



# How's Life in the Province of Córdoba, Argentina?





# **How's Life in the Province of Córdoba, Argentina?**

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

**Please cite this publication as:**

OECD (2019), *How's Life in the Province of Córdoba, Argentina?*, OECD Publishing, Paris,  
<https://doi.org/10.1787/97f189b1-en>.

ISBN 978-92-64-35229-2 (print)

ISBN 978-92-64-98070-9 (pdf)

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.

Corrigenda to OECD publications may be found on line at: [www.oecd.org/about/publishing/corrigenda.htm](http://www.oecd.org/about/publishing/corrigenda.htm).

© OECD 2019

---

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).

---

## Foreword

Measuring regional well-being is an important tool for local and regional governments to address the needs of citizens and identify the policy domains that can have the highest impact on people's lives. This publication is part of the OECD's *How's Life in Your Region* series, which seeks to measure well-being at regional and local levels. The series was launched in 2014 as part of the OECD *Better Life Initiative* with the OECD report *How's Life in Your Region?* (2014). Since then, the OECD has made available a set of well-being indicators for more than 400 regions across 11 dimensions of life. This has also provided a framework to understand the role of regions and cities in the national well-being agendas. Examples include the two reports "*Measuring well-being in Mexican states*" (2015) and "*Well-being in Danish cities*" (2016).

This report is the result of a two-year policy dialogue with 50+ stakeholders of the province of Córdoba (Argentina), as part of the regional government's commitment to placing people and the communities they live in at the centre of public policy, using reliable data to improve decision making and enhance citizens' trust in government. This dialogue is a direct follow-up to the *OECD Territorial Review of Córdoba, Argentina* (2016), which recommended, in particular, developing a multidimensional well-being framework to account for where people live and work to better guide regional development policies.

This report applies the OECD Regional Well-Being Framework to the province of Córdoba, Argentina, to analyse its performance against other regions in OECD countries, and, on that basis, provide policy recommendations to improve regional development policies. The report builds on a household survey (2018 Well-being Survey) carried out across the four main urban agglomerations of the province, namely Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco, which together account for 55% of the province's population. This survey, co-designed with the OECD, was instrumental to collect new data for 30 objective and subjective indicators across 12 well-being dimensions.

The data and policy analysis presented in this report are important milestones of the work the OECD is carrying out to assist governments in implementing policies that raise the well-being of citizens.

## *Acknowledgements*

This report was prepared by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) led by Lamia Kamal-Chaoui, Director, as part of the Programme of Work and Budget of the Regional Development Policy Committee (RDPC). The report was co-ordinated and drafted by Antonio Canamas Catala, Policy Analyst, and Marcos Diaz Ramirez, Statistician, under the supervision of Aziza Akhmouch, Head of the Cities, Urban Policies and Sustainable Development (CITY) Division, and Paolo Veneri, Head of the Statistics and Territorial Analysis Unit in the Economics, Statistics and Multi-level Governance (ESG) Section of CFE.

The OECD Secretariat is grateful for the high-level political impetus and commitment from the Governor of the province of Córdoba, Juan Schiaretti, and the Secretary General of the regional Government, Silvina Rivero. Special thanks are herein conveyed to the excellent local team directed by Juan Ferreiro, Secretary of Institutional Strengthening, and composed of Mariano Plencovich, Director of Open Government and Public Sector Strengthening; Hector Conti, Director of the Provincial Department of Statistics and Census; and Daniel Ortega, Director of Socio-demographic Statistics. Other members of the local team included Mauricio Caggia, Melisa Gorondy Novak, Lara Cerban, Regina Cavallín, Juan Tello, Cecilia Senmartin, Pablo Ávila, Florencia Bertolino, Martín Carola, Antonella Comello, Maximiliano Iglesias, Laura Mariani, Maria Ana Piva, and Pilar Trejo. They are warmly thanked for their excellent support and cooperation throughout the policy dialogue underlying the project.

The project benefitted from insights from several peer reviewers who contributed through their valuable expertise and country experience, participated in the missions and provided examples of best practices, namely: Alessandro Alasia, Chief of the Data Exploration and Integration Lab, Statistics Canada and Chair of the OECD Working Party on Territorial Indicators; Alexandra Stephanie Boyer, Head of Office for Survey Design at the National Institute of Statistics and Geography of Mexico (INEGI), and Paola Gadsen, former Chief of Staff of the Government of the State of Morelos (Mexico).

The draft report was shared for comments with 50+ stakeholders from the province, who were engaged throughout the policy dialogue via interviews, seminars, and workshops and who are thanked for their valuable feedback, notably: Miguel Civallero and Germán Bossa (Secretariat for Equity and Employment Promotion), Deborah Petrakovsky (Ministry of Social Development), Leandro García and Iván Ambroggio (Ministry of Public Works and Investment), Gabriel Testagrossa, Mauro Peiretti, Aldo Bas and Cristian Tosco (Ministry of Water, Environment, and Public Services), Ana Segada (Ministry of Labour), Nicolás de Mori (Ministry of Education), Diego Alonso and Alejandro Gauto (Ministry of Health), Gabriel Roberi (Secretariat of Communications and Connectivity), and Roberto González (Ministry of Government).

An earlier version of this report was discussed at the 35th meeting of the Working Party on Territorial Indicators (WPTI) on 6 November 2018. The report was submitted for approval by written procedure to the Regional Development Policy Committee on 1 August 2019 under the cote CFE/RDPC/TI(2018)7/REV1. Marco Biagetti, Office of the Undersecretary to the European Affairs (Presidency of the Council of Ministers), is also thanked for his comments.

Special thanks are extended to Pilar Philip and François Iglesias in CFE for preparing the report for publication, and to Eric Gonnard in CFE for providing statistical support.

## *Table of Contents*

<b>Foreword</b> .....	<b>3</b>
<b>Acknowledgements</b> .....	<b>4</b>
<b>Abbreviations and acronyms</b> .....	<b>8</b>
<b>Executive summary</b> .....	<b>10</b>
<b>Chapter 1. Why measure well-being in Cordoba?</b> .....	<b>13</b>
Introduction: Why measure regional well-being?.....	14
Roles and responsibilities for well-being policies in the province of Córdoba .....	16
Well-being Survey 2018 .....	22
Conclusion .....	28
Note.....	29
References.....	29
<b>Chapter 2. Overview of regional well-being in Córdoba</b> .....	<b>31</b>
Introduction: Indicators for measuring well-being .....	32
General overview of well-being in the Córdoba agglomerations .....	34
Income .....	39
Housing.....	44
Jobs .....	47
Education .....	53
Work-life balance .....	56
Health.....	60
Access to services .....	64
Security .....	66
Environment.....	68
Civic engagement and governance .....	72
Community and social support .....	76
Life satisfaction.....	78
Composite indicators for each well-being dimension.....	80
Notes .....	83
References.....	83
<b>Chapter 3. Well-being indicators for regional development</b> .....	<b>87</b>
Introduction: Well-being in the Córdoba agglomerations .....	88
Use of well-being indicators to strengthen Córdoba’s regional sustainable development strategy ...	93
Advancing the statistical agenda.....	102
Improving governance to foster regional development .....	109
Policy recommendations.....	116
Note.....	118
References.....	118

## Tables

Table 1.1. Assignment of well-being responsibilities across levels of government.....	17
Table 1.2. Spending on social services (2018).....	18
Table 1.3. Spending on social services, 2014–18.....	19
Table 1.4. Current revenue in Córdoba province’s 2018 budget.....	20
Table 1.5. Trend and composition of provincial tax revenues .....	21
Table 1.6. Territorial characteristics of the Córdoba agglomerations .....	26
Table 2.1. Selected indicators for measuring well-being in Córdoba.....	32
Table 2.2. Income in the Córdoba agglomerations.....	43
Table 2.3. Housing in the Córdoba agglomerations .....	47
Table 2.4. Jobs in the Córdoba agglomerations.....	52
Table 2.5. Education in the Córdoba agglomerations .....	56
Table 2.6. Work-life balance in the Córdoba agglomerations.....	59
Table 2.7. Health in the Córdoba agglomerations .....	64
Table 2.8. Access to services in the Córdoba agglomerations .....	65
Table 2.9. Security in the Córdoba agglomerations .....	67
Table 2.10. Civic engagement in the Córdoba agglomerations.....	75
Table 2.11. Social support in the Córdoba agglomerations.....	78
Table 2.12. Life satisfaction in the Córdoba agglomerations.....	79
Table 2.13. Indicators used for rankings .....	82
Table 3.1. Well-being indicator values for the Córdoba agglomerations.....	88
Table 3.2. Regional development priorities and the SDGs .....	95
Table 3.3. Examples of interdimensional well-being indicators .....	98
Table 3.4. Types of indicator for monitoring policies and programmes .....	99
Table 3.5. Provincial regional development funds operated by Córdoba’s municipalities .....	100

## Figures

Figure 1.1. OECD regional well-being framework: How’s life in your region?.....	15
Figure 1.2. Budget expenditures (2018).....	18
Figure 1.3. Tax revenues in the province of Córdoba by origin (%).....	20
Figure 1.4. Decentralised structure of the statistical infrastructure in Argentina.....	21
Figure 1.5. Location of the Córdoba agglomerations with respect to the province.....	27
Figure 2.1. Performance of the Córdoba agglomerations by well-being dimension .....	35
Figure 2.2. Household income.....	40
Figure 2.3. Exclusion rate based on income.....	42
Figure 2.4. Income inequality.....	43
Figure 2.5. Rooms per person, circa 2016.....	45
Figure 2.6. Dwellings without basic facilities, circa 2015 .....	45
Figure 2.7. Housing expenditure, circa 2015.....	46
Figure 2.8. Employment rate .....	48
Figure 2.9. Gender gap in the employment rate .....	49
Figure 2.10. Unemployment rate, circa 2016 .....	49
Figure 2.11. Long-term unemployment rate, circa 2016.....	50
Figure 2.12. Youth unemployment rate.....	51
Figure 2.13. Gender gap in unemployment rate .....	52
Figure 2.14. Adult education .....	54
Figure 2.15. Gender gap in adult education .....	54



Figure 2.16. Education of labour force.....	55
Figure 2.17. Intra-provincial differences in educational attainment of the labour force, 2018 .....	55
Figure 2.18. Employees working very long hours in OECD countries .....	58
Figure 2.19. Employees working long hours in Mexico’s regions.....	58
Figure 2.20. Intra-provincial differences in work-life balance.....	59
Figure 2.21. Infant mortality rates, circa 2015 .....	60
Figure 2.22. Life expectancy at birth.....	61
Figure 2.23. Life expectancy at birth gender gap, circa 2016 .....	62
Figure 2.24. Perceived health, circa 2015 .....	62
Figure 2.25. Gender gap in perceived health, circa 2015 .....	63
Figure 2.26. Intra-provincial differences in health, 2018 .....	63
Figure 2.27. Internet access .....	65
Figure 2.28. Homicide rate.....	68
Figure 2.29. Air pollution.....	69
Figure 2.30. Evolution of the Air pollution in the Province of Córdoba, 1995-2017 .....	71
Figure 2.31. Air pollution in the Argentinian provinces, 2017 .....	71
Figure 2.32. Air pollution in Córdoba’s departments, 2017.....	72
Figure 2.33. Voter turnout.....	73
Figure 2.34. Volunteering in OECD countries.....	74
Figure 2.35. Volunteering in Mexico’s regions.....	74
Figure 2.36. Intra-provincial differences in volunteering, 2018.....	75
Figure 2.37. Social network support, 2006-14 .....	77
Figure 2.38. Life satisfaction, 2006-14 .....	80
Figure 2.39. Ranking of the Córdoba agglomerations by well-being dimension.....	81

## Boxes

Box 1.1. Federal structure of Argentina .....	16
Box 1.2. Provincial Council for Social Policies .....	23
Box 2.1. Calculation of scores for well-being dimensions.....	37
Box 2.2. How are the TL2 regions defined?.....	38
Box 2.3. Income measurement and income distribution .....	41
Box 2.4. Measuring work-life balance .....	57
Box 2.5. Measuring personal security .....	66
Box 2.6. Measuring environmental quality .....	70
Box 2.7. Measuring community and social support .....	76
Box 2.8. Measuring subjective well-being.....	78
Box 3.1. Examples of linking regional development with well-being indicators.....	96
Box 3.2. Public funds and well-being indicators in Latin America.....	101
Box 3.3. Degree of urbanisation of Córdoba.....	103
Box 3.4. Functional urban areas .....	105
Box 3.5. Using official records to evaluate policies and programmes .....	106
Box 3.6. Examples of open data policies in the OECD.....	108
Box 3.7. Municipalities and communes in the province of Córdoba .....	111
Box 3.8. Associations of municipalities in the OECD .....	112
Box 3.9. Legislative mechanisms to support regional well-being initiatives .....	115

