Making Cities Work for All

DATA AND ACTIONS FOR INCLUSIVE GROWTH



OECD

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Foreword

The return to economic growth is a bumpy, uneven path. Nowhere more than in cities is the divide between prosperity and inequality more apparent. Home to around half of the OECD's population, approximately 200 cities of 500 000 inhabitants or more have generated over 60% of jobs and economic growth in the past 15 years. At the same time, inequality of income and other well-being outcomes is higher in cities than elsewhere. Access to opportunities seems to stall for many low-income urban residents, who often live concentrated in distressed neighbourhoods. Children in these communities start off in life with low prospects, as their chances of success are increasingly tied to the socioeconomic status of their parents.

The OECD and the Ford Foundation have joined forces since 2012 to promote a more inclusive approach to growth – one that creates opportunities for all segments of the population to participate in the economy and distributes the dividends of increased prosperity fairly across society. With the All on Board for Inclusive Growth initiative, the OECD has set out a comprehensive framework to help countries design and implement multidimensional, win-win policies that can deliver stronger growth and greater inclusiveness.

Making Cities Work for All represents a step forward in the collaboration between the OECD and the Ford Foundation. If it is in cities where the negative effects of inequalities are most severely felt, it is also in cities that the most innovative solutions can be deployed. The report highlights those areas where access to opportunities has been stymied by rising inequalities and where policies can make a real difference. It takes us back to basics by pointing to the importance of data to understand the inter- and intra-city dynamics.

The report provides national and local policy makers with new data and tools to implement policies that enhance inclusive growth in cities. It offers unique, internationally comparable data on economic growth, inequalities and well-being for urban residents, assessing city performance not only in terms of economic prosperity, but also in terms of employment prospects, education, health, affordability of housing, and opportunities. These data allow us to track whether OECD cities are diverging from or converging with national trends. The report shows that inequality has also grown within cities, contributing to increasing residential segregation between high-income households and other income groups in Canada, France and the United States, or residential segregation of the low-income households in Denmark and the Netherlands. This analysis indicates a strong commitment towards improving the coverage and quality of local data, showcasing indicators that could be expanded to non OECD cities in the future to ensure that relevant information is available to track inequality in a range of dimensions.

Making Cities Work for All puts forward a framework for action, highlighting the policies and partnerships that cities and countries can mobilise to improve prospects for urban residents. A selection of good practices from cities around the world points to five

key policy areas: jobs; education and skills; housing; transport; quality services and environment. Drawing on longstanding OECD work on urban policy, the report advocates for bridging national and local efforts at the right scale to improve people's lives in cities. Inclusive institutions that respond to citizens' expectations, nurture people's skills and create a favourable business environment can expand opportunities for all urban residents. By contrast, there is on average a stronger tendency for groups to be pushed to the margins of urban society in cities that have fragmented governance structures.

The policy practices illustrated in this report also underline the importance of local leadership to steer urban policy towards an inclusive agenda. To support local leaders, the OECD and the Ford Foundation launched a global coalition of Champion Mayors for Inclusive Growth in March 2016. Around 50 Champion Mayors have signed on to the New York Proposal for Inclusive Growth in Cities, a roadmap for change and a shared commitment to ensure that cities work for all.

This report contributes to an unprecedented global political commitment to make cities more sustainable, inclusive and resilient through the implementation of the New Urban Agenda of Habitat III. Through *Making Cities Work for All*, the OECD stands ready to help decision makers adopt policies that reinforce each other and give a voice to all – so that cities become a better place for current and future generations to fulfil their potential.



Angel Gurria
Secretary General, OECD



Darren Walker
President, Ford Foundation

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Executive summary

Cities are unique laboratories, where opportunities for prosperity co-exist with stark inequalities between the richest and the poorest. Cities are also places where today's inclusive growth policies can make headway, ensuring that opportunities are available for all and that the dividends of increased prosperity, both in monetary and non-monetary terms, are distributed fairly across society.

With the All on Board for Inclusive Growth initiative, the OECD has brought inclusive growth to the forefront of the global policy agenda. This report offers, for the first time, data on well-being outcomes, socio-economic segregation, economic growth and inequality in OECD cities (here defined as metropolitan areas of at least 500 000 inhabitants). It puts forward a framework for action, illustrating the policies and partnerships that cities and countries can mobilise to improve urban residents' prospects, both in terms of human and social capital (jobs and education) as well as in terms of the urban environment (housing, transport, environment and access to services).

Cities differ widely in their inclusive growth paths

OECD cities have experienced very different patterns of inclusive growth since 2000. This report suggests a variety of ways to measure inclusive growth in cities, such as tracking how cities have increased their economic prosperity (gross domestic product [GDP] per capita growth) while engaging more of their residents in generating it (change in the labour participation rate). While some cities have seen both an increase in growth and in labour participation (e.g. Tallinn, Santiago, Perth and Jeonju), in others GDP per capita has increased whilst labour market participation has declined (e.g. Poznan, Queretaro, Takamatsu), and in others both growth and labour participation have stagnated or declined (e.g. Catania, Las Vegas, Albuquerque).

Growth and inequality are most apparent in cities

In OECD countries, cities – home to 50% of total population – have contributed to 60% of total employment creation and GDP growth in the past 15 years. On average, household incomes are 18% higher in cities than elsewhere, though higher living costs may partially offset such a premium. Cities also offer opportunities for people to increase their incomes regardless of their background. In Canada and the United States, for example, the future earnings of urban residents are less correlated to their parents' income than those of non-urban residents.

At the same time, not all cities are the same, and many have struggled to offer good material conditions and quality of life to their residents. For example, among cities in Italy and the United States, there is a twofold or higher difference in average household income.

In Canada, France, the Netherlands and the United States, the shares of the working-age population with a tertiary education vary by more than 15 percentage points between cities.

Income inequality – which has been rising in the last decades – is higher, on average, in cities than in their respective countries. Moreover, the larger the city, the greater its income inequality. Where people live in a city has an important impact on well-being, as much as or more so than their income. Life expectancies, for example, differ by a staggering 20 years across neighbourhoods in Baltimore and London. When income, jobs and health are considered together, differences in overall living standards in the different places within a country are starker than those in terms of income only, showing that different well-being outcomes amplify the concentration of prosperity or exclusion in regions.

Cities are split across economic lines, which may reproduce disadvantages across generations

Rich and poor urban residents tend to live in clearly separate neighbourhoods. In Denmark and the Netherlands, spatial segregation in cities affects the poorest households more, while in Canada, France and the United States, the richest are more likely to live in separate neighbourhoods. People living in disadvantaged areas often have lower quality public services, which undermines opportunities. In the Netherlands, a relatively egalitarian country by many standards, children who grew up in the poorest neighbourhoods have, on average, adult incomes that are 5-6% lower compared to those who grew up in the most affluent neighbourhoods.

Inclusive growth in cities can become a reality, if national and city governments work together

Opportunities for inclusive growth also depend on the way cities are organised institutionally, how they respond to their residents' expectations, nurture human capital and support the business environment. This report highlights new evidence showing that cities characterised by a lower level of administrative fragmentation also display lower spatial segregation.

The rise of urban inequality and spatial segregation is not inevitable. National and city governments both work on the key policy levers that matter for inclusive growth; however, they do not automatically work together. While there is a broad convergence between the priorities for national urban policy and for cities – e.g. economic development, transport, education and jobs, among others – in financial terms, none of these policy priorities is under the sole remit of one level of government. Bridging national and local initiatives, and doing so at the right scale, is essential. Without an integrated approach, policies and regulatory frameworks put in place by different levels of government may address one problem while aggravating another, or shift a problem from one area to another.

Cities can expand opportunities for all residents by strengthening human and social capital

To build inclusive urban labour markets, the national government must understand the "on the ground" opportunities and needs in cities. Joint national-local job creation initiatives in locally relevant activities can promote more inclusive labour markets. Policy initiatives must connect all segments of the skilled labour force with jobs, and also ensure that these jobs do not lock people into an in-work poverty trap. Carefully designed, locally tailored education and training programmes can help break school segregation rather than exacerbate existing inequalities between school districts. Controlled school choice schemes and school voucher programmes, for example, can help low-income children pursue quality education and expand opportunities for all in cities.

Cities can harness their physical and environmental capital for more inclusive growth

A well-designed and accessible urban environment can have a significant impact on people's lives. The effects of housing, transport and environmental investment decisions are inherently interlinked, but difficult to co-ordinate, particularly at the metropolitan scale. For example, narrowly conceived urban and environmental regeneration initiatives may drive housing prices up and put pressure on the transport network, thereby pushing lower income households out of regenerated neighbourhoods while attracting wealthier residents and high-end businesses. An integrated public investment strategy can help improve people's access to affordable, equitable and sustainable infrastructure, and expand opportunities for socio-economic mobility in cities.

Chapter 1.

Cities as laboratories for inclusive growth

This chapter provides the framework for the report. It starts by describing the objectives, strategies and tools of inclusive growth policies in cities, which combine economic growth-oriented policies with policies for inclusion and social cohesion. The chapter then provides an assessment of the different patterns of inclusive growth in OECD cities by measuring gross domestic product per capita growth and change in the labour participation rate since 2000. Finally, it introduces the evidence and policies for inclusive growth in cities that are presented in the report.

Introduction

Many OECD economies are grappling with sluggish growth, due to a slowdown in labour productivity since the early 2000s, high unemployment rates following the economic crisis of 2008, strained public finances and rising inequalities. High inequality implies that many people are left out of the process of generating and enjoying economic growth. Ignoring this untapped potential is hardly sustainable in the long run, not only socially and politically, but also economically. In such a context, it has become imperative for policy makers to adopt a more inclusive approach to economic growth – one that creates opportunities for all segments of the population to participate in the economy and that distributes the dividends of increased prosperity fairly across society, both in monetary and non-monetary terms (OECD, 2016a; 2014a).

In response to these challenges, the OECD launched the All on Board for Inclusive Growth initiative in 2012 to fundamentally rethink how societies grow and who benefits from this growth. The initiative set out a comprehensive framework to help policy makers design and implement multidimensional policy programmes, and understand the trade-offs and synergies that exist between pro-inclusiveness and growth-friendly policies (OECD, 2015a). For instance, there are win-win policies that can deliver stronger growth and greater inclusiveness in areas such as macroeconomic policies, labour market policies, education and skills, competition and product market regulation, innovation and entrepreneurship, financial markets, infrastructure and public services, and development and urban policies. Probably one of the most obvious synergies is that investing in the education and skills of people at the bottom of the distribution will pay long-term dividends for the economy and enhance individual well-being.

Cities are the places where the nexus between productivity and inequality is the most salient. They generate an outsized share of national wealth. Cities produce and attract highly educated workers and innovative employers. They traditionally have a higher capacity than other parts of the country to push individuals up the income, education or jobs ladder, and therefore drive social mobility. But cities, especially the largest ones, also generate inequalities in income and other well-being outcomes, which remain remarkably high in many OECD countries. Access to opportunities seems stalled for many low-income urban residents, who often live concentrated in distressed neighbourhoods. Children in these neighbourhoods start off in life with dim prospects, as their chances of success seem increasingly tied to the socio-economic status of their parents.

The rise of urban inequality is not inevitable. The way cities are organised institutionally and how they respond to their residents' expectations, nurture human capital and support the business environment offer opportunities for inclusive growth, i.e. growth that allows different segments of society to contribute to, and share in, rising prosperity. For example, job growth often results in skyrocketing housing prices, pushing large segments of the population out of the city. National and local policy makers can curb this effect through the smart regulation of land use and the combined development of social and market-price housing, helping lower income households remain in the city and continue to participate in the local economy.

Cities are unique laboratories for understanding the multiple interactions among economic growth and inequalities and for implementing win-win policies that spread wealth without reducing the capacity to generate it. National and local policy makers are already turning their attention to inclusive growth, making this objective central to urban development policy. City leaders around the world are keen to share what they are doing

in their community and learn about what works and what does not from international experiences.[1]

Local governments are also central to solving global challenges ranging from climate change to violent extremism, food insecurity and refugee resettlement. Global commitments such as the Paris Climate Agreement, the Sustainable Development Goals and the forthcoming New Urban Agenda of Habitat III provide major opportunities for cities to achieve meaningful change through their implementation.

This report offers new evidence to help national and local governments design and implement policies that enhance inclusive growth in cities. It does so in three ways. First, it provides ground-breaking, internationally comparable data on economic growth, inequalities and well-being at the city level in OECD countries, advancing new ways to measure city performance. Second, it provides empirical evidence on how cities are diverging from or converging with other parts of a country, and paints a vivid picture of inequalities within cities. Finally, it puts forward a framework for action, illustrating the policies and partnerships that cities and countries can mobilise to make inclusive growth happen.

A policy shift towards inclusive growth in cities

Interest in inclusive growth policies in cities is a culmination of different waves of urban policy. In many OECD countries, national urban policy traditionally stemmed from social policy applied to distressed urban areas. The often dramatic shift of urban economies from heavy industry to knowledge-based activities left in its trail a growing number of unemployed or underemployed residents, typically pushed together in disadvantaged neighbourhoods. This depressed the overall vitality of cities and, more broadly, their surrounding regions. There is therefore a long history of "urban regeneration" or "urban renewal/renaissance" policies, which focused on renovating deprived neighbourhoods through poverty alleviation programmes and modernising the built environment. Government subsidies to keep declining traditional sectors afloat, social housing programmes, investment in transport infrastructure, environmental protection measures and other related public interventions were put in place to offer compensatory relief and address poverty in cities (OECD, 2003a; 2003b; 2002; 2000).

In the early 2000s, there was new interest in using urban policy to boost national economies by spurring the international competitiveness of cities. In response to accelerated globalisation, cities started promoting their own comparative advantages, joining the race to attract investment and talent. For example, a wide range of policies sought to support the development of industrial clusters based on specific local assets, and international branding initiatives flourished to promote global city profiles (see OECD, 2006). At the same time, growing awareness of the major role that cities play in adapting to and mitigating climate change also brought about a set of sustainable urban development policies, including urban green growth strategies (see OECD, 2010).

Rather than separate social cohesion-oriented and growth-oriented policies, inclusive growth policy in cities combines the two to put economic growth on a more equitable, sustainable footing and create better opportunities through more holistic policies in cities (Table 1.1). For example, OECD National Urban Policy Reviews support national governments in setting up integrated frameworks to support opportunities in cities. The recently agreed EU Urban Agenda promotes "co-operation between Member States, cities, the European Commission and other stakeholders, in order to stimulate growth,

liveability and innovation in the cities of Europe" (European Union, 2016). The World Bank Group's goal of promoting shared prosperity aims to foster economic growth and equity by increasing income among the bottom 40% of a country's population (World Bank, 2013).

While conceptual definitions may vary across countries, the OECD approach to urban policy for inclusive growth builds on the following features (Table 1.1):

- functionality: interventions are adapted to different geographic scales beyond administrative boundaries, such as metropolitan areas and neighbourhoods
- multi-dimensionality: integrated development projects that target both income and well-being in a city
- distribution: interventions are targeted to different segments of the population, recognising that policy impacts can vary across socio-economic groups within a city
- multi-level and multi-stakeholder governance: strategies are designed and carried out seeking collaboration among the different levels of government, private stakeholders, civil society and citizens.

Table 1.1. **Inclusive growth policy in cities: Towards an integrated approach to reconcile cohesion and growth**

	Social cohesion-oriented urban policy	Growth-oriented urban policy	Inclusive growth policy in cities
Objectives	Compensating temporarily for locational disadvantages of lagging areas	Tapping underutilised potential in all areas to enhance urban competitiveness	Fostering both equity and growth in cities
Unit of intervention	Administrative units (municipalities)	Functional urban areas (of all sizes), firms	Functional urban areas (of all sizes) and inequalities within them
Strategies	Single-sectoral approach	Multi-sectoral approach	Multi-sectoral approach to enhance both economic growth and people's well-being while considering the distribution of wealth and well-being across society
Tools	Top-down subsidies and state aids	Investment in infrastructure to exploit the competitive advantages of different places	Support to improve living conditions for all (e.g. urban regeneration programmes without displacing low-income residents)
Key actors	Mainly central government	Different levels of government, firms	Partnerships across levels of government, as well as between public and private spheres, and civil society

Source: Authors' elaboration.

How do we monitor inclusive growth in cities?

Policies for more inclusive growth in cities need to be supported by a solid evidence base. Measuring inclusive growth in cities, however, is no easy task, mainly for two reasons. First, inclusiveness filters through many dimensions beyond income and any measurement of it needs to include a wide array of variables, such as jobs, education, health or environment. However, such data are very scarce at the city level, even in advanced economies. Recent OECD work has mapped well-being outcomes according to 11 dimensions (material conditions and quality of life), both in countries and within countries in the 395 subnational OECD regions (OECD, 2011; 2014b). Building on the

How's Life in Your Region framework, Chapter 2 of this report sets about filling the evidence gap by providing data on selected well-being outcomes at the metropolitan spatial scale. These data allow a comparison of how OECD cities fare on income, jobs, education, environment and income inequality. But much still needs to be done to improve the availability of statistics at the city level. Alternative sources of data – such as administrative records, open government data and big data – will help overcome the current sampling limitations of national household surveys by increasing the amount of data on households and individuals at smaller geographical scales, which can then be aggregated up to the geography of interest.

Second, measuring inclusive growth in cities requires taking into account several aspects that are especially relevant to cities rather than other scales. This report addresses three of these aspects: skills, the spatial concentration of poverty, and upward economic and social mobility. For each of the three aspects, subsequent chapters of this report provide both empirical evidence and practical examples of policies that national and local governments have put in place to address them.

- **Cities have a highly skilled workforce, and the accumulation of human capital is a key mechanism for generating jobs.** Cities attract relatively more skilled individuals, as it is in cities that such individuals can find higher wages and jobs in more productive firms. These firms, in turn, locate in cities since they can afford it (Behrens, Duranton and Robert-Nicoud, 2014). Evidence from Europe and the United States shows that cities with higher shares of skilled workforce grew faster during the last three to five decades, out-performing less-skilled cities on employment, wages, productivity and population growth (Glaeser et al., 2004; Südekum, 2010; Shapiro, 2006). Every time a local economy generates new jobs, for example by attracting a new business, additional jobs might also be created, mainly through increased demand for local goods and services. Research suggests that the creation of highly skilled jobs in cities generates a larger number of additional jobs in the local economy than those created by adding manufacturing jobs. Thus the skilled economy in cities can also help create lower skill jobs (Moretti, 2010). Chapter 5 discusses how cities can make the best use of all types of skills in the local economy, building inclusive education and training systems to provide opportunities for all segments of the population.
- **Inequalities in cities often lead to a spatial concentration of poor residents in certain neighbourhoods.** People living in disadvantaged, economically depressed areas often have lower quality schools, less access to services and a lower quality surrounding environment – which undermines quality of life and dampens opportunities to prosper in the future. Chapter 4 provides new measures of income segregation in cities, analysis of how the spatial concentration of disadvantages can weigh on future generations, and pioneering evidence on the links between segregation and administrative fragmentation. The concentration of poor households in disadvantaged neighbourhoods can replicate disadvantages across generations. In the Netherlands, a relatively equal country by many standards, children who grew up in the poorest neighbourhoods (bottom 20% of income) have, on average, a 5-6% lower income 12 years after leaving the parental home compared to those who grew up in the most affluent neighbourhoods. The extent to which cities separate people according to their income depends on the way cities govern themselves. This report finds that urban governance systems characterised by higher administrative fragmentation are associated with a higher income segration

of households. Chapter 5 illustrates how more effective governance to integrate policies combining key sectors such as land regulation, housing and transport at the metropolitan scale can help fight income segregation in cities.

- **Inclusive cities also offer opportunities for their residents to move up the economic or social ladder, regardless of family background.** In Canada and the United States, income mobility (e.g. the extent to which people's future earnings are dissociated from their parents' income) tends to be higher for people who grew up in metropolitan areas.[2] Income mobility tends to be negatively associated with income inequality: the higher the degree of income inequality a generation ago, the lower the degree of income mobility (this pattern is known as the "Great Gatsby Curve" from Corak, 2013). The roots of this relationship lie in how family background shapes the opportunities available to children: how families, communities and public policies invest in the capabilities of children, but also the extent to which investments in skills pay off in the labour market (Corak, 2013). The negative relationship between inequality and income mobility remains valid across neighbourhoods and municipalities within metropolitan areas (Corak, 2016; authors' elaboration based on data from Chetty et al., 2014).

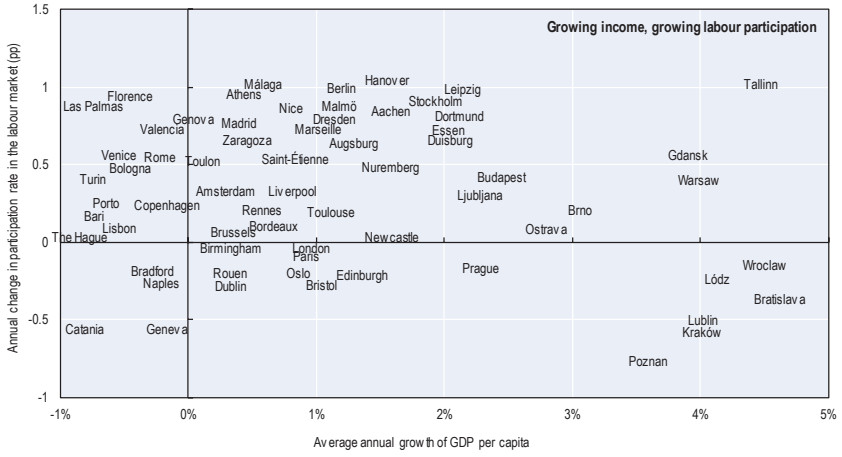
This report provides different ways to measure inclusive growth in cities and highlights where more research is needed to improve data and analysis. As a start, a simple way to monitor inclusive growth is to track how cities have increased their prosperity while engaging more of their residents in generating it. An example is to plot gross domestic product (GDP) per capita growth (economic growth) against the change in labour participation rates – as a proxy of the extent to which an increasing share of the population is involved in generating prosperity (inclusion) – during the last 15 years in OECD metropolitan areas (Figure 1.1).[3] Cities in the OECD have experienced very different patterns of inclusive growth. While some have been both growing and increasing their labour participation (e.g. Tallinn, Santiago, Perth and Jeonju), others have stagnated or declined in both (e.g. Catania, Las Vegas, Albuquerque). In some cities, GDP per capita has increased but labour market participation has declined (e.g. Poznan, Queretaro, Takamatsu), while the opposite has happened in others (e.g. Florence, Las Palmas, Benito Juarez, Tokyo) (Figure 1.1). It is important to note that strong increases in labour participation rates might hide a process of catching up in countries that started off in the early 2000s with substantially lower levels of labour market participation (e.g. Chile, Hungary, Mexico, etc.).

The economic crisis of 2008 has taken a heavy toll both on economic growth and jobs in many OECD cities. When restricting the above measure to the period 2008-13, the number of cities with a positive change in GDP per capita and labour participation is reduced by 40% compared to the period 2000-13, while the number of those with negative economic growth and decreasing labour participation, mainly southern European cities, was almost four times higher.

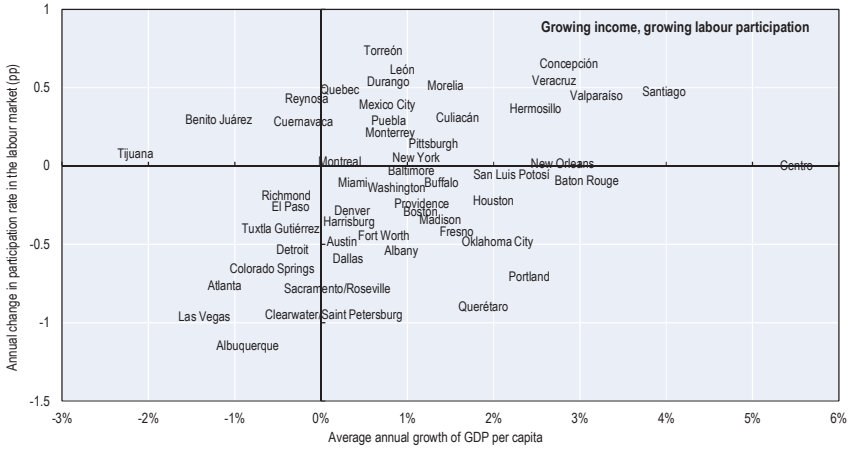
While this measure offers a simplified proxy of inclusive growth in cities, Chapter 3 proposes a more refined measure that takes into account income, jobs and health outcomes, together with income inequality, building on the OECD inclusive growth framework and its indicator of multidimensional living standards (OECD, 2014b). At this stage, due to data constraints, this report applies this measure of inclusive growth at the regional level to illustrate territorial trends; future improvements in the availability of data will make it possible to extend such a measure to the city level.

Figure 1.1. **Growth of GDP per capita and change in labour participation rates in OECD metropolitan areas**

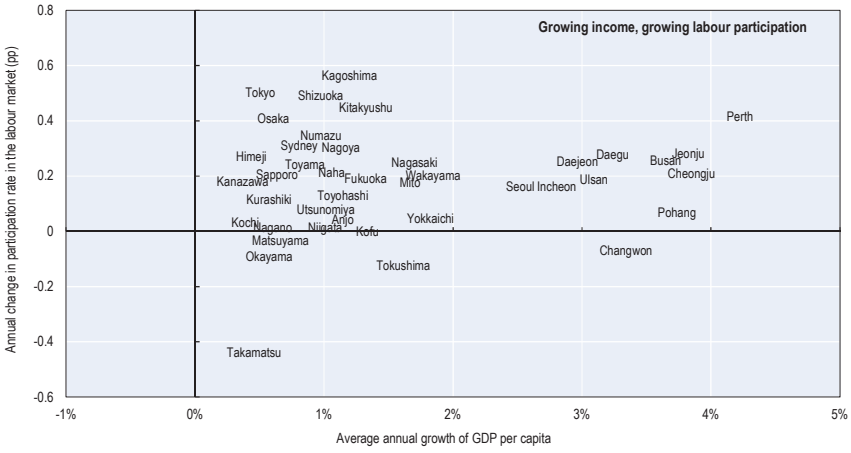
A. Europe; average annual growth, 2000-13



B. Americas; average annual growth, 2000-13



C. Asia and Oceania; average annual growth, 2000-13



Source: Authors' elaboration based on OECD (2015b), "Metropolitan areas", *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/data-00531-en.

What policy makers can do to foster inclusive growth

Cities often have many different government bodies and they do not automatically work together on projects and programmes. Local governments contribute to many policies that foster growth and inclusiveness. In 2014, subnational governments in OECD countries (regions and cities) were responsible for around 40% of total public expenditure, more than 70% of which was devoted to education, health, economic affairs and social expenditure (OECD, 2016c). At the same time, expenditure data may mask different institutional arrangements in terms of local governments' spending and decision autonomy, which makes the co-ordination across levels of government even more relevant, especially in the current climate of finance consolidation and investment cuts (OECD, 2016c).

Policies to support inclusive growth in cities need to federate initiatives and budgets across jurisdictions and work with the private sector and civil society. This is essential for designing and implementing policy packages that exploit the complementarities among different sectors and control how policy effects are distributed across urban societies. For example, policies for improving the supply of affordable housing need to be closely connected with transport planning, service provision and labour-market interventions at all levels of government in order to avoid driving housing and transport costs disproportionally up and pushing low-income workers out, thereby creating new ghettoes while precisely trying to tackle existing ones. Chapter 5 provides a framework for action to help national and city governments join forces towards making cities more prosperous and equitable. Based on concrete examples across OECD countries, it discusses a range of policy tools for improving urban residents' life prospects, both in terms of human and social capital (jobs and education) as well as in terms of the urban built environment (housing, transport, the environment).

Conclusions

This chapter provided the framework of the remainder of the report. It discussed how national policies for urban development have steered towards an integrated approach that combines objectives of economic growth and social cohesion. Inclusive growth policies in cities are multidimensional policies to improve jobs and education, but also the affordability of housing, quality of services and environment, and efficiency of transport.

This chapter introduced three aspects that are especially relevant when addressing inclusive growth at the scale of cities rather than at other scales: skills, the spatial concentration of poverty, and upward economic and social mobility. The rest of this report provides empirical evidence and practical examples of policies that national and local governments have put in place to address these issues. Finally, patterns of inclusive growth in OECD cities are presented, by tracking how cities have increased their prosperity (GDP per capita growth) while engaging more of their residents in generating it (change in labour participation rate) since 2000. Results show that while some cities have been both growing and increasing labour participation (e.g. Tallinn, Santiago, Perth and Jeonju), in others GDP per capita has increased but labour market participation has declined (e.g. Poznan, Queretaro, Takamatsu), or both have stagnated or declined (e.g. Catania, Las Vegas, Albuquerque).

Notes

1. Around 50 mayors have responded to the OECD and Ford Foundation invitation to create a network of mayors committed to inclusive growth in their city. See the OECD Inclusive Growth in Cities Campaign launched in March 2016 at: www.oecd.org/inclusive-growth/about/inclusive-cities-campaign.

2. The variable used is the "intergenerational income elasticity", which is measured by comparing the incomes of parents with those of their children when they become adults. A value of zero would suggest that there is no relationship at all between the adult income of children and the incomes of their parents. On the other hand, a positive value would indicate that children born to parents with below-average incomes tend to grow up to be adults who in turn also have below-average income, and similarly for children born to parents with above-average incomes. The greater the value of the intergenerational elasticity, the greater the "stickiness" of parent-child economic outcomes, and the lower the degree of social mobility.

3. The cities plotted are the OECD metropolitan areas, as defined in Chapter 2.

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Chapter 2.

Measuring well-being and inclusiveness in cities

This chapter provides evidence on recent trends in well-being and inclusiveness in OECD metropolitan areas. Well-being indicators cover several dimensions of people's life, which are grouped into two major policy domains: the first relates to expanding opportunities to people through inclusive education, labour market and income; the second relates to an inclusive urban environment through policies for housing, transport, service provision and subjective measures. Inclusiveness in metropolitan areas is assessed in terms of income inequality.

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

A first step to assessing inclusive growth in cities requires measuring how urban residents fare on outcomes that matter for well-being: notably income and jobs, but also non-material conditions such as education, health and social connections, among others. Cities are places where people and economic activities are concentrated in space and where local conditions, when favourable, can foster opportunities for individuals to improve their well-being. When local conditions are not favourable, they can keep the most disadvantaged individuals without many prospects. Inclusive growth means that people, independently of their socio-economic background, place of residence, gender or ethnic origin should have fair opportunities to contribute to growth and to benefit from it. Therefore, well-being outcomes should be assessed for different population groups, in particular the most vulnerable ones, and for specific parts of the city.

Measuring inclusive growth in cities also requires taking into account several aspects that are specific to cities, but which are less relevant at other spatial scales. First, people sort in different locations according to their preferences, but also to their constraints. For example, relatively more skilled individuals tend to move to cities as they can find higher wages and jobs in more productive firms, which in turn locate in cities as they can afford it (Behrens, Duranton and Robert-Nicoud, 2014). On the other hand, people who grow up in the most deprived areas within cities or elsewhere might have difficulties later in life to move to better places and have higher living standards. These dynamics are likely to affect other dimensions of people's well-being, such as education, housing and health. Second, cities are places where income inequalities are, on average, greater than in other locations. This does not necessarily mean that cities are generators of inequality. By attracting a large number of less advantaged people from more remote locations while at the same time concentrating the most highly skilled, cities can end up with higher poverty rates or greater inequality, because they provide the opportunity for improving the conditions of those who decided to move at both ends of the skills spectrum.

Assessing people's well-being at a certain point in time is of course useful, but understanding inclusive growth requires tracking living conditions over time. A key issue in monitoring inclusive growth is the understanding of the conditions that allow people to improve their living standards. Such conditions have been found to vary across space, even within the same country and even within the same city. Recent literature shows that local conditions, beyond individual or family factors, can affect a person's chance of achieving better results later in life. For example, the average income of the neighbourhood where an American grows up has an impact on future earnings that is roughly half that related to parental income (Rothwell and Massey, 2015) and every year of exposure to a better socio-economic environment at the neighbourhood scale improves a child's chances of economic mobility (Chetty, Hendren and Katz, 2015). Similarly, the reputation of the place of residence has been found to affect the chances of getting a job interview in the metropolitan areas of Paris (Bunel, L'Horthy and Petit, 2015).

Identifying the right scale of analysis is an important task. Even when some challenges are specific to certain neighbourhoods of a city, most policy interventions would benefit from the adoption of an integrated approach that takes into account the whole metropolitan area. Most of the analysis carried out in this report refers to cities defined as "functional urban areas" (FUAs), urban centres connected by high travel-to-work flows. Commuting flows give an idea of the actual boundaries of the space where people move daily for their activities, while the administrative boundaries of cities may fail to reflect the actual geography where people get access to jobs, leisure and public services.

FUAs also allow for comparisons within and across countries as they reduce the bias introduced by the differences in the legal boundaries across cities in different countries. Finally, the notion of FUAs can better guide the way national and city governments plan infrastructure, transport, housing, culture and recreation. In summary, FUAs can trigger a change in the way policies are planned and implemented, better integrating and adapting them to the local needs. This report considers FUAs with a population of at least 500 000 and, for simplicity, refers to them as "metropolitan areas" or "cities" (Box 2.1).

Box 2.1. **How do we define cities?**

The places where people live, work and socialise may have little formal relationship to the administrative boundaries around them; for example, a person may inhabit one region but work in another and on the weekends practice a sport in a third. Regions interact through a broad set of linkages such as job mobility, production systems or collaboration among firms. These often cross local and regional administrative boundaries. To take into consideration their economic or social area of influence, cities are defined as **functional urban areas**.

The OECD-EU definition of functional urban areas consists of highly densely populated urban centres and adjacent municipalities with high levels of commuting (travel-to-work flows) towards the densely populated municipalities. A minimum threshold for the population size of the functional urban areas is set at 50 000 inhabitants. The definition is applied to 30 OECD countries (with the exception of Iceland, Israel, New Zealand and Turkey), and it identifies 1 197 urban areas of different sizes. This approach to functional urban areas has the advantage of providing a methodology that can be applied across the whole OECD, thus increasing comparability across countries, unlike definitions and methodologies created within individual countries, which have been internally focused. In order to establish this cross-country methodology, common thresholds and similar geographical units across countries were defined. These units and thresholds may not correspond to the ones chosen in the national definitions. Therefore, the resulting functional urban areas may differ from the ones derived from national definitions.

Metropolitan areas are defined as the functional urban areas with a population above 500 000. There are 281 metropolitan such areas across OECD countries, corresponding to 49% of total population in 2014.

Throughout this report we refer to **cities** or metropolitan areas interchangeably meaning the functional urban areas, while we talk of **municipalities, local jurisdictions** or **local units** to refer to the administrative units included in cities.

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

This chapter provides some evidence on whether OECD cities are becoming more inclusive and how they fare on some well-being outcomes, including income, jobs, education and environment. In general, significant methodological constraints still exist to produce sound and comparable statistics for cities, in comparison, for example, to the availability of data for large administrative regions.[1] The results presented in this chapter rely on newly developed indicators adapted to the OECD metropolitan areas using different methodologies and data sources. Some of the main results can be summarised as follows:

- Household income is higher in metropolitan areas than elsewhere and so is income inequality for most countries. On average, households living in metropolitan areas earn 18% more than those living in other locations. Such

differences differ across countries, with the highest being in Mexico (69%) and the lowest (around zero) in Belgium.

- Large differences are observed in terms of both income levels and inequality across metropolitan areas. Within the same country income levels can be up to 2.3 times higher in one metropolitan area with respect to another metropolitan area (e.g. Washington, DC and McAllen, Texas in the United States). Both income levels and income inequality are higher in larger cities than in smaller ones.
- Between 2000 and 2014, labour participation increased in most metropolitan areas of the OECD. On average, in the metropolitan areas of Estonia, Germany and Sweden labour participation increased by more than 10 percentage points, while it declined in the metropolitan areas of Canada, Ireland, the Slovak Republic and the United States.
- Metropolitan areas concentrate almost 40% of the working-age population with a tertiary education in the OECD area, which is 10 percentage points more than the share of educated population outside of metropolitan areas. However, not all cities have a highly skilled population. Differences among cities in the share of working-age population with tertiary educational attainments are higher than 15 percentage points in Canada, France, the Netherlands and the United States.

The results from this chapter represent a first step to improve the quality and coverage of data at the local level. The multidimensional measures of well-being at the city level presented in this chapter might be expanded to other cities in the future, to inform local governments of the strengths and needs of cities and ensure that information is available for all.

A common set of indicators for measuring well-being and inclusiveness in cities

Indicators at the city level were developed according to two domains that represent areas where policies can have a strong impact on inclusiveness in cities. The first relates to expanding opportunities to people through inclusive education, the labour market and material prosperity (income); the second seeks to build a more inclusive urban environment through policies for housing, transport, service provision, social connection and subjective well-being. In a city well-being outcomes may be high on average, but the city may fail to be inclusive because those outcomes come with high inequality among different segments of society. Income inequality measures were then developed to track inclusiveness in cities. Table 2.1 reports the indicators currently available for OECD cities that will be presented in this chapter.

Table 2.1. **Well-being dimensions and city-level indicators**

	Dimensions	City-level indicators	City definition	Number of countries
Expanding opportunities	Income	– Household disposable income	City (functional urban area)	18
	Income inequality	– Gini Index for household disposable income – Quintile ratio for household disposable income – Spatial segregation for household disposable income	City (functional urban area)	11
	Jobs	– Employment rate – Unemployment rate – Women's participation rate	City (functional urban area)	29
	Education	– Educational attainment (%)	City (functional urban area)	16
Inclusive urban environment	Environmental quality	– Air quality ($PM_{2.5}$)	City (functional urban area)	29
	Housing	– Percent of people that are satisfied with the affordability of housing in their city	Municipality (administrative unit from Gallup)	32
	Personal safety	– Percent of people that feel safe walking alone at night in their city	Municipality (administrative unit from Gallup)	32
	Social connections	– Percent of people that have someone to rely on in case of need	Municipality (administrative unit from Gallup)	31
	Subjective well-being	– Percent of people that are satisfied with the city they live in	Municipality (administrative unit from Gallup)	32

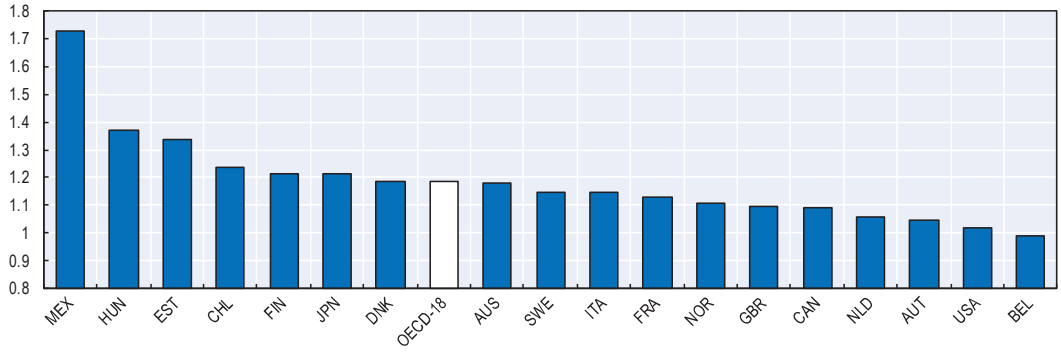
Expanding opportunities to people through inclusive education, the labour market and income

Income levels are higher in larger cities

Cities are places that constantly attract people looking for opportunities to prosper. It is well documented that the income levels of people living in cities are, on average, higher than those in non-urban places. In the OECD countries for which income data are available at a detailed geographical scale, people living in metropolitan areas earn on average 18% more than those living elsewhere. The income *premium* in metropolitan areas with respect to the national average is always positive, with the exception of Belgium, but it can differ significantly across countries (Figure 2.1). Mexico has the highest income premium (73%), followed by Hungary (37%), Estonia (34%) and Chile (23%). It is important to acknowledge that relatively higher levels of income in metropolitan areas do not necessarily imply a higher purchasing power available to metropolitan residents. In fact, differences in living costs between locations can offset earning differences across urban and rural places, at least partially, as shown in studies of regional poverty rates (World Bank, 2015). However, due to data limitations, such differences in living costs are not accounted for in this report. Box 2.2 summarises definitions and methods that have been used to measure both levels and distribution of household disposable income in OECD metropolitan areas. Annex 2.A1 reports the sources of data, by country, used to estimate income levels and inequality in metropolitan areas.

Figure 2.1. **Income ratio between metropolitan and non-metropolitan areas, by country**

Per equivalent household; 2014 or latest available year



Notes: The graph plots the ratio between household disposable income per equivalent household in metropolitan areas over that in the rest of the national territory. Countries are ordered by increasing value of that ratio.

Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Box 2.2. **Measuring income levels and distribution at the metropolitan level**

The measurement of income levels and distribution at the level of cities brings about several statistical challenges, especially when the aim is to provide statistics that can be compared across different countries. The first challenge is that household income surveys are usually designed to be representative only at national or, at most, regional scales. Hence, this source is hardly usable when it comes to assessing income levels and distribution at smaller scales. There are possible ways to overcome the limits of surveys, such as performing small area estimation techniques or by using other non-survey sources of data, which can be available at a more detailed geography. The issue of international comparability of data represents a second constraint. While national income surveys have undertaken a process of harmonisation in the definition of key concepts and methods of analysis (i.e. definition of income, sampling issues, etc.), the use of other methods and sources of data can determine place-specific choices that can subsequently limit the comparability of indicators across countries. In summary, the measurement of income levels and distribution at the metropolitan scale requires making a set of choices regarding the source of data, the definition of income, the units of analysis and the indicators.

Sources of data. National statistical offices as well as other research institutions in OECD countries have been producing income statistics and indicators at small spatial scales, using different data sources. The first consists of survey data combined with census data or other sources – available at a small spatial scale – through small area estimation (SAE) techniques. The second is the use of administrative data of various types that are available directly at local level (i.e. tax records, social security records, etc.). With the exception of metropolitan areas in Chile, Mexico and the United States, whose incomes have been measured by relying on survey data, all the other countries present indicators based on administrative data, usually referred to as tax records. Statistical offices in OECD countries are increasingly using administrative data for measurement purposes in different domains. Recent literature analysing issues of income inequality, spatial segregation and income dynamics in cities are also making use of administrative data (Chetty et al., 2014; Tammaru et al., 2016). Tax records have been increasingly used also at national level for several purposes, such as to build income statistics over the long run (Piketty, 2014).

