How's Life in Your Region?

MEASURING REGIONAL AND LOCAL WELL-BEING FOR POLICY MAKING

OECD

OECD Better Life Initiative

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BETTER POLICIES FOR BETTER LIVES

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Foreword

Our day-to-day experience of life is essentially local. Whether people can find a job, a good school for their children or adequate healthcare depends on where they live. The availability of opportunities and access to quality public services increasingly influence people's choice of location.

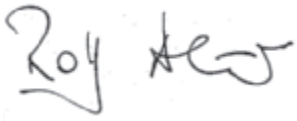
Expanding on the OECD Better Life Initiative, *How's Life in Your Region?* looks closely at people's daily experiences. It builds on the extensive statistical work on regional inequalities presented in *OECD Regions at a Glance* to provide a wider range of measures of social progress in OECD regions.

Following the launch of the OECD Regional Well-Being web tool, this report presents a common framework for measuring well-being at the regional level. It paints a comprehensive picture of well-being in 362 regions across 34 countries, covering 9 dimensions of life – income, job, housing, education, health, access to services, environment, safety and civic engagement – measured through a set of internationally comparable outcome indicators. These indicators show that well-being outcomes can differ largely between regions across OECD countries. For example, eight out of ten Japanese regions have a life expectancy of 82.7 or more years, around 12 years longer than some regions in Mexico and Turkey, and ranking among the top 5% of OECD regions. But differences can also be large within countries: people in Hawaii (United States) can expect to live six years longer than those in Mississippi. Regional disparities in well-being also have an impact on national performance. For example, countries with larger regional disparities in education, health, jobs and key services register lower well-being outcomes at the national level.

The report offers guidance for all levels of government in using well-being measures to improve today's lives and tomorrow's opportunities. Drawing from a variety of practical experiences in OECD regions and cities, the report includes an in-depth analysis of seven regional initiatives. It discusses methodological and political solutions for aligning policy objectives across levels of government, and it invites dialogue among all stakeholders, engaging citizens to promote social change.

This report can help upgrade the discussion on what matters most to people and on how to improve the lives of current and future generations. Well-being indicators provide indications to policy makers on which policy areas need improvements. Moreover, the comprehensive picture of material conditions and quality of life in a region allows us to understand whether economic growth translates into better non-economic outcomes and to identify possible synergies among well-being dimensions that policies can leverage. Income levels and availability of jobs are certainly important factors for well-being, but so are other dimensions which are covered by the data base. Information on each of these dimensions and their combination in each region allows a better understanding of where policy interventions may be required to ensure synergies and coherence among them. The

OECD will continue to assist governments and citizens in implementing policy solutions that better match realities to people's aspirations.



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Reader's guide

For some figures, ISO countries codes are used

AUS	Australia	**FRA**	France	**NLD**	Netherlands
AUT	Austria	**GBR**	United Kingdom	**NOR**	Norway
BEL	Belgium	**GRC**	Greece	**NZL**	New Zealand
CAN	Canada	**HUN**	Hungary	**POL**	Poland
CHE	Switzerland	**IRL**	Ireland	**PRT**	Portugal
CHL	Chile	**ISL**	Iceland	**SVK**	Slovak Republic
CZE	Czech Republic	**ISR**	Israel	**SVN**	Slovenia
DEU	Germany	**ITA**	Italy	**SWE**	Sweden
DNK	Denmark	**JPN**	Japan	**TUR**	Turkey
ESP	Spain	**KOR**	Korea	**USA**	United States
EST	Estonia	**LUX**	Luxembourg		
FIN	Finland	**MEX**	Mexico		

Maps and data

- This report is based on data provided by national institutes of statistics. Indicators on unmet medical needs are based on a number of household and individual surveys (the European Survey on Income and Living Conditions – EU-SILC – for most European countries; the *Encuesta de Caracterización Socioeconómica Nacional* – CASEAN – for Chile; the the *Encuesta Nacional de Salud y Nutrición* – ENSANUT – for Mexico). Authors acknowledge the respective authorities providing the data, but remain solely responsible for all the work carried out for this report.
- The estimates on the average regional level of air pollution ($PM_{2.5}$) are derived from the computation of satellite-based observations in Van Donkelaar, A., R.V. Martin, M. Brauer and B.L. Boys (2014), "Global fine particulate matter concentrations from satellite for long-term exposure assessment", *Environmental Health Perspectives*, forthcoming.
- The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Acronyms and abbreviations

ABS	Australian Bureau of Statistics
BES	Equitable and sustainable well-being
CASEN	National Socio-Economic Survey of Chile
CBS	Central Bureau of Statistics (Netherlands)
CIW	Canadian Index of Well-Being
CMA	Census Metropolitan Area
CSD	Census subdivision
CSO	Civil society organisation
EC	European Commission
ENOE	National Survey of Employment (Mexico)
ENSANUT	National Health and Nutrition Survey (Mexico)
ENVIPE	Survey on Victimisation and Perception of Public Safety (Mexico)
EPA	Environmental Protection Agency (United States)
EU	European Union
EU-SILC	European Survey on Income and Living Conditions
GDP	Gross domestic product
GIS	Geographical information system
GVA	Gross value added
HANNN	Healthy Ageing Network of the North of the Netherlands
HDI	Human Development Index
HSM	Hotspot Monitor
ICT	Information and communications technology
IDMS	Multiple Deprivation Index of the Sardinian municipalities
IMD	Indices of Multiple Deprivation (United Kingdom)
INEGI	National Institute of Statistics and Geography (Mexico)
ISH	Index of Social Health
Istat	National Institute of Statistics (Italy)
MAP	Measures of Australia's Progress

NEET	Neither employed nor in education or training
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OGD	Open Government Data
ONS	Office of National Statistics (United Kingdom)
PED	State Development Plan (Mexico)
PIIAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Students Assessment
PM	Particulate matter
PSC	Partnership for Sustainable Communities (United States)
RUP	Regional Development Plan (Denmark)
SAMPLE	Small Area Methods for Poverty and Living Condition Estimates
SEIFA	Socio-Economic Indexes for Areas (Australia)
SMDR	Severe material deprivation rate
SMEs	Small and medium-sized enterprises
TL2	Territorial level 2
TL3	Territorial level 3
UNECE	United Nations Economic Commission for Europe
WARM	Well-being and resilience measure
WHO	World Health Organization

Executive summary

Everybody wants to enjoy a good life where they live, so measuring their daily experience may feel more meaningful to them than a national average. A full picture of the economy and society must embrace what people value about their immediate living conditions, how they behave when their expectations are unmet, and how local services contribute to improved job opportunities and healthier lives. Regional indicators of well-being help capture whether recovery and prosperity translate into better lives for all.

Regions can use well-being indicators for many purposes, according to their specific priorities and needs. These indicators can help regions identify their relative strengths and weaknesses in well-being, monitor trends and compare them with those in other places. They can also raise awareness on specific well-being challenges. Finally, they can guide policy prioritisation, reflecting what matters most to citizens.

A common framework for measuring regional well-being based on nine dimensions.

How's Life in Your Region? offers a common framework for measuring people's well-being at regional level. The framework has been designed to improve policy coherence and effectiveness by looking at nine dimensions that shape people's material conditions (income, jobs and housing) and their quality of life (health, education, environment, safety, access to services and civic engagement). These nine dimensions derive from both characteristics of individuals and those of each specific territory. They are best gauged through indicators of real outcomes rather than inputs or outputs.

Measuring these nine dimensions through a set of comparable indicators in 362 regions across 34 OECD countries shows that well-being outcomes materialise in very different ways across places. Differences in well-being are often greater among regions within the same country than they are across different countries. For example, the gap in the labour force's educational attainments between the Basque Country and Andalusia is similar to the difference between Spain and Sweden. Such regional disparities can increase welfare costs, jeopardise social cohesion and undermine national performance. Countries with larger regional disparities in jobs, education and access to services register lower well-being outcomes at country level as well.

Better balance across well-being outcomes could help improve regional resilience.

A more equal distribution of well-being outcomes can affect people's lives and might play a role in enhancing regional resilience. Regions with lower income inequalities have on average experienced relatively higher growth rates of gross domestic product (GDP) per capita over the last ten years, and particularly since the economic crisis. However, both the average of well-being outcomes in regions and their distribution vary

significantly. New data on income inequality at sub-national level, for example, show that income inequalities are on average higher in large cities.

Regions have different capacities to change their well-being outcomes over time and different leverage on the various dimensions of well-being. While jobs outcomes can change in just a few years, other dimensions, such as safety and education, imply longer term investment. For example, more than 80% of OECD regions in the bottom quintile for safety and 90% of those in the bottom quintile for education in 2000 were still there in 2013.

The regional well-being framework reveals that different dimensions of well-being can work against each other or reinforce each other. Accounting for complementarities and trade-offs across dimensions helps improve policy coherence. Citizens can influence the design and implementation of the policy mix through the quality of local governance and institutions.

Guidance for implementing a regional well-being strategy.

Regions and cities that want to adopt a well-being strategy to improve current living conditions and future opportunities for their citizens should consider the following steps:

- Translate well-being objectives into policy-relevant indicators. Regional well-being measurement needs to be clearly linked to regional policy objectives that are aligned across and within levels of government.
- Select indicators. A deliberative consultation process should be set up to focus on a limited set of key indicators that reflect local priorities and assets, as underlined in the OECD Regional Well-Being Framework.
- Identify baselines and expected results. Establishing a clear starting point and a range of targets to be achieved helps frame the course of public action around a transparent timeline and intermediate milestones.
- Monitor progress and assess the potential of different places. Regional well-being indicators provide a tool for tracking change over time and identifying the specific assets for development in different communities.
- Foster citizen engagement and communicate results. Engaging citizens from an early stage of the measurement initiative builds momentum for action, facilitates policy adjustments when necessary, and increases accountability and trust.

Chapter 1

A framework for measuring regional and local well-being

This chapter presents a framework for measuring well-being in regions and cities, closer to what people experience on a daily basis. Each section of the chapter explains one of the seven characteristics of the framework for measuring well-being where people live: a shift in the focus from aggregate economic measures to a combination of people's individual attributes and their local conditions; a focus on expected results measured by outcome indicators; a multi-dimensional approach that encompasses material conditions and quality of life characteristics; and an assessment of how well-being outcomes are distributed in regions and the impact on national well-being. The last three features of the framework concern aspects to enhance the design and the consistency of policies that improve people's lives: the role of citizenship, governance and institutions on well-being; the assessment of how different dimensions of well-being (income, jobs, housing, education, health, environment, safety, civic engagement and access to services) interact in different regions; and the link between today's well-being outcomes and tomorrow's opportunities for people and the resilience of regions.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Why measure well-being on a regional level?

Many of the factors that influence people's well-being come into play on the local level. Employment, access to education, quality of the environment and levels of public safety, for example, differ from one community to the next. Differences among regions within a country can be just as important as differences among countries (OECD, 2013a). In recent years, a consensus has emerged that macroeconomic statistics alone fail to accurately account for people's current well-being and their aspirations, and new evidence is called for on a wide range of aspects of citizens' living conditions (OECD, 2011a). A truly complete picture of economies and societies must include what people value about their local conditions, how they behave when they are not satisfied with certain aspects of their life, whether access to services shapes citizens' choices, and how well-functioning infrastructure and public services contribute to healthier lives and improved job opportunities. Measures of regional well-being may thus contribute to capturing the differences in well-being outcomes that are hidden in national averages.

For the first time, this report brings evidence on well-being outcomes in 362 regions across 34 OECD countries. Data at the sub-national level are often not as extensive as they are at the national level. However, the overview of regional well-being geography presented here can help regions benchmark themselves with the rest of their country and with regions that have similar strengths and challenges. It can also improve the credibility of statistics as people recognise their situation more easily when indicators refer to their own community. Moreover, regional well-being indicators help assess the impact of local performances on national prosperity and broader social challenges.

Understanding people's level of well-being and what determines it where it is lived is a crucial part of gearing public policies towards better achieving society's objectives. Policies to promote growth, jobs, equity and environmental sustainability have greater impact when they take into account the economic and social realities of where people live and work. Many of the important interactions among sectoral policies are location-specific. The determinants of school dropout rates, for example, can vary between rural and urban locations, between cities and even between neighbourhoods in the same city. Policy makers can more easily identify potential synergies among different strands of policy, and manage the trade-offs where they occur, in specific places (OECD, 2011b). Multi-dimensional measures of well-being that take into account the assets of specific places can help build coherent policies across sectors and in turn achieve better outcomes.

While national governments have had to rethink how to harness the potential of different types of cities and regions to improve living conditions and prepare for the future (OECD, 2013c), regional and local governments also have important responsibilities in many of the policies that bear most directly on people's lives. Many regions and cities have started developing metrics to monitor their progress towards shared objectives and to guide policy. These initiatives may differ in terms of their goals, methods and choice of indicators – but they commonly focus on developing a multi-dimensional system of indicators and better reflecting the synergies among different dimensions of well-being. Using fine-grained measures of well-being can help policy makers focus their efforts and enhance the effectiveness of public intervention at a time of constrained public resources (Box 1.1). Co-ordination among the different levels of government and engagement of citizens are key elements for any regional well-being strategy. Well-being indicators empower citizens to demand actions that respond to their

specific expectations and, in due course, help restore trust in the capacity of public institutions to address pressing challenges.

Box 1.1. How can measuring regional well-being improve policy making?

Well-being metrics can improve the design and delivery of policies in regions and cities in four respects.

First, they provide a comprehensive picture of material conditions and quality of life in regions, making it possible to assess whether economic growth translates into better non-economic outcomes (health, environmental quality, education, etc.) and whether progress is shared across population groups and places. Spatial concentration of advantages or disadvantages varies sharply according to the different territorial scales, and different sources of inequality can reinforce one another, locking households and communities into circumstances that make it particularly hard for them to improve their life chances.

Second, regional well-being metrics can raise social awareness of policy objectives or specific issues, promote change and increase governments' accountability.

Third, they can help prioritise policy measures, pinpointing where improvements are needed. Knowledge of local conditions can also help policy makers identify potential synergies that policies can leverage and better understand citizens' preferences.

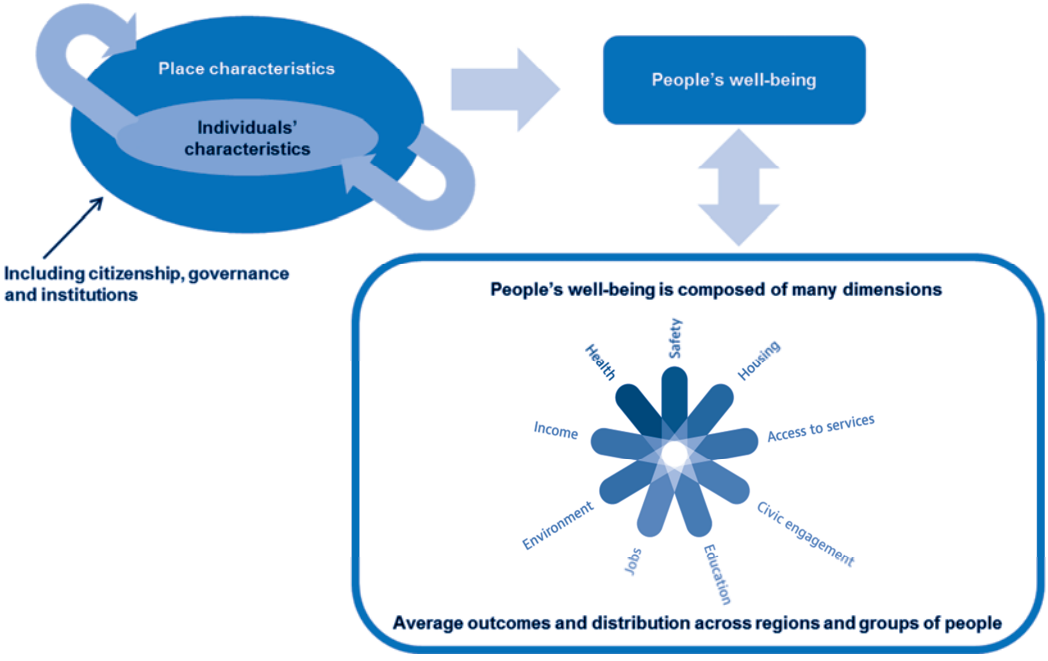
Fourth, regional well-being metrics can improve policy coherence. The complementarities among different strands of policy are likely to be most evident – and the trade-offs among them most readily manageable – in specific places. For instance, integrating land-use, transport and economic development planning can contribute to outcomes that are greener (increasing reliance on public transport), more equitable (improving access to labour markets for disadvantaged areas) and more efficient (reducing congestion, commuting times, etc.). More coherent policies can be designed and implemented through effective co-ordination across different levels of government and jurisdictions. Policy makers also need to engage citizens in policy design (to understand their needs), and implementation (to use citizens' capacity to bring change), which, in turn, can increase the legitimacy of policies and public support of policy objectives. Designing coherent policies requires policy makers to consider the trade-offs and complementarities involved in both the objectives they hope to target and the channels employed.

This chapter presents a framework for measuring regional and local well-being. Each section of the chapter explains one of the seven characteristics of the framework for measuring well-being where people live. The first four characteristics of the framework are: a shift in the focus from aggregate economic measures to a combination of people's individual attributes and their local conditions; a focus on expected results measured by outcome indicators; a multi-dimensional approach that encompasses material conditions and quality of life characteristics; and an assessment of how well-being outcomes are distributed in regions and the impact on national well-being. The last three features of the framework concern aspects to enhance the design and the consistency of policies that improve people's lives: the role of citizenship, governance and institutions on well-being; the assessment of how different dimensions of well-being (income, jobs, housing, education, health, environment, safety, civic engagement and access to services) interact in different regions; and the link between today's well-being outcomes and tomorrow's opportunities for people and the resilience of regions.

A framework for measuring regional well-being

The framework for measuring regional and local well-being starts with understanding what matters to people and how local conditions have an impact on people's well-being. Measuring well-being is a complex task, comprising a variety of dimensions, including having a good job, enjoying social relations with other people, living in a safe neighbourhood, and so on. Some of these dimensions of well-being are linked to the characteristics of individual citizens, while others have more to do with the region they live in. The combination of the two affects overall well-being. Policies that take into account regional differences, beyond national averages, can therefore have a greater impact on improving the well-being of the country as a whole. To promote social change in a region, the choice of the well-being metrics needs to reflect the relevance of the various dimensions for citizens and policy makers in the region, the interactions among these well-being dimensions, and whether different groups of people and places enjoy different levels of well-being (Figure 1.1).

Figure 1.1. **A regional well-being conceptual framework**



The OECD framework for measuring regional and local well-being has seven distinctive features, which will be presented in this chapter:

1. It measures well-being where people experience it. It focuses both on individuals and on place-based characteristics, as the interaction between the two shapes people's overall well-being.
2. It concentrates on well-being outcomes that provide direct information on people's lives rather than on inputs or outputs.
3. It is multi-dimensional and includes both material and non-material dimensions.

4. It assesses well-being outcomes not only through averages but also by how they are distributed across regions and groups of people.
5. It is influenced by citizenship, governance and institutions.
6. It takes account of complementarities and trade-offs among the different well-being dimensions.
7. It looks at the dynamics of well-being over time, at its sustainability and at the resilience of different regions.

The OECD framework has identified nine dimensions of well-being, including material conditions (income, jobs and housing) and quality of life (education, health, environment, safety, civic engagement and access to services). These dimensions closely follow the ones developed in the OECD Better Life Initiative and reflect the priorities expressed by the countries themselves. Following a practical approach, these are also measurements for which internationally comparable indicators have been developed at the sub-national level. The set of indicators presented in Chapter 2 should be considered a starting point for understanding well-being outcomes in different regions and it can serve as a common reference for regions that aim to develop their own metrics of well-being. At the same time, well-being indicators may serve regions of different demographic, political and economic composition, and thus need to be adapted according to each region's objectives. The availability of indicators that are comparable across regions and countries is not only useful for benchmarking the relative position of a region, but can also act as a catalyst for policy makers, to cultivate support for action and create a mechanism for prioritising public resources.

The framework for measuring regional and local well-being builds on two strands of OECD work. First, the Better Life Initiative has provided a framework to measure well-being through a multi-dimensional approach, expanding on the work of the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz et al., 2009) and the OECD-hosted Global Project on Measuring the Progress of Society (Box 1.2). Second, the *OECD Regions at a Glance* series has demonstrated that most OECD countries display regional disparities in terms of jobs, income and quality of life (OECD, 2013a). In theory, inter-regional mobility of production factors should keep disparities among regions low in the long run, but in practice, disparities can also occur when barriers to mobility are not substantial, since small exogenous differences in terms of geographical advantages or skill composition, for example, can generate large disparities in income and productivity (Rice and Venables, 2003). The economic advantages of agglomeration can also play a role in generating regional differences in productivity and income (Midelfart, 2004). Significant differences in access to basic and advanced services such as transport, water and sanitation, education, health and information and communications technology (ICT) influence the opportunities available. Equality of opportunity demands that the socio-economic prospects of individuals not be affected by factors beyond their control, such as their place of birth (Roemer, 1998). People-centred policies should thus reflect the interplay of locational and individual determinants of well-being (for example, in the instance of crime and personal security).

Sub-national data offer a clearer picture of how life is lived than national averages do, allowing people to recognise their own experience more easily. A closer look at regional data shows that well-being in a region may differ widely according to the dimension considered. No country appears to have regions that enjoy simultaneously high or low levels of well-being in every dimension (Figure 1.2). Instead, the geography of well-being

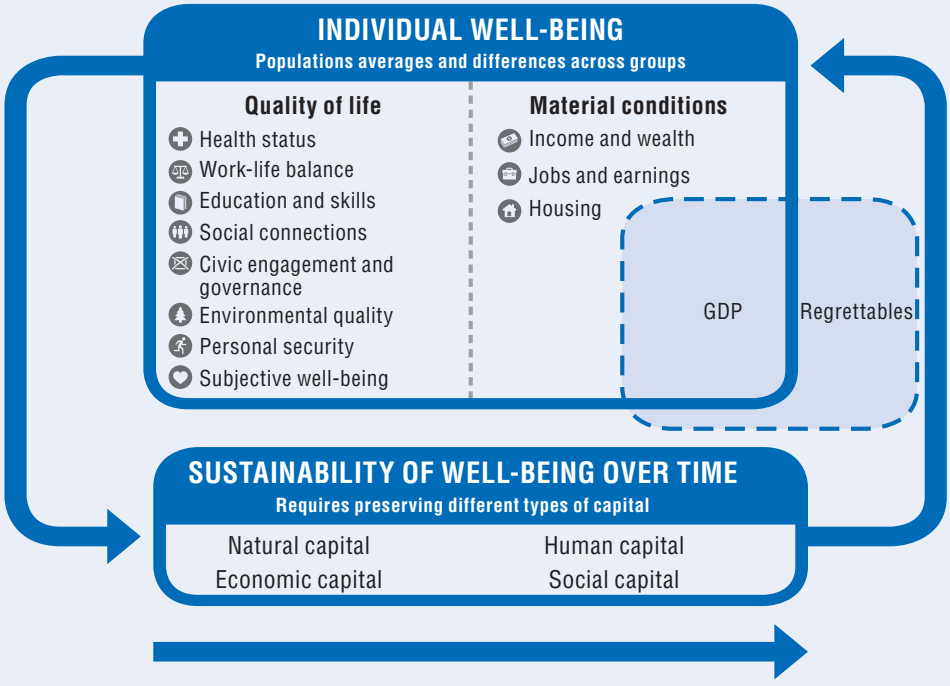
in OECD countries shows complex interactions among the dimensions. The multi-dimensional approach to well-being, applied to each specific region, allows for a better grasp of the balance among the various factors, and possible synergies across the policies corresponding to them. For instance, a region may enjoy a satisfactory level of employment but suffer from poor environmental conditions; in another region, an increase in public transport may improve job outcomes, making it easier to commute to work, as well as improve air quality.

Box 1.2. **OECD Better Life Initiative**

The OECD Better Life Initiative combines OECD work on well-being, including the publications *How's Life?* (OECD, 2011a; 2013b) and the interactive web tool, the Better Life Index, which identify dimensions that play a role in individuals' well-being and provide a set of indicators to measure them, allowing cross-country comparisons.

The OECD Better Life Initiative at national level distinguishes between current and future well-being. The former is measured in terms of outcomes achieved in two broad domains: *i)* material conditions; and *ii)* quality of life. Future well-being is assessed by looking at different types of capital (see figure below). This framework has four distinctive features: *i)* it focuses on people rather than on the economy; *ii)* it concentrates on well-being outcomes; *iii)* it considers the distribution of well-being in the population alongside the average outcomes; and *iv)* it looks at both objective and subjective aspects (personal assessments of life circumstances) of well-being (OECD, 2013b). The publications *How's Life?* (OECD, 2011a; 2013b) provide a compendium of well-being indicators to measure 11 dimensions in OECD countries and, where possible, in non-OECD countries.

The OECD Better Life Initiative conceptual framework

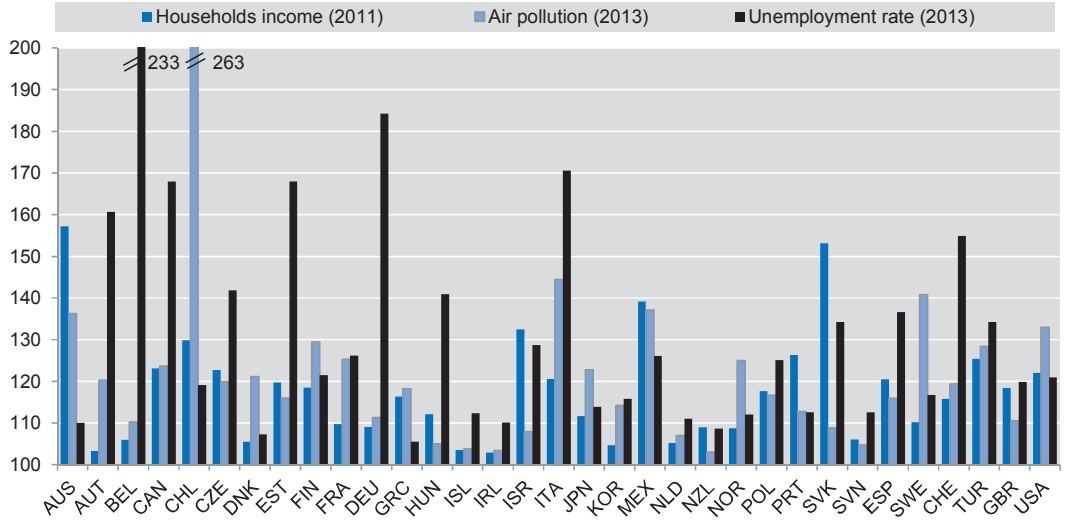


Source: OECD (2011), *How's Life? Measuring Well-Being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

Data on disparities among and within regions might also capture the well-being of groups of people more accurately than national data do, especially when these groups are not distributed evenly across space. For example, health outcomes are likely to be influenced by the demographic characteristics of rural and urban populations. Spatial analysis may also help shed light on how people's perception of inequalities influences their subjective well-being. Evidence shows that individuals assign great importance to the inequalities they experience in their local living context when assessing their own well-being and forming expectations about returns of education and skills, and prospects for individual mobility (Alesina et al., 2004; Graham and Felton, 2006).

Figure 1.2. **Highest regional values in income, air pollution and unemployment rate by country**

Ratio between the top 20% regional values and national average (national average=100), latest available years



StatLink http://dx.doi.org/10.1787/888933120936

Note: The indicators are average household income in the region, unemployment rate and estimate of the average level of particulate matter ($PM_{2.5}$) in the region, weighted by the population exposed to the different levels of air pollution. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014,) Regional Well-Being (database), http://dx.doi.org/10.1787/region-data-en.

Over the past few years, many national initiatives for measuring well-being have included measures of disparities across regions (Box 1.3). A focus on achieving results through the use of comprehensive sets of well-being metrics is also one of the innovations in the European Cohesion Policy for the programming period 2014-20 (European Commission, 2014). Countries and regions receiving European Cohesion Funds are required to outline the expected results in the strategic documents, and identify indicators to measure these results and possible actions to achieve them (see Chapter 3, Box 3.7).

The following sections present the main traits of each of the seven defining features of the OECD Regional Well-Being Framework.

Box 1.3. National and international initiatives on measuring well-being at sub-national level

Several initiatives have been undertaken to assess well-being at the territorial level. While the approaches and data used may be very different, these initiatives show efforts at country level to go "beyond GDP" and beyond national averages (or "beneath GDP") to provide a more precise picture of a country's well-being for national and local policy. Recent initiatives that aim to cover the entire country, and not only selected regions, include:

- Australia: In 2011, the Australian Bureau of Statistics (ABS) published "Measures of Australia's Progress" (MAP) as its national framework for assessing the nation's aspirations for a better society. An extensive consultation and review was undertaken to decide on the main dimensions (society, economy, governance and environment) and the themes that underpin this framework. A chapter that provides regional data within this approach was included in the 2013 edition of the MAP. Moreover, a Regional Well-Being Survey of residents living in Australia's rural and regional areas was conducted by the University of Canberra in 2013. It examines the well-being of people in rural and regional communities, and how well-being is influenced by the social, economic and environmental changes occurring in these communities.
- The Australian Centre of Excellence for Local Government has produced the *Community Well-Being Indicators: Measures for Local Government* report. The report is policy oriented and aims to help local councils better evaluate the progress of community well-being and strengthen local government's capacity and accountability, using well-being data.
- Belgium: In 2013-14, the Walloon Institute for Evaluation, Prospective and Statistics (IWEPS) developed an Index of Conditions of Well-Being for the 262 municipalities of Wallonia. The work was conducted as part of broader research on indicators complementary to GDP and the well-being dimensions were derived from consultations with citizens. More than 1 200 Walloon citizens were consulted on what mattered to them in terms of individual and collective well-being. The experience highlights the importance of many facets of well-being beyond the material conditions and the essential resources. The goal was then to translate the ideas expressed by citizens into measurable indicators. Specifically, the Index of Conditions of Well-Being identifies 58 indicators available across 262 Walloon municipalities, organised into families, dimensions and sub-dimensions of well-being.
- Canada: The Canadian Index of Well-Being (CIW) has been published annually since 2011. In 2014, the first provincial report for Ontario was released, drawing on the research used for the CIW's national index. The conceptual framework identifies eight well-being dimensions, incorporating a comprehensive set of the key social, health, economic and environmental factors contributing to overall quality of life. For each dimension, eight headline indicators were identified and aggregated into a single index. In addition to the CIW for Ontario, other initiatives at provincial and municipal levels have been undertaken to measure local well-being.
- France: In a 2012 study, the *Direction générale de la prospective* in France's Nord-Pas-de-Calais region developed a human development methodology ranking France's 22 regions, excluding dominions and territories, according to GDP per capita on the one hand and an adapted version of the United Nations Human Development Index (HDI) on the other. The HDI-2 is a tri-dimensional index, composed of disposable median income by consumption unit, life expectancy at birth and the percentage of residents over 15 years old without a degree. The 2012 study was later extended to introduce a broader composite index of well-being, the Index of Social Health (ISH), which weighs measures of income, poverty, education, heath, employment, work conditions, housing and social links.

Box 1.3. **National and international initiatives on measuring well-being at sub-national level** (*cont.*)

- Italy: In 2013, the Italian National Statistical Office (Istat) and the National Council on the Economy and Labour (CNEL) published the first report on "Equitable and sustainable well-being" (BES, *Benessere equo e sostenibile*). Twelve well-being dimensions were identified in an open consultation with experts, civil society and citizens. Most of the indicators chosen are also presented at regional level, and will be updated by Istat. Future developments include the adaptation of the framework to large cities and provinces.
- United Kingdom: The Office of National Statistics (ONS) has explored how personal well-being varies across the regions and local areas of the United Kingdom in the 2013 edition of the report *Measuring National Well-Being, Personal Well-Being in the UK*. The estimates are based on data from the Annual Population Survey (APS), addressing questions on subjective well-being (life satisfaction, happiness and anxiety).
- United States: Since 2006, the Measure of America initiative has adapted the United Nations Human Development Index (HDI) to provide a synthetic measure of health, education and income of the 50 American states, 435 congressional districts and the 25 largest metropolitan areas. The territorial dimension can also be broken down by ethnicity and gender.
- The European Commission's S.A.M.P.L.E. (Small Area Methods for Poverty and Living Condition Estimates) project identifies indicators to assess poverty and deprivation at the micro-territorial level (provinces and municipal level, NUTS 3 and NUTS 4). Although this approach is limited to only one dimension of well-being (income), the project is intended to explore the social dynamics beneath regional contrasts and sharpen the focus of local public policy.
- The EU's Europe 2020 Strategy establishes a number of targets for smart, inclusive and sustainable growth. Headline indicators allow monitoring progress towards the objectives at EU and national levels. The EU Cohesion Policy represents one of the major investment tools for delivering the Europe 2020 goals in regions and cities.

Source: Australian Bureau of Statistics (2013), "Measures of Australia's Progress"; The Australian Centre of Excellence for Local Government (2013), "Community Wellbeing Indicators: Measures for Local Government"; IWEPS (2014), "Index of Conditions of Well-Being in Wallonia"; Canadian Index of Well-Being (2014), "How are Ontarians really doing? Adapting the Canadian Index of Well-Being to the Provincial level: A technical report"; Istat (2014), "Il benessere equo e sostenibile"; Office for National Statistics (2013), "Personal well-being across UK 2012/13"; Measure of America (2014), "The measure of America 2013/14"; European Commission (n.d.), "Small Areas Methods for Poverty and Living Conditions Estimations"; European Commission (2014), "Europe 2020 Strategy".

Measuring well-being where it is lived

The first feature of the framework for measuring regional well-being emphasises that where people live matters for their well-being. Improving people's lives requires making where they live a better place. People's well-being is shaped by a combination of individual traits and "place-based" characteristics. This holds true for material living conditions as well as for quality of life, whether objective or subjective. For example, being employed, a fundamental aspect of people's well-being, results from an individual's education, skills and motivation, but also from the conditions of the local labour market, including transport and access to training. As another example, life satisfaction depends on individual characteristics and on the quality of social interactions,

but also on the conditions of the place where people live, including environmental amenities, social support, safety and other considerations (Table 1.1).

The OECD Regional Well-Being Framework emphasises the dynamics between individual and place-based characteristics. Individual well-being brings healthier, safer and more cohesive neighbourhoods and communities, which in turn increase people's well-being. Few studies have investigated the relationships between place-based characteristics and individual well-being (Clark, 2009; Faggian et al., 2012). Recent research has shown that the most vulnerable communities in the United States have borne the brunt of the economic crisis with relatively higher increases of unemployment, poverty and housing vacancy rates, potentially leading to further deterioration of individual well-being (Owens and Sampson, 2012). The interaction between individual and municipal characteristics, both objective and subjective, is at the core of the well-being metrics developed in Southern Denmark, for example (Box 1.4). In Australia, the Socio-Economic Indexes for Areas (SEIFA) use population and housing census data to rank geographic areas in terms of their relative socio-economic advantage and disadvantage. These indexes mix individual and area characteristics to map territorial concentration of disadvantages (or advantages) that can lock communities into circumstances that make it particularly hard for people to improve their opportunities (Australian Bureau of Statistics, 2011).

Table 1.1. **People in places: Place-based well-being**

Category	Well-being dimension	Place-based factors +	Individual characteristics =	People's well-being
Material living conditions	Income and jobs	– Dynamism of regional economic context	– Family	– Employment
		– Regional labour pool	– Education	– Income
		– Access to training	– Skills	– Earnings
		– Transport	– Motivation	– Poverty rates
		– Information networks		
		– Education opportunities		
Quality of life (objective factors)	Health	– Social conditions (housing, heating, relative and absolute inequality, etc.)	– Biological and genetic factors	– Life expectancy at birth
		– Environmental conditions (pollution, amenities, etc.)	– Lifestyle	– Infant mortality
			– Risky behaviour	
			– Income	
Quality of life (subjective factors)	Subjective well-being	– Access to amenities	– Mental health/ psychological resilience	– Life satisfaction
		– Noise	– Family and personal life	– Happiness
		– Pollution	– Character	
		– Community life and support		
		– Economic conditions		
		– Safety/security		

To adequately inform policy, data need to capture the scale of people's everyday lives, not necessarily according to administrative units. The territorial lens is important not only for highlighting spatial differences, but also because public policies can hinder or promote well-being, increasing or decreasing the capabilities and functioning of the people they administer (Sen, 1993; Laurent, 2013).

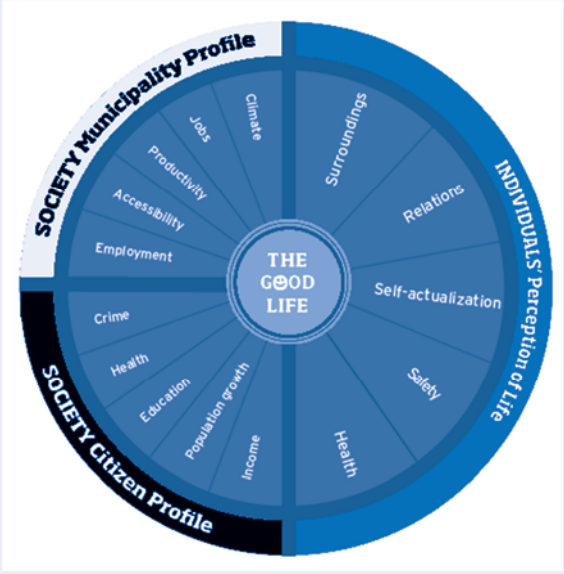
Box 1.4. **Integrating individual and place characteristics: The example of Southern Denmark**

The region of Southern Denmark has developed a metric of "Good Life" to monitor well-being in the region and its municipalities. The 40 indicators comprising the metric are organised into 2 categories: community conditions (blending a focus on the place through a "municipality profile" and a focus on people through a "citizen profile"), and individuals' perception of their own life (see figure below). The socio-economic indicators included in the municipality profile are measured using existing sources of data: registry data (indicators mainly available from the Danish Statistical Bureau) and model data. The individual indicators are measured using panel survey data, collected annually by a private consulting firm. Additional citizen surveys are carried out by the region three to four times a year.

Once a year, citizens are asked to assess their own level of well-being, both in general and in terms of different well-being dimensions (such as health, relationships, etc.). The remaining surveys are dedicated to different themes regarding the Good Life and regional development. An extensive national health survey, "How are you?" ("*Hvordan har du det*?"), is conducted regionally every four years by the health department of the region of Southern Denmark.

Southern Denmark Good Life Wheel

1. Community conditions:
   - Municipality profile: employment, accessibility, productivity, jobs, and climate.
   - Citizen profile: income, crime, health, education, and population growth.
2. Individuals' evaluation of life: health, safety, self-actualization, relations, and surroundings.



Source: OECD (2014), "Region of Southern Denmark (Denmark)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris.

Traditionally, regional policy analysis has used data collected for administrative regions, i.e. the regional boundaries determined by governments. Such data can provide sound evidence on the persistence of disparities within a country, as well as on the role of sub-national governments in public service delivery. At the same time, the places where people live, work and socialise may have little formal relationship to the administrative boundaries around them: a person may reside in one city or region but go to work in another and, on the weekends, practice sport in a third, for example. Regions interact with each other through a broad set of economic and social linkages related to such factors as job mobility, use of amenities and collaboration among firms. These linkages often cross local and regional administrative boundaries, forming functional regions. Data mapped to functional regions rather than traditional administrative boundaries can improve the planning and implementation of policies for infrastructure, transport, housing, schools and space for culture and recreation, by better integrating them and adapting them to local needs (Box 1.5).

To make the OECD Regional Well-Being Framework operational, indicators of well-being that are comparable across countries were developed for the OECD's 362 large regions and to a much lesser extent for the 275 metropolitan areas (functional urban areas). This report focuses primarily on the geography of large regions. It also includes a discussion on future development of the framework for measuring well-being more specifically in metropolitan areas (Box 2.4 in Chapter 2).

Box 1.5. **What is a region?**

The OECD classifies regions on two territorial levels that reflect the administrative organisation of countries. OECD large (Territorial Level 2, TL2) regions represent the first administrative tier of sub-national government, for example, the Ontario region in Canada. OECD small (Territorial Level 3, TL3) regions are contained within a TL2 region. For example, in France, there are five TL3 regions in the TL2 region of Aquitaine: Dordogne, Gironde, Landes, Lot-et-Garonne and Pyrénées-Atlantiques. In most cases, TL3 regions correspond to administrative regions, with the exception of Australia (statistical divisions), Canada (census divisions), Germany (spatial planning regions) and the United States (economic areas).

Functional regions are geographic areas defined by their economic and social integration rather than by traditional administrative boundaries. A functional region is a self-contained economic unit according to the functional criteria chosen (for example, commuting, water service or school districts, etc.).

Functional urban areas are defined as densely populated municipalities (urban cores) and adjacent municipalities with high levels of commuting towards the densely populated urban cores (hinterland), according to the OECD/EU definition. Functional urban areas can extend across administrative boundaries. Metropolitan areas are defined as functional urban areas with a population of more than 500 000 people. There are 275 metropolitan areas in the 29 OECD countries examined; of these, 77 have a population of more than 1.5 million.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Focus on results and outcome indicators

The OECD Regional Well-Being Framework suggests focusing on results rather than drivers and inputs. Identifying expected results has two distinct purposes. First, it allows policy makers and citizens to focus on the features of people's well-being that are

expected to be improved by the policy in question. Second, in assessing the results of policies intended to increase well-being, it can raise awareness, increase accountability and foster citizen engagement.

The focus on results implies selecting indicators that measure outcomes rather than inputs or outputs of policy interventions. Outcome indicators reflect how these policies change people's lives. For example, the share of young people that are neither employed nor in education or training (NEET) would be preferable to an indicator measuring the share of firms with training programmes targeted to the young. The outcome indicators selected to measure the dimensions of well-being follow some criteria already established in international frameworks. In particular, the criteria of the OECD Better Life Initiative include: *i)* policy relevance; *ii)* face validity, i.e. the capacity to measure what is intended according to a large body of literature and practices; *iii)* focus on summary outcomes; *iv)* quality of the underlying data; and *v)* comparability across regions and countries (OECD, 2011a; see Box 3.7 in Chapter 3 for a discussion on the different criteria used). The common set of outcome indicators presented in Chapter 2 represents the best proxies for outcomes in the various well-being dimensions that are currently available at sub-national level, harmonised with country-level data presented in the OECD Better Life Initiative when possible. As more accurate measures of people's lives are being developed and made available at different geographical levels, these indicators will change. Some indications of the future refinement of measures of regional well-being are discussed in Chapter 2.

The OECD Regional Well-Being Framework is intended to be adapted to different regional contexts. Regions are encouraged to identify the outcome indicators specific to their strategic priorities, to track the progress towards them and to articulate the actions that will have an impact on the expected outcome (Barca and McCann, 2011).

Both face validity and policy relevance are included among the criteria for choosing outcome indicators for monitoring improvements in people's lives. However, the two criteria may conflict with each other when applied to a region or a country that uses well-being metrics for policy making. In fact, face validity refers to commonly accepted objectives, for example, "eradicating extreme poverty", with a normative interpretation that can serve to raise awareness on well-being dimensions but say nothing on how this objective can be met. Policy relevance, instead, should also reflect the conditions and actions necessary, and the resources and capacities available, in a country or region to achieve the intended changes (on the implications of such a conflict in the UN Millennium Development Goals, see Fukuda-Parr, 2013).

A clear definition of policy objectives is necessary to determine the selection of outcome indicators. The results of a pilot test carried out by the European Commission in 23 regional programmes, recipients of EU Cohesion Policy funds, underline the difficulty regional and national policy makers have in clearly identifying the expected results and selecting appropriate outcome indicators to monitor them. The pilot test shows that objectives are often defined in very general terms, and indicators are added without a clear link with the strategy. The European Commission therefore recommended greater emphasis on outlining the logic of public intervention, describing the necessary conditions on the ground and the actions to pursue the expected results (European Commission, 2013).

Multi-dimensionality of well-being

The multi-dimensionality of quality of life is widely accepted in the literature and has been a defining feature of the OECD's work on well-being (Stiglitz et al., 2009; OECD, 2011a). The OECD Better Life Initiative identifies 11 well-being dimensions that are also relevant to the framework at a regional level. However, internationally comparable measures at the sub-national level do not exist for social connections, work-life balance and life satisfaction. The OECD's framework for measuring regional well-being currently includes 8 out of the 11 Better Life dimensions (Table 2.1 in Chapter 2).

Access to services is another dimension of well-being that has a particularly strong territorial character and has thus been added to the OECD Regional Well-Being Framework. People in different regions have access to different bundles of services, both basic services that ensure a decent standard of living and more advanced services that improve quality of life. They are also subject to different externalities. This affects how people obtain what is necessary to satisfy their needs and wants. Better access to transport and a wide choice of transport modes, for example, allow individuals to reach places of employment and leisure, to reduce their commuting time and certainly shape well-being. Moreover, reduced commuting time may reflect the spatial organisation of cities (people and production). The OECD Regional Well-Being Framework conceptualises accessibility of services in its physical, economic and institutional aspects, which have an impact on increasing opportunities (see Chapter 2).

Metrics to monitor well-being can either be based exclusively on objective data or include subjective assessments of life circumstances. For example, a monitoring of safety may measure both the "percentage of people who report having been assaulted in the previous year" and the "percentage of people who feel unsafe walking in the streets at night, for fear of being assaulted". At the national level, the OECD Better Life Initiative includes subjective measures in the dimensions of health and social connections. Subjective well-being is considered a separate dimension, measured through life satisfaction. Similarly, the UK initiative on Measuring National Well-Being, led by the Office for National Statistics (ONS), includes subjective measures in many dimensions, for example "time use" and "governance", while two dimensions, "personal well-being" and "our relationships", are measured only through subjective indicators (ONS, 2014).

Subjective measures have not been included in the OECD regional well-being indicators at this stage, partially because the data are not available. This is because opinion surveys are rarely comparable below national values. However, some countries have broadened national surveys that include objective and subjective measures to provide results at sub-national level. In these initiatives, a combination of objective and subjective measures is most common in the dimensions of safety, access to services, civic engagement and governance (Box 1.6).

Some studies have integrated objective and subjective information at the local level to analyse the impact of different local factors on life satisfaction and people's choices. For example, the Hotspot Monitor integrates survey data on subjective appraisal of natural amenities and land-use data, to produce comparative measures of environmental quality in cities in Denmark, Germany and the Netherlands. Natural amenities are identified through survey responses (Box 1.7). Another study combines subjective information with data on housing and neighbourhood attributes, to build an index of quality of life across cities in Latin America. The hedonic approach, which employs market prices for housing, and the "life satisfaction" approach, which addresses subjective well-being, are used to

estimate the implicit prices at which individuals are prepared to trade off amenities (Lora and Powell, 2011).

Box 1.6. National surveys that include objective and subjective indicators at sub-national level

In 2011, the Mexican Survey of Victimisation and Perception of Public Safety (ENVIPE) started a new phase of measuring victimisation in Mexico, previously conducted by the National Crime Survey (ENSI-2005, 2009, 2010). In this new survey, the National Institute for Statistics and Geography (*Instituto Nacional de Estadísticas y Geografía*, INEGI) provides information on citizen perception of insecurity and estimates of crimes at national level. The ENVIPE aims to collect information representative of the national and state level (for certain variables), to carry out estimates of the prevalence and incidence of crime affecting households, the characteristics of crimes, victims and the context of victimisation. It also seeks to obtain information about the perception of public safety, and the performance and experience of institutions in charge of public safety and justice. Finally, the survey attempts to estimate the incidence of crimes that are not reported to the police (known as "the black number") by crossing figures on reported crimes together with people's responses on personal experiences.

The Italian Multipurpose Survey on Households: Aspects of Daily Life, which has been carried out by Istat since 1993, collects information on various issues to provide a full picture of quality of life. The survey gathers both objective indicators and citizens' appraisal of the quality of public services, labour, health, civic and political participation, and trust in local and national institutions. Many indicators are also available at regional level, and the results are included in various publications and, since 2013, in the *Equitable and Sustainable Well-Being Database* (*Benessere equo e sostenibile*, BES).

The European Survey on Income and Living Conditions (EU-SILC), started in 2003, is the principal source of data on individuals' and households' socio-economic conditions in European countries. It includes information on income, poverty, social exclusion and other conditions that affect individual well-being. Some variables provide "objective" measures of well-being, for example those related to individual health status, or to housing conditions; others aim to evaluate living standards by measuring the affordability of certain expenses, including health and housing expenditures; and, finally, a third group focuses on respondents' feelings about their living conditions, for example, if they have problems related to pollution or crime violence in the area where they live. These data are collected every year by member countries and transmitted to Eurostat. Both cross-sectional and longitudinal data are collected, and for both components, information on households and individuals are searchable. The region of residence, defined according to the EU classification NUTS 2, is defined for each household, so that data are available at both national and sub-national level. In each country, the sample size has to be large enough to guarantee that it is representative at the national level, although not at the sub-national level. This implies that, in principle, all variables are available for each country at sub-national level, but how representative the data are can vary from country to country and from year to year.

Source: INEGI (2013), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) 2013", Instituto Nacional de Estadística y Geografía, Mexico, www.inegi.org.mx/est/contenidos/Proyectos/Encuestas/Hogares/regulares/envipe/envipe2013; Istat (2014), "Aspetti della vita quotidiana: Informazioni sulla rilevazione", Istituto nazionale di statistica, Rome, www.istat.it/it/archivio/91926; Eurostat (2013), "European Union Statistics on Income and Living Conditions (EU-SILC)", European Commission, Brussels, http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc.

Many regional well-being metrics tend to exclude subjective measures, because they are considered difficult to interpret in guiding policy. Others argue that subjective indicators provide insightful and unique information to evaluate the success of policy and

to select policy goals. Public feedback in dimensions such as utility, relevance, success or satisfaction with certain policies helps assess their future sustainability and plan policies that correspond to what the population perceives as important (Veenhoven, 2002).

Box 1.7. **Measuring environmental quality through subjective indicators: The Hotspot Monitor Initiative**

Hotspot Monitor (HSM) is an online survey tool that measures people's appreciation for natural areas. It was produced by a team of scholars co-ordinated by the University of Groningen in the Netherlands and builds on the widely used Google Maps tool. The central question for respondents in the HSM survey is: Which places do you find very attractive, valuable or important, and why? The only condition required of places to be considered in the survey is that they should be green and/or include water or nature. Based on these questions, the HSM survey measures each respondent's perception of natural spaces' amenity value on a local scale (2 kilometres from the respondent's home), regional scale (20 kilometres from home), national and international scale. For each scale, HSM survey respondents are asked to mark a single natural space they perceive as highly valuable.

The survey output includes point-location *xy* co-ordinates of the markers that respondents have placed to pinpoint natural areas (on both land and water), as well as the *xy* co-ordinates of their (approximate) living location. On the basis of the location markers for the respondent, clusters of natural amenities are identified. A cluster is a natural area in which HSM markers are more concentrated than would be expected if these were evenly distributed across space. Clusters of natural amenities with national relevance are identified in three European countries: Denmark, Germany and the Netherlands. Clusters are calculated per country, using only national HSM markers located in the observed country and cited by respondents of that country.

Matching the data from the HSM with the geographical boundaries of the OECD cities (functional urban areas, FUAs), it is possible to compute indicators of perceived environmental quality at city level. With respect to measures that are based on natural land-use data, the HSM allows the identification of indicators to be based on people's preferences, without assuming constant well-being by type of land. For example, a meaningful and straightforward indicator based on the HSM is the proximity to a natural hotspot of national relevance (*distHSM*), computed (inversely) in terms of Euclidean distance. This proximity accounts for the actual spatial distribution of people across the whole urban territory, by weighting by the amount of population living in each cell of a 1 km² population grid.

Looking at a population's average distance to the closest natural amenity (*distHSM*), it is possible, for example, to rank all the cities in the three countries considered, on the basis of their higher or lower level of natural amenities. Top cities by country are reported in the table below.

Cities (functional urban areas) with the highest natural amenities

Germany	Denmark	Netherlands
1. Solingen	1. Copenhagen	1. Maastricht
2. Heidelberg	2. Aarhus	2. Katwijk
3. Konstanz	3. Aalborg	3. Ede

Note: Ranking is based on the population-weighted distance to the closest natural amenity (*distHSM*).

Source: Sijtsma, F.J. and M.N. Daams (2014), "How near are urban inhabitants to appreciate natural areas? An exploration of Hotspotmonitor based well-being indicators: Results for the Netherlands, Germany, and Denmark", *URSI Research Report 348*, University of Groningen, Netherlands.