## *Abbreviations and acronyms*

<b>ANCI</b>	Association of Italian Municipalities <i>Associazione Nazionale Comuni Italiani</i>
<b>ARS</b>	Argentine Peso
<b>BIARE</b>	Self-reported Well-being Module <i>Módulo de Bienestar Autorreportado</i>
<b>BR</b>	Canada's Business Register
<b>CAF</b>	Andean Development Corporation <i>Corporación Andina de Fomento</i>
<b>CEPS</b>	Social Programme Catalogue <i>Catálogo Estatal de Programas Sociales</i>
<b>CKAN</b>	Comprehensive Knowledge Archive Network
<b>COEVAL</b>	Social Development Evaluation Commission <i>Comisión Estatal de Evaluación del Estado de Morelos</i>
<b>CPSP</b>	Provincial Council for Social Policies <i>Consejo de Políticas Sociales Provincial</i>
<b>DGEyC</b>	Directorate of Statistics and Censuses of the province of Córdoba <i>Dirección General de Estadística y Censos</i>
<b>EAHU</b>	Annual Urban Household Survey <i>Encuesta Anual de Hogares Urbanos</i>
<b>ENOE</b>	National Survey of Occupation and Employment <i>Encuesta Nacional de Ocupación y Empleo</i>
<b>EPH</b>	Continuous Household Survey <i>Encuesta Permanente de Hogares</i>
<b>EU-SILC</b>	European Union Statistics on Income and Living Conditions
<b>FAIS</b>	Social Infrastructure Contributions Fund <i>Fondo de Aportaciones para la Infraestructura Social</i>
<b>FRIL</b>	Local Initiative Regional Fund <i>Fondo Regional de Inversión Local</i>
<b>FOCOM</b>	Supplementary Infrastructure Works Fund for Municipalities, Communes and Regional Communities <i>Fondo Complementario de Obras de Infraestructura para Municipios, Comunas y Comunidades Regionales</i>
<b>FUA</b>	Functional Urban Area
<b>GDP</b>	Gross Domestic Product
<b>GIS</b>	Geographical Information Systems
<b>GRI</b>	Global Reporting Initiative
<b>ICT</b>	Information and Communications Technology
<b>INDEC</b>	National Statistics and Censuses Institute <i>Instituto Nacional de Estadística y Censos</i>
<b>INEGI</b>	National Institute of Statistics and Geography of Mexico <i>Instituto Nacional de Estadística y Geografía</i>
<b>IPCN</b>	National Consumer Price Index <i>Indice de Precios al Consumo Nacional</i>
<b>IPS</b>	Social Priority Index <i>Indice de Prioridad Social</i>
<b>LFE</b>	Linkable File Environment

<b>MCV</b>	Living Conditions Monitoring Survey <i>Encuesta de Monitoreo de Condiciones de Vida</i>
<b>MDG</b>	Millennium Development Goals
<b>MPHWP</b>	Municipal Public Health and Well-being Plan
<b>NBI</b>	Basic Unmet Needs <i>Necesidades Básicas Insatisfechas</i>
<b>NGO</b>	Non-governmental organisation
<b>OECD</b>	Organisation for Economic Co-Operation and Development
<b>ONA</b>	National Learning Scheme <i>Operativo Nacional Aprender</i>
<b>ONE</b>	National Education Scheme <i>Operativo Nacional de Educación</i>
<b>PAICOR</b>	Córdoba Comprehensive Assistance Program <i>Programa de Asistencia Integral de Córdoba</i>
<b>PIN</b>	Personal ID Number
<b>PM</b>	Particulate matter
<b>PPP</b>	Purchasing power parity
<b>QEN</b>	Quebec Enterprise Number
<b>SEIFA</b>	Australia's Socio-Economic Indexes for Areas
<b>SEN</b>	National Statistical System <i>Sistema Estadístico Nacional</i>
<b>SUBDERE</b>	Deputy Secretary of Administrative and Regional Development <i>Subsecretaría de Desarrollo Regional y Administrativo</i>
<b>TL2</b>	Territorial Level 2
<b>TL3</b>	Territorial Level 3
<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>USD</b>	US Dollar
<b>VVSG</b>	Association of Flemish Cities and Towns <i>Vereniging van Vlaamse Steden en Gemeenten</i>
<b>WHO</b>	World Health Organisation

## *Executive summary*

The province of Córdoba, Argentina, recognises the importance of measuring regional well-being to design and implement better regional development policies. It counts a wide array of programmes, aiming to improve well-being outcomes in areas such as education, health, safety, and employment, among others. To support more effective, efficient and inclusive policies, the province has applied the OECD regional well-being framework and defined a set of 30 indicators for measuring 12 dimensions of well-being. This was a major statistical effort to collect granular and up-to-date data from a new household survey in 2018. This rich base of evidence is expected to help policy makers in setting ambitious priorities and targets, and in facilitating co-ordinated action across different policy areas and levels of government.

As in OECD countries, in Argentina, regional governments play a key role to improve well-being outcomes. The province of Córdoba, for example, has exclusive responsibility for pre-school, primary and secondary education, education for special groups and adults, as well as professional and technical training. Other areas of provincial responsibility include social housing, environment and citizen security. As such, the bulk of provincial government spending, around 48% of expenditure of the 2018 budget, is dedicated to providing social services, including health, education, jobs and housing, among others.

This report assesses citizens' well-being in the province of Córdoba, Argentina, particularly in the four major agglomerations of the province that are Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco, and compares living standards to those observed in other OECD regions. Around 2 million people (55% of the province's population) live in these four agglomerations. The report also provides guidance on how to use the set of well-being indicators for stronger and more inclusive regional development in the province of Córdoba.

Key findings of this report show that Córdoba's four largest agglomerations display above average living standards compared to peer Latin American regions, but lag behind in some well-being dimensions compared to other OECD regions. In particular:

- Córdoba's population enjoys high levels of community and social support, as well as life satisfaction, ranking in the top 5% and top 20% of OECD regions, respectively.
- Compared to regions in Chile and Mexico, people in the Córdoba agglomerations have higher levels of educational attainment, participate more in elections and are less likely to be victims of violent crimes.
- Income in Córdoba agglomerations is equivalent to 80% of the OECD average, but lower than in 60% of OECD regions. At the same time, when examining the distribution of income, the agglomerations present lower levels of inequalities than most OECD regions, well below the majority of their Latin American peers.
- In terms of housing, the four agglomerations perform just slightly above the bottom 20% of OECD regions.

- Lastly, and primarily due to a low life expectancy at birth and above average infant mortality rates, the Córdoba agglomerations rank among the bottom 20% of the OECD regions in the health dimension.

There are also notable differences across the four agglomerations in areas such as jobs, housing and work-life balance:

- Youth unemployment and informal employment rates are considerably different from one agglomeration to the other. Whereas in Villa María-Villa Nueva the youth unemployment rate is close to 11%, in Gran Córdoba it is as high as 27%.
- Whereas in Río Cuarto-Las Higueras only 2% of people live in dwellings without access to a private indoor flushing toilet connected to sewer lines or to a septic tank, in San Francisco the equivalent indicator goes up to 11.4%. On the other hand, San Francisco is the best performing agglomeration in terms of housing space, home ownership and housing expenditure on rent.
- Inequalities in work-life balance are in some cases associated to the population size of the agglomeration. While 39% of Gran Córdoba's inhabitants take over 30 minutes to get to their main place of work, this is the case only for 4% of the inhabitants of San Francisco, the smallest agglomeration of the province.

The report's assessment suggests that gender inclusion is an area of improvement that requires specific attention. Gender gaps in unemployment are considerably higher in the agglomerations of Córdoba (3.6 percentage points) than in the OECD (1.7 percentage points). Gender disparities in the labour market are also reflected in the income of households. Male-headed households report average incomes 20% higher than female-headed ones. This is even more surprising given that the proportion of women with at least upper secondary education is considerably greater than that of men (by at least 5 percentage points).

The report suggests three priority actions for the province to use the regional well-being framework as a policy tool to improve regional development outcomes:

- **Ensure that well-being indicators guide future decision-making.** In light of the agglomerations' performance, the primary objective should be to mainstream the well-being metrics across all levels of government, notably at the provincial level, to inform and guide decision-making. Well-being indicators can indeed help the provincial administration set regional development objectives that are measurable, define multidimensional well-being indicators to manage complementarities across policies, redesign public investment priorities, and link existing social programmes with well-being outcomes.
- **Continue strengthening and modernising the provincial statistical system to expand the evidence-base.** The 2018 Well-being Survey has provided a major source of new data for the four agglomerations in the province of Córdoba. Moving forward, the Well-being Survey could expand its geographical scope to secondary cities and rural areas through alternative and less costly methods. For instance, the use of administrative registers has great potential to expand the availability of data for selected well-being dimensions, while the ongoing open data agenda can enhance trust in and accountability of the provincial government.
- **Strengthen governance arrangements for more effective, efficient and inclusive regional development policy outcomes.** For instance, a single register

of social programmes' beneficiaries could help improve the effectiveness in programme implementation and further enhance cooperation between the provincial and municipal governments to better target the most disadvantaged population groups. Lastly, the results show that municipalities within metropolitan areas usually face similar types of challenges and would benefit from greater inter-municipal cooperation and metropolitan governance to achieve economies of scale and deliver services more efficiently to improve well-being outcomes.

## Chapter 1. Why measure regional well-being in Cordoba?

*This chapter discusses the need to assess people's well-being at the regional and local level and the importance of well-being metrics in improving the impact of well-being policies. It also introduces the multidimensional framework the OECD has developed to measure well-being in regions and cities. It then discusses roles and responsibilities of the province of Córdoba in well-being policies, the resources the province devotes to fulfil those responsibilities and the province's institutional capacity to develop metrics that will help make its well-being policies more effective and efficient. Lastly, it explains the process of developing a well-being indicator framework in Córdoba.*

## Introduction: Why measure regional well-being?

There is currently a consensus that macroeconomic statistics on their own do not accurately reflect people's well-being. A multidimensional perspective is required to take into account other aspects that affect people's lives (OECD, 2014).

Many of the factors that have an impact on people's well-being, such as jobs, access to education, environmental quality and public safety, differ from community to community. The OECD has shown that the differences between regions within a country in these areas of well-being can be at least as significant as the differences between countries (OECD, 2016a).

Measures of regional well-being reflect differences that can be masked in national averages. The geography of regional well-being can help regions benchmark their performance against that of other regions in their country, or regions in other countries that show similar strengths and face similar challenges. Data on well-being at a subnational level, though sometimes scarce, help give credibility to statistics, as people are more likely to acknowledge the information provided by indicators when they relate to their own community (OECD, 2014).

Public policies – such as those focusing on economic growth, jobs, education, fairness or environmental sustainability – are more likely to achieve their goals and have a deeper impact if they take account of the economic and social realities of the place in which people live and work (OECD, 2014). The determinants of school dropout rates, for instance, can vary considerably between rural and urban areas, between cities, and even between neighbourhoods in the same city. In rural areas, the problem may be lack of transport or schools, whereas in urban neighbourhoods it may have to do with crime rates. Policy makers can more easily identify potential synergies among policy areas in specific places. An education policy that keeps young people out of trouble can be more easily combined with an increase in citizen security if it is attempted at neighbourhood level.

### *Advantages of regional well-being metrics*

Well-being data at the subnational level is often less extensive than at national level. For that reason, many regions and cities have started developing metrics to monitor their own performance and design well-being policies based on evidence. These initiatives may differ in their methods and choice of indicators, but they all aim to develop a multidimensional framework so as to more accurately reflect the synergies among the different well-being dimensions.

The four key benefits of using regional well-being metrics in the design and implementation of public policies can be summed up as follows:

- Well-being metrics provide a comprehensive picture of material conditions and quality of life in regions, making it possible to assess whether economic growth translates into better outcomes in other dimensions such as health, environmental quality, education, etc. They can also be used to monitor whether the progress experienced by the population varies according to where people live. This is important because spatial concentration of inequality sources can jeopardise opportunities to improve living conditions for households located in certain communities.
- Regional well-being metrics raise social awareness of policy objectives and increase government accountability. They can empower people to demand action



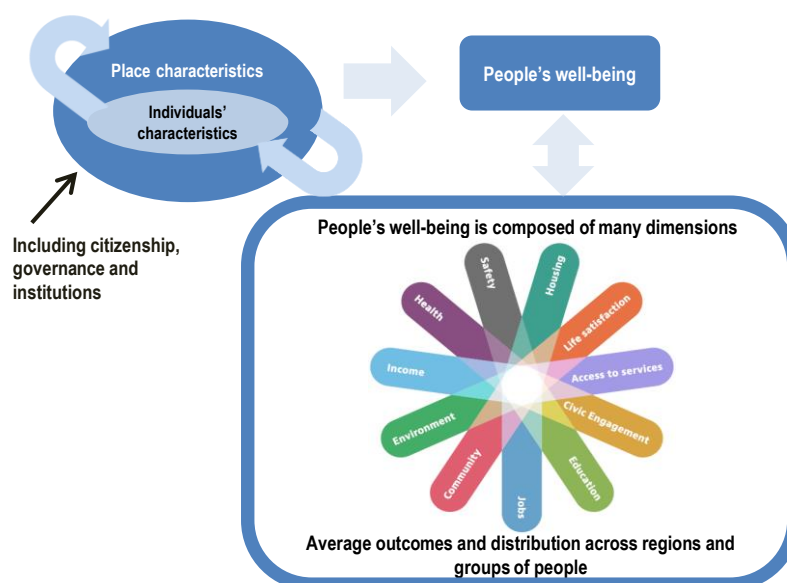
to address the challenges that the indicators have brought to light and, in the mid to long term, enhance trust in their institutions' ability to meet those challenges.

- They can help prioritise government actions by indicating where improvements are most needed. The use of well-being metrics helps focus efforts and make government action more effective, especially when public resources are limited.
- Regional well-being metrics can improve consistency between policy objectives, as the complementary nature of policies is most evident when they relate to specific places. For example, integrating land-use, transport and economic development policies so as to produce outcomes that are greener (increasing reliance on public transport), more equitable (improving access to labour markets for disadvantaged areas) and more efficient (reducing congestion) will be easier if these policies are designed for a specific place, such as a region or metropolitan area (OECD, 2014).