Box 2.2. **Measuring income levels and distribution at the metropolitan level** (*continued*)

Definition of income. Consistent with the approach followed by the OECD to assess income as a dimension of well-being, household disposable income has been chosen as the best measure, since it is less sensitive to differences in institutional arrangements and taxation levels across countries. From the final report and recommendations by the United Nations (2001) on household income statistics, disposable income is indeed a closer approximation of resources available for household consumption. According to the United Nations (2001), disposable income is defined as the sum of income deriving from employment (both paid and self-employment), property, production of household services for own consumption and current transfers received (i.e. pensions, social benefits, etc.) minus current transfers paid (taxes, fees, social contributions, etc.). The conceptual definition of disposable income determines what, in principle, should be included in a comprehensive measure of household income. In practice, income definitions adopted by individual countries are more limited in scope, as some elements of household income are not collected or modelled. Disposable income at the level of metropolitan areas has to be estimated from what is available for aggregation up to this scale, namely the income data at the local administrative unit scale (i.e. municipality). At such a small spatial scale, it is sometimes possible to collect the information on total taxable income only. In these cases, the household disposable income was approximated by benchmarking income values for metropolitan areas from tax records to the regional estimates of household disposable income from the OECD *Regional Well-being Database* (OECD, 2014). Such a method is applied to 18 OECD countries (11 countries for income inequality), covering 216 of the 281 OECD metropolitan areas (see Boulant, Brezzi and Veneri [2016] for details).

Units of analysis. Households are considered to be the best units to assess people's economic well-being because they make it possible to account for the resources shared among household members – i.e. spouse or children – and for the economies of scale that can be achieved by such sharing. The needs of a household grow with each additional member, but not in a proportional way. For example, it is unlikely that a three-member household needs three times the housing space and other housing facilities (i.e. electricity, heating) than a single-member household. Various calibrations, or equivalence scales, have been devised to adjust the incomes of households in a way that reflects differences in the needs of individuals living in each household, and the different household size across places. The equivalence scale used in this report consists of dividing household income by the square root of the household size, a method used by the OECD when comparing household income across countries. When household income is adjusted according to an equivalence scale, the resulting "equivalised" income can be viewed as an indicator of the economic resources available to people in each household.

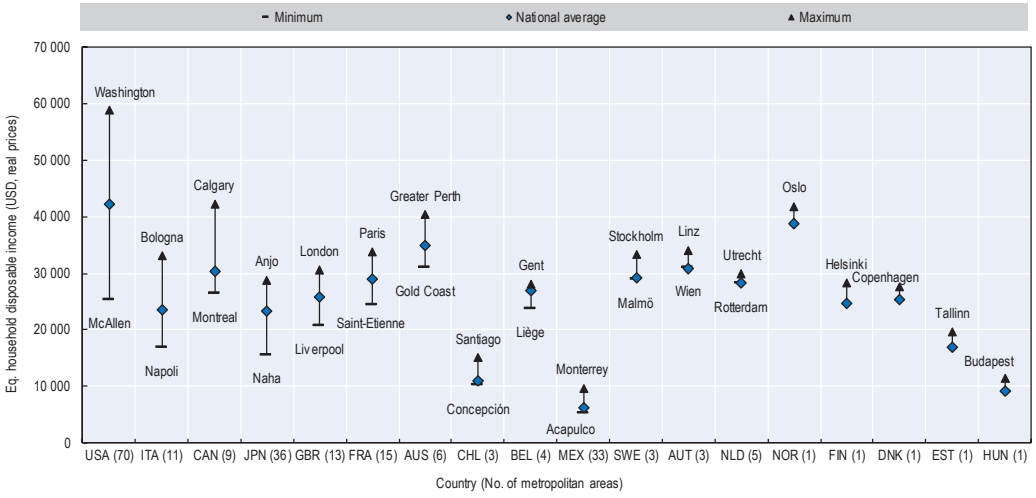
Indicators. The baseline indicator to measure people's economic well-being is the level of equivalised household disposable income. Regarding inequality, the first chosen indicator is the Gini coefficient, probably the most used measure of income inequality. It is based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive and it ranges from 0 to 1, with 1 indicating maximum concentration of income (all income to one individual only). The second indicator is the top-bottom quintile ratio (s80-s20), which allows some of the limitations of the Gini coefficient to be overcome, such as its high sensitivity to relative changes around the middle of the income distribution. This sensitivity arises because the Gini coefficient reflects the ranking of the population, which changes the most in correspondence of the densest part of the income distribution, which is likely to be around the middle.

Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

While metropolitan households have, on average, higher incomes than their non-metropolitan counterparts, large differences can be observed among metropolitan areas in the same country (Figure 2.2). The largest disparities across metropolitan areas in the disposable income of households are observed in the United States, where the income of those living in Washington, DC is 2.3 times higher on average than that of households living in McAllen, Texas. Large differences are also observed in Italy, Canada and Japan, where the average income in the most affluent metropolitan areas (i.e. Bologna, Calgary and Anjo, respectively) is almost twice as high as that in the metropolitan areas with the lowest income (Naples, Montreal and Naha, respectively). Similarly, in Mexico the average income of households in Monterrey is 80% higher than those living in Acapulco.

Figure 2.2. **Average household disposable income in metropolitan areas**

Differences between maximum and minimum metropolitan values, 2013 or latest available year



Notes: Last year available was 2012 for Austria and the United Kingdom; 2011 for Australia and France; 2010 for Mexico. The number of metropolitan areas in each country is in brackets.

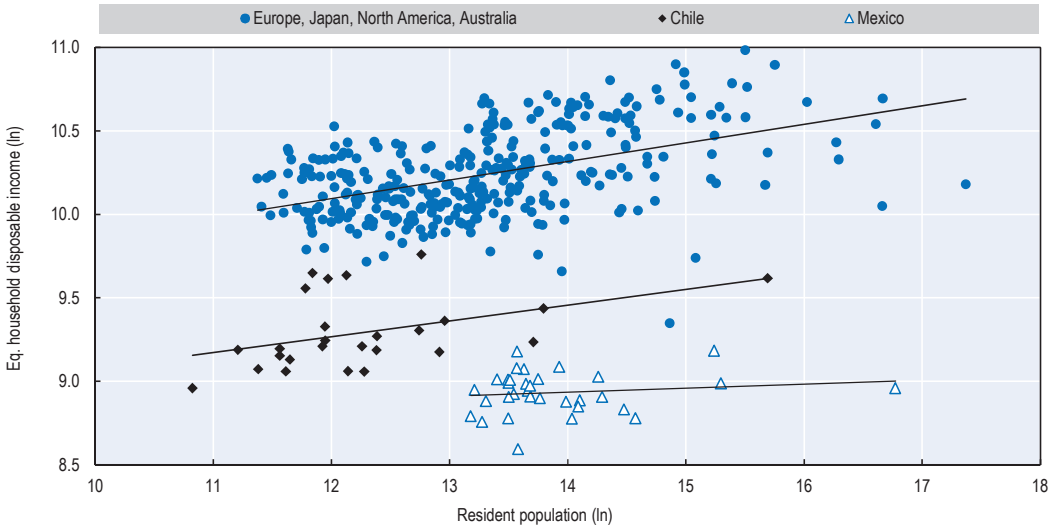
Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Population size of metropolitan areas is one of the factors correlated with the average disposable income of households. On average, people living in larger cities have higher levels of income. Figure 2.3 shows that there is a positive correlation between urban size and household income in all of the metropolitan areas considered here for the latest year for which data are available, with the exception of Mexico. In Mexico, a strong divide between cities in the north and those in the south of the country might affect the magnitude of the urban wage premium (Ahrend et al., 2014). The positive relationship between urban size and income is well documented in the literature and has several explanations. First, more talented individuals tend to move to large cities, where the returns to talent are higher and where higher wages will be paid to such talented workers (Behrens, Duranton and Robert-Nicoud, 2014). Second, larger metropolitan areas can benefit from agglomeration economies, sources of higher productivity for firms, which in turn can afford to pay higher wages. Connected with such factors is the sectoral composition of urban economies. The economy of some cities is more specialised in sectors that provide a relatively high value added per worker, such as finance, information technology or advanced manufacturing.

For most countries, it was possible to assess average income levels at more than one point in time. However, the availability of income data over time differs across countries, and it is hard to make comparisons on the growth of income across all cities. Over the period between the mid-2000s and 2014, average income levels increased in most metropolitan areas, suggesting that, on average, households have higher incomes than they had before the economic crisis of 2008.[2] The growth rate of income was particularly high in Australia and Norway, where it exceeded 2% annually. In Hungary, Italy and the United States, household income slightly declined, although the period under consideration is shorter for the latter two countries (2008-13 and 2010-14, respectively).

Figure 2.3. **Population size and average household disposable income across metropolitan areas**

Per equivalent household, 2014 or latest available year



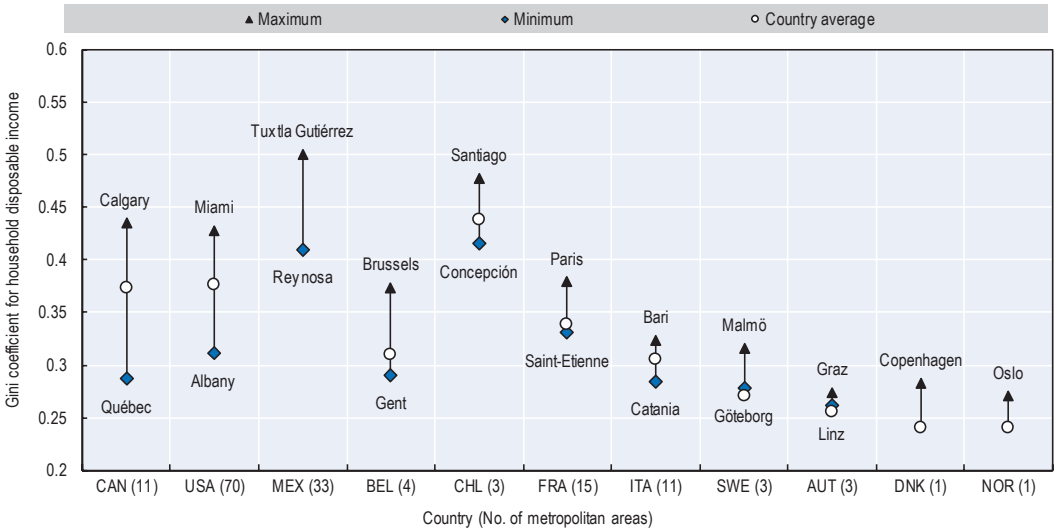
Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Larger cities are more unequal than smaller cities on average

In all countries considered income inequality in metropolitan areas is higher than the national average, with the exception of Canada. Among the 153 metropolitan areas in the 11 countries considered, the Gini coefficients of disposable income vary between 0.26 in Linz (Austria) to 0.5 in Tuxtla Gutiérrez (Mexico). High and low levels of income inequality are observed in the metropolitan areas of Belgium, Canada, Mexico and the United States: for example, while the Gini coefficient in Calgary (Canada) is 0.43, it is less than 0.3 in Quebec (Figure 2.4).

Figure 2.4. **Gini coefficients for household income in metropolitan areas, circa 2014**

Metropolitan areas with minimum and maximum Gini coefficients, by country



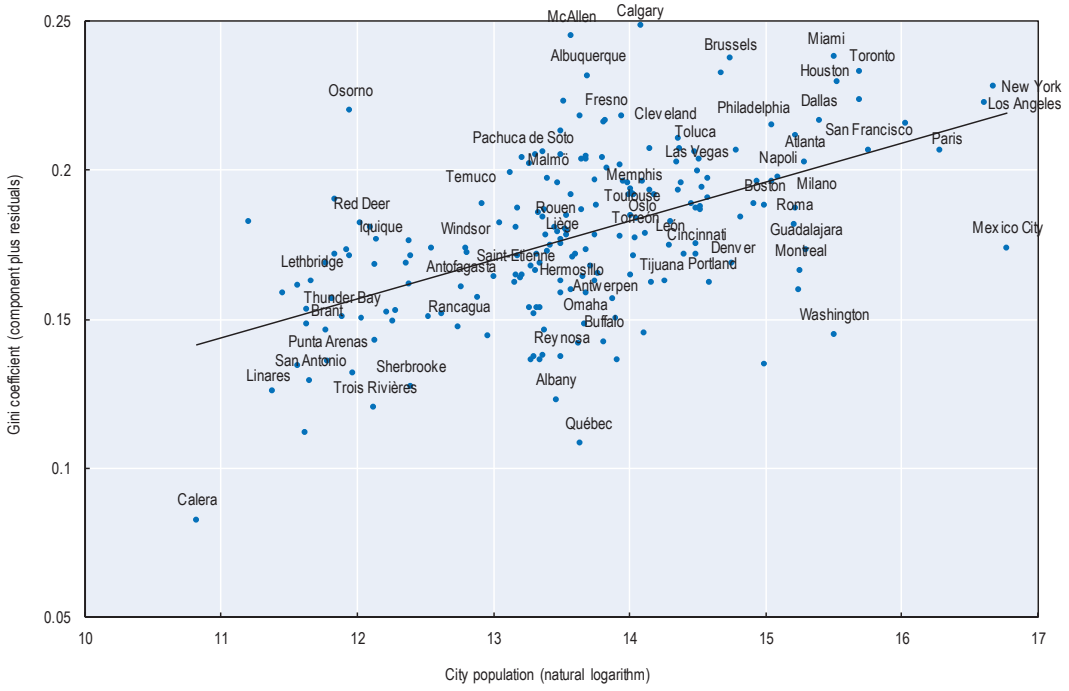
Notes: The national values of the Gini Index are estimated using the same source of data employed for the metropolitan areas. They might be slightly different from values provided by national surveys. Data do not allow the national Gini Index for Mexico to be provided.

Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Large cities are, on average, more unequal than small ones. The Gini coefficients for the metropolitan areas considered in this report are positively associated with the metropolitan population, once controlling for the initial level of income and for the country to which each metropolitan area belongs (Figure 2.5).[3] Several arguments have been put forward to explain this. Among these factors, agglomeration economies and firm selection play a role. Firm selection leads the most productive firms to concentrate in large cities, and foster rural-urban migration of people looking for opportunities. This, in turn, increases productivity, but also income inequality, as the returns to skills of urban residents increase, pushing earning differences up (Behrens and Robert-Nicoud, 2014). The presence of highly skilled and low-skilled workers in cities is also an important driver of inequality at the local level: inequalities of skills explained around 33% of inequality in the US metropolitan areas in 2000 (Glaeser, Resseger and Tobio, 2009). Cities and neighbourhoods with lower incomes typically have poorer schools and local amenities and often suffer from poorer access to services such as transport and health, among others. At the metropolitan level, it is thus important to promote investment in the skills of individuals (OECD, 2016a) and to complement the measurement of inequality with the measurement of key drivers of such inequality, such as the levels and the quality of education of urban residents or the level of segregation of households (Chapter 4). The latter might yield areas of concentration of social disadvantages that are difficult to overcome.

Figure 2.5. **Metropolitan population and income inequality**

Metropolitan size and inequality, once controlled for income levels and country effect, 2014 or latest available year



Notes: Each dot represents a city. The figure is generally known as component plus residual plot. It represents the relationships between metropolitan population (in natural logarithm) and the Gini coefficient for household income, after having controlled for the initial level of income in the metropolitan area and for the country to which each metropolitan area belongs. Thus, the vertical axis does not report the raw Gini coefficients, but a proxy (component plus residuals) obtained by summing the residuals of a regression of the Gini coefficient on the logarithm of metropolitan population, income levels and country dummies with the product between the logarithm of metropolitan population and its relative coefficient estimated with the linear regression.

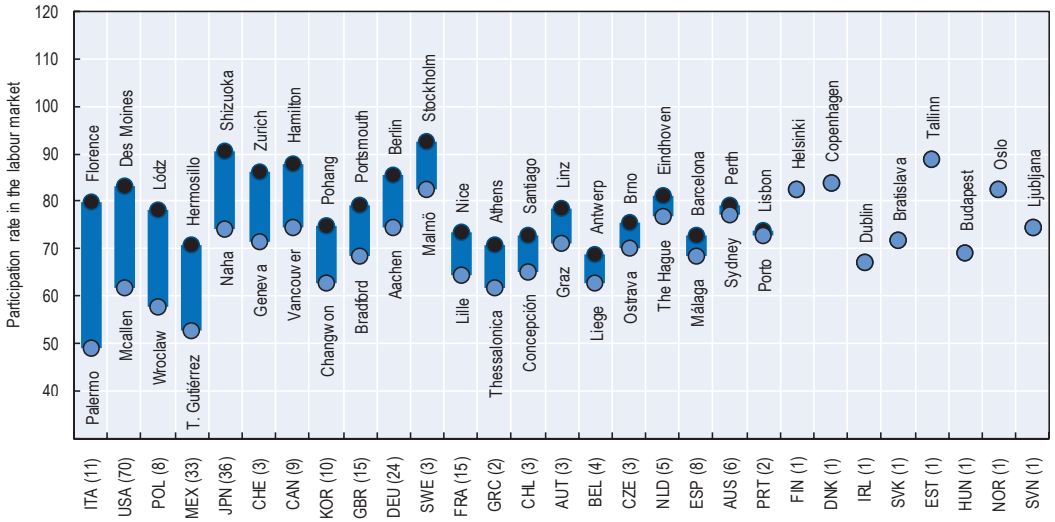
Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Improving participation in the urban labour market is crucial for inclusive growth

Cities are inclusive when all groups of society contribute to the generation of prosperity and, at the same time, share the resulting benefits. The participation of people in the labour market – whether people of working age have a job or are actively looking for one – is a key determinant of the extent to which the urban society as a whole is involved in the generation of prosperity. Active participation in the labour market also allows skills acquired during education to be maintained and to develop new skills on the job. In the long term, higher participation rates increase human capital and thus foster economic growth.

Metropolitan areas in the OECD have different levels of labour participation rates, with differences within the same country ranging from 0.7 percentage points (Portugal) to almost 30 percentage points (Italy) in 2014 (Figure 2.6).

Figure 2.6. **Differences in labour participation rates in metropolitan areas by country, 2014**



Note: All values refer to 2014 except for Austria, the Czech Republic and Switzerland (2013); and Slovenia (2011). The number of metropolitan areas in each country is shown in brackets.

Source: Authors' elaborations based on OECD (2015a), "Metropolitan areas", *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/data-00531-en.

In most countries, labour participation in metropolitan areas increased on average between 2000 and 2014, with the highest improvements observed in Estonia, Sweden and Germany (more than a 10-percentage point increase). On the other hand, metropolitan labour participation rates slightly declined between 2000 and 2014 in Canada, Ireland, the Slovak Republic and the United States. In the case of Dublin, the metropolitan economy reflected the national trend, as Ireland experienced a sharp decline in participation rates following the economic crisis in 2008. Currently, participation rates remain relatively low, especially among less educated people and women older than 30 (OECD, 2015b). For the United States, research shows that the most recent declines in labour participation rates among younger people have been concentrated in high-income households, while the opposite has occurred for workers older than 55 (Hall and Petrosky-Nadeau, 2016).

Several factors affect labour participation rates. In the short run, labour force participation can go hand in hand with trends in unemployment rates and wages. In the long term, however, several cultural, economic and institutional factors play a role in determining the extent to which people participate in the labour market. The long-run productivity of the economy and the return to education are typically important drivers of labour participation, as is the level of income (Daly and Regev, 2007). On the more cultural and institutional sides, it is important to consider whether there are physical (housing, transport) or cognitive (digital literacy) barriers to the labour participation of certain segments of the population, for example women, minorities, foreign-born population, etc.

The way cities are physically organised can also hamper labour participation, for example having disadvantaged people concentrated in specific areas far away from jobs and services. Evidence shows that socio-economic segregation in German cities is often positively correlated to low participation in the labour market (Box 2.3).

Box 2.3. **Social and spatial disparities in German cities**

Large differences can be observed in many German cities when taking the share of welfare recipients at the scale of the neighbourhood as an indicator of socio-economic disadvantage. In 2014, the share of welfare recipients ranged between 0.2% and 27% in Hamburg, between 1% and 33% in Cologne, and between 2% and 26% in Frankfurt. Thus, this social challenge is in some neighbourhoods almost completely absent, whereas in other parts of a city it affects almost a third of the population.

The share of welfare recipients in the various neighbourhoods is strongly and negatively correlated with voter participation. In Cologne, for example, the correlation coefficient between voter turnout and share of welfare recipients was -0.88 in 2014. In the neighbourhood of Cologne-Chorweiler, the one with the second-largest share of welfare recipients in 2014, only one-fourth of the eligible voters used their right in the last municipal election. The opposite happened in better-off urban districts, such as Cologne-Klettenberg, where the share of welfare recipients was only 4% and voter turnout higher than two-thirds.

Deprivation in multiple domains of life tends to concentrate in specific areas within a city, leading to a consolidation or even intensification of urban disparities. For example, data from the city of Bottrop (116 000 inhabitants) show that the share of welfare recipients is positively associated to the percentage of overweight children (correlation = 0.61), with body co-ordination disorder (correlation = 0.62) and speech disorder (correlation = 0.84).

Socio-economic segregation within German cities has been rising in the last 15 years. Among the factors that characterise increasing social and economic disparities within German cities are changes in the labour market, which in the largest cities did not reflect the changes that occurred at the national level. Recent evidence documents the following trends:

- Between 2001 and 2014 the labour-market situation improved substantially in Germany, but less so in the largest cities of the country. The unemployment rate for the whole country was 9.4% in 2001 and decreased to 6.7% in 2014. But the situation in the ten largest cities was less favourable, as the unemployment rate decreased only slightly in the period under consideration (from 9.6% to 9.1%). Although the productivity (GDP per worker) in the ten largest cities is, on average, 20-25% higher than that of Germany, the effect on the urban labour market seems to be limited.

- Foreigners and long-term unemployed persons face greater problems getting a job in the major German cities than in the rest of the country. Whereas the annual growth rate of foreign-born unemployment from 2001 to 2014 was 1% nationwide, the respective value for the ten largest cities was 1.5% higher. Also, the number of long-term unemployed decreased in this period for the whole of Germany by 1.3%, but rose in the ten largest cities annually by 0.1%.

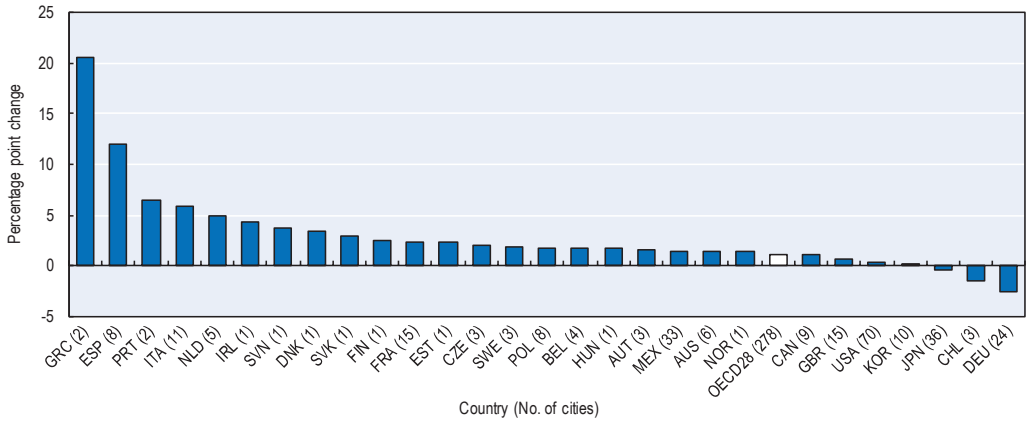
- Urban labour markets have become more favourable for highly qualified employees, but they provide fewer chances for those with no formal education. In 2001, 17.6% of the employed living in the ten largest cities had no formal qualification and 12.6% had a tertiary education. These shares changed throughout the following ten years. In 2011, the respective figure for those without a formal education dropped to 13.2%, whereas the share for the urban residents with a higher education climbed to 17.3%. Looking at trends, employees without any training in Germany decreased by 2.4% between 2001 and 2011, while employees with a tertiary education increased by 0.2%. However, considering the largest cities, only employees without training decreased, by 2.7%, while workers with a tertiary education increased, by 3.3%.

Source: Kawka, R. (2016), "Social and spatial disparities in cities – the flip side of urban productivity growth".

Enhancing the housing market, both raising the stock of housing and providing affordable housing, especially in locations which are close and well-connected to job centres, will have a positive impact on the access to jobs for all groups of people. This can, in turn, increase labour participation, which is crucial to achieving inclusive growth. Another housing feature that might play a role is the extent of homeownership. Research shows that under certain conditions such as declining housing values, high levels of homeownership can reduce labour mobility across cities or require longer commuting times, which in turn results in higher unemployment rates (Blanchflower and Oswald, 2013). However, such evidence is not conclusive, since the lower mobility induced by homeownership under declining housing prices – which are more likely to occur in downturn periods – might be offset by an increase in mobility induced by foreclosures (Valletta, 2013). In addition, the formation of new businesses could also be slowed down by zoning restrictions that are likely to be stronger in the presence of high levels of homeownership (Blanchflower and Oswald, 2013). On the other hand, homeowners tend to behave differently according to whether they have to repay a mortgage or not. Outright owners tend to remain unemployed longer as having a lower housing cost burden decreases the search intensity of individuals (Baert, Heylen and Isebaert, 2014).

Unemployment has generally increased in OECD metropolitan areas since the crisis, from 5.5% in 2008 to 6.6% in 2014. However, unemployment in metropolitan areas has evolved differently from country to country over this period. Unemployment rates have shown an overall reduction in the metropolitan areas of Chile, Germany and Japan, while they have increased by more than 10 percentage points, on average, in the metropolitan areas of Greece and Spain (Figure 2.7). In the latter cases, the worsening of job outcomes is due to the fact that the crisis hit these countries particularly hard, together with the need to bring budget deficits under control.

Figure 2.7. **Average unemployment rate change in metropolitan areas, 2008-14**



Note: The number of metropolitan areas in each country is given in brackets.

Source: OECD (2016c), *OECD Regions at a Glance 2016*, http://dx.doi.org/10.1787/reg_glance-2016-en.

Good and accessible education is needed for more prosperous and inclusive cities

The quality of human capital is an important factor for explaining the social and economic well-being of a city. There is robust evidence in both the United States and Europe that cities with higher shares of skilled workforce grew faster during the last three

to five decades (Glaeser et al., 2004; Südekum, 2010). Globalisation and technological progress have probably amplified the role of education in cities through a reduction of communication costs, which have favoured the ability to relocate the different tasks of the new global value chains across space. In this context, the most skilled cities have the ability to retain the most value-added activities with the less-skilled ones progressively loosing tasks (Potlogea, 2015).

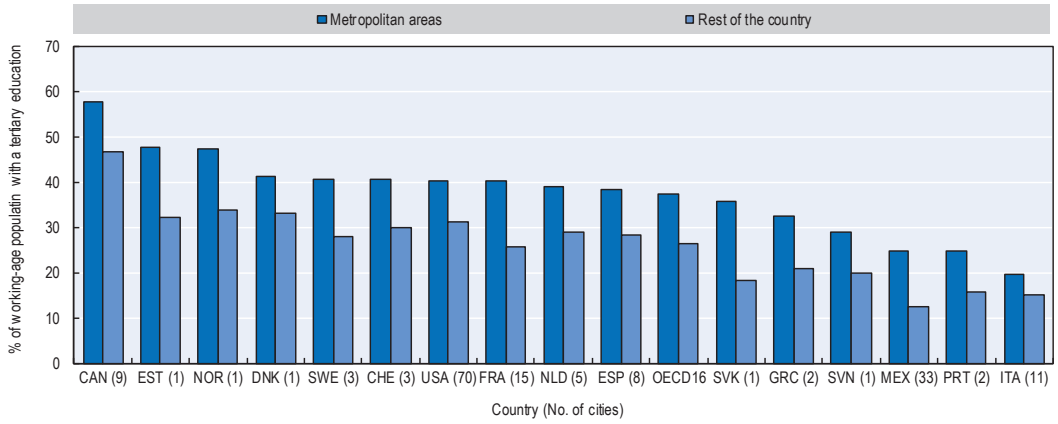
Research documents the outperformance of highly skilled cities with respect to other cities on several measures of urban performance, including population (Glaeser et al., 2004), productivity (Da Mata et al., 2007), wages (Glaeser and Maré, 2001) and employment (Shapiro, 2006). The mechanisms underlying the role of human capital on city growth include the idea of a faster human capital accumulation in cities with respect to other locations. Glaeser and Resseger (2010) provide evidence that the correlation between metropolitan population and labour productivity is stronger in more educated cities, suggesting that the role of proximity (typical in dense locations such as metropolitan areas) is that of spreading knowledge across individuals, but this effect is higher across highly skilled and productive workers.

Metropolitan areas concentrate a large share of highly skilled people. In 2012, on average, metropolitan areas accounted for almost 40% of the population aged 25-64 with a tertiary education (Figure 2.8). This share was more than 10 percentage points more than the share of educated people outside metropolitan areas. Large differences are observed across countries. In Estonia, France and the Slovak Republic the shares of educated people in metropolitan areas was at least 15 percentage points higher than in the rest of their respective countries. In most cases, such differences were greater than 10 percentage points. People in Portugal and in Italy have, on average, the lowest share of tertiary education, but also relatively low differences between metropolitan and non-metropolitan dwellers (8.9 and 4.4 percentage points, respectively). In these countries, around 40% of the population aged 25-64 still had only a basic education.

Large differences in terms of educational attainment can also be observed across metropolitan areas. Such differences might reflect disparities in terms of access to education, migration or even people's choices based on the characteristics of the labour market. In the United States, the share of people with a tertiary education is twice as high in Washington, DC than in McAllen, Texas (53% and 20% respectively). Differences between cities in terms of tertiary educational attainment are more than 15 percentage points in Canada, France and the Netherlands. In the Netherlands, 28% of the working-age population of Rotterdam has a tertiary education, while in The Hague the share is 50%. The smallest differences are observed in Greek cities, where educational attainments are low: only 30% of the population aged 25-64 in Thessalonica and Athens completed a tertiary education.

The accumulation of human capital in cities is a key mechanism to the generation of jobs. Research on US metropolitan areas shows that higher shares of tertiary educated workforce positively affect employment growth (Shapiro, 2006). Such an effect is mainly due to gains in productivity, though a certain role is also played by an increase in quality of life. More educated populations often demand the provision of consumption amenities and can influence the political process to provide more of such amenities (Shapiro, 2006). Changes in amenities further amplify the inequality between cities with different levels of skills, with a wage gap becoming a well-being gap as well (Diamond, 2015).

Figure 2.8. **Share of persons aged between 25 and 64 with a tertiary education, 2012**



Notes: Data for the United States refer to the population above 25 years old, while the rest of the data refer to the population between 25 and 64 years old. Last available years: the Check Republic, France, Norway and the United States 2012; Canada, Estonia, Italy, the Netherlands, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom 2011; Mexico 2010; Denmark 2015. The number of metropolitan areas in each country is given in brackets.

Sources: EU countries and Switzerland: Urban Audit; Canada: 2011 National Household Survey; the United States: USA: American Community Survey 5-year estimates; Mexico: Censo de Población y Vivienda 2010; Denmark: Statistics Denmark.

People living in metropolitan areas have better access to more diverse jobs, which can foster learning and the diffusion of knowledge and enhance people's opportunities to prosper. Evidence shows that urban workers get a wage premium which tends to increase over time and to stay after leaving the city (Glaeser and Maré, 2001). The opportunities that cities can provide start from the first levels of education. Evidence from the OECD Programme for International Student Assessment (PISA) shows that the share of low-performing students in mathematics is 29% and 21% for students who attend school in rural and urban areas, respectively (OECD, 2016b). Such difference remains statistically significant after having controlled for other socio-economic characteristics of students, such as their economic status, gender, language background, family structure and whether they are migrants.

Inclusive urban environment through better quality of life

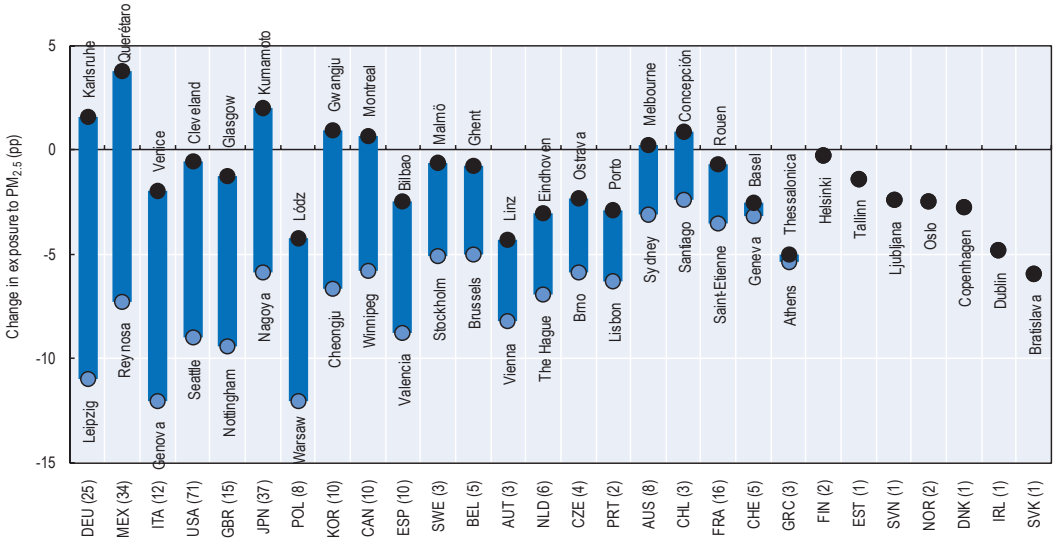
Air quality is improving in most metropolitan areas

Air quality is a fundamental feature for the well-being of urban citizens and also has an impact on public health. Compared to other well-being outcomes, air quality tends to be shared more equally among social groups living in the same metropolitan areas. Thus, any improvement in air quality is likely to benefit the whole metropolitan society. Various public interventions that took place during the last decades reduced air pollution in most developed countries. Research in the United States shows that reductions in particulate matter are associated with an increased life expectancy, after controlling for socio-economic, behavioural and demographic characteristics (Correia et al., 2013). In addition, this association tends to be stronger in cities than in less densely populated areas.

During the last decade, OECD metropolitan areas recorded clear trends of reducing air pollution. As shown in Figure 2.9, the share of metropolitan population exposed to air

pollution (particulate matter, $PM_{2.5}$) was lower in 2013 than in 2002 for most metropolitan areas. Only three metropolitan areas, namely Querétaro (Mexico), Kumamoto (Japan) and Karlsruhe (Germany) showed an increase, of slightly more than 1 percentage point during this period. Significant differences are observed in the change of air quality in OECD metropolitan areas, with ten countries showing more than a 5-percentage point gap across their respective metropolitan areas. Differences were particularly high among cities located in Germany, Mexico, Italy, the United States and the United Kingdom.

Figure 2.9. **Differences in change in exposure to $PM_{2.5}$, metropolitan areas, 2002-13**



Note: The number of metropolitan areas in each country is given in brackets.

Source: Authors' elaborations based on OECD (2015a), "Metropolitan areas", *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/data-00531-en.

Metropolitan areas are also engines of economic prosperity and locations for many economic activities, which sometimes yield negative externalities for air quality and other environmental outcomes. In addition, the way people travel daily within metropolitan areas for work, consumption and leisure purposes is an important determinant of air pollution. In this respect, the spatial organisation of population, economic activities and built environment within the metropolitan space are associated with commuting patterns and the consequent emissions of pollutants (Cirilli and Veneri, 2014). When housing and transport policies are designed in a way that ensures efficient and accessible public transport for all citizens, especially the most disadvantaged, higher prosperity can be achieved together with better environmental and health outcomes.

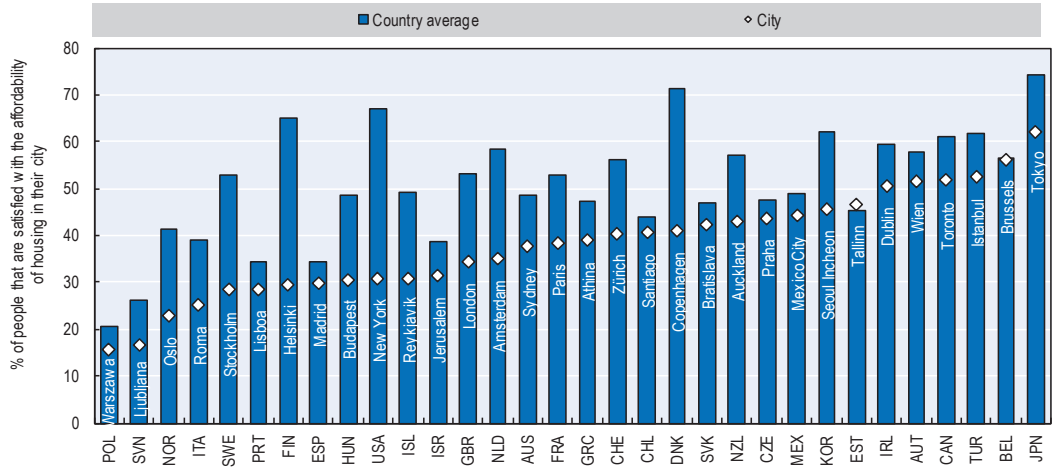
Better policies are required to ensure affordable housing in cities

Housing costs often consume the largest share of the household budget. Spending most of the household income on rent or servicing a mortgage can limit the consumption of other necessary material goods. Given their budget possibilities, households choose the housing option that, according to their own preferences, maximises dwelling quality (e.g. size) and its accessibility (location). Especially for low-income households, this choice becomes a trade-off between the need to have enough space for all components of the

household and being close enough to job centres and/or public services. Both elements are important aspects of people's life and they can affect individual outcomes even across generations. For example, evidence shows that living in small and overcrowded housing can affect children's development through reducing their performance at school (Goux and Maurin, 2005). Similarly, housing can be affordable, but be located in disadvantaged neighbourhoods with relatively low-quality public services or low accessibility to jobs. In addition, growing up in a poor neighbourhood can result in living in a similar neighbourhood later in life and is associated with lower intergenerational mobility in terms of income (see Chapter 4).

People living in large cities are, on average, less satisfied with the affordability of housing with respect to the national average (13.3 percentage points of difference on average) (Figure 2.10). This applies to all countries' largest cities, with only one exception, Tallinn (Estonia). The gap in satisfaction with the cost of housing between the country average and the major city is strikingly large in the United States (compared to New York) and in Finland (compared to Helsinki), at around 35 percentage points. High gaps are also observed in Denmark, Sweden and Switzerland, while the lowest differences are observed in Belgium, Chile and the Czech Republic (Figure 2.10).[4]

Figure 2.10. **Satisfaction with the affordability of housing in the largest cities, 2006-14**



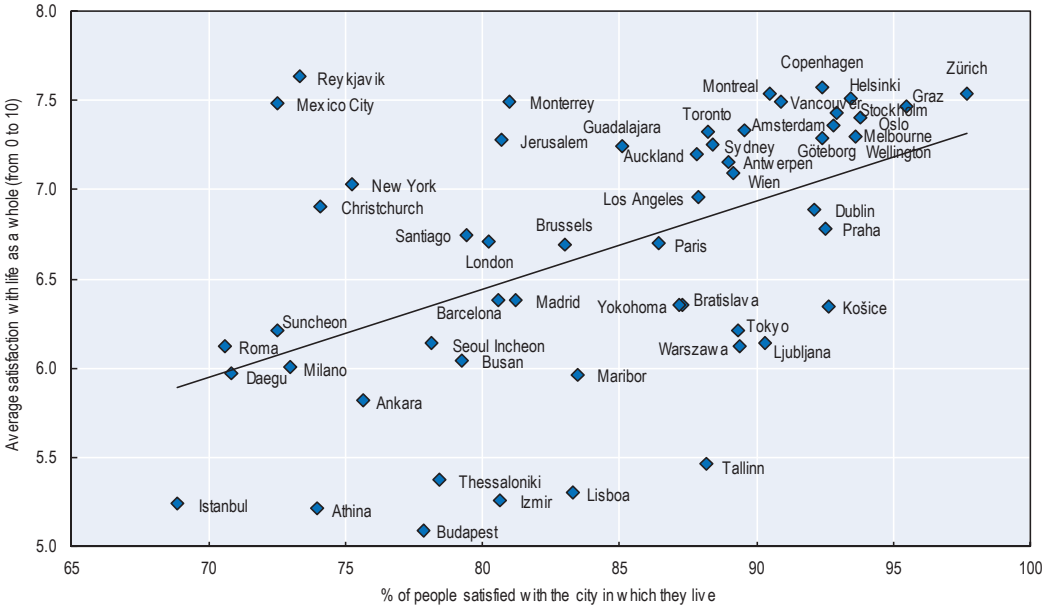
Source: Authors' elaborations based on Gallup World Poll.

Cities can play an important role in increasing satisfaction with life as a whole

A good city to live in can foster people's life satisfaction. The Gallup World Poll provides information about individuals' life satisfaction, which is measured through the Cantril scale (from 0 to 10)[5], including for those living in the largest cities of the different countries. The same survey also asks about people's satisfaction with the city they live in. Figure 2.11 shows a positive correlation (of around 0.5) between the proportion of people that is satisfied with their city and satisfaction with life as a whole. There is a group of cities at the top right of the graph that show both high levels of satisfaction with life and a high proportion of the people that is satisfied with the city (e.g. Zurich, Switzerland; Graz, Austria; Helsinki, Finland; Wellington, New Zealand; Oslo, Norway; and Stockholm, Sweden). On the other hand, there are some cities, such as Reykjavik (Iceland) and Mexico City, with high levels of satisfaction with life as a whole, but that report low proportions of people satisfied with the city in which they live. While such a correlation

does not make it possible to test whether the satisfaction with the city affects or follows overall life satisfaction, it suggests that, besides the role of individual characteristics (age, education, status, jobs, income, health, etc.), the characteristics of the place where individuals live can play an important role in shaping people's well-being.

Figure 2.11. **Satisfaction with life and satisfaction with the city, 2006-14**



Source: Authors' elaboration based on Gallup World Poll.