Regional disparities in well-being outcomes

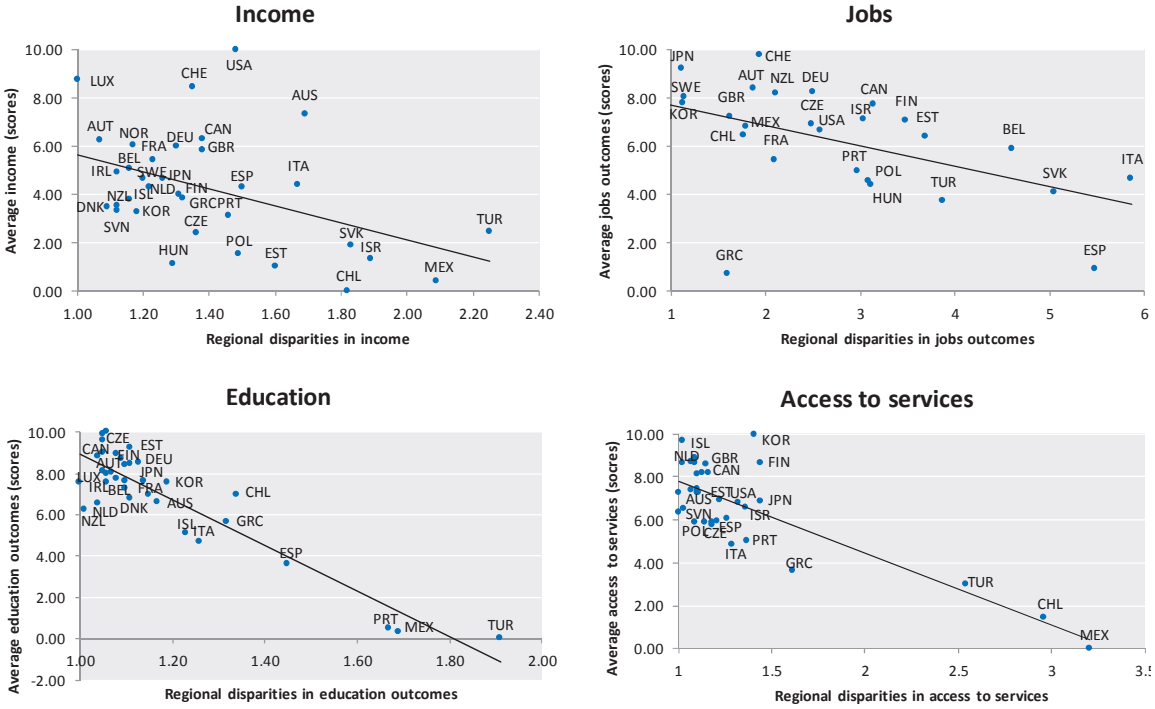
Measuring well-being outcomes within countries makes it possible to assess regional disparities in different dimensions and gauge whether a country's level of well-being is equally shared by those living in different regions. Regional disparities have been addressed by governments in several countries through fiscal redistribution and policies intended to improve well-being in disadvantaged regions. One example is the European Union's Cohesion Policy, which will dedicate EUR 352 billion over the 2014-20 period for regions and cities to create growth and jobs, and to reduce poverty and social exclusion (European Commission, 2014). Regional disparities raise concerns for their potential welfare implications, in particular for what regards young people growing up in disadvantaged surroundings. From a dynamic perspective, regional poverty and unemployment could affect intergenerational transfer mechanisms (Stewart, 2002). There is evidence, for example, that later adult learning, once individual and family characteristics are accounted for, is associated with income, employment and safety (Burgess et al., 2006).

OECD countries have different levels of regional disparity, depending on the well-being dimension considered and on the way disparities are measured.[1] Figure 1.3 plots countries' regional disparities and average national well-being outcomes in four dimensions of well-being, where disparities are measured as the ratio between the values of the top 20% of regions and the bottom 20%. The selected well-being dimensions and indicators are income (disposable income per capita), employment (employment rate), education (share of people with at least a secondary education) and access to services (share of households with broadband connections). For all four dimensions, countries with larger regional disparities register lower well-being scores overall at country level, and a similar relationship is found for other dimensions of well-being, with the exception of air pollution. Among the four well-being dimensions considered in Figure 1.3, income is the one where the negative relation between regional differences and national well-being score is the weakest.[2]

The patterns suggest that, especially for those dimensions related with the provision of services, higher regional disparities might be associated with lower opportunities for people living in the most disadvantaged regions. The conclusion suggested by Figure 1.3 is that it is worth analysing the implications of regional disparities on (long-term) well-being at country level. Further analysis is needed in this respect.

The increase or reduction of regional disparities in well-being outcomes over time varies greatly among OECD countries and among dimensions. In the period 2000-13, the gap between the regions with the best well-being outcomes and the regions with the worst increased for household income, voter turnout and homicide rate, taking the OECD area average. In contrast, it decreased for labour force education, employment and unemployment rates, life expectancy, mortality rates, air quality and household broadband access (Figure 1.4).[3] A decrease in the gap was attributable to different patterns in the top and bottom regions for dimensions of well-being. Whereas the reduced regional gap is due to positive catch-up of the lowest regions, in the case of education, health, environment, broadband access and employment (Profile A in Figure 1.4), in the case of unemployment, the smaller gap was due to the more rapid increase in regions that previously had lower unemployment rates (Profile B, Figure 1.4).

Figure 1.3. **Regional disparities and well-being levels in OECD countries, 2013**



Note: Disparities' scores are computed as the score of the top 20% of regions divided by the scores of the bottom 20%. The average scores in well-being dimensions are computed as the average country score on a specific dimension. Scores range from 1 to 10, with higher values indicating higher disparities and higher country well-being outcomes, respectively.

Source: Authors' calculations using the *OECD (2014), Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Figure 1.4 also shows the profiles of countries in the evolution of regional disparities. For example, in the case of household income, regional disparities have decreased in 16 countries and increased in 13. In 12 of the 13 countries where disparities increased, this was due to a lower growth rate in low-income regions, signalling that in these countries, the difficulty of raising living conditions in low-income regions has not been compensated for by more rapid improvement of living conditions in high-income regions.

Figure 1.4. **Evolution of regional disparity, OECD average and number of countries**

Evolution of the ratio between highest 20% and lowest 20% regions, 2000-13 (or earliest year)

: OECD average profile

xx : xx number of countries by profile

	Inter-regional gap decreased due to:			Inter-regional gap increased due to:			
	...better performance of disadvantaged regions	...the worsening situation of advantaged regions	...improvements in disadvantaged regions and recession in advantaged regions	...higher regression in disadvantaged regions	...lower performance in disadvantaged regions	...improvement in advantaged regions and regression of disadvantaged regions	Total number of countries (profiles A to F)
	A	B	C	D	E	F	
Positive indicators (an increase of the indicator means higher well-being)							
Labour force with at least secondary education	25			1	5		31
Employment rate	12	3	2	6	6	4	33
Household disposable income per capita	14	1	1		12	1	29
Life expectancy	12				18		30
Household broadband access	28				3		31
Voter turnout	8	6	1	11	5	1	32
Negative indicators (an increase of the indicator means lower well-being)							
Unemployment rate	11	11	3	4	2	2	33
Homicide rate	8	1	6	1	12	1	29
Mortality rate	13	1	1	1	17		33
Air pollution ($PM_{2.5}$)	12	2	7	2	10		33

Note: Luxembourg is not included. Due to missing figures for certain time periods, some countries have been excluded: Chile and Denmark (labour force education); Estonia, Mexico, Switzerland and Turkey (household income); Iceland, Mexico and Turkey (life expectancy); Korea and Turkey (Internet broadband access); Israel (voter turnout); Finland, Germany, Iceland and Korea (homicide rate).

Source: Authors' calculations based on data from the *OECD (2014), Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

The role of citizenship, governance and institutions in shaping well-being

Given that many of the policies that bear most directly on people's lives are put into effect at the local level, evaluating citizenship, governance and institutional conditions in the area where people live can provide valuable indications for policy making. Recent work has investigated the effect of fiscal and political decentralisation on life satisfaction in European countries. It considered how decentralisation affects the perception of institutions in general, and satisfaction with democracy, government and the economic situation in particular (Diaz-Serrano and Rodríguez-Pose, 2012). The results indicate that, on the whole, decentralisation contributes positively to individuals' satisfaction with political institutions. More importantly, citizen satisfaction is positively linked with trust in the fact that institutions have the capacity to implement policies efficiently.

Trust in public institutions has a positive impact on well-being, independently of other factors that correlate with trust, such as education or income (Hudson, 2006). If public institutions act in ways that reduce trust, this has a direct impact upon subjective well-being. Such actions can range from low capacity and inefficiency in delivering public services, incapacity to address market failures (like preventive health or the environment), low reliability on the rules, to lack of integrity (corruption or lack of safeguarding the public interest) and fairness. The public learns about the actions of higher levels of government through the media, but rarely interacts with these levels directly. People have the most direct interaction with local public authorities and local public services. Trust in local government tends to be higher than trust in national governments, but experiences of corruption in local authorities and services can

undermine trust, affecting people's behaviour and well-being (Tavits, 2008). Recent evidence of wide differences between EU regions in the perception of quality of public services, impartiality and personal experience of corruption of local governments could help explain differences in well-being between EU regions (Charron et al., 2014a). While internationally comparable measures of trust in public institutions are not yet available at regional level, the new European Quality of Government Index can represent a base for future developments. The index is based on a survey of 85 000 citizens in 206 regions in 24 European countries. It measures both citizen perceptions and experiences of public services, such as healthcare, education and law enforcement, which tend to be locally or regionally governed. The index is highly correlated with sub-national levels of socio-economic development and levels of social trust (Charron et al., 2014b).

Defining indicators of well-being contributes to improving the way democracies work, offering greater insight into the key drivers of collective progress. Democracy is both an outcome (living better lives) and a process (deciding the kind of lives people want to live). Building well-being metrics should therefore be an open democratic process that involves citizens, rather than a technocratic procedure. Many of the sub-national experiences in using well-being metrics underscore a tension between choosing policy-relevant well-being dimensions and identifying a set of "normative" indicators. The engagement of citizens through public consultation, public monitoring of results and active contribution to political choices is a major step towards overcoming this tension and building a coherent regional development strategy.

Much of the information needed to design a well-being strategy and implement policies efficiently is to be found locally. However, international and national institutions, including statistical offices, can help build local capacity to develop well-being metrics, by sharing information on indicators and the appropriate evaluation techniques to assess whether policy actions have an impact on people's well-being. For example, the US Partnership for Sustainable Communities (PSC), through the University of Pennsylvania, developed a knowledge platform where regions and cities can select indicators to compare their performance in the various sustainability dimensions with that of other counties, their home state and the national average. Similarly, the Well-Being and Resilience Measure (WARM) in the United Kingdom uses existing data about localities to provide a baseline for regions that want to opt for well-being metrics for policy prioritisation (see Box 3.1 in Chapter 3).

Building synergies across well-being dimensions

Despite general agreement that well-being is multi-dimensional, there has been little research on synergies among its various dimensions. More specifically, well-being is usually considered to increase with beneficial changes in any of its dimensions, independently of the levels in the other dimensions. The latter implies that well-being is assumed to exhibit a certain degree of substitutability among its dimensions (low income, for example, could be compensated for by good values in other dimensions). This assumption is explicit when well-being is aggregated into a single value through a composite index. Alternatively, it could be argued that all dimensions of well-being are interdependent. If one dimension of well-being is very low compared to others, it drags down overall well-being. For example, the well-being of individuals with very high income and poor health would probably not improve in equal measures if their income is increased rather than their health improved. In this case, the dimensions of well-being could be characterised as complements rather than substitutes.

Complementarities can be simply defined when "having more of one factor increases the marginal return to having more of the other" (Amir, 2003). In other words, the effect of each dimension on well-being is enhanced by the presence of any other dimension. If well-being is complementary across its dimensions, all things being equal, an individual would prefer a more balanced distribution of the levels of well-being across its various dimensions.

Whether well-being components are complementary rather than substitutable is an empirical question. To this end, an analysis was carried out at national level in 22 European countries to test the presence of complementarities among well-being dimensions (Brezzi et al., 2014).[4] The results show that countries with a more balanced distribution of well-being across the different dimensions exhibit a higher overall life satisfaction (Box 1.8).

Box 1.8. **Do well-being dimensions complement each other? An empirical analysis**

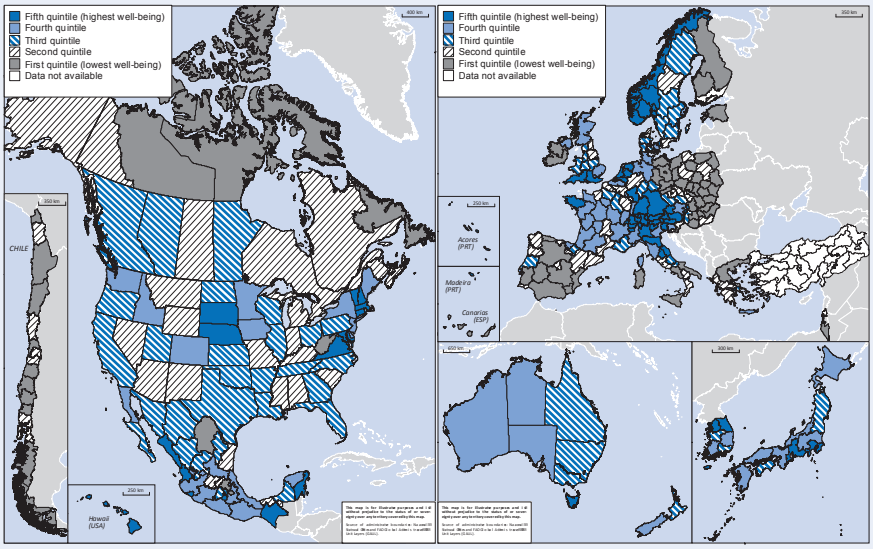
Applying the theory on policy complementarities (Braga de Macedo and Oliveira Martins, 2008), an empirical analysis was carried out to test whether individuals' well-being decreases as the dispersion among well-being dimensions increases. If this is the case, people prefer a more balanced distribution among the different dimensions, suggesting that well-being dimensions are complementary. The econometric model uses panel data on 22 countries from the Eurobarometer Public Opinion Survey over a period of 20 years. An individual's well-being is approximated with the answers to the question about life satisfaction (subjective well-being). For each country, a composite index of well-being is computed by aggregating three well-being dimensions with equal weights. Next, the standard deviation is computed, to capture the dispersion among the three dimensions. Two specifications were applied for the composite index: in the first, income, unemployment and CO_2 emissions per capita were used, while the second one included income, life expectancy and CO_2 emissions per capita. The results of the regression, in both specifications of the model, show that the average well-being (approximated by the composite index) is highly significant and positively related to life satisfaction, suggesting that the composite index approximates overall well-being as measured by life satisfaction. In addition, the dispersion across well-being dimensions is negatively and significantly correlated with life satisfaction, suggesting that countries with a more balanced distribution of well-being across the three dimensions exhibit a higher life satisfaction given the same average level of well-being. In this case, well-being dimensions are complementary, meaning that the effect of each dimension on individuals' well-being is enhanced by the presence of any other dimension.

International comparable measures of life satisfaction at regional level are currently not available. This meant that the empirical analysis could not be replicated at regional level to test the presence of complementarities among well-being dimensions in OECD regions. However, to illustrate the potential impact of complementarities on a region's level of well-being, a composite index of well-being was computed, which was then adjusted according to the degree of dispersion among the dimensions (using the coefficient values computed at national level). In other words, for a given level of the composite well-being index, a more balanced structure across the different components (lower dispersion) increases the adjusted well-being index and the reverse is true for a higher dispersion of the well-being components.

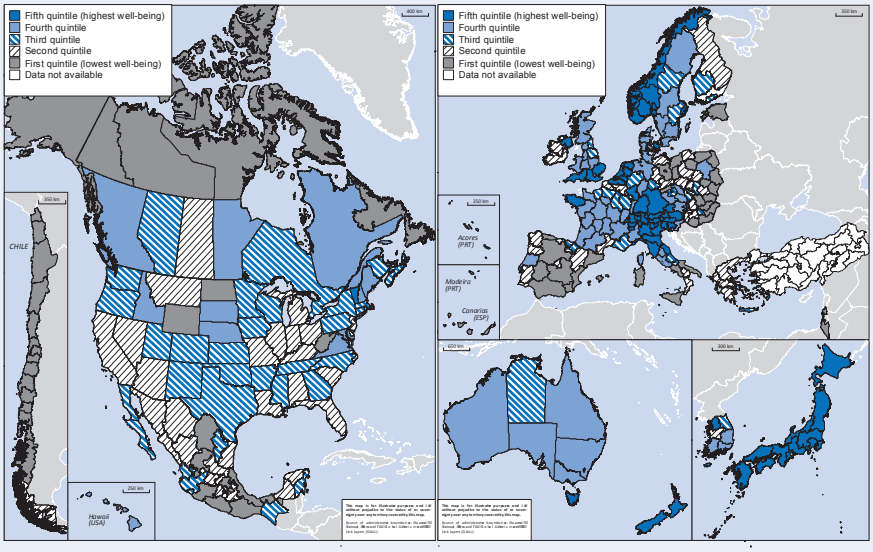
Box 1.8. **Do well-being dimensions complement each other? An empirical analysis** (*cont.*)

Relative ranking of well-being across OECD regions

A. Regional well-being: Unadjusted composite index of income, unemployment and environment



B. Adjusted regional well-being: Composite index adjusted for the dispersion among well-being components



Note: The composite index is the average with equal weights of disposable income per capita, unemployment rate and CO_2 emissions per capita. The adjusted composite index is given by subtracting the standard deviation of the three indicators from the composite index.

Results show that the spatial distribution of well-being changes quite distinctively whether an adjusted or non-adjusted composite index is used, although the two measures are clearly correlated. In particular, adjusting for intra-regional disparities, the relative ranking of regions in Germany, Northern Italy, Japan and New Zealand improves, while it decreases in most of the states in Chile, Mexico and the United States. Moreover, the adjusted composite index introduces a differentiation across geographical clusters of regions with low levels of well-being in Poland, but makes more uniform geographical clusters of high well-being in the United States (see figure).

Source: Brezzi, M., J. Oliveira Martins and P. Prenzel (2014), "In search of a good life balance: Complementarities across regional well-being dimensions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

The notion of complementarity among the dimensions of well-being needs to be reflected in policy design. In particular, if well-being dimensions are complementary, it would be desirable to implement policies such that the situation across the dimensions is balanced rather than unbalanced. Complementarity in well-being would suggest that rather than focusing on one dimension at a time, policy should address the different dimensions simultaneously, to exploit the positive returns of carrying out a reform while other reforms are in place (Braga de Macedo and Oliveira Martins, 2008; Coricelli and Maurel, 2011).

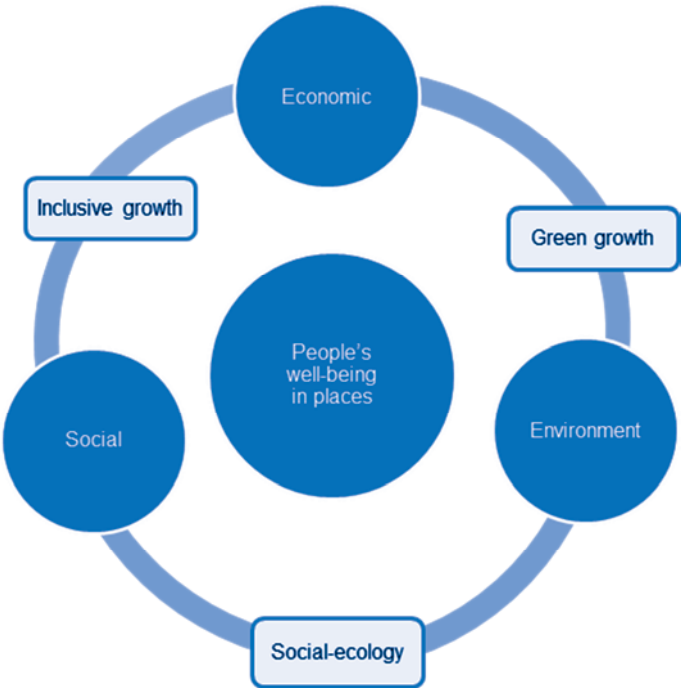
Both recent OECD work and the academic literature highlight how the factors underlying greater inequality disproportionately affect particular groups, and when cumulative, tend to make it harder for those groups to improve their conditions of life (OECD, 2014). Addressing their needs requires a multi-dimensional approach that tackles different sources of disadvantage in a coherent way. For example, successful integration of immigrants may require not only language training and access to existing labour market programmes, but also policies targeting discrimination, providing mentors and expanding networks and connections among migrants and with native workers. Similarly, reducing school dropout rates may require addressing not only the quality of schools, but also such diverse issues as inadequate transport infrastructure, lack of knowledge of labour market opportunities, crime or inadequate housing, and understanding whether these determinants vary between rural and urban locations. Identifying trade-offs and promoting synergies among different policy goals through place-based approaches can improve the effectiveness of policy intervention.

A policy agenda based directly on well-being objectives can support co-ordination among different sectoral policies and levels of government, since it brings a more direct focus on the quality of people's lives rather than on policy output. In many cases, such integrated policy responses may require strengthening the capacities of sub-national governments to plan and deliver key services and efficiently use investment resources. Moreover, proximity between citizens and policy makers at the regional and local level can help throw light on how one dimension contributing to people's well-being influences another dimension. Measuring such interactions across different dimensions of well-being is the first step towards designing more coherent policies that realise potential synergies across sectors and avoid a silo approach.

By way of illustration, Figure 1.5 shows how policies could pursue integration across sectors, summarising the various well-being dimensions in the economic, social and environmental objectives. Inclusive growth policies, for example, aim to improve living standards and share the benefits more evenly across social groups, avoiding the trade-off between an improvement in economic objectives and a degradation of social cohesion. Active labour market policies can facilitate a better match of jobs with skills, lowering unemployment and making a strong contribution to social inclusion. Such policies are more effective when designed at the regional or local level, since information about local conditions is crucial to success. Similarly, green growth policies, to avoid the trade-off between economic efficiency and unsustainable natural resource consumption, are well understood at the regional and urban scales. Integrating land-use, transport and business infrastructure policies, in fact, has proven to contribute to outcomes that are greener, increasing reliance on public transport, and more efficient, reducing commuting times and congestion. Such integrated policies can also pursue equity objectives, improving the access to labour markets for disadvantaged areas within a metropolitan area. Finally, equity and environmental sustainability objectives can be pursued through social-ecology policies that could be complemented with instruments that address both individuals and

places. Evidence shows that the distribution of social and environmental disadvantages is often linked to characteristics of places (Laurent and Le Cacheux, 2012).

Figure 1.5. **Building synergies among policy objectives**



A first analytical attempt to assess regional complementarities among well-being dimensions would consist in developing a set of cross-dimensional indicators alongside single dimensional indicators. For example, cross-dimensional indicators could include the share of households in a region or municipality that spend 30% or more of their income on energy consumption; the share of households living in houses not reached by public transport; health problems due to air pollution; or education outcomes by households' socio-economic background. A list of possible cross-dimensional indicators for OECD regions is discussed in Chapter 2.

Dynamics of well-being and the resilience of regions

The OECD framework for measuring regional well-being assesses not only well-being in its current state, but also its sustainability: whether well-being can last over time, and how the various dimensions of well-being evolve in the regions. There are three main approaches to addressing well-being sustainability: the capital approach, the three-pillar approach and the ecological approach (Box 1.9). Although the latter two approaches are often considered more difficult to apply than the capital approach, they can be useful for regions that want to assess well-being over time. The three-pillar approach helps look at complementarities among the different well-being dimensions over time, and the ecological approach is a way to gauge the resilience of the regions.

Box 1.9. **Three main approaches to sustainable well-being**

The debate on sustainability has focused on how the current level of well-being can be experienced for the foreseeable future. The idea of sustainable development was broadly defined by the Brundtland Commission as a need "to ensure that the needs of the present do not compromise the ability of future generations to meet their own needs" (United Nations, 1987).

This definition intentionally chose not to specify what types of needs are important to ensure for the future, providing no clear input on a way to measure sustainable development. As a consequence, different approaches have been attempting to operationalise the concept, emphasising divergent views. However, three have emerged as more relevant (United Nations, 2009; Bleys, 2012): the capital approach, the three-pillar approach and the ecological approach.

The capital approach has been associated with economic thought on this subject. First confined to an understanding of economic development, the capital approach was later extended to sustainable development (United Nations, 2009). This approach distinguishes between four types of capital: economic (financial and real assets), natural (non-renewable and renewable resources), human (providing skills and knowledge) and social (links, connections and networks between individuals and institutions; e.g. Putnam, 2000) and looks at how the different stocks of capital are passed on to future generations (Stiglitz et al., 2009; OECD, 2011a). The joint UN Economic Commission for Europe (UNECE), the OECD and the Eurostat Working Group on Statistics for Sustainable Development put forward a set of capital-based indicators to measure sustainable development that can be helpful to ensure the sustainability of well-being (United Nations, 2009).

In the three-pillar approach, sustainable development results from the reconciliation of the three imperatives of the economy, environment and society (Robinson and Tinker, 1998). Each is independently important and urgent and connected to the others. From this perspective, addressing any of these pillars in isolation, without considering their interactions, can result in inadequate policies, or undercut initial policies. It can, for instance, increase social disparities that will ultimately reflect a decrease in well-being. This approach requires a model capable of encompassing all possible interactions between the three pillars (Bleys, 2012). However, one way of realising it could be to identify indicators that monitor the interactions among the selected policy objectives.

The ecological approach refers to the ecosystems' dynamic capacity to adaptively respond to disturbances and changes, i.e. their resilience. Two main categories of measures are proposed within the context of this approach: measures of pressures placed on ecosystems by human activities and measures of the ecosystems' responses to external pressures. The main limitation of this approach is that it fails to integrate the economic and social dimensions, by focusing more on ecosystems. A proposal to integrate these two dimensions through territorial resilience is advanced in Table 1.2.

Focusing on territorial resilience helps assess the sustainability of regions' well-being, because regional well-being is shaped by the interaction between individual characteristics and place-based factors. The concept of resilience, originally defined in physics and psychology, has been successively applied to environmental sciences and social/ecological systems (Perrings, 1998; Adger, 2006; Folke 2006), to economics (Duval and Vogel, 2008) and to regions hit by natural disasters (UNEP, 2007; OECD, 2013d). Territorial resilience can be defined as the capacity of territories or communities to absorb the effects of shocks and learn from them in order to move forward.

Table 1.2. **Resilience of OECD regions in employment between 2008 and 2013**

Country	% of regions that experienced a drop in employment between 2008 and 2010	% of resilient regions (regions with loss of employment in 2008-10 and an employment rate in 2013 higher than the employment rate in 2008)	Average employment rate in resilient regions (2013)	Average employment rate in non-resilient regions (2013)	Average employment rate in regions with no loss in employment between 2008 and 2010 (2013)
Czech Republic	100.0	77.8	68.8	68.1	..
Sweden	100.0	77.8	76.6	76.1	..
Iceland	100.0	33.3	81.8	81.9	..
Finland	100.0	16.7	65.9	72.7	..
United Kingdom	100.0	15.4	71.7	70.3	..
Belgium	100.0	0.0	..	59.5	..
Denmark	100.0	0.0	..	73.9	..
Estonia	100.0	0.0	..	71.0	..
Greece	100.0	0.0	..	50.1	..
Ireland	100.0	0.0	..	61.7	..
Netherlands	100.0	0.0	..	75.3	..
Norway	100.0	0.0	..	77.8	..
Slovak Republic	100.0	0.0	..	61.5	..
Slovenia	100.0	0.0	..	64.4	..
Spain	100.0	0.0	..	52.6	..
United States	98.1	7.8	76.7	69.3	78.6
Italy	95.5	19.1	65.9	55.9	73.8
Canada	92.9	30.8	71.1	73.9	..
Korea	87.5	100.0	70.1	..	70.6
Portugal	85.7	0.0	..	..	..
Japan	81.8	100.0	80.7	..	79.1
Hungary	75.0	100.0	57.7	..	55.9
Switzerland	75.0	66.7	83.6	79.9	79.6
Poland	70.6	8.3	58.0	55.8	55.7
New Zealand	66.7	100.0	75.3	..	86.7
Australia	66.7	33.3	74.0	75.2	74.0
Austria	60.0	66.7	74.1	72.3	73.3
France	56.5	15.4	61.4	63.2	59.8
Mexico	30.3	20.0	66.5	64.4	64.3
Turkey	25.9	71.4	54.5	53.7	49.2
Israel	14.3	100.0	61.0	..	70.7
Chile	12.5	100.0	67.4	..	64.8
Germany	11.8	100.0	74.5	..	73.7

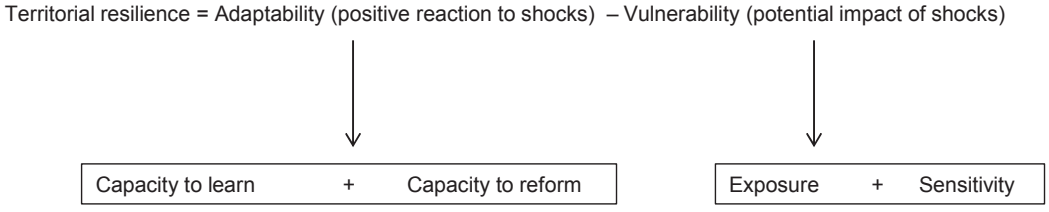
Note: .. : Missing value or not available. Countries are ranked according to the share of regions that experienced a drop in employment between 2008 and 2010. Resilient regions are defined as those regions that experienced net employment loss between 2008 and 2010 and whose employment rate in 2013 was equal to or higher than the employment rate in 2008. Non-resilient regions are defined as those regions that experienced a loss of employment between 2008 and 2010 and whose employment rate in 2013 was lower than the employment rate in 2008. Due to a lack of data on regional population in 2013, the period considered for the United Kingdom is 2008-12. Due to a break in the time series, data in Portugal from 2011 onwards are not comparable with previous years. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: Authors' research based on OECD (2013), *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/region-data-en.

The economic recession that started in 2008 provided a test of resilience for regions. For example, capacity to cope with the loss of jobs differed significantly not only among countries but also within them. In the Czech Republic and Sweden, employment rates in around 80% of regions were back to at least their pre-crisis level by 2013. In Finland and the United Kingdom, however, the percentage of regions that have regained the level of employment they had in 2008 is no more than 20%. In ten European countries including Greece, Slovenia and Spain, not a single region has yet attained the pre-crisis employment rate. On the other hand, in Hungary, Japan, Korea and New Zealand, all the regions that experienced a loss of employment between 2008 and 2010 had made up the gap by 2013; the same has happened in Chile, Germany and Israel, although exposure to the shock (as expressed in the number of regions that lost jobs between 2008 and 2010) was less than in the other OECD countries (Table 1.2).

The example above shows that the resilience of a region refers to the adaptability of a territory, which includes the capacity of its individuals and firms to deal with upsets and the capacity of institutions to adapt and reform. At the same time, the resilience of a region is diminished by its vulnerability, that is to say, the potential impact of the shock on the community. Vulnerability results from the exposure to shock and sensitivity to it (Figure 1.6). Additional work needs to be done to identify and monitor indicators of territorial resilience, such as, for example, trade openness, to measure the exposure of a region or education and health indicators for sensitivity. Because institutions and governance arrangements influence the capacity to adapt after a shock, measures of the quality of regional governments, open government and community engagement should be considered, as well as measures of territorial adaptability.

Figure 1.6. **The OECD territorial resilience framework**



Source: Own elaborations from OECD (2013e), *Policy Making After Disasters: Helping Regions Become Resilient: The Case of Post-Earthquake Abruzzo*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264189577-en; Laurent, E. (2013), *Vers l'égalité des territoires: Dynamiques, mesures, politiques*, Rapport pour le ministère de l'Égalité des territoires et du Logement, Paris, www.verslegalite.territoires.gouv.fr.

An analysis of the sustainability of well-being over time in OECD regions shows that improvements in regional well-being levels vary by well-being dimension in the period 2000-13. Among the dimensions of well-being, considered in relative terms (e.g. the performance of one region relative to the others), education and safety appear to show the slowest improvement. Of OECD regions ranking in the lowest 20% for educational attainment of the labour force and for murder rates in 2000, only 40% improved their relative ranking by 2013 (Table 1.3). Moreover, more than 90% of OECD regions ranking in the lowest 20% in education in 2000 were still in the bottom quintile in 2013; for safety, the corresponding figure was over 80%. Jobs, civic engagement, environment and income outcomes change faster. More than two-thirds of the regions that were among the bottom 20% in these dimensions in 2000 improved their ranking in 2013. However,

upward mobility in the bottom part of the distribution seems more frequent in the dimensions of jobs and environment than in income: almost one-third of the regions that ranked in the bottom 20% of OECD regions for employment and air quality in 2000 were above the bottom 20% in 2013, while this percentage accounted for only 8% in the case of income (Table 1.3).

Table 1.3. **Improvements in OECD regional well-being, 2000-13**

Percentage of regions that have improved their ranking relative to all OECD regions

Well-being dimensions	Income	Jobs	Education	Health	Environment	Safety	Civic engagement	Access to services
Regions in the top 20% in 2000	33%	17%	10%	85%	39%	0%	28%	24%
Regions in the bottom 20% in 2000	67%	81%	42%	61%	69%	43%	78%	51%
Regions that moved up in 2013 from being in the bottom 20% in 2000	8%	29%	4%	14%	26%	17%	35%	22%

Note: For each well-being dimension, a region is scored on a scale from 0 to 10, based on one or more indicators. For example, environment is measured by air quality and education by the percentage of the labour force with at least a secondary degree. A higher score indicates better performance in a dimension relative to all the other OECD regions. The table reports the share of regions that have improved their score between 2000 and 2013. The Housing dimension is not included in the table because data on number of rooms per person are currently not available for the year 2000.

Source: Authors' research based on data from *OECD (2014), Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Conclusion

The framework presented in this chapter for measuring well-being where people live shifts the focus from aggregate economic measures to a combination of people's individual attributes and their local conditions. The framework identifies nine dimensions of well-being (income, jobs, housing, education, health, environment, safety, civic engagement and access to services) and facilitates an understanding of how they interact in different regions. It also helps explain how regional disparities influence national well-being and how today's well-being outcomes affect tomorrow's opportunities for people and the resilience of regions.

Each well-being dimension is built on specific indicators that are presented in Chapter 2. Developing better regional measures of well-being is a means to enhance the design and the consistency of policies that improve people's lives. The framework presumes that well-being metrics must incorporate what different communities value in their well-being and engage citizens in monitoring progress. In addition, policies to improve well-being in regions are cross-sectoral and involve many stakeholders, and thus require effective multi-level governance mechanisms. Both elements are addressed in Chapter 3.

Notes

1. The size of disparities across regions in a country also depends on the number of regions considered and the region's population.
2. Differences in income among regions can also reflect the exploitation of agglomeration economies, which are sources of higher productivity. Other evidence shows that inequalities in living standards can be particularly evident at the scale of small regions, cities or even neighbourhoods, and in specific contexts even the regional level does not provide sufficient detail on where the major inequalities are (OECD, 2014; US Census Bureau, 2014).
3. The regional disparity within a country is measured as the ratio between the top and the bottom 20% regional values (or total OECD regional values).
4. The model includes only three well-being indicators, as a simplified specification to capture the economic, social and environmental components of well-being.

Bibliography

Adger, N. (2006), "Vulnerability", *Global Environmental Change,* Vol. 16, pp. 268-281.

Alesina, A., R. di Tella and R. MacCulloch (2004), "Inequality and happiness: Are Europeans and Americans different?", *Journal of Public Economics*, Vol. 88, No. 10, pp. 2 009-2 042.

Amir, R. (2003), "Supermodularity and complementarity in economics: An elementary survey", *Southern Economic Journal*, Vol. 71, No. 31, pp. 636-660.

Australian Bureau of Statistics (2011), *Socio-Economic Indexes for Areas (SEIFA)*, Australian Bureau of Statistics, Canberra.

Barca, F. and P. McCann (2011), "Outcome indicators and targets: Towards a new system of monitoring and evaluation in EU Cohesion Policy", European Commission – Regional Policy Info, http://ec.europa.eu/regional_policy/sources/docgener/evaluation/doc/performance/outcome_indicators_en.pdf.

Bleys, B. (2012), "Beyond GDP: Classifying alternative measures for progress", *Social Indicators Research*, Vol. 109, No. 3, pp. 355-376.

Braga de Macedo, J. and J. Oliveira Martins (2008), "Growth, reform indicators and policy complementarities", *Economics of Transition*, Vol. 16, No. 2, pp. 141-164.

Brezzi, M., J. Oliveira Martins and P. Prenzel (2014), "In search of a good life balance: Complementarities across regional well-being dimensions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Burgess, S., C. Propper and K. Gardiner (2006), "School, family and county effects on adolescents' later life chances", *Journal of Family and Economic Issues*, Vol. 27, No. 2, pp. 155-184.

Charron, N., V. Lapuente and L. Dijkstra (2014a), "Regional governance matters: Quality of government within European Union member states", *Regional Studies*, Vol. 48, No. 1, pp. 68-90.

Charron, N., V. Lapuente and L. Dijkstra (2014b), "A measure of quality of government at the sub-national level: The EQI – Construction, results, sensitivity and validity tests for data for 206 European regions", *Social Indicators Research*, forthcoming, http://nicholascharron.wordpress.com/european-quality-of-government-index-eqi.

Clark, A.E. (2009), "Where should we live?", *Review of Economic Analysis*, Vol. 2, No. 1, pp. 20-31.

Coricelli, F. and M. Maurel (2011), "Growth and crisis in transition: A comparative perspective", *Review of International Economics*, Vol. 19, No. 1, pp. 49-64.

Dasgupta, P. (2004), *Human Well-Being and the Natural Environment*, Oxford University Press.

De Vries, Sjerp, et al. (2013), "Measuring the attractiveness of Dutch landscapes: Identifying national hotspots of highly valued places using Google Maps", *Applied Geography*, Vol. 45, No. 12, pp. 220-229.

Diaz-Serrano, L. and A. Rodríguez-Pose (2012), "Decentralization, subjective well-being, and the perception of institutions", *Kyklos*, Vol. 65, No. 2, pp. 179-193.

Duval, R. and L. Vogel (2008), "Economic resilience to shocks: The role of structural policies", *OECD Journal: Economic Studies*, Vol. 2008/1, http://dx.doi.org/10.1787/eco_studies-v2008-art6-en.

European Commission (2014), *Cohesion Policy 2014-2020*, European Union, Brussels, http://ec.europa.eu/regional_policy/what/future/index_en.cfm.

European Commission, Directorate General Regional and Urban Policy (2013), "The programming period 2014-2020: Guidance document on monitoring and evaluation, European Regional Development Fund and Cohesion Fund: Concepts and recommendations", European Union, Brussels, March, http://ec.europa.eu/regional_policy/sources/docoffic/2014/working/wd_2014_en.pdf.

Eurostat (2013), "European Union Statistics on Income and Living Conditions (EU-SILC)", European Commission, Brussels, http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc.

Faggian, A., M.R. Olfert and M. Partridge (2012), "Inferring regional well-being from individual revealed preferences: The 'voting with your feet' approach", *Cambridge Journal of Regions Economy and Society*, Vol. 5, No. 1, pp. 163-180.

Folke, C. (2006), "Resilience: The emergence of a perspective for social-ecological systems analyses", *Global Environmental Change*, Vol. 16, No. 3, pp. 253-267.

Fukuda-Parr, S. (2013), "Global development goals setting as a policy tool for global governance: Intended and unintended consequences", *Working Paper of the International Policy Centre for Inclusive Growth*, No. 108.

Graham, C. and A. Felton (2006), "Inequality and happiness: Insights from Latin America", *Journal of Economic Inequality*, Vol. 4, No. 1, pp. 107-122.

Hudson, J. (2006), "Institutional trust and subjective well-being across the EU", *Kyklos*, Vol. 59, No. 1, pp. 43-62, http://dx.doi.org/10.1111/j.1467-6435.2006.00319.

INEGI (2013), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) 2013", Instituto Nacional de Estadística y Geografía, Mexico, www.inegi.org.mx/est/contenidos/Proyectos/Encuestas/Hogares/regulares/envipe/envipe2013.

Istat (2014), "Aspetti della vita quotidiana: informazioni sulla rilevazione", Istituto nazionale di statistica, Rome, www.istat.it/it/archivio/91926.

Laurent, E. (2013), *Vers l'égalité des territoires: Dynamiques, mesures, politiques*, Rapport pour le ministère de l'Égalité des territoires et du Logement, Paris, www.verslegalite.territoires.gouv.fr.

Laurent, E. and J. Le Cacheux (2012), *Économie de l'environnement et économie écologique*, Armand Colin, Paris.

Lora, E. and A. Powell (2011), "A new way of monitoring the quality of urban life", *IDB Working Paper Series*, No. IDB-WP-272.

Mguni, N. and N. Bacon (2010), *Taking the Temperature of Local Communities: The Well-Being and Resilience Measure*, The Local Wellbeing Project, Young Foundation.

Midelfart, K.H. (2004), "Does agglomeration explain regional income inequalities?", *Working Paper 40/04*, Institute for Research in Economics and Business Administration, Bergen, Norway, August.

ONS (2014), "Measuring national well-being", UK Office for National Statistics, London, www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html.

OECD (2014), *All on Board: Making Inclusive Growth Happen*, OECD, www.oecd.org/inclusive-growth/All-on-Board-Making-Inclusive-Growth-Happen.pdf.

OECD (2013a), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

OECD (2013b), *How's Life? 2013: Measuring Well-Being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201392-en.

OECD (2013c), "Regions and Cities: Where Policies and People Meet", chair's conclusions of the TDPC meeting at ministerial level.

OECD (2013d), *Policy Making After Disasters: Helping Regions Become Resilient: The Case of Post-Earthquake Abruzzo*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264189577-en.

OECD (2011a), *How's Life?: Measuring Well-Being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

OECD (2011b), *OECD Regional Outlook 2011: Building Resilient Regions for Stronger Economies*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264120983-en.

Owens, A. and R.J. Sampson (2012), *Community Well-Being and the Great Recession*, Stanford Center on Poverty and Inequality, Stanford, California.

Partnership for Sustainable Communities (n.d.a), "Sustainable Communities HotReport" available at: http://thedataweb.rm.census.gov/TheDataWeb_HotReport2/EPA2/EPA_Overview_Page2.hrml?STATE=6&COUNTY=274 (accessed on 22 June 2014).

Partnership for Sustainable Communities (n.d.b), "In your community", available at: www.sustainablecommunities.gov (accessed on 22 June 2014).

Perrings, C. (1998), "Resilience in the dynamics of economic-environment systems", *Environmental and Resource Economics*, Vol. 11, Nos. 3-4, pp. 511-520.

Putnam, R. (2000), *Bowling Alone: The Collapse and Revival of American Community*, Simon and Schuster.

Rice, P. and A. Venables (2003), "Equilibrium regional disparities: Theory and British evidence", *Regional Studies*, Vol. 37, Nos. 6-7, pp. 675-686.

Robinson, J. and J. Tinker (1998), "Reconciling ecological, economic, and social imperatives", In: J. Schnurr and S. Holtz (eds.), *The Cornerstone of Development: Integrating Environmental, Social and Economic Policies*, International Development Research Centre, Ottawa, Ontario, pp. 9-44.

Roemer, J.E. (1998), *Equality of Opportunity*, Harvard University Press, Cambridge, Massachusetts.

Sen, A. (1993), "Capability and well-being", In: M. Nussbaum and A. Sen (eds.), *The Quality of Life* (30-45), Oxford University Press, Oxford.

Sijtsma, F.J. and M.N. Daams (2014), "How near are urban inhabitants to appreciate natural areas? An exploration of Hotspotmonitor based well-being indicators: Results for the Netherlands, Germany, and Denmark", *URSI Research Report 348*, University of Groningen, Netherlands.

Stiglitz, J.E., A. Sen and J.P. Fitoussi (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress*, The New Press.

Tavits, M. (2008), "Representation, corruption, and subjective well-being", *Comparative Political Studies*, December, Vol. 41, No. 12, pp. 1 607-1 630, http://dx.doi.org/10.1177/0010414007308537.

United Nations (2009), *Measuring Sustainable Development, Report of the Joint UNECE/OECD/Eurostat Working Group on Statistics for Sustainable Development*, United Nations, New York.

United Nations (1987), *Report of the World Commission on Environment and Development: Our Common Future*, United Nations Publishing.

UNEP (2007), *GEO-4, Division of Early Warning and Assessment of the United Nations Environment Programme*, www.unep.org/geo.

US Census Bureau (2014), "American Community Survey", US Census Bureau, Washington, DC, www.census.gov/acs/www.

US Department of Housing and Urban Development (2010), "Partnership for Sustainable Communities", www.sustainablecommunities.gov.

Veenhoven, R. (2002), "Why social policy needs subjective indicators", *Social Indicators Research*, Vol. 58, No. 1, pp. 33-45.

Chapter 2

How to measure regional and local well-being

This chapter provides a set of indicators to assess well-being in OECD regions. Indicators cover nine dimensions of well-being and were identified on the basis of the framework outlined in Chapter 1. Based on these indicators, evidence on well-being is provided for OECD regions, underlying the extent of regional disparities. When possible, well-being outcomes are also presented for OECD metropolitan areas. The chapter also presents data on income distribution within regions and evidence on how inequality has been associated to regional economic growth during the last decade. In addition, this chapter provides possible measures to account for the complementarities between dimensions of well-being. Finally, it discusses the main steps to be implemented in order to improve the measurement of well-being of regions and cities in the future.

Introduction

Citizens' common aspiration is to enjoy a good level of well-being where they live. Both citizens and policy makers need to be able to assess the quality of life and material conditions of the places they live and to compare them with regions and cities in the same country or across the world. In order to carry out such an assessment, it is necessary to build a set of measures at the sub-national scale. This set of indicators, built according to the framework presented in Chapter 1, can serve as a common reference for regions that aim to develop their own metrics of well-being.

This chapter provides a set of indicators for OECD regions and, when possible, metropolitan areas, offering an international comparison of well-being outcomes. The chapter first offers a set of selected regional indicators that allows OECD regions to be compared in terms of the nine different well-being dimensions presented in Chapter 1. At the sub-national scale, many well-being dimensions are strongly associated with one another, and understanding these interdependencies can be of help for policy makers. Possible measures to account for the interactions among well-being dimensions are therefore discussed. Second, the chapter presents evidence on well-being outcomes in OECD regions, assessing regional disparities in quality of life and material conditions and highlighting their policy relevance. Third, the chapter presents measures of income inequalities within regions. Finally, it discusses future work to be done to improve the measurement of well-being in cities and regions. In doing so, it identifies the major statistical gaps and discusses the priorities for overcoming them in the future.

A common set of well-being indicators for regions

A set of indicators to measure the dimensions of well-being described in Chapter 1 has been developed for the 362 OECD large regions. These indicators are comparable across OECD countries, are gathered from official sources and, in most cases, are available over different years. They are also publicly available in the *OECD Regional Well-Being Database*. At present, regional measures are available for OECD countries in eight dimensions of well-being included in the OECD Better Life Initiative at national level: income, jobs, housing, education, health, environment, personal security and civic engagement. In addition, access to services was added to the regional framework. On the other hand, regional measures, comparable across countries, are not available on three other well-being dimensions: social connections, work-life balance and subjective assessment of life circumstances. When data are available in a suitable format, the regional well-being metrics uses similar indicators as the Better Life Initiative at national level. This is the case, for example, of life expectancy (health), murder rate (safety) or employment rate (jobs) (Table 2.1).

A limited set of headline indicators chosen among those of Table 2.1 covering the nine regional well-being dimensions is available through the OECD Regional Well-Being web tool (Box 2.1).

Table 2.1. **Well-being dimensions and regional indicators**

	Dimensions	Regional indicators	Country indicators in OECD How's Life? initiative
Material conditions	Income (levels and distribution)	– Household disposable income (mean and median) – Income distribution in a region: – Gini Index for household disposable and market income – Quintile share ratio (S80/S20) for household disposable and market income – Regional relative poverty (headcount ratios for disposable and market income, with poverty line set at 40%, 50% and 60% of the national median income)	– Household net adjusted disposable income – Household net financial wealth
	Jobs	– Employment rate – Long-term unemployment rate – Unemployment rate – Women's participation rate	– Employment rate – Long-term unemployment rate – Average annual earnings per employee – Job tenure
	Housing	– Number of rooms per person	– Number of rooms per person – Housing cost overburden rate – Dwellings without basic facilities
Quality of life	Health status	– Life expectancy at birth – Age adjusted mortality rate	– Life expectancy at birth – Self-reported health status
	Education and skills	– Educational attainment – Students' cognitive skills (PISA) (available for a limited number of countries)	– Educational attainment – Students' cognitive skills (PISA) – Educational expectancy – Competences in the adult population (PIIAC)
	Environmental quality	– Air quality ($PM_{2.5}$) – Loss of forest and vegetation – Municipal waste recycled (available for a limited number of countries) – Access to green space	– Air quality – Satisfaction with water quality
	Personal security	– Homicide rate – Car theft rate – Mortality due to transport accidents	– Homicide rate – Self-reported victimisation (Gallup)
	Civic engagement and governance	– Voter turnout	– Voter turnout – Consultation on rule making
	Accessibility of services	– Broadband connection – Average distance to the closest hospital (available for a limited number of countries) – Share of population with access to public transport (available for a limited set of cities) – Unmet medical need (available for a limited number of countries)	
	Work-life balance		– Employees working very long hours – Time not worked
	Social connections		– Social network support (Gallup)
	Subjective well-being		– Life satisfaction

The next section provides an overview of the geography of well-being in OECD regions based on the dimensions and indicators introduced above. The section after that discusses interactions among well-being dimensions. The chapter concludes with a critical assessment of the dimensions for which additional improvements in measurement at the sub-national level are needed for different geographic scales.

Box 2.1. **The OECD regional well-being interactive tool**

The OECD regional well-being tool (www.oecdregionalwellbeing.org) allows the measurement and comparison of well-being outcomes in the 362 OECD regions. It features eleven indicators to measure nine well-being dimensions: income, jobs, housing, education, health, environment, safety, civic engagement and access to services. This tool responds to the need of citizens to have information on various topics affecting their life and of policy makers to have an accurate picture of societal progress.

The data visualization aims at reaching a large non-technical audience. For this reason, the values of the regional well-being indicators have been transformed in scores from 0 to 10, making it possible to obtain a relative ranking among all OECD regions in each dimension. A higher score in a topic indicates better well-being outcomes.

The visualisation enables a user to see how a region is faring in the nine well-being topics. For example, Prague (Czech Republic) scores 10 in education, 9 in jobs and less than 2 in environment. The Capital Region in Korea scores 8.7 in education, ranking first among Korean regions and in the top 28% among OECD regions. The scores of each region can be compared to those of regions in the same country and across the OECD area, thus identifying regions with similar well-being outcomes.

The interactive website also shows whether the region is making progress in a topic relative to the other OECD regions, by showing whether its relative ranking on the topic has increased or decreased since 2000. For example, for health, Prague scores 5.6, higher than any other region in the Czech Republic, but in the bottom 40% of OECD regions. This ranking has improved since 2000.

Finally, the interactive tool also displays regional disparities within countries, measuring the difference between the top and bottom 20% regional values in a topic, as compared to the difference between the top and bottom 20% for OECD countries as a whole.