### *The OECD's regional well-being framework*

In view of the growing interest in well-being metrics at regional and local levels, the OECD decided to adapt its national “*How's life?*” framework to the subnational level. In the OECD's regional framework, well-being is understood as a multidimensional concept that emphasises what matters to people, is focused on outcomes (rather than on inputs and processes) and highlights the need to go “beyond averages” to analyse the distribution of well-being among individuals and social groups (e.g. by gender, age, ethnic origin or nationality), as well as between regions and countries (Figure 1.1). A key feature that “*How's life in your region?*” adds to the “*How's life?*” framework is the notion that well-being is made up of a combination of individual and place characteristics. Having a job, for example, is a crucial aspect of well-being which is determined, on the one hand, by characteristics of the individual such as skills and education and, on the other, by contextual factors such as access to training, transport and labour markets.

**Figure 1.1. OECD regional well-being framework: How's life in your region?**



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

Information about people and places helps better understand the particular advantages and disadvantages of a territory and whether the various sources of inequality, both individual and place-based, are mutually reinforcing (OECD, 2014). A similar approach to measure well-being, i.e. combining individual and place-based characteristics, was recently adopted in the “Good Life” initiative in Southern Denmark (OECD, 2016b) and in Australia’s Socio-Economic Indexes for the Areas (SEIFA) (Australian Bureau of Statistics, 2011).

To put the OECD Regional Well-being Framework into effect, a set of comparable indicators was developed to measure outcomes in 11 well-being dimensions in 391 OECD regions.<sup>1</sup> Many of these indicators are equivalent to the ones used in the “*How’s life?*” framework at national level. The regional framework includes an “Accessibility to services” dimension, instead of the Work-life balance dimension used in the *How’s life?* Framework since the latter could not be included due to lack of harmonised data for OECD regions.

### Roles and responsibilities for well-being policies in the province of Córdoba

Because of Argentina’s federal structure, Córdoba province and its municipalities are responsible for many of the policies that have a very direct impact on people’s lives (Box 1.1). Many decisions in sectors such as education, health, access to services, etc. are taken at provincial and municipal level. The provincial-level responsibilities may include both policy making and policy execution, which translates into expenditure and investment by these sub-national levels of government.

#### Box 1.1. Federal structure of Argentina

Argentina is a federal state with three levels of government: i) the national level, with a democratically elected executive and a bicameral legislature; ii) the provincial level, with 23 provinces plus the autonomous city of Buenos Aires; and iii) the municipal level. All responsibilities and powers not delegated by the constitution to the national government are in the hands of the provinces. Moreover, each province has its own constitution and government institutions. The provincial constitutions define the institutional, political, administrative, economic and financial scope of each provincial government. The provinces may create regions (sometimes called departments) within their administrative boundaries for the purpose of economic and social development. They may also enter into international agreements, provided such agreements are notified to the national Congress, are not incompatible with national foreign policy and do not infringe upon the delegated powers of the national government. The national constitution requires that provincial governments guarantee municipal autonomy and establish municipal systems and rules as part of their own provincial constitutions.

Source: OECD (2016b), *OECD Territorial Reviews: Córdoba, Argentina*, <https://doi.org/10.1787/9789264262201-en>.

#### *Well-being responsibilities between levels of government*

The province has exclusive responsibilities in some policy areas that have an impact on dimensions of the OECD regional well-being framework (Table 1.1). The provincial government has exclusive responsibility for pre-school, primary and secondary education, education for special groups and adult education as well as citizen security.

The province also shares some regional well-being responsibilities with the federal government and the municipalities. The federal government and the province share responsibilities in areas such as income compensation and unemployment protection, employment promotion and funding plans, tertiary education (universities) and internet access (Table 1.1). The responsibilities shared with the municipalities are mainly related to the provision of basic services such as electricity, water, and secondary and tertiary hospitals. Some policy areas are the exclusive responsibility of the municipalities; these include sewers, solid waste collection and disposal, primary hospital care, urban development and regulation.

**Table 1.1. Assignment of well-being responsibilities across levels of government**

Well-being dimension	Policy area	Institutional level		
		Federal	Provincial	Municipal
Work-life balance	Public transport	X	X	X
Public services	Electricity		X	X
	Gas	X	X	
	Telephone	X	X	
	Internet	X	X	
	Water		X	X
	Sewers			X
	Solid waste collection			X
	Solid waste disposal			X
Jobs	Regulation	X	X	X
	Employment promotion and funding plans	X	X	
	Formal training	X	X	X
Education	Pre-school, primary and secondary education, education for special groups and adult education		X	
	Tertiary (university)	X	X	
	Professional and technical training	X	X	
Healthcare	Primary			X
	Hospitals (secondary and tertiary)		X	X
Housing	Social housing	X	X	
	Urban development			X
Income	Income compensation	X	X	
	Unemployment protection	X	X	
	Social care	X	X	X
	Support for people with disabilities	X	X	
Citizen security	Prevention		X	
	Police		X	

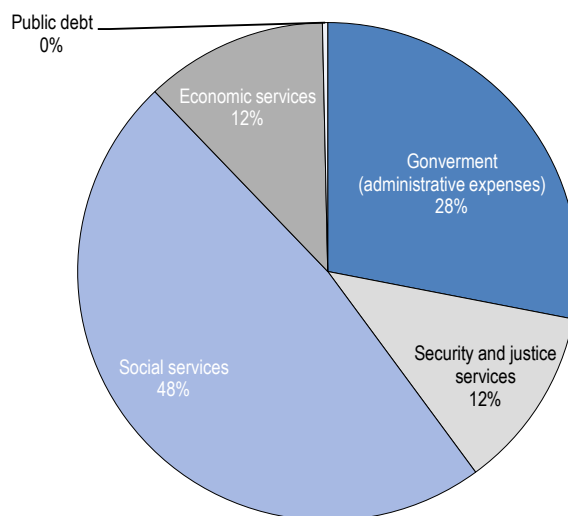
*Note:* The assignment of responsibilities to the different institutional levels may vary between provinces, as each province has its own constitution.

*Source:* OECD (2016b), *OECD Territorial Reviews: Córdoba, Argentina*, <https://doi.org/10.1787/9789264262201-en>.

### *Provincial spending on well-being policy areas*

The bulk of provincial spending in Córdoba goes toward fulfilling responsibilities in the areas of well-being. Around 48% of expenditure in the 2018 budget went to social services, including health, social promotion and care, education and culture, science and technology, work, housing and city planning (Figure 1.2). Education takes the largest share (68.5%), followed by health (18.2%) (Table 1.2). In addition to the budget item classified as Social Services, 12% of provincial spending goes to security and justice. This includes expenditure on domestic security and the penal system (which could fall under the well-being dimension of “citizen security”).

**Figure 1.2. Budget expenditures (2018)**



*Note:* The numbers in the table are expressed in thousands of ARS.

*Source:* Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

**Table 1.2. Spending on social services (2018)**

Social services		Amount	Percentage of total social services spending
Health	Medical Care	11 685 707	15.76
	Environmental health	262 196	0.35
	Health administration	1 559 828	2.10
	<b>Total</b>	<b>13 507 731</b>	<b>18.22</b>
Social promotion and care	Social promotion	2 336 784	3.15
	Social Care	4 445 731	6.00
	Administration of social promotion and care	82 252	0.11
	<b>Total</b>	<b>6 864 767</b>	<b>9.26</b>
Education and culture	Initial and primary education	12 953 824	17.47
	Intermediate and technical education	14 662 314	19.77
	Higher and university education	2 377 605	3.21

Social services	Amount	Percentage of total social services spending
Special education	2 000 277	2.70
Education management	17 038 762	22.98
Culture	1 448 658	1.95
Sports and recreation	290 043	0.39
<b>Total</b>	<b>50 771 483</b>	<b>68.47</b>
Science and technology	<b>278 961</b>	<b>0.38</b>
Work	<b>251 503</b>	<b>0.34</b>
Housing and city planning	<b>2 480 768</b>	<b>3.35</b>
<b>Total</b>	<b>74 155 213</b>	<b>100.00</b>

Note: The numbers in the table are expressed in thousands of ARS.

Source: Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

Spending on social services at large remained at the same levels throughout the 2014-18 period, albeit with slight changes in the areas that consumed the most resources. Apart from a small peak in 2016, when social spending reached almost 52% of total provincial spending, the level of social spending has stayed within the 47%-48% range. It is worth noting that the proportion of spending on education and culture fell four percentage points between 2014 and 2018, mainly to the benefit of social promotion and care, whose share increased by almost five percentage points over that period (Table 1.3).

**Table 1.3. Spending on social services, 2014–18**

This table shows social spending as a percentage of the province's total spending in one budget year and the distribution of social spending by policy area

	2014	2015	2016	2017	2018
<b>Social services spending as a percentage of total spending</b>	<b>48.43</b>	<b>48.42</b>	<b>51.71</b>	<b>47.43</b>	<b>48.24</b>
Health	19.87	19.91	20.35	20.20	18.22
Social promotion and care	4.35	4.05	5.72	7.46	9.26
Education and culture	72.32	72.47	69.26	67.89	68.47
Science and technology	0.32	0.30	0.27	0.38	0.38
Work	0.32	0.36	0.34	0.35	0.34
Housing and city planning	2.81	2.91	4.06	3.74	3.35

Source: Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

### ***Income generation***

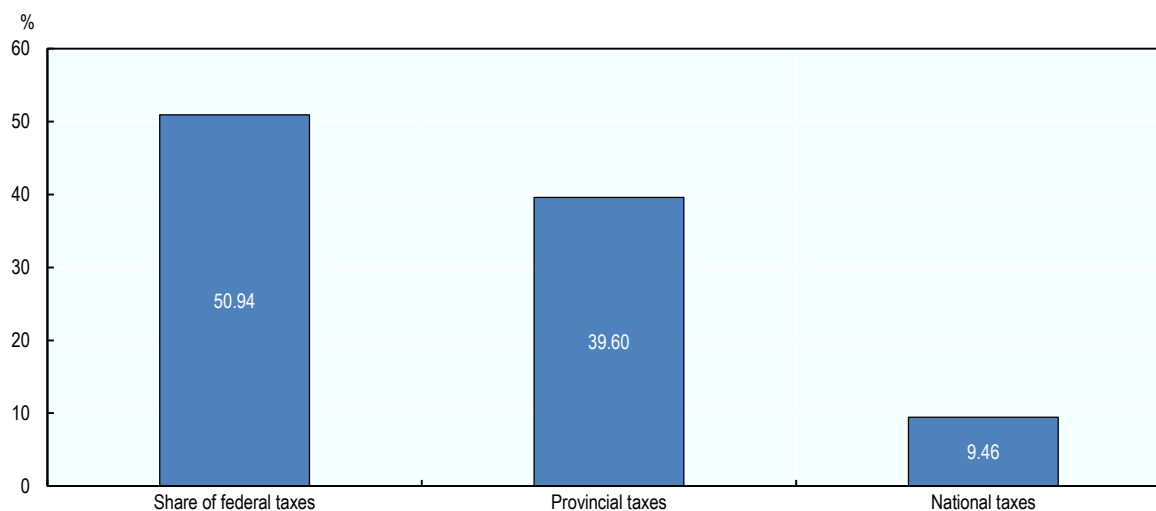
The province of Córdoba has some financial leeway in exercising its responsibilities in well-being (OECD, 2016b). Some 87.40% of projected total current revenue in the 2018 provincial budget consists of tax revenue (Table 1.4), approximately 51% of which comes from the share of federal taxes, 40% from provincial taxes and 9.5% from national taxes (Figure 1.3). This level of revenue-generating capacity is in line with the average for subnational governments in OECD countries (42%) (OECD, 2018).

**Table 1.4. Current revenue in Córdoba province's 2018 budget**

Current revenue		Amount	% of total revenue
Tax revenue	Provincial taxes	51 178 000	34.61
	Share of federal taxes	65 840 739	44.52
	National taxes	12 229 341	8.27
	<b>Total</b>	<b>129 248 080</b>	<b>87.40</b>
Non-tax revenue	Charges for services	1 494 120	1.01
	Non-tax funds	11 170 872	7.55
	<b>Total</b>	<b>12 664 992</b>	<b>8.56</b>
Rest	<b>Total</b>	<b>5 971 743</b>	<b>4.04</b>
<b>Total</b>		<b>147 884 815</b>	<b>100</b>

Note: The numbers in the table are expressed in thousands of Argentine pesos.

Source: Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

**Figure 1.3. Tax revenues in the province of Córdoba by origin (%)**

Source: Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

Córdoba is in a good position to finance well-being policies that contribute to regional development. A certain consensus has emerged that enabling subnational governments generate their own revenue helps promote more efficient resource management at subnational level and greater democratic responsibility, while also making subnational governments more resilient to economic impacts and crises. Taxes on immovable assets, such as the property tax, are also said to be especially appropriate at the subnational level, as they are relatively stable and therefore help prevent major budgetary fluctuations (Kim and Vammalle, 2012). Accordingly, since 2014 Córdoba has witnessed an increase in the rate of real estate tax, which has risen more than three percentage points, from 7.4% to 10.6% in 2018 (Table 1.5). Gross income tax, meanwhile, though still Córdoba's main

source of tax revenue (71.2% in 2018), has decreased as a proportion of the total since 2014.