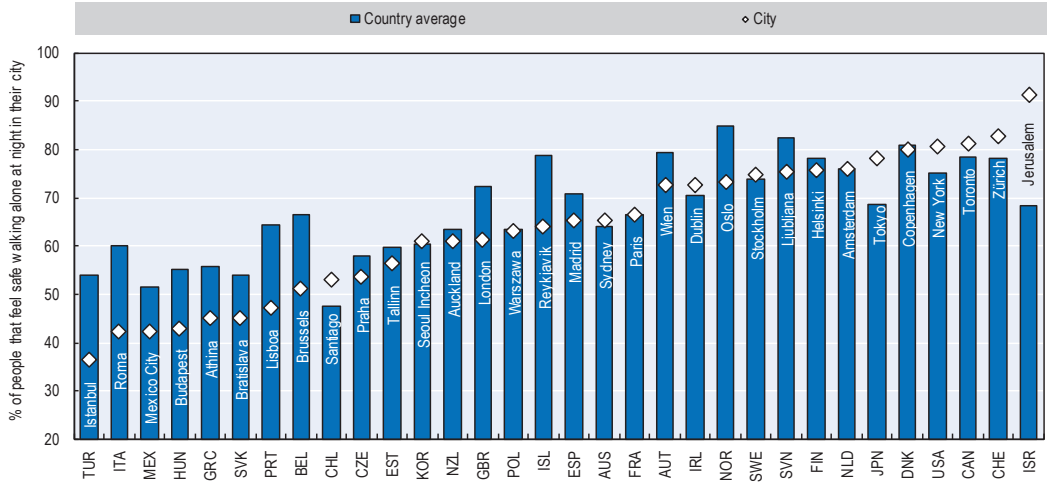
People do not feel safe in all cities

Personal security is an important component of life. Crime, violence and a lack of safety not only have a direct effect on the victims and their families, but on all the inhabitants of the same community as well and on the socio-economic development of these communities and cities. As for environmental outcomes and access to services, the conditions in terms of safety – both objective and perceived – tend to depend on the characteristics of the neighbourhood or of the city. National averages are therefore not very useful to get a sense of the actual conditions people experience every day. The neighbourhood is a relevant scale for monitoring safety outcomes, but it should be done in the context of the whole city, as the cohesion among neighbourhoods in a city can help reduce crime. Previous research from the United States shows that the efficacy of collective action among the different neighbourhoods is negatively associated with violence in cities (Sampson, Raudenbush and Earls, 1997).

The Gallup World Poll provides information about whether a respondent feels safe walking alone at night in his/her city. It has to be noted that perception measures of safety reveal people's feelings, but do not necessarily reflect the actual safety conditions as measured by more objective indicators, such as the murder rate or reported criminal offences. However, such measures are important to understand the perceived quality of life of individuals in the dimension of safety. In 21 out of 32 cities, the percent of people that feel safe walking alone at night is lower than the country average (Figure 2.12).[6] The largest differences between the city and the national averages are found in Rome (Italy), Istanbul (Turkey), Lisbon (Portugal) and Brussels (Belgium), where such differences are

around 15 percentage points. In several of the cities considered, such as Istanbul (Turkey), Rome (Italy), Mexico City, Budapest (Hungary), Athens (Greece), Bratislava (Slovak Republic) and Lisbon (Portugal), less than 50% of the population feels safe walking alone at night.

Figure 2.12. **Perception of safety in cities, 2006-14**

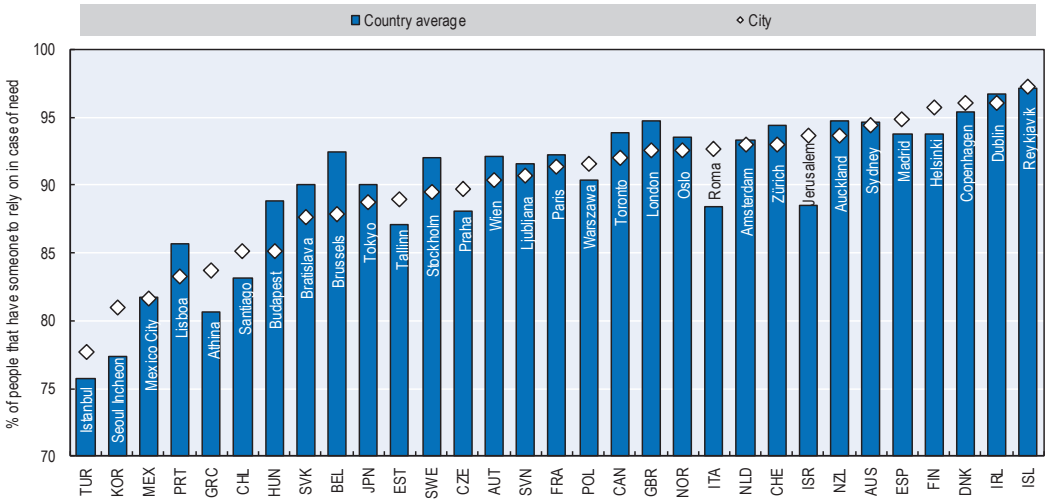


Source: Author's elaboration based on Gallup World Poll.

Trust in others varies significantly across rural and urban areas

Interpersonal relations or social connections provide emotional and material support in times of need and help people develop personally and professionally. Especially when formal mechanisms such as health insurance or stable jobs are weak, having a good social support network can be an important factor to help people accomplish their objectives and succeed in life. While this is likely to hold everywhere, it might be especially important for people moving to cities in search of better life conditions. Cities' characteristics can play a role in both the individual need and in the capacity to supply social support. Recent research applied in Canadian cities shows that social support availability is positively associated with higher self-perceived mental health, and is higher in small urban centres (Chadwick and Collins, 2015). In small settlements it could be easier to provide more effective social support services, though recent immigrants in small cities are more likely to report lower mental health than those residing in large cities (*ibid*). The Gallup World Poll allows social support perceived by people to be assessed in many OECD and non-OECD countries and to distinguish the national average from the largest city. Within countries, the gaps between the largest city and the country average are considerably small and generally close to zero. In 13 out of the 31 cities considered, the percentage of people that have someone to rely on in case of need is lower than the national average; the largest differences are observed in Jerusalem (Israel) and Rome (Italy), though these gaps never overcome 5 percentage points (Figure 2.13).

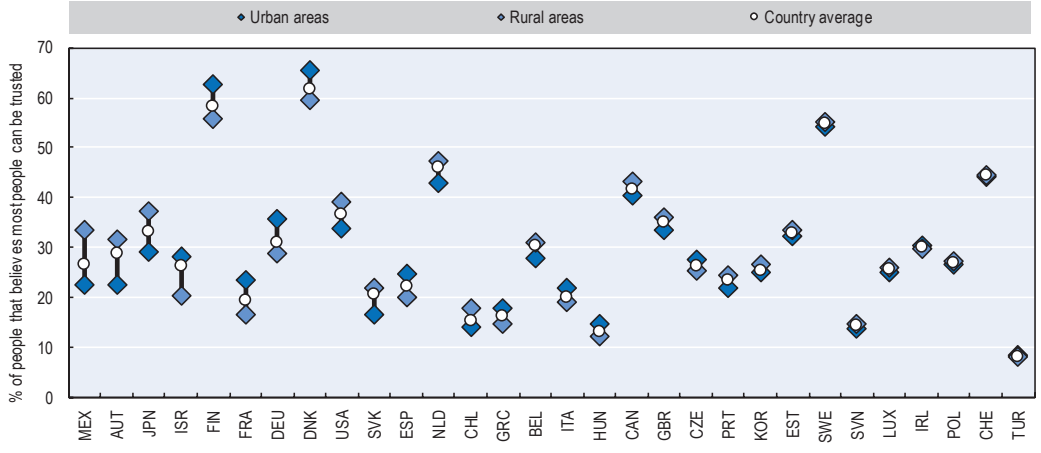
Figure 2.13. **Social support networks in cities, 2006-14**



Source: Author's elaboration based on Gallup World Poll.

The degree of people's trust in others varies according to the place where individuals live. Cities with high levels of safety and where people participate in the community life tend to ultimately show higher average levels of trust in others (Krey, 2008). In turn, trust enhances social capital and the functioning of the economy, fostering social progress. By analysing the data from the pooled Gallup World Poll, it emerges that trust in others varies importantly across rural and urban areas; however, there is no clear pattern on which kind of area is the most trusting. Figure 2.14 shows that for 18 out of 30 countries, levels of trust in others is higher in rural than in urban areas, particularly in Austria, Japan, Mexico and the United States (all above the 5.5 percentage point mark). On the other hand, the percentage of people that believes that most individuals can be trusted is higher in the urban than rural areas in Denmark, Finland, France, Germany and Israel. While city governments might not able to directly improve trust among their residents, levels of trust can be fostered indirectly by enabling people to participate more in public life, in both formal and informal ways.

Figure 2.14. **Trust in others, 2009-10**



Source: Authors' elaboration based on Gallup World Poll.

Conclusions

This chapter provided city-level data to track inclusive growth in OECD cities. Building on the OECD inclusive growth framework, a set of well-being indicators was developed so to provide a multidimensional picture of life in cities. The indicators are grouped into two policy domains that represent areas where national and local governments can have a strong impact on inclusiveness in cities. The two domains are human and social capital (income, jobs and education) and urban environment (housing, transport, environment, safety, social support and subjective well-being). Finally, to take into account distributional effects, different measures of income inequality in cities have been computed.

All variables are presented separately in the chapter. This makes it possible to depict the specific challenges and strengths experienced by people living in cities with respect to those living elsewhere. It also helps to shed light on the diversity of challenges across different cities, both within the same country and across countries. People's well-being can be also assessed by jointly considering different dimensions, for example using composite indicators. While this latter strategy can produce results which are more difficult to interpret, it can help understand what the relationships between different well-being dimensions are, whether they amplify or reduce well-being differences across cities and under what conditions. Such an approach is illustrated in the next chapter (Chapter 3).

Notes

1. The OECD *Regional Well-being Database*, for example, includes indicators for the 370 OECD regions on 11 topics: income, job, housing, education, access to services, environment, health, safety, civic participation and governance, social connections, and life satisfaction; see www.oecdregionalwellbeing.org.
2. Data on income changes for metropolitan areas are not available for Mexico.
3. The regression coefficient of total population (in natural logarithm) is equal to 0.013 and is statistically significant at 99% confidence level. This result is obtained from a cross-section of metropolitan areas considering the last year available. Similar results are obtained using more points in time (both with and without time and metropolitan fixed effects). The simple correlation coefficient between the logarithm of total population and the Gini coefficient is 0.22.
4. The Gallup World Poll is designed to provide nationally representative statistical samples. Various statistical techniques were applied to estimate the values at the subnational level, including pooling together different years and restricting the analysis to capital cities (for more details see Brezzi and Diaz Ramirez, 2016).
5. Life satisfaction in the Gallup World Poll is measured with the question "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?"

6 Given the limited sample from the Gallup World Poll, data are presented only for the largest cities. National surveys, such as the Mexican Survey on Urban Public Safety, allow the perception of safety in cities of different population sizes to be measured.

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Annex 2.A1.
Sources of data for computing household income levels in metropolitan areas

Table 2.A1.1. **Sources of data**

Country	Source	Link	Original definition of income	Households estimation
Australia	Australian Bureau of Statistics	www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6524.0.55.0022005-06%20to%202010-11?OpenDocument	Total income from all sources: wages and salaries, own unincorporated business, superannuation and annuities, investments and other income (excluding government pensions and allowances).	Estimated from official population
Austria	Statistics Austria	Sent by Statistics Austria	Net income = total income including transfer payments – tax paid.	Estimated from official population
Belgium	Statistics Belgium	http://statbel.fgov.be/fr/modules/publications/statistiques/marche_du_travail_et_conditions_de_vie/Statistique_fiscale_des_revenus.jsp	Taxable net total income (all net income after subtracting deductible expenses) – total income tax (amount of state taxes, local taxes and agglomeration taxes).	Official
Canada	Statistics Canada	Sent by Statistics Canada	Household disposable income, defined as employment income + semi-employment income + investment income + transfers received – transfers paid.	Official from census
Chile	CASEN – Ministry of Social Development	www.ministeriodesarrollosocial.gob.cl/basededatoscasen.php	Household disposable income.	Estimated from the micro-data
Denmark	Statistics Denmark	http://statistikbanken.dk/statbank5a/default.asp?w=1920	Disposable income per fiscal household excluding imputed rent.	Official
Estonia	Statistics Estonia	http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=IM005&ti=AVERAGE+MONTHLY+GROSS+INCOME+PER+EMPLOYEE+AND+RECIPIENTS+OF+GROSS+INCOME+BY+REGION%2F++ADMINISTRATIVE+UNIT%2C+SEX+AND+AGE+GROUP&path=../I_Databas/Social_life/06Income/&lang=1	Gross income – remuneration subject to social tax, paid to the employee or public servant; scholarship, allowance and pension paid in relation to the employment or service relationship; remuneration paid for the performance of work paid pursuant to a legal act or other legislation; remuneration paid to a person after the end of employment or service relationship (excluding benefits paid to the employee or public servant upon the termination of contract or upon removal from post) according to the Estonian Tax and Customs Board declaration of income and social tax, unemployment insurance premiums and contributions to mandatory funded pension.	Estimated from official population

Table 2.A1.1. **Sources of data** (*continued*)

Country	Source	Link	Original definition of income	Households estimation
Finland	Statistics Finland	http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__tul__tjkt/010_tjkt_tau_101.px/?rxid=10c8d752-b029-42d2-8e14-58949da5daf0	Households' disposable money income includes monetary income items and benefits in kind connected to employment relationships. Money income does not include imputed income items, of which the main one is imputed rent. The formation of disposable money income can be described as follows: wages and salaries + entrepreneurial income + property income (without imputed rent) + current transfers received (without imputed rent) – current transfers paid.	Official
France	National Institute of Statistics and Economic Studies (INSEE)	www.insee.fr/fr/bases-de-donnees/default.asp?page=statistiques-locales/revenu-niveau-vie.htm	Tax income corresponds to the sum of the resources declared by taxpayers on their income tax return prior to any deduction. It does not correspond to disposable income. Tax income thus includes the income from salaried activity and self-employment, disability and retirement pensions (excluding the minimum for old age), alimony received (with alimony paid deducted), certain income from household assets, and taxable social income: sickness and unemployment benefits (excluding the RSA). Tax income is broken down into four main categories : salaried income; income from non-salaried professions (profits); pensions and annuities; other income (essentially from assets).	Official
Hungary	Regional Development and Spatial Planning Information System	www.teir.hu	Net personal income. Net personal income data is the income after tax per capita (for one year). Net income = domestic income – tax per population.	Estimated from official population
Italy	Ministry of Economy and Finance, Department of Finance	www1.finanze.gov.it/finanze2/pagina_dichiarazioni/dichiarazioni.php	Total taxable income from fiscal declarations.	Estimated from official population
Japan	Ministry of Internal Affairs and Communications	www5.cao.go.jp/keizai-shimon/kaigi/special/future/keizai-jinkou_data.html	Taxable income per taxpayer from fiscal declaration.	Official; estimated from population for 2013
Mexico	National Council for the Evaluation of Social Development Policy	Sent by the National Institute of Statistics and Geography (INEGI)	Household total income is equal to monetary income and non-monetary income: work-related income (remuneration for subordinate work and independent work income), property rental income and transfers (including in-kind transfers).	Estimated by the state's numbers of households
Netherlands	Statistics Netherlands	www.cbs.nl/nl-NL/menu/themas/inkomen-bestedingen/cijfers/inkomen-van-huishoudens/default.htm	Disposable income is gross income minus current transfers paid as alimony to the ex-spouse(s), income insurance premium such as premiums paid for social/national/private insurance related to unemployment/disability/old-age/next-of-kin, health insurance premiums.	Official

Table 2.A1.1. **Sources of data** (*continued*)

Country	Source	Link	Original definition of income	Households estimation
Norway	Statistics Norway	www.ssb.no/en/statistikkbanken	Ordinary income after special deductions is the equivalent of net income. Ordinary income after special deductions is the basis for municipal income tax, county income tax and community tax. Special deductions are given due to age, disabilities or reduced ability to earn an income, unusual high expenses due to illness, and parents' deductions.	Official
Sweden	Statistics Sweden	www.statistikdatabasen.scb.se/pxweb/en/ssd/START__HE__HE0110__HE0110A/SamForvInk1/?rxid=55325ff2-4a5e-48e6-b8a4-a102bdd8c16d	Income from employment and business. It also includes income from pensions, sick pay and unemployment benefits.	Estimated from official population
United Kingdom	Office for National Statistics	www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-416744	Weekly household income, which is the sum of the gross income of every member of the household plus any income from taxes/benefits, such as Working Families Tax Credit.	Estimated from official population
United States	American Community Survey	http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none	Total income is the sum of the amounts reported separately for wage or salary income; net self-employment income; interest, dividends or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor or disability pensions; and all other income.	Official

Chapter 3.

A three-dimensional measure of inclusive growth in regions

This chapter proposes a measure of inclusive growth that integrates the income dimension with non-income outcomes, jobs and health, and takes into account the distribution of income among different household groups. Following the OECD inclusive growth framework, this summary measure of welfare – expressed in monetary terms and called multidimensional living standards – is applied to 209 OECD regions covering the period 2003-12. This is the first time that such data have been collected and analysed in this way at subnational level. The chapter describes levels and trends of multidimensional living standards in regions focusing on three aspects. It first looks at whether the different components of living standards reinforce each other in regions; second, it analyses whether economic growth in regions translates into higher multidimensional living standards; finally, the chapter explores whether living standards have followed different trends in metropolitan regions compared with the other parts of a country.

Introduction

The previous chapter provided an array of data to measure and compare income inequality and well-being outcomes in cities across OECD countries. It underlined that beyond gross domestic product (GDP) per capita there are other dimensions, such as jobs, education, health or environment, that allow people to participate in the society and contribute to economic growth. Understanding how economic growth translates into higher well-being requires new data and analytical tools to assess the outcomes that matter the most for people, together with their distribution across groups. Moreover, economic welfare and well-being outcomes can mutually reinforce each other, particularly in regions and cities (OECD, 2011); for example, efficient public transport may help connect people to job opportunities with a positive impact on the productivity of the labour force and at the same time have beneficial outcomes on the environment, health or time saved for personal activities. Having a comprehensive picture of how the different dimensions interact in a city can help policy makers design policy packages that leverage on the complementarities and work on the possible trade-off between pro-growth and pro-inclusiveness actions.

This chapter proposes a measure of inclusive growth that integrates the income dimension with non-income outcomes, jobs and health, and takes into account the distribution of income among different household groups. Following the OECD inclusive growth framework, this summary measure of welfare – expressed in monetary terms and called multidimensional living standards (henceforth MDLS) – is applied to 209 OECD regions covering the period 2003-12, expanding the results found at the national level (OECD, 2014a). This is the first time that such data have been collected and analysed in this way at subnational level. The measure of inclusive growth is used in this chapter to test three main aspects. First, whether regional growth in multidimensional living standards follows a different pattern from economic growth, if so reinforcing the relevance of using an array of measures beyond GDP per capita. Second, the analysis looks at whether income, jobs and health outcomes reinforce each other in a region, thus increasing the welfare of already income-rich regions and amplifying regional disparities within countries. Finally, the analysis looks at whether living standards have followed different trends in metropolitan regions compared with the other parts of a country.

Regional MDLS are computed by adding the disposable income for different household groups (i.e. income quintiles) in different regions to monetised values of health and jobs outcomes. The resulting equivalent income of each household group is subsequently aggregated at the level of each region using a generalised mean (Atkinson, 1970).[1] It should be noted that due to data unavailability at the city level, the MDLS are computed for regions. Future improvements of cross-country comparable variables for cities – for example extending the time series on income and inequalities computed in Chapter 2 and producing information on health – will allow this analysis to be applied to cities. In the meantime, the level of geography of regions, however, allows distinguishing between metropolitan (i.e. where most of the regional population lives in large cities) and non-metropolitan regions.[2]

The main findings from this analysis are:

- Regional disparities in MDLS are consistently starker than those in household disposable income only, reflecting that the different well-being dimensions considered amplify the concentration of prosperity or exclusion in regions.

- Growth of GDP per capita in regions does not always translate into higher living standards, highlighting the relevance of including additional measures for policy analysis on inclusive growth.
- Metropolitan regions have higher standards of living than other parts of their respective countries; on average, multidimensional living standards are about 30% higher in metropolitan regions than in non-metropolitan ones. At the same time, the economic crisis has taken a heavy toll in all regions, where living standards, on average, decreased in the period 2007-12, especially driven by declining household income and increasing unemployment rates. The existing process of convergence of non-metropolitan regions, which showed relatively higher growth of MDLS relative to metropolitan regions, has been stagnating since the economic crisis.

The computation of living standards in regions

The measurement framework of the OECD inclusive growth approach relies on computing MDLS, a welfare measure based on the equivalent income approach (OECD, 2014b). The equivalent income approach consists in measuring well-being in terms of an income metrics, but including other non-material dimensions (for example health or jobs) that are aggregated to the income measure by attributing to each of them a "shadow price" (Decancq, Fleurbaey and Schokkaert, 2015).

The index of MDLS considers three well-being dimensions, measured by household disposable income (income), the unemployment rate (jobs) and life expectancy at birth (health).[3] The unemployment and life expectancy indicators are converted into monetary units through shadow prices, which are used to compute the equivalent income of each person. Equivalent income is the level of income that would make an individual indifferent between his/her current situation and one where the other non-income dimensions were set at their respective benchmarks, for example maximum life expectancy and a situation without unemployment (Murtin et al., 2015). This method is applied to each income group in each region (Veneri and Murtin, 2016). Because of data constraints, the methodology relies on household income data pertaining to the quintiles of the distribution, and on the average unemployment and life expectancy pertaining to each region. Subsequently, the living standards of each income group are aggregated by region, using a generalised mean (Atkinson, 1970). Such aggregation can give a different importance to each group depending on the "aversion to inequality" chosen in the aggregation. The results shown in this report are obtained by using an inequality aversion parameter that reflects the median household welfare. The detailed methodology to compute MDLS in regions is described in Annex 3.A1.

All indicators refer to the OECD large regions (Territorial Level 2, TL2), which generally correspond to the first tier of subnational government in each country. Life expectancy data and unemployment rates at regional level are available on a yearly basis via the *OECD Regional Database*.[4] Levels and distribution of disposable household income in regions are available for 26 countries via the *OECD Regional Database* only for one point in time (circa 2012). Given the dynamic nature of inclusive growth, indicators over time of the distribution of household disposable income within regions, were estimated for 15 OECD countries through a dedicated household-level data calculation for several points in time between 2003 and 2012 (Royuela, Veneri and Ramos, 2014). The countries considered in the analysis are Belgium, Canada, Chile, the

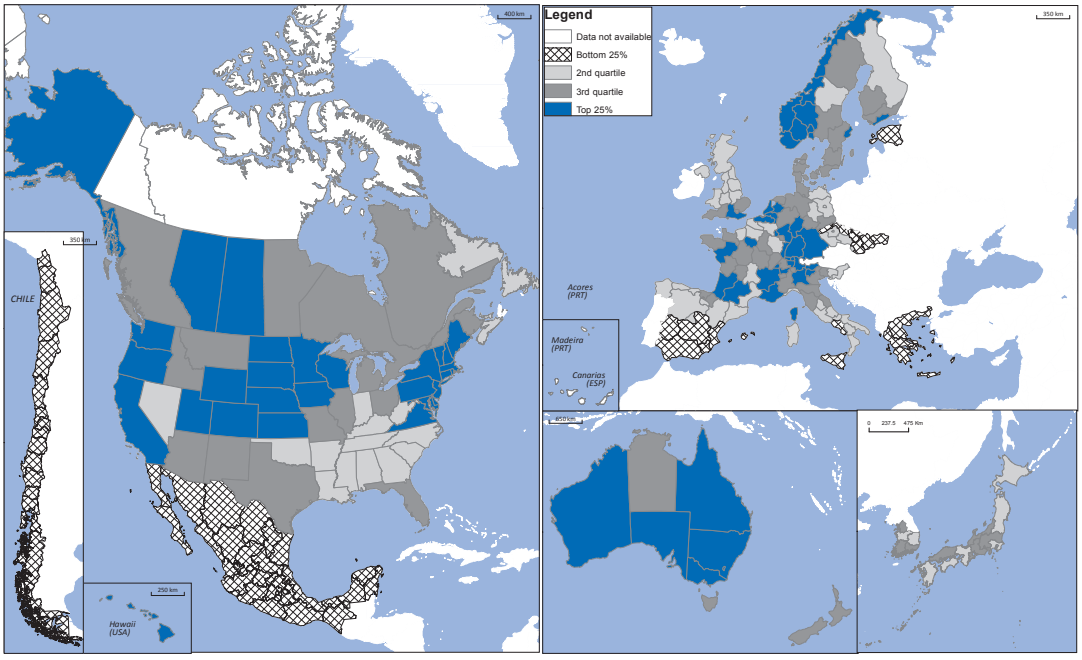
Czech Republic, Estonia, Finland, France, Greece, Italy, Korea, Luxembourg, Mexico, Spain, the United Kingdom and the United States.[5]

Evidence on living standards across regions

Large regional disparities exist in the multidimensional living standards within the same country. Considering all OECD countries together, regions from Australia, Canada, north and Central Europe have high MDLS, while MDLS in southern European and Latin American regions are at the bottom of the distribution (Figure 3.1). Moreover, living conditions among regions diverged in several countries in the period 2003-12, with some regions growing in income, jobs and health outcomes and others declining. In about half of the regions performing at the top of the MDLS scale, gains in living standards have been faster for people at the bottom part of the income distribution.

Figure 3.1. **The distribution of multidimensional living standards, OECD TL2 regions**

Around 2012 or latest available year



Source: Veneri, P. and F. Murtin (2016), "Where is inclusive growth happening? Mapping multi-dimensional living standards in OECD regions", http://dx.doi.org/10.1787/5jm3nptzwsxq-en.

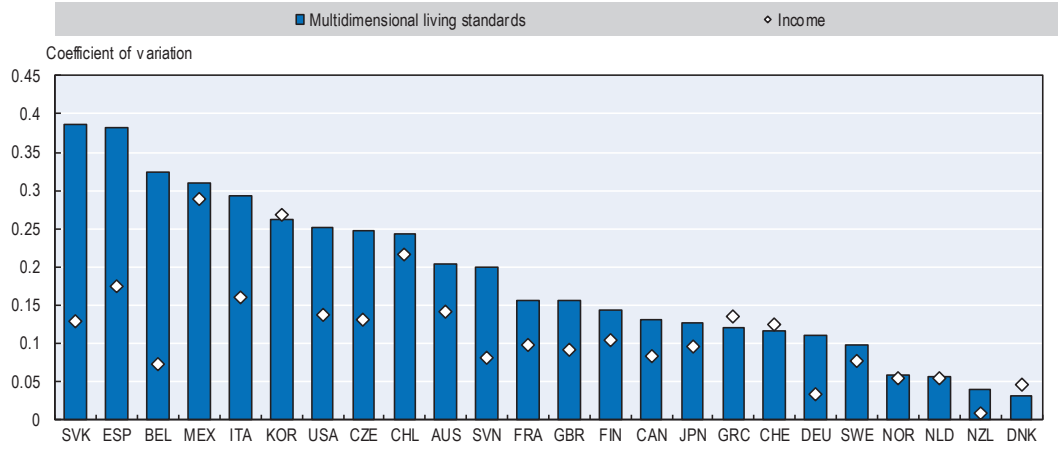
Regional differences in multidimensional living standards are consistently starker than those in disposable income only

Previous OECD work highlighted that disparities among regions can be wider than across countries and the gaps between regions in many dimensions, such as GDP per capita, household income, safety and air pollution, are widening (OECD, 2016). Since 2003, regional disparities in MDLS increased in 8 out of the 15 countries where data availability allowed changes to be measured. When considering together income, income inequality, jobs and health, regional disparities are almost always higher than those in disposable income only. In Belgium, Germany, Italy, the Netherlands, Slovenia,

the Slovak Republic and Spain, for example, the regional gap in multidimensional living standards, measured by the coefficient of variation, is at least twice the regional difference in just income (Figure 3.2).[6] This suggests that well-being outcomes tend to amplify the differences observed in terms of household income levels, i.e. people living in regions with high levels of income are also likely to have better jobs and health outcomes, on average. Policies that tackle together the different dimensions of well-being can thus have a positive impact on economic prosperity. Only in Denmark, Greece, Korea and Switzerland were regional disparities higher in income than in MDLS, implying that regional inequalities in the various well-being outcomes tend to offset each other in these countries (Figure 3.2).

Figure 3.2. **Regional disparities in multidimensional living standards and in household disposable income, 2012**

Coefficient of variation (higher values = larger disparities)



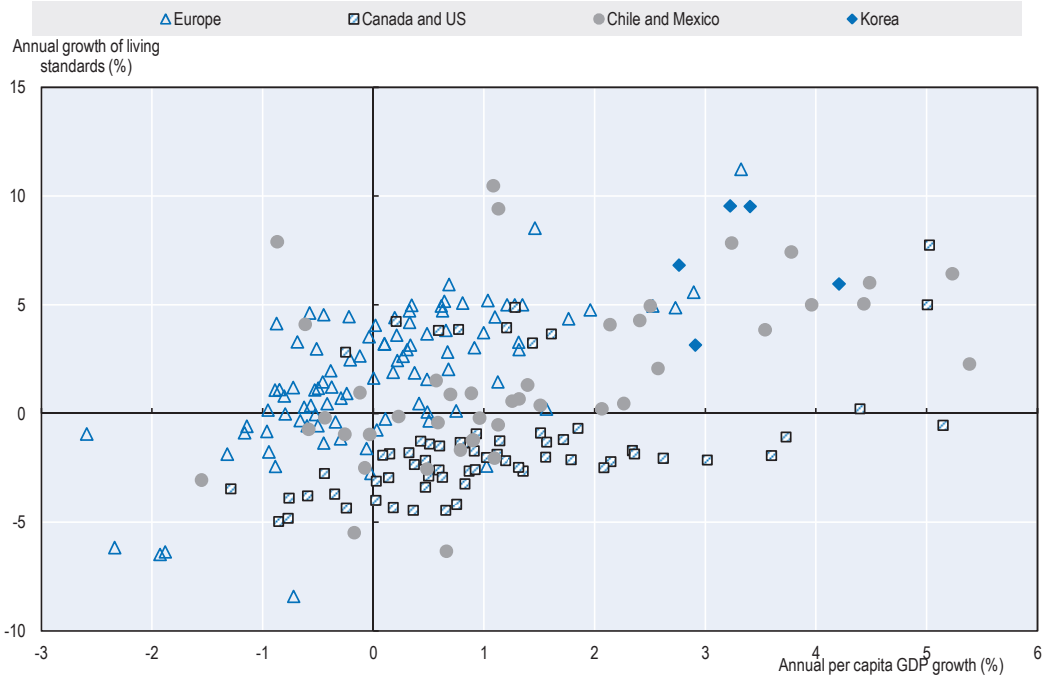
Source: OECD calculations based on OECD (2015c), *OECD Regional Well-being Database* and national income surveys, http://dx.doi.org/10.1787/region-data-en.

Growth of GDP per capita in regions does not always translate into higher living standards

During the period between 2003 and 2012, MDLS increased in more than half of all regions, but declined in several others. Growth in MDLS experienced by regions varied considerably within the same country. For instance, in Chile, France, Mexico and the United States, regions experiencing relatively strong increases in MDLS coexisted with others recording a decline. This resulted in higher regional disparities in overall living standards within these countries. Income, jobs, health and inequality contributed differently to changes in MDLS. For example, higher growth of household income explained most of the improvement in MDLS in the top-performing regions in Canada, Chile, Estonia, Finland and France. Higher growth of longevity was the main driving factor in Belgium, Italy and the United Kingdom. In the Moravia-Silesia region in the Czech Republic, on the other hand, the fall in MDLS mainly reflected the higher risk of unemployment. A similar heterogeneity characterises the regions with the worst performance in terms of changes of MDLS in their respective countries. Generally, lower MDLS in Spanish and Greek regions were mostly driven by declining income and rising unemployment rates and inequality.

While growth in GDP per capita is positively correlated with changes in living standards when considering all regions in the period 2003-12,[7] the two variables differ considerably in many cases, suggesting that growth in GDP per capita in regions does not necessarily translate into higher living standards (Figure 3.3).[8] For example, the region of Helsinki in Finland and the state of Chihuahua in Mexico recorded approximately the same annual growth in GDP per capita (0.66 and 0.69, respectively), but differed significantly in the trends of MDLS, showing an improvement and a decline, respectively. Some regions showed increases in living standards while GDP per capita was declining (e.g. Tarapacá, Mexico; Franche-Comté, France). In many European regions, GDP per capita declined between 2003 and 2012; however, most of those regions recorded gains in MDLS, due to improvements in longevity or a reduction in income inequality. In other European regions – especially where the economic crisis hit the hardest, such as in Greece and Spain – a decline in GDP per capita was accompanied by a parallel decline in MDLS (Figure 3.3). In these latter regions, the decrease in MDLS has been fostered by a sharp increase in unemployment rates. The correlation between the growth of MDLS and of GDP per capita in regions was much stronger during the years preceding the economic crisis of 2008. These findings highlight the relevance of adopting multidimensional measures to guide policy analysis on inclusive growth in regions and cities.

Figure 3.3. **Growth in GDP per capita and multidimensional living standards in OECD regions, 2003-12**



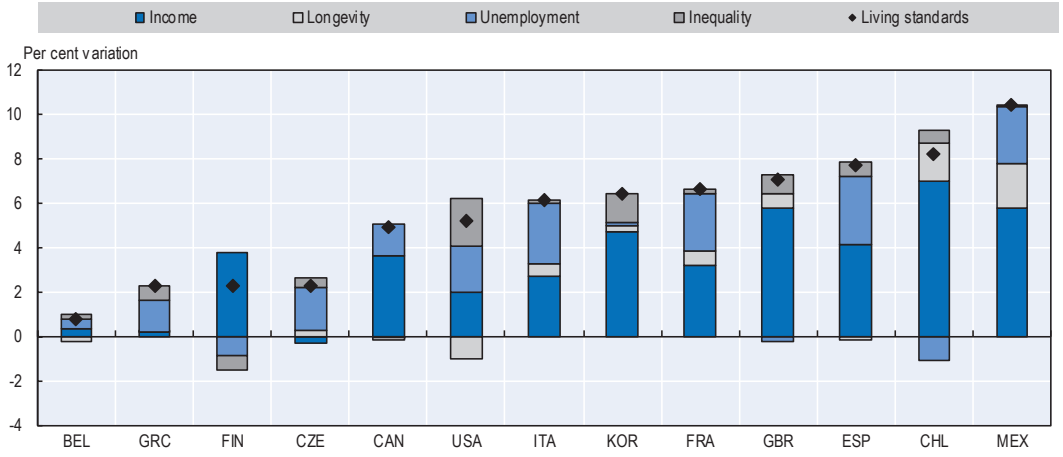
Source: Adapted from Veneri, P. and F. Murtin (2016), "Where is inclusive growth happening? Mapping multi-dimensional living standards in OECD regions", http://dx.doi.org/10.1787/5jm3nptzwsxq-en.

The growth of MDLS during the period under consideration happened with large disparities within the regions of the same country. Gaps in the growth rates of MDLS between the top- and the bottom-performing regions are particularly high in Mexico, Chile and Spain (Figure 3.4). In most of the countries considered, the growth of

household income was the major driver of differences in MDLS growth between the top- and bottom-performing regions. Changes in the unemployment rate and in income inequality also contributed significantly, while the Czech Republic is the only country where income growth reduced such a gap. The contribution of the change in the unemployment rate was particularly high in Greece, France, the Czech Republic, Spain and the United States, while changes in income inequality had an important role in Korea and Mexico. On the other hand, and as expected given the short time span considered, changes in longevity played a minor role in driving regional disparities in living standards. Empirical analyses on the correlates of the different components of MDLS growth show that higher income growth and a larger reduction of income inequality were relatively higher in regions with higher access to broadband services. On the other hand, the contribution of life expectancy to the growth of MDLS was, on average, higher in regions with higher voter turnouts and a higher number of doctors per capita (Veneri and Murtin, 2016).

Figure 3.4. **Differences in the growth of multidimensional living standards and the contribution of each underlying component between the fastest and slowest growing regions, 2003-12**

Contribution of each component expressed in equivalent income



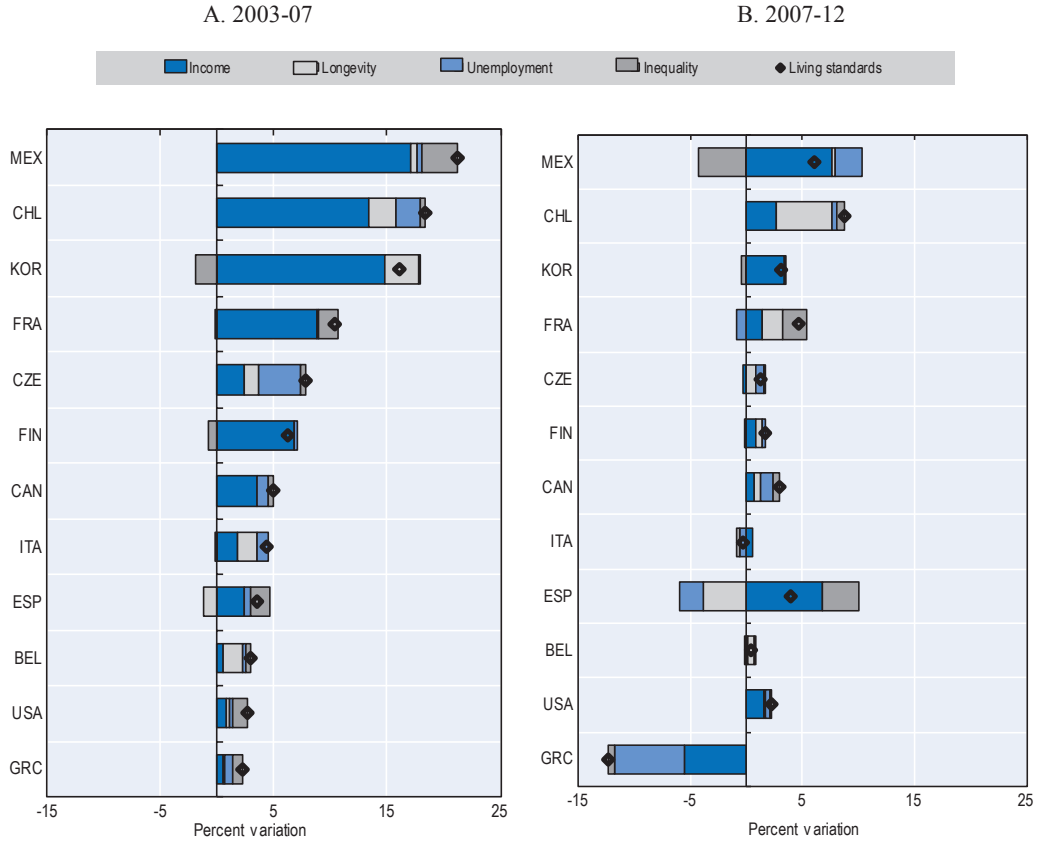
Source: Adapted from Veneri, P. and F. Murtin (2016), "Where is inclusive growth happening? Mapping multi-dimensional living standards in OECD regions", http://dx.doi.org/10.1787/5jm3nptzwsxq-en.

The 2008 economic crisis had spatially asymmetric effects on the average living standards of different regions. Figure 3.5 highlights a clear difference between average growth rates of MDLS in the period before and after 2007. Between 2007 and 2012, even the regions that had previously experienced the highest growth of MDLS recorded a general stagnation of MDLS and its underlying components. European regions recorded the sharpest falls in MDLS after the start of the crisis, with Greece recording lower MDLS in all of its regions. In most regions, the stagnation of MDLS was driven by stagnant household income and higher unemployment rates. The top-performing region in Chile and Korea improved their MDLS, though such improvements were not matched by gains in GDP per capita.

Changes in living standards have been unequal for different income groups. The results above refer to the median household, i.e. the value that cuts the income distribution into two equal parts, which generally speaking represents the income of the

"middle class".[9] When focusing on the bottom 20% of the income distribution (by increasing the inequality aversion parameter),[10] a slightly higher growth of living standards can be observed in Estonia and in the top-performing regions of Belgium, Chile, Italy, Korea and the United Kingdom. At the same time, the decrease in MDLS in the best-performing region in Greece was worse for the bottom 20% of the population than for the median household. Similarly, in Finland and France, the lower end of the income distribution had a smaller improvement in MDLS than the middle class.

Figure 3.5. **Changes in multidimensional living standards in each country's top-performing regions and relative contributions of its components, pre- and post-economic crisis**



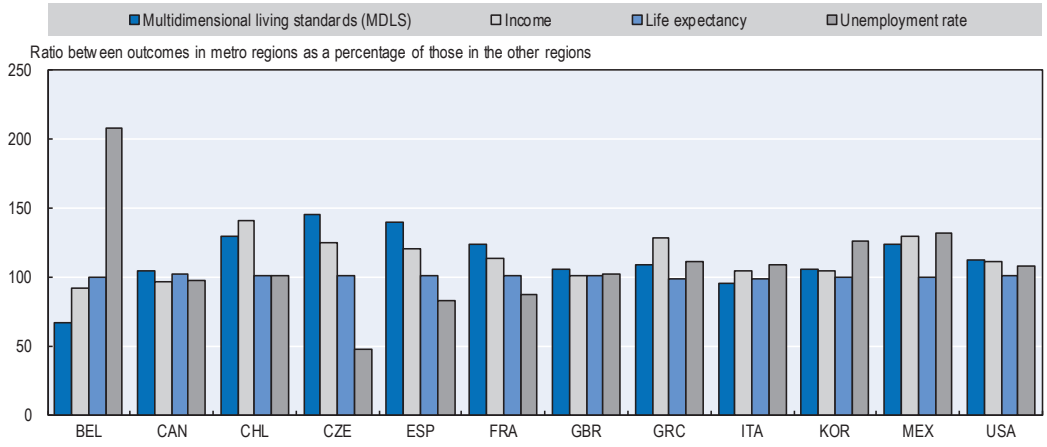
Source: Adapted from Veneri, P. and F. Murtin (2016), "Where is inclusive growth happening? Mapping multi-dimensional living standards in OECD regions", http://dx.doi.org/10.1787/5jm3nptzwsxq-en.

