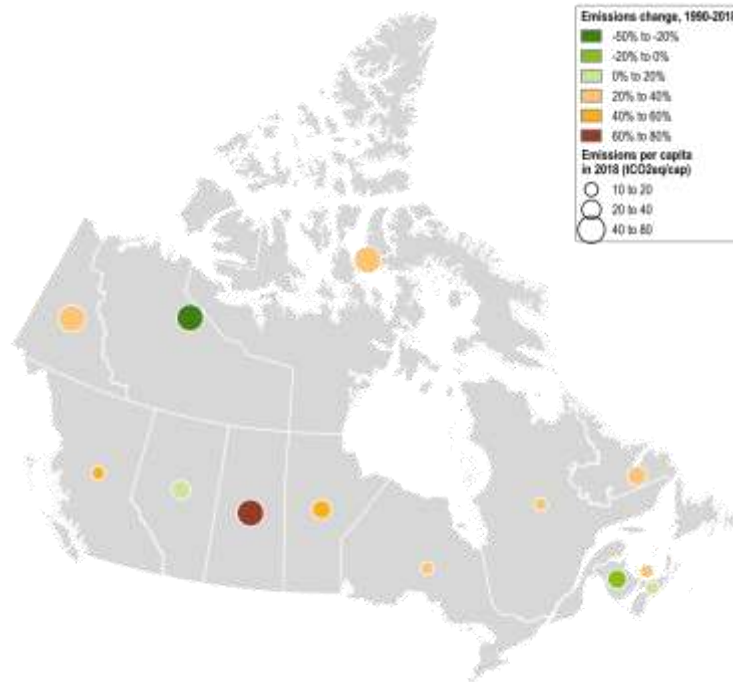


Figure 14: Population by size of functional urban area (100 = value in 2010), 2010-2020

## Environmental challenges in regions and cities

### **Greenhouse gas emissions in regions**

Since 1990, production-based greenhouse gas emissions have increased in most Canadian regions. Saskatchewan (71%) and Northwest Territories (-49%) experienced the largest increase and decrease in emissions, respectively.



**Figure 15: Change in production-based emissions in large regions, 1990-2018**

Note: Bubbles are proportional to *per capita* greenhouse gas emissions, not to the overall level of greenhouse gas emissions in the region.  
 Source: OECD calculations, based on the Emissions Database for Global Atmospheric Research (European Commission. Joint Research Centre. 2019).

In 2018, greenhouse gas emissions per capita in Canada were largest in Northwest Territories, Saskatchewan and Nunavut. Power accounts for the largest share of greenhouse gas emissions in Saskatchewan, while the transport sector accounts for most emissions in Northwest Territories and Nunavut.

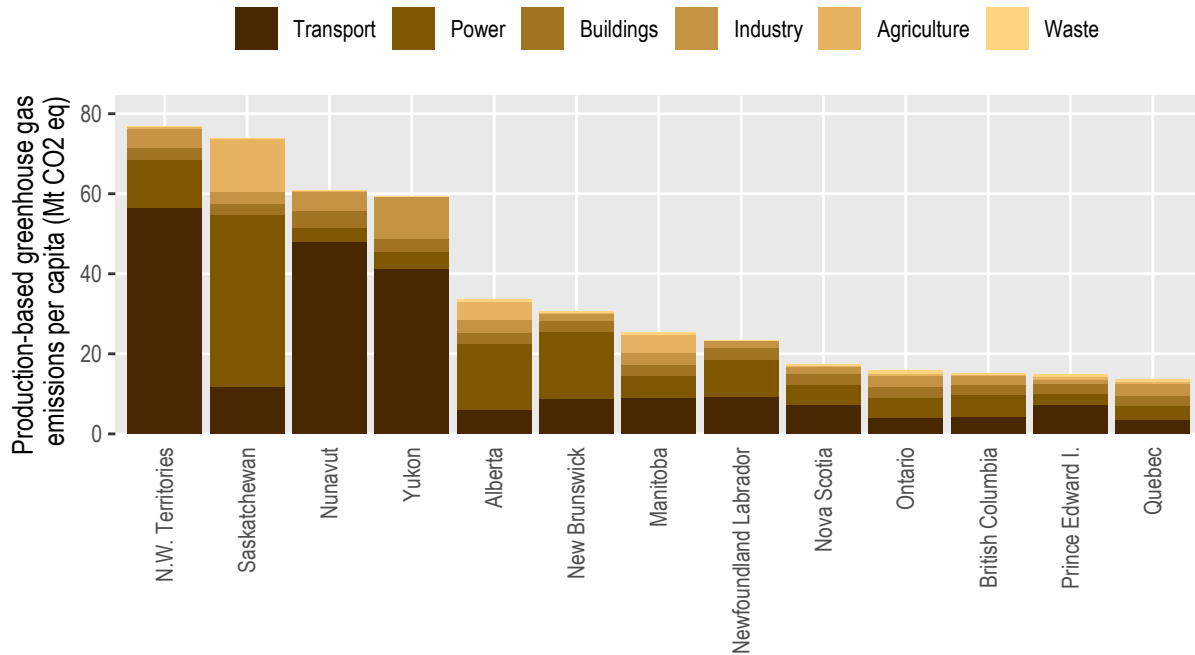
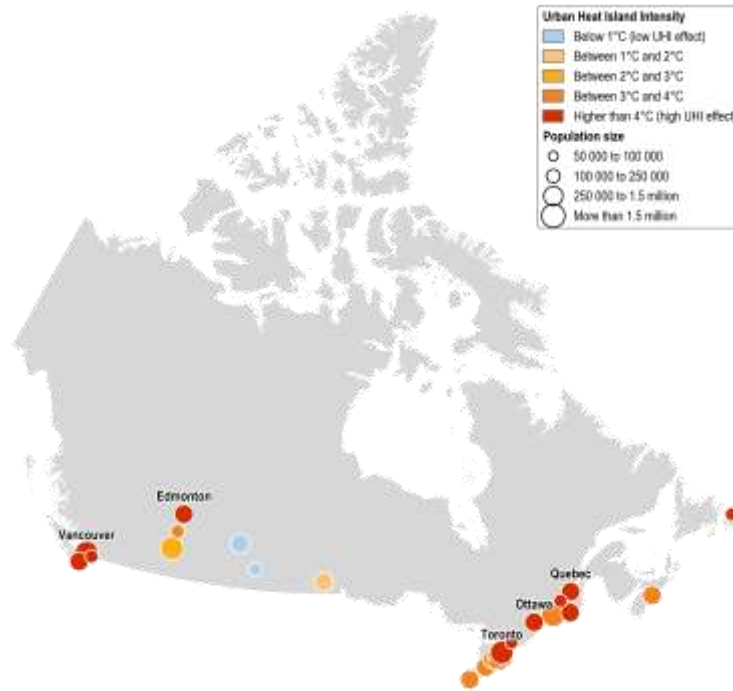