**Table 1.5. Trend and composition of provincial tax revenues**

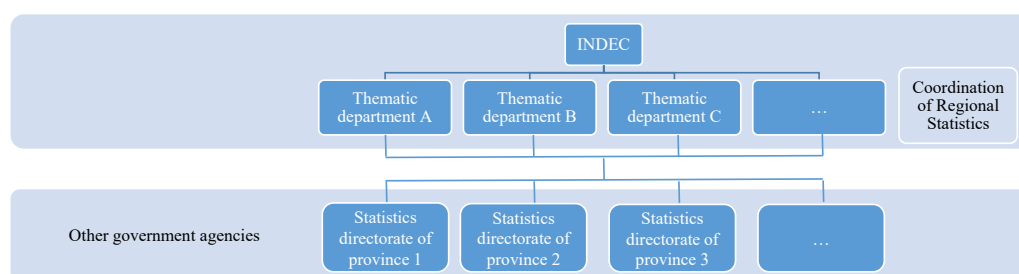
	2018	2017	2016	2015	2014
<b>Tax revenue from within the province (%)</b>	<b>39.60</b>	<b>38.56</b>	<b>38.50</b>	<b>40.35</b>	<b>39.25</b>
Tax on gross income	71.17	73.67	78.66	80.36	79.81
% of total provincial tax (by type of tax)					
Real estate tax	10.61	9.40	7.59	6.55	7.38
Stamp duty	13.85	12.78	10.33	9.99	9.13
Tax on vehicle ownership	4.35	4.15	3.41	3.10	3.68

Source: Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).

### ***Governance of well-being statistics and metrics***

Argentina has a decentralised statistical infrastructure framework in which provincial statistics departments cooperate with the national institute (Figure 1.4). Law no. 17622 (1968) created the National Statistics and Census Institute (*Instituto Nacional de Estadística y Censos*, INDEC) as the main governing body of the National Statistical System (*Sistema Estadístico Nacional*, SEN). SEN is made up of INDEC and the statistical services of the central, provincial and municipal government levels. INDEC's role is to structure and coordinate the national statistical system and comply with the principle of regulatory centralisation and executive decentralisation (Government of Argentina, 1968). For practical purposes, this means that INDEC must ensure technical cooperation with the provincial statistics departments.

**Figure 1.4. Decentralised structure of the statistical infrastructure in Argentina**



Source: Prepared by the authors.

Service agreements (*convenios*) are the instrument used in Argentina to coordinate the production of statistics. These service agreements are contracts between INDEC and the provincial statistics departments that specify the services that the provincial departments are to provide in return for a certain budget. The service agreements ensure unity of methodologies and synchronised operation, e.g. when the National Census is carried out every 10 years. The agreements may be general, covering a number of services (field work, microdata processing, etc.) or more than one project (national census, continuous household survey, etc.), or they may be specific, e.g. for a new security survey or an industrial activity survey.



Córdoba's Statistics and Census Department (*Dirección General de Estadística y Censos*, DGEyC) is part of SEN and, as such, is subject to certain obligations, which are regulated through the service agreements. The province of Córdoba created the DGEyC in 1972 through Provincial law no. 5454, in which INDEC is recognised as the body with oversight competencies for official statistics, the intention being that the DGEyC should respond to requests for statistics and information submitted by the provincial government (Córdoba Provincial Government, 1972). The services the DGEyC provides in collaboration with INDEC are specified in service agreements. A total of 16 surveys, censuses and statistical programmes are carried out by agreement, including the national consumer price index (IPCN), the continuous household survey (EPH) and the annual urban household survey (EAHU).

Like INDEC, the DGEyC is also responsible for coordinating statistics with government bodies at provincial level and with the municipalities and is also free to launch its own statistical programmes. Provincial law no. 5454 stipulates that the DGEyC may draw up an annual statistics and censuses programme that accommodates INDEC's requirements. It also gives the DGEyC the competence to launch its own statistical programmes to meet specific data requests at the provincial level. The Well-being Survey 2018 is an example of an initiative exclusive to the province of Córdoba, aimed at meeting the demand for data to provide a multidimensional picture of well-being (access to services, life satisfaction, work-life balance, etc.), beyond the purely monetary dimensions. This initiative is financed out of provincial funds and the survey design and implementation is led by the General Secretariat of Government (*Secretaría General de Gobernación*), where the DGEyC is located.

### Well-being Survey 2018

In view of the volume of resources devoted to fulfilling its well-being responsibilities and the growing demand for information by both governmental and non-governmental provincial actors, the provincial government was prompted to initiate the development of a well-being indicator framework that can meet some of the data demands. The OECD Territorial Review of the province of Córdoba (2016) emphasised that the lack of reliable and accurate statistics for policy design, monitoring and assessment was one of the main challenges faced by the province of Córdoba. The demand for data is accentuated in the province's rural areas, where basic well-being indicators such as employment and unemployment rates, total household income, incidence of poverty and deprivation are produced using census data every 10 years.

Assisted by the OECD, the General Secretariat of Government conducted a consultation with the various ministries and agencies responsible for regional well-being policies and also with non-governmental actors to select a set of indicators for measuring the 12 dimensions of well-being. Interviews were conducted with the Secretariat of Equity and Employment Promotion, the Ministry of Social Development, Ministry of Interior, Ministry of Education, Ministry of Health, Ministry of Water, Environment and Public Services and the Municipalities of Córdoba, Río Cuarto, Villa María and San Francisco. In addition, a workshop was conducted with the Provincial Council for Social Policies (*Consejo de Políticas Sociales Provincial*), which brings together organisations from the public, private, non-profit and academic sectors (Box 1.2).



### Box 1.2. Provincial Council for Social Policies

The Provincial Council for Social Policies (CPSP) is a platform designed to involve provincial actors across the public, private, non-profit and academic sectors, in designing and implementing social programmes. It is a consultative body for planning and coordinating the provincial policies in different social areas. The CPSP was established by Provincial decree 234/09, is chaired by the Minister of Social Development and is made up of civil society actors that have a commitment to and influence in provincial social policies (including representatives of NGOs, religious organisations, public and private universities, private actors, and municipalities and communes (*comunas*)).

It has two main objectives: first, to improve participation and coordination with civil society actors in monitoring and implementing social programmes and plans; and second, to be a body for consulting these actors on the planning and coordination of provincial policies. In line with the first objective, the CPSP started the Social Policy Observatory (*Observatorio de Políticas Sociales*). The Observatory is preparing a mapping of existing social programmes and their main features (goals, beneficiaries, resources, etc.). This mapping is intended to serve as a baseline for setting indicators to measure programme effectiveness and efficiency over time. As a response to the second objective, the CPSP launched “Ayudar”, a system for promoting social solidarity. This system has created a bank of social projects to be implemented by non-profit actors (NGOs) whose suitability has been validated by the CPSP. The projects will be eligible for public and private funding, since the decree establishing the “Ayudar” programme allows private sector actors (both organisations and individuals) to make donations to support project implementation.

*Source:* Córdoba Provincial Government (2009), *Provincial Decree no. 234/09*, <http://web2.cba.gov.ar/web/eyes.nsf/85a69a561f9ea43d03257234006a8594/ebf91cb9c0f2be5d0325793400482ac5?OpenDocument>.

### *Demand and need for well-being data in Córdoba*

The first step in designing the well-being indicator framework was to map provincial actors’ demands for data in the different phases of the policy cycle, including design, monitoring and implementation. These needs involved many of the dimensions of well-being, including education, health, housing and the environment. For policy makers in the ministries, monitoring and impact assessment of well-being programmes is perceived as a challenge and a more pressing need than the design phase. On the other hand, however, the general perception is that the DGEyC succeeds in meeting the demand for statistics in the province of Córdoba, even though the indicators are often based on estimates drawn from sources that are not very recent (e.g. the 2010 Census) but which the actors nevertheless consider sufficient, given the lack of other information.

The following sections present the main conclusions of the consultation with provincial actors.

### *Approximate data for policy and programme design*

To design policies and programmes that effectively and efficiently meet the needs of the population, policy makers require data in a wide range of domains. These data should help estimate target population (potential beneficiaries of a programme), resources required (e.g. food resources for a nutritional programme or economic resources for a subsidy), staff needed, timeframe of the programme (whether it is a one-off or a more long-term action)

or the scale at which it should be implemented (for a particular agglomeration or in a rural area).

The DGEyC has provided solutions that have enabled the various ministries and secretariats to design their programmes, although sometimes the information it provides consists of rough estimates. The DGEyC has been using approximate methods to provide target population estimates. The Ministry of Social Development's programme "Plan Vida Digna" (Decent Life Programme), for instance, is intended to deliver economic assistance to deprived households, so that they can make improvements to their homes. Over a four-year period, up to 30 000 loans of ARS 30 000 have been made available to the provincial population under this programme. To enable the ministry to design the programme, the DGEyC used the 2010 Census to calculate the distribution of dwellings in which there were likely to be people living in overcrowded conditions or without a bathroom. Another example is the "Tarifa Solidaria" (Social Tariff) programme, which helps vulnerable households by offering subsidised tariffs for electricity and water supply. The potential beneficiaries were estimated using census data cross-checked against employment, unemployment and underemployment data. In some cases, data on one particular programme that are known to be reliable have been used to estimate the potential beneficiaries of another programme. Examples include the PAICOR programme and the "Más Leche Más Proteínas" (More milk More proteins) nutritional programme. PAICOR has been delivering services to schoolchildren for nearly 30 years and so has reliable data on the target population and how it has evolved over the years. The Más Leche programme distributes milk powder to children in schools and the eligibility requirements are very similar to those of PAICOR. The authorities therefore decided to use the register of PAICOR beneficiaries to estimate the quantities of milk needed for the Más Leche programme and thus also the programme budget.

### *Insufficient policy monitoring and evaluation*

The main provincial actors agree that monitoring and evaluation should be implemented for all policy areas that have an impact on citizens' well-being. Regular, continuous monitoring of outcomes is a vital prerequisite to be able to effectively modify or redesign programmes that are proving less effective than they should be or that are found to be operating inefficiently and thus wasting public resources. Programme impact evaluation is crucial to decide whether a programme should be renewed, whether the target population should be adjusted so as to obtain a better return on the investment, or whether the programme has failed to meet its objective and so should be cancelled.

An obstacle to measure provincial programme impact evaluation was the failure to quantify non-monetary income as a share of household income. The continuous household survey (EPH) does not record whether an individual receives any kind of non-monetary income from sources such as social programmes. For example, PAICOR delivers nutritional aid to children of resource-poor households and so boosts a household's income by allowing it to save part of what would otherwise be spent on feeding the child. As explained in the next section of this document, the 2017 Living Conditions Monitoring Survey (*Encuesta de Monitoreo de Condiciones de Vida, MCV*) included an exercise aimed at quantifying the value of non-monetary programmes, which has been repeated in 2018 within the framework of the regional well-being survey.

Few impact evaluations have been carried out at provincial level. In 2012, CAF (*Corporación Andina de Fomento, CAF*), jointly with the provincial government, carried out an impact assessment of the ninth edition of the "Programa Primer Paso" (First Step

Programme). The First Step Programme is a provincial programme aimed at providing apprenticeships for young people aged 18 to 25. The results of the assessment led to numerous conclusions, which served to better understand the programme's effectiveness in combating informality. Some 60% of young people in the province between the ages of 16 and 25 are in informal employment. However, one year after completing the First Step Programme the proportion of beneficiaries registered as "formal workers" was 40% higher than that of non-beneficiaries. Another example is the former national education scheme, ONE (*Operativo Nacional de Educación*), now renamed to national learning scheme, ONA (*Operativo Nacional Aprender*), carried out by the national Ministry of Education. Although ONA is not an impact assessment for any specific programme, it allows, based on the assessment of student performance in each province in subjects such as mathematics and languages, to draw conclusions about education policies and their effects on the quality of education. One of the main challenges regarding the data from the former ONE scheme, however, was the delay of almost two years in becoming available to the provinces. With the new ONA, data gathering has improved and is now carried out in November, so that data are available by the following May.

### *Asymmetry of data availability in the province's urban and rural areas*

Provincial urban and rural areas are subject to a data and information asymmetry, with the more remote areas suffering a greater shortage of data for assessing regional well-being. According to the 2010 Census, 70% of the province's population lives in six departments (Capital, Punilla, Colón, Río Cuarto, San Justo and General San Martín) and the remaining 30%, in the other 20 departments. Those six departments contain the bulk of the province's urban population, while most of the population of the other 20 departments is located in rural areas. Basic indicators for assessing well-being, such as the employment and unemployment rate, long-term unemployment, employees working long hours, total household income and incidence of poverty and deprivation, are only calculated with any regularity for urban areas, whereas in rural areas the only data available are those provided by the 2010 Census.

### ***Design of the 2018 Well-being Survey***

To meet data demand in the province of Córdoba, even if only partially, the provincial government decided to launch a statistical programme through a well-being survey. The survey was largely based on the 2017 living conditions monitoring survey (MCV 2017) carried out in Gran Córdoba. The MCV 2017 survey was designed using INDEC's household survey's (EPH) indicators for employment conditions, monetary income, education and housing. One of the main objectives of MCV 2017 was to shed light on people's material living conditions in Gran Córdoba and quantify the impact on poor and deprived households of the provincial government's non-monetary programmes. Among the non-monetary social plans considered were PAICOR, "Más leche Más proteínas", "Alimentos para Celíacos" (Food for celiac patients), the subsidised electricity and water rates ("Tarifas Sociales") and the real estate tax (rents), among others.

The 2018 Well-being Survey expanded both the geographic coverage and the issues covered by MCV 2017, in an attempt to align itself with the OECD's regional well-being framework.

The Well-being Survey broadened the geographic coverage to include the province of Córdoba's four main agglomerations: Gran Córdoba, Gran Río Cuarto (Río Cuarto-Las Higueras), Villa María-Villa Nueva and San Francisco. The 2018 survey thus covers

around 2 million people (55% of the province's population), according to 2010 Census data. Gran Córdoba accounts for nearly 96% of the population that resides in the two departments it covers (Capital and Colón), Río Cuarto-Las Higueras for 67% of Río Cuarto department, Villa María-Villa Nueva for 78% of General San Martín department, and San Francisco for 30% of San Justo department (Table 1.6).