Metropolitan regions enjoy higher living standards than the other parts of a country

Multidimensional living standards are, on average, higher in metropolitan regions, where they exceed their non-metropolitan counterparts by around 30% on average for the countries considered here. The higher average household disposable income in metropolitan regions is the main driver of the gap in MDLS between the two types of regions. Although the income gap may be partially offset by higher living costs in metropolitan areas,[11] the findings are consistent with the evidence provided in Chapter 2 and with previous results that income and wages tend to increase with city size (D'Costa and Overman, 2014). In turn, higher wages reflect higher productivity in cities, due to the

concentration of the most talented workers and most productive firms in cities, and the agglomeration advantages emerging when economic agents are clustered in space (Behrens, Duranton and Robert-Nicoud, 2014). The unemployment rate is, on average, lower in metropolitan regions when all regions are pooled together. However, there are large differences across countries, with Belgium, Greece, Italy, Korea, Mexico and the United States showing higher unemployment rates in metropolitan regions than elsewhere (Figure 3.6). On the other hand, the difference between life expectancy at birth in metropolitan and non-metropolitan regions is not statistically significant.[12] The number of years one is expected to live is relatively similar between the two types of regions in practically all countries considered.

Figure 3.6. **Ratio between average outcomes in metropolitan and non-metropolitan regions: Multidimensional living standards and its components, 2012**



Source: Authors' calculations based on OECD (2015b), *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/region-data-en.

Box 3.1. **How do we define metropolitan regions?**

In this chapter, regions in OECD countries represent the first administrative tier of subnational government, according to the OECD territorial level classification (Territorial Level 2 in the *OECD Regional Database*). According to this classification there are 391 OECD regions, which are officially established in member countries, for example regions in France and Italy, states in Mexico and the United States, etc. Internationally comparable data on these regions can be found in the *OECD Regional Database*.

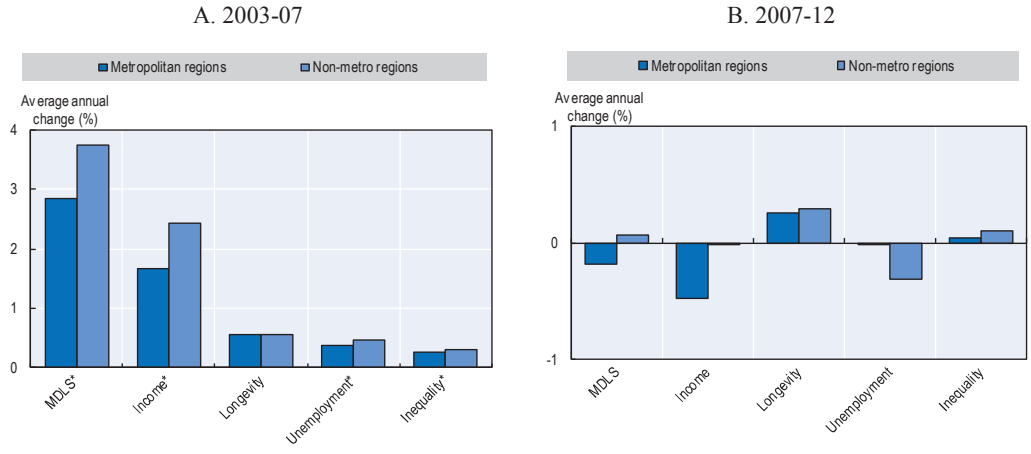
While each region may include one or more cities of different population sizes, for the sake of simplicity, regions are classified into two categories, i.e. metropolitan and non-metropolitan. Metropolitan regions are those where the highest share of the population lives in large functional urban areas (with a population above 1.5 million people) with respect to the share of the population living in smaller functional urban areas or in non-urban locations. All other regions are considered as non-metropolitan regions.

Sources: OECD (2016), *OECD Regions at a Glance,* http://dx.doi.org/10.1787/reg_glance-2016-en; OECD (2012), *Redefining "Urban": A New Way to Measure Metropolitan Areas,* http://dx.doi.org/10.1787/9789264174108-en.

During the period 2003-12, MDLS barely changed in metropolitan regions (-0.03%), while they increased by around 1.3% per year in non-metropolitan regions. A similar pattern is observed for income, which increased less in metropolitan regions than elsewhere. On the other hand, the contribution of health and jobs to the growth of MDLS was not significantly different across the two types of regions in the decade 2003-12.

The economic crisis affected the patterns of growth of MDLS in all types of regions. Before the crisis, all components of MDLS were registering positive changes (Figure 3.7). Non-metropolitan regions showed relatively higher growth rates of income and a higher reduction in unemployment rates, suggesting that a process of regional convergence was in place during those years. After 2007, such convergence was no longer occurring and MDLS deteriorated in all regions, driven by stagnating income and rising unemployment rates.

Figure 3.7. **Changes in multidimensional living standards and its dimensions in metropolitan and non-metropolitan regions, pre- and post-economic crisis**



Notes: MDLS: multidimensional living standards. For the non-income dimensions (longevity, unemployment and inequality) of MDLS, the figure does not show the direct change of their respective indicators (life expectancy, unemployment rates and the differences across income quintiles, respectively), but the contribution that changes in those indicators made in terms of change of MDLS (through shadow prices).

* = statistically significant at 90%.

Source: Authors' calculations based on OECD (2015b), *OECD Regional Statistics* (database), http://dx.doi.org/10.1787/region-data-en.

Conclusions

Multidimensional living standards provide a measure of welfare improvements that accounts for both levels and distributions of different well-being outcomes (OECD, 2014a; 2014b). Such a measure allows identifying the contribution of each dimension – income, jobs, health – to the overall change in living standards and can help policy makers identify existing trade-offs and synergies between different sectoral policies.

This chapter provided novel evidence on the levels and trends of MDLS at the regional level for a subset of OECD countries. It showed that regional disparities have been widening in many countries, often at a higher rate than disparities in income. The findings underline the relevance of monitoring different aspects of living conditions in

regions and cities. Many of the important interactions among sectoral policies are place-specific and hence comprehensive measures of well-being can help identify the strengths and challenges regions face.

Extending the measurement of multidimensional living standards to subnational regions brings about some methodological issues that should be mentioned for future improvements and the possibility of applying the same measures to cities. First, the method transforms non-monetary variables (unemployment and life expectancy) into monetary values by computing shadow prices that express people's preferences through life satisfaction. At this stage, the shadow prices are the same for the entire country and potential differences across regions are not considered because of limited data on subjective well-being (life satisfaction) at the subnational level. Second, the estimation of shadow prices at the regional level could include well-being dimensions beyond income, jobs and health that are particularly relevant locally, such as environment, access to services and safety outcomes. These extensions are left out of this chapter, but represent promising issues for further work in this area. Finally, future availability of data at the city level, such as historical series on income, income inequality and life expectancy, starting from the variables developed in this chapter and Chapter 2, will allow the measurement of multidimensional living standards to the geography of cities to be extended.

Notes

1. For illustrative purposes, the results shown by the OECD at national level are obtained by aggregating the equivalent income of different groups of population in ways that give more weight to households in the first and fifth (median) decile of income in each country (OECD, 2014a).

2. See Box 3.1 for the definition of regions.

3. This choice of well-being dimensions derives from empirical analyses on the main determinants of people's life satisfaction (Boarini et al., 2012) and considerations on data availability.

4. In the case of Chile, Korea and the United States, where life expectancy data are not available every year, the missing points between observations were linearly interpolated in order to maximise the time span considered in the computation of MDLS.

5. In addition to the 15 countries, MDLS in regions were estimated for the year 2012 in Australia, Denmark, Germany, Japan, the Netherlands, New Zealand, Norway, the Slovak Republic, Slovenia, Sweden and Switzerland. More details on the sources of data and the waves of national income surveys used for obtaining income indicators over time can be found in Royuela, Veneri and Ramos (2014).

6. The coefficient of variation is the most used indicator in research on measuring regional disparities. It has the advantage of not being too sensitive to the units of measure and the number of regions. It is computed as the ratio between the standard

deviation and the mean of each variable. Higher values of the coefficient of variations indicate larger regional disparities.

7. The limited availability of income distribution data at regional level restricts the time span covered in this analysis. Such a period generally ranges between 2003 and 2012, except for Belgium (2003-10), Canada (2004-11), Chile (2003-13), the Czech Republic and Mexico (2004-12), Korea (2004-13), the United Kingdom (2010-13), and the United States (2003-11).

8. Changes in GDP per capita and in MDLS had a correlation coefficient of 0.43 (obtained on all the regions without the outliers), in line with that found at the national level (0.40) (OECD, 2014a).

9. The indicator of MDLS is computed by aggregating the equivalent income of various quintiles of the population by using an aversion to inequality factor that tends to approximate the conditions of the median households (τ=1.2).

10. In order to give more weight to the bottom 20% of the income distribution, the aversion to inequality parameter was set to 50.

11. Due to lack of data, differences in prices between metropolitan and non-metropolitan regions are not considered. Previous studies have shown that spatial differences in prices can dramatically affect the real income available to urban and rural people (Jolliffe, 2006; World Bank, 2015).

12. Results refer to 15 OECD countries: Belgium, Canada, Chile, the Czech Republic, Estonia, Finland, France, Greece, Italy, Korea, Luxembourg, Mexico, Spain, the United Kingdom and the United States.

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Annex 3.A1. Methodology to compute multidimensional living standards in OECD regions

Identification of shadow prices of well-being dimensions: Income, jobs, health

There are several approaches to compute shadow prices (Veneri and Murtin, 2016). The approach used here consists in identifying shadow prices through life satisfaction regressions. Based on this approach, the first step consists in running life satisfaction regressions at country level (panel), as follows:

$$Life_Sat_{j,t} = a_j + b_t + \alpha log y_{j,t} + \beta^1 Life_expt_{j,t} + \beta^2 U_{j,t} + \varepsilon, \qquad [1]$$

where a_j, b_t, α, β_1 and β_2 are coefficients to be estimated. $y_{j,t}$, $Life_expt_{j,t}$ and $U_{j,t}$ are the disposable household income, the average number of years of life expectancy and the unemployment rate in country j at time t, respectively. Regressions are run at country level in order to reduce the influence of measurement errors and unobserved heterogeneity that can affect the results of micro-level analyses (Murtin et al., 2015).

From equation [1], the shadow price of an additional year of life expectancy is the (subjective) income necessary to maintain life satisfaction constant. Such a shadow price is obtained as follows:

$$p_{j,i}^{life_expt} = y_{j,i}\left[1 - \exp\left(-\frac{\beta^1}{\alpha}\right)\right] \qquad [2]$$

Similarly, the shadow price of a decrease of 1 percentage point of the unemployment rate is the subjective income necessary to maintain life satisfaction constant, which is obtained as follows:

$$p_{j,i}^{U} = y_{j,i}\left[1 - \exp\left(-\frac{\beta^2}{\alpha}\right)\right] \qquad [3]$$

The identification of shadow prices as in equations [1] and [2] is not exactly replicable using regional data. As data on life satisfaction are not available at subnational level for most countries, equation [1] cannot be estimated with regional data directly. As a solution to this limitation, the shadow prices used in this work are those of Murtin et al. (2015), which are based on a panel of OECD countries. More specifically, the parameters α, $\beta 1$ and $\beta 2$ have been estimated to be 3.538, 0.192 and -0.063, respectively. Consequently, the shadow price of an additional year of life expectancy is 5.3% of household income, while the shadow price of a decrease of 1 percentage point in the unemployment rate is 1.8% of household income.

Computing regional equivalent income and multi-dimensional living standards

Once shadow prices are estimated, it is possible to compute the "equivalent income" (or "monetised well-being") of different groups of people within each region. This phase accounts for the distributional aspect of living standards through the measurement of equivalent income by social groups, separately. Social groups are identified, for each region, by taking the quintiles of the distribution of household disposable income. Thus, equivalent income by income quintile is computed by applying the following formula:

$$Y_d^* = y_d - U^b * p^u - \Delta \text{ Life_expt} * p^{life_expt} \qquad [4]$$

where y_d is the mean of the d-th quintile of household disposable income; p^u and p^{life_expt} are the shadow prices allowing jobs and health outcomes to be converted to monetary terms; Δ *Life_expt* is the difference in the number of years of life expectancy between the region with the highest life expectancy (Madrid, Spain with 84.2 years of life expectancy at birth) and the i-th region; U^b is the benchmark unemployment rate, which is set to zero.

Finally, multidimensional living standards are obtained, for each region, by aggregating the equivalent incomes of each quintile using a social welfare function. Aggregation of individual outcomes has been widely debated in social welfare theory, one issue being that different choices of aggregation reflect different views about inequality. Consistent with the OECD approach to measure inclusive growth at the national level, the function chosen to aggregate the equivalent income for the different quintiles is Atkinson's general mean (Atkinson, 1970), which is defined as follows:

$$MDLS_i = \left(\frac{1}{5}\sum_d^5 Y_{d,i}^{1-\tau}\right)^{\frac{1}{1-\tau}} \qquad [5]$$

where $MDLS_i$ is the multidimensional living standards of the i-th region, $Y_{d,i}$ is the equivalent income of the d-th quintile in the i-th region as computed in [4] and τ is a parameter that reflects the society's aversion to inequality. The way inequality enters into the computation of MDLS depends on the choice of τ. When it is equal to zero, equation [5] coincides with the simple average income, as in a pure welfarist approach. Higher values of τ reflect a higher aversion to inequality. In this chapter, the calculation of regional MDLS was carried out by setting τ=1.2, which implicitly takes the median income as the reference group (i.e. the measure of multidimensional living standards obtained when setting the inequality-aversion parameter at 1.2 are reflective of the median household welfare; see Annex 3.A2 for details). Other choices on the parameter τ could be made, to attribute more weight to other segments of the population. On the whole, an increase of MDLS can be driven by an improvement of one or more of the outcomes considered in this framework (i.e. income, health or jobs) but also by reduced inequality.

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Annex 3.A2. Calibration of the aversion to inequality parameter

This annex identifies the value of the parameter of aversion to inequality (τ) to be used in the Atkinson function when aggregating the equivalent income of the different income groups. Note that at the regional level income groups are identified by looking at the quintiles of the distribution of household disposable income within each region.

By changing the value of τ we implicitly assign a different weight to a certain part of the income distribution. In order to identify τ so as to target a specific income group, it is necessary to compute income standards by using many values of the parameter within a certain interval and to select the value that yields the level of income standards which is the closest to the level of income of the reference group.

The first step is to define the Atkinson function to compute the income standards:

$$IS_i = \left(\frac{1}{5}\sum_d^5 y_{d,i}^{1-\tau}\right)^{\frac{1}{1-\tau}} \quad (1),$$

where IS_i is the income standards of the i-th region, $y_{d,i}$ is the disposable household income of the d-th quintile in the i-th region and τ is the parameter that reflects the society's aversion to inequality. By definition, the aversion to inequality increases as τ increases. In other words, by increasing τ the function will yield a lower income.

The income groups which show the closest value of τ are the median household, the bottom 40% and the bottom 20%, which are identified with the 50th, 40th and 20th percentiles of the income distribution, respectively.

Table 3.A2.1 reports the mean values of the τ parameter for two target groups, namely the median household and the bottom 40%, both for the whole sample of regions and by country. Regions are considered twice – one point for the first and the last year available, respectively – for a total of 418 observations (209 OECD TL2 regions).

The values of the τ parameter by country show that regions in Chile, the Czech Republic, France and Mexico have, on average, substantially higher parameters than in the other regions when the median household is the reference income group. On the other hand, when the bottom 40% is taken into account, there is a higher variability across regions in the values of the τ parameters, with Czech Republic, Finland and France having the highest values, on average.

When the target group is the bottom 20%, then by construction τ is equal to the higher bound of the possible values, since information on the income distribution within regions is given by quintile and the lowest percentile available corresponds to the households identified in the bottom 20% of household income. As a consequence, and for consistency with the inclusive growth framework at the national level, when the target group is the bottom 20% of income, τ is set to the value of 50.

Table 3.A2.1. **Aversion to inequality by country**

Mean aversion to inequality (τ) parameter according to the targeted income group

Country	Median household	Bottom 40%
Belgium	1.16	2.07
Canada	1.04	1.63
Chile	1.33	2.06
Czech Republic	1.26	2.43
Estonia	1.04	1.84
Finland	1.07	2.31
France	1.26	2.35
Greece	1.04	1.72
Italy	1.06	1.85
Korea	1.05	1.56
Luxembourg	1.08	2.29
Mexico	1.39	2.21
Spain	1.06	1.67
United Kingdom	1.14	2.08
United States	1.04	1.51
Mean	1.16	1.90
Standard deviation	0.19	0.39

Chapter 4.

Together or separated? The geography of inequality in cities

This chapter provides evidence on the spatial dimension of inequality in metropolitan areas, assessed at both the neighbourhood scale and at a larger spatial scale (municipalities). First, levels and trends of spatial segregation of people by income are computed and compared across OECD metropolitan areas. Second, the chapter discusses the implications of spatial segregation on future earnings and inequality. Finally, it assesses the main factors that are associated with higher spatial inequality in OECD metropolitan areas.

Introduction

In most OECD countries income inequalities have been rising over the last three decades and the recent economic crisis has further increased inequality and poverty rates (OECD, 2015). Rising inequality, together with other macro-level trends such as globalisation and the restructuring of the labour market, assume a particular role in the evolution of contemporary cities (Hamnett, 1994). Globalisation increases the polarization within the workforce as the demand for specialised skills increases the wage gap with the large number of low-skilled service workers in most cities (Sassen, 2001). These changes take place in the economy as a whole but have the starkest outcome in cities that are highly connected to the international metropolitan network (e.g. technology and finance centres), where the gap between high- and low-skilled jobs tends to widen.

Income inequality has a clear spatial dimension in cities, where rich and poor people often live separated in different neighbourhoods. The way metropolitan areas are organised spatially and the divergence in prosperity and living conditions within different parts of a city have been long debated and studied, especially for their potential effects on current and future individual outcomes (for example quality of schools and future income). Spatial segregation is a particular situation in which the distribution of people within the metropolitan space is over-concentrated along specific socio-economic lines, such as income, race or ethnicity.

This chapter provides comparative evidence on the spatial segregation of households by income within metropolitan areas. This consists of measuring how people with different income levels are distributed spatially within metropolitan areas. The chapter considers two spatial scales for the assessment of spatial segregation, namely the neighbourhood scale and a larger administrative scale (local jurisdiction or municipality) and discusses some of the potential determinants and implications of such features of metropolitan areas. The main results include the following:

- Rich and poor people often live in clearly separated neighbourhoods and the extent to which this occurs is positively associated with the overall level of income inequality in cities.
- Households in European cities are, on average, less spatially segregated by income than in North American ones. However, the patterns of spatial segregation within metropolitan areas differs across countries. In Denmark and in the Netherlands, for example, the poorest households show the highest levels of segregation, while in Canada, France and the United States the most affluent tend to concentrate the most in specific areas of the city.
- The concentration of poor households in poor disadvantaged neighbourhoods can yield lower outcomes for people who live and grow up there. In the Netherlands, people who lived with their parents in poor neighbourhoods (bottom 20% of income bracket) ended up having an income 5-6% lower than those who lived in the most affluent neighbourhoods 12 years after having left the parental home.
- Concentrations of households by income are also observed between local jurisdictions (or municipalities) of metropolitan areas. Such concentrations tend to be higher in metropolitan areas with a larger population and higher administrative fragmentation.

Spatial segregation operates at multiple scales

The extent to which households and individuals sort in the metropolitan space according to some socio-economic or cultural criteria can change depending on the scale at which this phenomenon is investigated. A large part of the literature on spatial segregation focuses on very small geographies, usually neighbourhoods. A neighbourhood is the immediate environment surrounding the residential location of a household and usually covers a walkable distance. When it comes to measuring segregation at such a scale, data can be collected at census tracts level or at that of school districts or other small partitions of the urban space. On the other hand, spatial segregation can also be assessed at the scale of local jurisdictions, such as municipalities, counties and other relatively small units with some administrative and political responsibilities. Local administrative units are larger than neighbourhoods, but they are more strongly connected with the provision of public goods and services. The extent to which the metropolitan population is concentrated spatially in different local jurisdictions is connected to the quality of the public services provided by the corresponding local governments. This makes spatial segregation an issue of metropolitan governance, where co-ordination among the different local administrations might ensure that public services are provided effectively and with comparable quality in all parts of metropolitan areas. The last section of this chapter will discuss this issue in more depth.

Inequality and the neighbourhood: Segregation by income within metropolitan areas

Income segregation has been rising in the last decades

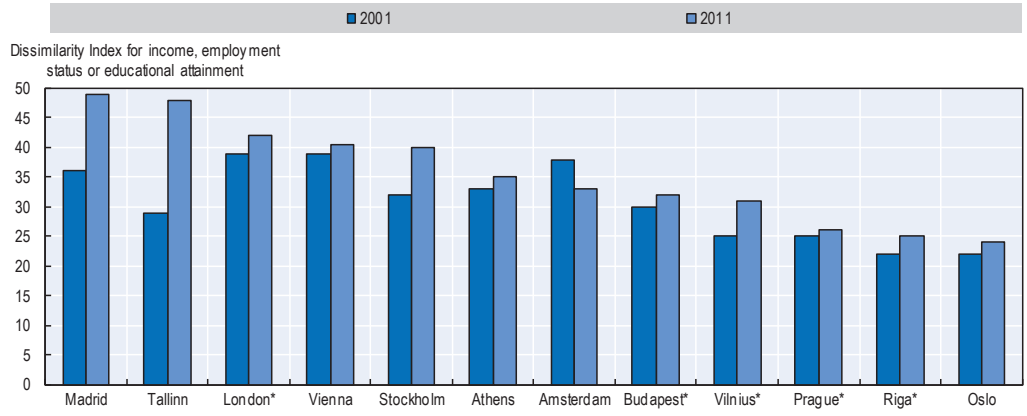
Spatial segregation by income and socio-economic status of metropolitan areas across the developed world has been increasing over the last decades. Concerning the metropolitan areas of the United States, well-developed literature exists documenting a rapid increase of spatial segregation since the 1970s (Massey, Rothwell, and Domina, 2009; Rothwell and Massey, 2010; Fry and Taylor, 2012; Pendall and Hedman, 2015). The share of the population living in the poorest and in the most affluent neighbourhoods has more than doubled since 1970, while that of people living in middle-income areas of the city has dropped significantly (Reardon and Bischoff, 2011). The increase of income segregation comes together with a general decrease of racial segregation in the United States (Glaeser and Vigdor, 2012; Logan and Stults, 2011).

Recent work documents a general increase in the level of segregation in European cities as well. Levels of socio-economic segregation in 2011 were on average higher than those in 2001 in 12 European capital cities by income, type of occupation or educational attainment by using a Dissimilarity Index (Box 4.1) as a measure of segregation (Tammaru et al., 2016b). The cities considered are Madrid, Tallinn, London, Stockholm, Vienna, Athens, Amsterdam, Budapest, Riga, Vilnius, Prague and Oslo. Socio-economic segregation has increased in all of these cities (Figure 4.1) except Amsterdam.

Among the cities considered in Figure 4.1, Madrid showed the highest level of segregation in 2011, closely followed by Tallinn then London. On the other end of the spectrum, Oslo had the lowest level of segregation, followed by Riga and Prague. Madrid, Tallinn and Stockholm showed the strongest increase in socio-economic segregation between 2001 and 2011. In most cities, an increase in segregation occurred together with an increase in income inequality. Oslo and Tallinn are the exceptions, as in both cities total inequalities dropped while segregation increased.

Figure 4.1. **Change in spatial segregation of major European cities, 2001-11**

Index of Dissimilarity: The higher the index the higher spatial segregation



Notes: The Index of Dissimilarity was computed in terms of occupation (managers vs. elementary occupations) for Madrid, Tallinn, London, Budapest, Vilnius, Athens, Prague and Riga; in terms of income (highest vs. lowest income quintile) for Amsterdam, Oslo and Stockholm; in terms of educational attainment (university degree vs. compulsory education) for Vienna.

* Municipality instead of metropolitan region.

Source: Adapted from Marcińczak, S. et al. (2016), "Inequality and rising levels of socio-economic segregation: Lessons from a pan-European comparative study".

Spatial segregation of households by income varies greatly among OECD cities

A typical problem when it comes to comparing segregation across metropolitan areas in different countries is that the underlying data on income may refer to spatial units which are different in size and number – i.e. census tracts in the United States, municipalities in Denmark and France, etc. The computation of entropy indicators using income data at the scale of regular grid cells of regular size (100 metres x 100 metres) enhances the comparability across countries. The use of grid cell data makes it possible to avoid the possible bias introduced by using units of analysis of different size for the income data, such as tracts or municipal data.[1]

The availability of income data at a grid level made it possible to assess spatial segregation for the metropolitan areas of Canada, Denmark, France, the Netherlands and the United States through the computation of ordinal entropy indicators (Box 4.1). These indicators measure the ratio between the shares of the population of each income group in each small unit (one cell or clusters of cells of different sizes) to that of the entire metropolitan area. Grid-level income data for the computation of the entropy indicators of spatial segregation provide information about the number of residents for the different ranges of income (see Annex 4.A1 for details on the format and sources of data). The resulting indices take values ranging from 0, indicating no segregation, to 1, where each sub-unit contains only one income group (i.e. complete segregation).

Results show that the level of segregation by income in Danish, French and Dutch cities is much lower than that in American and Canadian cities (Figure 4.2), confirming previous findings from the literature (Musterd and de Winter, 1998). These five countries show significant differences in their average level of income segregation. Furthermore, segregation in the European countries considered varies little compared to their North American counterparts; standard deviations are less than half as large as in the European countries. This means that the most segregated cities in the Netherlands and

France are at levels comparable to the least segregated cities in the United States (Figure 4.2).

Box 4.1. **How to measure segregation?**

In this report three main indicators are used to measure spatial segregation, namely the Dissimilarity Index, the Spatial Ordinal Entropy Index and the between-group decomposition of the Theil Index for income inequality. The former is used to describe spatial segregation in terms of socio-economic status or education. The Spatial Ordinal Entropy Index is more suitable to measure income segregation, since it allows more than two groups of population – e.g. those identified by income quintiles – to be considered. Finally, the between-group decomposition of the Theil Index makes it possible to identify the proportion of income inequality in a metropolitan area explained by the differences between its municipalities. The first two indicators are applied in this report to the scale of the "neighbourhood" (e.g. cluster of small regular cells) while the decomposition of the Theil Index is applied at the scale of local jurisdictions (e.g. municipalities).

Dissimilarity Index

The best-known measure of segregation is the Index of Dissimilarity. The Dissimilarity Index can only be applied to two groups at a time, an approach that reflects its application to questions of racial segregation. However, this index can also measure the relative separation of socio-economic groups across all neighbourhoods of a city. A socio-economic Dissimilarity Index of, for example, 40 (comparing poor and rich), would mean that 40% of poor people would need to move to another neighbourhood to make poor and rich people evenly distributed across all neighbourhoods. The Dissimilarity Index can be computed as follows:

$$D = \frac{1}{2}\sum_{i=1}^{n}\left(\frac{h_i}{H_T} - \frac{l_i}{L_T}\right) * 100$$

where n is the number of neighbourhoods; h_i is the number of members of one group (e.g. highest socio-economic group) in neighbourhood i; H_T is the total number of members of this group in the city; l_i is the number of members in the other group (e.g. lowest socio-economic group) in neighborhood i; and L_T is the total number of members of this group in the city.

Spatial Ordinal Entropy Index

The Spatial Ordinal Entropy Index can be computed using grid cells data to create local environments or neighbourhoods that are defined at different scales. For example, spatial entropy at a 1 000 m scale takes each grid cell and defines a 1 000-metre area surrounding it as the neighbourhood. The Spatial Ordinal Entropy Index is the ratio between the proportion of the population from each income group in this neighbourhood to that in the city. Given the large number of cells that approximate a surface distribution, integrals are used for the calculations, which are as follows:

$$\tilde{\Lambda} = \int_{p \in R} \frac{t_p}{T} \cdot \frac{v - \tilde{v}_p}{v}$$

where T is the city population and t_p is the population of the neighbourhood, v and $\tilde{v}_p$ are the entropy for the city and the neighbourhood respectively and the latter is calculated as follows:

$$\tilde{v}_p = -\frac{1}{M-1}\sum_{m=1}^{M-1} \tilde{c}_{pm}\, log_2 \tilde{c}_{pm} + \left(1 - \tilde{c}_{pm}\right) log_2\left(1 - \tilde{c}_{pm}\right),$$

where M is the number of income groups and $\tilde{c}_{pm} = \sum_{k=1}^{m} \tilde{\pi}_{pk}$ is the cumulative income share in the neighbourhood p for each cell in the surface grid, with $\tilde{\pi}_{pk}$ being the share of the population in income group k. The same procedure is applied for each neighbourhood to obtain v.

Box 4.1. **How to measure segregation?** (*continued*)

The Spatial Ordinal Entropy Index as a measure of income segregation has several advantages. For instance, it allows considering several income groups instead of only two and it minimises the modifiable areal unit problem by eliminating borders and relying on the surface distribution of individuals.

Theil Index decomposition

The Theil Index is a statistic derived from a measure of information entropy, generally used to measure income inequality. The formula is reported below for the case of income inequality in cities with different spatial units (e.g. municipalities):

$$I = \sum_{i=1}^{m} \sum_{j=1}^{N_i} \frac{y_{ij}}{N\bar{y}} \ln\left(\frac{y_{ij}}{\bar{y}}\right)$$

where y is the per capita income, N the population, i the municipality, j the individual and $\bar{y}$ the average per capita income in the city.

It is possible to decompose the Theil Index in a way that highlights the "between" and the "within" components of the city income distribution (the terms "between" and "within" refer to the municipality). The "between" component, I_b, measures differences among municipalities, since it compares municipalities' mean incomes to the mean income in the entire city. The "within" component, I_w, measures differences inside municipalities, since it compares individual income to the municipality mean income. Our initial Theil Index can thus be expressed as the sum of the "between" and "within" components, with municipality income share indicated by the term *s:*

$$I = \sum_{i=1}^{m} s_i \ln\left(\frac{y_i}{\bar{y}}\right) + \sum_{i=1}^{m} s_i \ln\left(\frac{y_{ij}}{y_i}\right)$$

or

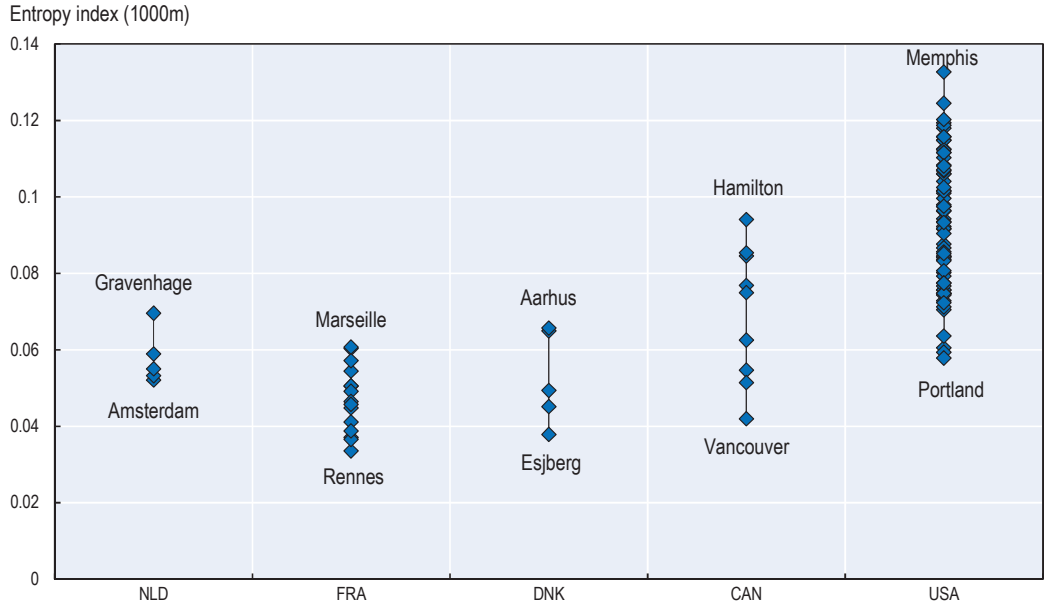
$$I = I_b + I_w$$

The ratio of the "between" component and the overall Theil Index can be interpreted as the amount of income inequality explained by the differences between groups (e.g. municipalities). As such, this ratio can be interpreted as an indicator of spatial segregation. The higher the income inequality explained by differences in income between municipalities, the higher the extent to which individuals live concentrated, or "segregated", in different municipalities according to their level of income.

The measurement of spatial segregation can be sensitive to the size of the unit (neighbourhood) considered. A city may be highly segregated at a small scale, consisting of small enclaves of highly concentrated wealth and poverty, but at a larger scale those small pockets might form bigger mixed neighbourhoods. Alternatively, small-scale and large-scale spatial concentration of, for example, lower income households in the centre of a metropolitan area can result in a distinct pattern when combined. When the smallest unit is one cell or a larger cluster of cells, the extent to which such a unit is different from the metropolitan area as a whole is likely to change. To account for this possible scale dependency, the assessment of segregation considered all the cells within various distance radii (200, 500, 1 000, 2 000 and 4 000 metres) as well as all cells within the metropolitan areas (a-spatial entropy index). A different Entropy Index was computed for each of the above-mentioned distance radii. On average, spatial segregation in the metropolitan areas of all of the countries considered tends to decrease as the size of the unit increases. In any case, the ranking of metropolitan areas according to their level of spatial segregation is robust to the different scales.[2]

Figure 4.2. **Neighbourhood segregation by income in OECD metropolitan areas**

Spatial Ordinal Entropy Index: Higher values indicate higher segregation



Notes: Data refer to 2014 for the United States; 2013 for Denmark; 2011 for Canada and France; 2009 for the Netherlands. Danish cities include Copenhagen and the functional urban areas of Aarhus, Aalborg, Esbjerg and Odense.

Source: Authors' calculations using national income data (see Annex 4.A1 for details). Values for Denmark cities taken from OECD (2016) *Well-being in Danish cities*, OECD Publishing, Paris (*forthcoming*).

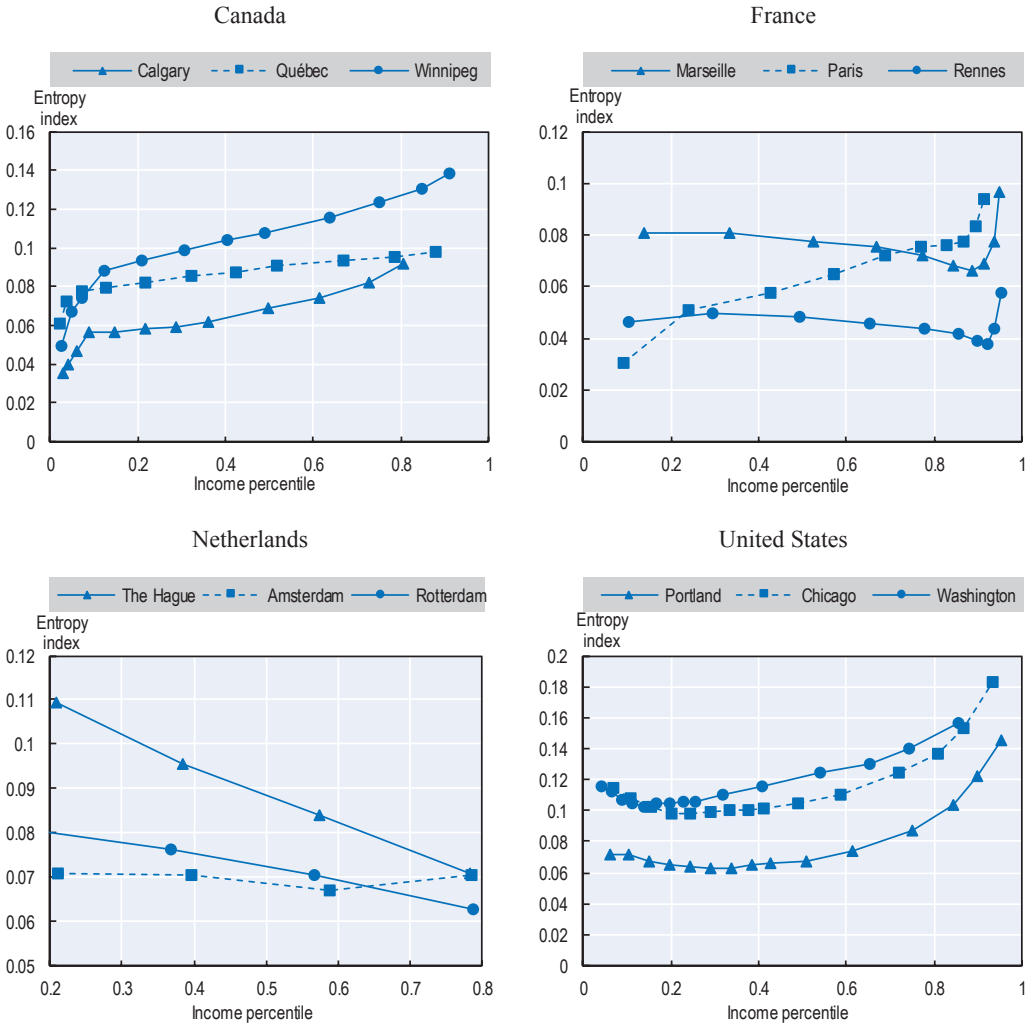
Income segregation is driven by the most affluent households in Canadian, French and US cities

The way segregation characterises metropolitan areas differs across countries based on the social groups that tend to separate the most from the other groups. In principle, each city can follow a specific way of sorting people in space according to their income, but country patterns are observed in the metropolitan areas analysed here. Figure 4.3 shows that metropolitan areas in Canada, France and the United States tend to show a pattern of segregation where the higher the income, the higher the degree of concentration in specific parts of the city. In other words, segregation is relatively more driven by the most affluent than by the poor. On the other hand, metropolitan areas in Denmark and the Netherlands are characterised by a relatively higher segregation of the people in the bottom of the income distribution. These differences can be relevant for policy as the spatial concentration of the poor is associated with reduced economic opportunities that can persist across generations.

Overall, spatial segregation is positively associated with levels of household income, resident population and income inequality (correlation coefficients of 0.55, 0.29 and 0.47, respectively). While this type of data hardly allows causal mechanisms to be tested, such associations are in line with previous findings and arguments advanced in the literature (Lens and Monkkonen, 2016). In a study on UK cities, Gordon and Monastiriotis (2006) also found positive associations of spatial segregation with population size and income

inequality. In addition, they found that greater inequality in more segregated areas is mainly driven by the segregation of the most affluent groups, rather than that of the most disadvantaged. Several studies demonstrate that inequality tends to bring segregation, especially since households at the top of the income distribution tend to separate themselves geographically as they become more affluent (Reardon and Bischoff, 2011; Watson, 2009). According to such evidence, the rise in inequality during the last decade – including during the economic crisis that started in 2008 – might have affected current levels of segregation.

Figure 4.3. **Spatial segregation by income groups**



Source: Elaborations based on national data on income distribution at local level (see Annex 4.A1 for details).

The functioning of the housing sector, especially the organisation of the production, consumption and regulation of housing, can also be important in shaping how people sort in the metropolitan space (Arbaci, 2007). Land-use regulations can sometimes be exclusionary for low-income households in certain neighbourhoods, especially when such regulations prevent developments under a certain cost, so that low-income families cannot afford to pay (Chapter 5). Research shows that the rise of private communities,

such as "common interest developments" – e.g. homeowners' associations, condominiums or housing co-operatives – and "gated communities" might have contributed to the segregation of the rich within metropolitan areas (McKenzie, 2016). These "private communities" combine an interest on individuals' property with another one on the common elements, which can include common areas, private streets, parks and other facilities provided directly by the community, though generally provided by local governments. Common areas link together the owners, who can decide who to accept in their community.

Spatial segregation is a natural urban phenomenon, but it can have negative consequences

There is no normative meaning of the concept of spatial segregation, as the concentration of people close to other people with similar characteristics is a natural process of urban development. Segregation can also be positive if it is the result of free choice. The most affluent households often live the most segregated as their income allows them to choose their location according to their own preferences. Less affluent households often live concentrated in specific locations. A certain level of concentration in space can even be positive for the integration of migrants, since it can enhance social support through stronger networks. The literature shows that households tend to choose neighbourhoods with people who are very similar to themselves in terms of income, class, ethnicity and religion (Feijten and van Ham, 2009; Schelling, 1969, 1971; Clark, 1991). Living among similar people can reduce conflict, give people a sense of safety and foster social networks. This is particularly true for high-income people, who can benefit from proximity to their peers and further increase their income, though this translates into a further increase of income inequality (Morrison, 2015). Living in enclaves with people with similar preferences, needs and lifestyles can also have the benefit of shared services and facilities (such as shops and cultural facilities).

Segregation becomes a problem when it prevents segments of the population from accessing the opportunities and services that would enable them to fully participate in the political and economic process and in the sharing of societal progress. Highly segregated cities can lead to lower outcomes for individuals who start from a more disadvantaged situation. Urban scholars have shown how concentrated neighbourhood poverty shapes key outcomes ranging from higher crime rates to limited social mobility for the people – and especially the children – who live in these neighbourhoods (Sharkey, 2008; Sampson and Sharkey, 2008). The existing literature on neighbourhood effects tends to suggest, although the evidence is still not very strong, that living in poverty concentration neighbourhoods can have a negative effect on individual outcomes such as health, income, education and general well-being (van Ham et al., 2012). In addition, rising trends of segregation might also increase the spatial mismatches between affordable housing for low-income households and the jobs they can find (McKenzie, 2016). Living in neighbourhoods that are spatially cut off from centres of employment is expected to harm the employment prospects of residents (van Ham and Tammaru, 2016). The lower employment opportunities for those living in disadvantaged neighbourhoods might ultimately end up hampering the economic growth of metropolitan areas (Huiping, Campbell and Fernandez, 2013).