The geography of well-being in OECD regions and cities

Income levels vary widely between and within regions

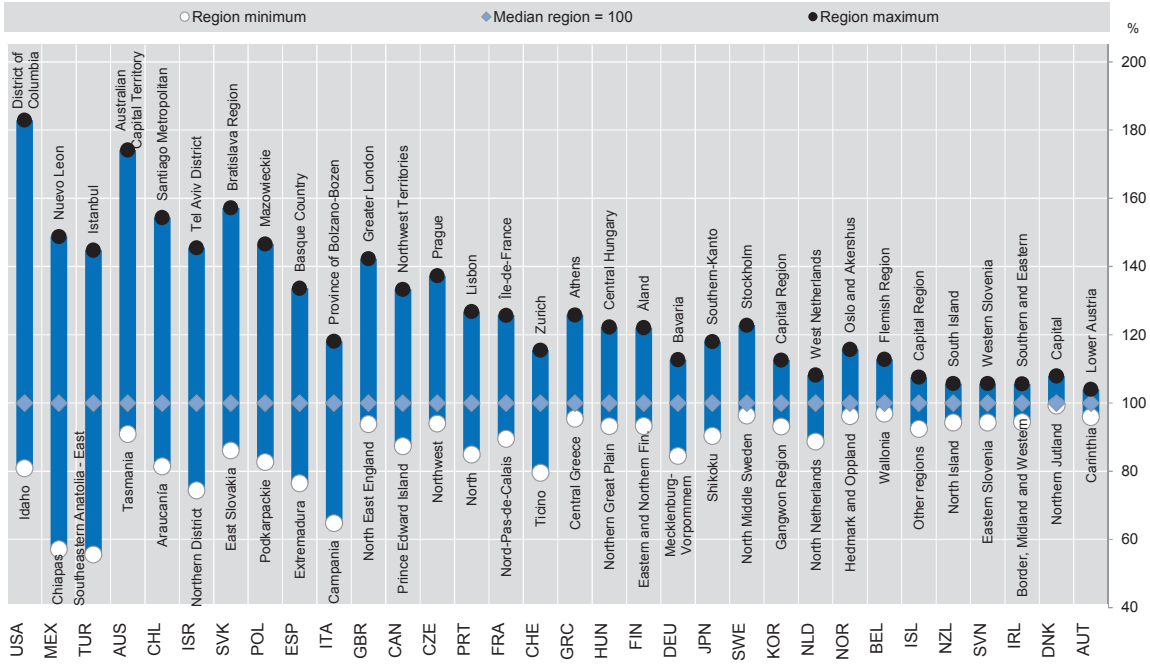
Income and employment are widely accepted as key drivers of individual well-being, not only because of their relevance to living standards but because they are associated with life satisfaction, perceived status and social connections. When considering regional disparities, the most widely used measure of living standards is variability in regional gross domestic product (GDP) (OECD, 2013a). However, GDP is best understood as a measure of the economic production of each region, rather than of the income of its residents. In addition, differences between production and household income in a given region are likely to be particularly large when a significant number of residents of one

region work in another, or when they transfer a part of their income to family members living elsewhere. Differences between GDP and income can be substantial in regions that depend on natural resources, examples of which have been extensively analysed by the OECD (OECD, 2013b). In terms of GDP per capita, regional differences within countries are often larger than those across countries. Inter-regional disparities have increased in a number of OECD countries since 1995, especially in Eastern Europe. Regional disparities are also particularly high in emerging market economies, with Indonesia displaying the highest level (OECD, 2013a).

Inter-regional disparities in household income are large in many OECD countries. In Australia, Chile, Israel, Mexico, Poland, the Slovak Republic, Spain, Turkey and the United States, people in the top income region were more than 30% richer than the median citizen in 2011 (Figure 2.1). High income gaps are also observed between urban and rural areas. In Europe in 2011, for example, households living in densely populated areas had incomes about 10% higher than all other households (Eurostat, 2013). These gaps have narrowed in most OECD countries, but remain a major concern in emerging economies and developing countries.

Figure 2.1. **Regional range of household income, 2011**

As a % of income in the country's median region



StatLink http://dx.doi.org/10.1787/888933120955

Note: The figure refers to the household disposable income of the OECD TL2 regions. Countries are ranked by decreasing regional differences. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014), Regional Well-Being (database), http://dx.doi.org/10.1787/region-data-en.

Income inequalities within regions are larger than between regions

Recent OECD data show that differences in household income distribution are large not only across regions but also within regions. In general, income inequalities within regions in OECD countries tend to be larger than inequalities between regions (Piacentini, 2014; Rodríguez-Pose and Tselios, 2009). Evidence at the country level also shows that the lower the territorial level analysed, the higher the magnitude of regional income disparities, and income inequality appears to be higher within urban areas than elsewhere. For example, in 2010, nearly all of the most populous counties in US metropolitan areas had estimated Gini coefficients above the US national average (US Census Bureau, 2010). In the Aix-Marseille metropolitan region, the median household income of the top 10% is 8.4 times higher than the poorest 10%, making the region one of the most unequal in France (OECD, 2013a).

The availability of information on household income distribution and poverty at regional level helps national and regional policy makers to focus on inclusive growth and to enhance the effectiveness of social policies at a time of tight resources. Regional data on the distribution of household income come with various caveats. Household surveys are rarely designed to be representative at the regional level. In addition, comparing regions in different countries can be difficult, because their size varies and the fact that the cost of living is usually lower in rural areas than in cities is usually ignored, though it may have an effect on the assessment of inequality. However, this new set of indicators of regional income inequality and poverty, produced for 28 OECD countries, extends the OECD *Income Distribution Database* (IDD) to TL2 OECD regions for the year 2010. It also offers measures of the statistical reliability of these data, making international comparisons possible.[1]

These data show that regional differences in the distribution of household disposable income are high in all large OECD countries, as well as in some small countries with a dominant urban centre (e.g. Belgium). For example, the range between the Gini coefficients of the states of Chiapas and Tlaxcala in Mexico (around 0.15) is of the same magnitude as the difference in Gini coefficient between Mexico and the OECD average (Figure 2.2 panel B). Data on market income show a much larger inter-regional variability than those on disposable household income, suggesting that taxes and social transfers cushion much of the income inequalities both between and within regions.[2] The effect of taxes and public transfers in reducing regional differences in income inequality is particularly large in Belgium, Finland, Germany, Italy, Japan and the United Kingdom (compare country distribution of regional Gini Indexes in panels A and B of Figure 2.2).

While the Gini Index provides a synthetic measure of the level of inequalities in a region, the income distribution by quintile (that is to say, the income accrued by each fifth of the regional population when ranked by increasing level of income), can show whether inequality in a region is mostly driven by disparities in the upper part of the income distribution (wealthier population) or in the bottom part (poorer population). In many regions in Italy, Japan, Norway, Slovenia, Spain, Sweden and the United States, the gap between the low earners and median earners is higher than the gap between top earners and median earners.

In Japan and in most of the regions in the Scandinavian countries, the income of the top 20% richest population is between two and four times higher than that of the bottom 20% poorest, while in most of the regions of Chile and Mexico, the income of the wealthiest is at least ten times larger. The gap between top and bottom earners is much higher than in the other regions of the country in Sicily and Basilicata (Italy),

Central Poland, Ile-de-France, Andalucía (Spain), the District of Columbia and New Mexico (United States), and Jerusalem District (Israel) (Figure 2.3).

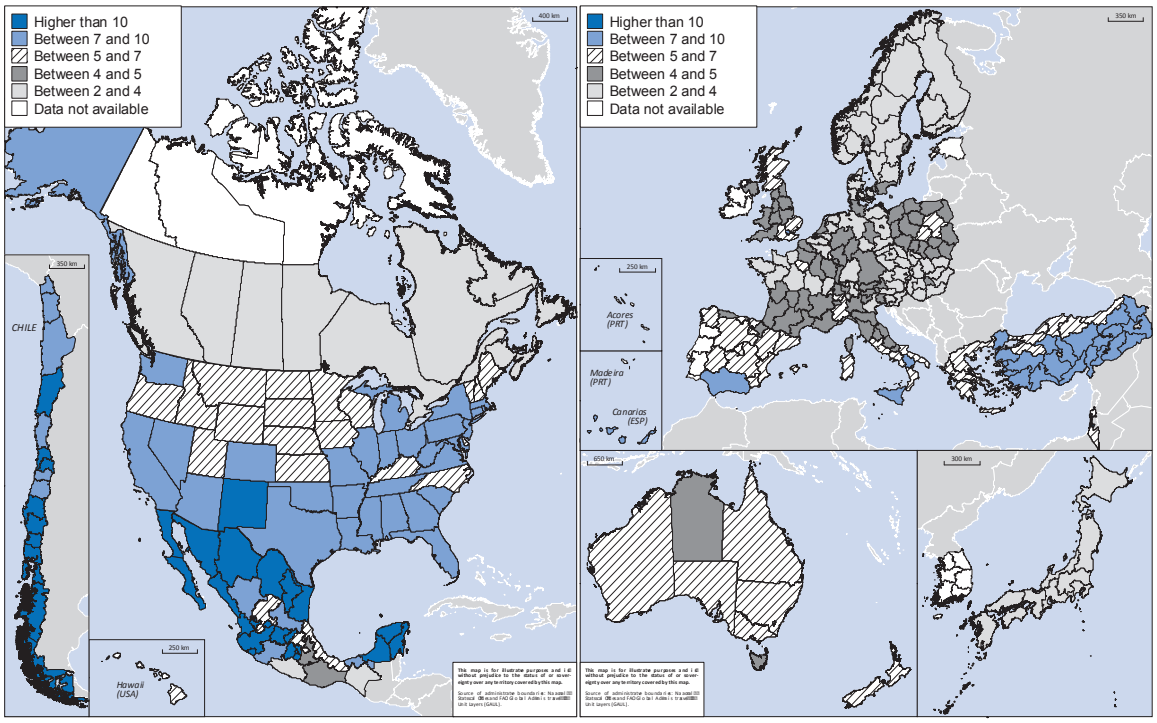
Figure 2.2. **Regional values of Gini Index in market and disposable household income, around 2010**

StatLink http://dx.doi.org/10.1787/888933120974

Note: Countries are ordered by the difference between maximum and minimum values of the Gini coefficient for the regional household disposable income. Each point in the panel represents a region. The Gini Index of market income in Austria is not available. The Gini Index is a measure of income concentration that ranges from 0, representing perfect equality, to 1, where all income flows to a single person. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: Authors' research based on *OECD (2014), Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Figure 2.3. **Income inequalities: How much richer were the richest 20% in each region than the poorest 20% in 2010?**



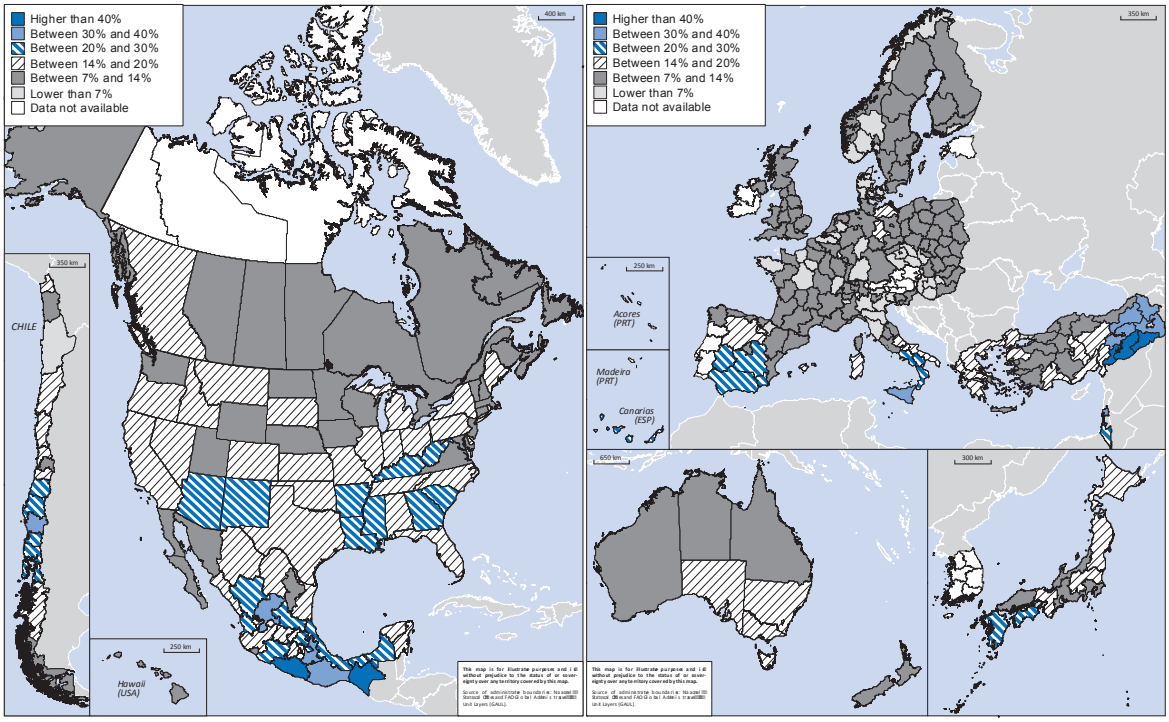
StatLink http://dx.doi.org/10.1787/888933120993

Note: The values represent the ratio between disposable household income accrued by the top 20% of population with the highest income and that of the bottom 20%. This document and any map included herein are for illustrative purposes and without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Source: Authors' research based on OECD (2014), *Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

In nine countries, differences in income poverty across regions are larger than the difference among OECD countries. In Belgium, Chile, Germany, Israel, Italy, Mexico, Spain, Turkey and the United States, the inter-regional difference of the relative poverty rates is larger than the difference between the Czech Republic and Mexico, the OECD countries with the lowest and the highest relative poverty rates, respectively, when considering a poverty line defined at 50% of the national median income. In Belgium, Italy, Mexico and Turkey, the relative poverty incidence is twice as high as the country value (Figure 2.4). It should be acknowledged that poverty rates are sensitive to the absolute threshold used to identify poverty lines and to the choice of a regional or national threshold (Box 2.2).

Figure 2.4. **Regional relative poverty rates, around 2010**



StatLink http://dx.doi.org/10.1787/888933121012

Note: Poverty headcounts, with poverty line defined at 50% of the national median income. This document and any map included herein are for illustrative purposes and without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Source: Authors' research based on OECD (2014), *Regional Well-Being Database*, http://dx.doi.org/10.1787/region-data-en.

Within a country, income disparities are influenced by the distribution of wages and salaries, which account for 75% of household income among working-age adults (OECD, 2011c). On the determinants of inequalities within regions, empirical studies have analysed the characteristics of local labour markets, such as employment density (Ciccone, 2002) and the proximity to highly populated centres (Rice et al., 2006). This further translates into a premium for inhabitants of urbanised areas (Glaeser and Mare, 1994). A recent empirical analysis on OECD regions suggests a significant and positive relation of income inequalities within regions (measured by the Gini coefficient of household income in a region) with unemployment and lack of safety and a negative relation with the share of elderly population (Brezzi and Piacentini, 2014). Studying regional poverty rates, lack of safety and unemployment rates are strongly correlated with relatively low incomes. Higher levels of education and a larger share of manufacturing in total employment tend to decrease the relative poverty rates in regions (Brezzi and Piacentini, 2014).

Box 2.2. Incidence of poverty within regions: National and regional poverty lines

The common practice in analysing OECD countries is to use a relative definition of poverty. Individuals or households are considered poor if their income falls below a certain proportion of the median income of the national population. The OECD uses multiple relative poverty lines, set at 40%, 50% and 60% of median national income, as a benchmark for international comparisons. Relative poverty lines do not require estimating the cost of purchasing a "market basket" of goods, as absolute poverty lines do, and thus are usually preferred for international comparisons.

In measuring poverty within a region, the choice of the reference population, whether the national or the regional median earner, is still a matter of debate. Supporters of national thresholds note that many social policies aim to provide services uniformly across a country, while others note that cost of living can be very different across regions and that people are interested in comparing their living standards with those living in the same area.

Regional poverty lines can complement poverty measures based on national poverty lines, by providing a within-region perspective to the measurement of poverty. For example, a person considered income-poor with respect to a national threshold might not be classified as poor in relation to a regional poverty line if he lives in a relatively low-income region. Preliminary estimates using a poverty line set at 60% of the regional median income show that while poverty rankings across regions are generally not much affected, poverty rates are reduced in the poorest region for most of the countries; for example, they are halved in Sicily (Italy), Chiapas (Mexico) and South-Eastern Anatolia (Turkey).

Source: Piacentini, M. (2014), "Measuring income inequality and poverty at the regional level in OECD countries", *OECD Statistics Working Papers*, No. 2014/03, OECD Publishing, http://dx.doi.org/10.1787/5jxzf5khtg9t-en.

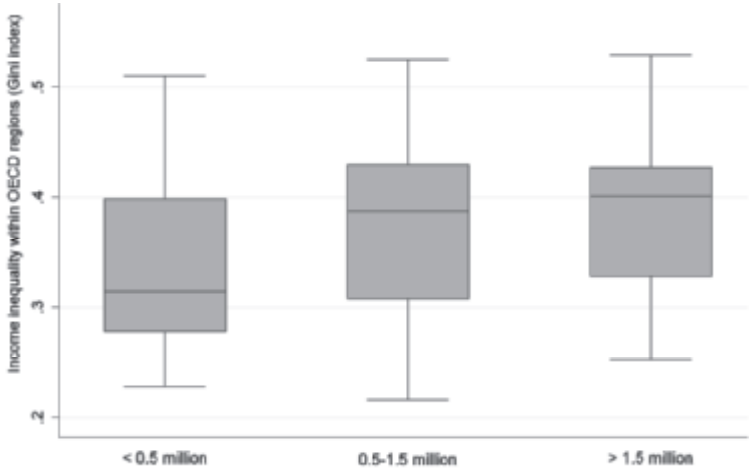
Income inequalities are on average higher in large cities

The level of income inequality within regions is different according to the urban structure of the region. First, regions with higher shares of population living in functional urban areas have an overall higher level of income inequality as measured by the Gini coefficient (Brezzi and Piacentini, 2014). In addition, a number of indicators of inequality show that there are relatively higher inequalities in regions where the largest proportion of people lives in cities of more than 1.5 million inhabitants (Royuela et al., 2014). More specifically, for the whole set of OECD regions, inequalities are lower the smaller the size of cities (Figure 2.5). Several arguments support this evidence. More talented individuals tend to move to large cities, where the returns to talent are higher and where there will be more productive firms paying higher wages (Behrens et al., 2014). Second, agglomeration economies, reflected in urban size, can be a source of additional wage premiums, and in turn increase the level of inequality. The relationship between regional levels of urbanisation and inequality is weaker in some countries, such as Chile and Mexico. One possible explanation is that the high levels of migration towards urban areas might have reduced the rural-urban earning differentials in the regions of these countries.

The fact that inequality is, on average, higher in large cities is also confirmed by previous works (Kanbur and Zhuang, 2013; Castells-Quintana and Royuela, 2014). When looking at the ratio of income of the top 20% richest people to that of the bottom 20%, income inequality in capital regions tends to be higher than the national level in all but six countries, suggesting that more urbanised areas have a skewed income distribution, particularly in the United States, Mexico and Belgium. These estimates, however, refer to the region containing the national capital, so the result depends on how closely the capital

region's boundaries correspond to those of the capital city. Internationally comparable measures of income levels and distribution based on the actual boundaries of urban areas are not yet available (Box 2.3).

Figure 2.5. **Income inequality within regions by size of cities (average 2004-12)**



Source: Royuela, V., P. Veneri and R. Ramos (2014), "Income inequality, urban size and economic growth in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Box 2.3. **Measuring income distribution in regions: Results and future developments**

Substantial research has compared levels of income inequality and poverty across OECD countries (OECD, 2011c). Because of lack of data, the inter- and intra-regional income disparities have been largely overlooked, even though the available evidence shows significant within-country differences (Rodríguez-Pose and Tselios, 2009).

Data constraints loom large in studies of income inequality, poverty and social exclusion at the sub-national level. However, through the extension of the OECD *Income Distribution Database* to sub-national values, it has been possible not only to produce regional indicators for 28 OECD countries but also to document quality issues related to these estimates. The indicators refer to the "equivalised" household disposable income, are produced either from administrative data or household surveys according to internationally agreed definitions, and refer to the year 2010. The indicators produced refer to: *i)* income levels at regional level (mean and median disposable and market income); *ii)* income distribution within a region (Gini Index for disposable and market income, quintile share ratio for disposable and market income); and *iii)* relative poverty in a region (headcounts ratio for disposable and market income), with the poverty line set at 40%, 50% and 60% of the national or of the regional median incomes. Sub-national estimates are published together with confidence intervals, to help interpret them correctly. For those countries whose estimates are drawn from nationally representative surveys, confidence intervals can highlight whether differences across regions are "real" or due to sampling errors. Future work in this field would benefit by making available regional identifiers and complete information on the sampling design in public-use survey micro-data, so as to allow better estimates of standard errors.

The results confirm the relevance of examining sub-national income distribution and of possibly repeating these estimates regularly (for example, every three years) in order to monitor changes in inequality. Another important development would be the estimation of income distribution indicators for metropolitan areas.

Source: Brezzi, M. and M. Piacentini (2014), "Understanding income inequality in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

The link between income inequality and economic growth is complex at the regional level

The relationship between inequality and growth is complex, and potentially driven by different factors. On the whole, no general theory of the topic has been formulated nor stable empirical findings produced. However, several arguments have been raised to explore the mechanisms explaining how inequality might affect economic growth, some encouraging and some hindering growth. Among growth-enhancing elements of inequality are individual incentives for competition and risk taking, which are higher in societies that reward efforts and allow higher inequalities (Rebelo, 1991; Voitchovsky, 2005). Another mechanism is the accumulation of physical capital, which may be higher in more unequal societies. In this respect, it has been demonstrated that saving rates increase with wealth and that wealthier people have a higher marginal propensity to save (Barro, 2000; Dynan et al., 2004).

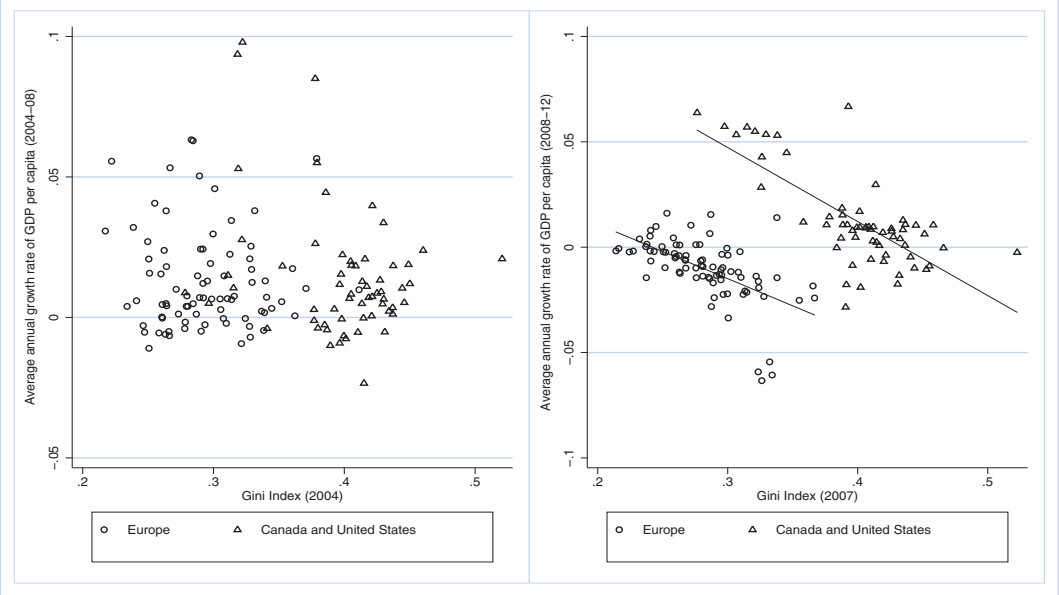
Other mechanisms could help to explain a negative relationship between inequality and growth. Political economy arguments suggest that more unequal societies are more likely to increase taxation to redistribute resources, reducing the incentives to invest (Alesina and Rodrik, 1994; Persson and Tabellini, 1994). Another argument is that higher inequality may reduce accumulation of human capital, under the argument that credit-market imperfections prevent disadvantaged individuals from investing in expensive education and training (Galor and Zeira, 1993; Easterly, 2007). More generally, the higher the level of inequality, the larger the number of individuals whose opportunities to fully develop their productive potentials are restricted. This, in turn, might affect the growth rate of the aggregate output (Ferreira, 1999). Unequal societies can also create social and political instability, resulting in uncertainty that depresses investment and economic growth (Alesina and Perotti, 1994). More recently, it has been argued that inequality might have a different impact on growth, depending on its sources or on the part of the distribution considered: only inequality of opportunity could be detrimental for growth, while inequality due to effort might be growth-enhancing (Marrero and Rodríguez, 2013; Ferreira et al. 2014). Income inequality could also potentially reduce the income growth of the poor and increase that of the rich, or vice versa (van der Weide and Milanovic, 2014). All these arguments are generally valid in the medium to long term. In a shorter time horizon, two other opposing mechanisms linked to the demand side of the economy can come into play. One is that higher inequality can have a positive effect on growth, given a higher willingness to pay on the part of the wealthiest people for new and innovative goods (dynamic price effect). On the other hand, a market-size effect suggests fewer consumers can afford to buy new goods in a more unequal society (Bertola et al., 2006).

Mainly due to a lack of reliable data, very few works have analysed the inequality-growth relationship at regional level. However, there are specific reasons why such analyses are relevant. First, how individuals behave as citizens and economic agents can be affected by local conditions rather than by national ones. Investment in human capital, for example, especially when the credit market is imperfect, can be affected by individuals' income, which can be very different across regions of a same country. Investment in human capital is also affected by life expectancy (Rodríguez-Pose and Tselios, 2010), which also can vary widely across regions and groups of people. For example, the difference between the best- and worst-performing OECD regions in terms of life expectancy is 12 years, the double that among countries (6 years). Second, a regional focus can mitigate omitted variable biases as well as issues of incomparability across countries, since regions better reflect the actual conditions where people live. In

this line of thought, the use of regional data makes it possible to better understand the role of small disparities in initial conditions for subsequent economic growth (Partridge, 2005). Finally, many of the channels of transmission between inequality and economic growth can be amplified or reduced at the regional scale: income redistributive taxes are usually imposed at the national level (political economy channel), while crime may be more important at the local level (political instability). Both aspects are consequences of inequality, which may be affecting economic performance, but they do not play a similar role at the national or regional level.

Recent OECD work has begun to address the relationship between income inequalities within regions and economic growth, in a time horizon between 2004 and 2012. The analysis considers regions in 15 OECD countries[3] where time-series estimations of regional income distribution indicators were feasible (Royuela et al., 2014). Income inequalities were measured, among other factors, by the Gini Index of income distribution within each region, while economic growth rates were measured by the relative change in levels of GDP per capita. On the whole, in OECD regions, the relationship between inequality and growth seems to have changed in the periods before and after the economic crisis. While it is hard to detect any strong relationship in the period before 2008, the following four years were characterised by different patterns. Differences across countries in regional inequalities are high and explain a large part of the variation. If we consider European and North American countries separately, the relationship between inequality and growth turns out to be negative (Figure 2.6). For both continents, less unequal regions experienced higher growth rate on average. On the whole, European regions had both lower growth rates of GDP per capita and lower inequalities with respect to their American counterparts. On the other hand, it is difficult to detect significant changes in the Gini Index in the relatively short time-span considered (2004-12).

Figure 2.6. **Income inequality and growth of GDP per capita, pre- and post-crisis, OECD regions**



Source: Royuela, V., P. Veneri and R. Ramos (2014), "Income inequality, urban size and economic growth in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, forthcoming.

An analysis of the relationship between income inequality and economic growth in OECD regions was carried out for the two periods 2004-07 and 2008-12. By considering the whole set of OECD regions without distinguishing the country or the continent of location, income inequality and economic growth emerged as practically not correlated or, if anything, with a weak positive correlation (Table 2.2). However, the correlation becomes strong and negative after accounting for regional income levels, degree of urbanisation, economic structure, education levels, labour market, year of reference and the continent of location (Table 2.2). This means that, taking into account the location of regions and other basic regional factors that can affect economic growth, more unequal regions have experienced lower growth rates in the last decade. These results confirm that the relationship of inequality and growth should account for differences across macro-areas, at least for Europe and the Americas. These results were also confirmed by controlling for regional dummy variables (fixed effects), which account for unobservable time-invariant characteristics of the regions (Royuela et al., 2014).

Table 2.2. **Correlations between income inequality and two-year growth rates of GDP per capita (2004-12), OECD regions**

	Gini Index	Top 20% - bottom 20% ratio	Top 10% - bottom 10% ratio	Top 10% - median ratio	Median - bottom 10% ratio	Poverty (below 40% median income)	Poverty (below 60% median income)
Raw data							
Two-year GDP per capita growth	0.0504	0.0577	0.0521	**0.0729**	0.044	0.0402	0.0233
Obs.	597	588	587	588	587	597	597
Adjusted data							
Two-year GDP per capita growth	**-0.1178**	**-0.0084**	**-0.0031**	**-0.0153**	**-0.0076**	**-0.1039**	**-0.0800**
Obs.	537	528	527	528	527	537	537

Note: Bolded coefficients are significant at 90% confidence level. Adjusted coefficients are estimated controlling for income levels, degree of urbanisation, economic structure, education levels, labour market, continent of location and time-fixed effects.

Source: Royuela, V., P. Veneri and R. Ramos (2014), "Income inequality, urban size and economic growth in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

In the last decade, the negative relationship between income inequalities and economic growth was stronger in regions that included large metropolitan areas. Grouping OECD regions by the size of their cities, it emerges that the inequality-growth relationship was not of the same magnitude across groups. More specifically, the negative relationship between inequality and growth was stronger the larger the size of cities. Regions where most of the population lived in cities of more than 1.5 million inhabitants grew relatively faster when less unequal. Conversely, in regions mainly characterised by small cities or rural areas, the relationship between inequality and growth was weaker. These correlations were consistent for several indicators of income distribution within regions, as shown in Table 2.2.

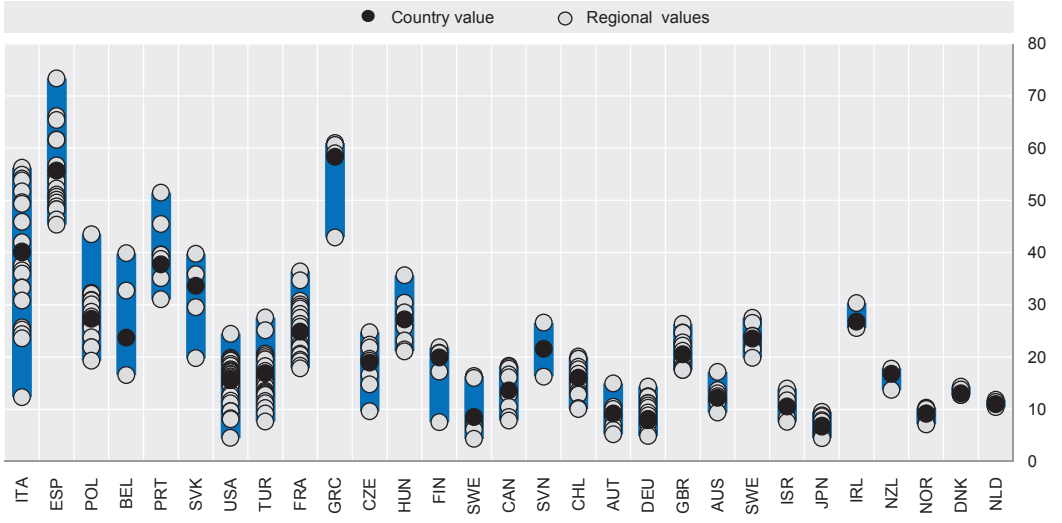
Employment outcomes in OECD countries show large regional disparities

Unequal access to employment contributes to inter-regional disparities. In the past decade, employment growth in many OECD countries was highly concentrated in

specific regions (OECD, 2013a). On average, 40% of overall employment creation in OECD economies during 1999-2012 was generated in just 10% of their regions. The industrial mix and a solid base of human capital make some regions competitive and attractive to employers. Evidence shows that the divergence in educational levels in cities in the United States is causing an equally large divergence in labour productivity and salaries for most of the workers in a city, in particular for the highly skilled, but also for the low-skilled jobs (Moretti, 2012). With the economic crisis, employment trends have become even more different across regions. In fact, in Canada, Estonia, France, Ireland, the Netherlands, New Zealand and the Slovak Republic, half or more of the employment gap could be made up if the employment rate of just one region returned to its pre-crisis level (OECD, 2013a).

In many countries, regional disparities in youth unemployment have grown wider since the crisis. Southern European countries, such as Greece, Italy and Spain, are of particular concern, because in some regions, the youth unemployment rate now exceeds 40% (Figure 2.7). These regions also have higher than average early leavers from education and training. Furthermore, while large cities drive national employment in many countries, the economic crisis has affected urban labour market conditions. The unemployment rate in metropolitan areas rose more in the 2008-12 period than it did in the previous 8 years in 26 of the 28 OECD countries. In 2012, 45% of OECD metropolitan areas had an unemployment rate above the national rate (OECD, 2013a).

Figure 2.7. **Regional variation in the youth unemployment rate, 2013**



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Note: The youth unemployment rate is the ratio between unemployed persons aged 15-24 and the labour force in the same age class. Each point represents a TL2 region. Countries are ranked by decreasing regional differences in youth unemployment rate. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014), *Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Local labour markets adjust slowly, due to the demographic and productive structure of the regions, mobility costs, market rigidity and institutional constraints. In 2011, in almost 50% of the regions considered, one out of three unemployed was long-term unemployed (i.e. out of the labour market for more than 12 months) (OECD, 2013a).

Inequalities in living standards and employment within cities are often associated with spatial segregation. Intra-urban inequality is also prominent in many cities in advanced economies, especially within metropolitan areas and post-industrial cities (OECD, 2006). Inequality does not, of course, take the same form or intensity in every city, and additional measurement is required at this spatial level (Box 2.4). The precise patterns vary from country to country and from city to city, partly depending upon national economic trajectories, labour market policies, welfare state policies, etc. People can live in cities with very different unemployment rates even within the same country. Larger differences are found in the southern European countries, such as Italy and Spain (Figure 2.8).

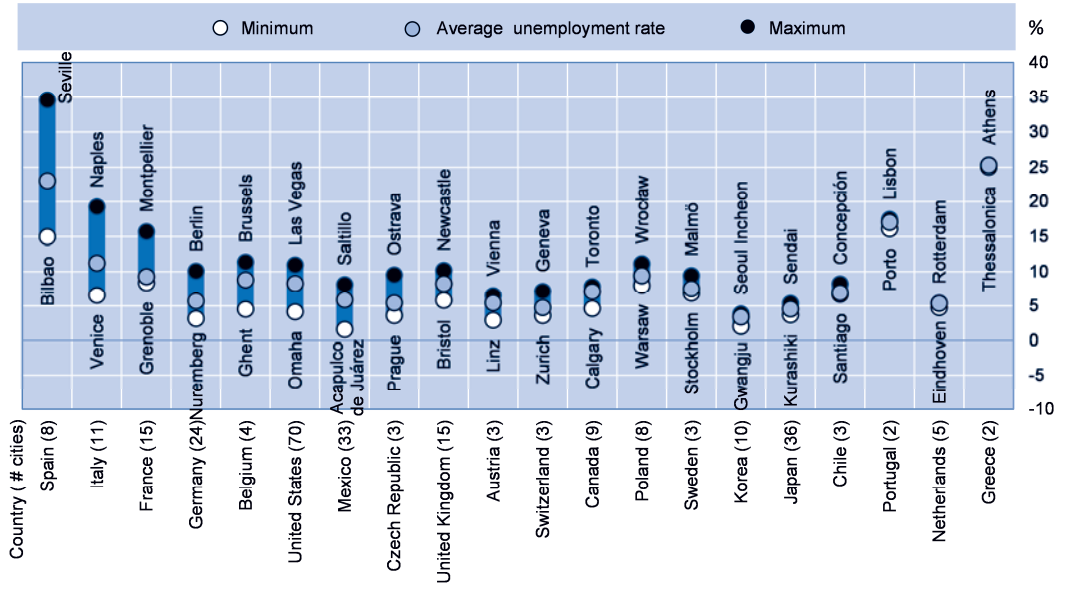
Box 2.4. **Measuring well-being and inequalities in cities**

Many socio-economic inequalities are characterised by a strong spatial dimension, in which cities play a major role. In terms of several well-being dimensions, the largest spatial inequalities are observed at city level, especially when population is grouped by race and ethnicity (Lewis and Burd-Sharps, 2013). Within cities and metropolitan areas, income inequality tends to rise with city size and with cities' per capita income levels, even after controlling for a wide range of factors, including industrial structure and skill endowments of the workforce (Baum-Snow and Pavan, 2013). At the urban scale, inequality is often reflected in spatial sorting of groups according to income, which is at the same time a driver and a consequence of interpersonal inequality. This is because neighbourhoods with lower incomes typically have poorer schools and local amenities and often suffer from poorer access to transport networks and thus to services, jobs and educational opportunities. On the whole, the residents of such places also have poorer social networks, which can be crucial to employment prospects (Olli Segendorf, 2005). These factors all tend to reinforce the inequalities that led to spatial sorting in the first place. In many instances, urban policies and planning can either reinforce or mitigate such inequalities.

Measuring well-being and inequality at city level would mean to monitor – and, in many cases, to map – the multi-dimensional outcomes in terms of income, jobs, health, education, transport, crime, social connections, etc., and the different opportunities or inequalities affecting particular groups or places. Such monitoring would be particularly appropriate at the level of functional urban areas (OECD, 2012) for two reasons: first, labour markets tend to reflect functional economies rather than municipal borders, and, secondly, administrative boundaries in fragmented metropolitan areas often reflect – and reinforce – inequalities in access to public goods and services. An analysis of the functional urban areas would also highlight whether opportunities and well-being outcomes are significantly different between the urban core and the surrounding areas.

While the *OECD Metropolitan Database* provides, for 275 cities of more than 500 000 inhabitants, information that can help assess their socio-economic conditions, data for many of the well-being dimensions presented in Table 2.1 are not yet available.

Figure 2.8. **Differences in metropolitan unemployment rates, 2012**



StatLink http://dx.doi.org/10.1787/888933121050

Note: Countries are ranked by decreasing differences in metropolitan unemployment rates.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

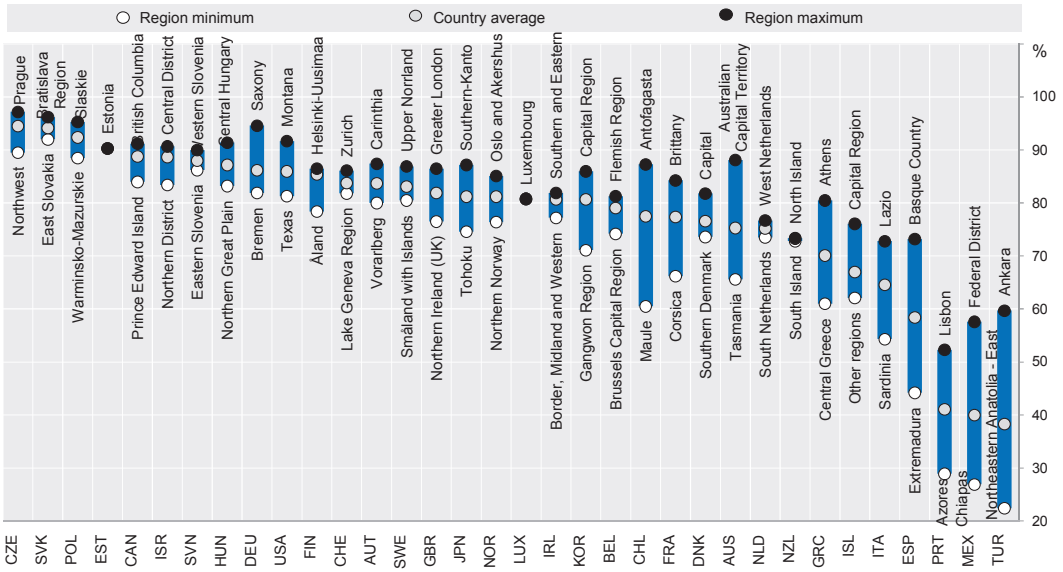
Educational outcomes can still be improved in most regions

Besides looking at income and employment outcomes, the assessment of well-being includes the measurement of several other non-material dimensions related to quality of life. One key element in terms of individual well-being is education, which, from a regional perspective, emerges as highly variable across regions. In most of the regions in Mexico, Portugal and Turkey, and in some regions in Spain, the proportion of the workforce with at least secondary education was less than 50% in 2013. These countries also show higher regional disparities in education (Figure 2.9). The share of the workforce with a secondary degree is not necessarily the best way to monitor educational outcomes; assessing the competency of students or skills of adults would be preferable. However, these data are not yet available for all countries at regional level and constitute an area for future work.

Regional factors strongly affect access to education and quality of learning. Even when the socio-economic background of students is taken into account, the location of schools matters greatly in determining the quality of education. In the OECD area, 15-year-old students in urban schools outperformed those in rural areas on the OECD Programme for International Student Assessment (PISA) survey by more than 20 points on average in 2009, or the equivalent of almost one year of education (OECD, 2010). Countries that have undertaken the OECD PISA survey at the regional level show that regional disparity in education outcomes can be large, such as in Australia, Canada, Italy, Mexico and Spain (OECD, 2013a).

Figure 2.9. **Regional disparities in education**

Regions with the lowest and highest percentage of workforce with at least a secondary education, 2013



StatLink http://dx.doi.org/10.1787/888933121069

Note: Countries ranked by average share of population with at least a secondary education. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014), *Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Large differences in the returns to education between urban and rural areas can be a major incentive for highly educated individuals to migrate to cities. In most countries, the capital region has the highest share of the workforce with tertiary education. In the United States, Spain, the Czech Republic and Turkey, the regional variation in tertiary educational attainment is the highest (OECD, 2013a). Yet considerable disparities can be found within metropolitan regions as well. In the Chicago region, school districts record high school graduation rates that range from 57% in the city of Chicago to over 95% in suburban areas (OECD, 2013a). In Aix-Marseille, the share of the working-age population without a diploma ranges from 39% in neighbourhoods in northern Marseille to 14% in Aix-en-Provence (OECD, 2013c). The reverse is true in Puebla-Tlaxcala, Mexico's fourth-largest region, where peripheral areas exhibit lower education levels than the metropolitan core; in some census tracts, more than 65% of the population has not completed secondary education, compared to incompletion rates of less than 20% in the core.

Health, safety and housing outcomes show large differences across regions

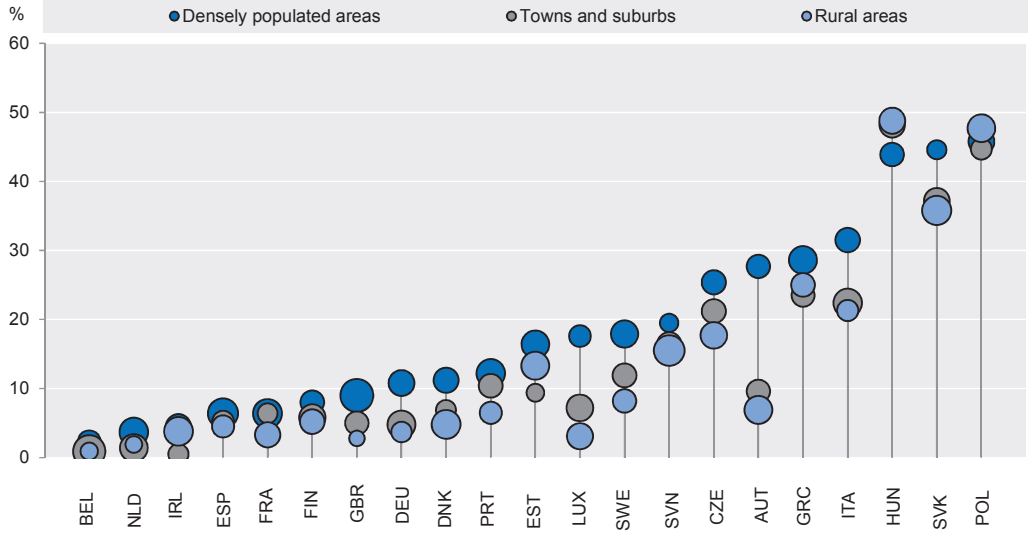
Strong regional disparities in health outcomes within countries can partly be explained by unequal access to health services. For example, people in Hawaii can expect to live on average six years longer than in Mississippi, approximately the same difference between Mexico and the United States. The age-adjusted mortality rate within countries is also subject to large differences. In most countries, the richest regions tend to have a higher number of doctors and lower age-adjusted mortality rates. Regional disparities may consequently affect the physical and financial availability of health services.

Countries with the largest regional differences in the number of doctors per resident include the Czech Republic, Greece, the Slovak Republic, Spain and the United States.

As for other dimensions of well-being, disparities in health outcomes are particularly noticeable when a small spatial scale is adopted, such as the city level. This is even more important in countries such as the United States, where TL2 regions (corresponding to states) are particularly large and their use may hide the magnitude of spatial disparities. Life expectancy in the United States varies dramatically at the level of the city-neighbourhood. For example, a 2013 study by the Robert Wood Johnston Foundation found that within the city of New Orleans, average life expectancy can vary by as much as 25 years in almost contiguous neighbourhoods.[4] A Measure of America study (Lewis and Burd-Sharps, 2013) shows the role of racial and ethnic factors on life expectancy at the city level, finding sharp differences among social groups.

Another important element that determines people's well-being in places is safety, meaning the degree of personal security where people live. Data availability across OECD regions imposes the use of objective indicators for safety, among which the murder rate is one of the most robust. As with the other outcomes of well-being, this indicator shows relatively large disparities across OECD regions, especially in North America and Chile. Perception measures of safety are increasingly being used in many countries. For European countries, for example, the EU Survey on Income and Living Conditions (EU-SILC) makes it possible to measure the perception of safety according to the type of settlement patterns (Figure 2.10). Figure 2.10 shows that, in most of countries, those who live in cities report lower levels of safety than those living in rural areas.

Figure 2.10. **Share of people who perceive crime, violence and vandalism as a problem in the area they live in, by type of area, 2012**



StatLink http://dx.doi.org/10.1787/888933121088

Note: Countries are ranked by increasing average perception of crime, violence and vandalism as a problem in the area of residence.

Source: Eurostat (2013), "European Union Statistics on Income and Living Conditions (EU-SILC)", European Commission, Brussels, http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc.

The variability of crime rates across space was strongly associated with other place characteristics in terms of well-being, such as education, access to jobs and social connections. More specifically, the empirical literature shows that increasing the level of schooling can lower crime rates (Lochner and Moretti, 2004; Machin et al., 2011) and that the latter decreases in contexts with high job accessibility (Gaigné and Zenou, 2013). The most serious crimes in cities were also found to be associated with lower social connections (Glaeser et al., 1996). Such relationships between well-being dimensions at regional level make it worthwhile to identify well-being indicators that account for more well-being dimensions at once. Such measures can help identify complementarities in different policy domains, increasing the effectiveness of policy intervention.

In measuring well-being, housing is an important dimension. Appropriate shelter is one of the most basic human needs, along with food and water. Furthermore, housing costs often represent the largest component of a household's income. Housing is also strongly connected to other well-being dimensions, such as health, income and life satisfaction (OECD, 2011). It is thus crucial to find ways to measure it. At local and regional level, the characteristics of housing are also closely linked to the territorial/spatial configuration. There are, in fact, important feedback mechanisms between the spatial structure in terms of settlement patterns, transport, and land-use and housing characteristics. For all these reasons, it would be necessary to use measures related not only to the availability of housing, but also to its quality and affordability. Especially at regional level, housing prices can vary significantly by location (e.g. urban vs. rural) and type of dwelling, which affect the extent to which housing is affordable.

While there are several ways of measuring housing conditions, no comprehensive database on the topic covering all OECD regions exists. One reason for this is the lack of availability of useful indicators at a regional level. In this context, the OECD compiled data on the number of rooms per person, which makes it possible to compare 32 OECD countries. This indicator has some limits, since it does not consider important elements such as housing prices, population density, the overall cost of life in the region or the potential benefits of trading space for location. Capital cities, for instance, have, on average, a relatively small number of rooms per person compared to the other regions in the country (with the notable exception of Mexico). At a national level, the number of rooms per person starts at 0.9 in Turkey and goes up to 2.6 in Canada. When broken down to a regional level, however, a similar difference can be found in the same country. In Canada, for example, inhabitants of Nunavut have, on average, 1.3 rooms per person, half as much as people living in the Nova Scotia region, with 2.7 rooms per person.

Environmental outcomes are to be assessed at the local scale

Regional measures of environmental outcomes also contribute to a better understanding of the location determinants of individual well-being. Many indicators of human well-being that attract attention in public policy do not account for environmental outcomes, but assessment of well-being at regional and city level demands that they be considered. The recent literature reports that individuals enjoy higher levels of well-being – both in terms of subjective life satisfaction and of health outcomes (lower mental distress) – when living in urban areas with more green space (White et al., 2013). Similar results were found in the literature regarding the negative impact of local air pollution on self-reported life satisfaction (Ferreira et al., 2013). According to the EU, exposure to fine particulate matter reduces life expectancy from between eight months to up to two years in the most polluted places (European Environment Agency, 2012), and is the main environmental cause of premature death (OECD, 2014b). Environmental issues

have also been shown to have an economic impact. Silva and Brown (2013), for instance, show that decreasing the average annual particulate matter concentrations by 1% is equivalent to increasing per capita income by 0.71%.

The cumulative benefits of individual well-being in regions and cities suggest that action should be taken both at the national and local level to preserve and improve environmental quality. A recent study estimates that OECD countries are willing to pay USD 1.7 trillion to avoid deaths caused by air pollution (OECD, 2014b). However, the capacity for action could be limited by the capacity to measure environmental outcomes. Environmental quality can be measured both by objective and subjective means. Objective measurements can include extent of energy consumption, measures of the quality of different environmental media such as soil, water or air, or different types of land use. Subjective metrics evaluate how much people report they appreciate the environment where they live.

To make up for the current lack of internationally comparable indicators of environmental outcomes, the OECD has developed a new methodology that relies on satellite-based data to measure environmental outcomes at national, regional and city levels (see Box 2.5). This has resulted in new estimates for CO_2 emissions in regions and metropolitan areas, air pollution, share of green areas in cities and forest and vegetation in regions, and changes in land use and pace of urbanisation (OECD, 2013a).

Box 2.5. **Using GIS data to measure the environmental performance of regions and cities**

In recent years, the OECD has used satellite datasets (global layers) at different resolutions, combined and co-ordinated with geographic information systems (GIS), to measure land cover and its changes, air quality and emissions for small areas of territory. Indicators obtained by integrating different sources of data using GIS include: per capita CO_2 emissions in regions and metropolitan areas (total and by sector); regional and metropolitan population exposed to fine particulate matter ($PM_{2.5}$); regional range of CO_2 sequestration and release; percentage of urban land converted from agriculture, forest and vegetation; percentage of green areas in metropolitan areas and urban sprawl index.

Despite recent progress in Earth observation, remote sensing and techniques for processing large datasets, no unique global dataset yet exists to record changes over time in land cover. By co-ordinating the available sources of data for Europe, Japan and the United States, it was possible to monitor the land taken over by urban development in these countries and to evaluate whether the expansion of land for urban uses (residential and commercial buildings, major roads and railways) threatens the quality of the landscape or biodiversity. In the past decade, for example, one-third of the OECD metropolitan areas in Europe, Japan and the United States have expanded their built-up areas at a pace that exceeds population growth.

In the case of emission data and air quality (concentration of particulate matters), different global datasets have also been used to facilitate estimation for regions or metropolitan areas, including the *Emissions Database for Global Atmospheric Research* (EDGAR) developed by the Joint Research Centre of the European Commission, and the concentration of $PM_{2.5}$ particles developed by Van Donkelaar et al. (2014). Emissions dataset can be computed at regional or metropolitan level since the emissions are collected at national level and attributed to small gridded areas based on the location of energy and manufacturing facilities, road networks, shipping routes, human and animal population density, and agricultural land use. As a result, they can capture changes in energy use or greenhouse gas emissions due to local policies.

Box 2.5. **Using GIS data to measure the environmental performance of regions and cities** (*cont.*)

Geographic information data are a key and underexploited resource for monitoring the state of local environmental assets in regions and cities of different sizes. The results show great promise for producing internationally comparable indicators with the largest possible coverage of OECD and non-OECD countries.

One future area for development would be to integrate individual level data on satisfaction on environmental quality and environmental services with the environmental performance of regions and cities.