**Table 1.6. Territorial characteristics of the Córdoba agglomerations**

Agglomeration	Departments in which located	Area of the agglomeration (km <sup>2</sup> )	% of the departments' area	% of the province's area	2010 population of the agglomerations (persons)	% of the departments' population	% of the province's population
Gran Córdoba	Capital and Colón	532.86	18.29	0.32	1 490 629	95.88	45.05
Río Cuarto-Las Higueras	Río Cuarto	69.88	0.38	0.04	164 500	66.76	4.97
Villa María-Villa Nueva	General San Martín	42.68	0.86	0.03	99 308	77.92	3.00
San Francisco	San Justo	37.60	0.24	0.02	62 211	30.15	1.88
Córdoba agglomerations		683.02	1.62	0.41	1 816 648	85.09	54.90

*Note:* The municipalities included in each of the four agglomerations are as follows. Gran Córdoba: Agua de Oro, Río Ceballos, El Manzano, Córdoba, Parque Norte, La Calera, La Granja, Malvinas Argentinas, Mendiolaza, Estación, Juárez Celman, Río Ceballos, Saldán, Salsipuedes and Unquillo. Río Cuarto-Las Higueras. Villa María agglomeration: Villa María and Villa Nueva. San Francisco agglomeration: San Francisco.

*Source:* INDEC (2010), *National Census on Population, Households, and Housing*, <https://www.indec.gob.ar/indec/web/Nivel4-Tema-2-41-135>.

The Statistics and Demography Institute at the Economics Faculty of the Universidad Nacional de Córdoba (National University of Córdoba) assisted the DGEyC with the design of the sample selection and survey estimation weights. The survey was carried out by the DGEyC, while Universidad Nacional de Córdoba supervised the quality of the data gathering process.

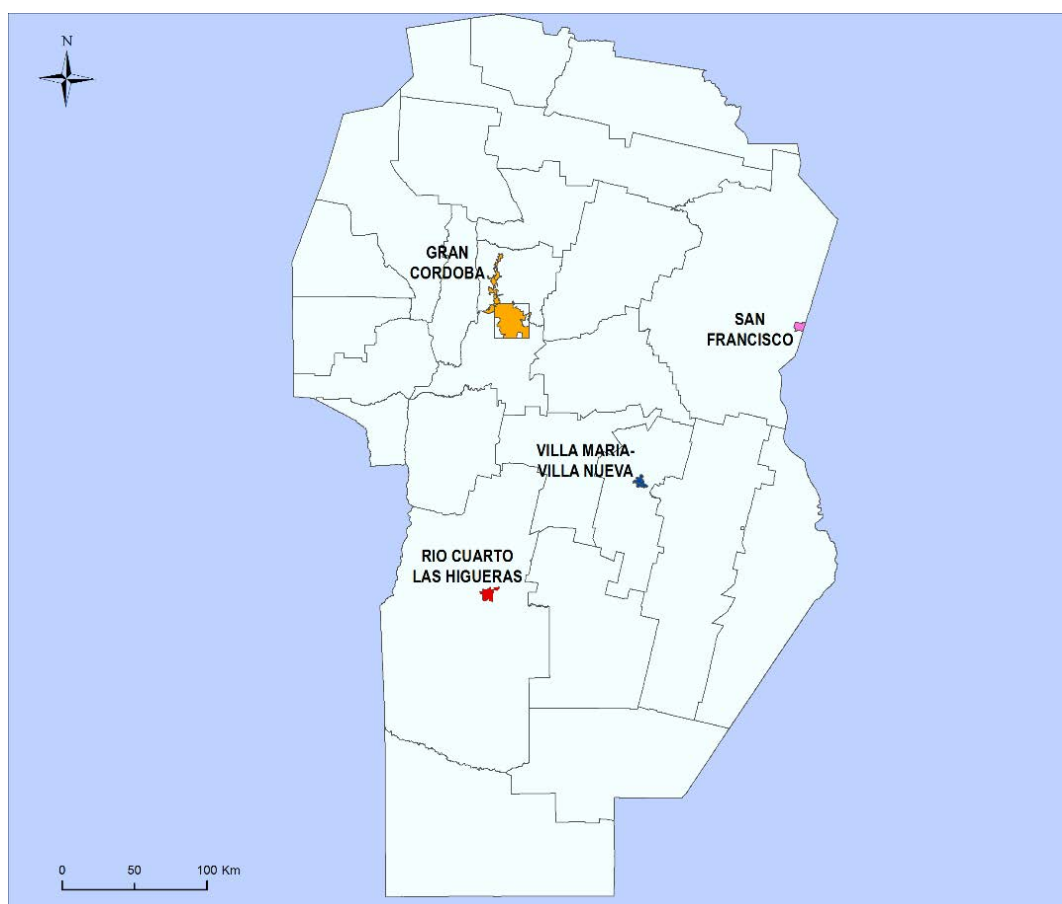
The Well-being Survey also broadens the subjects covered by MCV 2017 to include other dimensions of well-being. The well-being dimensions to be included in the Well-being Survey and those that will be assessed through a different survey or using other sources of information, were decided based on the provincial government's priorities and on the interviews conducted during the OECD's visit (14-17 November 2017) with the various ministries, municipalities and social sectors.

The new questions added to the questionnaire make it possible to calculate indicators for the following well-being dimensions:

- **Work-life balance:** this dimension has been strengthened, given that with the MCV 2017 it was only possible to estimate the percentage of employees working long hours. With the new Well-being Survey it is possible to know in what municipality the respondent lives and works, travel time to the place of work and the type of transport used.
- **Health:** this new dimension has been added to assess citizens' perception of their own health status.

- Civic engagement and governance: a section has been added to assess the level of participation in civic and volunteering activities.
- Access to services: households' access to internet is measured.
- Community and social support: serves to assess people's perceived social support network. Specifically, the survey assesses whether people have someone they can rely on when needed.
- Life satisfaction: citizens' perceived level of life satisfaction.

**Figure 1.5. Location of the Córdoba agglomerations with respect to the province**



Source: OECD based on INDEC (2010), *National Census on Population, Households, and Housing*, <https://www.indec.gov.ar/indec/web/Nivel4-Tema-2-41-135>.

The OECD uses various data sources when assessing well-being in a particular country or region. That is because the data needed to calculate OECD's well-being indicators do not all come from the same sources. Whereas a household survey can measure material living conditions, administrative records are required to estimate mortality and homicide rates, specialised examinations to measure cognitive skills or satellite images to calculate air pollution. On the other hand, regardless of whether a single survey might be sufficient to cover a large number of topics, it was considered important to limit the length of the survey and ensure consistency - an overlong, muddled survey could compromise the quality of the information obtained. For these reasons, any well-being dimensions and indicators that

could not be assessed through the Well-being Survey were covered using other data sources.

Indicators for health, civic engagement and governance, environment and personal security that were not included in the Well-being Survey have been calculated using alternative sources:

- Infant mortality rates and life expectancy at birth are calculated using administrative records of vital events (e.g. births and deaths), as most of such records are generated at the municipal level.
- For the civic engagement and governance dimension, the voter turnout indicator can be obtained of the most recent elections, which are disaggregated by municipality.
- The air pollution indicator (annual population exposure to PM<sub>2.5</sub> fine particles) will be calculated using the OECD's methodology (available only at the level of the province and the departments).
- For the personal security dimension, it was decided to use official records to calculate the homicide rate (which is available for the province as a whole but also for the agglomerations).

## Conclusion

Regional well-being frameworks arise to meet the need of subnational governments to design and implement public policies that consider the economic and social realities of the place where citizens live and work. There is a wide consensus that macroeconomic statistics on their own do not accurately reflect well-being and that a multidimensional approach is required to encompass different aspects that affect people's lives. Many of the factors that have an impact on people's well-being differ from one community to another, including key dimensions such as jobs, education, environmental quality and public safety.

Because of Argentina's federal structure, the province of Córdoba and its municipalities have major responsibilities in many of the policies that have a very direct impact on people's well-being. Accordingly, the bulk of provincial government spending in the province of Córdoba goes to fulfilling responsibilities with respect to areas of well-being. Some 48% of expenditure in the 2018 budget went to social services, including health, social promotion and care, education and culture, science and technology, work, housing and land-use planning. Some policy areas are the exclusive responsibility of the municipalities, including sewers, solid waste, primary hospital care, urban development and regulation.

The province decided to design a regional well-being framework tailored to its needs and territorial characteristics, and aligned with the OECD regional well-being framework. To that end, assisted by the OECD, the General Secretariat of Government conducted a consultation with the various ministries, secretariats and agencies responsible for regional well-being policies to select a set of outcome indicators to measure 12 dimensions of well-being. It also consulted non-governmental actors through the Provincial Council for Social Policies (CPSP).

The 2018 Well-being Survey is the vehicle through which the province of Córdoba seeks to meet data demands for assessing multidimensional well-being. The Well-being Survey is an exclusive initiative of the province of Córdoba, which in combination with other data

sources serves to calculate more than 30 well-being indicators in the four main agglomerations: Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco.

## Note

<sup>1</sup> Some OECD reports use more than 391 regions, this is due to the request of some countries to include also their small regions (TL3: second sub-national division, e.g., departments) in the analysis.

## References

- Australian Bureau of Statistics (2011), *Socio-Economic Indexes for Areas (SEIFA)*, Australian Bureau of Statistics, Canberra.
- Córdoba Provincial Government (2018), *Presupuestos [Budget]*, <http://www.cba.gov.ar/presupuestos/> (accessed on 26 August 2018).
- Córdoba Provincial Government (2009), *Provincial Decree no. 234/09*, CPSP, <http://web2.cba.gov.ar/web/leyes.nsf/85a69a561f9ea43d03257234006a8594/ebf91cb9c0f2be5d0325793400482ac5?OpenDocument>.
- Córdoba Provincial Government (1972), *LEY N° 5454: Dirección de Informática, Estadística y Censos [Law no. 5454: Directorate for Informatics, Statistics, and Census]* <http://web2.cba.gov.ar/web/leyes.nsf/0/119566D80654E95603257234006305CC?OpenDocument&Highlight=0,5454,censos>.
- Government of Argentina (1968), *Ley 17622: Créase el Instituto Nacional de Estadísticas y Censos [Law no. 17622: Establishment of National Statistics and Census Institute]*, <https://www.argentina.gob.ar/normativa/nacional/ley-17622-24962>.
- INDEC (2010), *National Census on Population, Households, and Housing*, <https://www.indec.gob.ar/indec/web/Nivel4-Tema-2-41-135>.
- Kim, J. and C. Vammalle (eds.) (2012), *Institutional and Financial Relations across Levels of Government*, OECD Fiscal Federalism Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264167001-en>.
- OECD (2018), *Subnational Governments in OECD Countries: Key Data (brochure)*, <http://www.oecd.org/regional/regional-policy>.
- OECD (2016a), *OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*, OECD Publishing, <https://doi.org/10.1787/9789264260245-en>.
- OECD (2016b), *OECD Territorial Reviews: Córdoba, Argentina*, OECD Territorial Reviews, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264262201-en>.
- OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.





## Chapter 2. Overview of regional well-being in Córdoba

*This chapter presents an overview of well-being outcomes in the four main urban agglomerations of the province of Córdoba (Argentina): Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco. Using around 30 statistical indicators, the report analyses the performance of the Córdoba agglomerations in 12 well-being dimensions in comparison with 391 TL2 regions (first administrative tier of subnational government) of 36 OECD countries and 98 TL2 regions of Brazil, Peru, Colombia and Costa Rica. Adopting a more local perspective, the report also presents the well-being inequalities between Córdoba's four agglomerations.*

---

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: Indicators for measuring well-being

As a result of the first policy dialogue on regional development between the province of Córdoba and the OECD (OECD, 2016b), the General Secretariat of Government, through its Statistics and Censuses Directorate (*Dirección General de Estadística y Censos*, DGEyC), decided to use the OECD framework to measure well-being in the province's four largest urban agglomerations (Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco). The province of Córdoba asked the OECD to assist in modernising and, above all, strengthening the provincial statistical infrastructure “by developing a multidimensional well-being framework aligned with the OECD regional well-being framework and the Sustainable Development Goals, and by producing the indicators needed to assess well-being at the regional level”.

The OECD regional well-being framework consists of 12 well-being dimensions that are measured through different relevant indicators – mainly objective indicators (e.g., exposure to PM2.5), but also through subjective measures (e.g., self-reported life satisfaction) that contribute to a more complete understanding of well-being. The framework typically uses 13 baseline indicators for all OECD large regions, but it can be adapted to the territorial specificities of any country, region or city. For example, this framework was used to assess well-being in Mexico in 2015 at the regional level (OECD, 2015c), in Denmark in 2016 at the city level (OECD, 2016a), and most recently in the province of Córdoba in 2018 at the level of Agglomeration.

Jointly with the OECD, the General Secretariat of Government carried out a multi-stakeholder process to adapt the OECD regional well-being framework to the province's needs. After several roundtables with different stakeholders (government, private sector, academia and civil society) held in the city of Córdoba (from the 13 to 17 of November, 2017), the DGEyC and the OECD agreed to measure well-being in the four agglomerations of Córdoba through 30 indicators that can be disaggregated by gender when relevant (Table 2.1). For that purpose, some methodologies had to be adjusted, statistical definitions adapted and new indicators had to be produced; for example, 2 of the 13 OECD baseline indicators were replaced (only for the purpose of this report) and 17 new indicators were added (see Chapter 1 for a detailed description of the OECD well-being framework).