The impact of growing up in a disadvantaged neighborhood seems to persist in an individual's choice of where to locate as an adult. A few studies from the United States, Sweden and the Netherlands have found that children who grew up in deprived neighbourhoods are significantly more likely to live in a similar neighbourhood as adults compared to those who grew up in more affluent neighbourhoods.

In the United States, research shows persistent social stratification in neighbourhooods by income (Vartanian, Buck and Gleason, 2007; Sharkey, 2008). Furthermore, segregation can lead to intergenerational transmission of racial inequality, as black Americans are more likely to reside in poor neighbourhoods and be exposed to localised disadvantages (Sharkey, 2008). In a follow-up study, spatial characteristics were shown to not only affect the neighbourhood outcomes of children, but also those of grandchildren (Sharkey and Elwert, 2011).

In Sweden, research tracked individual neighbourhood histories up to almost two decades after leaving the parental home for residents in the Stockholm metropolitan area (van Ham et al., 2014). In the Swedish register data, individuals' personal neighbourhood characteristics are recorded on a yearly basis, and spatial deprivation was defined based on the percentage of poor residents within the neighbourhood, i.e. the percentage of neighbours that belong to the 20% poorest residents of the Stockholm metropolitan area. In the Netherlands, a recent study used similar national register data to follow a complete cohort of parental home-leavers for a period of 14 years, and analysed the effect of the parental neighbourhood on the neighbourhood histories of individuals (de Vuijst, van Ham and Kleinhans, 2015). Results show that in both countries the characteristics of the parental neighbourhood continue to affect the neighbourhood histories of the children after leaving the parental home, even controlling for parental income levels and the personal life attainments of their children. While spatial concentrations of ethnic minority groups within Swedish and Dutch society are not directly comparable to racially segregated areas in the United States, intergenerational neighbourhood patterns were still shown to be much stronger for ethnic minorities than for other groups (van Ham et al., 2014; de Vuijst, van Ham and Kleinhans, 2015). In the Netherlands, additional analyses showed that individuals from a deprived parental neighbourhood have a higher chance of discontinuing these intergenerational neighbourhood histories when they attain higher education. Conversely, however, ethnic minority groups showed less probability to break the intergenerational persistence in the type of their residential neighbourhoods (de Vuijst, van Ham and Kleinhans, 2015).

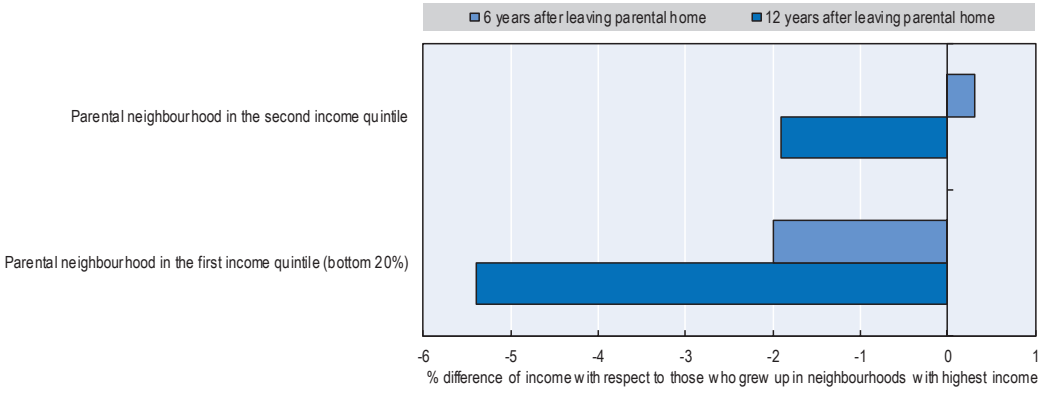
Growing up in a deprived neighbourhood affects income outlook

Spatial segregation can be harmful also for individual outcomes (i.e. income, health, etc.) of people growing up in the most disadvantaged areas of a city. In the Netherlands, the income of children increases with the income of their parents, and this association becomes stronger over time when individuals presumably settle in their occupational careers and income levels. Figure 4.4 shows that young people living with their parents in a neighbourhood in the bottom 20% of the income quintile have, on average, a lower income later in life (6 and 12 years after leaving the parental home) than those who lived in the most affluent neighbourhoods. These results are based on data for 120 000 individuals coming from the national register, which follow a complete cohort of people for a period of 6 and 12 years after having left the parental home (see Annex 4.A2 for details). Results were obtained through a multi-level mixed-effects linear regression model where individual income was regressed on a number of individual characteristics (sex, age, status, education, parental income, ethnic minority) and the type of parental neighbourhood based on its average income levels at the time when individuals were living with their parents. Results obtained for the Netherlands are also in line with those found in Sweden by Hedman, van Ham and Manley (2011).

There is increasing evidence, especially for cities in the United States, that growing up in a deprived neighborhood can have long-lasting consequences. Chetty et al. (2014) found that intergenerational income mobility in the United States is higher in areas that are, among other things, less spatially segregated and less unequal. Similarly, but at a lower spatial scale, Chetty, Hendren and Katz (2015) found that children who move to lower poverty neighbourhoods before the age of 13 significantly improve their long-term outcomes, reducing the intergenerational persistence of poverty.

Figure 4.4. **The effect of parental neighbourhood on individuals' income 6 and 12 years after leaving the parental home**

Living with parents in a deprived neighbourhood is associated with lower income in the future



Source: Authors' elaborations based on longitudinal register data from Statistics Netherlands (see Annex 4.A2 for details).

Neighbourhood effects are the principal channels through which segregation might hamper the achievement of inclusive growth in cities. Neighbourhood effects include socialisation processes (i.e. negative peer group effects, stigma effects and lack of social networks to find a job, etc.) and other factors of an environmental, institutional and geographical nature (Box 4.2).

Income segregation across municipalities

The segregation of households by income within a metropolitan area can be assessed at different geographical scales (neighbourhoods, school districts, municipalities, jurisdictions, etc.). This section focuses on how people with different levels of income locate across municipalities (or local units or local jurisdictions) that constitute a metropolitan area. In general, municipalities within metropolitan areas are endowed with some governmental/administrative duties and various service provision responsibilities. With this choice of geography it is possible to tackle at least two issues. First, the extent to which households tends to concentrate spatially in different locations (i.e. municipalities) according to their levels of income, thus generating a concentration of advantages and disadvantages. Second, whether such concentration is associated with the characteristics of metropolitan governance, such as the degree of administrative fragmentation, and other features of metropolitan areas.

Box 4.2. The neighbourhood effect: Theoretical aspects

There is a broad consensus about the theoretical relevance of neighbourhood effects, but the empirical evidence is still not conclusive. In addition, the application of the concept of segregation to urban context outside the United States where segregation is generally less pronounced has been questioned (Oreopoulos, 2008). While the effects may not be as marked (particularly with respect to violence and high levels of poverty), some of the channels are relevant in any urban context with high spatial income inequality. Even in contexts where income inequality is low, such as Sweden, local environments affect social mobility negatively (Musterd and Anddersson, 2006). According to Galster (2012), four broad categories of mechanisms can be identified to understand the influence of local environments on individual outcomes.

Social-interactive effects

This set of mechanisms includes the many behaviours, norms, aspirations and attitudes that are shaped by social connections and context. The environment in which people grow up has a lasting impact, whether it be through peer connections, collective influence, or the reach and access to social networks. Sampson (2012) gives one of the more comprehensive accounts of how some of these mechanisms operate empirically with a case study of Chicago neighbourhoods. In the context of Johannesburg, Beall, Cranshaw and Parnell (2003) show that emerging social differentiation in neighbourhoods that used to be economically homogenous influences how residents advocate for resource redistribution at the local level, creating new divisions.

Environmental mechanisms

Environmental mechanisms include all natural and human-made attributes that directly affect the mental and/or physical health of residents without affecting (directly) their behaviour. The three main mechanisms Galster (2012) identifies are violence, physical surroundings and toxic exposure. This type of effect is widely documented and covers a wide range of mechanisms. Advances in the field connecting the stress of living in neighbourhoods with high incidences of poverty and related environmental attributes provide compelling evidence for the role of local environment and long-term development and mobility (Mani et al., 2013).

Geographical mechanisms

This set of factors is related to the lack of access to opportunities and services, either through lack at the local level or lack of means to reach the areas that offer higher levels and quality of opportunities and services.

Institutional mechanisms

Institutional mechanisms relate to the perception of a neighbourhood by powerful actors and institutions. How institutions and those who influence them perceive an area affects the degree and type of services it receives. This can range from outright stigmatization to the overconcentration of certain types of services in an area (shelters or liquor stores) that exacerbate the perceptions or lack of services that would mitigate it (e.g. banking, full-service grocery stores).

The best strategy to understand neighbourhood effects empirically requires precise, disaggregated and longitudinal measures at the local level. When considering the full complexity of neighbourhoods, the lack of such studies becomes evident. However, the resources required and ethical implications of conducting long-term, in-depth studies of disadvantaged neighbourhoods prevent more systematic study.

Households living in the different local jurisdictions within a metropolitan area can have very different incomes, on average. This is particularly evident in Australia, France and the United States. In the metropolitan area of Melbourne, Australia, for example, households living in the local unit with the highest income (Toorak) earn on average

almost nine times what those living in Broadmeadows, Victoria earn. The ratio between the income of residents in local units and the maximum and minimum average incomes is always higher than 5 in Australian cities, as in Mexico City, Oaxaca de Juárez (Mexico), Merida (Mexico), Tokyo (Japan) and Paris (France). Other metropolitan areas with relatively high income levels, such as Washington, Minneapolis or Houston, include counties that have lower income levels than any other metropolitan area in the United States.

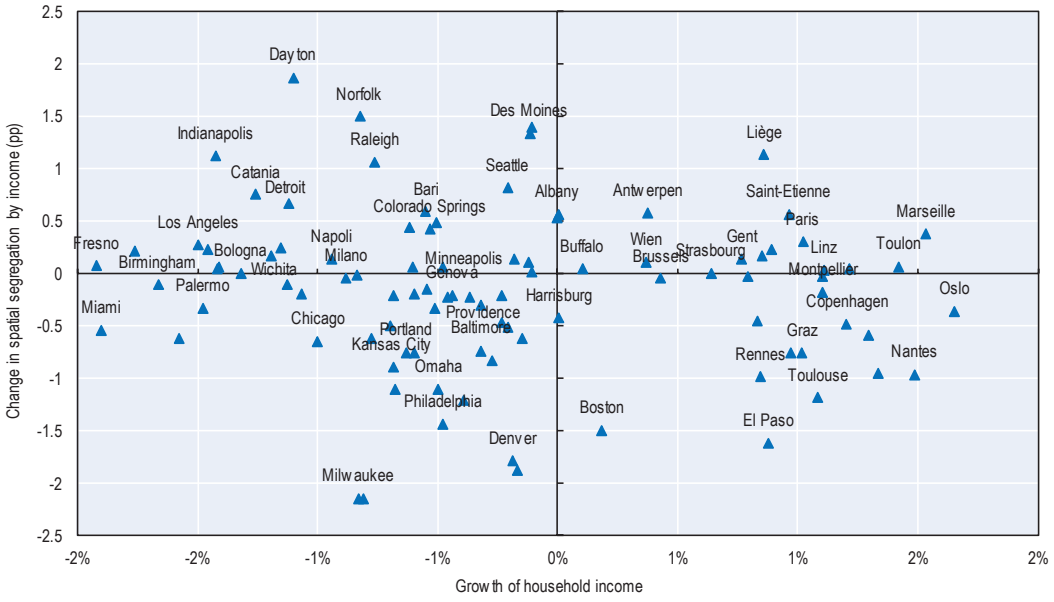
For each of the 111 metropolitan areas where data availability made it possible, the degree of spatial segregation by income at the scale of local jurisdictions was assessed by decomposing the Theil Index of income inequality into two components. One is the share of inequality explained by the differences across households within each local jurisdiction. The other is the share of inequality explained by the differences in average income between local jurisdictions (Box 4.1).

International comparisons of metropolitan areas in terms of between-unit inequality are not straightforward. The value of the between-unit component will, in fact, increase with the number of units (local jurisdictions) considered, and decrease with their relative size (Cowell and Jenkins, 1995; Shorrocks and Wan, 2005). Since metropolitan areas are composed of local units that differ both in their number and in their population size across metropolitan areas, the between-unit component of inequality was normalised according to Elbers et al. (2008). Such normalisation consists of dividing the "between" component of the Theil Index of each metropolitan area by the maximum between-unit component obtainable given the number and size of local units of that metropolitan area. In other words, instead of using the conventional ratio between the between-group inequality (I_b) and total inequality (I), the denominator of this ratio is replaced by the maximum between-group inequality that could be obtained if the number and size of the groups were the same as for the numerator (I_{elmo}).

On average, the share of total inequality explained by the differences between municipalities (I_b/ I_{elmo}), is around 5%, much lower compared with the inequality across individuals within each municipality. Such an index was computed only for the metropolitan areas in eight OECD countries where the availability of data made it possible.[3] Spatial segregation by income in the different local jurisdictions is highest in Philadelphia and Baltimore (United States) and lowest in Little Rock and Baton Rouge (United States) and Genova (Italy). It should be noted that the extent of segregation in local jurisdictions can provide a different picture from that obtained when segregation is assessed in different neighbourhoods. The idea of looking at the scale of local jurisdiction is to link the concentration of people in space with the choices made by local jurisdictions about the provision of public services and of their capacity to respond to the needs of people with different preferences and possibilities.

The growth of income in metropolitan areas does not necessarily translate into lower inequality across local jurisdictions. Since 2007, many metropolitan areas in France – Nantes, Toulouse, Montpellier, Rennes or Grenoble – and in north-central Europe (Copenhagen, Oslo, Graz, etc.) have experienced both higher average household income and reduced segregation in the different local jurisdictions. Other metropolitan areas, especially in Belgium and France, have combined income growth with a slight fall in segregation. Many other metropolitan areas have experienced lower household income since 2007; in the case of Dayton, Indianapolis, Norfolk and Raleigh (United States) or Catania, Bari, Bologna and Naples (Italy), these declines have occured with an increase in spatial segregation (Figure 4.5). Overall, more unequal metropolitan areas tend to have higher levels of income segregation across their municipalities (the correlation with the Gini coefficient is 0.21).

Figure 4.5. **Disposable income growth and change in spatial segregation by income across local jurisdictions, 2007-14**



Source: Boulant, J., M. Brezzi and P. Veneri (2016), "Income levels and inequality in metropolitan areas: A comparative approach in OECD countries", http://dx.doi.org/10.1787/5jlwj02zz4mr-en.

Is there a link between metropolitan governance and the inequality between local jurisdictions of metropolitan areas?

Metropolitan areas are economically integrated units, but they are often divided into a large number of local jurisdictions without adequate mechanisms for co-ordinating public policy. In this respect, metropolitan areas can have different levels of administrative fragmentation, meaning different extents to which their governance is characterised by many and uncoordinated administrative units (Chapter 5).

Fragmented metropolitan governance may also contribute to the spatial concentration of people with similar incomes, although the empirical evidence is limited (Lens and Monkkonen, 2016). From a theoretical point of view, two major mechanisms have been put forward in the literature to explain local administrative structures and the link with the way individuals choose their location of residence (Bischoff, 2008).

- The Tiebout model links individual location choices with the provision of services by different local authorities (Tiebout, 1956). Under Tiebout's hypothesis, an administratively fragmented metropolitan area can help people sort in those local juridisdictions that provide the set of services that best fits with their preferences and budget constraints. However, the different municipalities might not be able to deliver public services of comparable quality, generating disadvantages to people living in the least wealthy ones. In this respect, Jimenez (2014a) analysed the budgetary policy of municipal governments in the United States. He found that in more fragmented metropolitan areas there is a suboptimal provision of public services. This relationship may be explained by limited political influence by citizens of the most disadvantaged places and class-based population sorting within the metropolitan space.

- A second model to understand the implications of administrative fragmentation looks at the supply side instead of focusing on the location choices of individuals. From this perspective, local administrative boundaries can shape many important policies such as transport, housing and local taxation in a way that can isolate some residents, especially the most disadvantaged ones (Danielson, 1976). In other words, it is the local public action that can maintain or induce a certain spatial separation with respect to other neighbouring local jurisdictions through specific policies in relevant sectors such as education, land use (i.e. zoning laws) or housing. In this framework, high adminstrative fragmentation might induce more competition among municipalities for attracting people and activities generating high revenues. This may lead to an underprovision of services for low-income residents, which in turn may foster spatial segregation by income.

The empirical evidence on the link between administrative fragmentation and income segregation is mixed. The seminal study by Hill (1974) investigated the relationship between the structure of the local public sector and the inequality between local administrative units, finding a positive association. These results might be biased by the dependence of the chosen measure of spatial income inequality – the standard deviation of the median household income among municipalities – by the size and number of municipalities (Ostrom, 1983). More recently, Jimenez (2014b) did not find any robust relationship between administrative fragmentation and spatial segregation of income in US metropolitan areas, though he measured segregation at the neighbourhood level and not at the local jurisdiction scale.

Using OECD metropolitan areas as units of observation, regression analysis helped identify the major factors associated with spatial segregation of income and in particular the role of administrative fragmentation. The analysis does not account for reverse causality, thus results should be interpreted with care and for descriptive purposes only. However, such analysis can help disentangle some of the urban characteristics that tend to be associated with segregation of household by income at the local jurisdiction scale.

The dependent variable is spatial segregation, measured by the between-group inequality divided by the maximum between-group inequality obtainable given the size and number of local jurisdictions in each metropolitan area (I_b/I_{elmo}). For reasons of robustness, both the Theil Index and the Gini coefficient were used to compute the indicator of spatial segregation.[4] The dependent variable was regressed on a measure of administrative fragmentation and additional controls. Again for the sake of robustness, administrative fragmentation was measured through three different indicators: first, the number of municipalities per 100 000 inhabitants for each metropolitan area; second, the logarithm of the number of local administrative units in each metropolitan area; finally, the fragmentation index used by Bischoff (2008), based on the share of population in each local unit.[5]

Other factors potentially affecting the spatial segregation of households by income were accounted for in the analysis. First, the natural logarithm of the level of income has been added to control for the overall level of development of the metropolitan area. Second, the overall levels of income inequality in the metropolitan area, as measured by the Gini Index, were included, consistently with other works in the literature (Reardon and Bischoff, 2011). Further controls include the natural logarithm of total metropolitan population and the degree of decentralisation of the resident population from the main centre, as computed in Veneri (2015). The idea underlying this latter control is that metropolitan areas where people are located relatively more towards the periphery might

have undergone a strong suburbanisation process, which might be due by a preferring locations that are more isolated and socially homogeneous (Yang and Jargowsky, 2006). The ratio between the average household income in the core city and that in the commuting zone was added to account for the type of suburbanisation patterns characterising each metropolitan area. In previous works, higher income in central cities were found to be associated with lower segregation, while relatively higher incomes in suburban places were associated with higher segregation (Lewis and Hamilton, 2011).

Table 4.1 reports the results of the regression analysis when the dependent variable is the ratio between the "between" component of the Theil Index for household disposable income and the maximum between-group component given the size and numbers of local units, according to Elbers et al. (2008). All regressions were estimated through ordinary least squares with robust standard errors. For each of the three indicators of administrative fragmentation (number of local units per 100 000 inhabitants, logarithm of the number of local units and the fragmentation index in Bischoff [2008]), results are reported by considering at least two different model specifications: a pooled regression using the whole sample of metropolitan areas for three points in time (two in the case of the United States); and a pooled regression including year controls.

Table 4.1. **Estimation results: Spatial income segregation and administrative fragmentation**

Ordinary least squares with robust standard errors. Dependent variable: "Between" component of the Theil Index for household income over maximum "between" component given size and number of groups

Variable	Mod1	Mod2	Mod3	Mod4	Mod5	Mod6	Mod7
Administrative fragmentation (No. of local jurisdictions per 100 000 inhabitants)	**0.1027**[c]	**0.1032**[c]	**0.3854**[c]				
Administrative fragmentation (Bischoff, 2008)				**6.978**[c]	**7.05**[c]		
Administrative fragmentation (No. of local jurisdictions) (ln)						**1.007**[a]	**1.003**[a]
Household income (ln)	-0.2283	-0.1432	-1.535	-1.06	-0.9773	-0.5421	-0.4508
Income inequality (Gini coefficient)	8.774	10.69	-2.997	17.19	19.57	8.112	9.783
Population (ln)	2.265[c]	2.258[c]	0.1658	1.59[c]	1.577[c]	1.165[a]	1.161[a]
City-commuting zone income ratio	-2.293	-2.284	1.391	-0.9336	-0.8993	-2.068	-2.062
Decentralisation of population (sprawl)	-0.2049[c]	-0.2089[c]		-0.2627[c]	-0.2683[c]	-0.17[b]	-0.1735[b]
Constant	-25.58	-26.14	14.59	-8.372	-8.83	-10.83	-11.5
Observations	210	210	210	210	210	210	210
Adjusted R-squared	0.310	0.280	0.984	0.343	0.315	0.299	0.268
No. of cities	92	92	92	92	92	92	92
No. years	3	3	3	3	3	3	3
Country fixed effects	Yes	Yes	No	Yes	Yes	Yes	Yes
Metropolitan fixed effects	No	No	Yes	No	No	No	No
Year fixed effects	No	Yes	Yes	No	Yes	No	Yes

Notes: a) $p<0.1$; b) $p<0.05$; c) $p<0.01$. a), b) and c) denote significance at the 10%, 5% and 1% levels, respectively.

Finally, for the first indicator of spatial segregation, results using metropolitan areas' fixed effects instead of country dummies are reported when using the first indicator of segregation, since it is the only one that can be sensitive to change over the short time span considered in this analysis. Further details and robustness analysis are available in Boulant, Brezzi and Veneri (2016).

The results shown in Table 4.1 confirm that, on average, more administratively fragmented metropolitan areas have higher spatial segregation of households by income. Given that segregation is measured at the scale of local jurisdictions rather than neighbourhoods, these findings are in line with the idea that households might sort in space according to their preferences for public goods provided by the different local jurisdictions and their ability to pay (Tiebout, 1956). The introduction of country fixed effects in the empirical models should further address the issue that the number and population size of the local jurisdictions differ across countries, thus enhancing the comparability of the results of the links between administrative fragmentation and economic segregation.

Results also show that the size of metropolitan areas is positively associated with higher spatial segregation, though the coefficient loses its statistical significance when including metropolitan fixed effects. In addition, the extent to which the resident population is centralised and close to the main centre rather than being decentralised in the more peripheral areas is associated with higher spatial segregation. This latter result suggests that the tendency towards segregation is higher when people are physically more concentrated in the most central area of the city, thus in a setting where people live relatively close to other people in proximity of the main centre. On the other hand, the positive correlation between segregation and income inequality (Gini coefficient) is no longer statistically significant once the other factors are included in the analysis. Similarly, the average household income and the ratio between average income in the metropolitan core – the high-density part of the metropolitan area including and surrounding the main city centre – over that in the commuting zone do not show a significant association with our headline measures of segregation.

Conclusions

This chapter assessed the spatial dimension of inequality within metropolitan areas. It did so at two different scales. The first scale considered regular grid cells sized 100 x 100 metres, which made it possible to look at segregation at the geography of the neighbourhood. Evidence shows that segregation is rising in terms of income, economic status or education and that the patterns of segregation in the metropolitan areas in Canada, France, the United States, Netherlands and Denmark are different, as the rich tend to segregate the most in the first three countries, and the poor in the latter two countries.

Shifting to a larger spatial scale, the extent to which income inequality in metropolitan areas is explained by differences between local jurisdictions is positively associated to population size and the degree of administrative fragmentation. This latter finding is robust to different measures of fragmentation and to different specifications. Looking at local jurisdictions emphasises the role that public goods provided by the different jurisdictions might have in determining how people sort in the metropolitan space. However, households' preferences alone might not be sufficient to determine stark differences between jurisdictions of income inequality. The latter can be fostered, among other things, by housing policies that favour socially homogeneous environments, such as restrictions on lot sizes, residential density or a particularly high concentration of social housing, as illustrated in Chapter 5.

Overall, this chapter provided new statistical evidence for OECD metropolitan areas on how inequality occurs within the metropolitan space and how it translates into the extent to which people with different incomes locate in different areas of a city. In order to provide such evidence, it was necessary to adapt different sources of data at different

spatial scales, for which comparison is not always straightforward. The diversity of the smallest spatial units at which income is assessed in each country might also introduce a "modifiable areal unit problem", a situation that makes results vary in line with the aggregation of data into areal units of different size (Openshaw and Taylor, 1979). The best strategy to address this issue consists of using data at a very detailed geographic scale and a consistent size across countries. The use of regular grid-cell data, when available, represents a benchmark for the production of statistics at the local level and national statistical offices could help in producing statistical information in this format, when possible.

Notes

1. Cells were assigned to municipalities according to the proportion of their surface that falls within each municipality. Each cell was assigned an income value based on the income of the tract or municipality where it falls. Cells without population were dropped.
2. The pairwise correlations between the entropy indicator computed for each distance threshold (200 m, 500 m, 1 km, 2 km, 4 km and the whole metropolitan space) ranges from 0.95 to 0.99.
3. The decomposition of the Theil Index was carried out for Australia, Belgium, Chile, Denmark, France, Italy, Norway, Sweden and the United States.
4. When using the Gini coefficient, the index of segregation was computed as the ratio between the net "between" component and the total Gini Index.
5. This is computed as follows (Bischoff, 2008):

$$Fragmentation = \sum_{i=1}^{k} P_i(1 - P_i) \ ,$$

where P is the proportion of population who lives in the i-th local unit within each metropolitan area. The indicator ranges between 0 and 1, with 0 indicating complete amalgamation (one single local government) and 1 indicating complete fragmentation.

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Annex 4.A1. Data sources for the computation of spatial entropy indexes

Table 4.A1.1. **Data sources for spatial entropy indexes (spatial segregation)**

Country	Data source	Data type	Year
Canada	Statcan – Census Metropolitan Area and District: www5.statcan.gc.ca/olc-cel/olc.action?ObjId=99M0002X&ObjType=2&lang=en&limit=0	Household income before tax: Total income refers to monetary receipts from certain sources before income taxes and deductions during calendar year 2010	2011
Denmark	Statistics Denmark – data sent by Southern Denmark Region	Mean household income	2013
France	National Institute of Statistics and Economic Studies (INSEE) – IRIS and communes: www.insee.fr/fr/bases-de-donnees/default.asp?page=statistiques-locales/revenu-niveau-vie.htm	Indicators of structure and distribution of income: income reported by households (income tax, income before redistribution)	2011
Netherlands	Statistics Netherlands – Buurt and Wijk: www.cbs.nl/en-GB/menu/home/default.htm?Languageswitch=on	Disposable household income: gross income, reduced with transferred income (e.g. alimony); insurance (income/health) premiums; taxes on income and fortune	2009
United States	American Community Survey (5-year) – Census tract: http://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml	Total income	2014

Annex 4.A2. Neighbourhood histories and income prospects

Living in a deprived neighbourhood is associated with lower income later in life. Table 4.A2.1 shows the results of regression analysis obtained through multi-level models. The dependent variable is the individual income (in logarithm) 6 and 12 years after leaving the parental home. Besides including the information on the neighbourhood of the parental home, the analysis controls for individual characteristics, such as sex, status, age, education, parents' income and whether the individual is part of an ethnic minority.

Table 4.A2.1. **Intergenerational income transmission in the Netherlands**

Multi-level models – 6 and 12 years after leaving the parental home

	After 6 years (2006)		After 12 years (2012)	
	Coefficient	Standard error	Coefficient	Standard error
Log income parents (EUR 1 000)	0.048[a]	0.002	0.072[a]	0.001
Male	0.124[a]	0.003	0.264[a]	0.003
Single	0.234[a]	0.002	0.176[a]	0.001
Student	-0.497[a]	0.002	-0.728[a]	0.002
Ethnic minority	-0.050[a]	0.005	-0.106[a]	0.005
High education (ref = low)	0.066[a]	0.002	0.166[a]	0.002
Age	0.108[a]	0.000	0.055[a]	0.000
Parental neighbourhood Q4 (ref = Q5)	-0.003	0.005	-0.007	0.005
Parental neighbourhood Q3	0.002	0.005	-0.009	0.005
Parental neighbourhood Q2	0.003	0.005	-0.019[a]	0.005
Parental neighbourhood Q1	-0.020[a]	0.005	-0.054[a]	0.005
Parental neighbourhood in the four largest cities	-0.062[a]	0.005	-0.073[a]	0.006
Parental neighbourhood in the 35 largest cities	-0.041[a]	0.003	-0.042[a]	0.004
Intercept	-0.111[a]	0.010	1.075[a]	0.008
Random effects parameters				
sd(_cons)	-0.883[a]	0.003	-0.688[a]	0.002
sd(Residual)	-0.436[a]	0.001	-0.422[a]	0.001
Individuals	119 167		119 167	
Observations	953 336		1 668 338	
Prob > chi^2	0.0000		0.0000	
Pseudo R^2	0.26		0.32	

Note: a) Denotes significance at the 1% level.

Chapter 5.

Policies and partnerships for inclusive growth in cities: A framework for action

This chapter examines a selection of policy options and partnerships for pursuing inclusive growth in cities. First, it sets out a framework to help national and city governments join forces towards making cities more prosperous and equitable. Second, it reviews a range of policy tools that aim to improve urban residents' life prospects, both in terms of human and social capital (jobs and education) and in terms of the urban built environment (housing, transport, environment). Finally, it offers a set of guidelines to help decision makers implement policies for more inclusive growth in cities.

Introduction

Leaders around the world are seeking new policy tools that engage all parts of the society in the move towards modernising urban economies. Home to around half of the population and around 60% of gross domestic product (GDP) in the OECD area, cities are widely recognised as engines of national prosperity, but inequalities among and within cities depict a dual, often even manifold reality. While the issue of combating rising inequality in cities has gained significant traction, the OECD All on Board for Inclusive Growth initiative is not simply putting forward a new social agenda – rather a new growth agenda that generates more inclusion. Making urban growth more inclusive is no easy task, and neither cities nor national governments can achieve this goal alone. The 6th OECD Roundtable of Mayors and Ministers held in Mexico City in October 2015 underlined the need for national and local governments to align their actions towards this shared objective. The enthusiastic response to the OECD's call for mayors to champion more inclusive growth has also demonstrated the political commitment of city leaders and key organisations, as outlined in the New York Proposal for Inclusive Growth in Cities endorsed in March 2016.

This chapter examines a selection of policy options and partnerships for pursuing inclusive growth in cities. It starts by charting out a policy framework based on the latest OECD evidence on growth and inequality in cities. Such a policy framework integrates two main pillars, which the chapter then reviews respectively: the first pillar aims to nurture human and social capital in cities by supporting jobs and education; the second pillar harnesses the built environment in cities by improving housing, transport, environmental conditions, and the quality of infrastructure and public services. Finally, the chapter closes with a set of guidelines for designing and implementing effective inclusive growth policy packages in cities.

Key findings of the chapter include:

- National and city governments work on the policy levers that matter for inclusive growth, but they do not automatically work together. Bridging national and local efforts is essential for ensuring that urban policy interventions translate into concrete improvements in people's lives.
- Fostering more inclusive growth in cities requires a co-ordinated mix of policies for human, social and environmental capital. The spatial scale to which policies are applied – neighbourhoods, cities, metropolitan areas or regions – is also of utmost importance and may change according to the policy under consideration. Without an integrated approach at the right scale, some policies may unintentionally end up addressing one problem while aggravating another, or shifting a problem from one area to another.

A new policy framework to help cities grow more inclusively

The latest OECD evidence on growth and inequalities in cities, presented in the previous chapters, underpins a pressing call for rethinking policy actions at the right scale and adopting an integrated approach across sectors (Table 5.1). First, cities are places that combine higher levels of growth and inequality than the national average of their respective countries. Both growth and inequality in cities manifest themselves in terms of income, but also across major dimensions of people's well-being, such as jobs and health. For example, people living in the highest earning neighbourhood in downtown Melbourne make nine times as much as those living in Melbourne's poorest suburb (Boulant, Brezzi

and Veneri, 2016). But a person's zip code shapes much more of their life than their mere income. Life expectancies differ by almost 20 years across neighbourhoods in Baltimore (Baltimore City Health Department, 2015) or London (Cheshire, 2012). Pursuing a new growth model that engages and benefits more people thus requires a multi-pronged strategy which embraces the different dimensions of people's life chances in cities. Second, large cities call for specific policy attention – evidence has shown that the larger the city, the higher the household disposable income and people's living standards, but also the more unequal it is in terms of income. Third, cities are fracturing spatially across economic lines. Spatial segregation in cities is sometimes stronger among the poorest households, as in Denmark and the Netherlands, other times among the richest, as in Canada, France and the United States (Chapter 4). Both configurations can undermine people's chances to move up the income ladder. At the same time, cities also offer their residents the potential to break their path dependency towards their parents' income. This suggests that policies to combat spatial segregation in cities can help boost social mobility and expand people's opportunities to achieve better living conditions. Finally, metropolitan areas that have a higher level of administrative fragmentation are found to be spatially more income segregated (Chapter 4), which indicates that effective metropolitan governance arrangements can make a significant contribution to inclusive growth.

Table 5.1. **Key facts and policy implications for supporting inclusive growth in cities**

Key facts	Policy and governance implications
Cities, growth and inclusion	
Cities are drivers of growth, albeit with large variation across countries (e.g. metropolitan areas in Italy and Korea accounted for more than 80% of job creation between 2000 and 2014, compared to less than 30% in the Slovak Republic and Switzerland). Cities are unequal, both in terms of income and beyond (e.g. people living in the highest earning neighbourhood in downtown Melbourne make more than nine times as much as those living in Melbourne's poorest suburb; beyond income, life expectancies differ by almost 20 years across neighbourhoods in Baltimore).	Inclusive growth policies need to target the urban scale (both cities and neighbourhoods within cities) and adopt a multi-sectoral approach (addressing not only income but also other dimensions of prosperity and well-being).
City size and inclusive growth	
Income inequality increases with city size (i.e. metropolitan areas with over 1.5 million people register higher levels of the Gini Index for disposable household income compared with smaller metropolitan areas). Despite the impact of the crisis, large cities have higher living standards than the rest of their respective countries, as measured by a composite measure of income (both in terms of level and distribution), jobs and health (i.e. multidimensional living standards are about 30% higher in metropolitan regions than in non-metropolitan ones, although they decreased on average during the period 2007-12).	Large cities require specific policies for inclusive growth.
Spatial segregation in cities	
Rich and poor residents often live in clearly distinct neighbourhoods (e.g. more segregation among the poorest in Denmark and the Netherlands vs. among the richest in Canada, France and the United States). Segregation in cities can undermine people's chances over their lifetime (e.g. in the Netherlands, people who lived with their parents in the poorest neighbourhoods (bottom 20% of income) ended up earning an income 5-6% lower than the rest of the population 12 years after leaving the parental home). Cities can promote social mobility (e.g. in Canada and the United States, people's income is less correlated to their parents' income if they lived in a metropolitan area as a child rather than in the rest of the country).	Preventing the negative effects of spatial segregation in cities and promoting mixed urban neighbourhoods (e.g. through integrated actions in terms of housing, transport, employment, education, environment, etc.) with equal access to quality public services can help increase people's chances to contribute to and benefit from growth over time.
Metropolitan governance	
Administrative fragmentation is positively correlated with spatial segregation.	More effective metropolitan governance can help mitigate spatial segregation by income, potentially alleviating the negative effects of concentrations of disadvantages.

Source: Authors' elaborations.

The redistribution of income to disadvantaged groups of the population – through taxes, welfare, public services, etc. – is one of the key instruments that governments deploy to fight poverty and reduce inequalities. Many OECD countries also operate fiscal equalisation schemes aimed at redistributing financial resources from richer to poorer regions across the country. Cities (large metropolitan areas) are often net contributors in national fiscal equalisation systems, due to higher revenue-raising capacity and lower unit costs for infrastructure and services than rural areas; this is the case, for example, in Finland, Italy, Japan, Korea, Norway and Sweden (OECD, 2013a). The design of national fiscal equalisation schemes usually seeks to balance the objective of reducing inequalities while ensuring that growth in the more productive regions is not held back or jurisdictions' development incentives undermined. Applying an equalisation reform across a country requires a particularly careful analysis of how the new scheme will affect fiscal behaviour in order to avoid generating disincentives to tax effort and economic development. Effective national equalisation schemes require a strong central government capacity to monitor the actual use and performance of intergovernmental transfers. Many countries have chosen to use a special, independent grants commission to administer their transfers, in order to minimise as much as possible the role of politics in grant design and allocation (Alm, 2013).

The costs and benefits of public services typically spill over municipal boundaries, prompting some metropolitan areas to design intra-metropolitan equalisation schemes. Such schemes seek to address the negative externalities of urban sprawl and compensate for inequalities in tax bases, through redistributive grants and tax-base sharing, for example. Typically, only megalopolises governed by a single metropolitan government (e.g. Seoul, Tokyo) tend to establish an equalisation scheme, but there are also rare exceptions. One of the best-known examples is the Twin Cities Fiscal Disparities of Minneapolis-St. Paul (United States). Since 1975, Minnesota law has stipulated that each year, 40% of the commercial/industrial tax base in each municipality within the Minneapolis-St. Paul metropolitan area be placed into a seven-county, metro-wide pool. The tax base is then distributed back to participating municipalities and school districts based on tax base and population, and taxed by each location at its own tax rate. In 2011, 64% of households in the region lived in areas that received more from the pool than they contributed. The programme has been a very effective way to reduce incentives for inefficient competition for tax base and to improve equity in the distribution of fiscal resources, discourage urban sprawl and encourage joint economic development efforts. Tax-base sharing mechanisms help share the costs of public services and promote regional planning. At the same time, they may also generate disincentives for economic development if the wealthier municipalities get, the less they receive in terms of grants. Overall, implementing such mechanisms requires very thorough consideration of the context-specific political and financial characteristics (OECD, 2015a).

While fiscal equalisation schemes at the national and metropolitan levels provide a powerful tool to help cities spread the fruits of growth outward and inward (towards the rest of the country and within cities themselves), structural policies are at the heart of the OECD All on Board for Inclusive Growth initiative, and can effectively supplement fiscal policy to expand urban residents' life opportunities. But no single policy or actor can achieve alone the transformations required to improve people's lives in cities. Co-ordination across levels of government in structural policies, and notably in terms of public investment, is crucial for ensuring effective outcomes, as highlighted in the OECD *Recommendation of the Council for Effective Public Investment across Levels of Government* (OECD, 2014a).

National and city governments work on the same core policy levers for inclusive growth, but not necessarily together.

Recent OECD work can help policy makers identify and explore synergies between actions that can be carried out at the national level – within a national urban policy framework built along five main pillars (money, place, people, connections, institutions) – and actions that can be carried out at the city level – as outlined in the four domains put forward by the New York Proposal for Inclusive Growth in Cities (Table 5.2). In particular, achieving more inclusive growth in cities requires that national and city administrations align their objectives towards a shared vision of what needs to be done in cities (Figure 5.1).

Table 5.2. **Working on advancing the inclusive growth agenda at national and city level**

Key pillars of a national urban policy framework	Key domains at city level of the New York Proposal for Inclusive Growth in Cities
– **Money**: Assessing the impact on urban form and outcomes of the framework for municipal finance: own revenues, transfers, expenditure and debt. – **Place**: Co-ordinating policies on land use, development, transport and the environment, both vertically and horizontally. – **People**: Seeing labour market, housing, migration and urban infrastructure policies through an "urban lens". – **Connections**: Connecting cities within a country to each other and the outside world; seeing cities as part of a larger system. – **Institutions**: Putting in place structures and processes to assure vertical, cross-jurisdictional and cross-sectoral co-ordination on an ongoing basis.	– **An inclusive education system**, which enables people of all ages and backgrounds to develop their human capital, acquire relevant skills and improve their life chances. – **An inclusive labour market**, which aims to make the most of women, youth, older populations, migrants and immigrants, foreign-born populations, and people of all backgrounds in the labour force. This means policies that promote access to quality jobs and inclusive entrepreneurship. – **An inclusive housing market and urban environment**, which provides quality, affordable housing in safe, healthy neighbourhoods for all segments of the population. – **Inclusive infrastructure and public services**, which consists of a transport system that provides access to jobs, services and consumption opportunities for all, as well as affordable, reliable public services, such as water, energy, and waste management and broadband infrastructure.

Sources: Author's own elaboration based on OECD (n.d.), "Building successful cities: A national urban policy framework"; and OECD/Ford Foundation (2016), New York Proposal for Inclusive Growth in Cities, endorsed on 29 March 2016.

National governments intervene in almost all the policy domains that affect cities, albeit often without articulating a comprehensive "national urban policy". According to the results of the 2016 OECD Regional Outlook Survey (OECD, 2016a), the first priority for national urban policy is transport (21 out of 25 responding countries), particularly in terms of improving the accessibility of public transport and inter-city transport links, followed by economic development (18 out of 25 responding countries). These policies to attract and retain firms or provide incentives for job creation tend to be targeted at specific disadvantaged urban locations, and are therefore more focused on inclusion within a city than the overall city's productivity. Further priorities for urban policy relate more specifically to inclusion-related objectives, including housing (13/25), social cohesion and service delivery (13/25), employment integration (12/25), and urban investment in targeted neighbourhoods (11/25). As a result, national policies frequently target only what are deemed to be particularly "problematic" cities or neighbourhoods.[1]

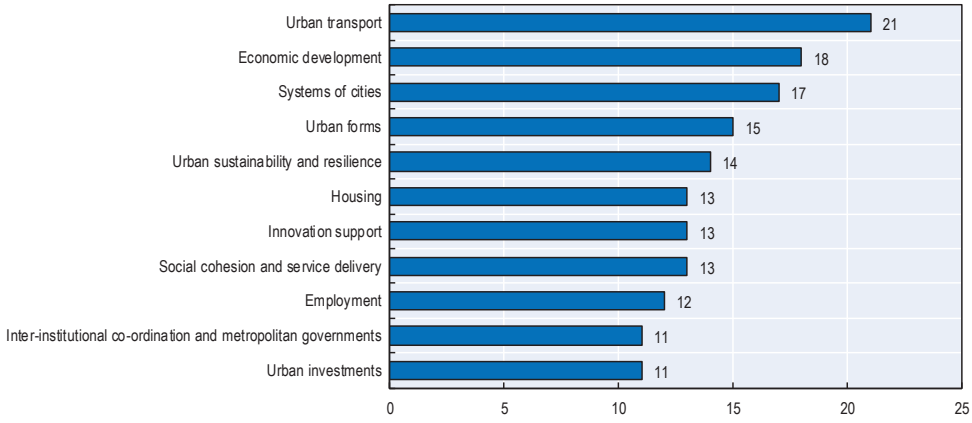
Cities also prioritise broadly similar policy issues to those ranked high by national governments. According to the results of the OECD Metropolitan Governance Survey (OECD, 2015a), cities that work together at metropolitan scale deal primarily with economic development (over 80% of metropolitan governance bodies), transport (over 70%) and spatial planning (over 60%); also, more than half of metropolitan governance bodies are active in these three fields at the same time (OECD, 2015a). In order to promote effective inclusive growth in cities, policy makers at all levels need to reach a

shared understanding of the overarching needs of cities and to "urban-proof" the effects of policies that may not be considered to be part of "urban policy" (Figure 5.1).