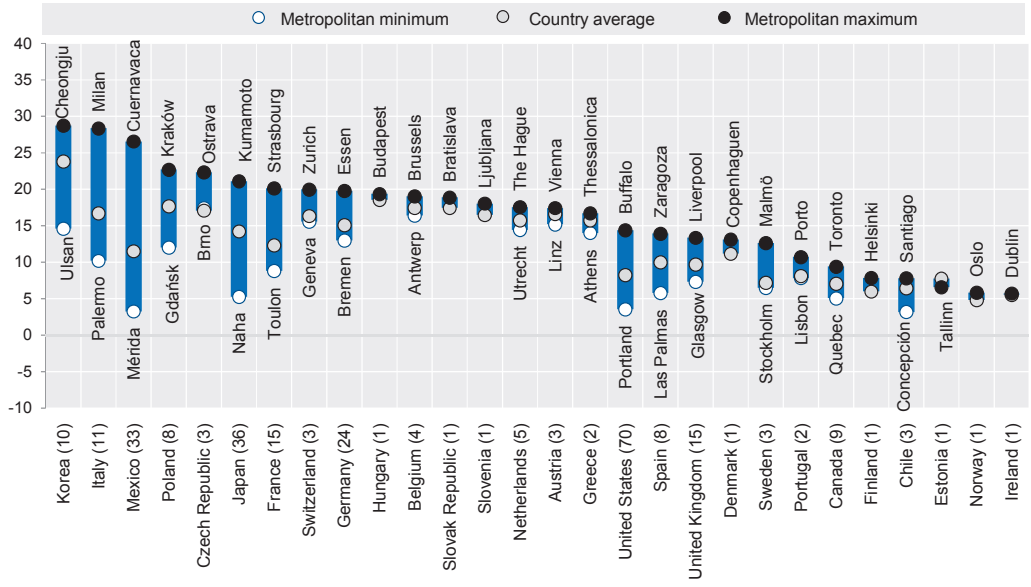
Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en; OECD (2012), *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264174108-en; Van Donkelaar, A., R.V. Martin, M. Brauer and B.L. Boys (2014), "Global fine particulate matter concentrations from satellite for long-term exposure assessment", *Environmental Health Perspectives*, forthcoming.

The headline indicator used to measure the well-being dimension in the OECD regions is the average exposure to concentrations of fine particles in the air (particulate matter, $PM_{2.5}$) of the regional population. Fine particles are considered major air pollutants, with significant negative effects on respiratory and cardiovascular systems. According to the World Health Organization (WHO) guidelines, the risk of adverse effects on health is high above an annual average concentration of 10 $\mu g/m^3$ (WHO, 2005). According to OECD estimates, in 209 out of 362 regions, people were on average exposed to levels of air pollution higher than the WHO threshold in 2012. Critically high values are found in Korea, Israel and Italy. Air pollution can be very different across cities, with some areas showing lower levels than the national averages and others much higher levels. Furthermore, while the metropolitan areas in Canada, Chile, Estonia, Finland, Ireland and Norway do not exceed the World Health Organization's recommended yearly concentration of air pollution, in the metropolitan areas of Cheongju (Korea), Milan (Italy) and Cuernavaca (Mexico), people have an annual average exposure above 25 $\mu g/m^3$ (Figure 2.11).

Concentration of activities in cities provides employment and other market services, but is also a locus of positive and negative externalities. It is reasonable to assume that city scale, urban morphology and land-use systems play a role in determining well-being. Urban sprawl, for example, has become a major public policy issue in recent years, reflecting widespread objections that urban growth is paving over the landscape and is undesirable on environmental grounds. In response, many cities and national governments have adopted policies to limit sprawl, including restrictions on development at the urban fringe, new charges imposed on builders and public purchase of open space. These measures are not, however, necessarily based on an assessment of the implications for the inhabitants' well-being. An investigation in six OECD countries explores the effect of the urban structure on life satisfaction. The preliminary econometric analysis suggests that population density in the overall urban area positively affects life satisfaction on average, but that some associated aspects of population density – such as the increasing density of roads and a greater diversification of land use – have ambiguous and sometimes negative impacts on life satisfaction (Box 2.6).

Figure 2.11. **Metropolitan disparities in population exposure to air pollution ($PM_{2.5}$), 2012**

Metropolitan areas with the lowest and highest population exposure to $PM_{2.5}$ levels, average 2010-12



StatLink http://dx.doi.org/10.1787/888933121107

Note: These estimates are made possible by the computation of satellite-based observations in Van Donkelaar et al. (2014). Countries are ranked by decreasing regional differences.

Source: OECD (2014), "Metropolitan areas", *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/data-00531-en.

Box 2.6. **Exploring the effects of urban structure on individual well-being**

A recent study based on the OECD Household Survey 2011, spatial GIS data and the OECD common definition of metropolitan areas, investigated key urban structure indicators that affect life satisfaction. The analysis investigated responses from individuals living in 35 metropolitan areas (with a population of more than 500 000) from 5 OECD countries (France, Japan, the Netherlands, Spain and Sweden). The econometric analysis suggests that population density in the overall urban area positively affects life satisfaction. However, some aspects associated with population density, such as increasing congestion on roads and a greater diversification of land use, were shown to have an ambiguous and sometimes negative impact on life satisfaction. Furthermore, city compactness has both positive and negative effects on life satisfaction. Other factors being equal, households closer to the urban core generally display higher levels of life satisfaction, but life satisfaction is nevertheless negatively affected by compact characteristics, such as smaller residences or increased centralisation.

Overall, the analysis suggests the potential of integrating spatial data on urban structure and characteristics with survey data on life satisfaction and, more generally, appraisal of local environmental outcomes.

Source: Brown, Z., W. Oueslati and J. Silva (2014), "Exploring the effect of urban structure on individual well-being", *OECD Environmental Working Papers*, OECD Publishing, Paris, forthcoming.

At a regional level, access to services is a key dimension for people's well-being

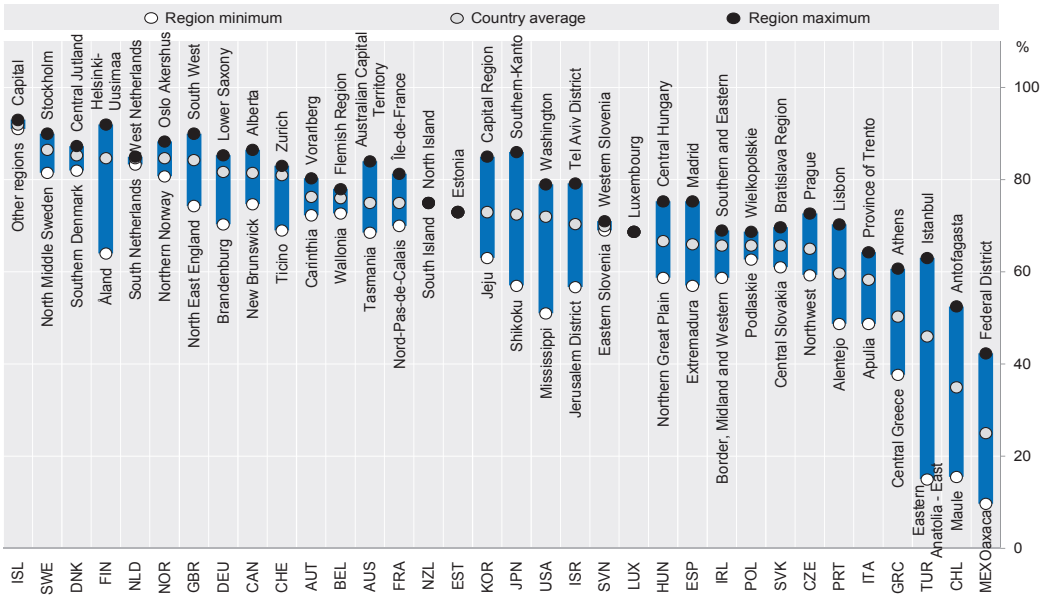
Access to services affects how people obtain what is necessary to satisfy their needs and wants. The extent to which a given service is accessible to an individual can be considered as falling under three main categories, physical, economic and institutional. Physical accessibility concerns the ability to reach the place where the service is provided. Economic accessibility refers to the affordability of a given service, including both the cost of the service and associated transaction costs (e.g. the costs of search, information and transport). Finally, institutional accessibility to a service involves constraints such as laws, norms or societal values. Knowledge and perceptions (whether people know about the existence of a service and how to use it) also play a role, because people may not be aware of the existence of a service or perceive that there are limits on its accessibility. Each of these three dimensions is strongly linked in evaluating accessibility at a regional or city level.

Measuring the access to services allows for deeper insight into disparities in well-being across different places. Significant disparities in access to basic and advanced services, such as transport, water and sanitation, education, health and ICT, persist across and within regions. Unequal access to education, for instance, may inhibit social mobility and perpetuate inequalities. Figure 2.12 shows the regional variability in the access to broadband connection, a basic component to improve economic competitiveness and social progress. Despite different average levels of broadband connectivity by country, Chile, Greece, Mexico and the United States show the highest regional disparities. These disparities are relevant for policy because they reflect the opportunities available to people to develop their potential according to their ambitions (Sen, 1993) and to satisfy different human needs, from basic physiological requirements to self-actualisation (Maslow, 1943). Analysing access to services can lead to more efficient use of resources by identifying under-serviced areas and helping to satisfy demand more equitably.

Accessibility to health services is a key element in people's well-being. A simple outcome indicator in this area is the unmet medical need, that is, the percentage of individuals who report one or more occasions on which they were in need of medical treatments or examinations but failed to receive either.[5] This indicator was computed at regional level for a set of OECD countries, based on national household surveys.[6] As in the case of other well-being dimensions, the share of people with unmet medical needs in 2011 was different between and within countries (Figure 2.13). Regional disparities in the levels of unmet medical need, under different national health systems, might reflect such inequalities as the distance from the health centre, the ability to afford care or differences in restrictions such as waiting lists. The regional divide changes from country to country and, with Mexico and Chile, the countries in South Europe display the largest gap between the best- and worst-performing regions. One limitation of this indicator is that it does not provide insight into the reasons why medical needs have not been attended to, and whether, for example, this is due to economic or institutional factors. Even where respondents are asked for this information, the data in most countries cannot be retrieved at regional level because of small sample sizes. Expanding household surveys to build a more representative regional sample could help formulate more informative indicators.

Figure 2.12. **Regional disparities in households' broadband connection**

Minimum and maximum regional values, percentage of households with broadband connection; 2013



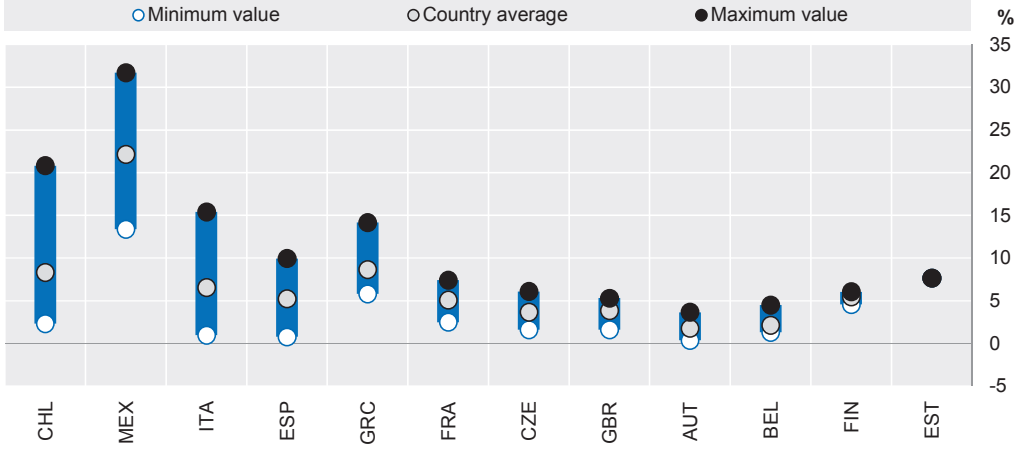
StatLink http://dx.doi.org/10.1787/888933121126

Note: Countries are ranked by decreasing average national share of households with broadband connection. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014), *Regional Well-Being* (database), http://dx.doi.org/10.1787/region-data-en.

Figure 2.13. **Share of people who experienced unmet medical needs, 2012**

Highest and lowest regional values in 2012

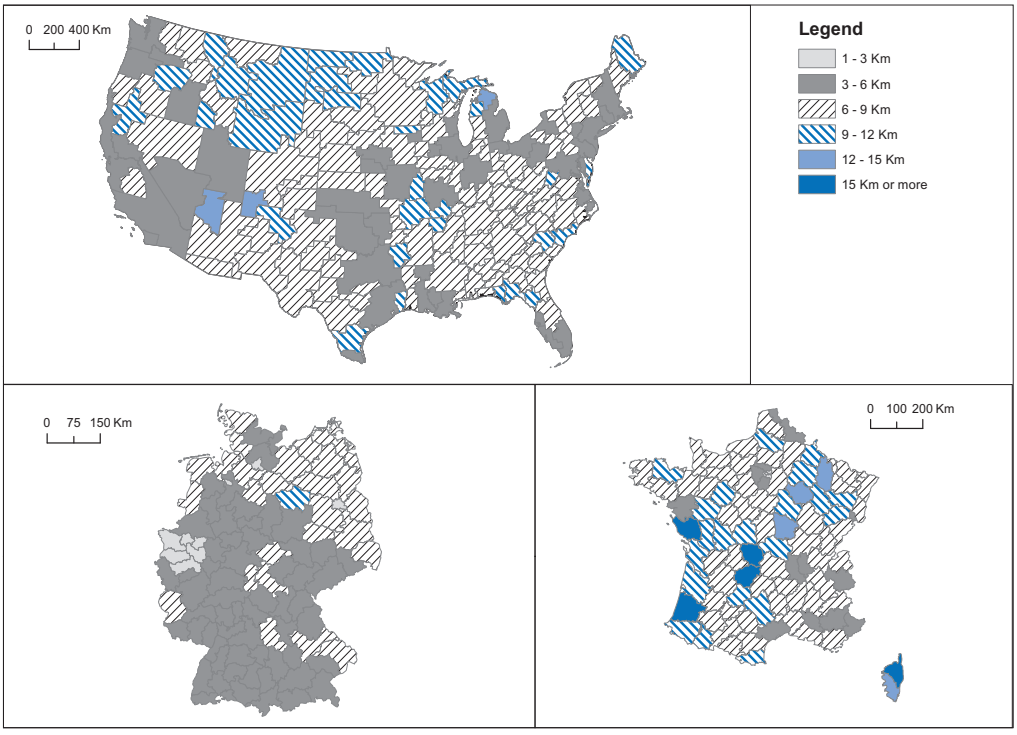


StatLink http://dx.doi.org/10.1787/888933121145

Source: Authors' research based on EU-SILC for European countries; CASEAN for Chile; ENSANUT for Mexico.

Disparities in access to services across regions can be related to issues of land-use planning. Access to services can depend heavily on the closest point of access and how it can be reached. Regional geographic features as well as the regional transport network are determining factors. Specific indicators to measure the spatial accessibility to public services (e.g. health services) can take into account the distance – in terms of driving time or road distance – to reach the point of access. Figure 2.14 shows, for the case of France, Germany and the United States, the average distance to hospital by small region (TL3), where such distance is weighted by the localisation of people in each square kilometre. On average, regions with higher population density have a higher physical access to hospitals. While in France, regions with relatively high distance values are scattered throughout the country, in the case of Germany, regions with relatively high distance values are mostly located in the north-east of the country (Ruiz and Veneri, 2014). These types of indicators are currently available only for a set of countries – including France, Germany, Italy, Mexico, Portugal and the United States – which have provided data on the location of hospitals and at least their basic characteristics.

Figure 2.14. **Average distance to the closest hospital**



StatLink http://dx.doi.org/10.1787/888933121164

Note: The distance is weighted by the population. This document and any map included herein are for illustrative purposes and without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area

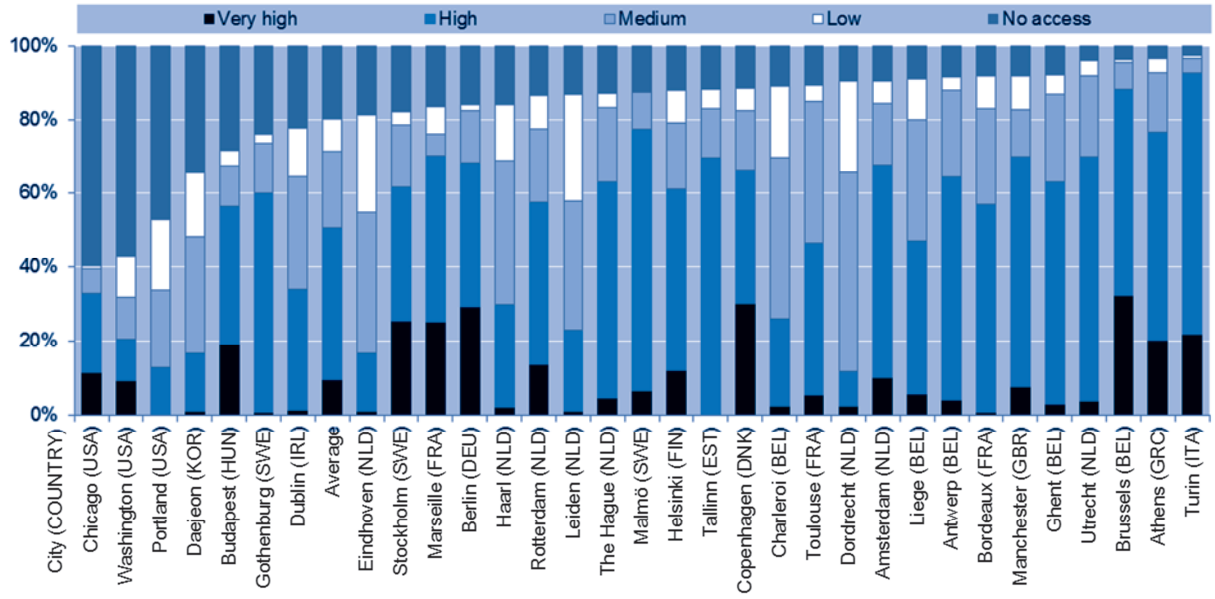
Source: Ruiz, V. and P. Veneri (2014), "Measuring the access to public services: The case of public hospitals", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

The availability and accessibility of public transport in cities is an important dimension of quality of life. An ongoing OECD-EU project has developed a common

methodology to identify public transport catchment areas (areas within walking distances to service stops) for different typologies of transport in functional urban areas (OECD, 2014a). After combining the catchment areas with the service frequency by transport mode (bus, metro, light rail, etc.), the share of population with varying degrees of access to public transport was computed. Preliminary results for 32 OECD metropolitan areas show large differences in the access to transport in cities, although the cross-country comparability of the data needs further testing (Figure 2.15). Not surprisingly, a larger share of the population in urban core areas of European cities has access to public transport than in American cities: no less than 70% of population in the European cities have some access to public transport. Among the non-European cities, Chicago, Washington and Portland have the largest shares of population with "very high" and "high" access. Of the large European cities, more than 90% of the population has high and very high access to public transport in such cities as Turin (Italy) and Brussels (Belgium), with 70% in the medium-sized city of Malmö (Sweden) (Figure 2.15). The sample analysis for non-European cities reveals that publicly available data from public transport providers in metropolitan areas are rather limited and that further data collection is needed (Box 2.7).

Figure 2.15. **Access to public transport in a selection of cities**

Percentage of population with access to public transport



StatLink http://dx.doi.org/10.1787/888933121183

Note: For cities in the figure, the population refers to those living in the core of the respective metropolitan area (densely populated areas). The service frequency of public transport was reclassified into the categories very high, high, medium and low, according to common thresholds by continent. The "no access" category refers to areas where the estimated walking time for accessing public transport is higher than 5 minutes (for road transport) or 10 minutes (for rail transport). The results shown in the graph should be considered preliminary as the cross-country comparability of data needs further testing.

Source: OECD-EC calculations based on functional urban areas (OECD, 2014a).

Box 2.7. **Accessibility of services: The statistical agenda ahead**

Citizens and policy makers are increasingly calling for indicators of accessibility of services. For this task, spatial information on the location of services available (e.g. schools, hospitals, train stations, green spaces, etc.) is necessary. By integrating this information with administrative data (e.g. on the use of the service in question), as well as with data on population and roads, it is possible to assess at different territorial levels the extent to which services are at least potentially accessible.

While physical accessibility to services facilitates well-being outcomes, it could be argued that it is not a well-being outcome in itself. However, it directly affects the chances that residents in given locations have certain services available. This suggests that accessibility to services might be considered a well-being dimension in and of itself.

The most important constraint when building indicators on physical accessibility to public services is the lack of adequate data. Despite the increasing use of GIS for territorial planning, data on the exact position of key services like public hospitals are scarce (or at least not publicly available). Further work on the geo-localisation of public services should also take into account the characteristics of service providers. In the case of public hospitals, this could help identify the type of treatments offered in the different health facilities. Additional information could make it possible to build more robust indicators (e.g. gravity-based measures).

Standardising these measures across countries is of particular interest because it makes it possible to identify international benchmarks, carry out comparative analysis of cities and regions, and provide useful information to policy makers, people and service providers. International comparisons require data of consistent quality. For example, when computing access to health services, a consistent distinction should be made between private and public services, but institutional differences in health systems between countries should also be considered. Not all countries have the same data available, and further work on building accessibility measures should take into account indicators that portray spatial access to public services and those that allow comparison of as many OECD countries (regions) as possible.

One possible limit of the measures of access to services is that there are different methods depending on the service considered (health, education, transport, etc.) and no standard measures across services have been formulated. For this reason the regional assessment of service access is in general difficult, since a suite of different measures is needed. A solution would be to develop a composite measure of physical proximity to a bundle of services.

Accounting for interactions among well-being dimensions

Well-being dimensions can be strongly interdependent in regions. This interdependency should be considered when designing policies, to maximise their results (see Chapter 1). Regional and local initiatives to measure well-being can address the complementarities among different policy objectives. For example, more public transport choices in metropolitan areas can improve economic competitiveness by increasing access to jobs, and at the same time support environmental objectives (Box 2.8). On the measurement side, this implies building synthetic indicators that take into account more than one dimension of well-being.

The interactions across well-being dimensions can also be measured by specific indicators without using global indexes. These indicators, referred to as cross-dimensional indicators, consist in combining two well-being dimensions, where the first is measured along the distribution of the second one. For example, the share of households that spend more than 30% of their income in energy consumption can give

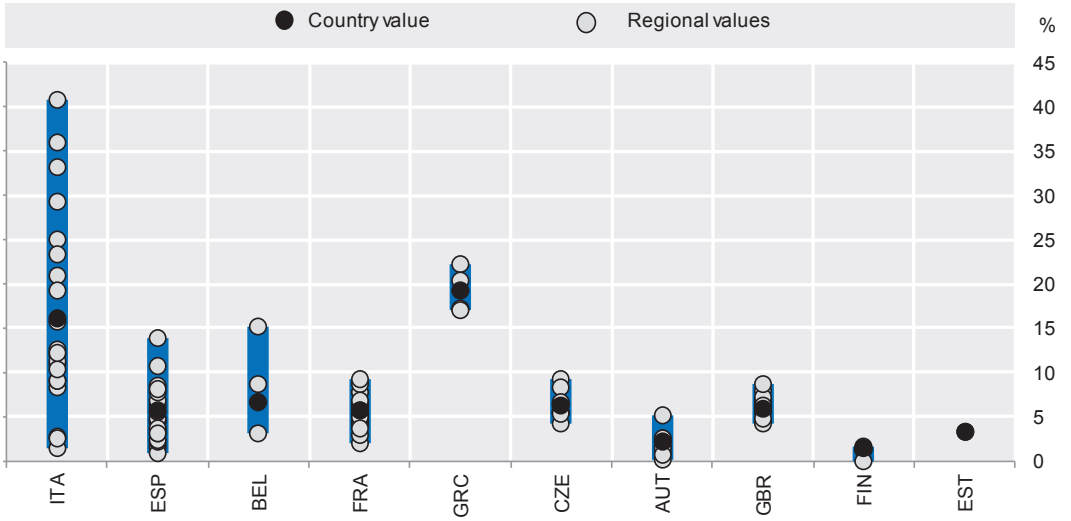
information on different well-being dimensions, such as income, environment and access to services (energy). The main advantage is that these measures can help monitor complementarities among policies and well-being dimensions, as well as monitor specific issues or groups of people. A set of possible cross-dimensional indicators to be used for international comparison is presented in Table 2.3. The purpose of this list, which is far from exhaustive, is to give an idea of how the interaction among different well-being dimensions can be accounted for when measuring well-being.

Few of the cross-dimensional indicators listed in Table 2.3 can be computed at regional level, mostly because of data limitations. The surveys that collect this information do not always allow for a regional representativeness of data. Only certain indicators presented in Table 2.3 can be computed at regional level, and for a sub-sample of OECD countries only. For example, the European Survey on Income and Living Conditions (EU-SILC) collects information on the share of households that cannot afford to keep their houses sufficiently warm, and for a sub-sample of European countries, it was possible to draw reliable information at regional level. As shown in Figure 2.16, the percentage of households varies widely, with lower values in Austrian and Finnish regions and higher values for Greece and Italy. Italy also displays the largest gap between "best" and the "worst" performers. The figures presented in Figure 2.16 should be interpreted with caution, as they involve a small sub-sample of OECD countries and explore only one of the several possible cross-dimensional indicators of individual well-being. A complete and more representative picture will require improvement in the regional representativeness of household surveys.

Table 2.3. **Cross-dimensional indicators**

Indicator	Well-being dimensions considered
Share of students in primary education with no access to food	Education – Income
Share of households that devote 30% or more of their income to energy consumption	Income – Environment
Share of households with housing costs greater than 30% of income	Income – Housing
Life expectancy for low-income earners	Income – Health
Share of obese people with no more than primary education	Health – Education
Share of transport expenses by class of household income	Access to services – Income
Share of households which cannot afford to keep the house sufficiently warm	Income – Housing
Share of individuals with no more than lower secondary education whose health status limits their activities	Health – Education
Share of individuals with a low level of education who report problems related to crime in the area where they live	Crime – Education
Share of individuals who report environmental problems in the area where they live by class of household income	Environment – Income
Share of individuals who report problems related to crime in the area where they live by class of household income	Income – Crime
Health status of long-term unemployed	Health – Employment
Life expectancy of individuals with limited education levels	Health – Education
Incidence of chronic disease by class of household income	Health – Income
Unmet medical need among individuals with limited education levels	Health – Education
Share of individuals with limited education levels in long-term unemployment	Education – Employment

Figure 2.16. **Percentage of households that cannot afford to keep their houses sufficiently warm (OECD regions), 2012**



StatLink http://dx.doi.org/10.1787/888933121202

Note: Each dot represents a TL2 region. Countries are ordered by decreasing regional differences in the value of the indicator.

Source: Authors' research based on data from Eurostat (2013), "European Union Statistics on Income and Living Conditions (EU-SILC)", European Commission, Brussels, http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc.

Box 2.8. **Complementarities among well-being dimensions: Examples from OECD regional initiatives**

Morelos: The dimension most shaping the policy debate at present is concern over personal security. This focuses on the cost in human lives and family well-being of the state's high level of crime, and also the economic impact on its productivity and business. A remarkable consensus has emerged in different sectors that the root cause of the insecurity stems from a lack of educational and employment opportunities for young people. A preventative approach focusing on education, health and social cohesion has been proposed, in addition to focusing on the police and criminal justice system. One policy initiative that attempts to account for the interaction between well-being dimensions is the *beca salario*, a universal scholarship programme that directly benefits students in public schools. This can help reduce the risk that young people become involved in criminal activity.

US Partnership for Sustainable Communities: This federal initiative aims to develop more sustainable communities by integrating transport, housing and energy policies. Recognising that housing and transport costs account for almost half the average household's budget, the initiative has developed the Location Affordability Index (LAI), which provides estimates of the percentage of a family's income dedicated to the combined cost of housing and transport in a given location. Because what is "affordable" is different for everyone, users can choose among eight different family profiles, defined by household income, size and number of commuters, and see the affordability landscape for each in a neighborhood, city or region.

Source: OECD (2014), "State of Morelos, Mexico", and OECD (2014), "US Partnership for Sustainable Communities", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris.

The way forward in measuring well-being in regions and cities: The statistical agenda

This report provides a framework and a set of measures to assess well-being in cities and regions. It also takes stock of the statistical challenges involved in comparing regions and cities within and across different countries. Since most of the surveys undertaken by national statistics offices to measure household conditions are designed to provide information at the national level, statistical information at a detailed geographical level is typically scanty. Different methods are needed to increase the available information, which could include: using existing micro-data from surveys and censuses; integrating geographical information systems (GIS) with administrative data; estimating well-being indicators for different units (using administrative or functional boundaries); designing specific surveys and using innovative tools (e.g. social networks, ICT tools) to collect information. The potential of using *big data* for measuring well-being dimensions and assessing social progress is being investigated in many OECD countries and could represent a direction of wrok also at sub-national level. All these methods pose challenges for ensuring the quality and comprehensiveness of the statistical information.

A common statistical agenda for advancing in the measures of well-being of regions and cities needs to cope with two major issues. First, it is important to understand the most relevant scale (e.g. city, region, neighbourhood, etc.) for the various well-being dimensions. Second, the way these dimensions interact should be analysed further at different spatial scales and time horizons. In order to compute indicators that account for interactions across well-being dimensions, a review of current data availability, including micro-data, and future strategic objectives of National Statistical Offices would be necessary.

The main statistical challenges include: *i)* improving the measurement of well-being dimensions in large regions; *ii)* measuring additional well-being dimensions that are not at present available for large regions; *iii)* improving measurements of inequality within regions; and *iv)* increasing well-being measures for other administrative units, in particular for metropolitan areas.

Improving the measurement of different well-being dimensions

One important issue is to close the gap between the well-being dimension considered and the outcome measures available. Priorities for future research include:

- Quality of services. Access to services is a key dimension of regional well-being. Several existing indicators consider different types of services, but measurements of accessibility need to be improved to account for affordability and possible institutional constraints, and not just physical access to services. New metrics are needed to assess the quality of the services provided, for example surveys assessing user satisfaction in regions or cities. Increasing the regional representativeness in national households surveys would be a way to improve information on services for some countries.
- Education outcomes. At a regional level, educational outcomes are currently measured by levels of education. At the regional level, PISA measures of student competence are now limited to a handful of countries or single regions. Given the relevance of educational outcome and its strong connection/complementarity with other dimensions of well-being, the assessment of skills is particularly important. To build indicators on education outcomes at regional and urban levels, greater

consistency in national programmes for skills assessment will be necessary, and information from surveys and other sources (e.g. administrative records) must be included.

Measuring additional well-being dimensions

Due to the limited availability of data at the sub-national scale, this report is not able to study as many dimensions for the measurement of well-being in regions and cities as the How's Life? framework does for the national level. Some of the elements that are not available for the regional framework could improve the understanding of the material conditions and quality of life in regions and cities. Priorities for future research should include refining measurement of the following elements:

- Housing. A crucial element in the assessment of material conditions, regional indicators of housing should consider the characteristics of dwellings, including their quality and affordability. Less ambitious but important and potentially more easily available indicators include homeownership rates and vacancy rates. For this task, existing geo-coded information should be explored.
- Transport. Transport, as a material component in accessibility of services, crucially affects quality of life. Important data include measures of physical access to mass transit (e.g. distance from a station or point of access); the price of transport (economic accessibility) and time spent travelling (e.g. commuting time). This information is not yet available in all OECD countries, but GIS data will be vital after countries co-ordinate to provide consistent geo-coded information on where services are located and what they consist of.
- Land use is another important spatial component underlying well-being metrics. It is strongly connected to other dimensions of well-being, such as transport, housing and environmental health. Consistent and comparable data on land use make it possible to assess access to open space, parks and other natural amenities. GIS is a crucial tool in this type of measurement, but more frequently updated and spatially detailed information is also necessary. An alternative and promising way to assess the quality of the environment is to focus on residents' subjective assessment of natural amenities. One example is the Netherlands' Hotspot Monitor initiative to identify highly valued natural sites using a survey-based method (see Box 1.7).
- Subjective well-being. Subjective measures evaluating life circumstances and satisfaction with services can also be used. One option would be to use existing surveys for European regions (European Social Survey, or EuroBarometer) to interpolate regional data and expand this to the other OECD countries. Alternatively, the feasibility of running national household surveys on an agreed set of indicators at a regional level should also be explored.

Individual-level measures of inequality in well-being

Assessing well-being in cities and regions implies, when possible, measuring the extent to which the different dimensions of well-being are available to people. Indicators of inequality can be seen as meta-measures, which are particularly helpful for regional policy makers to better target policy. These measures are relevant, since they are linked to equality of opportunity.

This report documents a first effort to build measures of household income inequalities at regional level in 28 countries. To ensure that these measures will be available in the future, it is necessary to increase the availability of survey data that are representative at the regional level, redesign the sampling structure and disseminate the information needed to evaluate sampling errors. It would also require repeating the sub-national estimates of income distribution at regular intervals (e.g. every three years). Individual-level inequality measures are also important for other aspects of material conditions, such as wealth.

New data production methods for metropolitan areas

More effective measurement of well-being at the appropriate scale will require new methods of gathering data. This is particularly true for the city level. The *OECD Metropolitan Database*, which includes indicators on the 275 OECD functional urban areas of 500 000 people or more, offers a basis for studying the implication of different policies in cities of different sizes. However, data are still lacking for many key social and income variables at the city level. Priorities for future work are:

- Income and employment. Currently, indicators of employment for functional urban areas are estimated by downscaling from regional values, based on the distribution of population throughout the region (OECD, 2013a). However, more robust employment and income indicators could be computed in other ways, for example using small area estimation techniques. These techniques can also be used to obtain estimates of income level and distribution in cities where they are currently unavailable (see, for example, the Eurostat project "ESS-Net on small area estimation", tested in ten countries).
- Access to services. To increase measures of access to services and subjective measures of service quality, different sources of data could be included. Administrative data, available at local level, could be integrated with geo-coded data and national household surveys. National statistical offices could help make more geo-coded data available about the location of infrastructure and services (hospitals, schools, cultural and recreation facilities, transport stations, public spaces, etc.). Expanding national household surveys to include a limited set of questions for subjective evaluations of the quality of services for lower geographical levels could also be discussed.

Notes

1. The indicators are produced through a new household-level data collection based on internationally harmonised income definitions that use the same definitions and methods as the *OECD Income Distribution Database* (www.oecd.org/social/income-distribution-database.htm). Results and details on the quality of the estimates can be found in Piacentini (2014).
2. Market income is household income before cash transfers from the general government, taxes and social security contributions paid by a household.

3. Selected countries are Belgium, Canada, Chile, the Czech Republic, Estonia, Finland, France, Greece, Italy, Korea, Luxembourg, Mexico, Spain, the United Kingdom and the United States.

4. Source: www.rwjf.org/en/about-rwjf/newsroom/features-and-articles/Commission/resources/city-maps.html (last accessed July 2014).

5. For European countries the same outcome indicator has already been used to measure access to medical services at both regional (Annoni et al., 2012) and national level (OECD, 2013d).

6. The indicator has so far been computed only for Chile, Mexico, New Zealand and a sub-sample of European countries (Austria, Belgium, the Czech Republic, Estonia, Finland, France, Greece, Italy, Spain and the United Kingdom). Data on Chile are taken from the *Encuesta de Caracterización Socioeconómica Nacional* (CASEAN, 2011); those on Mexico are drawn from the *Encuesta Nacional de Salud y Nutrición* (ENSENUT, 2012); and those on European countries are drawn from the European Survey on Income and Living Conditions (EU SILC, 2013).

Bibliography

Alesina, A. and R. Perotti (1996), "Income distribution, political instability and investment", *European Economic Review*, Vol. 40, No. 6, pp. 1 203-1 228.

Alesina, A. and D. Rodrik (1994), "Distributive politics and economic growth", *Quarterly Journal of Economics*, Vol. 109, No. 2, pp. 465-490.

Annoni, P., D. Weziak-Bialowolska and L. Dijkstra (2012), "Quality of life at the sub-national level: Zn operational example for the EU", European Commission JRC Scientific and Policy Research.

Barro, R.J. (2000), "Inequality and growth in a panel of countries", *Journal of Economic Growth*, Vol. 112, No. 1, pp. 5-32.

Baum-Snow, N., and R. Pavan (2013), "Inequality and city-size", *Review of Economics and Statistics*, Vol. 95, No. 5, pp. 1535-1548.

Behrens, K., G. Duranton and F. Robert-Nicoud (2014), "Productive cities: Sorting, selection and agglomeration", *Journal of Political Economy*, Vol. 122, No. 3, pp. 507-553.

Bertola, G., R. Foellmi and J. Zweimüller (2006), *Income Distribution in Macroeconomic Models*, Princeton University Press, Princeton, New Jersey.

Brezzi, M. and M. Piacentini (2014), "Understanding income inequalities in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Brown, Z., W. Oueslati and J. Silva (2014), "Exploring the effect of urban structure on individual well-being", *OECD Environmental Working Papers*, OECD Publishing, Paris, forthcoming.

Castells-Quintana, D. and V. Royuela (2014), "Agglomeration, inequality and economic growth", *Annals of Regional Science*, Vol. 52, No. 2, pp. 343-366.

Ciccone, A. (2002) "Agglomeration effects in Europe", *European Economic Review*, Vol. 46, No. 2, pp. 213–227.

De Vries, S., et al. (2013), "Measuring the attractiveness of Dutch landscapes: Identifying national hotspots of highly valued places using Google Maps," *Applied Geography*, Vol. 45, No. 12, pp. 220-229.

Dynan, K.E., J. Skinner and S.P. Zeldes (2004), "Do the rich save more?", *Journal of Political Economy*, Vol. 112, No. 2, pp. 397-444.

Easterly, W. (2007), "Inequality does cause underdevelopment: Insights from a new instrument", *Journal of Development Economics*, Vol. 84, No. 2 pp. 755-776.

European Environment Agency (EEA) (2012), "Air quality in Europe 2012 report", EEA Report No 4/2012, www.eea.europa.eu/publications/air-quality-in-europe-2012.

Eurostat (2013), "European Union Statistics on Income and Living Conditions (EU SILC)", European Commission, Brussels, http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc.

Fallah, B.N. and M. Partridge (2007), "The elusive inequality-economic growth relationships: Are there differences between cities and countryside?", *Annals of Regional Science*, Vol. 41, No. 2, pp. 375-400.

Ferreira, F.H.G. (1999), "Inequality and economic performance: A brief overview to theories of growth and distribution", The World Bank.

Ferreira, F.H.G., et al. (2014), "Inequality of opportunity and economic growth: A cross-country analysis", *World Bank Policy Research Working Paper*, No. 6915, The World Bank, June.

Ferreira, S., et al. (2013), "Life satisfaction and air quality in Europe", *Ecological Economics*, Vol. 88(C), pp. 1-10.

Gaigné, C. and Y. Zenou (2013), "Agglomeration, City Size and Crime", *CEPR Discussion Papers,* No. 9430, C.E.P.R. Discussion Papers.

Galor, O. and J. Zeira (1993), "Income distribution and macroeconomics", *Review of Economic Studies*, Vol. 60, No. 1, pp. 35-52.

Glaeser, E. and D. Mare (1994), "Cities and skills", *NBER Working Paper*, No. 4728.

Glaeser, E.L., B. Sacerdote and J.A. Scheinkman (1996), "Crime and social interactions", *The Quarterly Journal of Economics*, Vol. 111, No. 2 pp. 507-548.

Kanbur, R. and J. Zhuang (2013), "Urbanization and inequality in Asia", *Asian Development Review*, Vol. 30, No. 1, pp. 131-147.

Lewis, K. and S. Burds-Sharp (2013), *The Measure of America 2013-2014*, American Human Development Report, Social Science Research Council.

Lochner, L. and E. Moretti (2004), "The effect of education on crime: Evidence from prison inmates, arrests, and self-reports", *American Economic Review*, Vol. 94, No. 1, pp. 155-189.

Lora, E. and A. Powell (2011), "A new way of monitoring the quality of urban life", *IDB Working Paper Series*, No. IDB-WP-272.

Machin, S., O. Marie and S. Vujić (2011), "The crime-reducing effect of education", *Economic Journal*, Vol. 121, No. 552, pp. 463-484.

Marrero, G. and J.G. Rodríguez (2013), "Inequality of opportunity and growth", *Journal of Development Economics*, Vol. 104, No. C, pp. 107-122.

Maslow, A.H. (1943), "A theory of human motivation", *Psychological Review*, Vol. 50, No. 4, pp. 370-396.

Moretti, E. (2012), *The New Geography of Jobs*, Houghton Mifflin Harcourt.

OECD (2014a), "Access to public transport: Comparing a selection of medium-sized and large cities", paper presented at the OECD Territorial Development Policy Committee, Paris, 9-10 April.

OECD (2014b), *The Cost of Air Pollution: Health Impacts of Road Transport*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264210448-en.

OECD (2013a), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

OECD (2013b), *OECD Territorial Reviews: Antofagasta, Chile 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264203914-en.

OECD (2013c), *Vers une croissance plus inclusive de la métropole Aix-Marseille: Une perspective internationale*, OECD Publishing, Paris, www.oecd.org/regional/regional-policy/Aix-Marseille.pdf.

OECD (2013d), *Health at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2013-en.

OECD (2012), *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264174108-en.

OECD (2011), *How's Life?: Measuring Well-Being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

OECD (2010), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264091504-en.

OECD (2006), *Competitive Cities in the Global Economy*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264027091-en.

Olli Segendorf, A. (2005), "Jobs search strategies and wage effects for immigrants", Swedish Institute for Social Research, Dissertation Series, No. 65.

Partridge, M. (2005), "Does income distribution affect US State economic growth?", *Journal of Regional Science*, Vol. 45, No. 2, pp. 363-394.

Persson, T. and G. Tabellini (1994), "Is inequality harmful for growth? Theory and evidence", *American Economic Review*, Vol. 84, No. 3, pp. 600-621.

Piacentini, M. (2014), "Measuring income inequality and poverty at the regional level in OECD countries", *OECD Statistics Working Papers*, No. 2014/03, OECD Publishing, http://dx.doi.org/10.1787/5jxzf5khtg9t-en.

Pink, B. (2011), *Socio-Economic Indexes for Areas (SEIFA)*, Technical Paper of the Australian Bureau of Statistics, 2033.0.55.001, Commonwealth of Australia, Canberra, www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/22CEDA8038AF7A0DCA257B3B00116E34/$File/2033.0.55.001%20seifa%202011%20technical%20paper.pdf.

Rebelo, S.T. (1991), "Long-run policy analysis and long-run growth", *Journal of Political Economy*, Vol. 99, No. 3, pp. 500-521.

Rice, P., Venables, A. and E. Patacchini (2006) "Spatial determinants of productivity: Analysis for the regions of Great Britain", *Regional Science and Urban Economics*, Vol. 36, No 6, pp. 727-752.

Robert Wood Johnston Foundation (2013), *Overcoming Obstacles to Health in 2013 and Beyond*, Robert Wood Johnston Foundation Publishing.

Rodríguez-Pose, A. and V. Tselios (2010), "Inequalities in income and education and regional economic growth in Western Europe", *Annals of Regional Science*, Vol. 44, No. 2, pp. 349-375.

Rodríguez-Pose, A. and V. Tselios (2009), "Mapping regional personal income distribution in Western Europe: Income per capita and inequality", *Czech Journal of Economics and Finance*, Charles University Prague, Faculty of Social Sciences, Vol. 59, No. 1, pp. 41-70.

Royuela, V., P. Veneri and R. Ramos (2014), "Income inequality, urban size and economic growth in OECD regions", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Ruiz, V. and P. Veneri (2014), "Measuring the access to public services: The case of public hospitals", *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Sen, A. (1993), "Capability and well-being", In: M. Nussbaum and A. Sen (eds.), *The Quality of Life*, Oxford University Press, Oxford, UK, pp. 30-45.

Silva, J. and Z. Brown (2013), "More than the sum of their parts: Valuing environmental quality by combining life satisfaction surveys and GIS data", *OECD Statistics Working Papers*, No. 2013/01, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k4840hfpwkb-en.

US Census Bureau (2010), "American Community Survey", US Census Bureau, Washington, DC. http://www.census.gov/acs/www/data_documentation/2010_release/

Van der Weide, R. and B. Milanovic (2014), "Inequality is bad for growth of the poor (but not for that of the rich)", *World Bank Policy Research Working Paper*, No. 6 963, The World Bank, July.

Van Donkelaar, A., et al. (2014), "Global fine particulate matter concentrations from satellite for long-term exposure assessment", *Environmental Health Perspectives*, forthcoming.

Voitchovsky, S. (2005), "Does the profile of income inequality matter for economic growth? Distinguishing between the effects of inequality in different parts of the income distribution", *Journal of Economic Growth*, Vol. 10, No. 3, pp. 273-296.

White, M.P., et al. (2013), "Would you be happier living in a greener urban area? A fixed-effects analysis of panel data", *Psychological Science*, Vol. 24, No. 6, pp. 920-928.

WHO (2008), "Air quality and health", Fact sheet No. 313, updated August 2008, World Health Organization, Geneva.

WHO (2005), "Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide – Global update", World Health Organization, Geneva.

Chapter 3

Using well-being measures to improve policy results in regions and cities

This chapter provides a diagnosis of the common opportunities, challenges and solutions for using regional well-being indicators to improve the effectiveness of policy design and the allocation of funds. The chapter includes seven sections. The first examines possible uses of regional well-being measurement. The second section presents a process composed of different steps and stakeholder engagement mechanisms required for implementing a regional well-being strategy. The remaining sections offer more detailed guidance on each step of the process: translating well-being objectives into policy-relevant indicators; selecting indicators; identifying baselines and targets; monitoring progress and evaluating the potential of different places; and fostering citizen engagement and communication. The chapter concludes with a set of insights and guidelines drawn from international experiences to help develop a regional well-being strategy for better policy results.

Introduction

The overarching value-added of regional well-being measurement initiatives is ultimately to bring data, policies and funding together for building better communities. Although they are intrinsically inter-related in principle, data, policies and funding may operate in isolation in practice. Such fragmentation may be particularly evident at the sub-national level, where different levels of government control different parts of the three strands. Many regions and cities in OECD countries and beyond have launched well-being measurement initiatives aiming to improve the economy and quality of life of their communities. This chapter offers a diagnosis of the common opportunities, challenges and solutions for using regional well-being indicators to improve the effectiveness of policy design and the allocation of funds. It analyses the strategic choices to be made both on the methodological side (how to measure and track progress towards expected outcomes, what baselines and targets to choose, how to capture inequalities across places, etc.) and on the political side (what role indicators can play in the public debate, who should design the indicator system and who should be accountable, how the chosen well-being dimensions are reconciled with the objectives of national policies, who the stakeholders involved are, etc.). The chapter draws from a wide diversity of international experiences, and in particular, from seven case study regions participating in the OECD How's Life in Your Region? project: the region of Southern Denmark (Denmark), the province of Rome (Italy), the region of Sardinia (Italy), the state of Morelos (Mexico), the region of the North of the Netherlands (Netherlands), the city of Newcastle (United Kingdom), and the US federal Partnership on Sustainable Communities (United States).

The chapter includes seven sections. The first examines possible uses of regional well-being measurement. The second section presents a process composed of different steps and stakeholder engagement mechanisms required for implementing a regional well-being strategy. The remaining sections offer more detailed guidance on each step of the process: translating well-being objectives into policy-relevant indicators; selecting indicators; identifying baselines and targets; monitoring progress and evaluating the potential of different places; and fostering citizen engagement and communication. The chapter concludes with a set of insights and guidelines drawn from international experiences to help develop a regional well-being strategy for better policy results. More detailed information on the experiences of the seven case study regions is available in the individual case study reports (online) and in Annex 3.A1.

What are regional well-being indicators used for?

A clear understanding of the purpose of regional well-being measurement initiatives helps shape the design and the governance of the initiative from the start. Broadly speaking, the spectrum of possible uses of regional well-being indicators includes three types, which are not mutually exclusive and derive from the specific priorities of each region: *i*) monitoring well-being trends at the regional and local level; *ii*) raising awareness of specific well-being dimensions or policy objectives; *iii*) guiding policy prioritisation across dimensions or territories. The following sections review each type of use in more detail.

Monitoring well-being performance at the regional and local level

Well-being indicators are most frequently used for monitoring regional and local performance in a self-diagnosis rationale. The aim is to build regional intelligence by collecting data and knowledge on various dimensions of well-being in specific communities. Several regions launched a well-being measurement initiative to get a "real" or "better" picture of themselves in the aftermath of pressing challenges to the attractiveness and liveability of the region. Such challenges may include weak economic performance, demographic ageing, depopulation or poor health outcomes. For example, in Sardinia (Italy), where the Regional Planning Centre introduced well-being indicators to orient the regional programming of the 2014-2020 Cohesion Policy, the region struggles with the sixth-lowest household disposable income in Italy, higher unemployment than the national average (15.5%, compared to 10.7%) and the lowest share of labour force with at least secondary education in Italy (only 54%). In the United Kingdom, Newcastle has launched its Well-Being for Life Strategy in the face of an employment rate that is almost 10 percentage points below the national average (62.9% versus 71.3%), poorer outcomes in education than the national average (52.3% leaving school with five General Certificates of Secondary Education, versus a national average of 58%), and an average discrepancy of 14.5 years in life expectancy, depending on the ward of residence.

Some measurement initiatives have initially stemmed from a government's decision to monitor a specific social problem. For example, in the Netherlands, rising awareness of safety challenges in large cities first inspired the term of liveability (*leefbaarheid* in Dutch), which dominated the political agenda of all governing parties in the 1990s. The Dutch Central Bureau of Statistics' (CBS) Crime Survey included questions on fear of crime, victimisation, crime reporting behaviour, crime prevention measures and social assistance. Local governments participating in the government's urban policy, which was launched in 1995, monitored physical, social and safety conditions in their neighbourhoods through residential surveys called "liveability and safety monitors". Dutch housing associations also used tenants' panel data to check on quality of life in the areas where their property was located and to guide their investment programmes (Koopman et al., 2009). In 2007, a joint survey called the Safety Monitor (from the Departments of the Interior, Royal Relations and Justice and the CBS) was introduced to bring together questions on fear of crime, victimisation, neighbourhood problems and the functioning of the police at the national, regional and local levels (Zauberman, 2010).

Often at the request of national and local authorities, independent institutions or universities collect and analyse data on well-being to support policy and encourage learning on such concepts as sustainable development (Box 3.1). One centrally led initiative involved three federal bodies in the United States that jointly launched the Partnership for Sustainable Communities (PSC) and commissioned the University of Pennsylvania's Penn Institute for Urban Research to gather a set of nationwide comparable sustainability indicators at different territorial scales. These were made available online to allow comparison across communities. At the local level, provincial authorities in the south of the Netherlands have worked with a research institute, Telos, to explore data on regional and urban sustainable development, while the Young Foundation in the United Kingdom has collaborated with local authorities around the concept of resilient communities.

Box 3.1. **Building regional and local capacity to create well-being metrics**

Partnership for Sustainable Communities (United States)

In 2009, three US federal bodies – the Department of Housing and Urban Development (HUD), the Department of Transportation (DOT) and the Environmental Protection Agency (EPA) – launched the Partnership for Sustainable Communities (PSC). The Partnership established a series of six "Liveability Principles" as thematic guidelines for building more economically and environmentally sustainable communities:

1. Provide more transport choices: Develop, safe, reliable and economical transport choices to decrease household transport costs, reduce the nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.
2. Promote equitable, affordable housing: Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities, to increase mobility and lower the combined cost of housing and transport.
3. Enhance economic competitiveness: Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.
4. Support existing communities: Target federal funding toward existing communities, through strategies like transit-oriented, mixed-use development and land recycling, to increase community revitalisation and the efficiency of public works investments and to safeguard rural landscapes.
5. Co-ordinate and leverage federal policies and investment: Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices, such as locally generated renewable energy.
6. Value communities and neighbourhoods: Enhance the unique characteristics of all communities.

To establish progress measurements for the Liveability Principles, the PSC worked with the University of Pennsylvania's Penn Institute for Urban Research (IUR) to build a set of sustainability indicators. Initial research indicated that in the absence of a national sustainable development agenda with associated evaluation mechanisms, a plethora of programmes and assessment models were being developed at the sub-national level by governments, civil society and even the private sector. An indicator set for the PSC's Liveability Principles was thus seen as an opportunity to develop a national level sustainable development indicator system.

The Penn Institute for Urban Research undertook an extensive survey of existing indicator sets, identifying over 60 different indicator initiatives at the regional, municipal and community levels, and almost 500 instances of indicator use. These were then grouped into three thematic areas – housing, land use and transport – and associated with six qualities – access/equity, health, economic competitiveness, affordability, environment and sense of place – using data available from various official statistics. Ultimately, the result was five sustainability dimensions with associated indicators. The PSC has made these available as HotReport Sustainability Indicators, a nationwide comparable indicator set using data available from the US Census Bureau, the American Community Survey and the Department of Labor (Partnership for Sustainable Communities, n.d.). The results are published online so that policy makers and communities can compare their performance in the various sustainability dimensions with that of other counties, their home state and the US average performance.