**Table 2.1. Selected indicators for measuring well-being in Córdoba**

Dimensions	Indicators	Definition
Income	<b>Household income*</b>	Gross household income (before taxes and transfers) adjusted per unit of consumption (“equivalised”)
	Exclusion rate based on income*	Percentage of people with gross income below 60% of the median
	Gini index of income*	Gini index of gross income (0 for perfect equality, 1 for perfect inequality)
	Income quintile share ratio (S80/S20)	Ratio between average gross income of top and bottom quintiles
Housing	<b>Rooms per person*</b>	Average number of rooms per person (excluding bathroom, toilet, kitchen, utility room and garage)
	Dwellings without basic facilities**	Percentage of people without private access to an indoor flushing toilet connected to sewer lines or to a septic tank
	Housing expenditure	Percentage of total household gross income spent on rent (only households that rent)
	Home ownership	Percentage of households that own their home

Dimensions	Indicators	Definition
Jobs	<b>Employment rate (employment)*</b>	Number of employed people as a percentage of the population (aged 15 to 64)
	<b>Unemployment rate (unemployment)*</b>	Number of unemployed people as a percentage of the labour force (aged 15 to 64)
	Long-term unemployment rate*	Percentage of the labour force unemployed for more than one year (aged 15 to 64)
	Youth unemployment rate*	Number of unemployed people as a percentage of the labour force (aged 15 to 24)
	Informality rate	Workers without a retirement plan as a percentage of employed people (aged 15 to 64)
Education	<b>Educational attainment of the labour force*</b>	Percentage of the labour force (aged 15 to 64) with at least upper secondary education
	Educational attainment of adults**	Percentage of the population (aged 25 to 64) with at least upper secondary education
Work-life balance	Employees working very long hours**	Percentage of employed people (aged 15 to 64) whose usual hours of work per week are 50 hours or more
	Travel to work	Percentage of the employed population (aged 15 to 64) who travel to work in a municipality other than the municipality of residence
	Time spent travelling to work	Percentage of the employed population (aged 15 to 64) who take 30 minutes or more to get to their main place of employment
	Private transport for travel to work	Percentage of the employed population (aged 15 to 64) who use a vehicle or motorcycle to get to their main place of employment
	Public transport for travel to work	Percentage of the employed population (aged 15 to 64) who use urban or suburban public transport to get to their main place of employment
Health	<b>Life expectancy*</b>	Number of years a newborn can expect to live
	<b>Infant mortality rate*</b>	Number of deaths of children younger than one year old per 1 000 live births
	Self-reported health**	Percentage of the population (aged 18 or more) who report good or very good health
Environment	<b>Air pollution*</b>	Annual exposure to fine particles 2.5 (PM2.5), population-weighted, in micrograms per cubic metre
Personal security (safety)	<b>Homicide rate*</b>	Number of homicides per 100 000 inhabitants
Civic engagement and governance	<b>Voter turnout*</b>	Number of people who cast a ballot as a percentage of the population registered to vote (in the last national election)
	Volunteering**	Percentage of people (aged 18 to 64) who participated in NGOs, charities, or other volunteering activities in the last 12 months
Access to services	<b>Households with internet access*</b>	Percentage of households with internet access in the dwelling
Community and social support	<b>Social support network*</b>	Percentage of people (aged 18 or more) who have at least one friend they can rely on if needed
Life satisfaction	<b>Life satisfaction*</b>	Average reported life satisfaction (respondents aged 18 or more) on a scale from 0 to 10 (where 0 stands for the worst possible life and 10 represents the best possible life)

\* Available for most OECD regions and countries.

\*\* Available only for OECD country averages (in this report).

*Notes:* Baseline indicators are in bold. With the exception of the indicator of Air pollution (that was estimated by the OECD), all the indicators of this table that refer to the Córdoba agglomerations were provided by the Directorate of Statistics and Censuses (DGEyC) of the Province of Córdoba.

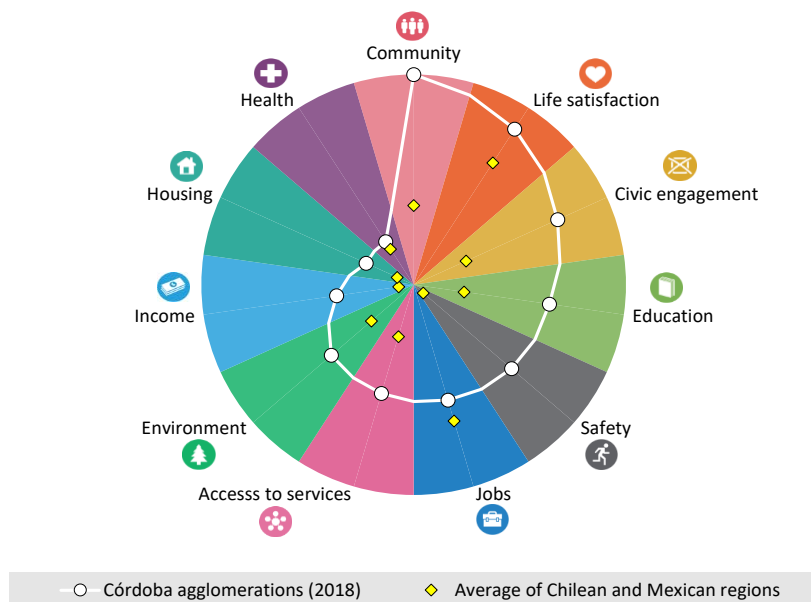
The following section starts by providing a general overview of well-being in the agglomerations of Córdoba focusing mainly on 13 baseline indicators (see Table 2.1 and Figure 2.1), while the subsequent sections of this chapter also make use of the 17 complementary indicators to review in more detail the performance of Córdoba's agglomerations in each of the OECD's 12 well-being dimensions: income, housing, jobs, education, work-life balance, health, environment, personal security, civic engagement and governance, access to services, community and social support, and life satisfaction. All the indicators that come from the DGEyC's Well-being survey correspond to the second semester of 2018, with the exception of household gross income which for methodological reasons (the deflator was available only at an annual time scale) was estimated as an annual indicator of 2018. It is worth noting that a technical workshop between the OECD and the DGEyC took place from the 27 to 29 of June 2018 in the province of Córdoba to define and compute preliminary well-being indicators using the available microdata from the Well-being Survey. Finally, under the request of the DGEyC to ensure the quality of the indicators used for this report, the OECD also estimated the well-being indicators for the Córdoba agglomerations using the microdata of the Well-being Survey 2018 and verified that its results coincide to the indicators provided by the DGEyC.

### General overview of well-being in the Córdoba agglomerations

Applying the OECD methodology to measure and compare well-being across regions and cities (Box 2.1), Figure 2.1 shows the results (normalised scores from 0 to 10, where 10 represents the best possible outcome) for each well-being dimension for the Córdoba agglomerations compared to 391 OECD (TL2) large regions (Box 2.2). The comparison is based on the 13 OECD classic indicators of the OECD Regional Well-being tool ([www.oecdregionalwellbeing.org](http://www.oecdregionalwellbeing.org)) – with the exception of household disposable income, even if this is the recommended OECD indicator, that was replaced with household gross income due to data availability in the Córdoba agglomerations, and the standardised mortality rate that was substituted for infant mortality rate due to the relevance of the latter indicator in the context of Córdoba since the adoption of the Millennium Development Goals (MDG) in 2000 (when Argentina set the objective of reducing infant mortality rate to 8.5 deaths per 1 000 live births by 2015). These 13 indicators are hereafter also referred as “baseline indicators” for the Córdoba agglomerations.

**Figure 2.1. Performance of the Córdoba agglomerations by well-being dimension**

Compared to the OECD large regions, circa 2016



*Notes:* This chart has been prepared using the indicators of household income, rooms per person, employment rate, unemployment rate, educational attainment of the labour force, life expectancy, infant mortality rate, air pollution, homicide rate, voter turnout, households with internet access, perceived social support network and life satisfaction. It uses data on the OECD's 391 large (TL2) regions (first administrative tier of sub-national government). The average of Chilean and Mexican regions includes 15 large regions of Chile and 32 large regions of Mexico.

*Sources:* DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>; OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.

Córdoba agglomerations have one of the highest performances in the well-being dimensions of community and social support, and life satisfaction, ranking higher than 95% and 80%, respectively, of the 391 OECD regions studied. In the dimensions of civic engagement and governance, education, safety, jobs, access to services, and environment on the other hand, the results are similar to the OECD average (i.e., simple average of OECD large regions with available data), and – with the exception of jobs – higher than the average levels observed in most of the regions of Chile and Mexico. In the income dimension, there are still household income level gaps to be closed with respect to the OECD regions, given that the Córdoba agglomerations are among the 40% bottom regions in this dimension. Lastly, regarding housing and health the Córdoba agglomerations have one of the lowest performances compared to the OECD regions.

Although the OECD framework for measuring well-being serves to identify, in simplified terms, a country, city or region's relative performance in certain dimensions that are crucial to people's well-being, each dimension needs to be examined in more detail to identify more precisely the particular features that have generated that performance. In what follows, the results of the indicators used to measure the performance of the agglomerations of Córdoba (also referred as Córdoba agglomerations) in each well-being dimension are discussed in greater detail.

The general overview of the Córdoba agglomerations in the material dimensions of housing and income reveals a performance below the average of the OECD and below that of most

large (TL2) regions. Nevertheless, when going beyond levels and looking at distributions, Córdoba is among the best-performing regions in income equality. The results in housing space (rooms per person), quality (dwellings without a private indoor toilet that is connected to sewer lines or to a septic tank)<sup>1</sup> and affordability (housing expenditure) are adverse if compared with the levels observed in the OECD. Household income is also below the OECD average, although it is higher than that observed in all the regions of Mexico and Chile. On the other hand, if we examine the distribution of income in the Córdoba agglomerations, we find one of the best performances of all the OECD regions, and well above that of its Latin American peers. More specifically, the Córdoba agglomerations have achieved an exclusion rate based on income<sup>2</sup> of 23.76% (top 15% of TL2 regions) and a Gini index of 0.37 (ninth best performance among the OECD regions).

The performance of the Córdoba agglomerations in the jobs dimension is fairly similar to the OECD average, but there still are important gender gaps. The employment and unemployment rates in the agglomerations of Córdoba are very close to the observed average for the TL2 regions in the OECD. The situation changes, however, if we explore the differences in labour market participation by gender group. The gender gaps in employment and unemployment are considerably greater in Córdoba than in most OECD regions. This inequality is even more relevant considering that in the education dimension the proportion of women with at least upper secondary education is considerably greater than that of men. In other words, although the female population has higher skills and abilities in terms of educational attainment than the male population, this relative advantage is not reflected in women's integration in the labour market.

Although the Córdoba agglomerations have education levels slightly below the OECD average, their performance in this dimension is better than that of most Latin American countries and regions here studied. The level of educational attainment of adults in the agglomerations of Córdoba is higher than the country averages of Chile, Colombia, Brazil, Costa Rica and Mexico. Educational attainment of the labour force in Córdoba is also in the top 1% of the regions in these countries (only slightly below the Chilean region of Antofagasta). These positive results in education are largely attributable to having a female population that is relatively highly educated compared with Córdoba's male population.

In terms of personal security, Córdoba presents homicide rates higher than the 75% of the OECD regions; nevertheless, compared to the regions of Mexico, Colombia, Peru and Chile, Córdoba agglomerations display a favourable performance (top 5% of the 105 regions in these countries for which data is available) – only behind two regions in Peru and one in Mexico.

Although air pollution has been steadily decreasing in the province of Córdoba, more efforts have to be done to reach the levels suggested by the World Health Organisation (WHO). Cordobans' exposure to air pollution from PM2.5 particles has been decreasing over the last 22 years. From 1995 to 2017 the exposure to PM2.5 particles fell by around 20% to reach a level of 15.2 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), which is still above the World Health Organization's recommended limit of 10  $\mu\text{g}/\text{m}^3$ . The level of PM2.5 in the Córdoba agglomerations is slightly above the average for the OECD (13  $\mu\text{g}/\text{m}^3$ ) and the value for Argentina (14.2  $\mu\text{g}/\text{m}^3$ ) and it is the median value if compared to Argentina's 23 provinces and the city of Buenos Aires. Analysing performance within the province, it can be observed that Córdoba's 26 departments are above the WHO's recommended levels, in particular the departments of Presidente Roque S. P. and Capital with the worst exposure to PM2.5 air pollution (of around the 16  $\mu\text{g}/\text{m}^3$ ). Marcos Juárez, Sobremonte, Minas and

Pocho are the departments with the lowest levels of exposure to PM<sub>2.5</sub>, with values around the 13 µg/m<sup>3</sup>.

As regards the indicators of community and social support and life satisfaction, the Córdoba agglomerations show very good results compared to the 391 OECD large regions. With around 97% of the population reporting that they have someone they can rely on in the event of difficulties and with an average life satisfaction of 7.5 (where 10 is the highest satisfaction), the agglomerations are in the top 5 and 15% of OECD regions in these two dimensions, respectively. Similarly, Cordobans' perceived health status is also very high: with nearly 83% of people reporting good or very good health, the Córdoba agglomerations rank higher than 31 OECD countries (out of 36 countries). This result suggests a mixed performance for the agglomerations in the health dimension, as other measures of health such as infant mortality and life expectancy show lower outcomes for Córdoba when compared to OECD regions. Although infant mortality has been declining in Córdoba in the past 25 years reaching better outcomes than in 80% of the Chilean, Mexican and Peruvian regions, its levels are still within the bottom 20% of OECD regions.

Another dimension with contrasting results, depending on the indicator that is analysed, is that of civic engagement and governance. The Córdoba agglomerations show high levels of citizen participation through voting (which is mandatory), with a 78% voter turnout, well above the OECD average of 68% and outperforming 75% of OECD regions. However, the volunteering indicator reveals that only 12% of people aged 18 to 64 are involved in volunteering activities (e.g. charity work, NGOs, unions, cooperative schools, etc.). The Córdoba agglomerations thus rank below 19 OECD countries (out of 28 countries recorded) in this indicator.