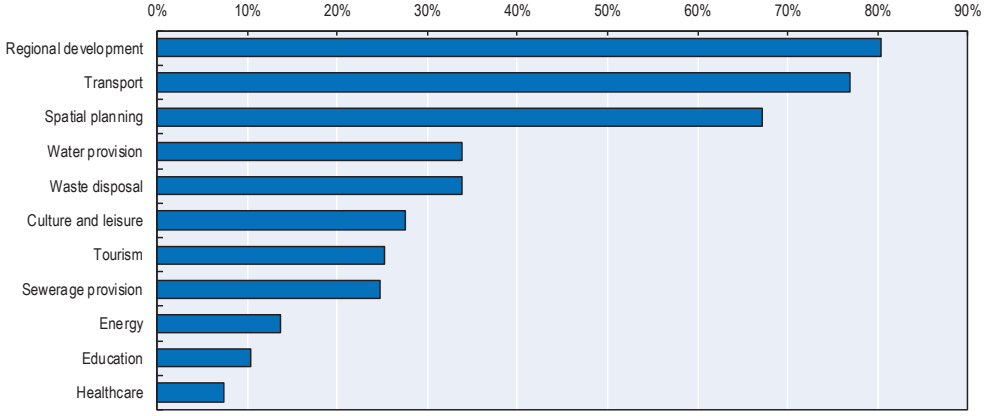
Figure 5.1. **Priorities for urban policy at national and metropolitan level**

Combined results from the OECD Regional Outlook Survey and the OECD Metropolitan Governance Survey

A. Priorities at national level (as reported in response to the OECD Regional Outlook Survey)



B. Priorities at metropolitan level (as collected in the OECD Metropolitan Governance Survey)



Notes: Panel A is based on 25 countries reporting on the importance of each priority in their urban development policy efforts on a scale of 1 (not important) to 5 (extremely important). Responses with a value of 4 or 5 are included. Panel B shows the share of metropolitan governance bodies that work on a certain policy field. Among 263 metropolitan areas analysed in the Metropolitan Governance Survey, 178 (or 68%) had a metropolitan governance body.

Sources: Authors' elaborations drawing from OECD (2016a), *OECD Regional Outlook 2016*; OECD (2015a), *Governing the City*, http://dx.doi.org/10.1787/9789264226500-en; Ahrend, R., C. Gamper and A. Schumann (2014), "The OECD Metropolitan Governance Survey: A quantitative description of governance structures in large urban agglomerations", http://dx.doi.org/10.1787/5jz43zldh08p-en.

No policy area is financially a single government level's responsibility

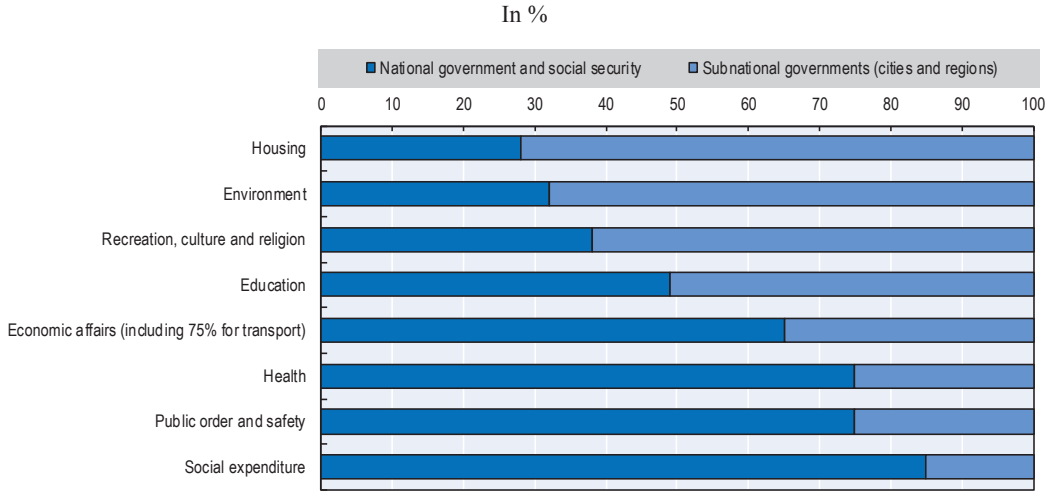
This *de facto* coexistence of policy mandates at national and city level is reflected in the distribution of spending responsibilities across levels of government in policy fields that are central to inclusive growth in cities (Figure 5.2). Considering that internationally comparable data on public spending do yet not exist at the city level, the present analysis uses subnational government expenditure as a proxy (where subnational government is

defined as the sum of state governments and local/regional governments).[2] The distribution of spending responsibilities across levels of government highlights the following trends (OECD, 2016b):

- Regarding the two top priorities reported both by national governments and by cities (when working together at metropolitan scale), **transport** and **economic development**, national governments carry out 65% of the total spending on average in the OECD area while subnational governments conduct the remaining 35%. However, there are large differences across countries. For example, subnational governments carry out more than 50% of total public spending in federal countries, as well as in Japan and Poland.
- On average in the OECD area, subnational governments account for a larger share of total public spending than national governments in **housing** (72%). This value rises above 90% in Belgium, Estonia, Norway, Spain and Switzerland. In Belgium, for example, social housing was decentralised entirely to the regions in 1980, also involving a variety of providers such as municipalities, public companies, foundations, co-operatives and non-profit organisations. Generally speaking, however, the social housing sector has been going through a widespread privatisation process that has reduced subnational government involvement, especially in Central and Eastern European countries.
- The share of subnational governments in total public **environmental** expenditure is also sizable (68% on average in the OECD area). Subnational government spending in this field represented more than 85% of total public spending in 2013 in France, the Netherlands, Portugal and Spain. In some sectors (e.g. waste, sewerage, parks and green spaces), this competence is almost fully devolved to local governments or dedicated functional bodies (e.g. water boards in the Netherlands). It is also often outsourced to agencies, external entities or private providers through public-private partnership contracts (e.g. in France).
- By contrast, the competence for another major policy lever of inclusive growth, **education**, is shared across levels of government, with subnational governments carrying out 51% of total public spending (OECD, 2016b).[3] In most countries, subnational governments are responsible for the construction and maintenance of educational infrastructures and the financing of school-related activities, commonly for primary level schools but also frequently for secondary level schools. In other countries, subnational governments are in charge of paying the salaries of administrative and technical staff and teachers.
- **Health, public order and safety, and social expenditure** remain a centralised responsibility in most OECD countries (subnational governments represent only 25%, 25% and 15% of total spending, respectively). Health-related responsibilities fall most often under the responsibility of central government or social security bodies and subnational governments have no role, or a limited one. At the same time, there is considerable variety across OECD countries (e.g. the subnational government share exceeds 60% in Italy, Spain, Switzerland and the Nordic countries). Responsibilities for planning, organising, delivering and financing healthcare services and infrastructures are decentralised to the municipal level (primary care centres) and especially to the regional level (hospitals, specialised medical services). In the majority of OECD countries (with the exception of Denmark), social protection and benefits are mainly provided by the central

government, social security bodies or by insurance institutions. Public order and safety functions also remain primarily conducted by the central government.

Figure 5.2. **Breakdown of total public spending across levels of government by policy field, 2013**



Source: Author's own elaboration using data from OECD (2016b), *OECD Regions at a Glance 2016*, http://dx.doi.org/10.1787/reg_glance-2016-en.

The key to pursuing more inclusive growth in cities is often at the metropolitan scale

Carrying out many of these policy responsibilities requires cities to collaborate at the metropolitan scale. Many large cities in OECD countries are therefore working together by setting up metropolitan governance structures that focus on joint strategic planning and policy development in land use, transport, housing and economic development, among other competencies. Such metropolitan authorities are either directly elected (such as the Greater London Authority, Portland Metro, Verband Region Stuttgart, Métropole Aix-Marseille-Provence) or non-elected (such as the Àrea Metropolitana de Barcelona, the Communauté Métropolitaine de Montréal, Metro Vancouver or the Metropolitan Region Rotterdam-The Hague) (Table 5.3). While they differ in terms of legal status, financing, responsibilities and staff size, among others, metropolitan governance authorities can play a key role in advancing both growth and inclusion. First, recent OECD research has found that metropolitan governance can reduce the cost of administrative fragmentation and increase productivity – doubling the number of local governments within a metro area reduces productivity by 6%, but the presence of a metropolitan governance body reduces this penalty, on average, by half (Ahrend, Gamper and Schumann, 2014). Second, as discussed earlier in this report, administrative fragmentation is negatively associated with spatial segregation, suggesting that metropolitan governance could help reduce segregation and promote more social inclusion (see Chapter 4). It is therefore essential to better co-ordinate strategic policies at the metropolitan scale to build more inclusively growing cities, and this requires a carefully designed and iterative process of metropolitan governance reform that engages a wide variety of stakeholders (see OECD, 2015a for more details).

The remainder of this chapter will review a range of structural policies that shape people's prosperity and opportunities in cities. The chapter will focus on two broad sets

of policies: policies that cultivate people's human and social capital, and those that harness the physical and environmental capital in cities. The analysis pays close attention to the distribution of responsibilities across levels of government. National governments play a key role in laying out the broad legal, institutional and macroeconomic framework conditions for sharing the benefits of growth across social groups, whereas city governments can make the most of their proximity to citizens and knowledge of local challenges to target effectively the needs in their respective communities. Table 5.4 provides some examples of policies for inclusive growth carried out by national and local governments, including some that will be further developed in following sections.[4]

Table 5.3. **Overview of selected metropolitan governance models in OECD countries**

Examples	Metropolitan governance structure	Coverage of metropolitan governance structure	Competencies
Elected metropolitan governments			
London (Greater London Authority, GLA), United Kingdom	· London Assembly of 25 members directly elected by proportional representation · Mayor of London directly elected every four years	8.2 million across the city of London and 32 boroughs	– Land use (London Plan) – Transport (Transport for London) – Policing (Mayor's Office for Policing and Crime) – Fire and rescue (London Fire and Emergency Planning Authority) – Development (GLA Land and Property)
Portland (Portland Metro), United States	· Metropolitan Council composed of six members (one in each district), directly elected every four years · President of the Council, directly elected region-wide every four years	1.5 million across 25 municipalities	– Land-use planning (e.g. urban growth boundary) – Transport planning (as a metropolitan planning organisation) – Managing several park facilities – Handling waste disposal – Maintaining landfills and recycling transfer stations – Owning and operating some major facilities (e.g. zoo, convention centre, exposition centre)
Stuttgart (Verband Region Stuttgart, VRS), Germany	· Regional assembly of 93 members directly elected every five years by proportional vote · President of the regional assembly and regional director, both elected by the members of the regional assembly	1.96 million encompassing the city of Stuttgart and 5 surrounding districts (total of 179 cities and municipalities)	– Regional spatial planning – Transport infrastructure and operation (including suburban rail S-Bahn) – Regional economic and touristic development
Métropole Aix-Marseille-Provence, France	· Metropolitan Council, initially elected by municipal councillors, then to be directly elected by citizens · President to be elected by the Metropolitan Council · Subdivided into six "*territoires*" (sub-units corresponding to the previous six inter-municipal organisations)	1.8 million across 93 municipalities	– Transport – Economic development – Spatial planning – Housing – Environmental protection – Various public services (e.g. water, waste)
Non-elected inter-municipal authorities			
Barcelona (Àrea Metropolitana de Barcelona, AMB), Spain	· Metropolitan Council composed of 90 members (the mayors from all 36 municipalities and city councillors appointed by their municipalities) – President of the AMB (Mayor of Barcelona) – 485 staff (as of 2014)	3.2 million across 36 municipalities	– Strategic planning – Spatial planning – Transport and mobility – Water – Waste treatment – Social cohesion – Economic development

Table 5.3. **Overview of selected metropolitan governance models in OECD countries** (*continued*)

Examples	Metropolitan governance structure	Coverage of metropolitan governance structure	Competencies
Montreal (Montreal Metropolitan Community, MMC/Communauté métropolitaine de Montréal, CMM), Canada	– Community Council composed of 28 members (mayors and city councillors) – President (Mayor of Montreal)	4 million across 82 municipalities	– Spatial planning – Transport – Economic development – Social housing – Metropolitan infrastructure and services – Waste management planning – Wastewater sanitation
Vancouver (Metro Vancouver), Canada	– Board composed of 38 members representing the 23 local authorities – 1 500 staff	2.5 million across 23 local authorities (21 municipalities, 1 electoral area, 1 treaty First Nation)	– Regional services, including three core utilities (water, liquid waste, solid waste) – Regional planning (Regional Growth Strategy, RGS)
Metropolitan Region of Rotterdam-The Hague (MRDH), Netherlands	– General management of 27 members – Executive Board of five members	2.2 million across 23 municipalities	– Transport – Economic development

Source: Author's own elaboration based on OECD (2015a), *Governing the City*, http://dx.doi.org/10.1787/9789264226500-en.

Table 5.4. **Supporting inclusive growth across well-being dimensions in cities: Examples at national and city level**

	Targeted dimensions	National government	City government
Human and social capital	Income	Alleviate in-work poverty through net social transfers (e.g. Denmark, France and Sweden) (OECD, 2009). Increase individual purchasing power and income through individual-based benefits linked to employment (e.g. health insurance through employment), in combination with other redistribution tools such as targeted tax relief and direct social subsidies (OECD, 2009).	Promote intra-metropolitan fiscal equalisation schemes (e.g. Twin Cities Fiscal Disparities programme in Minneapolis-St. Paul, United States). Compensate for the high cost of living in cities through targeted subsidies for disadvantaged socio-economic groups (e.g. income-related fees for public transport or for accessing cultural amenities in Paris; in Seoul, the Emergency Welfare Support Programme supports disadvantaged households by subsidising their cost of living, housing expenses, medical expenses, educational expenses, etc.).
	Employment	Encourage effective transition of students across the education system or into the labour market (e.g. Austria's National Partnership on Youth Attainment and Transitions programme) (OECD, 2015b). Compensate for entry barriers for youth through the enforcement of a minimum wage for youth, which can potentially increase with age in several small steps as done in Australia, the Netherlands and the United Kingdom to avoid large jumps in labour costs from one year to the next, and lower the risk that employers would base hiring and firing decisions primarily on age or seniority (OECD, 2015b). Assist the unemployed in transitioning into self-employment and business creation (e.g. Bridge Allowance in Germany) (OECD, 2016a).	Encourage job creation in locally relevant industries (e.g. bringing some types of manufacturing jobs back through New York's Industrial Policy). Promote workers' co-operatives (e.g. Cleveland Evergreen Co-operatives). Promote immigrant entrepreneurship (e.g. Unternehmen Ohne Grenzen in Hamburg, YUMP in Sweden and France).
	Education	Break path dependency between students' socio-economic background and their school performance (e.g. Australia, Canada, Estonia, Finland, Japan, Korea and the Netherlands combine high student performance and high levels of equity) (OECD, 2015c). Adopt a comprehensive vocational education and training (VET) system (e.g. Denmark, Portugal and Sweden) and ensure monitoring and quality control (e.g. quality management system in Austria) (OECD, 2015a).	Partner at the local level between the local government, universities and the private sector to establish targeted VET programmes. Encourage youth from low-income communities to remain in school and graduate to post-secondary level (e.g. "Pathway to Education" programme in Toronto). Improve access to pre-school education (e.g. significant increase in the number of pre-school spots in Geneva; universal pre-K initiative in New York and other US cities). Support physical infrastructure improvements in schools located in poorer areas (e.g. Bell Education Plan in Birmingham, United States). Develop the skills of disadvantaged youth (e.g. training programmes for youth migrating from rural areas in public improvement works in Dakar).

Table 5.4. **Supporting inclusive growth across well-being dimensions in cities: Examples at national and city level** (*continued*)

	Targeted dimensions	National government	City government
Physical and environmental capital	Health	Ensure insurance coverage for essential health services for all the population, as well as proper geographic distribution of health services across different regions in each country (people with the highest level of education can expect to live six years longer on average than those with the lowest level (OECD, 2015d); low-income households are four to six times more likely to report unmet needs for medical and dental care for financial or other reasons than those with a high income, and in some countries, like Greece, the share of the population reporting some unmet medical needs more than doubled during the economic crisis).	Improve access of low-income communities to healthcare (e.g. "Medico en tu casa" initiative launched in Mexico City in 2014 to send doctors to low-income households that have no/little physical or financial access to healthcare). Promote equal access to nutrition by supporting the creation of grocery stores with lower cost fresh produce in low-income neighbourhoods (e.g. the fight against "food deserts").
	Access to services	Lower the cost of Internet and mobile phone access (e.g. reinforce antitrust measures in telecommunications and the offer for triple-play in EU countries; US initiative to bridge the digital divide).	Improve broadband access for all (e.g. free municipal Internet in Raleigh, North Carolina and El Paso, Texas in the United States).
	Housing	Homeownership subsidies (currently used in most OECD countries). Target housing allowances to the needs of different socio-economic groups. Social rental housing. Promote the development of the rental market through financial support and regulations.	Promote mixed-income neighbourhoods and buildings (e.g. inclusive zoning policies to ensure social mix in Montgomery County, Pennsylvania; Boston, Massachusetts; San Francisco, California).
	Transport	Make public transport subsidies more transparent, efficient and sustainable (OECD/ITF, forthcoming). Enhance multi-modality and transit-oriented development in coherence with other policies such as housing (OECD/ITF, forthcoming). Improve transport-related data collection and analysis (e.g. Housing + Transport Affordability Index in the United States).	Improve accessibility, affordability and quality of public transport infrastructure for all groups of society (e.g. "Lisbon Door-to-Door" programme created in 2004 by the Lisbon City Council to connect populations who were displaced from the city's expensive centre toward more affordable suburbs). Integrate transport networks at the functional urban scale (e.g. "Vision Söderort" plan of the city of Stockholm to develop the Söderort area in southern Stockholm by building a light rail line between Söderort and Stockholm and increasing the number of jobs available to local inhabitants).

Table 5.4. **Supporting inclusive growth across well-being dimensions in cities: Examples at national and city level** (*continued*)

	Targeted dimensions	National government	City government
Physical and environmental capital (*continued*)	Environment	Encourage sustainable development by co-ordinating investment in housing, transport and environmental projects (e.g. since 2009, the US Department of Housing and Urban Development, the US Department of Transportation, and the US Environmental Protection Agency have led the "Partnership for Sustainable Communities", co-ordinating federal funding for housing, transport, water and other infrastructure investments; for example, the partnership distributed grants to local authorities (particularly to low-capacity and underserved communities) to support environmentally equitable and productive projects (Partnership for Sustainable Communities, 2015).	Promote the creation of mixed-use spaces by partnering with developers and communities (e.g. creation of open green spaces integrated with new developments in Greenpoint, Brooklyn, or in Columbus, Ohio in the United States).
	Community	Provide disadvantaged groups with support networks (e.g. "My Brother's Keeper" initiative in the United States to help young men of colour overcome barriers to education and employment through targeted services such as mentoring programmes).	In most cities, the share of people reporting that they have social support networks to rely on in case of need is close to the national average.
	Civic engagement	Strengthen accountability and participatory decision-making processes (e.g. Rebuild by Design initiative implemented after Hurricane Sandy in the United States in 2012, bringing together researchers, designers, affected businesses, policy makers and local groups to redevelop and garner resilience for the future shocks) (OECD, 2016b). Set up comprehensive stakeholder engagement mechanisms for defining national strategies (e.g. wide consultation to define the national strategy "Lithuania 2030" and the Northern Ireland Health Strategy "Investing for Health" [(2002]) or specific projects (e.g. Burden Hunters project in Denmark, Better Regulation Hunt in Sweden) (OECD, 2016b).	Promote stakeholder engagement in local policy design and implementation (e.g. participatory budgeting in Paris).

Sources: Author's own elaboration based on various sources including ITF/OECD (forthcoming), "Roundtable on Income Inequality, Social Inclusion, and Mobility"; OECD (2016c), *The Productivity-Inclusiveness Nexus: Preliminary Version*, http://dx.doi.org/10.1787/9789264258303-en; OECD (2016d), *The Governance of Inclusive Growth*, http://dx.doi.org/10.1787/9789264257993-en; OECD (2015c), *Education Policy Outlook 2015: Making Reforms Happen*, http://dx.doi.org/10.1787/9789264225442-en; OECD (2015b), "FOCUS on minimum wages after the crisis: Making them pay", www.oecd.org/social/Focus-on-Minimum-Wages-after-the-crisis-2015.pdf; OECD/Cedefop (2014), *Greener Skills and Jobs*, http://dx.doi.org/10.1787/9789264208704-en; OECD (2013b), *Green Growth in Stockholm, Sweden*, http://dx.doi.org/10.1787/9789264195158-en; OECD (2011a), *Economic Policy Reforms 2011: Going for Growth*, http://dx.doi.org/10.1787/growth-2011-en; OECD (2009), *OECD Employment Outlook 2009: Tackling the Jobs Crisis*, http://dx.doi.org/10.1787/empl_outlook-2009-en; Partnership for Sustainable Communities (2015), "About us", https://www.sustainablecommunities.gov/mission/about-us.

Fostering quality jobs for all in cities

Cities have contributed to 60% of employment creation across OECD countries in the past 15 years (OECD, 2016b). However, this contribution to job creation varies substantially across countries, from more than 80% in Italy and Korea to less than 30% in the Slovak Republic and Switzerland. The overall rise of unemployment in OECD cities since the crisis (from 5.5% in 2008 to 6.6% in 2014) also masks substantial differences across countries, with an increase of more than 10 percentage points in Greece and Spain but a reduction of urban unemployment in Chile, Germany and Japan. Most importantly, large variations of urban employment and unemployment within countries highlight that national and local governments need to work together to create inclusive urban labour markets. Nationwide policies and structural reforms help create a stable macroeconomic framework and encourage innovation, skills and business development. At the same time, national policies for employment and training policies are more effective when they draw on local knowledge to match skills development with job opportunities and are adapted to the local labour market conditions (OECD, 2014c). Local governments play an essential role in, among other things, enhancing and sustaining skill formation, job creation and supporting transitions throughout the life cycle by building comprehensive local career information and well-articulated training to employment pathways (OECD, 2016b). Moreover, city governments are well-positioned to support partnerships with educational institutions, businesses located in their jurisdictions, trade unions and civil society towards better integrated policies and training programmes. Finally, city governments can ensure that appropriate social protections are available at the local level, especially among the highly disadvantaged. Local institutions are well placed to match the supply and demand of social protection services and ensure their accessibility to the populations concerned.

Inclusive urban labour markets need to provide jobs for a wide spectrum of skills, qualifications and backgrounds. Cities differ widely in their labour force composition and policy efforts therefore need to focus on attracting and retaining workers for different types of jobs – from cutting-edge jobs in the digital economy to more traditional manufacturing jobs and informal jobs. In the case of high-skilled jobs, for example, the city of Lulea in Sweden has combined a set of infrastructure reforms, education initiatives and efficient branding of its natural environmental characteristics to attract Facebook, which is expected to create 2 200 new jobs in the city (Eudes, 2016). Meanwhile, the city of New York's recently announced Industrial Action Plan aims to revitalise manufacturing industries in the city's outer boroughs to tackle the displacement of worker communities from the city and provide a dynamic entry into the innovative field of robotics thanks to its FutureWorks incubator (Box 5.1). At the other end of the skills spectrum, informal employment also constitutes a major part of the economic fabric in some cities, notably in developing countries, and can sometimes allow for faster social mobility. For example, Bangkok has implemented policies to support street vendors, while Dakar has trained unemployed youth in public road pavement works (Box 5.2).

Box 5.1. **Bringing manufacturing jobs back in New York**

The 2015 Industrial Action Plan of New York aims to maintain and create industrial employment in the city. Currently, there are 530 000 industrial jobs in the city, representing 15.4% of the local workforce. A majority of these jobs are located in the outer boroughs and close to half of industrial workers are foreign-born. The plan aims to add 20 000 jobs in the industrial sector. It outlines the following actions: invest in city-owned industrial assets, limit new hotels and personal storage in core industrial areas, create new models for flexible workspace and innovation districts, strengthen core industrial areas, create an industrial and manufacturing fund to spur development, launch an advanced manufacturing network ("Futureworks NYC"), including the creation of a new advanced manufacturing centre that will feature state-of-the-art equipment devoted to robotics and other new technologies. The plan created a USD 150 million city loan and grant fund to finance the creation of industrial and manufacturing sites. Public and private funding of USD 10 million will be used to create the manufacturing centre. Endowed with USD 3 million, the advanced manufacturing network will provide start-up companies and companies in their early stages of development with up to USD 30 000 over two years.

Sources: New York City Council (2014), "Engines of economic opportunity: Reinvigorating New York City's manufacturing zones for the 21st century", http://council.nyc.gov/downloads/pdf/NYEO.pdf; NYCEDC (2015a), Futureworks NYC Growth Initiative, www.nycedc.com/program/futureworks-nyc-growth-initiative; NYCEDC (2015b), The Industrial Action Plan, www.nycedc.com/industry/industrial; NYC.gov (2015b), "Mayor de Blasio and Speaker Mark Viverito unveil action plan to grow 21st century industrial and manufacturing jobs in NYC", www1.nyc.gov/office-of-the-mayor/news/780-15/mayor-de-blasio-speaker-mark-viverito-action-plan-grow-21st-century-industrial-and#/0.

Box 5.2. **Policies to support informal street vendors in Bangkok and youth employment in public works in Dakar**

Bangkok

According to the Bank of Thailand, the informal sector comprised 64% of the Thai economy in 2013. Data from the national statistical office estimated the number of street vendors at 40 000 as of 2010. Following the institutional organisation of Bangkok as a metropolis in 1972, the Bangkok Metropolitan Administration (BMA) legislated to monitor and curb street vending. The relationship between the administration and the informal sector has been mixed. In prosperous times, the local government sought to reduce street vending, perceived as a sign of disorder and sometimes even characterised as a threat (such was the case from 1987 to 1996, for example). However, in response to economic crises such as the "oil crisis" of the late 1970s, street vending was generally perceived as a means to provide employment and income to a large part of the population and generate economic activity. Self-employment was then encouraged. During the Asian financial crisis, the national government also encouraged self-employment by subsidising low-income entrepreneurs with THB 4 000 as an initial investment to start their business. A similar national initiative, the Bank of People's project, recently provided vendors with low interest loans. Successive administrations tried to find a common ground to enable street vending to generate economic activity while preserving hygiene, order and safety. Multiple policies, in particular since 2002, established a no-sale day of the week (first Wednesday, later changed to Monday), during which vendors were to vacate streets to allow for cleaning. Ordinances outlined codes of conduct specifically regarding food vendors, concerning their dress, hygiene, and health and safety measures. Fees were also implemented towards ensuring public hygiene and street maintenance. The BMA 12-year plan ends its second period in 2016, with the objective to encourage small enterprises, micro-enterprises and community enterprises. According to the International Labour Office, governmental initiatives to promote social progress through self-employment and business making remain under-inclusive for many in the lower economic strata. The definition of specific areas for street vending also encountered mitigated returns, with vendors conforming with the law making up 18.7% of the sellers in the inner city. However, WEIGO reports that some vendors are able to save money thanks to their business and to effectively have a middle-class social status.

Box 5.2. **Policies to support informal street vendors in Bangkok and youth employment in public works in Dakar** (*continued*)

Dakar

The municipal government of Dakar has used large-scale urban infrastructure projects to provide training and professional opportunities for youth. In particular, Dakar underwent major street paving work in 2012. The city seized this opportunity to provide the unemployed local youth with both theoretical and practical training in paving, in a three times ten-day training programme. At the time, youth unemployment in Dakar had reached 19%. The project initially reached 300 young adults and was later extended to 800 young adults. The goal was to hire 2 000 workers in the pavement works. The policy was later replicated in Guédiawaye, where 150 young people were trained to paving work over 20 kilometres of roads, following a request by the municipality to the Senegalese National Office for Professional Training. Road infrastructure work became a major source of employment for young adults. Dakar also encouraged the early use of digital tools at school by providing pupils in all 143 schools of the city with tablets and WiFi networks through the "Internet à l'école" (Internet at School) policy. Moreover, the city government created a Municipal Fund for Development and Solidarity, which provides micro-credit loans to unemployed youth and unemployed women to help them create their own business and engage in revenue-generating activities. The fund is specifically oriented towards innovative economic niches and productive sectors of the economy. The programme also incorporates a training and skills-building part. All inhabitants of the 19 districts of Dakar are eligible (under certain administrative conditions). Loans extend from CFA 200 000 to CFA 2.5 million for individual entrepreneurs and from CFA 200 000 to CFA 5 million for economic interest groups. Loans range from 6 to 24 months with a 6% annual interest rate (i.e. 0.5% per month).

Sources: Nirathron, N. (2006), "Fighting poverty from the street: A survey of street food vendors in Bangkok", www.ilo.int/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_bk_pb_128_en.pdf; Yasmeen, G. and N. Nirathron (2014), "Vending in public space: The case of Bangkok", http://wiego.org/sites/wiego.org/files/publications/files/Yasmeen-Vending-Public-Space-Bangkok-WIEGO-PB16.pdf; Fernquest, J. (2015), "Why Thailand's unemployment rate is ridiculously low", www.bangkokpost.com/learning/work/466226/why-thailand-unemployment-rate-is-ridiculously-low.

Vulnerable groups may need extra support for integrating into the urban labour market. Such groups may include recent migrants, women, youth, the elderly, people with disabilities or minorities. For instance, evidence shows that on average in OECD countries, migrants face a 6% probability of falling into long-term unemployment versus 4% for the native born (OECD, 2015e). Poverty rates are higher for migrants than for the native born in the OECD area, and increased from 27% to 29% in the period 2006-12 (while they decreased for the native-born from 15.7% to 15.3%) (OECD, 2015e). This issue needs to be addressed through co-ordinated efforts between national and local governments as quickly as possible following the arrival of migrants. While national measures include, for example, facilitating the recognition of skills obtained overseas, local governments are often called to organise language training or trainings to adapt skills to new work contexts. In Hamburg, for example, an organisation called Unternehmer ohne Grenzen ("Entrepreneurs without Borders") provides migrant potential entrepreneurs in urban-depressed areas with counselling, training and networking support services. The private sector also plays an essential role. In Sweden, the Young Urban Movement Project (YUMP) has also developed a bottom-up, selective entrepreneur educational programme to foster the growth of young entrepreneurs in deprived areas of large cities. The programme has since been expanded and adapted to other cities, in France for example (Box 5.3).

Box 5.3. Initiatives to promote immigrant entrepreneurship in cities: Unternehmen Ohne Grenzen in Hamburg and the Young Urban Movement Project in Swedish cities

Unternehmen Ohne Grenzen, Hamburg (Germany)

In Germany, the city of Hamburg has historically been one of the largest recipients of immigrants and even more so with the 2015 migration wave. As a consequence of this strong migration tendency, the city is faced with an employment challenge for these populations and encounters strong spatial segregation concerning migrant populations. A potential solution to the mismatch between demand and supply in the Hamburg employment market is to encourage self-employment for migrants, promoting business making. Such a solution has the strong advantage of encouraging integration in the formal economic sector, and the potential to develop the local economy. Entrepreneurs without Borders (Unternehmer ohne Grenzen in German) is a semi-public initiative regrouping migrant entrepreneurs in providing them networking and intellectual resources to start their business venture. Initiated in 2000, Entrepreneurs without Borders also collaborates with the city's planning authorities to implement entrepreneurship projects in appropriate areas of the city. Within the "A Growing City" initiative of the Hamburg government, the project is funded by both local government and the European Social Fund. The annual budget of the organisation is estimated at EUR 280 000.

According to the Inclusive Cities Observatory, as of 2005, 1 500 migrants had used the consulting resources of the centre and more than 670 had been trained by the programme. According to the Institute for Migrant and Ethnic Studies in a 2008 study, the initiative had accompanied about 150 start-ups, out of which 73% survived their seed phase. However, auditing of the association has pointed out the need to further knowledge and know-how in the fields of financial management and fiscal matters.

Young Urban Movement Project in Swedish cities

The Young Urban Movement Project (YUMP) is a bottom-up, selective entrepreneur educational programme to foster the growth of young entrepreneurs in deprived areas of large cities. Created by the Swedish founder of the Metro newspaper, this initiative initially targeted young second-generation immigrants (aged between 20 and 29), preferably living in the "Million Programme" areas (Miljonprogrammet) around Malmö and Gothenburg. The Million Programme areas are most often associated with social problems and a lack of growth opportunities. People living in these areas are younger than the country-wide average. Despite the fact that youth in the Million Programme areas live and work in an environment which in many respects is characterised by resignation and alienation, "business" is a widespread subject of conversation and many dream of achieving success through establishing their own business.

The YUMP project aims at developing young entrepreneurial spirits and growth companies in those areas through a structured process. The YUMP's long-term objectives are to: 1) empower youth living in the Million Programme areas; 2) build bridges and networks between Swedish industry and the target group; 3) build mutual commercial levers for all parties involved; and 4) create methods and processes which also attract people from outside the Million Programme areas. The pilot project's short-term objectives are to: 1) identify channels of communication with the target group to capture their interest and create a dialogue about entrepreneurship; 2) verify and develop an attractive process and pedagogy for the target group; and 3) point out to Swedish industry the entrepreneurial power to be found within the target group and work for their desire to involve themselves. With funding coming from various governmental sources (including Swedish financial aid for higher studies), economics and business courses were offered. A one-day convention called "The Street is Smart" involved 50 participants, 15 of which were selected for participation in start-ups. The project helped to translate their ideas into businesses. Five companies were set up, with three people in each company. After a contest was organised, the first prize winner received a grant of SEK 50 000. This promising example suggests that initially small-scale initiatives can be a powerful way to re-engage youth "left behind" by targeting without stigmatising, and by triggering positive creativity. Information on the positive outcomes of such initiatives could be disseminated more widely and opportunities for similar projects could be exploited in other municipalities. Invisa Fiduciary Services (IFS) operates the YUMP Academy pilot project together with YUMP Holding Inc. (AB), Botkyrka municipality and a large number of support companies. The project is financed by IFS, NUTEK, YUMP Holding Inc. (AB) and Botkyrka municipality.

Box 5.3. **Initiatives to promote immigrant entrepreneurship in cities: Unternehmen Ohne Grenzen in Hamburg and the Young Urban Movement Project in Swedish cities** (*continued*)

A French version of the YUMP initiative was launched in September 2013 in two geographical areas: the greater Paris area, notably in Aubervilliers, and the PACA region in south-eastern France, mainly in Marseille. The concept is very similar to the Swedish one, with a six-month curriculum focused on e-learning, on-the-ground training and English skills development. Corporate partners include the LCL group, Microsoft and La Poste. The initiative was also supported by several public actors, including the Ile-de-France Region, the Caisse des Dépôts group, as well as the national government. The first cohort to have followed the programme comprised 21 inspiring entrepreneurs, mostly from minority and lower income backgrounds, selected out of 100 applicants. Eight graduates launched their project, and the programme is currently increasing its size up to 90 "Yumpsters" per cohort.

Sources: Inclusive Cities Observatory (2010), "Hamburg, Germany: Entrepreneurs with Borders", www.ces.uc.pt/myces/UserFiles/livros/1097_Hamburg_2010_en_FINAL.pdf; Dana, L.P. (ed.) (2007), *Handbook of Research on Ethnic Minority Entrepreneurship, A CoEvolutionary View on Resource Management*; Federal Statistical Office of the Länder (2011), "Area and population", www.statistikportal.de/Statistik-Portal/en/en_jb01_jahrtab1.asp; Hamburg Chamber of Commerce (2011), "Hamburg in profile: Living and working in a dynamic city", www.kammerunion.eu/pl/economic/status_report/1192732; Institute for Migrant and Ethnic Studies (2008), "Examination and evaluation of good practices in the promotion of ethnic minority entrepreneurs", http://ec.europa.eu/DocsRoom/documents/2367/attachments/1/translations/en/renditions/native; Northern Germany Statistics Office (n.d.), Statistisches Amt für Hamburg und Schleswig-Holstein, www.statistik-nord.de/uploads/tx_standocuments/Tourismus_HH_0812.pdf; United Nations, Department of Economic and Social Affairs, Population Division (2009), *International Migrant Stock: The 2008 Revision*, https://esa.un.org/migration; YUMP (n.d.), YUMP website, http://yumpnow.com; YUMP France (2014), "Rapport d'activité et bilan 2013/2014", www.jeveuxmontermaboite.org/rapport-dactivite-et-bilan.

Inclusive urban labour market policies also need to go beyond connecting more people with jobs and tackle in-work poverty as well as ensure social protection for all, including the most disadvantaged and those in precarious jobs. Having a job is certainly a powerful antidote to poverty; the poverty rate among jobless households is five times higher than that of households where at least one person works. But in some cases, having a job is not enough and in-work poverty remains a persistent issue. Overall, it is estimated that in-work poverty affects 8% of the working-age population (especially single parents and single-income couples with children) in OECD countries (OECD, 2015f). There has been growing awareness of the "urbanisation of poverty", which in some cases is a "suburbanisation of poverty" (Raphael and Stroll, 2010). Policies for encouraging the upward mobility of workers are needed to ensure that people in low-paid and insecure jobs do not get trapped at the bottom of the earnings ladder. Promoting upward mobility at the bottom of the jobs ladder is a key to helping all workers participate fully in a rapidly evolving economy. Technological change and the digital revolution have skewed job demand towards high-level skills and put downward pressure on the pay of less-skilled workers. These structural changes in the economy are part of a continuous process of adaptation to new technologies and processes, as well as globalisation. In this context, all workers must have the opportunity to adapt and build the skills needed due to changes in labour demand as well as to use their skills fully on the job. This is of crucial importance to ensure that human capital plays its expected role in boosting innovation and productivity and to make growth inclusive (OECD, 2015c). In this respect, some cities – such as Calgary, Edmonton, Toronto and Saint John in Canada – have set out comprehensive, community-based programmes to tackle in-work poverty. For example, the city government of Calgary has proposed to establish a Social Business Centre and Community Investment Fund to support the development of co-operatives and social

enterprises, and is working on establishing inclusive business practices, including targeted support for vulnerable workers (e.g. through childcare, transport and housing support), progressive hiring practices to ensure diversity, opportunities for workers with disabilities, and transparent performance reporting (CPRI, 2013).

Improving equitable access to education in cities

Socio-economic segregation in schools is linked with residential segregation in cities

Promoting equitable access to quality education is an essential vehicle to improve people's life chances and create more inclusive cities. Educational outcomes are strong predictors of future earnings, health or quality jobs. Students in cities certainly start off better equipped in life compared to students living in rural areas. In the OECD area, 15-year-old students in urban schools outperform those in rural areas on the Programme for International Student Assessment (PISA) test by more than 20 points on average, which is the equivalent of almost one year of education. However, stark inequalities remain within cities in terms of access to quality education. For example, in the Chicago Tri-state metropolitan area, school districts record high school graduation rates ranging from a low of 57% in the city of Chicago to over 95% in suburban areas (OECD, 2012a). 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). In Puebla-Tlaxcala, Mexico's fourth-largest metropolitan region, peripheral areas exhibit lower education levels than the metropolitan core; in some peripheral census tracts, more than 65% of the population has not completed a secondary education, compared to incompletion rates of less than 20% in the metropolitan core (OECD, 2013d). Such inequalities in education both reflect and reinforce socio-economic inequalities in cities, with long-lasting consequences on the life prospects of urban residents. This can perpetuate the vicious cycle of residential segregation and socio-economic segregation in schools (see Chapter 4). Children growing up in poorer neighbourhoods often have access to poorer quality schools, since these schools struggle due to their lack of resources and the poor quality of the teachers that they attract (Schleicher, 2014).

Breaking the lock of spatial segregation requires making access to education more equitable. A special focus on the disadvantaged groups is essential, as PISA analysis has shown over the years (OECD, 2016c). Several policy tools can effectively support disadvantaged schools and students (OECD, 2012b; Schleicher, 2014). Among them, a policy that is particularly relevant for cities consists in enhancing equity considerations in school choice schemes to overcome segregation (Box 5.4). Local authorities are particularly well-positioned to encourage disadvantaged parents to exercise school choice by providing them first-hand with information (OECD, 2012b). Public authorities can also provide additional support to low-performing schools through a range of actions, such as: developing and supporting specialised school leadership; fostering a positive and supportive school environment; training, recruiting and retaining competent teachers; ensuring effective learning strategies; and finally, linking parents and communities with these schools for sustainable improvement (OECD, 2012b). An inspiring example is the Bell Education Plan initiated by the Mayor of Birmingham in the United States, whose aim is to renovate and restructure schools in poorer areas as well as build new schools through a USD 190 million municipal grant. Another factor of inequity in education that is particularly salient in cities is the fact that funding for local education relies heavily on

local property tax revenues, which can vary significantly across local authorities. Funding education through a "consolidated revenue fund" such as the case in Canada can help provide more equal opportunity among children (OECD, 2016c).

Box 5.4. **Introducing controlled school choice schemes in cities to overcome segregation**

A majority of OECD countries combine student allocation to schools by geographical assignment and a certain degree of flexibility for parents to choose among different public schools. Giving parents the possibility to choose their children's school is, in principle, expected to allow all families – including disadvantaged ones – to opt for higher quality schools, thereby raising overall quality. However, school choice schemes that do not take equity considerations into account risk exacerbating segregation by ability, income and ethnic background (Musset, 2012). Better-off parents tend to avoid schools with a significant number of disadvantaged students and are more likely to enrol their children in high-quality schools because they have more information and resources. In contrast, more disadvantaged parents tend to exercise choice less and to simply send their children to their local neighbourhood schools. Less-educated families may not be able to access the information required to make informed school-choice decisions, or have different preferences in school characteristics (Hastings, Kane and Staiger, 2005). All these elements contribute to socio-economic segregation between schools.