Box 3.1. **Building regional and local capacity to create well-being metrics** (*cont.*)

Telos (Netherlands)

Telos, the Brabant Centre for Sustainable Development, was established in 1999 as an interdisciplinary and independent research centre in the south of the Netherlands. Its objectives are to study, monitor and support sustainable development in Brabant (the second-largest province in the country, with 2.4 million inhabitants) by collecting, aggregating and analysing data on regional, urban and rural development. To analyse the "sustainability triangle", Telos focused on measuring three types of capital: economic, socio-cultural and ecological. Its analytical method was applied to four provinces in the Netherlands: Brabant in 2000 and 2001, and Zeeland, Limburg and Flevoland in 2003.

Telos works to support social learning on sustainable development in society and among policy makers. Its assessment is intended to alert policy makers and citizens to what is working well and what needs policy attention. Telos is a network organisation between the provincial authorities of Brabant, Tilburg University and the Centre for Applied Social Research in Brabant (PON). The initiative was partly initiated and largely funded by the then Ministry for Housing, Regional Development and Environment (VROM).

Young Foundation (United Kingdom)

The Young Foundation is an independent foundation that conducts two broad types of activities related with well-being: *i)* research on contemporary life and changing needs; looking at issues as diverse as teenage pregnancy and isolated older people, from night working to civility; *ii)* pioneering social innovation by identifying innovative approaches to meeting social needs. In 2010, it published a report entitled *Taking the Temperature of Local Communities*, as part of the Local Well-being Project – a three-year joint initiative between the Young Foundation, Professor Lord Richard Layard at the London School of Economics' Centre for Economic Performance, the Local Government Improvement and Development Agency (formerly IDeA) and three local authorities (Hertfordshire County Council, Manchester City Council, South Tyneside Metropolitan Borough Council).

The report describes a measurement tool called the Wellbeing and Resilience Measure (WARM) that has been designed to support local agencies and communities in helping areas decide priorities at a time when public resources are scarce. The structure of WARM falls into three overarching domains: self (personal well-being and resilience, as well as other attributes such as income or health); support (including emotional support as well as broader personal support); systems and structures (including the state of the local economy, the availability of public services, infrastructures and so on, all of which contribute to well-being and resilience).

The report envisions a five-stage process: measuring how the area has fared and is faring; identifying assets and vulnerabilities; benchmarking – to disentangle local trends from national trends; understanding and planning – drawing on this analysis to identify priorities for action, allocating resources or dis-investing; and implementing a plan.

Source: OECD (2014), "US Partnership for Sustainable Communities", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris; Telos website, www.telos.nl/default.aspx; Hák, Tomás, Moldan Bedrich and Lyon Dahl Arthur (eds.) (2007), *Sustainability Indicators: A Scientific Assessment*, Island Press, Young Foundation, www.youngfoundation.org.

Raising social awareness on regional well-being

Non-governmental stakeholders have also been spontaneously monitoring regional well-being performance to raise social awareness. As a vehicle for promoting civic mindedness and advocating for policy change, a Colombian civil society organisation,

Bogotà, Cómo Vamos, has been monitoring quality of life and the performance of the Bogotà City Council, while one of Mexico's largest newspapers, *El Universal*, launched a website and a report that measure and monitor 13 dimensions of well-being in Mexico City (Box 3.2). Such initiatives offer inspiring examples of a civil society organisation taking the lead to foster greater transparency and mobilise the society at a territorial level. Sometimes long before national and local governments, consulting firms have also developed territorial branding strategies that compiled a diverse range of data to promote the quality of life of specific territories and attract investment.

Box 3.2. **Civil society leading regional well-being measurement: The examples of Bogotà, Cómo Vamos (Colombia) and Cómo vamos, Ciudad de México (Mexico)**

Bogotà, Cómo Vamos (Colombia)

Bogotà, Cómo Vamos is a civil society organisation (CSO) in Bogotà, Colombia. For the past 15 years, it has developed, managed, monitored and actively communicated performance around five elements that define quality of life: human capital, urban habitat, culture, good government, and economic development and competitiveness. It has divided these 5 elements into 25 dimensions, including health, education, environment, housing and public services, justice, public administration, labour market, company dynamism, safety, poverty and equality, and civic responsibility. Each dimension is associated with a series of outcome indicators that give citizens and decision makers a global perspective on the aspects that affect quality of life in the city. For example, the environment dimension is monitored through indicators on air quality, water quality in urban rivers, pollution, green space available to citizens and recycling levels. Data are tracked over time and across the territory (i.e. by neighbourhood). It is also monitored and periodically updated, with information published on the Bogotà, Cómo Vamos website.

Every year, the organisation publishes a quality-of-life report, a citizen perception survey and a monitoring and evaluation report on the performance of the Bogotà City Council. This helps build citizen awareness and engagement in local government and the accountability of government to meet its objectives. The website provides information on each city councillor, the political parties, city commissions and city projects. In addition, the organisation sponsors roundtables, forums, citizen events, publications and communications strategies, to keep citizens informed about what is happening in the city. Not only does it communicate online and in print media, but it also actively uses social media, including Twitter and Facebook.

Bogotà, Cómo Vamos is sponsored by the Fundación Corona (a Colombian CSO dedicated to improving quality of life in the country), the El Tiempo publishing group, the Bogotà Chamber of Commerce and the Pontifica Universidad Javeriana. It inspired other cities in Colombia and Latin America to monitor quality of life at a local level. Today, there are 14 other "Cómo Vamos" cities in Colombia, and 78 cities throughout Latin America that are part of the Latin American Network of Just, Democratic, and Sustainable Cities and Territories (*La Red Latinoamericana por Ciudades y Territorios Justos, Democraticos y Sustentables*) which was inspired by the Bogotá model.

"Cómo vamos, Ciudad de México?", *El Universal* (Mexico City)

Inspired by the Bogotà, Cómo Vamos initiative, one of Mexico's largest newspapers, *El Universal*, launched a well-being measurement and monitoring initiative called Cómo vamos, Ciudad de México? ("How are we doing, Mexico City?"). The aim is to provide citizens with information on the various dimensions that contribute to quality of life in a simple, easy-to-understand manner; to serve as an evidence base for decision makers; and to promote a better informed and participative citizenry and a more transparent government.

Box 3.2. **Civil society leading regional well-being measurement: The examples of Bogotà, Cómo Vamos (Colombia) and Cómo vamos, Ciudad de México (Mexico)** (*cont.*)

Using a combination of quantitative and perception-based measures of well-being, *Cómo vamos, Ciudad de México?* reports on performance in 13 categories: income and jobs; poverty and inequality; education; health; culture, recreation and sports; housing; urban development; transport and mobility; environment; security and justice; government; civic engagement; competitiveness and economy. With the data it gathered, the programme established a website and published a report in 2013 communicating findings in the 13 areas measured. These are reported based on three to four factors: gender, age, socio-economic profiles and geography (results from the Federal District of Mexico versus those of its surrounding urban area). The findings, however, do not provide information by individual municipality, which limits the possibility of making place-based or neighbourhood comparisons. In addition to communicating its findings in each category, it draws general conclusions regarding quality of life in Mexico City and lists the ten greatest challenges to quality of life facing the city (e.g. increased feelings of insecurity, economic pressures on individual households, transport, education, governance, etc.).

The website and report also explain the methodology used, which included establishing a Technical Advisory Board of experts to help develop the indicator set and monitor progress. The board is divided into 13 sub-committees, each responsible for one of the 13 dimensions. The website lists each committee and its members.

Source: Bogotà Cómo Vamos (n.d.), "Bogotà Cómo Vamos", Bogota, Colombia, available at: www.bogotacomovamos.org/media/uploads/documento/new/librillo1_v4.pdf (accessed on 10 July 2014); Bogotà Cómo Vamos (n.d.), available at: www.bogotacomovamos.org and www.bogotacomovamos.org/concejo (accessed on 10 July 2014); La Red Latinoamericana por Ciudades y Territorios Justos, Democraticos y Sustentables (n.d.), available at: http://redciudades.net/blog (accessed on 10 July 2014); Cómo vamos, Ciudad de México? (2013), available at: www.comovamosciudaddemexico.com.mx (accessed on 4 July 2014); El Universal (2013), "Cómo Vamos, Ciudad de México? Asi percibimos nuestra calidad de vida en la Metrópoli", El Universal, Federal District, Mexico, available at: www.comovamosciudaddemexico.com.mx/wp-content/FB_ComoVamos_enc_2013/#/1 (accessed on 4 July 2014).

Guiding policy prioritisation across dimensions and territories

Well-being indicators can facilitate a finer-grained understanding of where the greatest needs lie. The analysis of well-being performance can therefore help guide the prioritisation of policy action and funding both across policy sectors (by identifying specific dimensions of well-being that need to be improved) or across space (by monitoring spatial disparities and targeting the most challenged areas). For this task, regional well-being indicators need to take into account both individual and territorial characteristics. For example, improving standards of living requires knowing which areas have the highest poverty rate, but also which areas have the highest number of poor people. Some poor areas may be sparsely populated (and thus have only a limited number of poor people) whereas some rich areas may concentrate large pockets of poverty (because many of the poor people live in rich areas, such as on the periphery of large metropolitan areas or specific neighbourhoods).

Some OECD regions have developed their own system of using well-being indicators to prioritise policy actions on key dimensions and objectives. In the period 2007-13, regions in southern Italy were engaged in a performance scheme called *Obiettivi di servizio*, which aimed to improve outcomes in four selected dimensions of

well-being (education, water, waste, and elderly and child care) through a system of measurable and agreed indicators and targets. Although the chosen well-being dimensions were the same for the eight participating regions, they were identified through a consultation process that involved both national and regional policy makers (Box 3.3). In light of these indicators, significant improvements have been achieved in Sardinia, for example, in terms of waste management and child and elderly care. In particular, the amount of urban waste landfilled was halved and the share of recycled urban waste increased from 27% to 48% over five years. The improvements in the waste cycle management have been recognised as a successful instance of engaging institutions, private sectors and civil society around clear and measurable objectives and identifying the actions to pursue these objectives.

Box 3.3. **Using indicators to improve policy delivery: The case of *Obiettivi di servizio* in Italy**

Obiettivi di servizio is a performance scheme introduced in the south of Italy for the 2007-13 implementation of EU Cohesion Policy. The objective was to help regional authorities focus on improving results in key well-being dimensions. Eight regions were asked to achieve minimum standards in four policy areas where the level and quality of public services were lagging behind other areas of the country. The four policy areas are education, child and elderly care, waste management and water service. A set of 11 indicators, expressed as improvements in citizen well-being, was used to measure the starting point and monitor progress at the regional level. For each indicator, a target was set for 2013 at the same level for all regions (see www.dps.tesoro.it/obiettivi_servizio for the list of indicators and targets).

Before starting the performance scheme, the Ministry of Economic Development (Department for Economic Development and Cohesion) set up a deliberative process to identify the four policy areas and the corresponding statistical indicators, engaging the national statistical office (Istat) and national and regional authorities. Many stakeholders were consulted, including associations of service providers, representatives of local authorities, data providers and socio-economic partners. This process was considered essential for increasing public understanding of the initiative and the accountability of those directly or indirectly responsible for the delivery of services. The analysis and discussion of possible indicators made participants aware of the strengths and weaknesses of each option and gave an indication of the links between policy areas (Brezzi and Utili, 2007).

Once the performance framework was set up, regional authorities were asked to draft an action plan, including the full range of measures needed to reach the targets in the four policy areas. These could include investments supported by all available financing sources, and also legislative, regulatory or organisational action.

During the implementation of the scheme, the original framework was revised and the rules allocating financial rewards to performing regions modified (including the amount allocated, which reduced the planned EUR 3 billion by half). All other features of the framework were maintained (objectives, indicators, targets, action plan). In particular, the ministry has worked closely with the regions to assess the results and update the Action Plan accordingly (Anselmo, 2012).

Source: OECD (2014), "Region of Sardinia (Italy)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris

Many OECD countries have also developed their own well-being indicators to allocate public funds to priority neighbourhoods (Box 3.4). For example, the Dutch government's urban regeneration policy selected certain neighbourhoods to receive funding from the government and housing associations to improve physical and social living conditions. The UK Indices of Multiple Deprivation (IMD), which rank small areas according to their relative levels of deprivation, are extensively used to gear subsidies and target public services to lagging areas. Australia's Socio-Economic Indexes for Areas (SEIFA) rank small areas according to their level of socio-economic advantage and disadvantage and can be used for locating public or private facilities in the areas of greatest need.

Box 3.4. **Examples of using well-being indicators to allocate funding to priority communities in the Netherlands, the United Kingdom and Australia**

Krachtwijken **in the Netherlands**

As part of urban regeneration policy, the then Ministry for Housing, Communities and Integration launched the Action Plan for Empowered Neighbourhoods (*Actieplan Krachtwikjen*) in 2007. Forty priority neighbourhoods (*Krachtwijken*) were selected from 18 large municipalities on the basis of their high scores in unemployment, liveability and safety, as well as their ageing housing stock. The original plan was intended to improve housing, employment, education, integration and safety over the course of a decade. This was scheduled to be financed through a combination of government funding and contributions from housing associations that had no housing stock in the selected neighbourhoods. However, the plan received funding for only four years, and the contribution from housing associations was scrapped in 2011.

UK Indices of Multiple Deprivation (IMD)

The United Kingdom's Department for Communities and Local Government has established the English Indices of Multiple Deprivation (IMD) that measure relative levels of deprivation. More than 40 separate indicators across administrative, survey and census data sources span seven "domains" of deprivation: employment, income, health, crime, education, living environment and barriers to services. The IMD were initially built at the district ward level in 2000, then at the smaller scale of 32 482 "lower-layer super-output areas" of roughly 1 500 residents in 2004, 2007 and 2010. Most of the statistics used in the latest edition (2010) are from 2008, and new indices are expected to be produced in 2015. Deprivation is a largely local issue, since 56% of local authorities include at least one lower-layer super-output area amongst the 10% most deprived in England.

The IMD are used extensively to target regeneration programmes. These include all domestic regeneration programmes of the 2000 Spending Review, the Neighbourhood Renewal Fund (NRF), the Single Regeneration Budget (SRB), Neighbourhood Management and programmes to attract businesses in disadvantaged areas. The IMD also guided the location of Sure Start centres and Children's Centres, as well as funding for the Neighbourhood Nurseries Initiative and other programmes intended to support vulnerable children and families. Many of the National Lottery grants are explicitly targeted in the most deprived areas based on the IMD, as are other funds, including the Bill and Melinda Gates Foundation gifts for the provision of information technology learning centres. Deprived areas defined by the IMD also benefited from reduced stamp duty on property and land transactions.

Socio-Economic Indexes for Areas (SEIFA) in Australia

Socio-Economic Indexes for Areas (SEIFA) are developed by the Australian Bureau of Statistics (ABS) and rank geographic areas in Australia according to relative socio-economic advantage and disadvantage. The indexes can be used for several purposes, including:

Box 3.4. **Examples of using well-being indicators to allocate funding to priority communities in the Netherlands, the United Kingdom and Australia** (*cont.*)

- Targeting areas that require funding and services. For example, if a government agency responsible for funding aged care facilities decides to allocate funds to localities that need them the most (e.g. areas with low ratios of existing aged care facilities to population aged 70 years and over), the agency can use the Index of Relative Socio-Economic Disadvantage (IRSD) for each quintile and look for systematic bias in funding for aged care with respect to socio-economic disadvantage.
- Identifying new business opportunities. For example, maps of Index of Economic Resources (IER) quintiles can help businesses to conduct consumer research, decide where to locate outlets and target promotion campaigns.
- Strategic planning and social and economic research into the relationship between socio-economic disadvantage and various health and educational outcomes. For example, the Index of Relative Socio-Economic Advantage/Disadvantage (IRSAD) scores for each statistical local area can be plotted against the fertility rate, to check whether the fertility rate is lower in advantaged areas.

Source: UK Department for Communities and Local Government (n.d.), "English indices of deprivation", Crown Copyright, London, www.gov.uk/government/collections/english-indices-of-deprivation; Australian Bureau of Statistics (n.d.), "Socio-Economic Indexes for Areas", ABS, Canberra, www.abs.gov.au/websitedbs/censushome.nsf/home/seifa.

A recent example of using well-being indicators for channelling funds towards priority needs is poverty mapping in the European Union. One of the five headline targets of the Europe 2020 strategy is to reduce the number of people living at risk of poverty or social exclusion by 20 million by the year 2020. Success depends on developing the right policies and programmes and targeting them effectively. In its multiannual financial framework 2014-20, the EU budgeted EUR 1 trillion to support growth and jobs and reduce poverty and social exclusion. According to the latest data from Eurostat, more than 124 million people in the European Union – almost 25% of EU citizens – are at risk of poverty or social exclusion. Rates of poverty and social exclusion vary widely across EU member countries, but also within them (see Chapter 2). Promoting convergence of living standards across the EU requires detailed knowledge of the disparities in living standards within each member country, and especially in those member countries with high levels of poverty and social exclusion. In 2011, the European Commission (EC) and the World Bank agreed to jointly build small area estimation poverty maps for the new EU member countries (Box 3.5). The greater geographic disaggregation of the new poverty maps reveals which parts of these larger regions have particularly high rates of poverty and require greater attention for poverty reduction programmes; and combined with data on population size, they also provide information on where most of the poor are located. The poverty maps not only help guide allocations of EU funds, but may also be used for decision making and policies at the national and sub-national levels in each of the EU member countries. Similarly, the set on indicators on income inequalities and poverty presented in Chapter 2 – if collected regularly in the future – may be used for guiding policy interventions in OECD countries and regions.

Box 3.5. **Poverty maps to guide the allocation of EU Structural Funds in 2014-20**

The European Parliament approved a deal with the Council on the Fund for European Aid to the Most Deprived (which will replace the Food Distribution Programme). Its budget for the period 2014-20 is EUR 3.5 billion, even though member countries proposed to cut it by EUR 1 billion. The fund will provide food, basic material assistance (e.g. clothing and school materials) and social welfare to people in severe material deprivation. Based on the EU Statistics on Income and Living Conditions (EU-SILC), the severe material deprivation rate (SMDR) is defined as the percentage of the population that cannot afford at least four of the following nine items: to pay their rent, mortgage or utility bills; to keep their home adequately warm; to face unexpected expenses; to eat meat or proteins regularly; to go on holiday; to own a television set; a washing machine; a car; and a telephone. According to the interactive map developed by Bruegel,[1] there is a wide dispersion of deprivation across European countries. While the average severe material deprivation rate in EU27 countries was 9.9% in 2012 (up from 9% in 2007), country rates range from 1.3% in Luxembourg to 44.1% in Bulgaria.

In 2011, the European Commission (EC) and the World Bank agreed to construct small area estimation poverty maps for the new EU member countries. The objective is to help the EC and EU member countries target funds and programmes in the 2014-20 budget cycle most efficiently to the areas in highest need. These high-resolution poverty maps combine information from recent national population censuses and EU-SILC household surveys to estimate the rates of monetary poverty for small geographic areas such as counties, districts or municipalities. In previous years, the EC has had to rely on less detailed data and maps at the NUTS 2 level (for example, the eight development regions in Romania) for programme planning and the allocation of EU funds.

Note: 1. More information is available at: www.bruegel.org/nc/blog/detail/article/1290-interactive-map-europes-social-polarisation-and-the-generational-struggle.

A multi-stakeholder process for implementing a regional well-being strategy

In all three types of uses discussed above, well-being outcome indicators represent a strategic tool for regions that want to assess and improve policy results. Evaluating whether and to what extent changes in well-being outcomes are directly attributable to a given policy or derive from other factors is a challenging task. It is all the more complex at the regional and local level, where policies from different levels of government meet on the ground. Well-being indicators can enhance coherence across policies by promoting a better understanding of trade-offs and synergies among the different well-being dimensions. Regions and cities thus need to design and articulate a "well-being strategy" around three building blocks:

1. Developing a regional well-being metrics that captures people's daily experience, following the framework presented in Chapter 1: Embracing individual and territorial characteristics, through both material and non-material dimensions of well-being, focusing on outcomes rather than inputs or outputs, taking into consideration the distribution of well-being across territories and across different groups, and assessing regional sustainability and resilience over time.
2. Exploiting complementarities across different dimensions of well-being: Clarifying responsibilities across and within different levels of government and different groups of stakeholders, increasing co-ordination among policies and managing possible trade-offs while maximising synergies.

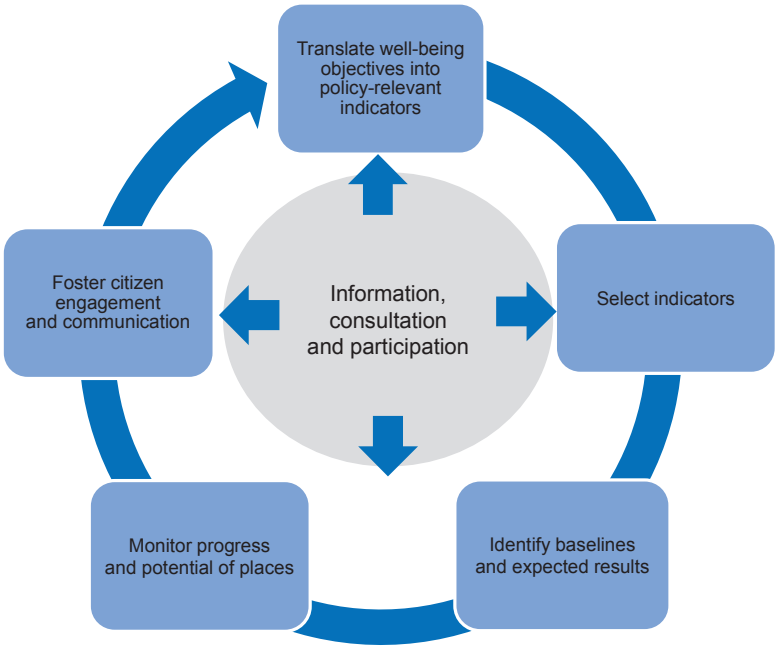
3. Encouraging citizens to adapt well-being measurement to their needs: Mobilising citizens in an early and continuous participative process to collectively identify the dimensions that matter most to the community, provide input for prioritising policy interventions and monitor progress towards the anticipated results, thereby increasing the legitimacy and effectiveness of the regional well-being strategy.

Designing and implementing a regional well-being strategy based on these three building blocks requires a sequential process within a continuous exchange of information, consultation and participation among different stakeholders (Figure 3.1):

- Translating well-being objectives into policy-relevant indicators. A regional well-being measurement strategy needs to provide policy makers and citizens with direct information on people's lives as they are lived in different communities, and on what can be changed through policy to make them better. This requires establishing a clear link between regional well-being measurement and regional development goals, and aligning policy objectives across and within levels of government.
- Selecting indicators. The choice of well-being indicators needs to reflect local priorities and assets. A deliberative process of consultation should be set up to focus on a limited set of key indicators. These will help reflect objective living conditions against what people perceive, helping to target policy attention towards those in greatest need and make the most of existing information.
- Identifying baselines and expected results. Establishing a clear starting point and a range of targets to be achieved helps structure the course of public action around a transparent timeline and intermediate milestones. In a policy environment characterised by uncertainty, building a system of incentives promotes learning and capacity.
- Monitoring progress and assessing the potential of different places. Regional well-being indicators can provide a tool for tracking change over time and identifying the specific assets for development in different communities. This contributes to pooling resources towards policies that maximise a region's potential for progress.
- Fostering citizen engagement and communication of results. Bringing citizens on board from an early stage of the measurement initiative gears efforts towards what matters most to the community and builds momentum for action. Putting in place mechanisms for continuous dialogue allows for a critical assessment of results, facilitates policy adjustments when necessary, and increases accountability and trust.

The starting point of this well-being measurement cycle varies across regions, according to the specific objective of measuring well-being and who is leading the process. Rarely have case study regions fully implemented all the steps. Some regions are more advanced in certain steps than in others, and sometimes they skip one or more steps. Most frequently, regions are seeking effective tools to launch a consultation process or to communicate the results of well-being indicators.

Figure 3.1. **Regional well-being measurement cycle: A possible sequencing of steps**



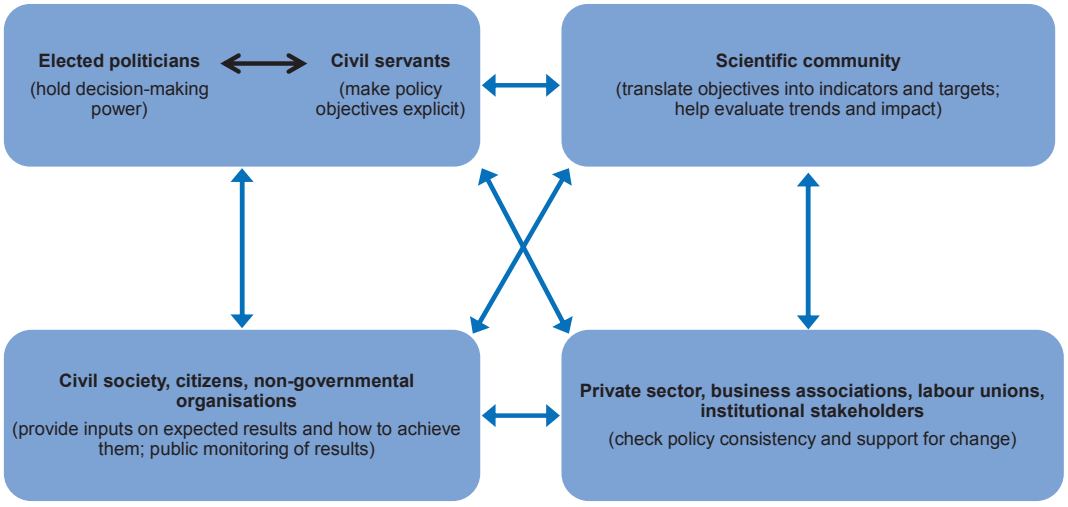
Implementing this process of well-being metrics requires the involvement of relevant stakeholders and constructive interaction among them (Figure 3.2). Four main categories of stakeholders can be identified:

- regional policy makers, including elected officials and civil servants who have the responsibility of designing explicit well-being policy objectives and identifying the priorities of action for achieving these objectives
- the scientific community (statistical offices, academics, etc.) able to help transform these objectives into measurable indicators and targets and provide underlying evidence and analysis
- the private sector, including business associations, labour unions and other institutional stakeholders who play a key role in monitoring policy consistency and supporting change
- civil society and citizens, who can provide input on the dimensions that matter most to them and on the results expected. Citizens can also contribute to achieve the results and publicly monitor progress.

A strategic aspect of enhancing the effectiveness of a regional well-being measurement initiative is to ensure continuity beyond political cycles. The sustainability of regional well-being metrics over time depends on the buy-in of public administration and on effective co-ordination across levels of government. While political leadership is fundamental, and many regional initiatives actually struggle to bring elected officials on board, the buy-in of public administration (i.e. non-elected civil servants) is indispensable to ensure the continuity of well-being initiatives in case of changes in political leadership. In the province of Rome, for example, both the provincial President and the council were fully supportive of the strategic plan and its associated well-being indicators. With this political backing, the necessary consultation processes, stakeholders, funding and

communication tools were put in place in 2011. In 2013, the provincial administration changed as the President of the province moved on to become the President of the region of Lazio, and the strategy appeared to have lost its political support and the mechanisms built to sustain it. The province is currently led by a special commissioner directly appointed by the Minister of the Interior, in anticipation of the move to official metropolitan status, which will result in a change in government structure. Priorities have therefore shifted, and the project of strategic development, with its associated well-being indicators, is no longer officially active. However, many of the strategy's objectives reportedly remain within the work of the departments, which could be a reflection of the ownership of its principles within the public administration.

Figure 3.2. **Stakeholders involved in implementing regional well-being initiatives**



Co-ordination between the regional government, municipalities and other stakeholders can also be a powerful driver behind the continued application of well-being indicators on the ground. A shift in political support can reduce the availability of resources (human, financial and infrastructure) allocated for the co-ordination and implementation of regional well-being measurement. Again, in the case of Rome, structures that had been established specifically for the well-being project, such as the citizen website and the government enterprise ProvinciaAttiva Spa, are no longer operational today. An institutional reform may also change the competences of the regional or provincial level, so that among the dimensions identified as essential to well-being and the variables selected for measurement, some aspects fall outside of the competences of the regional or provincial level. Promoting well-being across the territory is not only dependent on the actions of the region or province but also on those of municipal authorities. This requires building local technical capacity for data collection and analysis, and fostering buy-in and incentives for participation. In the case of Morelos (Mexico), despite the wide variety of available well-being indicators, many remain under-exploited because municipalities have uneven levels of knowledge of available data and capacity to use them in policy making.

The following sections explore in detail each step of the proposed measurement cycle and the role played by the different categories of stakeholders.

Translating well-being objectives into policy-relevant indicators

Putting well-being at the core of the policy agenda requires formulating the various well-being objectives as policy-relevant indicators. This explains why most of the case study regions have formally linked their regional well-being measurement initiative and their regional policy. Regional well-being indicators are typically included in a regional development plan or strategy. For example, the region of Southern Denmark has included its Good Life indicators in the 2012-2016 Regional Development Plan (RUP) and has produced a wheel of indicators to emphasise the importance of a holistic approach to regional development. The well-being strategy of the state of Morelos in Mexico aims to build a society that guarantees the rights of citizens in order to improve their quality of life, and the 2013-2018 State Development Plan (PED) includes well-being dimensions and indicators to accomplish this objective. The province of Rome incorporated well-being indicators into its Strategic Plan (2012) as a means of achieving inclusive growth, on the principle that a better understanding of territorial inequalities across the province could inform decision making.

However, policy objectives for promoting well-being are sometimes formulated in terms of reducing ill-being. An initiative will typically be described as a well-being initiative, but questions have been raised as to whether, in practice, problems are being measured, rather than opportunities and potential. Newcastle, for example, explicitly stated that well-being was understood as encompassing more than the mere absence of problems. At the same time, its Well-Being Strategy largely draws on the UK Indices of Multiple Deprivation. Similarly, the most compelling territorial metrics developed so far in Sardinia is an index of Multi-Deprivation applied to the Sardinian municipalities (IDMS) (Box 3.6). The question arises whether this orientation involves measuring two sides of the same coin or has a direct effect on policy. Regional experiences nevertheless suggest that a focus on better exploiting assets rather than on attenuating deprivation may increase the sense of ownership from stakeholders in the well-being strategy, as in the case of Morelos, for example.

Box 3.6. **The Index of Multi-Deprivation in Sardinia**

The Regional Planning Centre of the region of Sardinia, in collaboration with the University of Cagliari, has developed a comprehensive measure of regional internal disparities through an Index of Multi-Deprivation, which was applied to the 377 municipalities of Sardinia in 2011. The index includes seven dimensions: income, jobs, education, health, environment, access to basic services and safety. Each dimension is measured by one or more indicators and illustrates inter-municipal differences in deprivation. Indicators in each of the seven domains are transformed into sub-indices ranging from 0 (lowest deprivation) to 1 (highest deprivation), then compiled into a composite figure of multi-deprivation. Municipalities are ranked both according to their level of deprivation in each dimension and their level of multi-deprivation (composite index). Results are available for each municipality and for each province in the region of Sardinia. Most of the data come from administrative sources, published for the first time, and none of the dimensions include subjective measures.

The results show municipalities where deprivation in one dimension is particularly high and can thus help target policies and financial resources to fight poverty or school dropouts, for example. They can also give indications on which dimensions of deprivation tend to be associated, to help design comprehensive policy packages to tackle inequalities. Future updates and uses of the Multi-Deprivation Index have not been fully defined, but it could potentially become an important instrument to support local and regional decisions and project selection.

Source: OECD (2014), "Region of Sardinia (Italy)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris.

Criteria for defining outcome indicators

Indicators on regional well-being outcomes provide direct information on people's lives as they are lived in different communities, while indicators on inputs reflect what governments have invested, with only partial information on living conditions. For example, assessing people's daily experience with a public service such as water will require data on how satisfied citizens are with the quality of water, rather than the budget for providing water (input) or the kilometres of water pipe that have been laid (output). A number of selection criteria for identifying outcome indicators have been put forward, including in the OECD How's Life? framework, EC Cohesion Policy programming and the US Partnership for Sustainable Communities (Box 3.7). In another regional example, the Good Life initiative in Southern Denmark measures health by studying the number of doctor visits and sick days registered, but also the share of people who feel burdened by health problems in their daily lives – rather than input indicators such as the number of hospital beds or the budget for healthcare. While all these initiatives posit ideal criteria, hardly any indicator will satisfy all criteria equally well. Ultimately, the choice of indicators must be determined through a holistic assessment of validity and practicality. The selection of indicators is an iterative process, building on consultations between policy makers, stakeholders and partners.

Box 3.7. **International examples of criteria to select outcome indicators**

The OECD How's Life? framework, developed in 2011, orients the selection of well-being indicators towards indicators that capture well-being achievements at the individual or household level; measure well-being outcomes; allow disaggregation to assess the well-being of different population groups; and gauge the joint distributions of achievements, e.g. whether a person with a disadvantage in one dimension also suffers a poor outcome in another. It has also specified that well-being outcome indicators should meet the following statistical requirements:

- have face validity, i.e. the capacity to measure the intended parameter according to a large body of evidence and practices
- focus on summary outcomes, i.e. on relatively broad achievements that can be easily understood and are not open to ambiguity in interpretation
- be amenable to change and sensitive to policy interventions, which is important from the perspective of improving the design of policies that bear on well-being and, ultimately, on people's lives
- be commonly used and accepted as well-being indicators within the statistical and academic communities
- ensure comparability across countries, either by using concepts and definitions that follow internationally agreed standards, data collected through a co-ordinated questionnaire or by putting together broadly comparable instruments
- ensure maximum country coverage: strictly speaking, this is not a data quality criterion but a working constraint, given the aim of producing comparable evidence for OECD and some of other major economies
- be collected through a consistent instrument, which is important for monitoring changes in well-being over time.

Box 3.7. **International examples of criteria to select outcome indicators** (*cont.*)

EU Cohesion Policy has shifted its approach towards result-oriented investment in the 2014-2020 programming period. Its EUR 352 billion budget for this period will be invested across EU regions according to a new focus on results that can be measured. In the partnership agreements signed between the Commission and each member country that establish commitment for the use of Structural Funds, national and regional governments are required to select their investment priorities according to specific objectives expressed in one (or a select few) result indicator(s) of people's well-being. Outcome indicators should be:

- Responsive to policy: Closely linked to the policy interventions supported. They should capture the essence of a result according to a reasonable argument about which features they can and cannot represent.
- Normative: Having a clear and accepted normative interpretation (i.e. there must be agreement that a movement in a particular direction is a favourable or an unfavourable result).
- Robust: Reliable, statistically validated.
- Based on a timely collection of data: Available when needed, with room built in for debate and for revision when needed and justified.

These indicators can then help managing authorities deliver programmes efficiently and to assess whether the programme has produced the desired effects. To date, Cohesion Policy has focused more on evaluating how programmes were implemented and managed, but in the 2014-20 period, the aim will be to strengthen evaluation of programmes. The European Commission has asked managing authorities to ensure that independent evaluations are carried out and made public. A carefully designed evaluation process is expected to help disentangle the change in indicators credibly attributed to policy intervention from those due to other factors.

In the United States, the Partnership for Sustainable Communities focuses on six "liveability" principles and a set of goals (such as sense of community, equity, health, etc.). Indicators are identified to reflect one of the principles together with one or more policy goals. The University of Pennsylvania built a crowd-sourcing catalogue of indicators, by gathering indicators already in use in different communities. A subset of headline indicators was identified with the help of focus groups and governmental agencies, for communities to select a benchmark over time. Headline indicators must align with the criteria the principles represent and meet the following SMART criteria:

- specific – what is measured is clearly stated and has the appropriate level of disaggregation
- measurable – the indicator shows desirable change and changes are objectively verifiable
- attainable – the results are realistic given available resources
- relevant – the indicator captures the essence of the desired result and is relevant to the intended outcome
- time-related – that is, specify when the results can be achieved.

Source: OECD (2011), *How's Life? Measuring Well-Being*, Box 1.5, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en; European Commission (2014), "Guidance document on monitoring and evaluation – European Regional Development Fund and Cohesion Fund, Concepts and recommendations, Programming Period 2014-2020", DG Regional and Urban Policy, Brussels, March; Birch, E.L., et al. (2011), "Measuring US sustainable development", *Penn IUR White Paper Series of Sustainable Urban Development*, Penn Institute for Urban Research, Department of City and Regional Planning, University of Pennsylvania, Philadelphia, Pennsylvania.

Aligning policy objectives across and within levels of government

Given that regional well-being outcomes are shaped by a multitude of dimensions and policy interventions, they can rarely be defined and achieved by a single governmental actor. Strong political leadership and active intergovernmental collaboration both across and within levels of government are instrumental in pursuing common regional well-being policy objectives.

Co-ordination across levels of government around common well-being objectives helps align priorities and avoid dispersing resources at cross purposes. Even within a given dimension of well-being, such as housing or transport, responsibilities may be distributed across several bodies and need to be clarified. In the *Obiettivi di servizio* experience in Sardinia, for example, challenges in aligning objectives across different levels of government and institutions were mentioned as the main cause of the poor results in the fight to reduce the number of school dropouts. The percentage of youth without a secondary school diploma actually increased to 25%. The share of 15-year-old students with poor competences remained at 28%, according to the latest two rounds of the OECD PISA Survey (whereas the value for Italy is 19%). In Morelos, implementation of the State Development Plan needs to rely on co-ordination mechanisms between the state and municipalities. However, the capacity to use indicators to assess well-being outcomes may vary across municipal governments, notably depending on their size, since larger municipalities often have more financial and technical resources.

Co-ordination within levels of government across sectoral bodies is also essential in moving the regional well-being policy agenda forward. In Morelos, for example, the State Development Plan offers a widely acknowledged platform for integrating different sectoral policies at the state level. The plan was drawn up following a networked government approach (*gobierno en red*) – formalised by law in early 2013 – which focuses on co-ordination across different state ministries. One example of a programme that takes into account complementarities between sectoral policies is the *beca salario*, a universal scholarship programme that applies to students between the third year of secondary education and the fourth year of higher education. By encouraging students to attend school, this programme aims to influence not only educational outcomes but also safety, health and civic engagement. In Southern Denmark, the Regional Development Plan (RUP) has also provided an umbrella strategy, and the new Growth and Development Strategy will help further co-ordinate programmes around a shared vision. Although the level of government leading the well-being initiative may suffer from institutional shortcomings, the well-being strategy may actually serve as a rallying issue. In Newcastle, a new Combined Authority responsible for transport, skills and economic development was created in April 2014 and the effectiveness of new governance tools such as the "city deals" and "local enterprise partnerships" remains to be seen. At the same time, the Well-Being for Life Initiative also seeks to make the City Council more "fit for purpose" and more strongly committed to working with all relevant partners to improve well-being and health. In Southern Denmark, the region has a relatively weak institutional capacity, particularly since the 2007 territorial reform, but integrating around the Good Life vision has in many ways strengthened the legitimacy of the regional level in relation to municipalities and the national government.

The role of national governments in regional well-being measurement

National governments can play a major enabling role in supporting regional well-being measurement initiatives and trigger change. They can give impetus by providing a general framework for action. For example, in the United Kingdom, the

2012 Health and Social Care Act and the establishment of local health and well-being boards was fundamental in realising Newcastle's Well-Being for Life Strategy. The Italian Department for Economic Development and Cohesion – the national authority in charge of Cohesion Policy – has not only helped to define the framework for a more result-oriented policy for the period 2014-20, but also to identify instruments to improve the efficiency of public investment, for example through the partnership agreements, the action plans (*Piani d'azione coesione*) and performance frameworks implemented in the previous programming periods. Better co-operation with national authorities can also help evaluate past experiences of regional well-being metrics and share good practices among regional authorities and other stakeholders.

National governments, with their resources, reach and perspective, can also be a significant contributor of information. In many instances, quantitative data gathered depends heavily on statistics gathered at the national level (e.g. census data, indices of deprivation, etc.). Collaboration between the national statistical office and regional authorities helped to collect and make optimal use of existing information. In Italy, the active presence and experience of Istat helped enhance the amount and quality of well-being indicators. In Mexico, the *Instituto Nacional de Estadística y Geografica* (INEGI, or National Institute of Statistics and Geography) provides a wide range of indicators at state level, and is involved in capacity-building programmes with state and local policy makers to make use of this information. Other regions are currently exploring ways to establish such collaboration. For example, the region of Southern Denmark has started to develop co-operation with the Danish Statistical Office.

At the same time, national governments walk a fine line between supporting efforts and being prescriptive. Again in the UK example, the national government established the guidelines or requirements for local councils to follow: establish a Well-Being Board, undertake a future needs assessment and establish a health and well-being strategy. It did not, however, specify what should be included, measured or monitored by the board or in the strategy, leaving this to be tailored to the local context. The US Partnership for Sustainable Communities has taken a hybrid approach, establishing indicators in its HotReport Sustainability Indicators, but also letting the communities that receive partnership funds build their own indicators and assessment techniques.

Selecting indicators

Reflecting regional priorities

While regions usually choose to measure a similar set of well-being dimensions which broadly match those put forward by the OECD How's Life in Your Region? framework as presented in Chapter 2 (Table 3.1), they also sometimes choose different indicators. This reflects the fact that strategies to promote well-being must be informed by data that capture specific policy objectives and address the particular conditions of a given population (Table 3.2). For example, when measuring the health dimension, the state of Morelos added an indicator on obesity, which affects 34.9% of people of aged 12-19 living in the state, whereas Newcastle added an indicator on the number of alcohol-related admissions to hospital, which is 50% higher than the national average.

Table 3.1. **Well-being dimensions covered by the different initiatives of OECD case study regions**

OECD		Southern Denmark (Denmark)	Province of Rome (Italy)	Sardinia (Italy)	Morelos (Mexico)	North of the Netherlands (Netherlands)	Newcastle (United Kingdom)	US Partnership for Sustainable Communities	TOTAL
Dimensions covered by the OECD How's Life in Your Region? framework	Income	X	X	X	X		X		5
	Jobs	X	X	X	X	X	X	X	7
	Housing				X		X	X	3
	Education	X	X	X	X	X	X		6
	Health	X	X	X	X	X	X		6
	Environment	X	X	X	X	X	X	X	7
	Safety	X			X		X		3
	Civic engagement		X		X	X	X		4
	Access to services	X	X	X	X			X	5
Additional dimensions covered by the OECD Better Life Index at national level	Social connections		X			X	X		4
	Subjective well-being	X			X	X	X		4
	Work-life balance				X				1

Source: OECD research based on answers provided by case study regions to OECD questionnaires.

Focusing on a limited number of indicators

Streamlining well-being information into a clear set of concrete policy messages is essential for the success of a measurement initiative. Some regional experiences suggest that an oversupply of information can obstruct understanding. A proliferation of measurement initiatives led by different bodies can result in a plethora of indicators at different spatial scales and time lines, which only adds to complexity. In Italy, for example, existing information and multiple national and regional initiatives for measuring well-being could be better articulated around a common framework. In the experience of *Obiettivi di servizio*, selecting a limited number of objectives and indicators (4 policy areas and 11 indicators, respectively) helped national and local policy makers focus and maintain their attention throughout the implementation period. In Morelos, the large number of indicators for each of the five axes of the State Development Plan, without a hierarchical structure or weighted system, may obscure the true status of citizen well-being and fail to communicate it effectively to citizens. Better co-ordination of regional well-being measurement initiatives could promote knowledge spillovers, reduce the cost of producing comparable information and pool resources for generating indicators that are not available from official sources (e.g. perception and life satisfaction measures).

Combining objective indicators and subjective perception data

Any striking gaps between objective socio-economic conditions and perceived quality of life can provide useful indications of where public policy may fail to deliver the expected outcomes, and should be thoroughly reviewed by all relevant actors. Most regions use objective indicators in their well-being measurement initiative, and some also

Table 3.2. **Examples of different regional indicators used for measuring the same well-being dimensions**

Well-being dimensions	Indicators
Income	– Gap between the average weekly wage of the 20% lowest and 20% highest earners (Newcastle) – Share of income held by top 5% of households (US Partnership for Sustainable Communities) – Perceived ability to pay unexpected bills (Southern Denmark) – Perceived level of satisfaction with standard of living (Southern Denmark)
Jobs	– Number of workplaces reachable within one hour by car (Southern Denmark) – Workforce training completed and resulting in a job (US Sustainable Knowledge Corridor) – Ratio of births over deaths of businesses (Province of Rome)
Housing	– Share of households with housing costs greater than 30% of income (US Partnership for Sustainable Communities) – Foreclosure rate (US Partnership for Sustainable Communities) – Dwellings with sewage facilities (Morelos) – Market value of homes (Province of Rome)
Education	– Share of pupils who do not continue with upper secondary level education (Southern Denmark) – Students with poor competences in reading and mathematics (Sardinia)
Health	– Gap in disability-free life expectancy at 16 between the most and least disadvantaged individuals (Newcastle) – Smoking prevalence in adults over 18 (Newcastle) – Alcohol-related admissions to hospital (Newcastle) – Share of obese people of total population (Morelos) – Maternal death rate (share of maternal death for 100 000 live births) (Morelos)
Environment	– Share of population served by wastewater treatment plans (Sardinia) – Satisfaction with the quality of the local landscape (Sardinia) – Share of proper waste disposal (Morelos) – Perception of the amenity value of natural spaces (HotSpot Monitor analysis) (North of the Netherlands) – Share of people who feel bothered by smoke, noise or odours (Southern Denmark)
Safety	– Perception of vandalism and crime in the neighbourhood (Southern Denmark) – Victimisation rate (share of adults who have been victims of a crime) (Morelos) – Perception of safety (share of adults who feel safe in the state) (Morelos)
Civic engagement	– Share of residents who agree they can influence decisions affecting their local area (Newcastle) – Transparency Index (quality of information provided by the state's website) (Morelos) – Number of voluntary associations per 10 000 inhabitants (Province of Rome)
Access to services	– Average distance from basic services: pharmacy, police station, banks, post office (Sardinia) – Share of elderly who benefit from home assistance (Sardinia) – Share of children in child care (Sardinia) – Share of population with access to child care (Morelos) – External rating of services where available (Newcastle) – Commuter mode share (US Partnership for Sustainable Communities) – Access to parks and open space (US Partnership for Sustainable Communities)

Source: OECD research based on case study reports.

include subjective perception-based measures. For example, Morelos, Newcastle and Southern Denmark include perception survey data in their respective measurement initiatives (Table 3.3 on the example of Southern Denmark). What people perceive can be very different from what the data indicate, as has been illustrated in the example of safety in the province of Rome. Although the incidence of crime in the Lazio region, where the province is located, dropped 10.5 percentage points between 2007 and 2012, the share of people living in the Lazio region (where the province is located) who feel safe walking alone at night is the second-lowest in Italy. The reasons for not incorporating subjective measures vary across regions and may include a deliberate choice for conceptual reasons, the lack of data available at the relevant scale, etc. (see detailed discussion in Chapter 1).

Table 3.3. **Examples of regional well-being dimensions measured through both objective and subjective perception indicators in Southern Denmark**

Well-being dimension	Objective indicators	Subjective perception indicators
Income	– Ratio of population belonging to the low-income group	– Share of people who feel secure about the future
Education	– Ratio of people aged 25-64 with qualifying education	– Share of people who feel they use their abilities and talents in everyday life
Health	– Number of sick days per 1 000 inhabitants – Number of subsidised doctor visits per 1 000 inhabitants	– Overall self-assessment of health – Share of people who feel fit enough to do what they want to do
Environment	– CO_2 emissions per capita	– Share of people who feel bothered by smoke, noise or odours
Safety	– Number of reported violent crimes per 1 000 inhabitants	– Share of people who worry about being victims of violence

Source: OECD (2014), "Region of Southern Denmark (Denmark)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris.

Exploiting existing information and the value of open data

Policy-relevant information is often already available from statistical or administrative sources, and has tremendous potential to create value for the society as a whole (Box 3.8). When embarking on developing regional well-being metrics, regions may thus not need to start from scratch and generate completely new data, but start by reviewing the extent of existing data and seeking access to it. For example, in the United States, the Partnership for Sustainable Communities carried out a scan of existing indicators used by cities and regions to monitor sustainable development. It found more than 300 indicators for measuring transport, land use and housing outcomes that could be reused and adapted to the needs of specific communities. Such data are sometimes freely accessible, whereas in other cases, they need to be deliberately sought out.

Making data available to the public helps overcome information bottlenecks. It ensures that governments, firms, citizens and other stakeholders have access to information that they could not previously obtain, due to a lack of resources, for example. It also helps save time and funds, as this information can provide feedback on local priorities and contribute to greater effectiveness of policy intervention. The impact of open data on service delivery and public sector performance is often most tangible at the local government level. In the city of San Francisco, for example, the heads of the foster care, juvenile probation and mental health departments agreed with the city's district attorney to allow the release and limited exchange of case information among public agencies. As a result, the agencies were able to spot overlapping beneficiaries of services. They also realised that only 2 000 children using the services were consuming half of the departments' resources, and that most of them lived within walking distance. Thanks to this evidence, the Human Service Agency reorganised service delivery to concentrate on specific neighbourhoods and located services delivered by non-institutional care providers in community centres. Sharing data through the new integrated data system helped focus service delivery on the most vulnerable users, upgrade service care and improve case co-ordination and efficiency.

Box 3.8. **Using open government data to promote value creation and empower citizens**

In carrying out their statutory duties, government bodies produce, collect and manage (or provide funds to others to perform these responsibilities) a vast quantity of data. These data are quickly becoming one of the most valuable public goods, and yet they often remain inaccessible or unaffordable to the majority of stakeholders. Enabling access to and reuse of these data has significant potential not only to improve transparency and efficiency in public administration, but also to deliver people-driven governmental actions that increase public value.

The OECD highlights three main sets of values targeted by Open Government Data (OGD) initiatives across OECD member countries, which may simultaneously benefit several actors. Potential benefits are not only envisaged in monetary and economic terms, but also from social and good governance perspectives:

- economic value (e.g. growth and competitiveness in the broad economy, fostering innovation, efficiency and effectiveness in government services)
- social value (e.g. promoting citizens' self-empowerment, social participation and public engagement in policy making and service delivery)
- public governance value (e.g. accountability, transparency, responsiveness and democratic control).

Understanding the different values is essential to identify which type of data to prioritise. Different values require different types of data. Boosting economic growth may require specific datasets to be released to the business community or app developers at a granular level, in a timely manner and with regular updates, so they can be widely and rapidly disseminated. By contrast, many objectives related to accountability and good governance can be served by releasing aggregated data.

It is important to align OGD policy goals with public expectations. The OECD 2013 Open Government Data Survey shows that while political statements include citizens' engagement among the main expected achievements of OGD, public participation is not listed among the top priority objectives of national policies and strategies, which focus on increasing economic value for the private sector and increasing openness and transparency.

The OECD methodology supports countries in conducting national impact assessment exercises and identifying metrics to support the business cases for open government data (i.e. what to measure, why and how). It also helps them design and implement OGD action plans, face challenges and follow up on results. Interestingly, the 2013 OECD survey shows that countries consider institutional and organisational challenges the main obstacles to OGD implementation.

Source: Ubaldi, B. (2013), "Open government data: Towards empirical analysis of open government data initiatives", *OECD Working Papers on Public Governance*, No. 22, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k46bj4f03s7-en.

Including open data in regional well-being measurement can help governments actively engage with citizens and encourage more inclusive policy design and implementation. National and local governments around the world are releasing data on government activities (making it accessible, machine-readable and reusable) to promote transparency, fight corruption, empower citizens and use new technologies to make government more effective and accountable (Open Government Partnership Declaration, 2011). In many countries, cities and regions are the driving force for sharing information and providing tools to the public to make sense of data. Many instances can be cited of how web-based access to local information has saved money and time, and helped governments make faster and better decisions. In particular at sub-national level, an

open data approach can increase available information by integrating GIS data with administrative or survey data. In Italy, open data at the territorial level have been implemented in some regions (notably in Piedmont and Emilia-Romagna, and partial data warehouses are also available now in Sardinia's geo-portal). The Italian government also set up a website, *OpenCoesione*, on the public investments carried out by central and regional administrations with Cohesion Policy funds in the period 2007-13, and civic "monitoring marathons" have been held (Box 3.9). Connecting regional well-being indicators with open public data can help enhance the government's accountability and generate new insights for more efficient services in both public and private sectors.