Lastly, the Córdoba agglomerations are outperformed by most OECD regions in the dimensions of work-life balance and access to services. With around 16% of Cordoban employees reporting that they work 50 hours or more per week, the agglomerations' performance is below that of 32 OECD countries (out of the 36 observed). On the other hand, while in the OECD regions (on average) almost 74% of households have internet access, the corresponding figure for the Córdoba agglomerations is 68%. This result places Córdoba among the 26% of TL2 regions with the lowest accessibility to internet.

### Box 2.1. Calculation of scores for well-being dimensions

Well-being indicators are expressed in different units depending on their nature. For example, household gross income is expressed in USD PPA, whereas life expectancy and voter turnout are expressed in years and as a percentage of registered voters (on the electoral register), respectively. To compare well-being indicators on the same scale, the OECD normalises them using the min-max method. This statistical formula transforms the value of the indicator into a score from 0 to 10 (where 10 is the highest score possible for a normalised indicator).

To transform the value of an indicator into a well-being score (0-10) there are three concrete steps to be taken:

1. To identify, for each well-being indicator, the regional minimum and the regional maximum values (using a sample without extreme values).
2. To normalise the indicators by applying the min-max formula (see below).



3. To calculate the arithmetic mean of the normalised indicators within the same well-being dimension.

Before applying these steps and with the purpose of reducing skewness, regions are ranked from the lowest to the highest value, for each indicator, and outliers are excluded from the normalisation process. More specifically, (for each indicator) the regions below the 4<sup>th</sup> percentile and above the 96<sup>th</sup> percentile are excluded from the application of the first two steps. In the case of the homicide rate – an indicator that is highly skewed by certain regions with extreme values – the regions below the 10<sup>th</sup> percentile and above the 90<sup>th</sup> percentile are excluded from the computations. These criteria generate more evenly distributed scores from 0 to 10. For example, if this cut-off was not applied for the homicide rate indicator, most regions would have scores between 9 and 10 in the personal security dimension, and only a few regions with extreme values would have a score of zero.

After this initial consideration, scores are calculated for the regions  $i$  that were not excluded from the sample. Formula  $\hat{x}_i$  is used for indicators with a positive sense (e.g. employment, life satisfaction) and formula  $\check{x}_i$  for indicators with a negative sense (e.g. unemployment, air pollution). After calculating these values, the regions with extreme values are factored back in and assigned the corresponding score of 0 or 10.

$$\hat{x}_i = 10 * \left( \frac{x_i - \min(x)}{\max(x) - \min(x)} \right) \qquad \check{x}_i = 10 * \left( \frac{\max(x) - x_i}{\max(x) - \min(x)} \right)$$

Finally, based on the third step, when a well-being dimension is measured by more than one indicator (e.g., jobs that is composed of employment and unemployment rates, or health that uses life expectancy and mortality rates), the score of the well-being dimension is defined by the arithmetic mean of the normalised indicators within the same dimension.

Source: OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, <https://doi.org/10.1787/9789264217416-en>.

### Box 2.2. How are the TL2 regions defined?

To increase international comparability, the OECD classifies regions on two territorial levels, reflecting the administrative organisation of countries. The large OECD regions (TL2) represent the first administrative tier of sub-national government, for example, provinces in Canada, *comunidades autónomas* in Spain, *régions* in France or states in the United States of America. The well-being indicators presented in this chapter have been developed for the 391 OECD large regions. Data on these large regions also provide information on inter-regional disparities in the various well-being dimensions, showing that in some cases disparities within countries are larger than across countries. Because the large administrative regions include local governments and many areas with different economic functions (e.g. cities and rural areas), the OECD has also established a common classification of “smaller regions”; these are subdivisions of the larger regions, and generally correspond to administrative units, with the exception of those in Australia, Canada, Germany and the United States. For these countries, the small regions refer to statistical or economic divisions established by countries and used for data collection.



Relying on the criteria of population density, the share of people living in rural communities, the size of urban areas and the distance from urban centres, the OECD rural-urban typology classifies the small regions as “predominantly rural remote”, “predominantly rural close to a city”, “intermediate” and “predominantly urban” (Brezzi et al., 2011). Most OECD and non-OECD countries have a national definition of rural and urban regions whose criteria are the same as those used in the OECD rural-urban typology, although the thresholds chosen may differ.

Source: OECD (2015a), *How's Life? 2015: Measuring Well-being*, [http://dx.doi.org/10.1787/how\\_life-2015-en](http://dx.doi.org/10.1787/how_life-2015-en); Brezzi, M., L. Dijkstra and V. Ruiz (2011), “OECD Extended Regional Typology: The Economic Performance of Remote Rural Regions”, <https://doi.org/10.1787/5kg6z83tw7f4-en>.

## Income

Although the OECD framework for measuring well-being sustains the idea that income (sometimes inaccurately proxied with GDP per capita and its growth) is not the only or the most important factor for measuring well-being, it recognises that monetary conditions can strongly contribute to people’s quality of life. Household income is typically crucial for meeting people’s material needs, such as food and housing. Income can also help people develop intellectually. For example, by investing in their education and health or in cultural activities. Income provides households with security, not only in material terms but also to make decisions about their lives and inter-personal relationships (e.g. starting a business or having children).

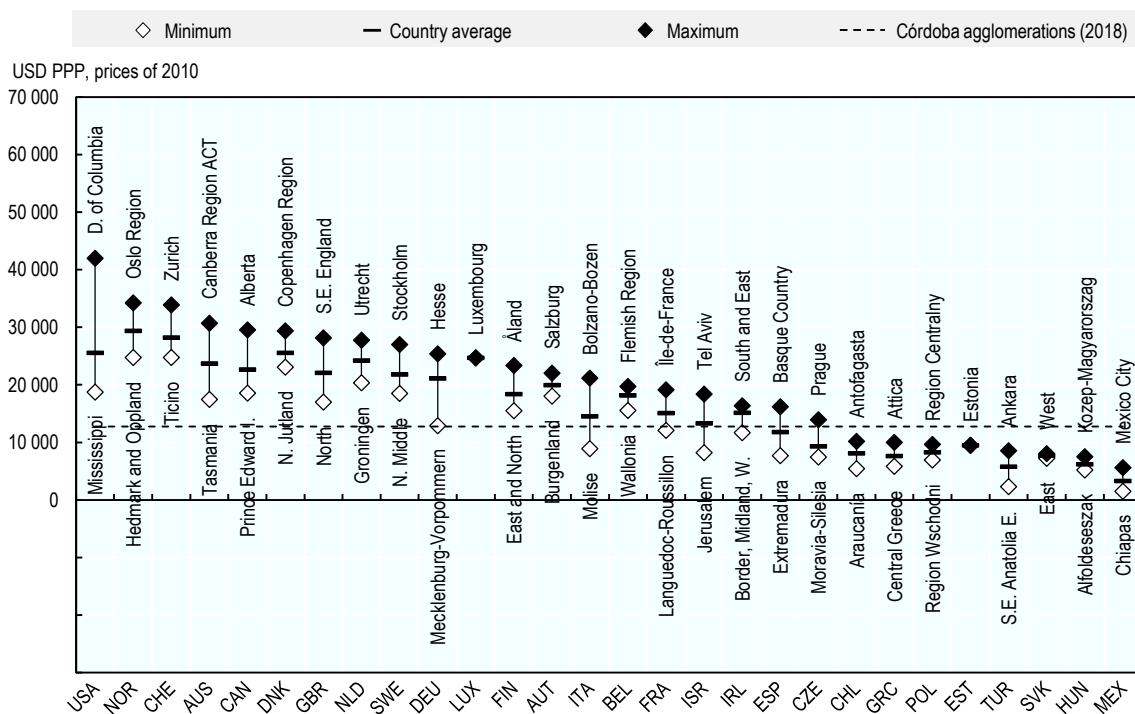
To cover the well-being dimension of income in the Córdoba agglomerations, the following indicators are considered:

- Gross household income (before taxes and transfers) per unit of consumption (or equivalised) – baseline indicator.
- Percentage of people with gross income below 60% of the median.
- Gini index of gross income (0 for perfect equality, 1 for perfect inequality).
- Ratio between average gross income of top and bottom quintiles.

Income levels in the Córdoba agglomerations are below the OECD average but above their Latin American peer regions. According to the definition of household income per unit of consumption (or household equivalised income) used for this analysis (Box 2.3), average annual household income in the Córdoba agglomerations for 2018 was of USD 12 756 PPP (at 2010 prices), equivalent to 80% of the OECD average, and lower than in 60% (191 out of 319) of OECD regions. In the Latin American context, however, the household equivalised income of the Córdoba agglomerations is above the levels displayed by all the regions of Mexico and Chile – although only slightly above the levels of Santiago and Antofagasta, the Latin American OECD regions with the highest values in this indicator (Figure 2.2).

Figure 2.2. Household income

Gross annual household income “equivalised” per unit of consumption, circa 2016



Notes: “Córdoba agglomerations” corresponds to the weighted average of the four main urban agglomerations in the province of Córdoba, Argentina: Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco (this note applies to all the figures in this chapter). The indicator of household gross income should be read with caution as it does not fully reflect the real available income of households after transfers and taxes; for this reason, when available, the OECD recommends the use of disposable income.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*: <http://dx.doi.org/10.1787/region-data-en>.

To avoid limiting the analysis of income to a single indicator that shows average levels, the province of Córdoba has included in its well-being statistics the indicators of exclusion based on income, income inequality according to the Gini coefficient, income quintile share ratio (S80/S20) and income by gender. The distribution of income within a society may be as or more important for well-being than the average level of income. High levels of income inequality may have negative repercussions not only for a society’s economic growth (OECD, 2015b), but also for the sense of belonging (community dimension), cooperation between people, civic engagement and trust in institutions. Thus, it is very important to observe income differences between population groups (e.g. by gender, ethnic origin, nationality, etc.).

### Box 2.3. Income measurement and income distribution

The indicators for measuring the income dimension are defined as follows:

- **Equivalised household gross income:** this is the income reported by households before adding transfers and discounting taxes. This indicator is adjusted by the units of consumption in the household (“equivalised”). More precisely, household gross income is divided by the square root of the number of members of the household. It is stated at 2010 prices (using the implicit price deflator of household final consumption expenditure at national level) and in US dollars (USD) adjusted using purchasing power parities (PPPs) for actual individual consumption (using the World Bank 2010 PPP conversion factor). The OECD typically suggests the use of household disposable (after transfers and taxes) income to measure this well-being dimension. However, due to data availability for the Córdoba agglomerations and to maintain comparability with OECD regions, it was decided to use the household gross income from household surveys (contrary to using national accounts) for this analysis.

As part of its statistical agenda to improve the measurement of material conditions of people, the DGEyC should aim at estimating equivalised household disposable income in the Córdoba agglomerations. In the OECD, household disposable income is obtained by adding to people’s gross income (earnings, self-employment and capital income, as well as current monetary transfers received from other sectors) the social transfers in-kind that households receive from government (such as education and health care services), and then subtracting taxes on income and wealth as well as the social security contributions paid by households. This indicator, which is mainly drawn from the OECD national accounts, also takes into account the depreciation of capital goods consumed by households.

- **Exclusion based on income:** this is a measure of inequality based on a headcount ratio of people below a relative poverty line (sometimes referred to as relative poverty, as opposed to absolute poverty). It is presented as the percentage of people who receive less than 60% of the median equivalised gross income of a given country or region.
- **Gini index (income inequality):** this is a summary measure of income inequality. It is computed based on microdata (collected from household surveys) for equivalised gross household income. The Gini index, which is more sensitive to changes in the middle of the distribution, ranges from zero (where everyone has the same mean level of income) to one (where all the income goes to a single person). A change of one “gini point” means a change of 0.01 on this scale from 0 to 1 (OECD, 2015a).
- **Income quintile share ratio (S80/S20):** this is a measure of income inequality that is more sensitive to changes in the extremes of the distribution; it refers to the share of all income received by the richest 20% of the population, divided by the share of all income received by the poorest 20%. It is computed based on measures of equivalised gross household income.

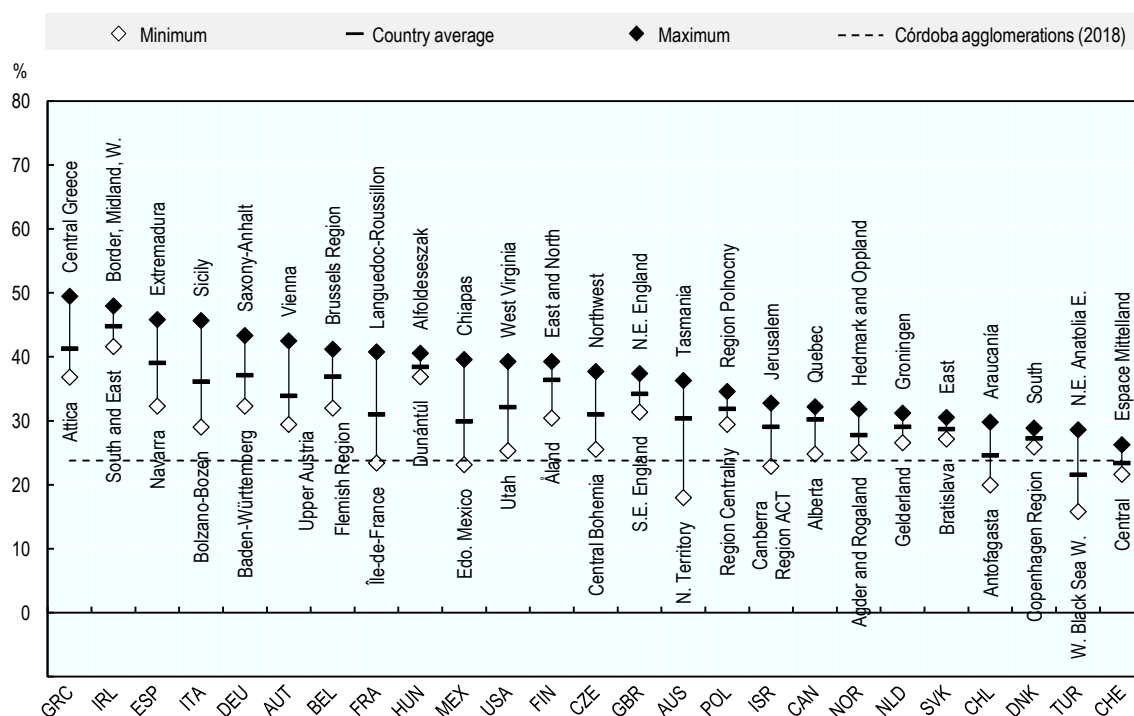
*Sources:* OECD (2018c), “Income distribution”, <https://doi.org/10.1787/data-00654-en>; OECD (2015a), *How’s Life? 2015: Measuring Well-being*, <http://dx.doi.org/10.1787/how-life-2015-en>; Piacentini, M. (2014), “Measuring Income Inequality and Poverty at the Regional Level in OECD Countries”, <https://doi.org/10.1787/5jxzf5khtg9t-en>.