If the policy goal is to help parents exercise choice more equitably, there must not only be alternatives to choose from, but these should be available to all families and should not widen existing inequities nor exacerbate segregation. Controlled choice programmes, also called flexible-enrolment plans, introduce mechanisms that ensure that children are allocated to schools more equitably (e.g. in terms of parental socio-economic status, ethnic origin, etc.). In the event of oversubscription to some schools, this type of scheme prevents disadvantaged students from getting crowded out. For example, Rotterdam offers a system of double waiting lists, which allow oversubscribed schools to give preference to children who would enrich their ethnic and socio-economic mix.

In addition to controlled choice programmes, public authorities may consider a number of financial incentives for schools to enrol disadvantaged students. Some countries have provided more funding to schools that accept low-performing students to offset the additional costs to educate them through progressive voucher schemes or weighted student funding ("virtual vouchers"). Direct vouchers or tax credits can be offered to low-income families to reduce the financial burden of tuition fees. Other costs, such as transport costs and related arrangements incurred in looking after the child before or after school, additional lessons, uniforms, classroom materials, textbooks, school trips and voluntary contributions, also need to be considered.

Sources: Drawing from OECD (2012b), *Equity and Quality in Education*, http://dx.doi.org/10.1787/9789264130852-en; OECD (2014c), *Equity, Excellence and Inclusiveness in Education*, http://dx.doi.org/10.1787/9789264214033-en; Musset, P. (2012), "School choice and equity: Current policies in OECD countries and a literature review", http://dx.doi.org/10.1787/5k9fq23507vc-en; Hastings, J., T. Kane and D. Staiger (2005), "Parental preferences and school competition: Evidence from a public school choice program", http://dx.doi.org/10.3386/w11805.

Supporting education in low-income youth requires local community partnerships

Encouraging youth in low-income communities to stay in school and graduate to post-secondary level constitutes another important policy challenge in cities. An inspiring example is the Pathways to Education in Toronto, a community-based programme that brings together governments, social welfare agencies and volunteers to work alongside the school system for providing after-school tutoring, mentoring and financial assistance,

in combination with support to develop the skills and work ethic needed for lifelong learning (Box 5.5). This experience, together with other examples in OECD cities, points to a number of factors for successful youth programmes. First, a proactive approach is necessary to raise awareness and earn stakeholder engagement. While participation in the Pathways to Education programme is voluntary and open to all students within a defined geographical area, Pathways does not wait for parents or students to approach them but actively recruits across the community to ensure that all eligible families know about the programme and its benefits. Second, it is crucial to cultivate regional collaborative governance at an early stage of the programme. In Toronto, collaborative relationships were developed with school boards and local schools before the programme was implemented in order to adapt the programme to local needs and to recruit eligible families. Third, monitoring and evaluation are indispensable to bolster progress. From the beginning, the programme rigorously measured and evaluated both implementation and results in order to incorporate a culture of learning and continuous improvement.

Box 5.5. **Example of a programme to help underprivileged youth to pursue education in cities: Pathways to Education, Toronto (Canada)**

The Pathways to Education programme was created by Toronto's Regent Park community in 2001 and is now being delivered in ten other Canadian communities. It aims at tackling the roots of poverty and supporting academic achievement among the community's youth by providing a comprehensive set of academic, financial and social supports.

Background: Canada has one of the highest rates of post-secondary attendance in the world, but national averages mask the fact that one in five teens between the ages of 15 and 19 is no longer pursuing an education. Society pays a high price for low educational achievement since an estimated 85% of income assistance goes to the 34% of Canadians who have not completed secondary school. In 2001, about 56% of Regent Park youth dropped out of secondary school (compared to 29% for Toronto overall). About 80% of residents were visible minorities and Regent Park was home to a considerable number of new Canadians, 58% of whom were born outside of the country and spoke little or no English.

Programme: in partnership with parents, community agencies, volunteers, local school boards and secondary schools, Pathways provided four main types of support: academic, social, advocacy and financial.

1. Academic tutoring: tutoring sessions focus on homework and study assignments, as well as prepared exercises and other learning activities to help students develop as competent learners. Tutoring in core subjects is provided by volunteers four nights a week in a safe, social learning environment. Tutoring volunteers are supervised by Pathways staff and come from a range of professional, educational and ethnic backgrounds, although most are university students. Attendance at tutoring is obligatory twice a week if a student's marks fall below certain levels, although many attend tutoring sessions even if their marks are above the minimum level.
2. Social support: mentoring staff recruit and train volunteer mentors, who are typically university students, professionals or community residents. Structured group mentoring activities are held on a weekly or biweekly basis. As students progress from Grade 10 to Grade 11, mentoring becomes more specialised through group-based activities, such as community groups, clubs and extra-curricular programming. Career mentoring is designed to support students in pursuing their post-secondary goals and Pathways maintains formal connections with the graduated students for two years after high school.

Box 5.5. **Example of a programme to help underprivileged youth to pursue education in cities: Pathways to Education, Toronto (Canada)** (*continued*)

3. Advocacy: each student is assigned a student-parent support worker, who monitors school attendance, academic progress and programme participation while helping the student build stable relationships with parents, teachers and other students. The support worker advocates on behalf of the student when the parents are unable to do so themselves and keeps parents connected with the Pathways programme and liaises with tutors and mentors. The support worker's goal is to facilitate healthy relationships, which research shows helps youth to develop the social capital they need to succeed, while connecting them in a positive way to the larger community.
4. Financial support: bus tickets were provided to participating students for transport to and from school and vouchers were provided as needed for school lunches. Students who fail to attend classes lose their eligibility for bus tickets and lunch vouchers. Pathways also provides a financial incentive to participating students in the form of a CAD 1 000 bursary for each year during high school to a maximum of CAD 4 000 for post-secondary education or training.

Staff: Pathways depends upon about 300 volunteers who tutor and mentor 920 students. Roughly two-thirds of Pathways volunteers are university students, while the others are professionals and community residents.

Tracking progress: established processes of information gathering tracks satisfaction among participants, the development of staff relationships with students, parents, volunteers and schools. Local school boards also help facilitate monitoring results over time. In Toronto, data provided by the Toronto District School Board on dropout rates for the year prior to the start of the Regent Park Pathways programme provided a baseline for comparing the results of Pathways students to other youth from Regent Park.

Results: from 2001, when the first cohort of Regent Park students entered Grade 9, until 2010, Pathways helped reduce dropout rates from 56% to less than 11.7% (for the first five cohorts in Regent Park). According to the most recent available data from 2008-09, 80% of Pathway's Regent Park's approximately 600 graduates have enrolled in post-secondary education, compared to 20% of students who entered Grade 9 in the two years before the Pathways programme began. Ninety percent of these graduates are the first in their families to go on to post-secondary education.

Expansion and growth: in 2007, five new communities launched Pathways to Education programmes: two in Toronto and one each in Ottawa, Montreal and Kitchener. Programmes began in Scarborough and Hamilton, Ontario in 2009, followed by Halifax, Kingston and Winnipeg in 2010. In each of these locations, the Pathways programme is delivered by a local non-profit agency with credibility and a history of working with the community.

Sources: OECD (2012c), *OECD Territorial Reviews: Skåne, Sweden 2012*, http://dx.doi.org/10.1787/9789264177741-en; Pathways to Education (n.d.), Pathways to Education website, https://www.pathwaystoeducation.ca.

Investment in early childhood education can pay off in cities

Educational expenditure per person is typically heavily concentrated at the secondary and tertiary levels, whereas spending on both early childhood education and lifelong learning, where important inclusive growth-oriented outcomes can be achieved, is usually much lower on average (OECD, 2015f). The benefits of investing in early childhood education and care are seen in the performance of 15-year-olds in the PISA (OECD, 2014c). Students who had attended pre-primary education for more than one year

outperformed the rest; in many countries, the difference is equivalent to more than one school year, even when taking into account the students' socio-economic background. In recent years, several OECD countries – including Australia, Austria, Poland and Spain – have made significant efforts to increase access to early childhood education and care by adding to the number of years of compulsory schooling or increasing the number of places available for children. A number of local governments are also investing in early childhood education. In New York and several other cities and states in the United States, for example, policies for free universal pre-K are opening opportunities for earlier access to education for under-serviced communities. At the same time, they may also disproportionately burden the local government's finances by subsidising tuition and fees for pupils of the upper economic strata, who would have otherwise registered their children in pre-K at a cost that they could have afforded relative to their income. Overall, education for 0-6 year-olds remains underfunded in OECD countries, and is usually provided by private – and often unregulated – institutions or individuals (OECD, 2014c).

Vocational education and training needs to be tailored to local needs

Collaboration between the private sector, education and training institutions, and different levels of government, especially local governments, is fundamental to develop vocational education and training (VET) programmes that can provide the right practical skills in rapidly changing urban economies. Designing job-oriented VET programmes requires a strong grasp of the local economic environment and innovative industries. In Australia, for example, the VET system is well-developed and flexible enough to allow for local autonomy and to adapt learning to local circumstances in innovative ways (Hoeckel et al., 2008). Another example is Vienna, where apprenticeship schemes offer practice-oriented training both in companies ("on-the-job" training, which takes up 80% of course time) and in vocational schools. Research has shown that the share of youth with migration backgrounds in apprenticeship training is much lower than their share in pre-vocational schools – a one-year school apprenticeship preparation programme. These figures suggest that a significant number of young migrants "go missing" at this stage of their education. The public employment service in Vienna took some measures to assist them, for example by producing a DVD to help parents of migrant youth improve their knowledge about apprenticeship training (OECD, 2012b). Finally, there are various examples of collaboration between firms, educational institutions and local governments to link school curricula to employment and society at large. Examples include "Me & My City" in Finland (Economic Information Office of Finland, 2016), and initiatives to help students with a vulnerable economic background to develop entrepreneurial curricula, such as the "Bad Idea Organisation" in Glasgow (Bad Idea, 2016) or the youth competence centres in Antwerp, Brussels and Ghent (JES, 2016).

Building more inclusive urban housing markets

The urban built environment has a key impact on shaping the life opportunities of urban residents. When well-coordinated, housing, transport and environmental policy decisions can spur growth and improve inclusiveness in cities, providing vital access for economically deprived areas to high-quality jobs and education. In particular, integrated development planning can help make cities greener (increasing reliance on public transport), more equitable (improving access to labour markets for disadvantaged areas) and more efficient (reducing congestion, commuting times, etc.). However, when poorly designed and implemented, transport, housing and environmental policies can also generate or exacerbate social exclusion in cities. Ill-designed transport routes that cut

through neighbourhoods can act as barriers that disconnect people from broader opportunities and hamper local vitality. Affordable housing development programmes might also increase exclusion if not carried out carefully. For example, building large estates of social housing that are not designed as part of existing street networks may spur segregation and aggravate exclusion. Even well-intentioned investment in "green urban neighbourhoods" may, in reality, be accessible only to middle- and higher income households, running counter to other policies that promote mixed-income neighbourhoods.

Shaping an inclusive built environment in cities therefore requires a holistic urban planning approach, with careful consideration of the indirect consequences of policy decisions over the long term. In particular, urban regeneration strategies need to come with mechanisms that avoid simply displacing poorer residents, as improvements of distressed areas may drive housing prices up, push initial residents out while attracting wealthier families, and eventually exacerbate segregation. As noted in Chapter 4, residential segregation by income may cut off segments of the population from opportunities to participate in societal progress and requires a policy response.

Both at national and city level, public policies can play a role in creating more inclusive cities and neighbourhoods. While there is a myriad policies that shape the urban form, this section takes a closer look at policy tools related to housing, transport and environmental policies.

Housing policy is a primary lever for achieving inclusive growth in cities if it helps provide all segments of the population with affordable, quality housing. Access to housing is precisely reported as one of the five most important objectives of housing policy by all 26 OECD countries that took the recent Questionnaire on Affordable and Social Housing (QuASH) (OECD, 2014d), including 18 countries that explicitly mentioned improving the affordability of housing (Salvi del Pero et al., 2016). As documented in Chapter 2, people living in large cities are, on average, less satisfied than the national average (by 13.3 percentage points) with the affordability of housing. The implementation of housing policy in cities offers a striking illustration of the complex relationships that exist across sectoral policies and across levels of government:

- Housing policy and different strands of policy can pursue conflicting goals. For example, national fiscal frameworks may make greenfield development more attractive to cities than infill development. Property tax systems in many OECD countries favour single-family homes over multi-occupancy dwellings (thus stimulating urban sprawl) or owner-occupied housing over rental accommodation (thus reducing labour mobility). Such tax arrangements coexist with national and city-level policies intended to curb urban sprawl and improve labour market efficiency.
- National and local government policies can work at cross-purposes, thereby eroding their respective impacts on housing outcomes. National housing strategies tend to stimulate the housing supply, via direct spending to support new housing construction or facilitate access to home ownership, regulatory tools (e.g. to require municipalities to build social housing as in France) or tax incentives (e.g. deductible interest on mortgage in the United States), for example. By contrast, local government housing policies tend to impose demand-side constraints on housing supply, for example through restrictive land-use regulations, development controls and zoning requirements. The combination of those two contradictory approaches results in a sub-optimal use of public resources and rarely leads to positive outcomes.

Effective alignment of objectives and tools across levels of government is therefore essential to create a more inclusive, affordable housing market. Following the four main types of housing policy instruments that the OECD QuASH surveyed at national level (homeownership subsidies, housing allowances, social rental housing, rental support and regulations), the following section briefly discusses the potential impact of each type of instrument on inclusive growth in cities and the respective roles of national and city governments (summarised in Table 5.5).

Homeownership support may trigger urban sprawl and undermine labour mobility

First, support to homeownership receives considerable national public support (with reported spending up to 2.3% of GDP) (Salvi del Pero et al., 2016), but its potential contribution to inclusive growth in cities seems ambiguous. Generally speaking, some categories of homeownership support are reserved to low-income households (e.g. grants and financial assistance) and are expected to help improve the access of disadvantaged groups to homeownership. However, a major pitfall of homeownership support in cities is that it tends to discourage residential and labour mobility and to incentivise urban sprawl (Henley, Disney and Carruth, 1994). Urban sprawl, in turn, leads to residential segregation and has been shown to reduce social mobility (e.g. Chetty et al., 2014a). Chetty et al. (2014b) report a negative correlation between commute times – their proxy for sprawl – and upward mobility in the United States). Recent research in the United States also finds that upward mobility is significantly higher in compact areas than sprawling ones, because more compact areas have a direct effect on improving job accessibility; and when compactness doubles, the likelihood of upward mobility increases by about 41% (Ewing et al., 2016).

In this context, one way for city governments to counter the negative effect of homeownership in terms of urban sprawl and mobility is to reform property tax, which is the most common local tax. Residential property taxes, in particular, offer a way to ensure that those who enjoy the benefits of local services are required to pay for them (in contrast to taxes on business, which may be partially exported to residents of other jurisdictions). Property tax can be designed in a way that makes single-family homes less attractive (e.g. by correcting the under-assessment of single-family home market value and correcting the lower tax rates of tax reliefs for single-family properties). Another tool for preventing urban sprawl is to encourage higher density in the urban core by taxing the land value rather than the buildings or other improvements to the property, in order to prompt owners to develop land to its most profitable use. Traditional property tax can be replaced with a land-value tax (sometimes called a "site-value tax") or a split-value tax, which includes higher rates for land value and lower rates for structures or other improvements (OECD, 2015a).

Table 5.5. **A variety of policy tools for promoting inclusive housing policies in cities: The role of national and city governments**

Category	Role of national governments (national housing policy instruments as identified in OECD [2014c])	Role of city governments	Possible impact on inclusive growth
Homeownership subsidies	Grants for access to homeownership Financial assistance for access to homeownership Tax relief for access to homeownership Construction subsidies for owner-occupied housing Rent-to-buy schemes Relief for distressed mortgages Subsidies for energy efficiency and housing regeneration Taxation of residential housing	Policies for supporting homeownership tend to stimulate urban sprawl, which discourages access to economic centres and leads to residential segregation. Property tax is the most common local tax and is often considered to contribute to the stability of the revenue portfolio of large metropolitan areas (OECD, 2015a). Residential property taxes, in particular, offer a way to ensure that those who enjoy the benefits of local services are required to pay for them (in contrast to taxes on business, which may be partially exported to residents of other jurisdictions).	Grants and financial assistance for access to homeownership are often reserved to low-income first-time buyers. Tax relief for access to homeownership and taxation of residential housing tend to favour better-off households and can distort incentives to invest in other tenures, putting pressure on housing prices.
Housing allowances	Housing allowances in cash and vouchers		Income-related, usually means-tested housing-cost subsidies. Allow for more equitable access to benefits when designed as an entitlement and generate fewer disincentives to housing mobility, but may be less effective in providing vulnerable households with access to good quality rental housing and may have perverse effects on rental prices.
Social rental housing	Social rental housing Taxation of social rental housing Construction subsidies for social housing	The area where city governments are the most directly involved, since direct provision of social rental housing is mostly delivered by local authorities and funded in part by central governments. In **France**, the 2000 Law on Urban Solidarity and Renewal (*Loi relative à la solidarité et au renouvellement urbains*) requires municipalities of more than 3 500 inhabitants (1 500 in Île-de-France) to offer a minimum of 20% of social rental housing. The 2013 Law "Duflot I" increased this minimum to 25%. In **Poland**, municipalities are responsible for the supply and maintenance of social housing for low-income residents. Such a system places a significant burden on municipalities that have a large share of low-income households and a high share of unemployment, since local financial resources for social housing are largely supplied through income tax. In **Chile,** in the past, areas identified for social housing construction were not always equipped with proper urban infrastructure, facilities or services. Moreover, connectivity between social housing and city centres or job centres is often deficient.	Helps low-income households stay in cities.
Rental support and regulation	Construction subsidies for rental housing Taxation of rental housing Tax relief on paid rent for tenants Rent controls in the market rented sector Rent guarantees Tenancy law	Inclusionary zoning measures have been used in numerous cities and counties in the United States, including Boston, Chicago, New York City, Sacramento, San Diego, San Francisco, Washington, DC.	Contributes to creating mixed-income neighbourhoods.

Source: Author's own elaboration building on the classification of national policy instruments surveyed in Salvi del Pero, A. et al. (2016), "Policies to promote access to good-quality affordable housing in OECD countries", http://dx.doi.org/10.1787/5jm3p5gl4djd-en.

Better targeted housing allowances can help promote mixed-income urban neighbourhoods

Second, housing allowances are income-related housing cost subsidies, generally given to low-income households as entitlement programmes. Housing allowances are an inclusive tool in that they are explicitly designed to support poorer households. Compared with social rental housing (discussed below), they are less likely to harm residential and labour mobility. Some initiatives actually focus on helping lower income households to move to higher income neighbourhoods. One example is the Moving to Opportunity programme and Section 8 vouchers in the United States, which offered housing vouchers to randomly selected households living in high-poverty housing projects to move to an area where the rent is beyond what they would normally be able to afford. While preliminary evaluations of the Moving to Opportunity programme found that it did not affect adults' economic outcomes (although it had some positive benefits on their physical and mental health), more recent evidence suggests that such policies to encourage residential mobility and social mix may yield the highest benefits for young children. Chetty, Hendren and Katz (2015) find that children who moved before the age of 13 are more likely to attend college and have on average 31% higher earnings as adults. Moreover, as adults, the children often live in better neighbourhoods and are less likely to become single parents, suggesting that the benefits of such social mobility policies have the potential to persist across generations. This implies that housing voucher programmes need to be targeted more effectively – notably to prioritise families that have younger children (since they would benefit the most from moving and every year of "childhood exposure" to higher income neighbourhoods counts in terms of later educational attainments and income-earning capacity) (Brookings, 2016).

At the same time, housing allowances also have limitations in terms of their contribution to inclusive growth in cities and more broadly speaking. For example, they cannot guarantee good housing quality and may perversely affect rent prices, since landlords may be tempted to capture a sizeable share of the allowances by simply raising rents. Another issue of housing voucher programmes, in particular, was that while the aim was to help households move from low-income areas to more prosperous locations, most families chose to stay close to their original location or move to an area with similar characteristics. This might be due to the fact that families moving to neighbourhoods that are drastically different than their original location have a lower probability of integrating successfully and remaining in that new location.

Social rental housing may sometimes impose an unequal financial burden on municipalities

Third, the provision of social rental housing (defined as residential rental housing provided at sub-market prices and allocated according to specific criteria) was, in many countries, historically supported by governments to accommodate the housing needs of rapid urbanisation. Direct support generally consists of transfers from the central government to municipalities, who own the social rental housing stock.[5] City governments therefore have a central role to play in realising the potential benefits of social rental housing for improving the well-being and opportunities of all residents. National legal frameworks sometimes impose a minimum target of social housing on local authorities. In France, for example, the 2000 Law on Urban Solidarity and Renewal (*Loi relative à la solidarité et au renouvellement urbains*) requires municipalities of more than 3 500 inhabitants (1 500 in Île-de-France) to offer at least 20% of social rental

housing. However, the law also allows municipalities to pay a fine rather than comply with this rule; revenues collected from these fines are redistributed to municipalities that have high proportions of social housing. This provision has been severely criticised by social housing advocates for allowing well-off areas to escape their obligations, and many prosperous municipalities (such as Neuilly-sur-Seine) have taken advantage of it so far to resist the government's efforts to make them increase their stock of social housing (Scanlon and Whitehead, 2011).

There is also an inherent tension between the objectives of promoting equitable, inclusive housing (by giving low-income households priority access to social rental housing) and creating mixed-income communities (by allowing wealthier households to live in social rental housing). In practice, social rental housing often concentrates low-income households in deprived urban neighbourhoods that offer low-quality public services and little access to job opportunities, which exacerbates urban social exclusion. In Chile, for example, areas identified for social housing construction were not always equipped with proper urban infrastructure, facilities or services and connectivity between social housing and job centres is often deficient (OECD, 2013e). Municipalities, especially those with a large share of low-income households and a high share of unemployment, may not have the financial and organisational capacity to supply and maintain social housing. In Poland, for example, municipalities are responsible for the supply and maintenance of social housing, but due to their scarce financial resources, the supply of affordable housing has remained a major challenge, especially in mid-sized cities (OECD, 2011b).

Inclusionary zoning policies may sometimes unintentionally reinforce urban exclusion

Finally, rental support and regulations can improve housing affordability through the private rental market. This takes the form of demand-side subsidies (e.g. tax relief on paid rent for tenants) or supply-side subsidies (e.g. favourable treatment of rental income for landlords). An important supply-side instrument that involves city governments is inclusionary zoning, which requires developers to build a specified share of affordable housing units within otherwise market-rate residential developments, in exchange for a relaxation of regulations on development or other incentives. This policy aims to increase the supply of housing affordable to lower income households while encouraging the spatial inclusion of low-income households in higher opportunity areas. The practice originated in the United States[6] and has since spread to a number of other countries.

However, it has been noted that clauses in the laws, lack of enforcement or resistance from homeowners may reduce the impact of inclusionary housing policies (Clavita and Mallach, 2010; Kontokosta, 2015). Spatial segregation at the neighbourhood level may be replicated within individual housing developments, as in the case of buildings that are equipped with "poor doors", i.e. separate side or behind entrances for lower income residents and no access to the many amenities offered in the building. In addition, because inclusionary housing policies rely on private developers to provide affordable housing units, the requirements need to be appealing to developers and not constrain development. This often means that the thresholds for qualifying income levels are set high and can exclude the lowest income households. Leaving housing decisions to developers creates a risk that such a policy reinforces patterns of exclusion rather than mitigating them (Cameron, 2003; Meda, 2009). An evaluation by New York University's Furman Center of suburban Boston, Washington, DC and San Francisco confirmed that

inclusionary housing provisions are most efficient when the bargaining power of the city is higher than that of the developers (Armstrong et al., 2008).

Similarly, quota requirements in inclusionary housing policies need to translate into lasting economic benefits for the communities, but this is not an automatic outcome. For example, Denver's Inclusionary Housing Ordinance was initially designed to address urban sprawl and strenuous commuting costs for lower and middle-income workers. Even though early large-scale development seemed to indicate success, the initiative backfired due to built-in opt-out options, which allowed developers to forego the construction of affordable housing in exchange for the payment of a fee. Consequently, developers in the most sought-after areas of the city, such as downtown, preferred to pay the fee rather than build affordable housing on-site. According to estimates, the policy resulted in few affordable units being built and generated negative financial returns for the city. From 2002 to 2013, the city paid USD 3.9 million in rebates to developers who complied with the construction of affordable units and only collected USD 3.7 million in "buy-out" fees (Denver Office of Economic Development, 2015; FRESC, 2014; Raabe, 2013).

Housing policy needs to be integrated in broader strategies for urban regeneration

Housing policy tools need to be an integral part, but not the sole component, of urban regeneration strategies. Comprehensive approaches to urban regeneration can be adopted both at national and local level to build more inclusive cities. At national level, a broad approach to urban regeneration is essential to improve the effectiveness of housing policy tools, in concert with other national and local initiatives. Two examples of such ambitious national policies, in France and in the United States, offer particularly interesting insights (Box 5.6). At city level, innovative approaches can also help pursue co-ordinated investments in housing and other sectors (such as mobility, basic services, public spaces, public safety and green areas), based on local institutional and financial partnerships. The experience of Santiago de Chile provides a compelling illustration in this sense (Box 5.7).

Offering accessible, affordable and sustainable transport

Understanding the combined impact of housing and transport policies is essential to shaping more inclusive cities

Desegregating and connecting all groups of society to jobs, public services and other opportunities through effective transport networks provides a powerful policy tool for fostering more inclusive growth in cities. Maximising accessibility for all thus needs to be at the core of urban transport planning. Disadvantaged communities often have less well-maintained infrastructure – notably roads, lesser access to reliable public transport services, and are less likely to own a private car. For example, in the metropolitan area of Aix-Marseille in France, transport networks have been unable to meet the increasing demand for travel between the urban centres – around 77% of the population living in peri-urban areas (outside the city of Marseille) has no access to public transport, 14% has limited access and only 2% has high access (Poelman and Dijkstra, 2014). The institutional fragmentation into ten different transport authorities in the metropolitan area has also exacerbated the lack of an integrated system and reinforced inequalities in access to employment (OECD, 2013c).

Box 5.6. National urban regeneration programmes in France and the United States

Despite some fundamental differences (in France, social housing is owned by public institutions and rented to occupants; in the United States, public housing has been developed on a much smaller scale), the experiences of France and the United States could be instructive for many other OECD countries seeking to develop national policies for urban regeneration.

- In **France**, the first National Urban Regeneration Programme (Programme National de Rénovation Urbaine) was launched in 2003 with the aim of regenerating 500 distressed neighbourhoods. The programme resulted in an unprecedented public mobilisation effort. A national public agency (Agence Nationale de Rénovation Urbaine) was established to operate the programme as a "one-stop shop" to simplify funding procedures. The regeneration framework mobilised a wide range of national and local actors over more than ten years, including the majority of the professionals on urban and social issues as well as part of civil society (Kirzbaum, 2009; Merlin, 2012). The National Urban Regeneration Programme, which was subject to some criticism (see Donzelot, 2012), was replaced in 2014 by the ten-year New National Urban Regeneration Programme (Nouveau Programme National de Renouvellement Urbain).

- The **United States** has led a comprehensive and sustained public effort to renew distressed neighbourhoods. Although the proportion of social housing ("public housing") complexes is much smaller than in France, the United States implemented a national policy that marked a turning point in urban regeneration. HOPE VI (Housing Opportunities for People Everywhere), originally known as the Urban Revitalization Demonstration, resulted from recommendations by the National Commission on Severely Distressed Public Housing, charged with proposing a national plan to eradicate severely distressed public housing. HOPE VI consisted of a large grant programme to public housing authorities, which began operating in 1993, ten years before the French programme (which it in fact inspired; see Kirzbaum, 2009). HOPE VI was followed in 2010 by the creation of the Choice Neighborhoods, which currently operates in a limited number of cities (Kirzbaum, 2013).

Two common features of the French and American programmes can be particularly inspiring for other countries:

- A cross-sectoral, comprehensive approach to urban regeneration. Both the French and American approaches simultaneously address a range of issues related to well-being, including education, employment, culture, safety, urban services and social cohesion. In other words, these programmes manage to focus simultaneously on housing, people and neighbourhoods. Efforts have also been made to link the regeneration programmes to other national initiatives, to concentrate public resources more effectively on distressed areas. In the United States, preference is given to Choice Neighborhood grant applicants, designated "Promise Neighbourhoods" by the US Department of Education.

- National plans supporting locally driven initiatives. The comprehensive vision of the two programmes is also reflected in the range of stakeholders involved. Authorities at several levels of government, private agencies (including philanthropic institutions and associations) and local communities take part in the regeneration process. Moreover, although they are based on visions and mechanisms designed at the national level (national plans), the French and American approaches both fundamentally support locally driven strategies to address distressed neighbourhoods. In the context of the French National Urban Regeneration Programme 2003-2014, the French National Agency for Urban Regeneration financed projects developed and submitted by local authorities, with the help of the national agency. The New National Urban Regeneration Programme 2014-2024 goes one step further, requiring the creation of "city contracts" (*contrats de ville*), which gather all local stakeholders and define precisely a list of the measures needed to start the regeneration of the distressed neighbourhoods. The level of financial commitment of each stakeholder is also incorporated into the contract, to ensure that the entire community has a clear understanding of the obligations.

Sources: Adapted from OECD (2015h), *OECD Territorial Reviews: Valle de México, Mexico*, http://dx.doi.org/10.1787/9789264245174-en, based on Kirzbaum, T. (2009), *Rénovation urbaine: Les leçons américaines*; Merlin, P. (2012), *Des grands ensembles aux cités: L'avenir d'une utopie*; Donzelot, J. (2012), *A quoi sert la rénovation urbaine?*; Kirzbaum, T. (2013), *Rénovation urbaine et équité sociale: Choice Neighborhoods aux États-Unis*.

Box 5.7. **Urban regeneration in Santiago de Chile**

The centre of Santiago municipality suffered a huge population decline during the second half of the 20th century, its population falling by more than half between 1940 and 2002 (Contreras, 2011; Paquette, 2005). At the beginning of the 1980s, the municipality was experiencing an increasing number of underutilised areas and decaying buildings. In the early 1990s, municipal authorities launched an ambitious repopulation programme (Programa de Repoblamiento) managed by a semi-public corporation, the Santiago Development Corporation (Corporación para el Desarrollo de Santiago). The primary task of the corporation was to work with private developers and landowners to mobilise land for new development. These efforts were largely successful: many high-density buildings were constructed (with more than 20 floors), transforming the urban landscape. The programme helped repopulate the area, from 200 000 inhabitants in 2002 to 308 000 in 2012. In 2013, almost 31% of housing sales in the metropolitan area were concentrated in the central municipality (Cámara Chilena de la Construcción, 2014).

Central Santiago de Chile's successful regeneration can be attributed to a combination of factors:

- A comprehensive approach to urban rehabilitation. Santiago de Chile pursued a comprehensive urban regeneration agenda that combined investment in housing, mobility, basic services, public spaces, public safety and green areas. In particular, there was a strong effort to co-ordinate housing and mobility investments, demonstrating the importance of prioritising proximity to public transport to guide urban and housing investments, and vice versa. Investment in transport in the central area included the extension of several metro lines and the development of new metro stations. These, from the perspective of developers, were a strong selling point to draw young, middle-class households to the area.

- The reliance on a special subsidy for the construction of affordable housing in the central city. Chile's Ministry of Housing and Urban Development (Ministerio de Vivienda y Urbanismo) provided a grant for first-time homeowners, which applied to specific urban areas defined as "renewal areas" (Rojas, 2004). In Santiago de Chile, this subsidy has helped to ensure more inclusive repopulation of the central area and opened the redeveloped area, so that it is not only accessible to middle-high and high-income groups.

- The leadership of a multi-stakeholder public-private entity, including representatives from different levels of government. The municipality undertook several important urban projects to improve the central area (such as the relocation of the prison) and negotiated with private firms to build supermarkets and local services in the centre.

Sources: Adapted from OECD (2015h), *OECD Territorial Reviews: Valle de México, Mexico*, http://dx.doi.org/10.1787/9789264245174-en; Contreras, Y. (2011), "La recuperación urbana y residencial del centro de Santiago: Nuevos habitantes, cambios socioespaciales significativos", www.scielo.cl/pdf/eure/v37n112/art05.pdf; Paquette, C. (2005). "La reconquête du centre de Santiago du Chili: Un nouveau modèle pour la récupération des centres historiques d'Amérique latine?"; Cámara Chilena de la Construcción (2014), *Renovación Urbana en Chile. Éxitos, Desafíos y Oportunidades. Segundo Encuentro Inmobiliario Chile*, www.cchc.cl/comunicaciones/noticias/56642-presentaciones-iiencuentro-inmobiliario-chile-peru; Rojas, E. (2004), "Volver al centro. La recuperación de áreas urbanas centrales", https://publications.iadb.org/handle/11319/202?locale-attribute=es.

Affordability is an important characteristic of an accessible transport system in a city. Given that housing and transport choices together shape a major part of urban dwellers' choices, their costs also need to be assessed in combination with each other. In this regard, some countries have started to develop multidimensional indicators that track the

living and commuting costs in different parts of a city. One example is the "Housing and Transportation Index" developed by the Center for Neighborhood Technology (CNT) in the United States. This index is a data aggregation tool that proposes an original angle to assess the affordability of a specific location by gathering data on the cost of housing and transport/commuting.

Careful co-ordination of investment needs to take place at the metropolitan scale

While housing and transport policies are closely interrelated, linking them does not automatically translate into more inclusive urban outcomes, as contradictory forces may be at work. For example, poorer populations can often find themselves pushed out of newer, sustainable, transit-oriented housing developments in walkable neighbourhoods, particularly when the housing is centrally located. Prioritising the metropolitan scale in delivering housing and transport investment will help ensure a co-ordinated response to the need for economic efficiency, affordability and access to opportunity for all citizens. While regulatory barriers may drive up the cost of affordable housing development in the core, low access to transport in the periphery could drive up the total costs of housing transport for poorer households, who then get priced out of the core. An example of a strategic and practical partnership in this sense can be found in the New York and Connecticut Sustainable Communities Consortium, which offered a platform of co-ordination for housing and transport policy (Box 5.8).

Box 5.8. **New York and Connecticut Sustainable Communities Consortium**

The New York and Connecticut Sustainable Communities is a consortium of 17 cities, counties and regional authorities in New York City, Long Island, the Hudson Valley and southern Connecticut in a three-year partnership. The initiative focused on downtown areas and/or economically challenged communities along the Metropolitan Transportation Agency Metro-North railroad system. Together, the partnering authorities managed a USD 3.5 million US Department of Housing and Urban Development Sustainable Development regional planning grant towards planning initiatives building inclusive economic opportunities, using the regional public transport network, as well as supporting affordable housing development in the region. Projects submitted by the consortium include the development of Metro North commuter rail in the Bronx Corridor in New York City to encourage investments in lower income communities along the rail lines; and in the Nassau Hub Transit Area along the Long Island Rail Road System. In Stamford, Connecticut, the consortium contemplated the construction of a new commuter rail station. Various other initiatives include similar projects in New Rochelle and New Haven. Overall, these initiatives aimed at spurring economic development, investment and job growth by improving the accessibility and reliability of the commuter transit system, thereby creating incentives to use public transport rather than personal automobiles and reducing the carbon footprint. The consortium has been granted preferred sustainability status by the US Department of Housing and Urban Development, which has advantages in the scoring process by the department. The Implementation Plan for the Sustainable Communities Consortium was adopted on 30 May 2014.

Source: NYCT (2014), Implementation Plan for Sustainable Development, www.sustainablenyct.org/SCIImplementationPlan20140602Final.pdf.

Providing both efficient and equitable commuting services requires a metropolitan-scale policy rather than a multiplicity of municipal transport systems. The rise of housing costs exacerbates the necessity for a reliable public transport system for

all households throughout the functional urban area. This is a crucial condition to building an inclusive urban transport network since lower income households are more likely to live far from economic centres and to rely on public transport. As a consequence, many cities have implemented reforms to respond to this new demand. The creation of transport authorities that are responsible for multiple jurisdictions within a functional urban area is increasingly common. Some of the most widely documented examples of effective co-ordination at metropolitan level are the Regional Consortium of Transport (Consorcio Regional de Transportes, CRTM) in Madrid, Transport for London (TfL) and the Île-de-France Transport Authority (Syndicat des transports d'Île-de-France, STIF) in Paris (OECD, 2016e). Other cities are also working in this direction. For example, Lisbon is currently looking for ways to match its public transport system to the wider metropolitan area to better fit its socio-economic reality. One major factor to take into consideration in establishing a metropolitan transport authority is the need to ensure clear buy-in from all levels of government as well as private operators. One of the most sophisticated examples of metropolitan transport co-ordination based on intergovernmental collaboration can be found in Germany. All large metropolitan areas in Germany have set up a metropolitan transport authority called *Verkehrsverbund*. Such transport authorities usually bring together all local governments located in the metropolitan area as well as the corresponding *Land* (or *Länder* if there are several of them, as in the case of Hamburg). As illustrated in the example of Frankfurt, the creation of such metropolitan transport authorities has facilitated fare integration and expansion of the public transport supply, which can support more inclusive economic development (Box 5.9). A few authorities also enjoy competencies in terms of public parking and sometimes urban spatial planning, which can help guide an integrated urban development strategy and promote inclusive growth throughout the entire metropolitan area.

Expanding and improving public transport accessibility helps connect all urban residents to better opportunities

Providing more effective and reliable commuting infrastructures directly improves access to gainful employment for the most vulnerable residents. The widely documented experience of Bogota and Seoul in conducting extensive reforms of their public transport systems suggests that urban transport systems can help reconcile economic, social and environmental objectives (Box 5.10).

Overcoming financial and political constraints is crucial for building more inclusive urban transport

While national and local authorities have increasingly incorporated equity goals in their mobility agendas, planning and financing for more inclusive urban transport remains a major challenge.[7] The availability of funding determines the feasibility of inclusive solutions for urban transport. Cities such as New York and Toronto are working on policies to improve their discount fares for economically challenged households. Paris has established a single-price public transport fare by dezoning the annual and monthly Navigo pass across the entire metropolitan area. However, most of the instruments used – ranging from a direct discount fare to transportation cost-relief tax credits – bear built-in collateral consequences. Transport cost-relief tax credits can sometimes increase the exposure of low-income households to financial risks. In many cases, national laws impose too many requirements for infrastructure without granting flexibility for devising tailored solutions. This does not necessarily deliver value for money and generates additional pressure on budgets.

Box 5.9. An intergovernmental transport authority for the metropolitan area: The example of Frankfurt

The Rhein-Main Transport Association (Rhein-Main Verkehrsverbund, RMV) is the single authority over public transport in the metropolitan area of Frankfurt. The RMV brings together 3 levels of government: 15 counties, 11 cities and the state of Hesse. It is led by a board where all member governments are represented. Its geographic coverage includes about two-thirds of the state of Hesse and the city of Mainz (outside of Hesse).

The creation of the RMV was facilitated by a former association of municipalities, called Umlandverband Frankfurt (UVF), which was created by the state of Hesse in 1975 as a vehicle for inter-municipal policy co-ordination in the region. The UVF had wide-reaching competencies in policy planning and implementation for many specific-purpose functions at the local level. Membership of the 43 municipalities with about 1.6 million inhabitants was compulsory by law. The assembly (Verbandskammer) of the UVF consisted of non-elected delegates from member governments. In 1990, the UVF proposed a new expanded transport association that incorporated several smaller transport associations and municipalities that did not belong to any transport associations. Thus, it paved the way for the creation of the RMV in 1995, also supported by federal transfers.

The RMV defines metropolitan transport policy and is in charge of planning, investment decisions, price setting and co-ordinating 153 public and private operators (subway, bus, suburban railway, trains). It integrates regional and local transport under uniform and needs-based rules for the entire metropolitan area: one timetable, one price and one ticket. This includes important tasks such as tariff design, scheduling, allocation of transport services to carriers, the development of the network, the tendering of transport services, the assurance of quality and security standards, innovation (e-ticket, mobile ticket, touch&travel, R&D) as well as communication, information and marketing. It ties individual traffic, car-sharing services and the bicycle in its mobility concept, and partners with shipping lines and taxi companies. Similar associations exist in nine other German regions. In terms of number of trips, the RMV holds the fourth position (after Berlin-Brandenburg, Rhine-Ruhr and Hamburg) in Germany. It comprises 42 railway connections with 390 stations and 943 bus routes with 11 900 stops. On average, it handles some 2.5 million passengers per workday, with an average length of travel of 10 kilometres.

Since its inception, the RMV has seen the number of passengers increase by about 25%, from 520 million in 1995 to 708 million in 2013. In terms of revenue per trip, it achieves a top value in Germany, covering its costs at 57%, with the remainder coming from federal regionalisation funds passed through the state budget, and from municipalities via state financial equalisation.

Source: OECD (2015a), *Governing the City*, http://dx.doi.org/10.1787/9789264226500-en.

A fundamental issue consists in devising mechanisms that strike a balance between network coverage, affordability/inclusion and financial sustainability. In particular, recent OECD/ITF research suggests that targeted subsidies (as opposed to generalised ones) allow transport operators to charge fares that are close to cost-recovery rate for most of the population while cheaper fares are set for vulnerable groups (OECD/ITF, forthcoming). Some cities have experimented with solutions to overcome funding restrictions. Examples include: adopting universal design and human-centred development principles to avoid the high costs of retrofitting in the future in San Francisco, and demonstrating the relatively low cost of collective transport when compared to transport by private car; treating transport infrastructure as social infrastructure that promotes independent

Box 5.10. **Reforms in public bus transportation: Examples in Bogota and Seoul**

Both Bogota (Colombia) and Seoul (Korea) conducted a major reform of their public transport systems in the early 2000s. In both cases, ridership was over capacity; lack of regulation prompted a commercially complex environment of multiple service providers, which ultimately harmed riders; and the maintenance and safety of buses was not always guaranteed. As a consequence, both capital cities took extensive reforms to deeply restructure their services.