Box 3.9. **Open data and civic participation on Cohesion Policy in Italy: The *OpenCoesione* web portal**

The Italian Open Government Strategy on Cohesion Policy aims to increase transparency in the use of funds, improve decision making and policy design, increase the involvement of stakeholders in ensuring efficient and effective use of funds and encourage the creation of new tools and services. *OpenCoesione* is Italy's national open data web portal (www.OpenCoesione.gov.it) on the investment projects funded by Cohesion Policy through European and national resources. The *OpenCoesione* initiative is promoted by the Department for Economic Development and Cohesion. Several national and regional public entities are involved in its implementation. The strategy is in line with the national framework of Italy's Digital Agenda as well as with EU Structural Funds Regulations that require member countries to provide public information on beneficiaries and operations funded, according to specific formats to reuse information.

Bimonthly updates have helped provide open data on almost 800 000 projects so far, which can be freely reused (CC 3.0 BY-SA license) and explored interactively on the portal. Free public access and ease of comparison on projects allow users to evaluate if and how implemented projects meet their needs and whether financial resources are allocated effectively. Users can download raw data available in open format or navigate through interactive diagrams organised by expenditure categories, places and type of intervention. Pages on individual projects and the institutions involved are available for browsing. The *OpenCoesione* portal also publishes local economic and social data to facilitate comparisons at the local level.

Data on the ongoing projects are collected by the Central Monitoring System managed by the General State Accounting Department (*Ragioneria Generale dello Stato*, RGS) of Italy's Ministry of Economy and Finance. They are provided by the central and regional administrations in charge of these funds. These administrations also participate in a technical group on the dissemination and reuse of public data and information on Cohesion Policy to agree on data standards and improve the quality of monitoring data fed into *OpenCoesione*.

The final aim of the initiative is to encourage greater public participation and collaboration by releasing reliable data and offering a large number of variables at the project level. An independent platform for civic monitoring was launched to publish multimedia reports of groups of interested citizens. More than 50 "citizen monitoring reports", which take the form of collective investigations on project development and results, are publicly available on the Monithon website (www.monithon.it), many of which spurred further dialogue with public administrations. Monithon (literally "monitoring marathon"), promotes citizen monitoring of Cohesion Policy through active involvement of communities and a shared methodology. Monithon has rapidly evolved from being an innovative new platform into a transferable civic engagement format. Through "monitoring marathons", groups of citizens, sometimes under the guidance of local community service organisations, set out on explorations around their area, to gather information on specific projects of interest. In doing so, participants collect useful material to evaluate the effectiveness of public spending and practice bottom-up modes of control over public policies and collaboration with all the actors involved.

Box 3.9. **Open data and civic participation on Cohesion Policy in Italy: The *OpenCoesione* web portal** (*cont.*)

Monithon has drawn dozens of national and local associations and around 500 people into civic monitoring activities, mostly in southern Italy, where Cohesion Funds are concentrated. Specific activities are carried out by established citizen groups, like Libera, a national anti-Mafia association that has focused on monitoring the reuse of properties seized from the Mafia. Action Aid has partnered with Monithon to promote citizen empowerment. Existing local groups of activists use the Monithon methodology to test local transport systems that benefited from EU funding, while new groups have formed to begin monitoring social innovation and cultural heritage projects.

Finally, Monithons are also conducted in the *OpenCoesione* School project (www.ascuoladiopencoesione.it), an innovative course aimed at engaging high school students through practice-based learning to produce data journalism and storytelling projects about the impact of *OpenCoesione's* projects. In 2013-14, "*OpenCoesione* School" students engaged local communities by presenting their projects in public events, opened new channels for closer follow-up on projects, and teamed up with local associations to demand more open data.

Source: Ministry of Economy of Italy, Department for Economic Development and Cohesion (DPS) – OpenCoesione, www.opencoesione.gov.it.

Implementing a consultation process to select indicators

The choice of regional well-being outcome indicators needs to be a deliberative and participatory process. As the Stiglitz-Sen-Fitoussi report (2009) argues: "Determining which elements should belong to [the] list of quality of life features […] inevitably depends on value judgments about which aspects are of greater importance at a given place and time". Regions have used different consultation channels for choosing dimensions and indicators (Table 3.4). The province of Rome, the state of Morelos and the region of Wallonia offer inspiring examples of how regional governments have conducted a consultation process with different groups of stakeholders to prioritise the most important well-being dimensions and indicators that reflect specific local challenges (Box 3.10).

Box 3.10. **Engaging citizens to identify well-being dimensions in Rome, Morelos and Wallonia**

Province of Rome

The provincial government of Rome developed a well-being strategy in 2011 to take a more systematic approach to policy action. Its aim was to support a new model of territorial development for inclusive growth and to create an information system of well-being indicators to better understand disparities across areas in the province and inequalities among people. The provincial government engaged a civil society organisation, Lunaria/Sbilanciamoci!, to monitor the strategic planning exercise and identify indicators for developing policies that could help smooth out local inequalities. Various groups contributed to the development of well-being indicators, including a Steering Committee composed of representatives from the province's administration, Sbilanciamoci!, the Province of Rome Statistical Office; Provinciattiva Spa; a scientific commission including experts on well-being indicators; and citizens and civil society. This form of active consultation, drawing upon diverse stakeholders, is a core component of the well-being measurement cycle and filters through the entire sequencing process.

Box 3.10. **Engaging citizens to identify well-being dimensions in Rome, Morelos and Wallonia** (*cont.*)

Citizen consultation was considered a keystone for building the legitimacy of the well-being measures, and the process emphasised building dialogue around the scientific and cultural purposes of the project. The idea was to enhance the role of citizens in defining the development model, elaborating associated public policies and supporting local-level programme implementation. The consultation process included meetings organised by local governments to gather input on the strategic choices for the region, events hosted by civil society organisations, and workshops and forums organised by academia (universities and schools). Feedback on key concerns regarding well-being was solicited and gathered to help prioritise and determine the scale of intervention. Community surveys were used to build consensus around strategic choices and build citizen involvement, which was reported as a challenge. However, once citizens did get involved, the province was able to identify how citizens ranked the different well-being dimensions, putting waste and pollution, land consumption, public services, labour and health in the top five citizen concerns. As a means to communicate results and further engage citizens, the province developed an active web tool where citizens could select the well-being dimensions most significant to them, giving the administration more insight into citizens' priorities. Additional channels targeted to communicating results included public meetings, traditional media (i.e. print and television) and other media, such as books, workshops and written reports. An open data portal was also made available for the first year, but due to budget constraints, it is no longer operational in 2014.

Morelos

The state of Morelos has conducted an extensive consultation process to prioritise a set of well-being dimensions consonant with the objectives of the state's *Nueva Vision* strategy and to choose a few indicators to monitor such dimensions, using statistical information already collected by INEGI. The state of Morelos, under the direction of the state Ministry of Finance, has been shaping the well-being agenda through an increasing involvement of civil society, institutional stakeholders and the scientific community. Preparations for the State Development Plan (PED) engaged many different actors, through a hearing process, meetings and forums. This dialogue involved several community committees (*comités comunitarios*), groups of local citizens, often headed by mayors of municipalities, that help identify and prioritise the needs of a given community in various sectors. Although the state government has not allocated specific resources to promote the participation of civil society, it has involved community committees in various phases of the policy cycle. For example, the health committee participated directly in the definition of the goals elaborated in the PED, and the education sector in the state was consulted to account for the main educational needs of local residents. The state has also organised citizen consultation forums.

Wallonia

In 2013 14, the Walloon Institute for Evaluation, Prospective and Statistics (IWEPS) developed an index of conditions of well-being at the level of the 262 municipalities of the Wallonia region, building the well-being criteria from the consultation of more than 1 200 citizens. This approach focused on what matters most to citizens in terms of well-being, taking into account the territorial diversity across municipalities and across different social groups within each municipality, including those people who do not often speak out. The experience highlighted the many facets of well-being far beyond material conditions and was based on the SPIRAL (Societal Progress Indicators and Responsabilities for All) methodology from the Council of Europe. In total, 16 000 opinions of citizens were statistically summarised into 58 indicators that are available across the 262 Walloon municipalities, describing 50 dimensions of well-being that are then aggregated into eight families.

Box 3.10. **Engaging citizens to identify well-being dimensions in Rome, Morelos and Wallonia** (*cont.*)

In the search of a balance between the wide diversity of ideas expressed and the pragmatic requirements of measurement, the choice of indicators was based both on semantic meaning and statistical relevance. However, at this stage, it was difficult to translate all the inputs received from the citizen consultation into quantitative indicators, notably concerning individual and subjective components, for example. This first proposed measurement is therefore to be seen like a measurement of the conditions of well-being, focusing on the quality of the living environment in the broad sense, which generates conditions that are more or less favorable to the emergence of an individual and collective state of well-being. Subsequent exercises would include a survey to address the components that were missing in this first exercise.

Source: OECD (2014), "Province of Rome (Italy)", and OECD (2014), "State of Morelos (Mexico)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris; IWEPS, www.iweps.be/indicateurs-complementaires-au-pib-lindice-des-conditions-de-bien-etre-icbe.

Table 3.4. **How did case study regions select their regional well-being indicators?**

Main objectives of the consultation / Channels	Gather inputs on the strategic choices for the region (dimensions of well-being)	Gather feedback on the main concerns about well-being in the region (for prioritisation and scale of intervention)	Build consensus around the strategic choices and involve citizens in their measurement or monitoring
Community survey	X (Sardinia) X (Morelos) X (Southern Denmark) X (North of the Netherlands)	X (Sardinia) X (Morelos) X (Southern Denmark – citizen panels) X (North of the Netherlands)	X (Province of Rome)
Social networks (Twitter, Facebook, etc.)	X (Morelos) X (North of the Netherlands)	X (Morelos) X (North of the Netherlands)	
Meetings organised by local or national institutions	X (Province of Rome) X (Sardinia – forthcoming) X (North of the Netherlands)	X (Sardinia – forthcoming) X (Southern Denmark – meetings with each municipality) X (Morelos – consultation forums) X (North of the Netherlands)	X (Southern Denmark – meetings with each municipality) X (North of the Netherlands)
Meetings or participative events organised by NGOs, political parties, cultural or religious associations, etc.	X (Province of Rome)		X (Morelos – Citizen Observatory of Social Development) X (North of the Netherlands)
Forums, workshops organised by universities or schools	X (Province of Rome) X (North of the Netherlands)	X (North of the Netherlands)	X (North of the Netherlands)
Others (please specify)	X (Province of Rome) X (Southern Denmark, through regional conferences)	X (Province of Rome) X (Southern Denmark, through regional conferences)	X (Southern Denmark, through regional conferences)

Source: Answers provided by case study regions to OECD questionnaire.

Identifying baselines and targets

The availability of baseline data is a critical precondition for evaluating policies. A baseline is defined as the value of a result indicator at the beginning of the programming period, before a given policy is put into effect (for example, the share of school dropouts in a region). However, it is often difficult to pinpoint a realistic baseline in practice. It may be readily available in statistical or administrative data, but in some cases (typically in the case of subjective perception indicators), a baseline must be generated, for example by surveys.

Similarly, identifying targets introduces powerful impetus for encouraging improvement, but this remains a challenging exercise and must be robust to inform policy decisions effectively. While an ideal measurement cycle would involve choosing a target within a determined time horizon, the characteristics of the policy cycle make it difficult to identify when results will be detectable. Typically, results might materialise only after the specific policy cycle has been completed. Setting precise values to be achieved for each indicator requires, at a minimum, an overall assessment of the current situation and of the feasibility of the objectives, the involvement of the scientific community and extensive consultation with citizens and other stakeholders from civil society.

This challenge in identifying baselines and targets is amply illustrated by the experience of the case study regions. Regional well-being indicators are rarely used to track progress from given baselines towards explicit quantitative targets that have been set up ahead of time. Morelos is a rare example of a region where all indicators included in the State Development Plan come with a baseline and a quantitative target, corresponding to the beginning and the end of the current administration's political term (2013-18). The *Obiettivi di servizio* scheme in Italy also set baselines and targets for all eight participating regions. While the use of indicators helps increase transparency and trust, too many targets and measures can introduce confusion and make it difficult to assess the targets.

Drawing on the experience of OECD regions, the following insights can help orient discussion on setting targets:

- Decide whether to define a range of target values or a single target value for each indicator. Besides offering a politically less threatening prospect, setting a range of target values rather than a single target value is often more appropriate when policy makers do not have full control over the policy realm under consideration and exert only partial influence – which is the case, by definition, for most of the dimensions of regional well-being.
- Consider the possibility of setting intermediate and final targets. When targets are seen as overambitious and discouraging, establishing a set of intermediate targets can offer an option to encourage initial action and build confidence. In the *Obiettivi di servizio* performance scheme, equal targets were set for all participating regions so that they could meet a "minimum standard" of services, but intermediate targets were also set for the year 2011, based on increments from the baseline. This helped maintain focus and motivation towards the final results.
- Combine quantitative and qualitative targets. In the EC 2014-20 programming period, for example, regulations state that programmes shall set targets for programme-specific result indicators for 2023, but that targets may be expressed in quantitative or qualitative terms. To set qualitative targets can mean spelling

out the range of expected values, the expected direction of change and the expected pace of change. If no meaningful indication is possible, certain intermediate steps or barriers can be set to help achieve the final objective.

- Establish a realistic time frame informed by comparable historical benchmarks. Prior experiences in the region, or in regions with similar conditions and resources, may orient the target towards a reasonable rate of progress. Some rare exceptions may be made in case of a clear justification, such as the introduction of a new technology that can significantly reduce the time required for completing a task, or a sizeable increase in the financial and administrative resources set aside for the task. It is useful to test and analyse the sensitivity of targets to variations in the policy environment (OECD, 2007). There is also a distinction to be made between targets attached to inputs and outputs, which are relatively short term, and outcome targets, which tend to materialise over the medium or longer term. The time frame may thus differ from one indicator to another, according to its specific focus. In the case of Morelos, for example, not all the targets set in the PED have the same time horizon. Some objectives are only achievable in a time span greater than the six years of the government mandate.
- Decide whether to link targets to budgetary incentives. Encouraging the achievement of targets can entail a system of rewards and sanctions as incentives for policy makers. An implicit system of rewards and sanctions will be set up if the regional well-being measurement scheme presents information on all territories and facilitates comparisons among them, generating a spirit of competition and pressure for accountability. More explicit systems of incentives consist in offering financial or institutional rewards when targets are met or surpassed. However, such systems need to be designed with caution (OECD, 2007). Benefits associated with information sharing can be attenuated if rewards or sanctions create perverse incentives for misrepresentation of data, gaming, etc. As risks to actors increase, the incentive to reveal complete information declines and the incentive to alter behaviours to avoid risk (in both perverse and legitimate ways) increases. Mechanisms that penalise regional actors by withholding funds may inadvertently exacerbate the situation.

Monitoring progress and evaluating the potential of different places

Tracking change over time

Regional well-being measurement initiatives offer a tool to monitor progress. Indicators not only provide a snapshot of the region at a given point, but when measured over several years, can also be used to illustrate trends over time and identify progress. Many regional well-being measurement initiatives have been implemented in recent years, and data over several years are not yet available. Other regions plan to monitor trends annually, or at least on a regular basis, in the future. However, even some relatively recent initiatives have built in a time feature as an integral component. For example, in Australia, the *Measures of Australia's Progress* provide a summary of information on areas of life that Australians reported as important for national progress. The "Scotland Performs" initiative includes a user-friendly feature that indicates the evolution of performance in each indicator, using a directional arrow – up, down or horizontal – to signal improvement, decline or no change (Box 3.11). This initiative has also adjusted its own set of indicators over time to keep pace with the most relevant

policy goals at stake. In New Zealand, the Quality of Life project launched in 2001 has published several subsequent editions, updating both quantitative and qualitative data, and covering a different group of cities (Box 3.12).

Box 3.11. **Scotland Performs**

When the new government of Scotland took office in May 2007, it set out to streamline government resources and improve overall territorial performance. To do so, it aligned the government around five strategic objectives – a Scotland that was wealthier and fairer, smarter, healthier, safer and stronger, and greener. From these five objectives, it established a series of 16 national outcomes articulating what Scotland wished to achieve over the subsequent 10 years. It then established a set of 50 indicators that cut across many of the national outcomes, helping decision makers and policy designers identify policy complementarities, and helping citizens identify where progress can be made in more than one area. For instance, one national outcome is stated as: "Our young people are successful learners, confident individuals, effective contributors and responsible citizens". This is related to three strategic objectives: smarter, healthier, wealthier and fairer; and has 15 associated qualitative and quantitative indicators. These are primarily outcome oriented, and range from improving people's perception of their neighbourhood to reducing deprivation among children. On its website, the government has taken care to communicate its strategic objectives. It explains why each national outcome is important, the factors that can influence them and the role of the government in achieving them. It also identifies the related strategic objectives and relevant national indicators.

Performance in each indicator is easy to interpret, as it is based on an arrow – up, down or horizontal – to indicate improvement, decline or no change over time. The importance of each indicator is also explained on the website, as well as its current status, the indicator measure, what influences change, the government's role, how Scotland is performing in the indicator over time (graphic representation), criteria for change, partners engaged in creating change and any other related strategic objectives. These latter two points highlight not only the different stakeholders engaged, but also the multi-dimensionality and complementarity of well-being and taking an integrated approach to policy making.

Scotland constantly monitors its performance and updates its goals accordingly. For example, a national outcome relating to older people was added in 2011. The indicators are also adjusted when necessary, and the original 45 indicators in 2007 have increased to 50 in 2014. Some remain untouched, and the definitions of others have been modified. Twelve were added in 2011, and seven were either removed, since they related to targets that were already achieved, or were replaced by more appropriate measures of progress.

Source: Scottish Government (2014), "Scotland Performs", www.scotland.gov.uk/About/Performance/scotPerforms (accessed on 4 July 2014).

Another time-oriented approach consists in monitoring progress of well-being over an individual's life cycle as it is lived in the region. A lifelong approach helps assess how an individual's needs are met at different stages of his/her life in the region, from birth to education, working life and retirement years. For example, the Well-being for Life Strategy of Newcastle includes a key principle on a lifelong focus to well-being and health, and focuses on improving conditions throughout the life cycle of all people who live, learn and work in Newcastle. In the North of the Netherlands, the Healthy Ageing Network explores the elements of a longer, healthy life (Box 3.13).

Box 3.12. **The Quality of Life Project in New Zealand**

The Quality of Life Project in New Zealand focuses on well-being in the country's urban areas, and was launched by city councils. It aims to provide information that can help improve the quality of life in New Zealand's urban areas by ensuring consistency in indicators and monitoring methodology; providing data to support advocacy of urban issues; raising the awareness of urban challenges by the central government; and promoting the collaboration of larger urban centres to monitor and address quality-of-life issues.

The project identified 11 domains relevant to well-being in its urban areas: people; knowledge and skills; economic standard of living; economic development; housing; health; built environment; natural environment; safety; social connectedness; and civil and political rights. Within these domains, a series of indicators was built to measure outcomes. Quantitative data, updated annually, are drawn from national and local government sources, including the national census. Qualitative data are obtained through a well-being perception survey of approximately 5 000 citizens and is undertaken every two years, with the most recent results being published for 2012.

Through this project, New Zealand's cities are measuring, reporting and communicating change in well-being over time, and across diverse urban areas. The first Quality of Life Report was issued in 2001 and measured well-being in six cities (Auckland, Christchurch, Manukau, North Shore, Waitakere and Wellington) with subsequent reports launched in 2003 and 2007. Participating cities have changed over time, and the Well-Being Project's core members are currently Auckland, Christchurch Dunedin and Wellington. Contributing to the reports are a broad base of stakeholders, ranging from the participating city councils to national ministries and agencies, regional authorities, academic and research institutes and civil society organisations.

The last Quality of Life Report, published in 2007, covered outcomes in 12 cities, and the next report is likely to be released in 2014 (the delay is due to disruptions in census taking following the 2011 Christchurch earthquake). The report is a comprehensive publication of project objectives, methodology, why the outcome and indicators are important, and the findings. It includes results over time and across participating cities. The project's website makes the report and its findings available on line. It also presents interactive graphs in five areas – age structure, perceptions of happiness, ethnic composition (2006), home ownership and total recorded offences per 10 000 population – that allow users to compare their city's outcomes in one area to those of other participating cities or to New Zealand as a whole. Finally, the project also articulates key points for action needed to promote greater well-being based on its findings.

Source: The Quality of Life Project (n.d.), "Quality of Life in New Zealand's cities", available at: www.qualityoflifeproject.govt.nz/index.htm (accessed on 4 July 2014); Quality of Life Project (2001), "Quality of Life in New Zealand's six largest cities", available at: www.qualityoflifeproject.govt.nz/pdfs/Quality_of_Life_2001.pdf (accessed 6 July 2014); Quality of Life Project (2007), *The Quality of Life Report '07: In Twelve of New Zealand's Cities*, available at: www.qualityoflifeproject.govt.nz/pdfs/2007/Quality_of_Life_2007.pdf (accessed on 6 July 2014).

Addressing well-being inequalities to assess the potential of different communities

Regions often look inward to their own intra-regional inequalities, notably at the municipal level (e.g. Sardinia, Southern Denmark) or the neighbourhood level (e.g. Newcastle). All case study regions participating in the OECD How's Life in Your Region? project acknowledge the importance of assessing inequalities, rather than just averages, in their indicators. A better understanding of territorial disparities and how to reduce them can be a primary objective of the regional well-being measurement initiative, as in Morelos and in Rome. Inequalities can be measured both across places (because different territories, such as cities, distribute opportunities differently for people) and across demographic and/or social groups in the region (Table 3.5).

Box 3.13. A life-cycle approach to the regional well-being strategy: The Well-Being for Life Strategy in Newcastle and the Healthy Ageing Network in the North of the Netherlands

Taking a life-course focus in Newcastle

The Well-Being for Life Strategy of Newcastle applies three key principles:

- Progressive universalism: The concept refers to taking actions, particularly policy-level actions, so that everyone can benefit, but so that those with less access to money, power and resources can benefit proportionately more right across the social gradient.
- Unlocking potential through incorporating asset-based practice: This approach recognises and builds on people's skills, strengths, aspirations and networks and enables them to be active in improving their own and others' well-being and health, rather than remaining the passive recipients of others' actions.
- Taking a life-course focus: Recognising that positive well-being and good health is important at every stage of life and that growing up healthily is an important foundation for growing old healthily. The strategy refers to "people" meaning people of all ages, from newborns through to those in later life.

The first part of the strategy is therefore entitled "Tackling inequalities in well-being and health, and improving well-being and health for all, through improving the conditions in which people are born, grow up, live their lives and grow old". The strategy recognises that well-being and health are created through the economic, physical and social conditions in which people live out their lives and are influenced by many factors across different settings – in homes, in streets, in neighbourhoods, in schools, in workplaces, in hospitals, in other health or social care settings, and in universities. By improving these conditions across different settings and in the city as a whole, the strategy aims to make sustainable improvements to everyone's well-being and health and potentially reduce reliance on services over time.

The Healthy Ageing Network in the North of the Netherlands

The region of the North of the Netherlands faces a shrinking population and an ageing society. The recent decentralisation reform also plans to shift major responsibilities related to youth healthcare, long-term care and labour welfare to municipalities by 2015. In this context, the Northern Netherlands Provinces Alliance (SNN) has launched a knowledge and development cluster in the field of healthy ageing. Promoting healthy ageing not only consists in improving the health of the elderly and ageing population, but in adding more years of healthy life by delaying years of ill health in the life course. Therefore, it focuses on prevention throughout the chain of services provided over the life cycle. Healthy ageing is one of the four key themes of the region's Research and Innovation Strategy for Smart Specialisation (RIS3).

Co-financed by the European Union and the Dutch Ministry of Economic Affairs, the SNN has created a major health database called the Healthy Ageing Monitor. The central question it poses is why some people develop chronic illness relatively early in life, while others remain vital and healthy into old age. A large-scale research programme called LifeLines investigates the complex combination of factors that influence the incidence of chronic disorders such as asthma, diabetes and kidney disease. The basic scientific assumption is that the influence of those factors and the way they act on one another can only be understood by long-term, broad-based monitoring of the health of a large population over different generations. Within the LifeLines research programme, over a period of 30 years, 165 000 residents of the Northern Netherlands will be monitored, from youth through parenthood to old age. This pioneering three-generation study involves an unprecedented number of life aspects, from heredity and lifestyle to physical and social factors. Participants are called in for an examination once every five years. During this examination, they are asked to complete detailed questionnaires about their medical records, their habits, including diet, smoking, lifestyle, use of medicines, etc. In addition, various parameters are measured, including blood pressure, weight, height, lung function, heart function and blood and urine values. The baseline phase has just been completed and the follow-up phase is about to start.

Box 3.13. **A life-cycle approach to the regional well-being strategy: The Well-Being for Life Strategy in Newcastle and the Healthy Ageing Network in the North of the Netherlands** (*cont.*)

The results of LifeLines are expected to lead to a faster identification of diseases, discovering new treatments and even preventing chronic disorders. The challenge of staying healthy longer through innovation calls for fundamental breakthroughs in core areas that determine sickness and health, in particular in the fields of life sciences, food and nutrition, medical technology, care and cure and healthy lifestyles.

The Healthy Ageing Network of the North of the Netherlands (HANNN) acts as an intermediary between research (including the University Medical Centre of Groningen), medical institutions and business units. It combines a focus on improving quality of life for ageing people and an economic perspective to minimise the social burden of healthcare and to investigate economic motivation in this field. Within the network, the private sector, government organisations and knowledge institutions are brought together in a systematic collaborative approach to ensure better quality of life in old age, while creating substantial new economic and social activities.

HANNN is financed 60% by the three provinces of the SNN and 40% by other entities (including the university, companies and healthcare companies). HANNN does not set health targets to reach over time (e.g. how many years of healthy life to add), but it does agree on economic targets with each of the three provinces, with a focus on different sectors (e.g. food, tourism).

Source: OECD (2014), "City of Newcastle (United Kingdom)", in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris; OECD (2014), "Region of the North of the Netherlands" in OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris.

Table 3.5. **Measuring well-being performance at different territorial scales and across different social groups: Examples from case study regions**

	Territorial scales			Demographic/social groups
	Supra-municipal scale	Municipal scale	Sub-municipal scale	
Examples	– Province of Rome (six "territorial systems": Citavecchia, Fiano Romano, Pomezia, Roma, Tivoli, Velletri) – US HotReport Sustainability Indicators (county level)	– Sardinia (377 municipalities) – Southern Denmark (22 municipalities)	– Newcastle (wards, and "lower-layer super-output areas" as defined by the Indices of Multiple Deprivation)	– Morelos (e.g. the National Council for the Evaluation of Social Development Policy, or CONEVAL's poverty analysis, for example the share of young people aged between 6 and 12 with no access to food) – Southern Denmark (ratio of people belonging to the low-income group)

Some measurement initiatives also allow for outward benchmarking, allowing the region to compare itself with other regions in the country or the national average on a given indicator. For example, Australia's Department of Infrastructure and Regional Development, through its "My Region" website, provides information on performance outcomes for Australia's eight regions and territories in seven areas – economy; employment; education and skills; family, community and social cohesion; housing; income; population and population growth – each linked with one to three quantitative indicators. The data are presented as a time series, may be viewed graphically or numerically, and make it possible to compare performance among a selected community (e.g. Sydney), its region (New South Wales) and the nation. The US Partnership for Sustainable Communities' HotReport Sustainability Indicators also allow

decision makers and citizens to compare their county's performance against the performance of their state and the country as a whole. This can help counties and their stakeholders situate themselves within an overall context. It does not, however, offer an easy and automatic, built-in feature to compare performance against neighbouring counties or counties in other states.

Fostering citizen engagement and communication

A regional well-being strategy needs to monitor whether the region is moving in the direction desired by citizens. An essential prerequisite for improving policy effectiveness is therefore to mobilise citizens upfront, starting by identifying the dimensions that matter most to the community. In practice, mechanisms to promote citizen engagement and facilitate the communication of well-being data often come late in regional initiatives. Citizen engagement can take different forms, from consulting citizens on the well-being dimensions that should be monitored to receiving their evaluation on the quality of services available (through perception indicators), and asking citizens to contribute in measuring well-being and progress. Communication of regional well-being results builds an indispensable bridge between providers and the beneficiaries of public policy.

Facilitating different forms of citizen engagement

By actively engaging with citizens about their well-being, all levels of government can benefit from critical public input when deliberating, deciding and acting. Effective citizen engagement can also yield a number of benefits, including building trust in government; generating better outcomes at lower cost; securing higher compliance levels with decisions reached; enhancing equity of access to public policy making and services; leveraging knowledge and resources; and developing innovative solutions.

Three main stages of citizen engagement can be identified (as summarised in Table 3.6):

- Citizen information: Information is conveyed in one direction only, from the government to the public. There is no involvement of the public (e.g. public feedback is not required or specifically solicited) and no mechanisms through which citizens are invited to react. Providing information is a critical first stage of more open and transparent government. Communicating information to citizens on decision making, policy development and implementation puts governments in a position to be scrutinised and builds citizen trust. Informing citizens helps educate them about their rights and entitlements and can communicate the rationale, objectives and achievement of government. This is important for ensuring buy-in to changes and reforms and for providing a platform from which citizens can engage with government. Examples of techniques used for citizen information include setting up websites and granting access to public records and data.
- Citizen consultation: Information is conveyed from the public to the government, following a process the government initiates: it provides information and invites citizens to contribute their views and opinions. The main purpose of citizen consultation is to improve decision making, by ensuring that the views and experience of those affected are considered, that innovative and creative options are taken into account and that new arrangements are workable. Examples include

public opinion surveys, focus groups, workshops/seminars, public hearings and public comment on draft legislation.

- Citizen participation and empowerment: Information is exchanged "two ways", between the public and the government, through a dialogue into which opinions of both parties feed. Citizen participation and empowerment require a relationship founded on the principle of partnership. It recognises the autonomous capacity of citizens to discuss and generate policy options; it requires governments to share the agenda-setting power and to commit to taking into account policy proposals generated jointly in reaching a final decision. Finally, it requires citizens to accept the higher responsibility for their role in policy making that accompanies greater rights of participation. Examples of participatory decision making and participatory budgeting include citizen juries and citizen forums.

Table 3.6. **Different stages of citizen engagement in regional well-being measurement initiatives**

	Citizen information	Citizen consultation	Citizen participation and empowerment
Flow of information	Public administration ⇨ citizens	Citizens ⇨ Public administration	Public administration ⇔ Citizens
Nature of interaction	Inform citizens	Collect information and feedback from citizens	Two-way dialogue, deliberation and co-decision
Examples of techniques	Websites Access to public records and data	– Public opinion surveys – Focus groups – Workshops/seminars – Public hearings – Public comment on draft legislation	– Participatory decision making – Participatory budgeting – Citizen juries – Citizen forums

Source: Various sources, including: OECD (2010), *Finland: Working Together to Sustain Success*, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264086081-en; OECD (2009), *Focus on Citizens: Public Engagement for Better Policy and Services*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264048874-en; OECD (2001), *Citizens as Partners: Information, Consultation and Public Participation in Policy-Making*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264195561-en; OECD (2013), *Policy Making after Disasters: Helping Regions Become Resilient – The Case of Post-Earthquake Abruzzo*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264189577-en, based on Lenihan, D. (2008), "It's more than talk: Listen, learn and act: A new model for public engagement", the final report of the Public Engagement Initiative, Province of New Brunswick, www.gnb.ca/0012/PDF/LLA-e.pdf and the International Association for Public Participation, www.iap2.org.

Citizen engagement in regional well-being measurement initiatives can comprise all three stages. Information and consultation allow citizens to understand government orientations, discuss priorities and therefore help identify the available options for a regional well-being strategy. Two-way participation leads to a greater sense of ownership of policies and greater commitment to generating results on both sides. Participation before the fact can be particularly critical for shaping policy results at a neighbourhood level, as experienced by government and community stakeholders in Valparaíso, Chile (Box 3.14). Actively encouraging participation from the private sector, trade unions and the university sector could make a significant contribution in gathering evidence bases measuring outcomes and communicating results. For example, establishing a "well-being observatory" could help in continually monitoring progress, based on the experience of the Observatory of Cultures in Bogotá, Colombia.

Carefully planning the governance of citizen engagement is often instrumental in ensuring a mutually beneficial process. In Australia, for example, the Australian Bureau of Statistics (ABS) conducted a comprehensive consultation process in revisiting its first well-being measurement initiative of 2002 and bringing out a new edition in 2013, with an additional chapter on regional progress. The establishment of an Expert Reference Group (ERG) to provide advice and support for the consultation approach and model – particularly the idea of identifying Australians' aspirations for progress – was critical to the success of the Measures of Australia's Progress (MAP) consultative process (Box 3.15). Conversely, in the case of the *Obiettivi di servizio* performance scheme, objectives, indicators and targets were defined in a robust partnership between the central government and regions, but mechanisms to engage citizens in drawing up the well-being agenda were not included.

Box 3.14. **Two examples of community involvement: The *Recuperación Barrios* programme (Valparaíso, Chile) and the Observatory of Cultures (Bogotá, Colombia)**

***Recuperación Barrios* programme (Valparaíso, Chile)**

In 2006, Chile's Ministry of Housing and Urbanism (MINVU) launched its nationwide *Recuperación de Barrios* programme, aimed at recovering disadvantaged neighbourhoods. Programme implementation requires management plans to be submitted by the relevant communities. The MINVU's Valparaíso regional secretariat (*Secretaría Regional Ministerial*, or SEREMI) noticed that in the communities where programme results were poor, no inclusive planning before the fact had been undertaken by neighbourhood leaders. Those communities where results were strong had established plans that included advance participation among stakeholders (i.e. representatives from the community, the municipal administration and the MINVU/SEREMI) who came together to identify the problems to address and develop a list of priorities.

Observatory of Cultures (Bogotá, Colombia)

As mayor of Bogotá, Colombia, Antanas Mockus Sivickas established the Observatory of Urban Culture (*Observatorio de Cultura Urbana*) to analyse and evaluate municipal institutions and programmes through a multi-disciplinary approach. The objective was to use such information to make better-informed decisions, for example when constructing Bogotá's development plan (*plan de desarrollo*). The observatory undertook short-, medium- and long-term research projects, including developing polls and questionnaires to obtain citizens' views on policies and actions of the administration, creating and managing a database and establishing a documentation centre. With successive mayors, the scope of the observatory's activities has been adjusted to meet changing needs, and its name changed to reflect them. It is now called the Observatory of Cultures. Under the administration of Gustavo Petro (2012-15), the observatory aims to build knowledge bases covering the cultural subjects of the city. Research focusing on the design, formulation and monitoring of programmes, projects and activities articulated in Bogotá's development plan are prioritised. Since 2001, the observatory has undertaken a thorough biennial survey of the city – the Biennial Survey of Cultures (*Encuesta Bienal de Culturas*) – focusing on the cultural transformations of Bogotá's residents in two areas: culture, recreation and sports, and how the capital city's residents relate to the district state and other citizens. The survey feeds indicators and analysis on the city's diversity and multiculturalism.

Source: Adapted from OECD (2013), *OECD Urban Policy Reviews: Chile*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264191808-en; Ministry of Housing and Urbanism/SEREMI (2012), OECD interview, June 2012, Valparaíso, Chile; Montezuma, R. (2005), "The transformation of Bogotá, Colombia, 1995-2000: Investing in citizenship and urban mobility", *Global Urban Development*, Vol. 1, No. 1; Secretaría Distrital de Cultural Recreación y Deporte (2012), "Observatorio de Culturas", Bogotá, Colombia, www.culturarecreacionydeporte.gov.co/observatorio/acercade.html (accessed 20 August 2012).

Box 3.15. A two-year dialogue on the Measures of Australia's Progress

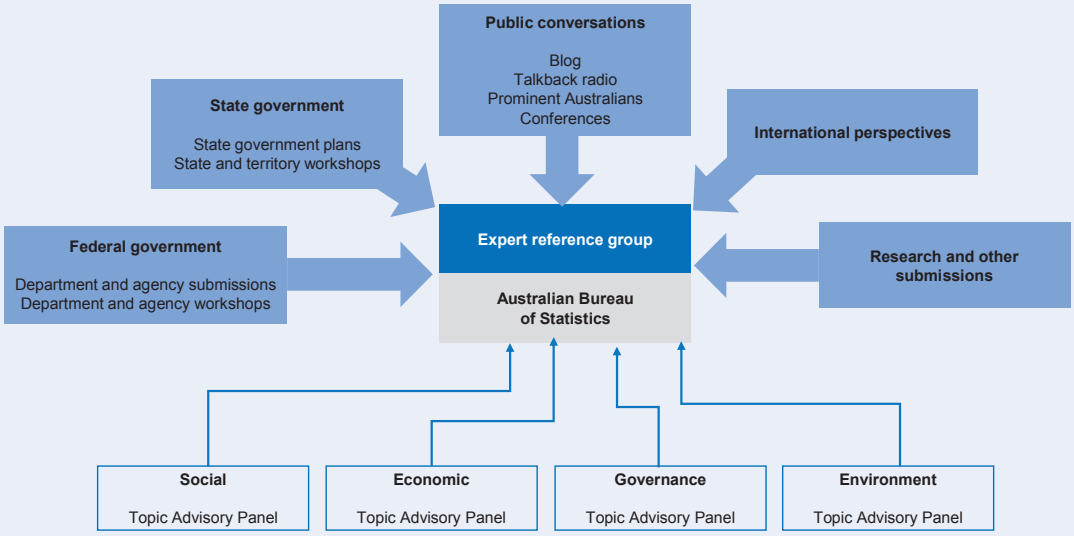
First published in 2002, the Australian Bureau of Statistics' flagship publication *Measures of Australia's Progress* (MAP) has been bringing together selected statistics about society, the economy and the environment, to provide insight into national progress (ABS, 2002). The MAP is part of the ABS's commitment to providing high-quality, objective and responsive data to assist informed decision making, research and discussion. It aims to help Australians answer the question: "Is life in Australia getting better?" After widespread international and national interest in measuring societal progress, the ABS considered it was timely to review whether the MAP is still measuring the aspects of life that matter most to Australians. In 2011-12, it undertook a broad-ranging consultation that asked Australians "What is important to you for national progress?"

Governance of the process

The ABS's approach to the MAP consultation has been guided and endorsed by a MAP Expert Reference Group (ERG). The ERG is chaired by the Australian Statistician, Brian Pink, and includes eminent representatives from business, community, research and government organisations. A similar group had provided broad direction and advice to the ABS since the MAP's inception, and was reconvened to guide the 2011-12 consultation. The ERG has provided feedback to the ABS at each step of the consultation process and continued to advise it throughout the redevelopment of the MAP 2013. The ERG members also participated directly in the consultation by attending and leading the MAP forum.

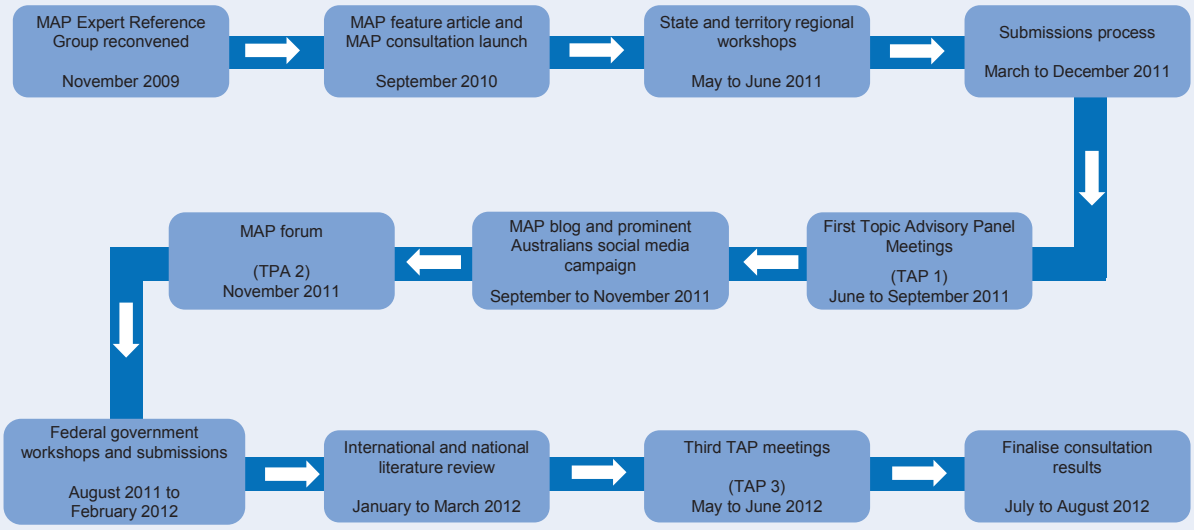
Consultation channels and stakeholders

The viewpoints of Australians were initially gathered during state-based workshops where people from state, local government and community organisations provided valuable source ideas for the consultation. Topic advisory panels were then engaged to provide expert guidance and analysis of the evolving aspirational ideas, which they did at several stages in the consultation process. The ABS asked a number of well-known Australians to share their views on progress and to launch a social media conversation with people who might not otherwise engage with statistics. The ABS looked at how state governments have articulated the aspirations of their constituents in state plans or similar documents; and met with and received the submissions of a number of federal government agencies. Submissions were invited and received from a broad range of organisations across government, business, community and academic sectors. In addition, the ABS has researched what international statistical agencies and other organisations (including the OECD) have found when considering progress and related ideas.



Box 3.15. **A two-year dialogue on the Measures of Australia's Progress** (*cont.*)

Timeline and milestones



Source: Adapted from ABS (2012), *Measures of Australia's Progress: Aspirations for Our Nation: A Conversation with Australians about Progress*, Australian Bureau of Statistics, Canberra, available at: www.ausstats.abs.gov.au/ausstats/subscriber.nsf/LookupAttach/1370.0.00.002Publication20.11.121/$File/Measures%20of%20Australia's%20Progress%20Consultation%20Report.pdf.

Communicating regional well-being results

A strategy to communicate regional well-being indicators to a broader constituency needs to define in what form they will be exposed to the public and through which channels. In the case of the form, the dilemma between a regional well-being composite index (which conveys a single unified message, but dilutes information) and a wider dashboard of indicators (which offers more fine-tuned information, but may take more time to communicate) remains an open question, both in conceptual and operational terms. Most of the case study regions currently do not have a single composite well-being index. Sardinia is an exception, with its Multiple Deprivation Index (IDMS). Rome has developed aggregated indices for each of the six axes prioritised by the Strategy Project of the former Council of the Province (i.e. clean environment; local infrastructure; smart development; social cohesion; innovation culture; citizenship, equal opportunities and participation in public life). Newcastle produced its own Vitality Index, but its well-being strategy embraces a comprehensive set of thematic indicators. The interesting example of Southern Denmark illustrates the advantages and drawbacks of both approaches: after the region invested a sizeable amount of time and resources in developing a composite Good Life index, the Good Life initiative was re-deployed into a "wheel" of thematic indicators including both objective and subjective indicators (Box 3.16).

Communication channels need to be further developed in most OECD regions. Communication is a powerful tool to reduce the risk that the regional well-being measurement initiative remains a technocratic exercise with limited impact on the daily lives of citizens. In Sardinia, effective dialogue with economic actors has co-existed with a lack of high-level political engagement on achieving measurable objectives and

difficulties in engaging civil society. Southern Denmark has successfully developed a yearly publication (*Kontur*), which covers a range of well-being indicators by municipality and is used when designing strategies throughout the region, but it is currently working on developing concrete tools for communicating and publicly debating the Good Life results. The example of the province of Rome offers interesting insights. Solid campaigns of consultation and communication have been conducted. Results were publicly discussed with civil society and policy makers. Among a variety of communication tools, case study regions have most easily chosen to run a website as well as written materials and workshops (Table 3.7). However, the potential of social networks and social media has so far not been fully exploited.

Box 3.16. **Composite index vs. headline indicators: The dual experience of the region of Southern Denmark**

Southern Denmark's vision embraces a wide spectrum of material and immaterial dimensions that are considered to contribute to a "Good Life". The multi-dimensionality of well-being was measured through two approaches successively: a composite index, which was eventually replaced with a dashboard of indicators.

The Good Life was initially measured through a composite index encompassing five sub-indices: residents' health, security, relationships, self-fulfilment and surroundings. These five dimensions are considered to help enhance chances of living the Good Life. Each of the sub-indices was measured using five socio-economic indicators and five indicators of perceived individual conditions. An exception was self-fulfilment, which was only measured by individual indicators.

Extensive discussions conducted by the region with each of the 22 municipalities indicated that the composite index was difficult to understand per se (the index was expressed as standard deviations and included variables at both individual and municipal level) and was not able to point out the exact areas in which policy intervention was required. The composite index was revised into a "wheel" that organises 40 indicators in 2 categories: community conditions (including a municipality profile and a citizen profile) and individuals' own perception of life. Socio-economic indicators are measured using existing sources of data: registry data (indicators mainly available from the Danish Statistical Bureau) and model data (from a regional version of the national ADAM economic model run by the Ministry of Finance, and the region's own GIS analysis). Individual perception indicators are measured using panel survey data collected annually by a private consulting firm (Jysk Analyse) from up to 4 300 respondents (out of 1.2 million inhabitants). The region carries out citizen surveys three to four times per year. Once a year, citizens are asked to assess their level of well-being, both in general and in terms of different well-being dimensions, such as health, relationships, etc. The remaining surveys are dedicated to different themes regarding the Good Life and regional development. There is also an extensive national health survey "How are you?" ("*Hvordan har du det*?"), which is run regionally every fourth year by the health department of the region of Southern Denmark.

Table 3.7. **How do case study regions communicate (or plan to communicate) well-being indicators?**

	Southern Denmark (Denmark)	Province of Rome (Italy)	Sardinia (Italy)	Morelos (Mexico)	North of the Netherlands (Netherlands)	Newcastle (United Kingdom)	US Partnership for Sustainable Communities
Dedicated public website	X (planned)	X	X	X	X	X	X
Public meetings		X	X	X			Up to the community
Media	X	X		X			Up to the community
Social networks (e.g. Twitter, Facebook, etc.)				X			Up to the community
Reports, books, dedicated workshops	X	X	X	X	X	X	Up to the community
Others (please specify)							Up to the community

Source: Answers provided by case study regions to OECD questionnaire.

Conclusion: Guidelines for using regional well-being data to build stronger communities

Comparing experiences across case study regions and beyond has pointed to the wide variety of approaches to regional well-being measurement initiatives, but also to common opportunities and challenges that require strategic choices. Using existing data in new ways opens up valuable possibilities for building stronger and more inclusive communities, based on a shared understanding that a joint ownership of the regional well-being agenda can make positive change happen where people live. Insights and lessons from the international experiences presented in this chapter can be briefly summarised in the following guidelines.

Overarching considerations

- Well-being is a positive narrative. Many regions perform better at measuring challenges and ill-being rather than assessing opportunities and well-being. Fostering well-being for people in different places requires more than reducing specific problems; the goal is to create conditions that enable different individuals to flourish throughout the course of their lives.
- Well-being can motivate mobility across regions. Well-being is a defining characteristic of a territory and thus shapes its competitiveness and attractiveness. Making a better place for people to live in also helps equip it better to grow, cultivate existing and innovative potential and attract new resources.
- Time is critical. The well-being of individuals in places does not change overnight (except in extreme cases, such as natural disasters and war). While inputs can be changed in the short term, well-being outcomes tend to materialise in the medium to longer term.

Methodological guidelines

- Map and cross-check existing data before exploring the possibility of generating new data. Policy-relevant information can often already be extracted from identifying, releasing and crossing available data. By contrast, oversupply of data may obscure their reading and policy interpretation.
- Combine objective indicators and subjective perception data. A balance between objective conditions and subjective perceptions provides critical insights into policy achievements and unmet needs. Great potential exists for improving perception information at different territorial details in key issues such as satisfaction with public services; trust in local and regional authorities; perceptions of corruption, discrimination or the lack of impartiality.
- Facilitate the identification of the right scale for action. Reflection grounded in regional well-being data can help all levels of government understand whether the policy issue at stake is a neighbourhood issue, a municipal issue, a city and hinterland issue, a labour market issue or a larger regional issue.

Governance guidelines

- Well-being is a shared responsibility between governments, the private sector and citizens. Providing for citizen well-being is not the duty solely of the government, nor should citizens be passive recipients of government policies. Building better communities requires commitment and action from all spheres of society.
- Invest in building strategic and technical capacity to design and select projects that fit with expected well-being results. Once relevant well-being indicators have been chosen, selecting the right projects that will help improve them calls for different skill sets (e.g. knowledge of specific territories or specific policy sectors), which lie in different constituencies. Training, monitoring and evaluation mechanisms can help build capacity at all levels.
- Build a multi-stakeholder governance mechanism that balances clear leadership and shared ownership from the outset. While opening well-being measurement to public debate and participation takes time in the initial stages, it can help avoid the risk of technocratic initiatives that have only marginal impact on people's lives. The benefits of mobilising stakeholders from the onset materialise throughout the entire process and nurture progress of society.