Figure 16: Production-based greenhouse gas emissions per capita in large regions, 2018

Note: Regions with low population counts may rank high in greenhouse gas emissions per capita while contributing relatively little to overall emissions in the country.

### Urban heat island effect

In Canadian cities, the difference in temperature between cities and their surrounding areas (i.e. urban heat island intensity) reaches 3.9 degrees Celsius (°C). The largest effect is observed in Toronto and Abbotsford, two cities that are, on average, 6.3°C and 6°C warmer than their surrounding areas, respectively.



**Figure 17: Urban heat island intensity index, 2021**

Note: The Urban Heat Island Intensity (UHI) index is defined as the difference in land surface temperature between built-up areas and non-built-up areas within functional urban areas. This index can be affected by the type of vegetation and climate in non-built-up areas.

Source: OECD calculations, based on land surface temperature data from NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) (Wan, Hook, and Hulley 2021a, 2021b)

## References

Source of administrative boundaries: © OECD, © EuroGeographics, National Statistical Offices, © UN-FAO Global Administrative Unit Layers (GAUL)

Dijkstra, Lewis, Hugo Poelman, and Paolo Veneri. 2019. "The EU-OECD Definition of a Functional Urban Area." <https://doi.org/10.1787/d58cb34d-en>.

European Commission. Joint Research Centre. 2019. *Fossil CO2 and GHG emissions of all world countries: 2019 report*. LU: Publications Office. <https://doi.org/10.2760/687800>.

Fadic, Milenko, José Enrique Garcilazo, Ana Moreno Monroy, and Paolo Veneri. 2019. "Classifying Small (TI3) Regions Based on Metropolitan Population, Low Density and Remoteness." <https://doi.org/10.1787/b902cc00-en>.

OECD. 2022. "Broadband Networks of the Future," no. 327. <https://doi.org/10.1787/755e2d0c-en>.

———. 2022. "Regional and Metropolitan Databases." <http://dx.doi.org/10.1787/region-data-en>.

OECD, The European Commission, Food, Agriculture Organization of the United Nations, United Nations Human Settlements Programme, International Labour Organization, and The World Bank. 2021. *Applying the Degree of Urbanisation*. <https://doi.org/10.1787/4bc1c502-en>.

Wan, Zhengming, Simon Hook, and Glynn Hulley. 2021a. "MODIS/Aqua Land Surface Temperature/Emissivity Daily L3 Global 1km SIN Grid V061." NASA EOSDIS Land Processes DAAC. <https://doi.org/10.5067/MODIS/MYD11A1.061>.

———. 2021b. "MODIS/Terra Land Surface Temperature/Emissivity Daily L3 Global 1km SIN Grid V061." NASA EOSDIS Land Processes DAAC. <https://doi.org/10.5067/MODIS/MOD11A1.061>.