- In Colombia, Bogota introduced the TransMilenio system in 2000. The city government built dedicated twin bus rapid transit (BRT) lanes for buses on the side of roads for decongestion purposes. The buses are owned and run by private companies under the jurisdiction of a concession contract.
- In Korea, the Seoul metropolitan government introduced a wide array of reforms starting in 2004. Such reforms included BRT corridors, synchronised road and rail public transport, and the integration of natural gas-fuelled buses. Fare and ticketing was integrated throughout the whole public transport system. In this case, the Seoul metropolitan government also collaborated with private partners under a public-private partnership structure to provide public transport (Pucher et al., 2005; Allen, 2013).

Both Bogota and Seoul include public and private costs and revenues for operations, maintenance and original investment.

- In Colombia, fare and ticketing is run by the private providers. Revenue is deposited in a trust fund, which in turn proceeds payment for the agents on a weekly basis. This revenue and other charges pursuant to the concession contract contribute to 4% of the system's budget. The city-owned company that oversees the project, TransMilenio S.A., functioned thanks to city subsidies until 2003. Since then, fare and ticketing has been generating sufficient revenue to fund the system back and revenues in excess are given back to public shareholders. According to the National Planning Department, under an agreement made in 2000, 66% of the infrastructure costs are covered by national government public funds and 34% are provided by Bogota City Hall. The projected cost of the buses and fare collection equipment is financed by private investment. The revenue from ticket sales covers operational costs only (Clapp et al., 2010).
- In Korea, the Seoul metropolitan government signed on to cover the private providers' operating deficits. Overall, the Seoul metropolitan government paid an estimated USD 270 million, triple the amount prior to the reform. Budgeting has since been reduced and stabilised. According to an estimate by the Seoul metropolitan government, the "social benefits" of the reorganisation amount to USD 1.4 billion over ten years.

Both Bogota and Seoul represent a successful case of infrastructure and operational restructuring that contributed to increasing access to public transport, presenting it as an alternative to private transport, reducing congestion, and guaranteeing a more competitive and reliable public service. Moreover, both cases are a prime example of how collaboration between private actors and public governments can result in significant achievements, arguably faster and more efficiently than in a one-side approach from either sector. Nevertheless, such initiatives require willing and capable interlocutors, an understanding and informed population, and above all, local authorities that have the necessary financial and executive power to accomplish such a wide-ranging set of reforms.

Sources: Author's own elaboration based on World Bank (2004), "Transmilenio busway-based mass transit: Bogotá, Colombia", http://siteresources.worldbank.org/INTURBANTRANSPORT/Resources/Factsheet-TransMilenio.pdf; Clapp, C. et al. (2010), "Cities and carbon market finance: Taking stock of cities' experience with clean development mechanism (CDM) and joint implementation (JI)", http://dx.doi.org/10.1787/5km4hv5p1vr7-en; Pucher, J. et al. (2005), "Public transport reforms in Seoul: Innovations motivated by funding crisis", http://nctr.usf.edu/jpt/pdf/JPT%208-5%20Pucher.pdf; Allen, H. (2013), "Bus reform in Seoul, Republic of Korea", http://unhabitat.org/wp-content/uploads/2013/06/GRHS.2013.Case_.Study_.Seoul_.Korea_.pdf.

mobility in Leipzig, adopting a step-by-step approach to improving accessibility across the network; and ring-fencing dedicated funding for investment in accessibility in Moscow's transport budget, with incremental targets for walkable and accessible infrastructure towards 2020 (EUR 7 million per year for five years allocated). Cities can also take advantage of new technologies and new forms of funding to support policy implementation in this area. For instance, New York City is financing the Hudson Yards subway line extension and station through the issuance of bonds by a special purpose vehicle, the "Hudson Yards Infrastructure Corporation," with debt service guaranteed by innovative sources of revenues, including: tax equivalency payments, provided by New York City in anticipation of future tax revenues from land-value increases; payments in lieu of taxes, which offer land tax exemptions to project developers in a specific area; and transferable development rights from the transfer of public property land and building rights (PriceWaterhouseCoopers, 2013).

More broadly, data and evidence that spell out the broader socio-economic benefits of more inclusive transport (e.g. greater access to jobs, better ability to remain mobile in the case of temporary impediments such as pregnancy or injuries) can help improve public acceptance of policies that enhance inclusive accessibility and shift public funds more easily towards addressing issues of social justice and quality of life rather than merely cost considerations.[8] Reinforcing citizen participation in planning processes can also be made more cost-effective. For example, apps and online instruments can allow residents to suggest where infrastructure investment in accessibility should be prioritised. This is currently done in Amsterdam and Leipzig through dedicated surveys and focus groups. The private sector can play an instrumental role in addressing funding gaps. In San Francisco, the city government provides service providers such as Uber and Lyft with a clear regulatory framework that sets social inclusion targets. Finally, improving the attractiveness and image of public transport through positive advertising and quality-enhancing investment can support the modal shift necessary to increase revenue from user fees, underpinning further investment in transport systems.

Promoting healthy communities

Local policy may help alleviate the health divide by income in cities

Many cities currently do not offer their residents equal opportunities to lead a healthy life. For example, in Toronto, residents with the lowest incomes tend to have worse health, and this relationship has not improved over time (approximately ten years) (Van Ingen, Khandor and Fleiszer, 2015). Compared with the highest income group, men in the lowest income group are 50% more likely to die before the age of 75; women in the lowest income group are 85% more likely to have diabetes; and babies in the lowest income group are 40% more likely to be born with a low birth weight (Toronto Public Health, 2015). Similarly, in the United States, the mean life expectancy among the bottom 25% of earners in New York, Santa Barbara, San Jose, Miami and Los Angeles was about 81, four or five years less than among the top 25% earners (Chetty et al., 2016). The rich-poor life expectancy gap was even wider in Tulsa, Las Vegas and Oklahoma City, where the poorest lived until 77, about seven to nine years less than the richest group.

However, not all cities are the same – in particular, in some cases, poor people tend to live longer in cities that have many rich people. Public policies and social contagion of healthy behaviours may therefore help improve health outcomes for all urban residents, including the lowest income groups. In the case of the above-mentioned US cities, low-income individuals lived the longest and had more healthy behaviours in places with

well-educated, high-income populations, as well as government spending in health-promoting public policies (e.g. smoking bans, cigarette taxes and anti-obesity efforts such as calorie labelling requirements). For example, the combination of federal, state and local excise tax makes New York one of the most expensive cities in the United States to buy cigarettes today.[9] The 2002 Smoke-Free Air Act makes virtually all workplaces, including restaurants and bars, smoke-free. In other areas of health, the city also implemented HIV testing and treatment programmes, as well as a nurse home-visiting programme for low-income, first-time mothers and their children (the Nurse-Family Partnership, launched in 2003). The number of deaths from HIV-related diseases and the infant mortality rate dropped by 53% over 2001-11 and by 23% over 2001-10, respectively (City of New York, 2012).

Facilitating access to healthcare for all

Providing inclusive access to proper healthcare constitutes another fundamental aspect of the inclusive cities agenda. Improving the population's health has trickle-down effects from the individual to the community in terms of public health, but also economic productivity, general well-being and broader access to opportunity. Overall, living in areas which are associated with poor health outcomes "can create structural impediments for growth" (CEC, 2006). Several initiatives to make access to healthcare services more equitable have been implemented in OECD cities. In Mexico City, for example, the municipal programme "El Médico en tu Casa" ("The doctor at your house") has focused on delivering medical services directly to those residents who do not have access to medical care for lack of resources (Box 5.11). The digitalisation of healthcare services can also make a significant contribution to facilitating access of all socio-economic groups to quality healthcare, as illustrated in cities in Japan, Norway and Sweden (Box 5.12).

Another, often overlooked, aspect of improving health outcomes for all urban residents consists in guaranteeing optimal access to adequate nutrition opportunities. Low-income households in cities tend to be disproportionally affected by unfit living conditions, pollution and health hazards. In particular, some low-income communities may live in "food deserts", which are defined by the US Department of Agriculture (USDA) as "parts of the country vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas". Such a situation is largely due to a lack of grocery stores, farmers' markets and healthy food providers, according to the USDA. Scarcity or hardship of access to healthy balanced nutrition has direct consequences on growth and the economy at large by reducing productivity, access to employment and increasing health costs (notably due to increases in obesity, premature mortality, autoimmune diseases and coronary heart disease), as well as reliance on social services. Food deserts were first identified at the end of the 20th century in Scotland and are currently widely debated in the United States. Access to nutrition disparities along socio-economic lines can also be found in other OECD countries, such as Australia, Canada, New Zealand and the United Kingdom. In New Zealand, studies have found important disparities in the access to nutritional resources in Christchurch and Wellington, as well as in Leeds in the United Kingdom (Pearce et al., 2007; Burns et al., 2011). Although access to nutrition can also exist along the rural/urban divide, it is widely an intra-urban problem, with some studies showing that lower income neighbourhoods in New Zealand are more likely to contain fast food restaurants. Food deserts not only result from the sheer absence of nutritious food, but also from the lack of access to fresh food and vegetables due to their high retail price. In the United States,

Box 5.11. **"El Médico en tu Casa" initiative in Mexico City**

The objective of this policy was to target health problems amongst lower income Mexico City residents who cannot access health services because they do not have physical or financial access to healthcare. Around 7.5 million Mexico City residents live below the poverty line. A high percentage of young women have no check-up during their pregnancy. Elderly people and disabled people cannot access health services because they are unable to go to the hospital or health centre. As part of this programme, the city sends physicians directly to the home of residents so that they can conduct check-ups and deliver prescriptions. A part of the overall budget of the city, or USD 110 million, MXN 171 million was attributed to the programme in 2016. Sponsor funds have been raised for the initiative but they are not directly handled by the city.

The programme was launched in September 2014 and as of 2016, according to the city of Mexico, medical personnel has visited 2.3 million households. This is particularly crucial for a population that has a strong prevalence of high blood pressure, hypertension and diabetes, particularly in the population that is the most at risk. Hospitals are spatially concentrated in certain parts of the city. Health facilities need to be more evenly spread out throughout the city. According to a 2016 legislative report, 80.85% of homes in the city have been visited since the inception of the programme and 164 926 vulnerable persons were identified during these visits; 21 214 pregnancies were detected, out of which 7 215 had not been medically supervised between the second and third trimester, 40% of which were considered at high risk. The programme's success has been highlighted at international forums in Paris and New York.

The programme has been replicated in eight Mexican states since 2015, including in the region of Tabasco, under the name "En tu casa la salud".

Sources: Author's own elaboration drawing from various sources including remarks by Mayor Angel Mancera during session on Inclusive Cities, OECD Week 2016, 1 June 2016; Pérez Courtade, L. (2016), "Mancera destaca programa 'El Médico en tu Casa' en París", www.excelsior.com.mx/comunidad/2016/06/01/1096136; Federal District General Assembly, 7th Legislature, (2016) "Medico en tu casa es la ley en la capital del pais", www.esm.ipn.mx/Documents/WEB%20nueva/1.Avisos/Archivos/medico%20en%20tu%20casa.pdf.

in 2011, First Lady Michelle Obama announced a USD 400 million initiative to eliminate food deserts in the country by 2017. Potential measures by local governments include, among others, fiscal incentives for opening local grocery stores in under-served areas, nutritional programmes in schools or targeted subsidies for lower income households.

Cities need to work on becoming more environmentally equitable

Environmental justice in cities has emerged as an important issue. Access to natural resources, environmental goods and services (such as green and open spaces), and exposure to risks, potential threats and distributional disparities in environmental damage and costs are often associated with income distribution (OECD, 1999). Environmental disparities can primarily affect ethnic minorities or indigenous populations, but they are also spatial: brownfields, distressed neighbourhoods, developmental disparities (OECD, 1999). The concept of environmental justice aims to address such disparities to achieve equity of access to natural goods and resources and equity in exposure to environmental risks in threats.[10]

Box 5.12. **Digitalisation of healthcare services in OECD cities: Examples from Japan, Norway and Sweden**

In **Japan**, the increasing rate of aging of the population, in particular in urban areas, combined with the increase in medical spending and a decrease in the workforce, has led to the creation of the "Smart Platinum Society" initiative. This initiative aims to help the population: 1) live independently by maintaining health for a long time; 2) work with motivation and participate in social activities; and 3) create and globally expand new industries in response to a super-aged society. To achieve these objectives, the initiative combines different policy levers such as: 1) the deployment of an electronic health records infrastructure for linking medical and nursing care data, and promoting home care and long-term nursing; 2) the creation of ICT health models (for disease prevention) based on the analysis of a medical examination and receipt data; and 3) the creation of life support business. These measures will be complemented by measures to improve ICT literacy, to realise new work styles and the deployment of ICT-enabled robots.

Similarly, in **Norway**, smart healthcare-related innovation is facing a number of challenges related to system innovation. In the municipality of Oslo, for instance, healthcare service is organised at the level of city districts, each district being responsible for providing healthcare services to its citizens. Four of these districts (Gamle Oslo, Grünerløkka, Sagene and St. Hanshaugen) take part in the Norwegian National Programme for Personal Connected Health & Care, piloting telehealth and telecare technologies as part of their services. Following a shift in strategy of healthcare and rehabilitation activities towards the goal of rehabilitation, the districts have changed the way they deliver health and care services to citizens living at home. As part of this strategy, they offer assistive technologies to the elderly (most common medical dispensers and pendants) and remote care to citizens with chronic diseases (including a questionnaire and medical measurements such as blood pressure, weight, blood sugar levels, etc.).

In **Sweden**, "Sustainable smart cities" features prominently among projects funded by the Challenge Driven Innovation programme. In the more specific case of the Smart Grid project in Gotland, an island in Sweden, a reference group has been put together consisting of representatives from a number of governmental agencies and interest groups. The rationale of the reference group is twofold: 1) to ensure that the business community and society in general is kept informed about project's activities; and 2) to act as an advisory body so that the project can benefit from the reference group's knowledge and experience.

Source: Adapted from OECD (2016f), "Stimulating digital innovation for growth and inclusiveness: The role of policies for the successful diffusion of ICT", http://dx.doi.org/10.1787/5jlwqvhg3l31-en.

As highlighted in Chapter 2, air pollution is mainly a "city issue" – data show that many cities register a level of air pollution ($PM_{2.5}$) above the World Health Organization's recommended levels. Evidence shows that within cities, socio-economically vulnerable groups often suffer the most from poor environmental conditions. Such poor environmental conditions in cities are often associated with other forms of socio-economic exclusion. For example, a study by the Commission of the European Communities found that high-unemployment neighbourhoods in cities had poorer environmental conditions (CEC, 2006). The epidemiological literature on pollution levels also shows that intra-urban variations are even larger than variations between cities. For example, in the case of Malmö, Sweden, geo-mapping analysis outlines that the socio-economic status of the neighbourhood of residence seemed to be a strong predictor of children's level of exposure to pollution (Chaix et al., 2006). In Toronto, a similar study concluded that neighbourhoods that are characterised by low levels of educational attainment, single-parent families and low median income were more likely to have higher nitrogen

exposure (Buzzelli and Jerrett, 2007). In the United States, a University of Minnesota survey based on 2000 US census data found that minorities were, on average, exposed to 38% more nitrogen pollution than Caucasians, with a significant gap when accounting for race and/or income (Clark, Millet and Marshall, 2014). At the same time, no socio-economic category is immune from negative environmental conditions. For example, even the highest-end housing units can be regularly exposed to high levels of air pollution since they tend to be located on high traffic axes or have easy access to transport flows, as it is the case in Rome (Cesaroni et al., 2010).

While the economic cost of environmental pollution in cities is significant, the cost of addressing it does not appear to be higher. Generally speaking, according to the International Energy Agency, the European Commission estimated the cost of environmental pollution, taking into consideration health costs alone, to vary between EUR 440 and EUR 1 250 billion (European Commission, 2013). In the United States, the Environmental Protection Agency estimated that complying with existing standards would cost USD 65 billion, but would bring potential economic revenue of USD 2 trillion (US EPA, 2011). The OECD publication *The Cost of Air Pollution: The Health Impacts of Road Transport* found that "the cost of the health impact of outdoor air pollution in OECD countries, both deaths and illness, was about USD 1.7 trillion in 2010. Available evidence suggests that road transport accounts for about 50% of this cost, or close to USD 1 trillion" (OECD, 2014e).

Policies to increase public transport accessibility, reduce congestion and promote alternative modes of transport can make a meaningful contribution to reducing air pollution and ensuring environmental justice in cities. Innovative urban planning, conducted in collaboration between the public and private sectors to promote urban renovation in under-serviced neighbourhoods, can trigger a positive green growth dynamic within an urban area, as in the case of Columbus, Ohio (Box 5.13). At the same time, the risk of spurring further urban gentrification through "greening" initiatives is a real concern. Environmental improvements and land-use reforms in disadvantaged neighbourhoods may actually trigger exclusion by driving property prices up and attracting wealthier residents while displacing working-class residents (Cowell and Thomas, 2002; Banzhaf and McCormick, 2007; Bunce, 2009; Dale and Newman, 2009; Dooling, 2009; Quastel, 2009; Checker, 2011). This concern is reinforced in brownfield areas, where gentrification becomes extremely profitable through the realisation of the rent gap, the difference between actual and potential ground rent (Smith, 1979). Urban regeneration strategies therefore need to strike a careful balance between environmental and socio-economic goals. Designing urban spaces that are "just green enough" requires government authorities, residents and business owners to work together to achieve environmental remediation without environmental gentrification. An inspiring example of such a strategy can be found in Greenpoint, Brooklyn (Curran and Hamilton, 2012; Box 5.14).

Box 5.13. **An example of a mixed-space strategy in Columbus, Ohio (United States)**

Following the crisis of 2008, the city of Columbus, Ohio prepared a reconstruction plan in close collaboration with local businesses. The plan aimed to promote mixed-use development projects, increase green spaces, reduce water spending and tailor public spending to specific areas of the city in need of development. The plan paid particular attention to the development of open spaces and the creation of integrated connections between spaces. The city income tax was increased by 0.5%. About USD 64 million in public funds, out of a total cost of USD 105 million, was spent between 2011 and 2015 on targeted mixed-use development projects. Local businesses covered the remaining cost of the projects. The Columbus Downtown Development Corporation, an ad hoc mixed-sector, non-profit organisation, managed most of these projects. Overall, USD 350 million of real estate value was either renovated or created, generating 1 000 jobs. According to the local government, the overall Columbus Commons projects' USD 388 million public infrastructure investment was offset by private investment amounting to close to USD 2 billion. The city reportedly created an additional 1 600 jobs through that effort. According to estimations presented in the "Columbus 2050" report of the Urban Land Institute, the tax revenue to acre ratio and the land value to acre ratio is higher for mixed-use projects.

Sources: Author's own elaboration based on various sources including Schneider, K. (2016), "Downtown Columbus comes to life with targeted investment", www.nytimes.com/2016/06/01/realestate/commercial/downtown-columbus-comes-to-life-with-millennial-tower.html?_r=0; Urban Land Institute (2012), "Columbus 2050, creating blueprints for change", www.morpc.org/pdf/ULI_Columbus2050.pdf.

Box 5.14. **"Just green enough": Contesting environmental gentrification in Greenpoint, Brooklyn (United States)**

In New York, the Greenpoint neighbourhood in Brooklyn used to be one of the most polluted industrial sites in the United States. Greenpoint's waterfront location (bounded by Newtown Creek) helped turn the neighbourhood into an industrial powerhouse and a centre for shipbuilding. Greenpoint was hit in the late 1950s by a major oil spill of an estimated 17-30 million gallons, predominantly from facilities owned by what is now Exxon Mobil. Decades of environmental activism by long-term residents and collaboration with more recent, and often wealthier, in-movers, have led to a cleanup process that does not automatically or exclusively lead to the "parks, cafes, and a riverwalk" model of a green city – but instead makes room for continued industrial use and blue-collar work. The core feature of a "just green enough" strategy aims at the existing working-class population and industrial land users, not just new development. Activists in Greenpoint want to achieve the cleanup of Newtown Creek while maintaining its industrial base, a strategy designed to put a stop to speculative development attracted to a neighbourhood experiencing environmental improvements.

The greening of Greenpoint has taken many forms, at a variety of scales. Initiatives ranged from the recent declaration of Newtown Creek as a Superfund site, to historical battles against a waste incinerator and a new power plant, to other interventions such as the construction of a local nature trail (Newtown Creek Nature Walk). In each case, local long-term activists have been at the forefront, but also made room for community residents to participate in the process. Collaboration between the state of New York and local authorities was also facilitated through a pre-existing state programme called the Brownfield Opportunity Area programme, which gives grants to local governments and community groups to develop strategies for brownfield redevelopment. The Brownfield Opportunity Area is part of the construction of a green, sustainable vision for the city developed through democratic means with an active place for manufacturing and the working class, and allowed the establishment of a partnership, the Newtown Creek BOA, in 2008. The Greenpoint case was an opportunity to rethink state intervention by "bringing the state government back into the business of environmental justice rather than just environmental gentrification".

Source: Author's own elaboration drawing from Curran, W. and T. Hamilton (2012), "Just green enough: Contesting environmental gentrification in Greenpoint, Brooklyn", http://dx.doi.org/10.1080/13549839.2012.729569.

Key steps for designing and implementing effective policies for inclusive growth in cities

The wide variety of experiences reviewed in this chapter has shown that there is no single silver bullet for putting cities on the path towards more inclusive growth. While policy instruments need to be tailored to local conditions, calling for targeted action in specific sectors that can be particularly relevant in some cities, a number of overarching insights also merits consideration and will be briefly discussed below.

Set targets and indicators to measure progress towards inclusive growth in cities

A first consideration is the importance of collecting a solid evidence base of indicators and setting clear targets for inclusive growth at the city level. Previous chapters have laid out innovative, internationally comparable data that help grasp how inclusively cities are growing. While the OECD is working on expanding such data, governments can also adapt them locally and develop their own indicators of well-being and progress. Indicators should also monitor how specific groups of the society fare. Examples of such multidimensional indicators at a refined geographical scale include the Indices of Multiple Deprivation (IMD) in the United Kingdom, the Socio-Economic Indexes for Areas (SEIFA) in Australia and the Index of Multi-Deprivation (IDMS) in Sardinia, Italy (Box 5.15). Setting clear baselines, a range of (quantitative, qualitative or a combination of both) targets to achieve and monitoring mechanisms also helps structure the course of public action around a transparent timeline and intermediate milestones. In an urban policy environment characterised by high levels of uncertainty, such indicators and targets can provide a tool for identifying the specific assets for development in different communities and maximising a city's potential for overall progress.

Box 5.15. **Multidimensional indicators of inequalities in cities and regions: Examples from the United Kingdom, Australia and Italy**

UK Indices of Multiple Deprivation

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 were 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, the Single Regeneration Budget, 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 & 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.

Box 5.15. **Multidimensional indicators of inequalities in cities and regions: Examples from the United Kingdom, Australia and Italy** (*continued*)

Socio-Economic Indexes for Areas in Australia

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

- 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 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 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 scores for each statistical local area can be plotted against the fertility rate, to check whether the fertility rate is lower in advantaged areas.

Index of Multi-Deprivation in Sardinia, Italy

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 (2014d), *How's Life in Your Region? Measuring Regional and Local Well-Being for Policy Making*, http://dx.doi.org/10.1787/9789264217416-en.

Target the right scale of policy intervention

Second, the spatial scale at which policy interventions are designed and implemented has a major impact on both efficiency and inclusiveness counts. Typically, several key public services are best provided at the broader, metropolitan scale because the metropolitan scale allows for economies of scale, reduces costs and offers citizens more

equal access to services (e.g. transport). At the same time, such policies need to be combined with careful consideration of specific neighbourhoods that might require more tailored action. For example, targeted investment programmes may make economic and social sense in neighbourhoods that are poorly connected to jobs by public transport or lack public facilities for childcare. Cities have very different spatial configurations (e.g. many European cities combine a wealthier city centre and poorer suburbs, whereas some cities in the United States are characterised by a declining downtown and affluent suburbs) – each city thus needs to gauge its own geometry of policy interventions to support equitable development.

Build strategic partnerships across levels of government and across society

Policies for inclusive growth in cities should build strategic partnerships across levels of government and across society. Kick-starting collaborative initiatives around tangible projects on key public services can help rally forces at the initial stage and progressively lead to setting a "bigger picture", as success breeds further success and trust (OECD, 2015a). Flagship projects or events can also serve as catalysts for social change and stakeholder engagement. For example, the Capital of Culture experience in Marseille brought the society together in an unprecedented way. In a context of extremely high institutional fragmentation, this project laid a major foundation for the construction of the new metropolitan authority, which became operational on 1 January 2016 (Box 5.16).

Box 5.16. **Exploiting culture as a metropolitan building block: The example of Marseille (France)**

The nomination of Marseille as the European Capital of Culture 2013 bolstered new forms of co-operation among municipalities and with the civil society. In particular, the creation of the "MP2013" label (Marseille Provence 2013) through the creation of an association at the metropolitan scale was a key building block and helped develop collaborative projects that reached beyond initial cultural objectives to such areas as urban transport, environment and economic development. The results of the European Capital of Culture 2013 largely exceeded initial expectations, with more than 10 million visitors and around EUR 600 million estimated economic spillover effects.

In 2004, the city of Marseille decided to apply for the title of European Capital of Culture 2013. In December 2006, an association "Marseille Provence 2013" was set up and the project was selected by a European jury in September 2008. The association MP2013 covers 97 municipalities, mainly from the 6 inter-municipal authorities (*établissements publics de coopération intercommunale*). About 15% of its EUR 90 million budget comes from private patronage. The association was able to mobilise a wide range of institutional, cultural, associative and economic stakeholders: the European Union, the central government, the region, the *département*, municipalities and inter-municipal authorities, the Chamber of Commerce and Industry Marseille-Provence, the University Aix-Marseille, Euroméditerranée, the Grand Maritime Port of Marseille, public and private companies, etc. All these different partners were brought together not only around a common cultural project, but also a shared vision of transforming Marseille-Provence 2013 into a sustainable territory of the Euromediterranean. Beyond cultural and artistic events, the MP2013 also allowed for the construction or renovation of cultural monuments across the region. Within Marseille, in particular, several key sites were inaugurated (e.g. MuCEM, Villa Méditerranée). Urban regeneration projects were also conducted, such as the pedestrianisation of the old port of Marseille.

Source: Adapted from OECD (2013c), "Vers une croissance plus inclusive de la métropole Aix-Marseille: Une perspective internationale", www.oecd.org/regional/regional-policy/Aix-Marseille.pdf; OECD (2015a), *Governing the City*, http://dx.doi.org/10.1787/9789264226500-en.

New actors are also emerging to bring disparate sectors of society together, and this process is essential in creating opportunity and economic growth (Katz, 2016). For example, community land trusts are playing an important role in providing affordable housing for lower income households, as in the example of the Dudley Triangle in Boston (Box 5.17). This new organisational model has also developed in England (under the 2008 Housing and Regeneration Act, the Tenant Services Authority and the Community

Box 5.17. **Community land trust in Dudley Street Neighborhood initiative**

A community land trust (CLT) is "generally organized as a membership-based non-profit organization with staff and a member-elected board of directors. Membership is generally extended not only to CLT homeowners, but also to neighbours and other residents of the jurisdiction, giving increased community control over local development" (Martin and Smith, 2009). The CLT engages in real estate development for lower income households. When a house is purchased, the CLT remains the owner of the land, which it then leases to the purchaser of the house in exchange for a nominal fee using a long-term ground lease, in most cases a 99-year lease. Such a mechanism lowers the cost of housing overall for households because they mostly only bear the cost of the house itself and not the ground on which it is built. As of 2014, there were 260 CLTs in the United States (Davis, 2014).

The Dudley Street Neighborhood initiative (DSNI) is a Boston community-based non-profit organisation, and operates in the Roxbury/North Dorchester neighbourhoods of Boston. The organisation was born in the 1980s at a time when the Dudley neighborhood was largely composed of abandoned or vacant lots, over 62 acres of land known as the "Dudley Triangle". The initiative created the Dudley Neighbors Incorporated (DNI), a CLT. The DSNI is the first community-based non-profit group in the United States to which the government granted rights of eminent domain[1] towards the creation and maintenance of affordable housing, green spaces and other community spaces in the neighbourhood. In 1988, the Boston Redevelopment Authority approved Dudley Neighbor's Incorporated's request to become a Massachusetts 121A Corporation. That status allowed the DNI to accept the power of eminent domain to acquire privately-owned vacant land in the Dudley Triangle. The DNI combines vacant lots acquired via eminent domain with city-owned parcels and leases these to private and non-profit developers for the purpose of building affordable housing consistent with the community's master plan.

As a non-profit organisation, the DSNI draws from mixed resources, including government subsidies, donations from foundations, other non-profit groups and private individuals, as well as proceeds from events. According to the initiative's 2014-15 annual report, the group had an annual budget of around USD 3.7 million, which was allocated to programme costs, administrative costs, community capacity building and special events. It has historically relied on loans from organisations, including a USD 2 million loan from the Ford Foundation and USD 1.4 million from the Riley Foundation to acquire vacant lots and reconvert them.

According to the initiative, the CLT has acquired 30 acres of land over 25 years, over which it has created 225 new affordable housing units, a 10 000 square foot community greenhouse, an urban farm, a playground, gardens and other amenities. The CLT is involved in projects concerning housing, open space, commercial space, as well as urban agriculture. As of 2010, the neighbourhood hosted 24 000 inhabitants. The DSNI also engages in various actions of community building, along three strategic axes: community empowerment, sustainable community development, and youth opportunities and development. Concerning sustainable economic development, it leads initiatives on various issues, including an anti-youth homelessness campaign, a workforce collaborative, a group working on safety and beautification, amongst others.

Note: 1. In the United States, eminent domain is defined as "an exercise of the power of government or quasi-government agencies (such as airport authorities, highway commissions, community development agencies and utility companies) to take private property for public use" (United States Department of Housing and Urban Development, 2016).

Sources: Author's elaboration based on a variety of sources including Dudley Street Neighborhood Initiative (2016), "Redefining possibility – Dudley Street Neighborhood Initiative annual report 2014-2015", http://static1.squarespace.com/static/5515d04fe4b0263cc20b3984/t/55a3dd0be4b03c48e8b27c60/1436802315798/Annual+Report_web+ready+1.7.pdf; Dudley Neighbors Incorporated (2016), Dudley Neighbors Incorporated: The Community Land Trust website, www.dudleyneighbors.org; Flood, S. (2010) "Dudley Street Neighborhood Initiative", http://participedia.net/en/organizations/dudley-street-neighborhood-initiative; Martin, A.J. and A. Smith (2009), "Creating a community land trust to acquire foreclosed properties: Stabilizing neighborhoods and creating permanently affordable housing: Western Contra Costa County, CA", http://communityinnovation.berkeley.edu/reports/CLT.pdf.

Land Trust Fund), Scotland (such the Isle of Gigha Heritage Trust), Wales (Land for People) and Canada (such as with the Vancouver's Community Housing Land Trust Foundation). A community land trust is currently being developed in Brussels, Belgium as well as in Voi, Kenya. Other examples of stakeholder engagement in cities include the emergence of workers' co-operatives. For instance, the Cleveland Evergreen Cooperatives in Ohio (United States) bring together local hospitals and universities in supporting new business creation and aims to chart the way for intra-community development while creating a fairer workplace (Box 5.18).

Box 5.18. **A key role for local hospitals and universities in supporting new business creation: The example of the Cleveland Evergreen Cooperatives**

The Cleveland Evergreen Cooperatives brings together a consortium of several economic actors in the health and higher education sector. Since its creation in 2008, the consortium has aimed to create living-wage jobs in six low-income neighbourhoods of Cleveland that have a median household income below USD 18 500, in an area known as Greater University Circle. The aim is to enlist the financial power of hospitals and universities to support new, worker-owned businesses. The initiative targets distressed communities and helps integrate low-income residents (including people with criminal records) back into the labour market. Overall, the combined budget of partner institutions represents around USD 3 billion. Initial operations were funded by a Cleveland Community Foundation grant and New Market Tax Credits.[1] The city of Cleveland also contributed with a USD 1.5 million low-interest loan. The project comprises circular funding, according to which profitable firms would contribute 10% of their earnings before interest and taxes into a seed fund for new businesses (Casper-Futterman, 2011). The success of the Cleveland Evergreen Cooperatives has been widely publicised. It is supported by local networks and local authorities, which contributes to ensuring its stability. Other workers' co-operative projects have since emerged in other cities, such as New York.

Note: 1. In the United States, the New Markets Tax Credit is "a non-refundable tax credit intended to encourage private capital investment in eligible, impoverished, low-income communities" (Marples, 2012).

Source: Caspar-Futterman, E. (2011), Back to basics: Worker cooperatives as economic development", www.escholarship.org/uc/item/7p1006r7; www.evergreencooperatives.com.

At the same time, some observers warn against the risks of participatory processes generating new forms of inequality in cities. Invitations for public participation in policy making seem to be more widespread than ever, particularly in cities – with traditional town hall meetings but also city governments' increasing use of social media and crowdsourcing opportunities, on topics ranging from climate change to urban planning. Such tools for bottom-up engagement may contribute to the emergence of a new participation economy in cities, especially to remedy some sort of democratic deficit in large cities where the distance between policy makers and citizens may erode trust in institutions. But some authors have noted that the expansion of political equality has been accompanied by a corresponding decline in social and economic equality (Lee, McQuarrie and Walker, 2015). This suggests that participatory tools do not automatically translate into more inclusive policy making – popular participation might, in some cases, reinforce elite power while failing to give a voice to the most disadvantaged residents of the city. Engaging stakeholders in addressing the complex challenges of contemporary cities requires careful consideration of the specific historic, political, economic and social settings of each city.

Tap into innovative sources of financing

Last but certainly not least, policies for promoting inclusive growth in cities cannot be effective without securing reliable, innovative sources of financing. Traditional city financing alone is often unable to respond to the goals of inclusive growth and co-funding mechanisms are key to ensuring effective partnerships. Most urban investment initiatives, in the housing and transport sector, for example, require large financial upfront investment for construction that individual municipal budgets typically do not have the capacity to handle. Such projects need to braid together a variety of funding streams, including local, regional and national funds; private and philanthropic funds; bonds and private bank loans. For example, in the United States, a new approach called "Pay for Success Bonds" is moving away from traditional government programming and sets up a contract between government, a social services provider, and either private or non-profit funding organisations (or both) (Katz, 2016). It was recently used in Salt Lake County to expand high-quality voluntary pre-kindergarten to 600 economically disadvantaged children in the Granite School District. Financial partnerships also need to include effective monitoring and accountability mechanisms.

Explore the potential of digitalisation in cities

An effective use of modern information and communication technologies can help expand opportunities for all in cities. Digitalisation can promote more efficient and more equitable access to some public services such as healthcare, as discussed earlier in this chapter. Access to broadband has also become key to facilitating people's integration in the labour market and in their community at large. Some initiatives, both at national and city level, have therefore sought to close the digital gap between those who benefit from an easy access to high-speed Internet and those who do not. At national level, for example, the Obama administration has made broadband access for low-income households one of its signature efforts. Its ConnectHome programme, which was launched in July 2015, is bringing broadband to low-income households in public housing in 27 cities nationwide and is expected to reach 275 000 public housing households. The ConnectHome programme is partnering with Internet service providers, non-profit groups and private companies to provide faster Internet in the communities and tribal nation, which were chosen by the Department of Housing and Urban Development based on criteria including local commitment to providing fast Internet. The cities include Los Angeles, Newark and Rockford (Illinois). At city level, New York City has also led innovative initiatives to better connect under-serviced neighbourhoods to the Internet in order to facilitate access to education and employment opportunities. The Office of the Comptroller presented a policy in 2014 and a special taskforce was set up in 2015 to implement a wide array of projects, including buses with built-in free WiFi, increasing free Internet access at public libraries, replacing payphones with WiFi hotspots, and offering a USD 9 per month subsidy for Internet costs to lower income households.

Another avenue for overcoming information bottlenecks and including a broader range of urban residents in the policy-making process is to open government data to the public through open data portals and initiatives. Over the past years, many OECD cities have launched an open data portal, notably in the United States and Europe. For example, a City Open Data Census lists 90 cities in the United States and reviews their datasets.[11] In the EU, a pan-European search portal provides a single point of entry to official open, freely resuable datasets from local, regional and national public bodies across Europe.[12] In most cases, cities publish data in machine-readable formats to facilitate commercial and private use, but there are currently no pan-European standards. Opening access to

government data can entail transaction costs, contractual or legal issues about data collection between different public agencies. It can also be complicated when existing rules are not adapted to data-driven service delivery and decision making in cities (Koonin and Holland, 2014). Some politically, legally and socially sensitive questions need to be addressed when it comes to what type of data cities should collect in the first place and what they should publish (OECD, 2015j). To make the most of open data and promote wider access to them, cities need to invest in building the adequate capacity and skills for collecting, storing and analysing data, in addition to acquiring the infrastructure and computing power required to store and process all the data. Some cities are already well-advanced in this field (such as New York, Boston and Philadelphia), while others might need support from higher levels of government or from the private sector. Such partnerships can help improve both efficiency and equity in public service delivery in cities, as well as create new business opportunities – fostering a more inclusive dynamic of urban growth.

Table 5.6. **Summary of key recommendations for designing and implementing effective policies for inclusive growth in cities**

Recommendations by policy area
Employment
– Encourage job creation in locally relevant industries
– Support workers' co-operatives
– Facilitate immigrant, youth and women entrepreneurship
Education
– Establish partnerships for creating targeted vocational education and training (VET) programmes
– Invest in upgrading skills at all levels
– Promote controlled school choice schemes
Housing
– Promote mixed-income neighbourhoods
– Remove barriers to the development of affordable, quality housing
Transport
– Assess the combined impact of transport, housing and other investment decisions on different socio-economic groups
– Expand urban accessibility for all
– Strike a balance between network coverage, affordability and financial sustainability
Health and environment
– Facilitate access to healthcare for all
– Develop comprehensive urban regeneration strategies
Overarching recommendations
Set targets for inclusive growth and identify indicators to measure progress throughout different groups of the population
Target the right scale of intervention (ranging from the neighbourhood to the metropolitan scale)
Build strategic partnerships across levels of government and across society
Tap innovative sources of financing
Explore the potential of digitalisation

Source: Authors' own elaboration.

Conclusions

Building on the global momentum to ensure "cities for all" and give every resident "the right to the city" in which he or she lives,[13] this chapter put forward a framework and concrete policy options to make sure that everyone has a chance to join in the growth of his or her city (summarised in Table 5.6). Drawing on a wide variety of practical policy experiences in cities around the world, this chapter showed that fostering more inclusive growth in cities requires solid partnerships between local authorities and other stakeholders (including higher levels of government, businesses, universities, civil

society, etc.). Among the myriad of policy areas that contribute to urban growth, the analysis focused on five areas that are most readily actionable by city leaders: jobs, education and skills, housing, transport, and health and environment. The chapter also identified a set of key steps to support change in cities, regardless of specific policy domains. Such steps include establishing a set of targets and indicators to guide public policies and identifying the right scale at which the latter should be implemented. A clear understanding of how different stakeholders contribute to such policies is also necessary to facilitate implementation and improve local capacity where needed. Lastly, cities can tap into innovative sources of financing and explore the potential of digitalisation to make their communities stronger and more inclusive.

Notes

1. Drawing on the policy paper on national urban policies that was co-led by the OECD in preparation for the UN-Habitat New Urban Agenda, a forthcoming OECD report on national urban policies will assess the current state of national policies in OECD countries.
2. Subnational spending by sector provides a standard measure of the distribution of spending responsibilities among the different levels of government in a country. However, spending indicators should be interpreted with caution, as they tend to overestimate the level of decentralisation (OECD, 2016b). Subnational governments, for example, may be responsible for a certain economic function but not have full autonomy in exercising it.
3. In Belgium, Germany, Spain, Switzerland and the United States, subnational government educational expenditure represents more than 75% of public spending in this sector. These are all federal countries, where states have a high level of autonomy in educational matters, including vocational teaching and higher education (universities). Finally, in some countries, education is decentralised not at subnational government level but directly at the level of education institutions, which may be independent special-purpose governance (e.g. school districts in the United States).
4. The dimensions in Table 5.5 cover both material conditions (income, jobs, housing) and quality of life (such as education, environment). The choice of the dimensions follows the framework of the OECD *Regional Well-being Database*, https://www.oecdregionalwellbeing.org.
5. Many countries are, however, moving away from public ownership and increasingly relying on private non-profit and for-profit providers.
6. Examples include the pioneering inclusionary zoning programme in Montgomery County, Pennsylvania, and the more recent "Inclusionary Development Policy" initiative in Boston, Massachusetts introduced in 2000.

7. The 2016 OECD/ITF Summit included a session on "Inclusive urban transport planning for more equitable growth"; see: http://2016.itf-oecd.org/inclusive-urban-transport-planning-more-equitable-growth.

8. For more details, see the 2016 OECD/ITF Summit website: http://2016.itf-oecd.org/inclusive-urban-transport-planning-more-equitable-growth.

9. The impact of high cigarette taxes on low-income households, however, remains a debated issue. For example, a study conducted for the New York State Department of Health based on data from the 2010-11 New York and national Adult Tobacco Surveys assessed the financial burden of cigarette taxes on low-income families. The study found that among the 13 000 smokers surveyed in New York state, lower income smokers spent 23.6% of their income on cigarettes, compared to 2% for higher income residents and an average of 14% among lower income smokers nationally (Farrelly, Nonnemaker and Watson, 2012). The study suggested that to maximise the public health benefits of cigarette excise taxes in New York state, efforts to reduce tax evasion should be conducted in combination with additional targeted programmes to help low-income smokers quit as well as other programmes targeting the poor (e.g. expanded access to affordable health insurance, food stamp programmes, etc.).

10. For example, the US Environmental Protection Agency (EPA) has defined environmental justice as a situation where "everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work" (OECD, 2012d). Other governmental agencies in the United States have adopted the concept of environmental justice in their own policy field. For example, the US Department of Transportation has defined three fundamental principles of environmental justice for the Federal Highway Administration and the Federal Transit Administration: 1) to avoid, minimise or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations; 2) to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and 3) to prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations.

11. For more information, see: http://us-city.census.okfn.org.

12. For more information, see: http://publicdata.eu.

13. For more information, see UN-Habitat (2010).

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