Annex 3.A1
Overview of regional well-being measurement initiatives in seven OECD case study regions

	Region of Southern Denmark (Denmark)	Province of Rome (Italy)	Region of Sardinia (Italy)	State of Morelos (Mexico)	Region of the North of the Netherlands (Netherlands)	City of Newcastle (United Kingdom)	US Partnership for Sustainable Communities
Territorial scale	Region OECD TL2 region.	Province OECD TL3 region.	Region OECD TL2 region.	State OECD TL2 region.	3 provinces (Friesland, Groningen and Drenthe) OECD TL2 region.	Metropolitan area (Metropolitan District of Newcastle upon Tyne)	National initiative for jurisdictions of all sizes (regions, counties, municipalities and neighbourhoods)
Population	1.2 million	4 million	1.6 million	1.8 million	1.8 million	279 100	Not applicable
Well-being outcomes at a glance	Ranks high in most well-being dimensions, particularly in terms of access to services, civic engagement and safety Patchy progress on well-being performance as compared with other OECD regions over the 2000-13 period Municipalities within the region are struggling with various types of well-being challenges	Lazio region performs better than the national average in education, environment, access to services and civic engagement, but worse in income and jobs Improvements in the province of Rome in environment (air quality) and access to services (broadband connections) over the past ten years High inequalities among the province's six territories	Scores well in environment, health, safety, civic engagement and access to services, but poorly in income, jobs and education Rural internal areas suffer from ageing and depopulation Substantial inequality in income, education and access to services	High employment outcomes (although this might be skewed by informal employment) Low levels of safety and income, together with substantial inequality Higher levels than other Mexican states in education, health and civic engagement	The North of the Netherlands ranks high in safety, access to services and civic engagement. Frequent earthquakes due to gas extraction are a major concern for people's well-being. Ageing and depopulation in the most remote areas challenge liveability.	North East England scores above the national and OECD values in education and environment, but scores worse in jobs, health and civic engagement Overall well-being performance has improved relative to other OECD regions since 2000 Significant disparities in life expectancy rates in Newcastle, with an average discrepancy of about 14.5 years depending on people's ward of residence	HotReport sustainability indicators on transport, housing, equity, economic development and income

	Region of Southern Denmark (Denmark)	Province of Rome (Italy)	Region of Sardinia (Italy)	State of Morelos (Mexico)	Region of the North of the Netherlands (Netherlands)	City of Newcastle (United Kingdom)	US Partnership for Sustainable Communities
Leadership of regional well-being measurement initiative	Region of Southern Denmark (Department of Regional Development, Strategy and Analysis unit)	Province of Rome	Region of Sardinia (Regional Planning Centre)	Undersecretary of Planning of the state of Morelos	No single leading entity, but several key actors including the Northern Provinces Alliance and the University of Groningen	Newcastle City Council	Federal partnership between US Department of Housing and Urban Development, Department of Transportation, and the Environmental Protection Agency
Framework for measuring regional well-being	"Good Life" measurement was included in the Regional Development Plan (RUP) for 2012-16 (transformed into a new Growth and Development Strategy) The Good Life Index initially included a composite of five sub-indices (residents' health, security, relationships, self-fulfilment and surroundings); this was later transformed into a "wheel" of headline indicators (15 socio-economic indicators and 25 perception-based indicators, included in the statistical yearbook *Kontur*, with a detailed profile for each of the 22 municipalities)	Well-being measures were introduced in 2012 by the province's government to support the territorial development strategy for inclusive growth and take a more strategic approach to political and policy action Uncertainties attributable to change in the province's government in 2013 and the anticipated territorial reform	Well-being measures were introduced in regional programming for the 2014-20 EU and national Cohesion Policy Statistics and expertise have been made available through different national and regional initiatives	Well-being measurement is included in the State Development Plan (PED) 2013-18 through five strategic axes: – Security and justice – Social cohesion and citizenship – Competitiveness and innovation – Environmental sustainability – Transparency and democratic participation	No single regional strategy for well-being but several initiatives in the fields of: innovation (Research and Innovation Strategy for Smart Specialisation (RIS3), bringing together the provinces of Friesland, Groningen and Drenthe); health (Healthy Ageing Network Northern Netherlands); and environment (Wadden Sea Long-Term Ecosystem Research project)	Well-being for Life Strategy – A Framework for Action 2013-16, based on the requirement to establish Health and Well-Being Boards (2012 Health and Social Care Act) Four priorities: *i)* a working city (an economic dimension) *ii)* tackling inequalities (socio-economic disparities) *iii)* decent neighbourhoods (physical environment) *iv)* fit-for-purpose council (council capacity to meet citizen needs)	6 Liveability Principles: i) provide more choices for transport ii) promote equitable, affordable housing iii) enhance economic competitiveness iv) support existing communities v) co-ordinate and leverage federal policies and investment vi) value communities and neighbourhoods Communities that receive federal grants through the project apply the Liveability Principles

	Region of Southern Denmark (Denmark)	Province of Rome (Italy)	Region of Sardinia (Italy)	State of Morelos (Mexico)	Region of the North of the Netherlands (Netherlands)	City of Newcastle (United Kingdom)	US Partnership for Sustainable Communities
Strengths and opportunities for using the regional well-being metrics	Comprehensive framework with a mix of community conditions and individual and territorial characteristics A new process of acquiring knowledge and collaboration between the region and municipalities is incorporated in the Good Life Initiative Potential to contribute to the national debate on growth	Inclusive process of consultation between citizens and stakeholders in selecting and prioritising well-being dimensions and in formulating the strategy for well-being Sense of ownership in the public administration, despite political instability and institutional uncertainty	Good institutional dialogue with socio-economic partners Innovative practices in regional public administration (including budget rules, "one-stop shops" for firms) and positive results in improving service delivery (e.g. waste management and broadband connections)	Strong commitment and leadership of the state government to improving its residents' well-being Integrated regional development strategy, with clear priorities of action, measures and targets to be achieved Good level of institutional dialogue among different policy domains at the state level	Availability of sophisticated data (including micro-data) related with well-being issues, at municipal and provincial scales Growing social and political awareness of well-being agenda Good experience of dialogue and collaboration among a diverse range of stakeholders in the preparation of the RIS3	Well-Being for Life Board incorporates representatives from academia, civil society (including NGOs) and the regional/local representatives of national-level institutions Signed a City Deal with the national government and is working with neighbouring local authorities towards creating a North East Combined Authority with devolved powers, to stimulate economic growth, job creation, skills development and improved transport links	Contributes significantly to national-level thinking and planning on sustainable development Establishes a framework for interagency co-ordination at the federal level with regional and local level impact Provides guidance and resources to support communities dedicated a higher quality of life and greater well-being for their residents
Challenges and constraints for using well-being metrics	Further support is needed from the political leadership at national level and support from citizens must be more actively solicited Relative institutional weakness of the region	Uncertainty regarding future administrative structures and resource allocation Lack of publicly available monitoring of well-being indicators and of the impact of policies	Aligning objectives and responsibilities across different levels of government presents a challenge Lack of political commitment towards achieving certain measurable objectives of well-being and difficulty in engaging citizens	Too many indicators, and a lack of prioritisation among them Monitoring process is as yet not clearly defined	Fragmentation of provincial/local initiatives and sectoral silos Limited use of well-being data to inform and guide policy Lack of strong political commitment towards achieving measurable objectives of well-being	Implementation and monitoring of strategy Low degree of fiscal decentralisation and weak capacity to generate own-source revenue	Lack of integration among the programming partners in the funding and monitoring mechanisms of individual community projects Little to no evident collaboration with other federal bodies or consultation with sub-national bodies and other stakeholders

	Region of Southern Denmark (Denmark)	Province of Rome (Italy)	Region of Sardinia (Italy)	State of Morelos (Mexico)	Region of the North of the Netherlands (Netherlands)	City of Newcastle (United Kingdom)	US Partnership for Sustainable Communities
What's next?	Steady commitment of the region over the past three years to carefully research, build and revise a solid well-being framework that can inspire other Danish regions More effective steps are needed for using Good Life indicators to guide the new Growth and Development Strategy; fostering public debate and linking to the national agenda	Once the territorial reform is in place, the existing framework for co-operation needs to be supported to cultivate further stakeholder participation	Shared ownership of a well-being agenda must be cultivated and well-being metrics must be incorporated into the political agenda	An effective communication strategy should be formulated, with a positive narrative inspiring citizen engagement Further involvement from municipalities is needed	More effective co-ordination among provinces and further involvement needed from municipalities, which will play a stronger role in well-being policy after the decentralisation reform	Broader stakeholder engagement in the policy design and/or implementation process More active participation from the private sector, trade unions and universities	Enlisting federal government support for sub-national levels (intra-state, intra-county, metropolitan and city) in establishing and using well-being indicators to improve outcomes on the ground

Note: For the purpose of providing an easily readable and comparable format, this table offers a non-exhaustive summary of key points and contains some degree of simplification. Further details about each region's initiative are available in the individual case study reports online and on the OECD Regional Well-Being website: www.oecd.org/regional/how-is-life-in-your-region.htm.

Source: OECD research based on answers provided by case study regions to OECD questionnaire and OECD case study reports.

Bibliography

ABS (2012), *Measures of Australia's Progress: Aspirations for Our Nation: A Conversation with Australians about Progress*, Australian Bureau of Statistics, Canberra, available at: www.ausstats.abs.gov.au/ausstats/subscriber.nsf/LookupAttach/1370.0.00.002Publication20.11.121/$File/Measures%20of%20Australia's%20Progress%20Consultation%20Report.pdf.

ABS (2002), *Measures of Australia's Progress*, Australian Bureau of Statistics, Canberra.

ABS (n.d.), "Socio-Economic Indexes for Areas", Australian Bureau of Statistics, Canberra, www.abs.gov.au/websitedbs/censushome.nsf/home/seifa.

Anselmo, I. (2012), "The 2007-2013 Italian performance reserve – Measurable objectives for public services provision in Mezzogiorno", http://ec.europa.eu/regional_policy/sources/docgener/evaluation/doc/performance/anselmo.pdf.

Birch, E.L., et al. (2011), "Measuring US sustainable development", *Penn IUR White Paper Series of Sustainable Urban Development*, Penn Institute for Urban Research, Department of City and Regional Planning, University of Pennsylvania, Philadelphia, Pennsylvania.

Brezzi, M. and F. Utili (2007), "Targeting final objectives of public service provision to expand capabilities: A policy application in the south of Italy", paper presented at the Human Development and Capabilities Association Conference, September.

El Universal (2013), "Cómo Vamos, Ciudad de México? Asi percibimos nuestra calidad de vida en la Metrópoli", El Universal, Federal District, Mexico, available at: www.comovamosciudaddemexico.com.mx/wp-content/FB_ComoVamos_enc_2013/#/1 (accessed on 4 July 2014).

European Commission (2014), "Guidance document on monitoring and evaluation – European Regional Development Fund and Cohesion Fund, Concepts and recommendations, Programming Period 2014 2020", DG Regional and Urban Policy, Brussels, March.

Hák, Tomás, Moldan Bedrich and Lyon Dahl Arthur (eds.) (2007), *Sustainability Indicators: A Scientific Assessment*, Island Press, Young Foundation, www.youngfoundation.org.

Koopman, M., H.-J. van Mossel and A. Straub (eds.) (2009), *Performance Measurement in the Dutch Social Rented Sector*, IOS Press, Amsterdam.

Lenihan, D. (2008), "It's more than talk: Listen, learn and act: A new model for public engagement", the final report of the Public Engagement Initiative, Province of New Brunswick, www.gnb.ca/0012/PDF/LLA-e.pdf and the International Association for Public Participation, www.iap2.org.

Montezuma, R. (2005), "The transformation of Bogotá, Colombia, 1995-2000: Investing in citizenship and urban mobility", *Global Urban Development*, Vol. 1, No. 1.

OECD (2013a), *OECD Urban Policy Reviews: Chile*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264191808-en

OECD (2013b), *Policy Making After Disasters: Helping Regions Become Resilient – The Case of Post-Earthquake Abruzzo*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264189577-en.

OECD (2011), *How's Life? Measuring Well-Being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

OECD (2010), *Finland: Working Together to Sustain Success*, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264086081-en.

OECD (2009), *Focus on Citizens: Public Engagement for Better Policy and Services*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264048874-en.

OECD (2007), *Governing Regional Development Policy: The Use of Performance Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264056299-en.

OECD (2001), *Citizens as Partners: Information, Consultation and Public Participation in Policy-Making*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264195561-en.

Open Government Partnership (2011) "Open Government Partnership Declaration", http://www.opengovpartnership.org/about.

US Department of Housing and Urban Development (2010), "Partnership for Sustainable Communities", www.sustainablecommunities.gov.

Scottish Government (2014), "Scotland Performs", www.scotland.gov.uk/About/Performance/scotPerforms (accessed on 4 July 2014).

Secretaría Distrital de Cultural Recreación y Deporte (2012), "Observatorio de Culturas", Bogotá, Colombia, www.culturarecreacionydeporte.gov.co/observatorio/acercade.html (accessed 20 August 2012).

Stiglitz, J., Sen, A. and J-P. Fitoussi (2009), "Report by the Commission on the Measurement of Economic Performance and Social Progress", http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf.

Ubaldi, B. (2013), "Open government data: Towards empirical analysis of open government data initiatives", *OECD Working Papers on Public Governance*, No. 22, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k46bj4f03s7-en.

UK Department for Communities and Local Government (n.d.), "English indices of deprivation", Crown Copyright, London, www.gov.uk/government/collections/english-indices-of-deprivation.

Zauberman, R. (2010), *Victimisation and Insecurity in Europe: A Review of Surveys and Their Use*, VUB University Press.

Chapter 4

Regional well-being in OECD countries

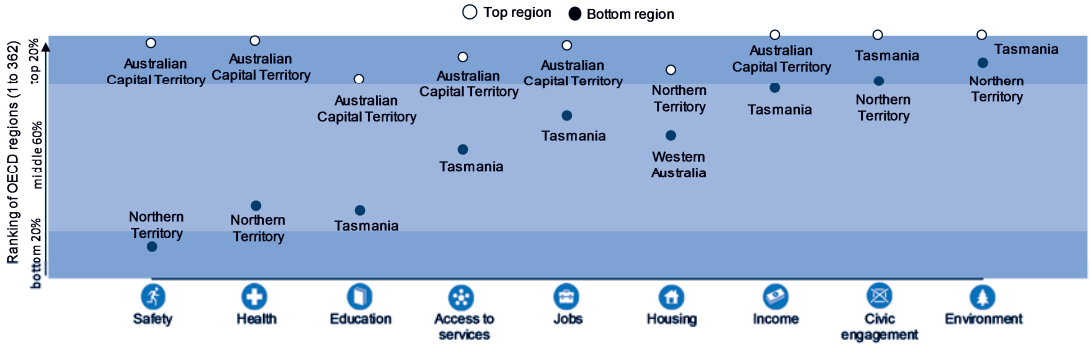
This chapter presents selected findings on the well-being outcomes in OECD regions by country. Regional well-being performance is measured against the nine dimensions presented in the report: income, jobs, housing, education, health, environment, safety, civic engagement and access to services.

Australia

All Australian regions are among the top 20% OECD regions in environment, civic engagement (due to the compulsory voting system) and income. The Australian Capital Territory has the best outcomes in six out of nine well-being dimensions.

Australia has the fourth largest regional disparities in health and the fifth largest in safety among OECD countries.

Relative performance of Australian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Even the low performing regions in Australia fare better than the OECD average in all of the well-being indicators.

Education is the only exception; the share of workforce with at least a secondary degree in the bottom 20% regions in Australia is 13 percentage points lower than the OECD average.

How do the top and bottom regions in Australia fare on the well-being indicators?

	Australian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.8	3.3	1.1	4.2
Health				
Life expectancy at birth (years), 2012	82.4	79.0	82.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.4	8.4	6.8	8.1
Education				
Labour force with at least a secondary degree (%), 2013	78.3	66.7	75.3	74.6
Access to services				
Households with broadband access (%), 2013	78.4	70.8	75.0	67.2
Jobs				
Employment rate (%), 2013	74.5	73.1	74.5	66.7
Unemployment rate (%), 2013	4.2	5.9	5.3	8.0
Housing				
Rooms per person, 2012	2.4	2.2	2.3	1.8
Income				
Household disposable income per capita (in USD), 2011	37 034	21 873	23 556	18 907
Civic engagement				
Voters in last national election (%), 2013	78.4	70.8	75.0	67.7
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	2.7	4.6	3.4	12.3

StatLink http://dx.doi.org/10.1787/888933129220

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

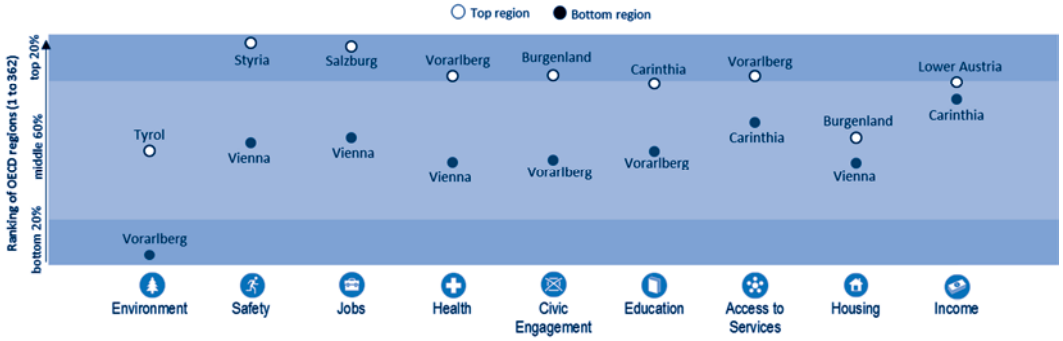
Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Austria

When it comes to income, all Austrian regions are in the top third of OECD regions and Austria has the smallest regional disparities among OECD countries. Environment is the dimension with the largest regional differences: Tyrol is around the OECD average while Voralberg ranks in the bottom 5%.

Styria and Salzburg are among the top OECD regions in safety and jobs, respectively.

Relative performance of Austrian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Austrian regions fare better than OECD average in all of the well-being indicators except the level of air pollution experienced by the regional population.

In the low performing Austrian regions, the share of labour force with at least a secondary degree is 81%, 6 percentage points above the OECD average.

How do the top and bottom regions in Austria fare on the well-being indicators?

	Austrian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population, 2012	13.6	20.0	16.7	12.3
Safety				
Homicide rate (per 100 000 people), 2012	0.4	1.3	0.8	4.2
Jobs				
Employment rate (%), 2013	76.2	69.0	73.2	66.7
Unemployment rate (%), 2013	2.7	7.1	4.4	8.0
Health				
Life expectancy at birth (years), 2012	82.2	80.3	81.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.1	8.2	7.8	8.1
Civic engagement				
Voters in last national election (%), 2013	81.4	66.6	74.9	67.7
Education				
Labour force with at least a secondary degree (%), 2013	86.2	80.6	83.7	74.6
Access to services				
Households with broadband access (%), 2013	79.8	72.4	76.3	67.2
Housing				
Rooms per person, 2012	1.9	1.6	1.7	1.8
Income				
Household disposable income per capita (in USD), 2011	21 648	20 206	20 954	18 907

StatLink http://dx.doi.org/10.1787/888933129239

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

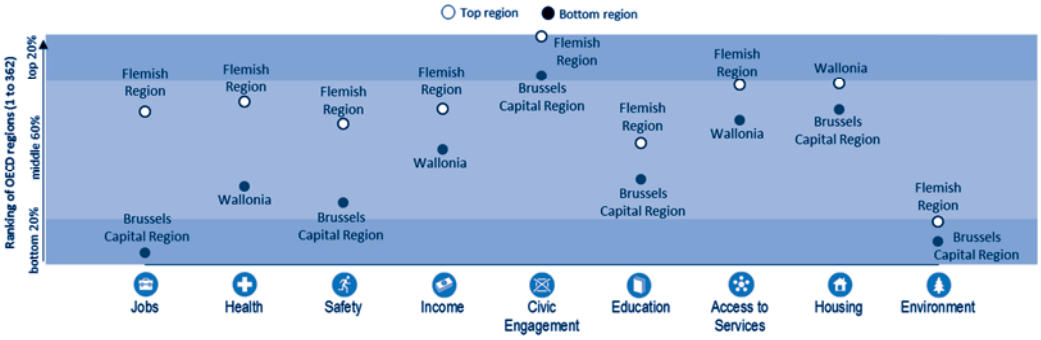
Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Belgium

The three Belgian regions rank in the top 20% of the OECD regions in civic engagement, due to the compulsory voting system, and in the bottom 20% of the OECD regions when it comes to environment.

Belgium has the third largest regional disparities in jobs, with the Brussels Capital Region ranking among the bottom 5% of the OECD. Wide disparities are also present in health and safety.

Relative performance of Belgian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Belgian regions fare better than the OECD average for all indicators except the employment rate and the level of air pollution experienced by the regional population.

In the low performing regions, the percentage of households with broadband access is about 73%, higher than the OECD average.

How do the top and bottom regions in Belgium fare on the well-being indicators?

	Belgian regions		Country average	OECD average
	Top 20%	Top 20%		
Jobs				
Employment rate (%), 2013	66.5	53.2	62.1	66.7
Unemployment rate (%), 2013	4.6	17.8	7.7	8.0
Health				
Life expectancy at birth (years), 2012	81.4	78.9	80.4	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.6	9.1	8.1	8.1
Safety				
Homicide rate (per 100 000 people), 2012	1.2	2.8	1.7	4.2
Income				
Household disposable income per capita (in USD), 2011	19 156	16 457	18 074	18 907
Civic engagement				
Voters in last national election (%), 2013	90.8	82.8	89.2	67.7
Education				
Labour force with at least a secondary degree (%), 2013	81.3	74.2	79.1	74.6
Access to services				
Households with broadband access (%), 2013	78.0	72.7	76.0	67.2
Housing				
Rooms per person, 2012	2.3	2.1	2.2	1.8
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	17.2	19.3	17.5	12.3

StatLink http://dx.doi.org/10.1787/888933129258

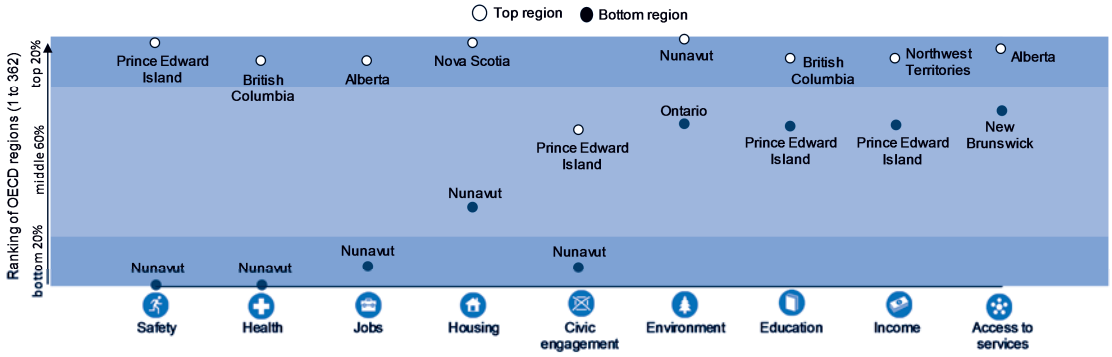
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Canada

Most of the well-being dimensions have at least one Canadian region in the top 20% of the OECD regions. However, Nunavut, one of the smallest OECD regions in terms of population, is in the bottom 10% for safety, health, jobs and civic engagement. As a result, Canadian regional disparities in health and safety are among the largest across OECD countries.

Relative performance of Canadian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Canadian regions fare better than the OECD in all of the well-being indicators except for the share of voters in national elections.

Even in the low performing regions, 85% of the labour force has at least a secondary degree and 75% of households have access to a broadband connection, 10 and 8 percentage points, respectively, above the OECD average.

How do the top and bottom regions in Canada fare on the well-being indicators?

	Canadian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.6	4.8	1.6	4.2
Health				
Life expectancy at birth (years), 2012	81.8	75.4	81.5	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.9	10.6	7.1	8.1
Jobs				
Employment rate (%), 2013	77.2	65.0	73.3	66.7
Unemployment rate (%), 2013	4.9	12.3	7.3	8.0
Housing				
Rooms per person, 2012	2.7	2.3	2.5	1.8
Civic engagement				
Voters in last national election (%), 2013	67.0	52.3	61.4	67.7
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	2.1	8.7	7.1	12.3
Education				
Labour force with at least a secondary degree (%), 2013	90.1	85.5	88.8	74.6
Income				
Household disposable income per capita (in USD), 2011	25 907	18 748	21 039	18 907
Access to services				
Households with broadband access (%), 2013	84.9	75.0	81.5	67.2

StatLink http://dx.doi.org/10.1787/888933129277

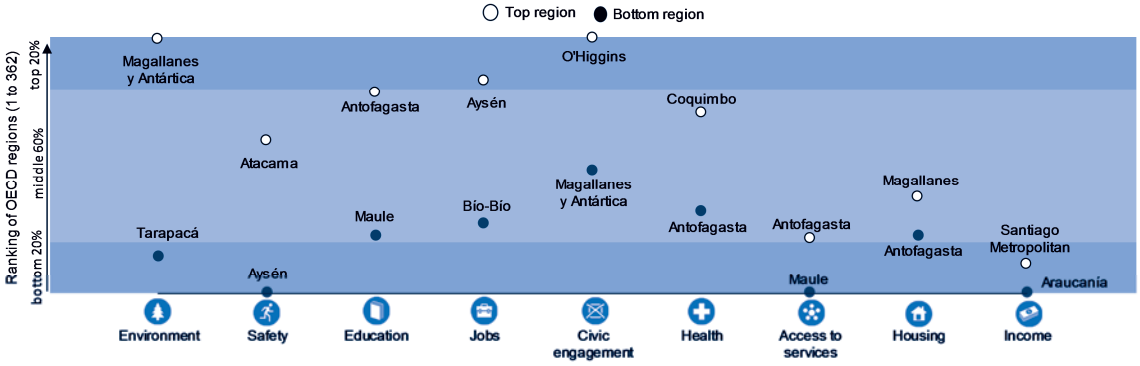
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Chile

Chile has the largest regional disparities among OECD countries when it comes to environment: the Magallanes y Antartica region ranks in the top 5% of OECD regions, while Tarapacá is in the bottom 20%. Antofagasta is the best among Chilean regions in education and access to services, but the worst in health and housing. The metropolitan region of Santiago ranks the highest among Chilean regions only in income.

Relative performance of Chilean regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Chilean regions fare better than the OECD average in all of the well-being indicators except for income, the number of rooms per person, the share of households with access to a broadband connection and life expectancy at birth.

How do the top and bottom regions in Chile fare on the well-being indicators?

	Chilean regions		Country average	OECD average
	Top 20%	Bottom 20%		
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	2.2	17.0	6.4	12.3
Safety				
Homicide rate (per 100 000 people), 2012	2.0	4.5	3.3	4.2
Education				
Labour force with at least a secondary degree (%), 2013	85.9	64.0	77.5	74.6
Jobs				
Employment rate (%), 2013	67.7	60.0	63.8	66.7
Unemployment rate (%), 2013	3.9	7.7	6.5	8.0
Civic engagement				
Voters in last national election (%), 2013	89.1	70.6	87.0	67.7
Health				
Life expectancy at birth (years), 2012	79.0	76.7	78.8	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.6	8.0	7.0	8.1
Access to services				
Households with broadband access (%), 2013	48.8	16.5	35.0	67.2
Housing				
Rooms per person, 2012	1.3	1.2	1.2	1.8
Income				
Household disposable income per capita (in USD), 2011	7 079	3 880	5 453	18 907

StatLink http://dx.doi.org/10.1787/888933129296

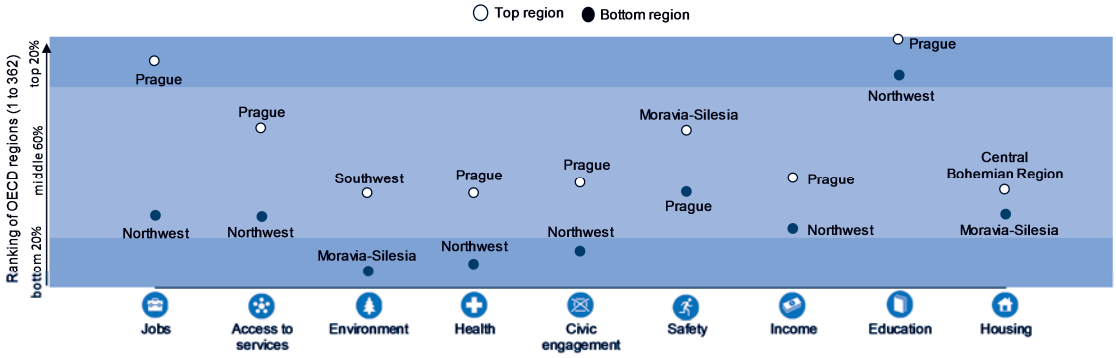
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Czech Republic

All the Czech regions are in the top 20% of the OECD regions when it comes to education, with Prague ranking in the top 5%. The country has large regional disparities when it comes to jobs and access to services. Regarding the former, Prague is in the top 10% of OECD regions while the Northwest region is in the bottom 30%. The Northwest region is also in the bottom 20% of OECD regions in health and civic engagement.

Relative performance of Czech regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

In the high performing Czech regions, the share of the labour force with at least a secondary degree is 97% and the employment rate 73%, well above the OECD averages.

The high performing Czech regions fare quite poorly in income, air quality and civic engagement.

How do the top and bottom regions in the Czech Republic fare on the well-being indicators?

	Czech regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	73.0	63.4	67.5	66.7
Unemployment rate (%), 2013	3.9	9.8	6.9	8.0
Access to services				
Households with broadband access (%), 2013	70.9	60.0	65.0	67.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	14.2	20.5	17.1	12.3
Health				
Life expectancy at birth (years), 2012	79.2	76.4	77.9	79.5
Age adjusted mortality rate (per 1 000 people), 2012	9.3	11.3	10.1	8.1
Civic engagement				
Voters in last national election (%), 2013	63.1	53.2	59.5	67.7
Safety				
Homicide rate (per 100 000 people), 2012	1.2	2.0	1.6	4.2
Income				
Household disposable income per capita (in USD), 2011	14 098	10 389	11 488	18 907
Education				
Labour force with at least a secondary degree (%), 2013	96.6	91.2	94.5	74.6
Housing				
Rooms per person, 2012	1.5	1.3	1.4	1.8

StatLink http://dx.doi.org/10.1787/888933129315

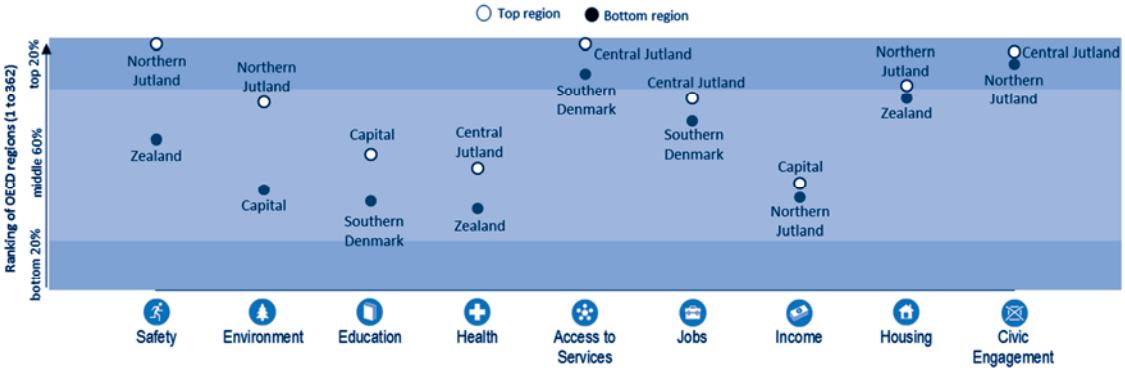
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Denmark

All five Danish regions are among the top 20% of OECD regions in access to services and civic engagement. The Capital region ranks first among the Danish regions in income and education, but last in environment.

Relative performance of Danish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Danish regions fare better than the OECD average in all of the well-being indicators except for the age adjusted mortality rate and income.

In the low performing regions, 82% of households have access to broadband, 15 percentage points more than the OECD average.

How do the top and bottom regions in Denmark fare on the well-being indicators?

	Danish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.3	1.2	0.8	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	7.3	13.6	11.2	12.3
Education				
Labour force with at least a secondary degree (%), 2013	81.8	73.6	76.6	74.6
Health				
Life expectancy at birth (years), 2012	80.5	79.0	79.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	8.3	9.3	8.8	8.1
Access to services				
Households with broadband access (%), 2013	87.3	82.0	85.3	67.2
Jobs				
Employment rate (%), 2013	75.9	72.5	74.2	66.7
Unemployment rate (%), 2013	6.7	7.9	7.4	8.0
Income				
Household disposable income per capita (in USD), 2011	14 879	13 687	14 100	18 907
Housing				
Rooms per person, 2012	2.3	2.2	2.2	1.8
Civic engagement				
Voters in last national election (%), 2013	88.5	86.6	87.7	67.7

StatLink http://dx.doi.org/10.1787/888933129334

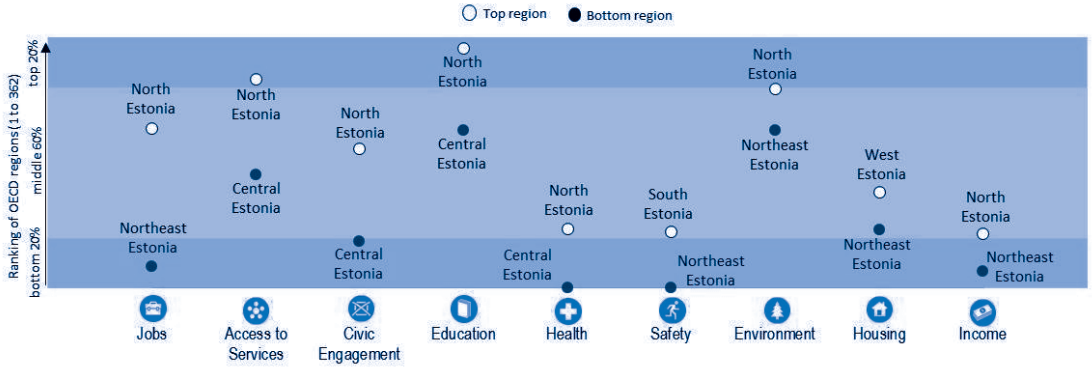
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Estonia

In seven out of nine well-being dimensions, the region of North Estonia performs better than the rest of the country. This region ranks in the top 20% of the OECD regions in access to services, education and environment. Regarding health, safety and income, all the Estonian regions are in the bottom 25% of the OECD regions. Estonia's largest regional disparities are found in jobs, access to services and civic engagement.

Relative performance of Estonian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Estonian regions fare better than the OECD average in six out of eleven well-being indicators, worse than the OECD average in life expectancy, mortality rate, unemployment and rooms per person. In the low performing regions, the unemployment rate is twice the OECD average value.

How do the top and bottom regions in Estonia fare on the well-being indicators?

	Estonian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	75.2	59.9	69.6	66.7
Unemployment rate (%), 2013	9.2	17.5	10.4	8.0
Access to services				
Households with broadband access (%), 2013	81.2	66.5	73.0	67.2
Civic engagement				
Voters in last national election (%), 2013	69.7	56.1	63.5	67.7
Education				
Labour force with at least a secondary degree (%), 2013	93.0	83.8	90.3	74.6
Health				
Life expectancy at birth (year), 2012	76.9	72.6	76.1	79.5
Age adjusted mortality rate (per 1 000 people), 2012	10.5	13.5	10.6	8.1
Safety				
Homicide rate (per 100 000 people), 2012	3.2	8.3	4.5	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (μg/m³), 2012	6.6	9.0	7.8	12.3
Housing				
Rooms per person, 2012	1.4	1.1	1.2	1.8
Income				
Household disposable income per capita (in USD), 2011	9 582	6 000	8 002	18 907

StatLink http://dx.doi.org/10.1787/888933129353

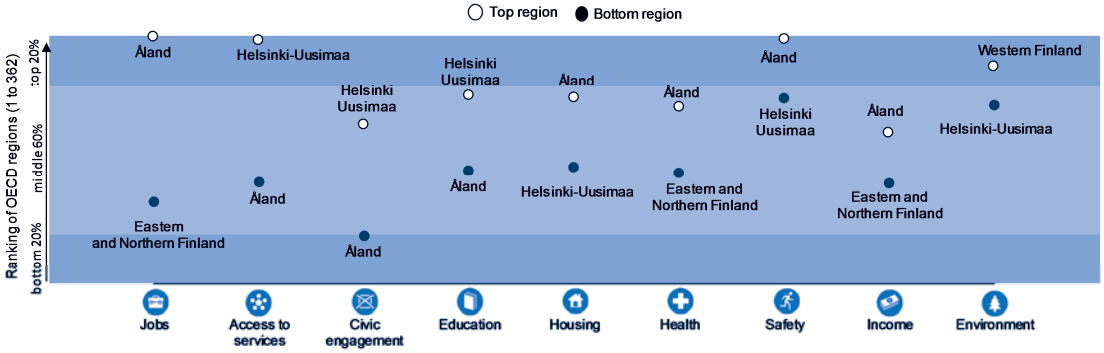
Note: Data in the first two columns refer to average values in TL3 regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Finland

In 6 out of 9 well-being dimensions, Finland has at least one region ranked in the top 25% of the OECD regions. Finland has large regional disparities in jobs, the 6th largest among OECD countries: Åland ranks in the top 1% of the OECD regions while the Eastern and Northern Finland region is in the bottom 30%.

Relative performance of Finnish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Finnish regions fare better than the OECD average in all of the well-being indicators except in the household disposable income.

In the low performing regions, the share of the labour force with at least a secondary degree, life expectancy and the homicide rate are better than the OECD average.

How do the top and bottom regions in Finland fare on the well-being indicators?

	Finnish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	82.1	65.3	70.0	66.7
Unemployment rate (%), 2013	3.1	9.6	7.9	8.0
Access to services				
Households with broadband access (%), 2013	92.0	64.0	84.7	67.2
Civic engagement				
Voters in last national election (%), 2013	73.8	55.8	68.9	67.7
Education				
Labour force with at least a secondary degree (%), 2013	86.5	78.4	85.4	74.6
Housing				
Rooms per person, 2012	2.2	1.8	1.9	1.8
Health				
Life expectancy at birth (years), 2012	81.7	80.0	80.5	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.7	8.3	8.1	8.1
Safety				
Homicide rate (per 100 000 people), 2012	0.0	0.9	0.8	4.2
Income				
Household disposable income per capita (in USD), 2011	18 178	13 892	15 336	18 907
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	5.1	7.8	6.0	12.3

StatLink http://dx.doi.org/10.1787/888933129372

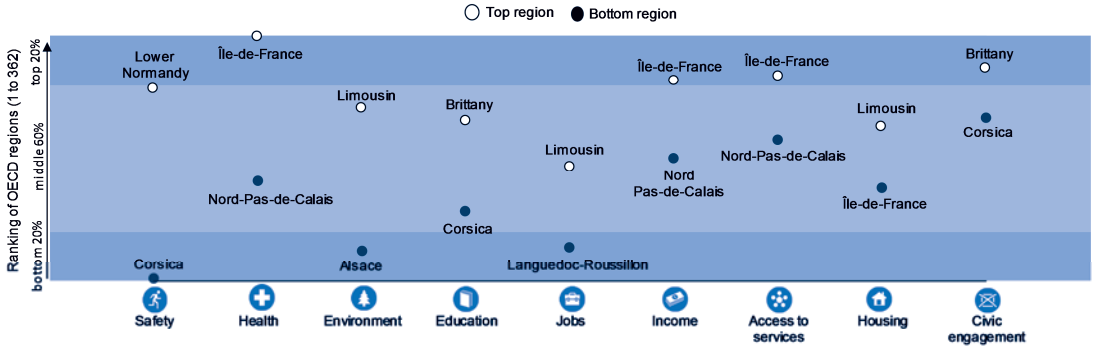
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

France

France's most striking regional disparities are found in the safety dimension: Corsica ranks in the bottom 10% of the OECD regions, while Lower Normandy is in the 20%. The Île-de-France region is one of the healthiest of the OECD, ranking in the top 2%. It also comes out on top of the country in the income and access to services dimensions, but last on housing.

Relative performance of French regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing French regions fare better than the OECD average in all of the well-being indicators, except in the employment and unemployment rates. In the low performing regions, the unemployment rate is about 5 and 3 percentage points higher than the OECD and the country averages, respectively.

How do the top and bottom regions in France fare on the well-being indicators?

	French regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.9	1.8	1.2	4.2
Health				
Life expectancy at birth (years), 2012	83.3	80.2	82.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.4	8.0	6.9	8.1
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	8.7	15.4	12.3	12.3
Education				
Labour force with at least a secondary degree (%), 2013	82.1	71.2	77.4	74.6
Jobs				
Employment rate (%), 2013	65.6	56.6	62.7	66.7
Unemployment rate (%), 2013	8.2	12.7	10.0	8.0
Income				
Household disposable income per capita (in USD), 2011	20 801	16 970	18 953	18 907
Access to services				
Households with broadband access (%), 2013	79.0	71.8	75.0	67.2
Housing				
Rooms per person, 2012	2.0	1.6	1.8	1.8
Civic engagement				
Voters in last national election (%), 2013	84.4	78.5	80.3	67.7

StatLink http://dx.doi.org/10.1787/888933129391

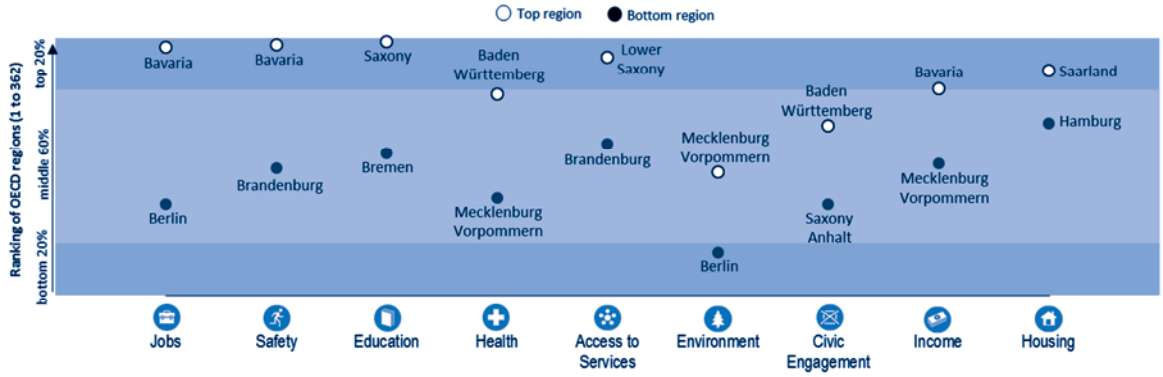
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Germany

In 7 out of 9 well-being dimensions, Germany has at least one region in the top 20% of the OECD regions. The largest disparities are found in the jobs dimension, with Bavaria scoring in the top 5% of the ranking and Berlin in the bottom third. Berlin is also in the bottom 20% of the OECD regions in environment. At the country level, regional disparities are found also in the safety, education and health dimensions.

Relative performance of German regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing German regions fare better than the OECD average in all of the well-being indicators except for air pollution. In both high and low performing German regions the employment rate is higher than the OECD average, about 10 percentage points and 3 percentage points above the OECD average, respectively.

How do the top and bottom regions in Germany fare on the well-being indicators?

	German regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	77.6	69.6	74.0	66.7
Unemployment rate (%), 2013	3.5	10.3	5.6	8.0
Safety				
Homicide rate (per 100 000 people), 2012	0.6	1.4	0.8	4.2
Education				
Labour force with at least a secondary degree (%), 2013	94.0	82.9	86.2	74.6
Health				
Life expectancy at birth (years), 2012	81.5	79.5	80.8	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.4	8.6	8.0	8.1
Access to services				
Households with broadband access (%), 2013	84.4	72.7	81.7	67.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	12.4	16.8	15.1	12.3
Civic engagement				
Voters in last national election (%), 2013	73.7	65.4	71.5	67.7
Income				
Household disposable income per capita (in USD), 2011	22 100	17 061	20 259	18 907
Housing				
Rooms per person, 2012	2.3	2.1	2.2	1.8

StatLink http://dx.doi.org/10.1787/888933129410

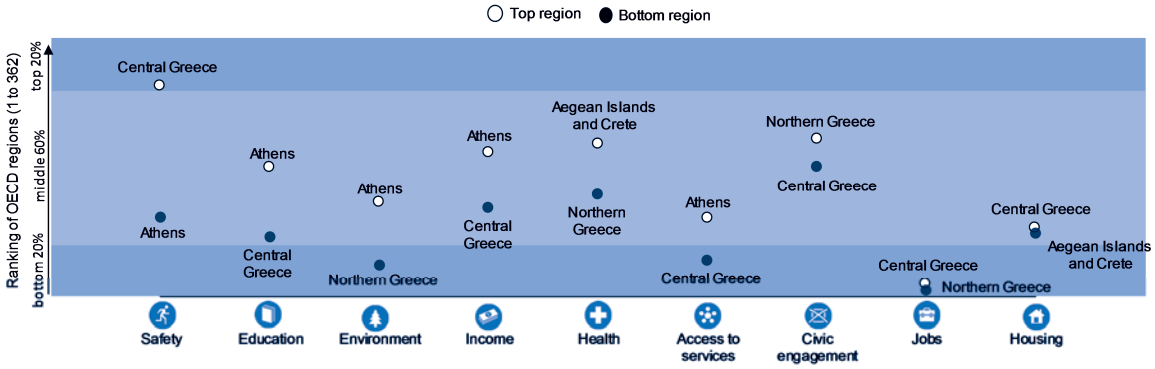
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Greece

The largest in-country regional disparities are found in the safety dimension, with Central Greece ranking in the top 20% of the OECD regions and Athens in the bottom 30%. Wide regional disparities also exist in education, the 6th largest among OECD countries. All four Greek regions are in the bottom 5% of the OECD regional ranking when it comes to jobs.

Relative performance of Greek regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Greek regions fare better than the OECD average in four of the eleven well-being indicators: homicide rate, life expectancy, labour force with a secondary degree and voters in the last elections.

In the low performing regions, the unemployment rate is 24%, three times the OECD average.

How do the top and bottom regions in Greece fare on the well-being indicators?

	Greek regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.8	2.5	1.5	4.2
Education				
Labour force with at least a secondary degree (%), 2013	80.5	61.0	70.1	74.6
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	14.1	18.6	15.8	12.3
Income				
Household disposable income per capita (in USD), 2011	17 367	13 169	14 919	18 907
Health				
Life expectancy at birth (years), 2012	81.3	80.4	80.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	8.3	9.1	8.7	8.1
Access to services				
Households with broadband access (%), 2013	60.7	37.7	50.3	67.2
Civic engagement				
Voters in last national election (%), 2013	72.8	68.2	70.8	67.7
Jobs				
Employment rate (%), 2013	54.0	50.2	52.0	66.7
Unemployment rate (%), 2013	19.3	24.3	23.0	8.0
Housing				
Rooms per person, 2012	1.2	1.2	1.2	1.8

StatLink http://dx.doi.org/10.1787/888933129429

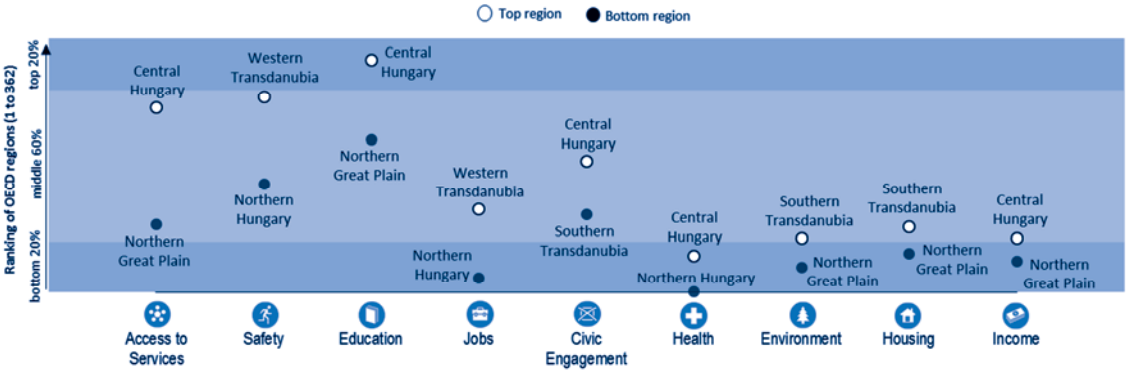
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Hungary

Hungarian regions are in the bottom 20% of the OECD regions in the health, environment and income dimensions. The largest regional disparities are found in access to services, safety and education. Central Hungary ranks in the top 20% of the OECD regions in education.

Relative performance of Hungarian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Hungarian regions fare better than the OECD average in four of the eleven well-being indicators: share of households with broadband access, homicide rate, labour force with a secondary degree and voters in the last elections. The household disposable per capita income is less than half the OECD average.

How do the top and bottom regions in Hungary fare on the well-being indicators?

	Hungarian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Access to services				
Households with broadband access (%), 2013	74.5	59.0	66.7	67.2
Safety				
Homicide rate (per 100 000 people), 2012	0.9	1.8	1.5	4.2
Education				
Labour force with at least a secondary degree (%), 2013	90.9	83.6	87.2	74.6
Jobs				
Employment rate (%), 2013	62.6	49.3	56.9	66.7
Unemployment rate (%), 2013	8.3	15.0	10.7	8.0
Civic engagement				
Voters in last national election (%), 2013	68.0	61.4	64.4	67.7
Health				
Life expectancy at birth (years), 2012	76.4	73.8	75.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	11.1	13.0	12.0	8.1
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	17.1	19.5	18.6	12.3
Housing				
Rooms per person, 2012	1.2	1.0	1.1	1.8
Income				
Household disposable income per capita (in USD), 2011	9 311	7 236	8 303	18 907

StatLink http://dx.doi.org/10.1787/888933129448

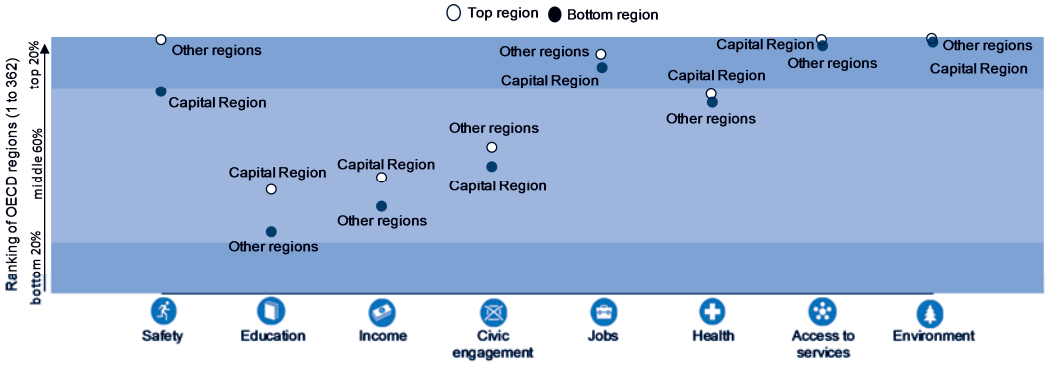
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Iceland

Both Icelandic regions are in the top 20% of OECD regions in safety, jobs, access to services and environment dimensions. Iceland's weakest well-being dimension is education.

Relative performance of Icelandic regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below. Data on housing are not available.

In Icelandic regions, well-being indicators are on average higher than in the OECD with the exception of the household disposable per capita income and the share of the labour force with at least a secondary degree for the low performing region.

How do the top and bottom regions in Iceland fare on the well-being indicators?

	Icelandic regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.0	0.8	0.6	4.2
Education				
Labour force with at least a secondary degree (%), 2013	76.1	62.1	67.0	74.6
Income				
Household disposable income per capita (in USD), 2011	15 320	13 162	14 793	18 907
Civic engagement				
Voters in last national election (%), 2013	70.3	67.7	69.3	67.7
Jobs				
Employment rate (%), 2013	80.5	78.9	80.0	66.7
Unemployment rate (%), 2013	4.6	6.9	6.2	8.0
Health				
Life expectancy at birth (years), 2012	-	-	-	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.1	7.3	7.2	8.1
Access to services				
Households with broadband access (%), 2013	93.0	91.0	92.0	67.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	2.3	2.5	2.4	12.3

StatLink http://dx.doi.org/10.1787/888933129467

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for life expectancy at birth (33 countries).

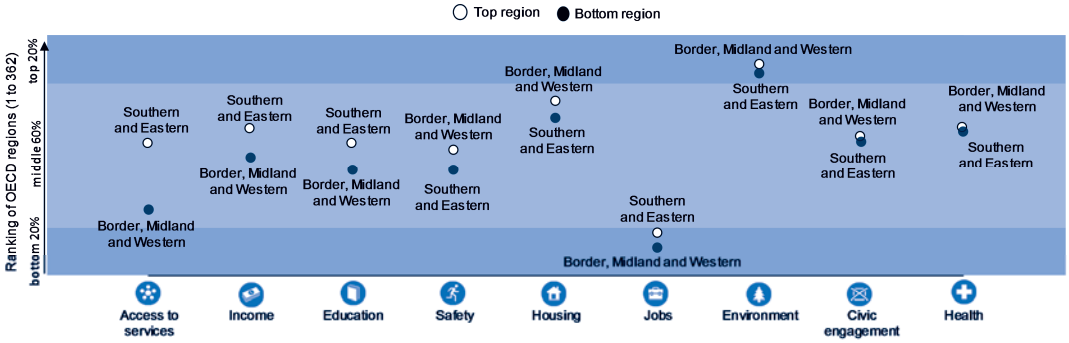
Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Ireland

The two Irish regions are in the top 20% of OECD regions in environment and in the bottom 20% in jobs.

The largest regional disparities are found in access to services: the Southern and Eastern region ranks in the top half of the OECD regions, while the Border, Midland and Western region is in the bottom quarter.

Relative performance of Irish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Irish regions outperform the other OECD regions in the labour force with at least a secondary degree, homicide rate, rooms per person, air quality, voters to the last election and mortality rates. Irish regions have lower employment and higher unemployment rates than the OECD average and the household disposable per capita income in the country is above 90% of the OECD average value.

How do the top and bottom regions in Ireland fare on the well-being indicators?

	Irish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Access to services				
Households with broadband access (%), 2013	69.0	58.7	65.7	67.2
Income				
Household disposable income per capita (in USD), 2011	18 152	16 219	17 630	18 907
Education				
Labour force with at least a secondary degree (%), 2013	81.9	77.2	80.7	74.6
Safety				
Homicide rate (per 100 000 people), 2012	1.4	1.8	1.7	4.2
Housing				
Rooms per person, 2012	2.2	2.0	2.1	1.8
Jobs				
Employment rate (%), 2013	61.8	58.2	60.9	66.7
Unemployment rate (%), 2013	13.6	15.5	14.1	8.0
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	5.0	5.7	5.6	12.3
Civic engagement				
Voters in last national election (%), 2013	70.6	69.6	69.9	67.7
Health				
Life expectancy at birth (years), 2012	81.1	80.9	81.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	8.0	8.0	8.2	8.1

StatLink http://dx.doi.org/10.1787/888933129486

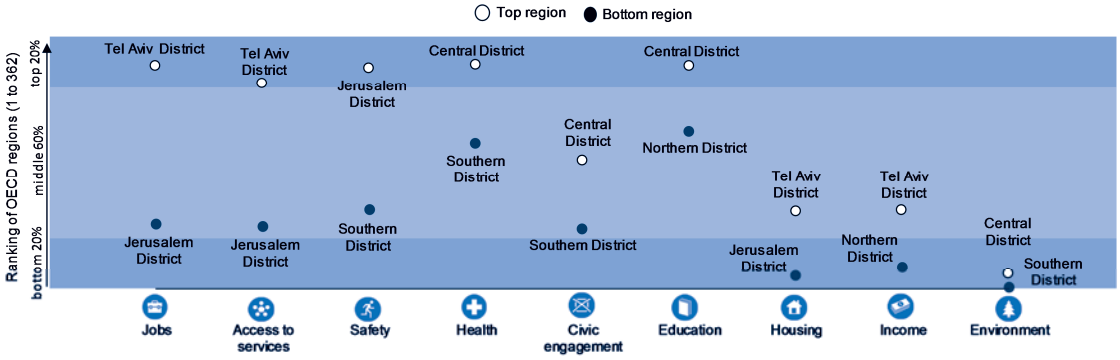
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Israel

In 5 out of 9 well-being dimensions, Israel has at least one region that ranks in the top 20% of the OECD regions. The Tel Aviv District is the top Israeli region in jobs, access to services, housing and income. The largest regional disparities in Israel are in jobs, access to services and safety. All of the Israeli regions rank in the bottom 10% of the OECD regions in environment.

Relative performance of Israeli regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Israeli regions fare better than the OECD average in all of the well-being indicators except the number of rooms per person, household disposable per capita income and air pollution. In the low performing regions the household disposable per capita income is around one-third the OECD average value.

How do the top and bottom regions in Israel fare on the well-being indicators?

	Israeli regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	76.3	55.7	67.8	66.7
Unemployment rate (%), 2013	5.3	8.0	6.2	8.0
Access to services				
Households with broadband access (%), 2013	78.8	58.0	70.4	67.2
Safety				
Homicide rate (per 100 000 people), 2012	0.9	2.4	1.9	4.2
Health				
Life expectancy at birth (years), 2012	82.5	80.5	81.8	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.8	8.0	7.2	8.1
Civic engagement				
Voters in last national election (%), 2013	68.0	58.8	67.8	67.7
Education				
Labour force with at least a secondary degree (%), 2013	90.7	83.8	88.6	74.6
Housing				
Rooms per person, 2012	1.2	0.9	1.1	1.8
Income				
Household disposable income per capita (in USD), 2011	11 669	6 166	8 807	18 907
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	21.4	24.5	22.7	12.3

StatLink http://dx.doi.org/10.1787/888933129505

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

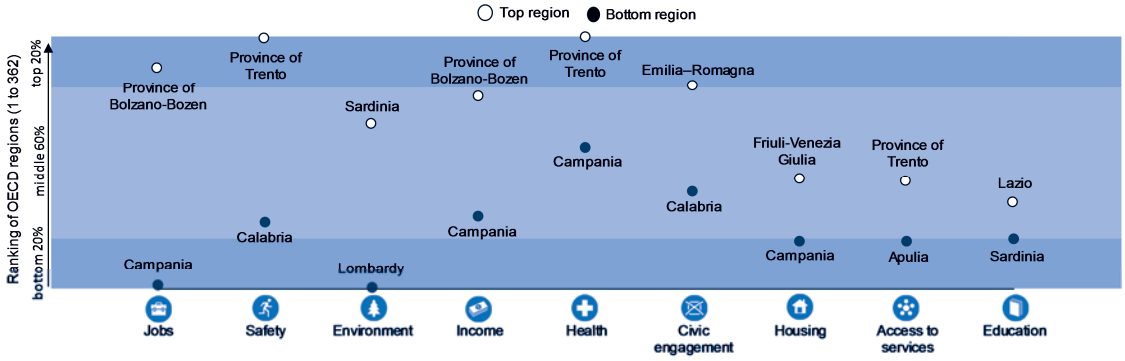
Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Italy

In 4 out of the 9 well-being dimensions, Italy has at least one region ranking in the top 20% of the OECD regions, and in 5 out of the 9 well-being dimensions, one region in the bottom 20%. Italy has the largest regional disparities among the OECD countries in the jobs dimension, with Campania ranking in the bottom 1% and the Province of Bolzano in the top 15% of the OECD regions. Wide regional differences are found also in safety, environment and income.

Relative performance of Italian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Italian regions fare better than the OECD average in all of the well-being indicators, except for the number of rooms per person, the households with broadband access and the share of labour force with a secondary degree. In the low performing regions, the unemployment rate is double the OECD average.

How do the top and bottom regions in Italy fare on the well-being indicators?

	Italian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	69.3	42.1	58.3	66.7
Unemployment rate (%), 2013	6.2	17.8	10.4	8.0
Safety				
Homicide rate (per 100 000 people), 2012	0.4	1.4	0.9	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	9.8	24.1	16.7	12.3
Income				
Household disposable income per capita (in USD), 2011	19 713	11 794	16 350	18 907
Health				
Life expectancy at birth (years), 2012	83.4	81.4	82.4	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.6	7.6	6.7	8.1
Civic engagement				
Voters in last national election (%), 2013	81.4	66.2	75.2	67.7
Housing				
Rooms per person, 2012	1.5	1.2	1.4	1.8
Access to services				
Households with broadband access (%), 2013	63.3	48.9	58.3	67.2
Education				
Labour force with at least a secondary degree (%), 2013	72.2	57.4	64.6	74.6

StatLink http://dx.doi.org/10.1787/888933129524

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

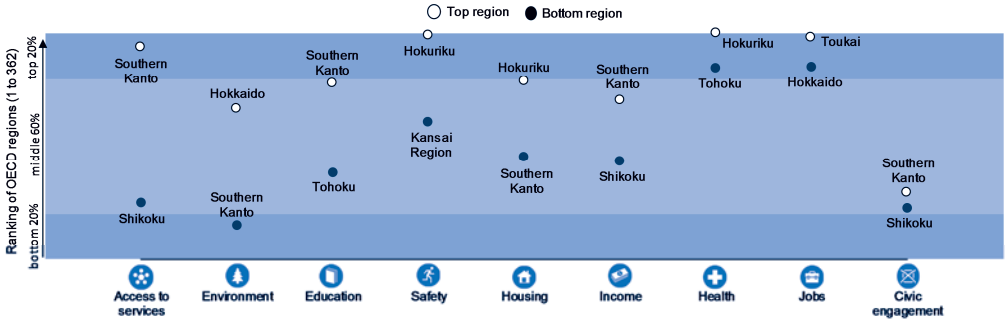
Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Japan

All Japanese regions rank among the top 20% OECD regions in health and jobs. Southern Kanto is the top Japanese region in access to services, education, income and civic engagement, but the last one in environment and housing.

Japan has the sixth largest regional disparities in access to services and environment among OECD countries.

Relative performance of Japanese regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Even the low performing Japanese regions fare better than the OECD average in life expectancy, labour force with at least a secondary degree, employment, homicides, mortality rates and unemployment.

Voter turnout is comparatively low in Japan: The best performing regions are below the OECD average and closer to the values of Canada and Portugal.

How do the top and bottom regions in Japan fare on the well-being indicators?

	Japanese regions		Country average	OECD average
	Top 20%	Bottom 20%		
Access to services				
Households with broadband access (%), 2013	83.2	57.8	72.5	67.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	10.1	17.5	14.2	12.3
Education				
Labour force with at least a secondary degree (%), 2013	85.7	74.9	81.2	74.6
Safety				
Homicide rate (per 100 000 people), 2012	0.6	1.1	0.8	4.2
Housing				
Rooms per person, 2012	2.3	1.8	1.9	1.8
Income				
Household disposable income per capita (in USD), 2011	19 031	15 088	17 038	18 907
Health				
Life expectancy at birth (years), 2012	83.1	82.4	82.8	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.0	6.6	6.2	8.1
Jobs				
Employment rate (%), 2013	82.1	75.2	78.5	66.7
Unemployment rate (%), 2013	3.5	4.9	4.3	8.0
Civic engagement				
Voters in last national election (%), 2013	60.5	58.1	59.3	67.7

StatLink http://dx.doi.org/10.1787/888933129543

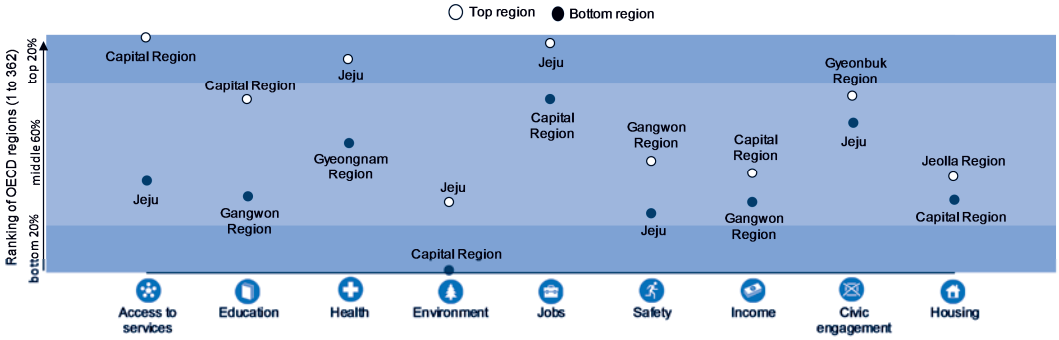
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Korea

Korea's largest regional disparities are in the access to services dimension, the fifth largest among OECD countries, with the Capital Region ranking in the top 5% of the OECD regions and Jeju in the bottom 40%. Korean regions perform well in the jobs dimension: all of them rank in the top 30% of OECD regions.

Relative performance of Korean regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Korean regions outperform in the well-being indicators related to labour market outcomes. Even in the low performing regions, the unemployment rate is less than 4%, half the OECD average value. The high performing regions fare better than the OECD average in 8 out of 11 of the well-being indicators, except in air pollution, household disposable income and number of rooms per person.

How do the top and bottom regions in Korea fare on the well-being indicators?

	Korean regions		Country average	OECD average
	Top 20%	Bottom 20%		
Access to services				
Households with broadband access (%), 2013	94.6	66.9	94.0	67.2
Education				
Labour force with at least a secondary degree (%), 2013	85.2	71.4	80.7	74.6
Health				
Life expectancy at birth (years), 2012	82.0	80.3	81.3	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.0	7.9	7.3	8.1
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	16.0	27.2	23.8	12.3
Jobs				
Employment rate (%), 2013	72.0	65.7	67.5	66.7
Unemployment rate (%), 2013	2.1	3.7	3.2	8.0
Safety				
Homicide rate (per 100 000 people), 2012	1.7	2.7	2.2	4.2
Income				
Household disposable income per capita (in USD), 2011	14 184	12 037	13 546	18 907
Civic engagement				
Voters in last national election (%), 2013	77.7	73.9	75.8	67.7
Housing				
Rooms per person, 2012	1.5	1.5	1.3	1.8

StatLink http://dx.doi.org/10.1787/888933129562

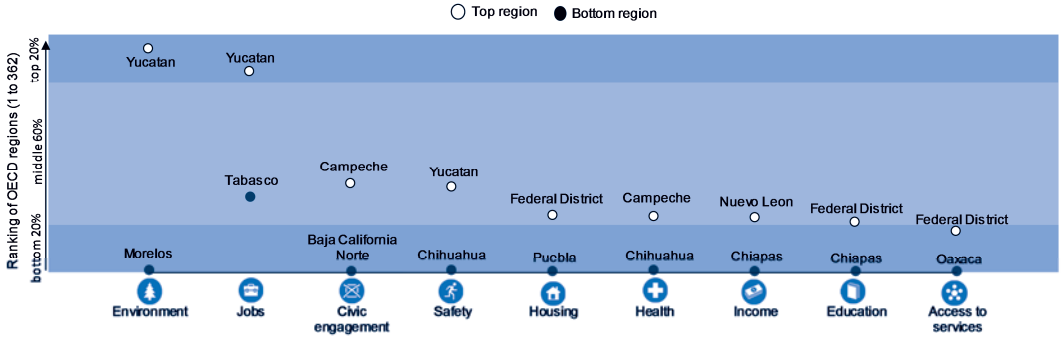
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Mexico

The largest regional disparities in Mexico are found in the environment dimension: Morelos ranks in the bottom 5% of the OECD regions, while Yucatan is in the top 10%. In international comparisons, wide regional disparities also exist in jobs, civic engagement and safety. Yucatan is the top Mexican state in environment, jobs and safety. In 8 well-being dimensions, the worst performing Mexican region is in the bottom 20% of the OECD regional ranking.

Relative performance of Mexican regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Mexican regions fare better than the OECD average in air quality, employment and unemployment rates and worse in the other 8 well-being indicators. The homicide rate, household disposable income, access to broadband connection and share of labour force with at least a secondary degree are the well-being indicators where the gap between Mexican regions and the OECD average is the largest.

How do the top and bottom regions in Mexico fare on the well-being indicators?

	Mexican regions		Country average	OECD average
	Top 20%	Bottom 20%		
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	5.1	15.8	11.5	12.3
Jobs				
Employment rate (%), 2013	68.2	59.9	63.8	66.7
Unemployment rate (%), 2013	2.7	6.3	5.0	8.0
Civic engagement				
Voters in last national election (%), 2013	55.2	32.9	44.6	67.7
Safety				
Homicide rate (per 100 000 people), 2012	5.2	62.4	22.9	4.2
Housing				
Rooms per person, 2012	1.1	0.8	1.0	1.8
Health				
Life expectancy at birth (years), 2012	75.1	72.8	74.2	79.5
Age adjusted mortality rate (per 1 000 people), 2012	9.3	11.2	10.2	8.1
Income				
Household disposable income per capita (in USD), 2011	9 118	4 372	6 554	18 907
Education				
Labour force with at least a secondary degree (%), 2013	50.5	30.0	40.0	74.6
Access to services				
Households with broadband access (%), 2013	39.7	12.4	25.0	67.2

StatLink http://dx.doi.org/10.1787/888933129600

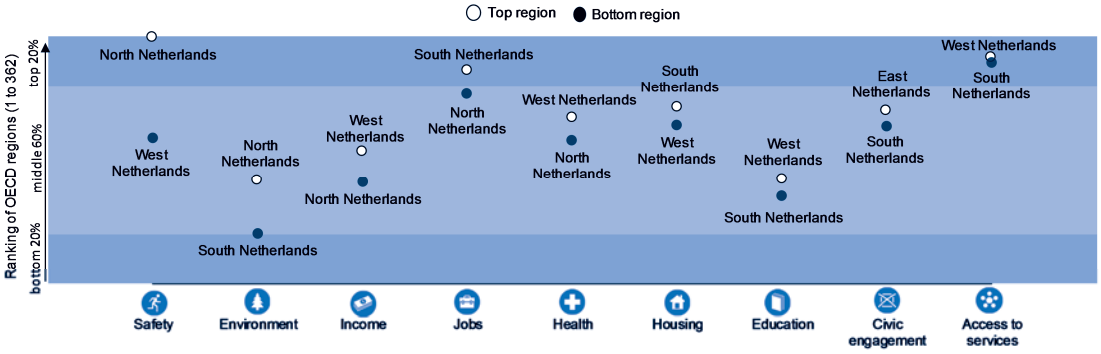
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Netherlands

The widest regional disparities in the Netherlands are found in the safety dimension, with the North Netherlands ranking in the top 13% of the OECD regions and the West Netherlands at the median value. All four Dutch regions rank in the top 15% in access to services. The South Netherlands region is the top Dutch region in jobs and housing, but the last one in environment, education, civic engagement and access to services.

Relative performance of Dutch regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Dutch regions fare better than the OECD average in 9 of the 11 well-being indicators, except household disposable income and air pollution. In the low performing regions, 83% of households have access to broadband connection, 16 percentage points higher than the OECD average.

How do the top and bottom regions in the Netherlands fare on the well-being indicators?

	Dutch regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.4	1.2	0.9	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	12.7	16.9	15.8	12.3
Income				
Household disposable income per capita (in USD), 2011	16 997	13 927	16 150	18 907
Jobs				
Employment rate (%), 2013	76.0	73.6	75.4	66.7
Unemployment rate (%), 2013	5.0	6.1	5.5	8.0
Health				
Life expectancy at birth (years), 2012	81.4	80.8	81.2	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.8	8.1	7.9	8.1
Housing				
Rooms per person, 2012	2.1	2.0	2.0	1.8
Education				
Labour force with at least a secondary degree (%), 2013	76.7	73.5	75.2	74.6
Civic engagement				
Voters in last national election (%), 2013	76.7	73.4	75.4	67.7
Access to services				
Households with broadband access (%), 2013	85.0	83.3	84.7	67.2

StatLink http://dx.doi.org/10.1787/888933129619

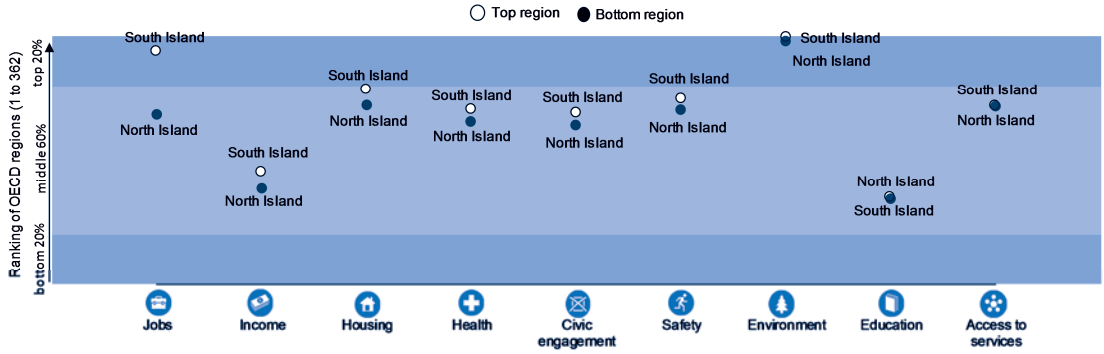
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

New Zealand

New Zealand is the strongest performing OECD country in environment, with its two regions in the top 5% of OECD regional ranking. The New Zealander regions perform relatively well in every well-being dimension, the weakest being education and income. The largest disparities among the two regions are found in the jobs dimension, with South Island ranking in the top 10% of the OECD regions and North Island in the top 30%.

Relative performance of New Zealander regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high and low performing regions in New Zealand fare better than the OECD average in all the well-being indicators, except for household income and the share of labour force with at least a secondary degree. New Zealander regions do particularly well in terms of air pollution, murder rate and access to broadband connection.

How do the top and bottom regions in New Zealand fare on the well-being indicators?

	New Zealander regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	85.7	71.8	75.1	66.7
Unemployment rate (%), 2013	5.0	7.1	6.5	8.0
Income				
Household disposable income per capita (in USD), 2011	15 435	13 768	14 164	18 907
Housing				
Rooms per person, 2012	2.2	2.1	2.1	1.8
Health				
Life expectancy at birth (years), 2012	81.5	81.2	81.2	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.7	7.9	7.8	8.1
Civic engagement				
Voters in last national election (%), 2013	75.9	73.6	74.2	67.7
Safety				
Homicide rate (per 100 000 people), 2012	0.9	1.0	1.0	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	2.1	2.4	2.3	12.3
Education				
Labour force with at least a secondary degree (%), 2013	73.4	72.8	73.3	74.6
Access to services				
Households with broadband access (%), 2013	75.0	75.0	75.0	67.2

StatLink http://dx.doi.org/10.1787/888933129638

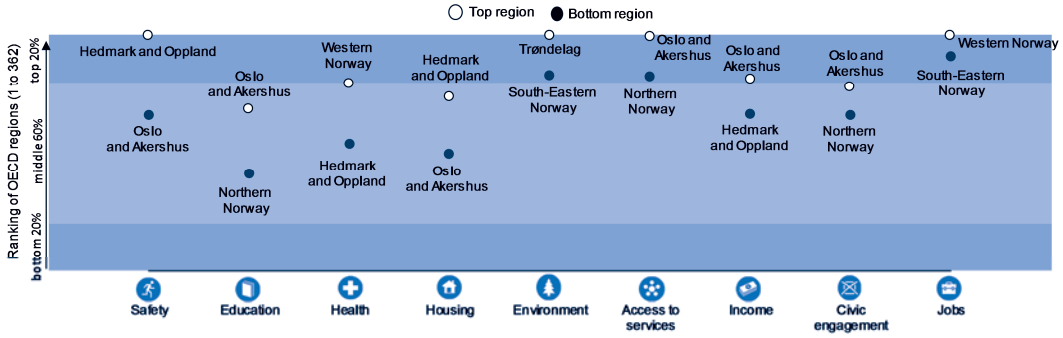
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Norway

All the Norwegian regions are in the top 20% of the OECD regions in the environment, access to services and jobs dimensions. At least one Norwegian region is in the top 20% of OECD regions in every well-being dimension other than education and housing. The country's largest regional disparities are found in the safety dimension: the Hedmark and Oppland region is in the top 15% of the OECD ranking, while the Oslo and Akershus region is in the top 40%.

Relative performance of Norwegian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Norwegian regions perform better than the OECD average in all of the well-being indicators.

In the high performing Norwegian regions, the share of labour force with at least a secondary degree is 85%, 10 percentage points higher than the OECD average. Household disposable income in the low performing regions is similar to the OECD average.

How do the top and bottom regions in Norway fare on the well-being indicators?

	Norwegian regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.3	1.0	0.6	4.2
Education				
Labour force with at least a secondary degree (%), 2013	84.8	76.8	81.2	74.6
Health				
Life expectancy at birth (years), 2012	81.9	80.7	81.4	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.3	8.1	7.7	8.1
Housing				
Rooms per person, 2012	2.1	1.8	2.0	1.8
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	3.0	6.0	4.8	12.3
Access to services				
Households with broadband access (%), 2013	88.1	81.1	84.7	67.2
Income				
Household disposable income per capita (in USD), 2011	22 214	18 992	20 421	18 907
Civic engagement				
Voters in last national election (%), 2013	80.5	74.7	78.2	67.7
Jobs				
Employment rate (%), 2013	79.9	75.5	78.1	66.7
Unemployment rate (%), 2013	2.8	3.6	3.2	8.0

StatLink http://dx.doi.org/10.1787/888933129657

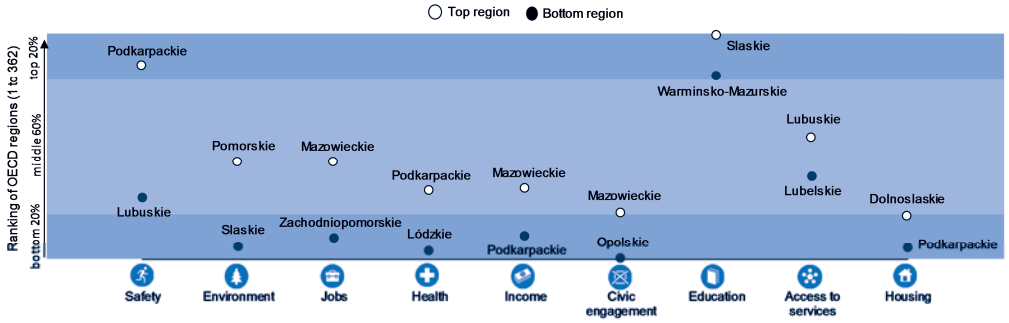
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Poland

Polish regions are all in the top 20% of the OECD regional ranking in the education dimension, and in the bottom 20% in the housing dimension. The largest regional disparities are in the safety dimension, with Podkarpackie ranking in the top 15% of the OECD regions and Lubuskie in the bottom 27%. Large disparities also exist in environment and jobs. At least one Polish region is in the bottom 20% of the OECD regions in the environment, jobs, health, income, civic engagement and housing dimensions.

Relative performance of Polish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Both in the high and low performing Polish regions, the share of labour force with at least a secondary degree is at least 15 percentage points higher than the OECD average. The high performing Polish regions fare worse than the OECD average in the well-being indicators related to material conditions: Employment and unemployment rates, household disposable income and number of rooms per person; also air pollution and health outcomes are worse than the OECD average.

How do the top and bottom regions in Poland fare on the well-being indicators?

	Polish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	1.0	2.5	1.8	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	13.5	20.6	17.7	12.3
Jobs				
Employment rate (%), 2013	66.1	47.9	56.9	66.7
Unemployment rate (%), 2013	8.4	12.5	10.0	8.0
Health				
Life expectancy at birth (years), 2012	78.0	75.7	76.8	79.5
Age adjusted mortality rate (per 1 000 people), 2012	9.8	11.1	10.5	8.1
Income				
Household disposable income per capita (in USD), 2011	10 914	7 334	9 274	18 907
Civic engagement				
Voters in last national election (%), 2013	53.4	42.5	48.9	67.7
Education				
Labour force with at least a secondary degree (%), 2013	94.2	89.6	92.4	74.6
Access to services				
Households with broadband access (%), 2013	68.5	62.7	65.7	67.2
Housing				
Rooms per person, 2012	1.1	0.9	1.0	1.8

StatLink http://dx.doi.org/10.1787/888933129676

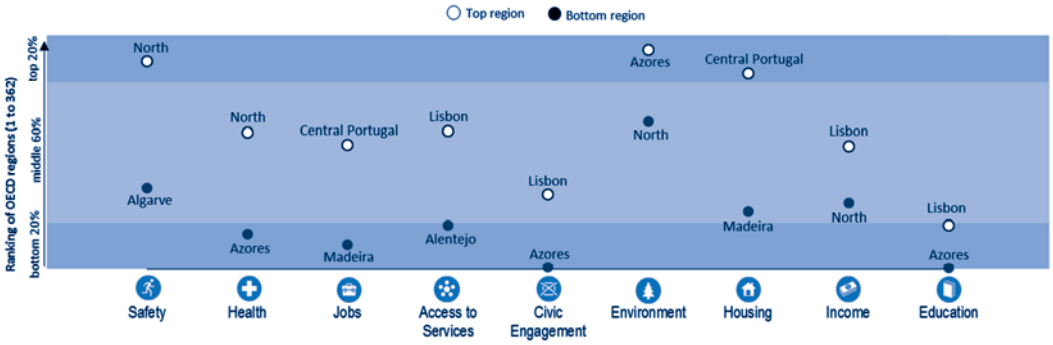
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Portugal

The largest regional disparities are found in the safety and health dimensions: regarding the former, Alentejo ranks in the top 20% of the OECD regions, while Lisbon is in the bottom 25%. At least one Portuguese region ranks in the top 20% of the OECD regions in safety, environment and housing; and at least one region is in the bottom 20% of the OECD regions in health, jobs, access to services, civic engagement and education.

Relative performance of Portuguese regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Portuguese regions fare better than the OECD average in all of the well-being indicators, except unemployment rate, voters in the last election, household disposable income and labour force with at least a secondary degree. In the high performing regions, 52% of the labour force has a secondary degree, 23 percentage points below the OECD average.

How do the top and bottom regions in Portugal fare on the well-being indicators?

	Portuguese regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.7	2.2	1.1	4.2
Health				
Life expectancy at birth (years), 2012	80.8	77.0	80.4	79.5
Age adjusted mortality rate (per 1 000 people), 2012	8.1	11.1	8.3	8.1
Jobs				
Employment rate (%), 2013	74.1	59.2	67.1	66.7
Unemployment rate (%), 2013	11.5	16.8	14.9	8.0
Access to services				
Households with broadband access (%), 2013	70.1	51.2	59.7	67.2
Civic engagement				
Voters in last national election (%), 2013	61.0	44.7	58.0	67.7
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	3.8	9.2	8.1	12.3
Housing				
Rooms per person, 2012	2.1	1.7	1.9	1.8
Income				
Household disposable income per capita (in USD), 2011	16 710	11 426	13 231	18 907
Education				
Labour force with at least a secondary degree (%), 2013	51.7	31.0	41.1	74.6

StatLink http://dx.doi.org/10.1787/888933129695

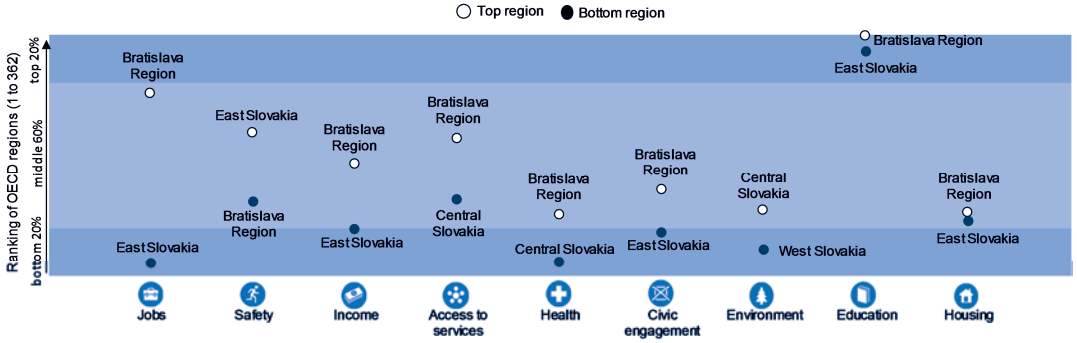
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Slovak Republic

All the Slovak regions are in the top 20% of the OECD regions in the education dimension. The Slovak Republic has the widest regional disparities in the jobs dimension, with the Bratislava region ranking in the top 25% of the OECD regions and the East Slovakia region in the bottom 5%. The Bratislava region is the top Slovak region in all well-being dimensions except for safety, where it is the last one, and environment.

Relative performance of Slovak regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Slovak regions fare better than the OECD average in 5 out of the 11 well-being indicators: employment and unemployment rates, homicide rate, households with broadband access and labour force with at least a secondary degree. In the low performing regions, household disposable per capita income is around USD 8 500 half the value in the high performing regions.

How do the top and bottom regions in Slovak Republic fare on the well-being indicators?

	Slovak regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	72.3	54.3	59.9	66.7
Unemployment rate (%), 2013	6.0	18.7	13.9	8.0
Safety				
Homicide rate (per 100 000 people), 2012	1.2	2.5	1.7	4.2
Income				
Household disposable income per capita (in USD), 2011	15 643	8 571	10 215	18 907
Access to services				
Households with broadband access (%), 2013	69.7	61.0	65.7	67.2
Health				
Life expectancy at birth (years), 2012	77.6	75.6	76.0	79.5
Age adjusted mortality rate (per 1 000 people), 2012	10.4	11.9	11.6	8.1
Civic engagement				
Voters in last national election (%), 2013	62.1	55.4	59.1	67.7
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	15.5	19.0	17.5	12.3
Education				
Labour force with at least a secondary degree (%), 2013	96.2	92.0	94.2	74.6
Housing				
Rooms per person, 2012	1.2	1.1	1.2	1.8

StatLink http://dx.doi.org/10.1787/888933129714

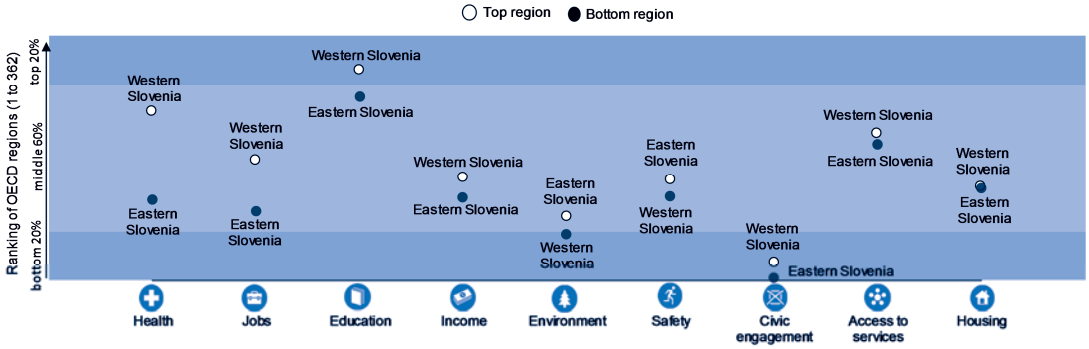
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Slovenia

The two Slovenian regions are in the top 30% of the OECD regions in the education dimension and in the bottom 20% in the civic engagement dimension. The widest disparities between the two regions are found in the health and jobs dimensions; with regards to the health dimension, Western Slovenia is in the top third of the OECD regions, while Eastern Slovenia is in the bottom third.

Relative performance of Slovenian regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Most of the well-being indicators in Slovenia have values similar to the OECD average. Slovenian regions outperform the OECD average in the share of labour force with at least a secondary degree and the households with broadband connection. On the other hand, Slovenian regions fare worse than the OECD average in the number of voters in the last election, air pollution and household disposable per capita income.

How do the top and bottom regions in Slovenia fare on the well-being indicators?

	Slovenia regions		Country average	OECD average
	Top 20%	Bottom 20%		
Health				
Life expectancy at birth (years), 2012	81.4	79.1	80.1	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.7	9.3	8.5	8.1
Jobs				
Employment rate (%), 2013	66.7	63.8	65.1	66.7
Unemployment rate (%), 2013	7.8	10.2	9.0	8.0
Education				
Labour force with at least a secondary degree (%), 2013	90.0	86.2	88.0	74.6
Income				
Household disposable income per capita (in USD), 2011	14 534	12 965	13 702	18 907
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	15.8	17.3	16.5	12.3
Safety				
Homicide rate (per 100 000 people), 2012	1.9	2.3	2.1	4.2
Civic engagement				
Voters in last national election (%), 2013	44.7	40.1	42.4	67.7
Access to services				
Households with broadband access (%), 2013	71.0	69.0	70.0	67.2
Housing				
Rooms per person, 2012	1.4	1.4	1.4	1.8

StatLink http://dx.doi.org/10.1787/888933129733

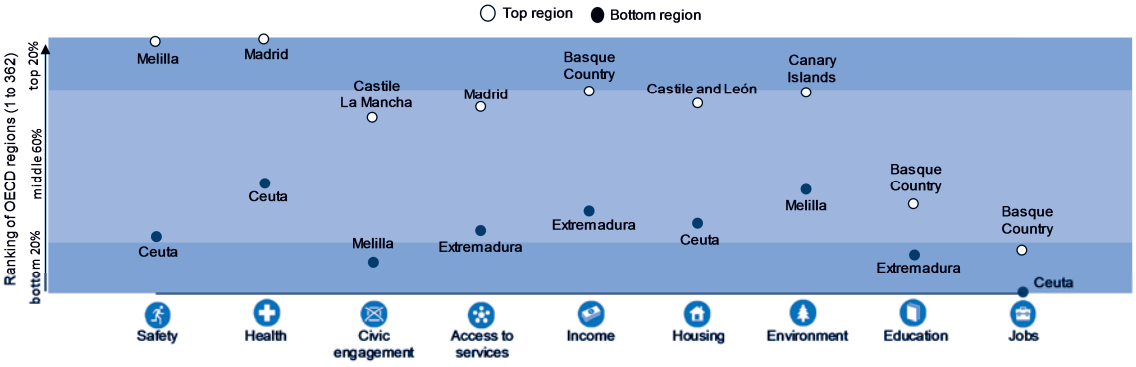
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Spain

Disparities among regions are large in Spain, particularly in the safety, health and civic engagement dimensions. At least one Spanish region ranks in the top 20% of the OECD regions in the safety, health, income and environment dimensions, and at least one Spanish region ranks in the bottom 20% in civic engagement, education and jobs. All Spanish regions rank in the bottom 20% of the OECD regions in the jobs dimension.

Relative performance of Spanish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Spanish regions fare better than the OECD average in 8 out of the 11 well-being indicators, except in employment rate, unemployment rate and labour force with a secondary degree. The unemployment rate in the high performing Spanish regions is 17%, twice the OECD average. In the low performing regions, life expectancy at birth is 2 years higher than the OECD average.

How do the top and bottom regions in Spain fare on the well-being indicators?

	Spanish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Safety				
Homicide rate (per 100 000 people), 2012	0.5	1.1	0.9	4.2
Health				
Life expectancy at birth (years), 2012	83.8	81.1	82.4	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.2	7.9	7.0	8.1
Civic engagement				
Voters in last national election (%), 2013	74.5	59.6	68.9	67.7
Access to services				
Households with broadband access (%), 2013	72.5	59.8	66.0	67.2
Income				
Household disposable income per capita (in USD), 2011	19 349	12 936	16 057	18 907
Housing				
Rooms per person, 2012	2.1	1.7	1.9	1.8
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	7.2	11.6	10.0	12.3
Education				
Labour force with at least a secondary degree (%), 2013	71.4	49.2	58.4	74.6
Jobs				
Employment rate (%), 2013	61.8	46.6	55.3	66.7
Unemployment rate (%), 2013	17.2	33.3	24.3	8.0

StatLink http://dx.doi.org/10.1787/888933129752

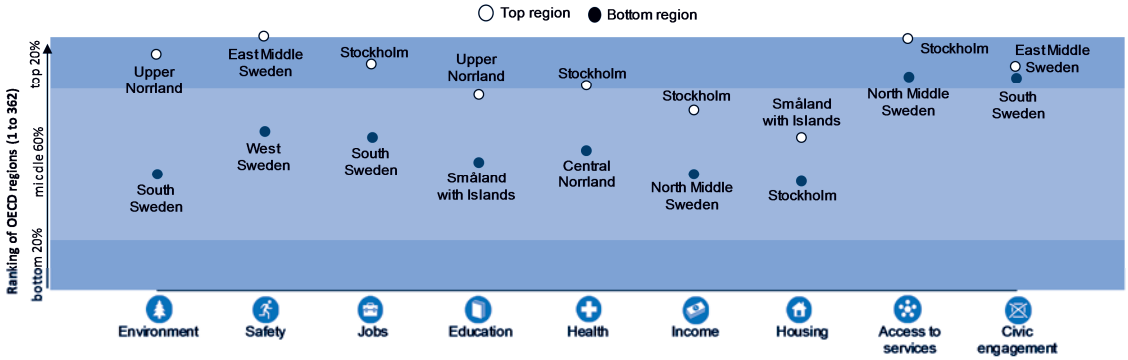
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Sweden

All Swedish regions rank in the top 20% of the OECD regions in the civic engagement and access to services dimensions. Regional disparities are generally low, the widest ones being in environment. The country has at least one region that ranks in the top 20% of the OECD regions in 6 out of 9 well-being dimensions: environment, safety, jobs, health, access to services and civic engagement.

Relative performance of Swedish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

High and low performing Swedish regions fare better than the OECD average in all of the well-being indicators, except the household disposable per capita income and the unemployment rate in the low performing regions. About 90% of households in the high performing regions and 82% in the low performing ones have access to broadband connection.

How do the top and bottom regions in Sweden fare on the well-being indicators?

	Swedish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population(µg/m³), 2012	3.6	10.1	7.2	12.3
Safety				
Homicide rate (per 100 000 people), 2012	0.5	1.1	0.9	4.2
Jobs				
Employment rate (%), 2013	78.8	73.8	76.3	66.7
Unemployment rate (%), 2013	6.9	9.3	8.0	8.0
Education				
Labour force with at least a secondary degree (%), 2013	85.7	81.1	83.1	74.6
Health				
Life expectancy at birth (years), 2012	82.1	81.0	81.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.2	8.1	7.5	8.1
Income				
Household disposable income per capita (in USD), 2011	18 732	15 562	16 989	18 907
Housing				
Rooms per person, 2012	1.9	1.6	1.7	1.8
Access to services				
Households with broadband access (%), 2013	89.3	81.8	86.5	67.2
Civic engagement				
Voters in last national election (%), 2013	85.3	83.4	84.6	67.7

StatLink http://dx.doi.org/10.1787/888933129771

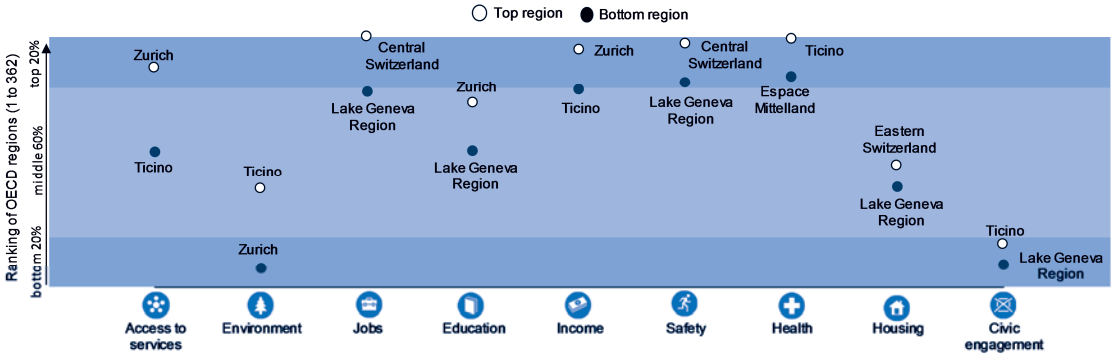
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Switzerland

All Swiss regions rank in the top 20% of the OECD regions in the jobs, income, safety and health dimensions, and in the bottom 20% in the civic engagement dimension. The largest regional disparities are in access to services and environment between the regions of Zurich and Ticino.

Relative performance of Swiss regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Both high and low performing Swiss regions fare better than the OECD average in all of the well-being indicators, except for air pollution, voters in the last election and, for the low performing regions, number of rooms per person.

The employment rate is 75% in the low performing Swiss regions, 8 percentage points above the OECD average.

How do the top and bottom regions in Switzerland fare on the well-being indicators?

	Swiss regions		Country average	OECD average
	Top 20%	Bottom 20%		
Access to services				
Households with broadband access (%), 2013	83.0	75.8	81.0	67.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	14.3	19.5	16.4	12.3
Jobs				
Employment rate (%), 2013	84.7	75.3	81.8	66.7
Unemployment rate (%), 2013	2.9	6.5	4.2	8.0
Education				
Labour force with at least a secondary degree (%), 2013	86.0	81.9	83.8	74.6
Income				
Household disposable income per capita (in USD), 2011	30 571	22 657	26 403	18 907
Safety				
Homicide rate (per 100 000 people), 2012	0.4	0.7	0.6	4.2
Health				
Life expectancy at birth (years), 2012	83.3	82.3	82.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	6.5	7.0	6.8	8.1
Housing				
Rooms per person, 2012	1.8	1.5	1.7	1.8
Civic engagement				
Voters in last national election (%), 2013	53.5	46.7	48.3	67.7

StatLink http://dx.doi.org/10.1787/888933129790

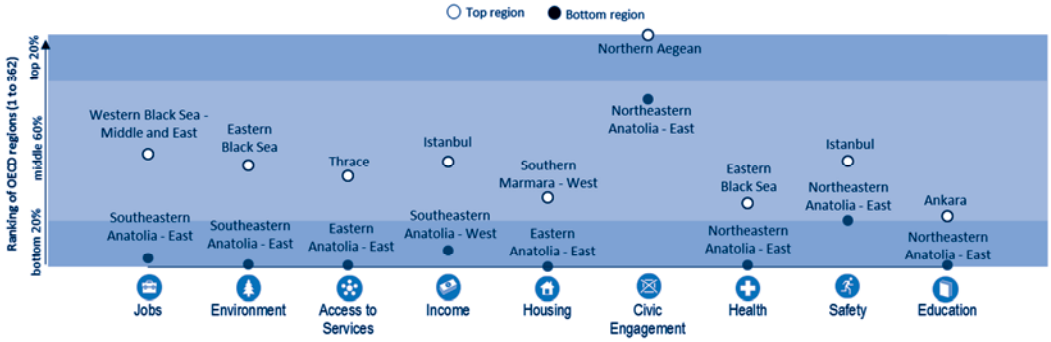
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

Turkey

All Turkish regions rank in the top 30% of the OECD regions in the civic engagement dimension, due to a compulsory voting system. Large regional disparities are found in jobs, environment, access to services and income. In 6 out of 9 well-being dimensions, Turkey has at least one region that ranks in the bottom 5% of the OECD regional ranking: these are jobs, environment, access to services, health, housing and education.

Relative performance of Turkish regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing Turkish regions fare better than the OECD average in unemployment rate, voters in the last election and homicide rate. In the high performing regions, 48% of the labour force has at least a secondary degree, 26 percentage points below the OECD average and life expectancy at birth is 75 years, 4 years less than the OECD average.

How do the top and bottom regions in Turkey fare on the well-being indicators?

	Turkish regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	59.6	39.6	49.3	66.7
Unemployment rate (%), 2013	4.9	11.5	8.6	8.0
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	14.3	23.4	18.3	12.3
Access to services				
Households with broadband access (%), 2013	60.8	23.9	46.0	67.2
Income				
Household disposable income per capita (in USD), 2011	14 445	6 423	11 517	18 907
Housing				
Rooms per person, 2012	1.1	0.6	1	1.8
Civic engagement				
Voters in last national election (%), 2013	90.0	82.5	87.6	67.7
Health				
Life expectancy at birth (years), 2012	75.4	72.8	74.5	79.5
Age adjusted mortality rate (per 1 000 people), 2012	9.3	11.0	10.1	8.1
Safety				
Homicide rate (per 100 000 people), 2012	1.8	3.3	2.4	4.2
Education				
Labour force with at least a secondary degree (%), 2013	48.3	25.3	38.3	74.6

StatLink http://dx.doi.org/10.1787/888933129809

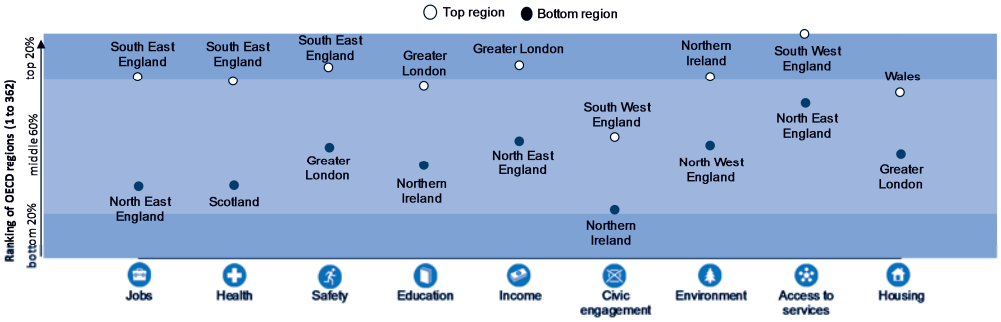
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

United Kingdom

In 6 out of 9 well-being dimensions, at least one British region ranks in the top 20% of the OECD regions. South East England is the top British region in the jobs, health and safety dimensions. The Greater London region is the top region in income and education, but the last one in safety and housing. The largest regional disparities are found in the jobs dimension, with the South East England ranking in the top 20% of OECD regions and North East England in the bottom 30%.

Relative performance of British regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

The high performing British regions fare better than the OECD average in all of the well-being indicators. The disposable income per capita is around USD 37 000, twice the OECD average value.

In the low performing regions, the percentage of voters in the last election was about 56%, 12 percentage points below the OECD average, while the share of labour force with at secondary degree is 7 percentage points above the OECD average.

How do the top and bottom regions in United Kingdom fare on the well-being indicators?

	British regions		Country average	OECD average
	Top 20%	Bottom 20%		
Jobs				
Employment rate (%), 2013	76.8	63.6	67.7	66.7
Unemployment rate (%), 2013	5.3	9.8	8.1	8.0
Health				
Life expectancy at birth (years), 2012	80.7	76.0	78.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.5	10.1	8.5	8.1
Safety				
Homicide rate (per 100 000 people), 2012	1.9	7.0	4.7	4.2
Education				
Labour force with at least a secondary degree (%), 2013	91.3	82.2	86.0	74.6
Income				
Household disposable income per capita (in USD), 2011	36 834	24 952	30 183	18 907
Civic engagement				
Voters in last national election (%), 2013	71.0	55.6	68.0	67.7
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	4.8	11.0	8.3	12.3
Access to services				
Households with broadband access (%), 2013	75.2	57.2	72.0	67.2
Housing				
Rooms per person, 2012	2.8	2.1	2.4	1.8

StatLink http://dx.doi.org/10.1787/888933129828

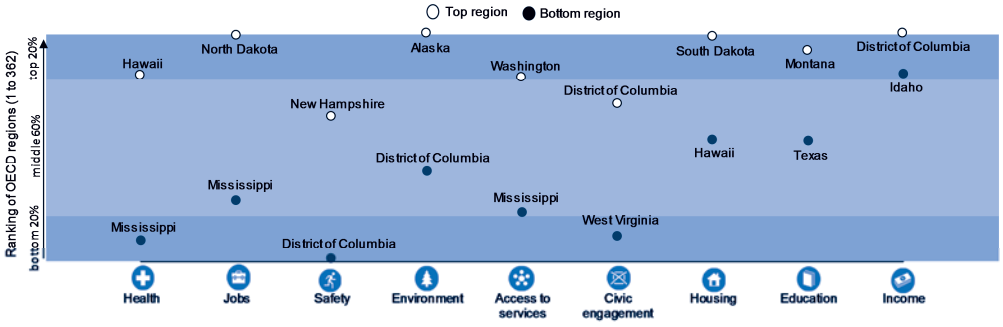
Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database, http://dx.doi.org/10.1787/region-data-en; www.oecdregionalwellbeing.org.

United States

All American regions rank in the top 20% of the OECD regions in the income dimension. In every well-being dimension other than civic engagement and safety, the country has at least one region in the top 20% of the OECD regions. The largest regional disparities are found in the health dimension, the third largest among OECD countries: while Hawaii ranks in the top 20% of OECD regions, Mississippi is in the bottom 10%. Wide disparities are also found in jobs, safety, environment, access to services and civic engagement.

Relative performance of American regions by well-being dimensions



Note: Relative ranking of the regions with the best and worst outcomes in the 9 well-being dimensions, with respect to all 362 OECD regions. The nine dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

In the high performing American regions, disposable income per capita is above USD 36 000 and 91% of the labour force has at least a secondary degree. In the low performing regions, homicide rate is almost double the OECD average and 57% of households have access to broadband connection, 10 percentage points below the OECD average.

How do the top and bottom regions in the United States fare on the well-being indicators?

	American regions		Country average	OECD average
	Top 20%	Bottom 20%		
Health				
Life expectancy at birth (years), 2012	80.7	76.0	78.7	79.5
Age adjusted mortality rate (per 1 000 people), 2012	7.5	10.1	8.5	8.1
Jobs				
Employment rate (%), 2013	76.8	63.6	67.7	66.7
Unemployment rate (%), 2013	5.3	9.8	8.1	8.0
Safety				
Homicide rate (per 100 000 people), 2012	1.9	7.0	4.7	4.2
Environment				
Level of air pollution ($PM_{2.5}$) experienced by regional population (µg/m³), 2012	4.8	11.0	8.3	12.3
Access to services				
Households with broadband access (%), 2013	75.2	57.2	72.0	67.2
Civic engagement				
Voters in last national election (%), 2013	71.0	55.6	68.0	67.7
Housing				
Rooms per person, 2012	2.8	2.1	2.4	1.8
Education				
Labour force with at least a secondary degree (%), 2013	91.3	82.2	86.0	74.6
Income				
Household disposable income per capita (in USD), 2011	36 834	24 952	30 183	18 907

StatLink http://dx.doi.org/10.1787/888933129847

Note: Data in the first two columns refer to average values in regions at the top and the bottom 20% of national ranking. The OECD average is computed for 34 countries except for housing (32 countries) and life expectancy at birth (33 countries).

Source: OECD Regional Well-Being Database: www.oecdregionalwellbeing.org; http://dx.doi.org/10.1787/region-data-en.

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How's Life in Your Region?

MEASURING REGIONAL AND LOCAL WELL-BEING FOR POLICY MAKING

How's life? The answer can depend on what region you live in. Many factors that influence people's well-being come into play on the local level, such as employment, access to health services, pollution and public safety. Policies that take into account the economic and social realities where people live and work can have a greater impact on improving well-being for the country as a whole.

This report paints a comprehensive picture of well-being in the 362 OECD regions, by looking at some of the most important aspects that shape people's lives: jobs, income, housing, education, health, access to services, environment, safety and civic engagement. The report finds that the disparities in material conditions and quality of life are often greater among regions within the same country than they are across different countries. While on average people are richer, they live longer and they enjoy a better air quality than fifteen years ago, the intra-country gaps between the best- and worst-performing regions in terms of many well-being dimensions have been widening in many OECD countries.

The report provides a common framework for measuring well-being at the regional level and guidance for all levels of government in using well-being measures to better target policies at the specific needs of different communities. The report draws from a variety of practical experiences from OECD regions and cities.

An interactive web-based tool (***www.oecdregionalwellbeing.org***) allows to compare performance across regions in OECD countries and monitoring improvements over time.

Contents

Further reading

- *OECD Regional Outlook 2014*
- *OECD Regions at a Glance 2013*
- *How's Life? 2013*

www.oecd.org/regional/how-is-life-in-your-region.htm
www.oecdregionalwellbeing.org/

Consult this publication on line at ***http://dx.doi.org/10.1787/9789264217416-en.***

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