Although their income levels are not particularly high, the Córdoba agglomerations have low levels of relative monetary exclusion. Whereas, on average, OECD regions display around one third of their population living with incomes below the relative exclusion line (60% of the median regional income), in the Córdoba agglomerations only 23.76% of the population is living below that line (Figure 2.3). The agglomerations perform better in this

indicator than 87% (268 out of 307) of OECD regions. Moreover, if inequality is measured in terms of the Gini coefficient (where higher values represent greater inequality), the Córdoba agglomerations show very low levels of inequality. With a Gini coefficient of 0.37, 10 gini points below the OECD average of 0.47 (where one gini point represents one hundredth in terms of the Gini index), the Córdoba agglomerations have the ninth lowest level of observed inequality in all the OECD regions (only two regions in Australia and seven regions in Turkey perform better than Córdoba in this indicator). Comparing to Latin American regions, the positive performance of the Córdoba agglomerations is even more pronounced, as Córdoba's Gini coefficient is 13 gini points below the average observed in Mexico and Chile (of around 0.5) (Figure 2.4).

**Figure 2.3. Exclusion rate based on income**

% of people with income below 60% of the median regional equivalised gross income, circa 2014

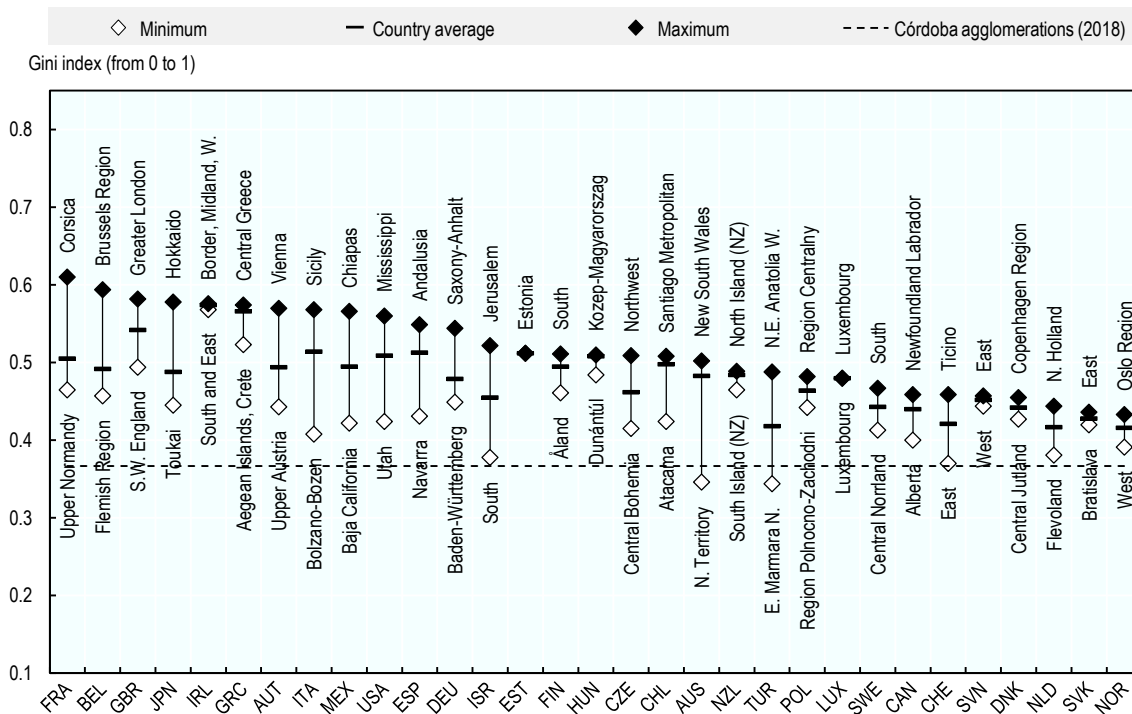


Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

The differences in annual household income between agglomerations are relatively small (Table 2.2). Household income in San Francisco is only 9% higher than household income in Gran Córdoba, the agglomerations with the highest and lowest household income respectively. This difference is less than half of the gap in income generated by gender inequalities.

Figure 2.4. Income inequality

Gini index for equivalised gross income, circa 2014



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Table 2.2. Income in the Córdoba agglomerations

Territory	Gender	Household income (USD PPP, constant 2010 prices)	Exclusion rate (%)	Gini index (0 to 1)	Quintile share ratio
Gran Córdoba	Total	12 657	24.15	0.3705	7.09
	Women	11 246	.	.	.
	Men	13 561	.	.	.
Río Cuarto-Las Higueras	Total	12 970	21.48	0.3351	5.66
	Women	11 549	.	.	.
	Men	13 804	.	.	.
Villa María-Villa Nueva	Total	13 093	24.29	0.3613	6.38
	Women	11 749	.	.	.
	Men	13 864	.	.	.
San Francisco	Total	13 825	22.75	0.3567	6.34
	Women	12 220	.	.	.
	Men	14 617	.	.	.
Córdoba agglomerations	Total	12 756	23.76	0.3667	6.9
	Women	11 345	.	.	.
	Men	13 640	.	.	.

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

In the Córdoba agglomerations, households headed by a man tend to have incomes 20% higher than households headed by a woman. This inequality is very similar across the four agglomerations (Table 2.2). For example, while in Villa María-Villa Nueva – the agglomeration with the smallest gap – households with a male breadwinner have 18% more income than those with a female breadwinner, in Gran Córdoba – the agglomeration with the largest gap – the gender gap rises up to 20.6%.

The measures of income distribution show consistent results across agglomerations. Whereas the indicators of relative exclusion rate, the Gini index and the quintile share ratio reveal that Gran Córdoba is the agglomeration with the highest challenges in terms of economic equality, Río Cuarto-Las Higueras is the agglomeration with the best performance in terms of income distribution based on these three indicators (Table 2.2).

## Housing

Housing conditions can play a fundamental role in well-being. Housing not only provides shelter and personal security, but also a space for people to carry out their daily activities, including studying and meals, and build healthy family relationships. Housing can also increase a family's financial security; the home often serves as guarantee for loans, thus facilitating investment and entrepreneurship.

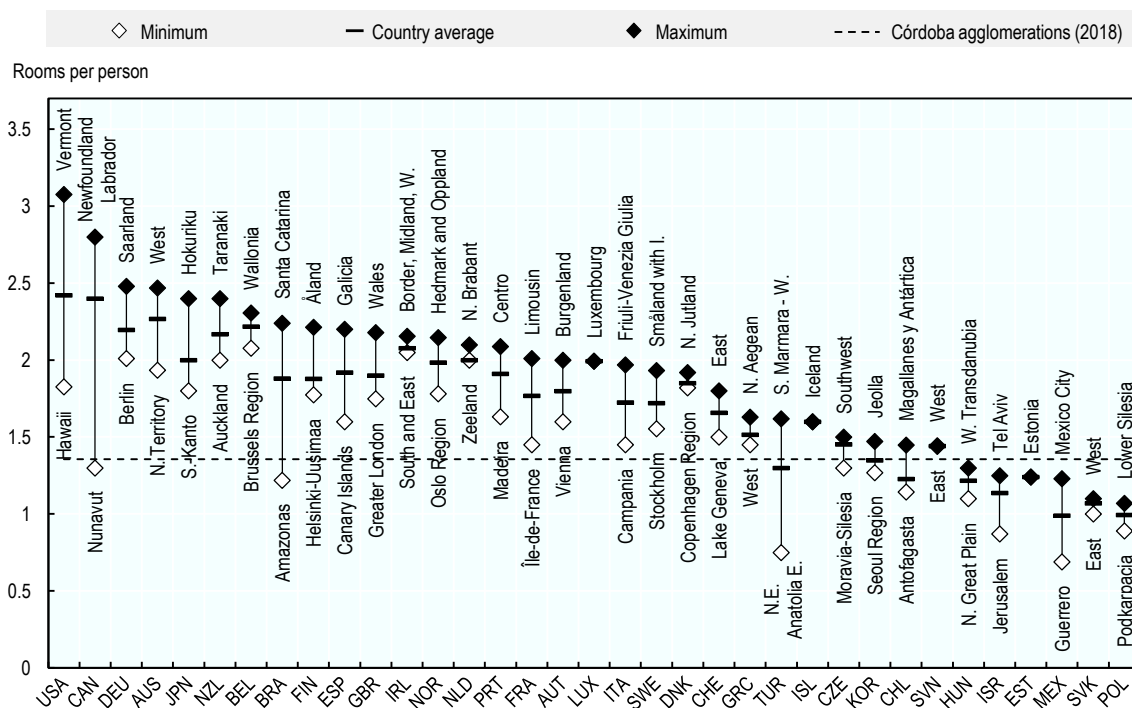
To cover the well-being dimension of housing in the agglomerations of Córdoba, the following indicators are considered:

- Average number of rooms per person (excluding bathroom, toilet, kitchen, utility room and garage) – baseline indicator.
- Percentage of people without private access to an indoor flushing toilet connected to sewer lines or to a septic tank.
- Percentage of total household gross income spent on rent (only households that rent).
- Percentage of households that own their home.

Housing space in terms of rooms per person is below the levels observed in the OECD. Figure 2.5 shows that the average number of rooms per person in households in the Córdoba agglomerations is 1.36, below the OECD average of 1.8 and less than the outcomes observed in 76% (316 out of 413) of the regions with available data. The average number of rooms in the Córdoba agglomerations is very similar to the country average of Turkey and higher than in all the regions of Hungary, Israel, Estonia, Mexico, the Slovak Republic and Poland.

Housing quality in the agglomerations of Córdoba is lower than in other OECD countries, with the exception of Chile and Latvia. An indicator used by the OECD to cover this aspect is the percentage of the population who live in dwellings without private access to an indoor flushing toilet connected to sewer lines or to a septic tank (only available at national level for OECD countries). It is worth noting that, although practically all the households in the Córdoba agglomerations have a toilet (99.9%), not all of these toilets are indoors, or of private use, or connected to sewer lines or to a septic tank. According to Figure 2.6, the percentage of people who live in dwellings without an indoor flushing toilet is 9.2% in the Córdoba agglomerations, against 2.1% for the OECD as a whole.

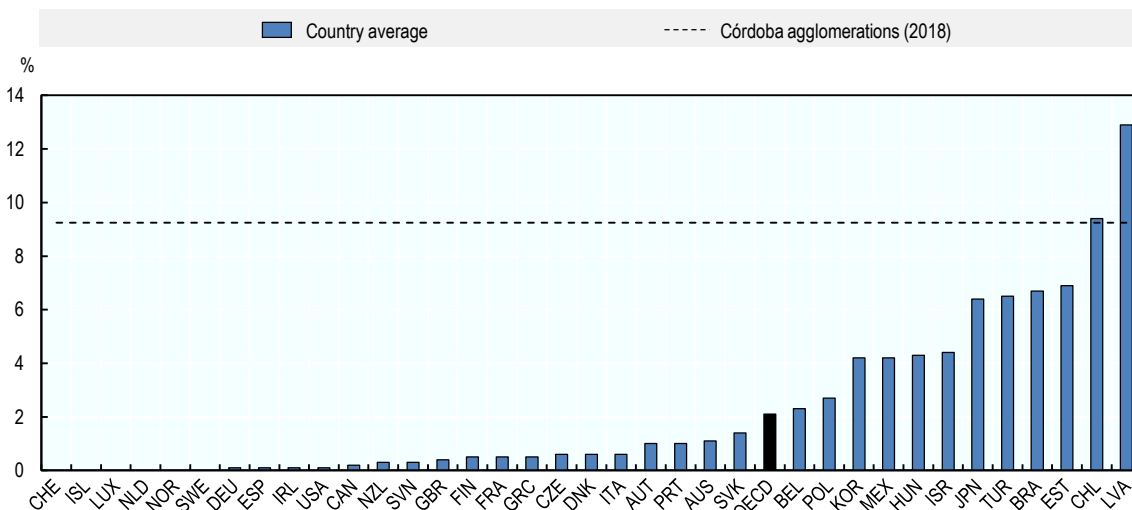
Figure 2.5. Rooms per person, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Figure 2.6. Dwellings without basic facilities, circa 2015

% of the population who live in dwellings without private access to an indoor flushing toilet connected to sewer lines or to a septic tank

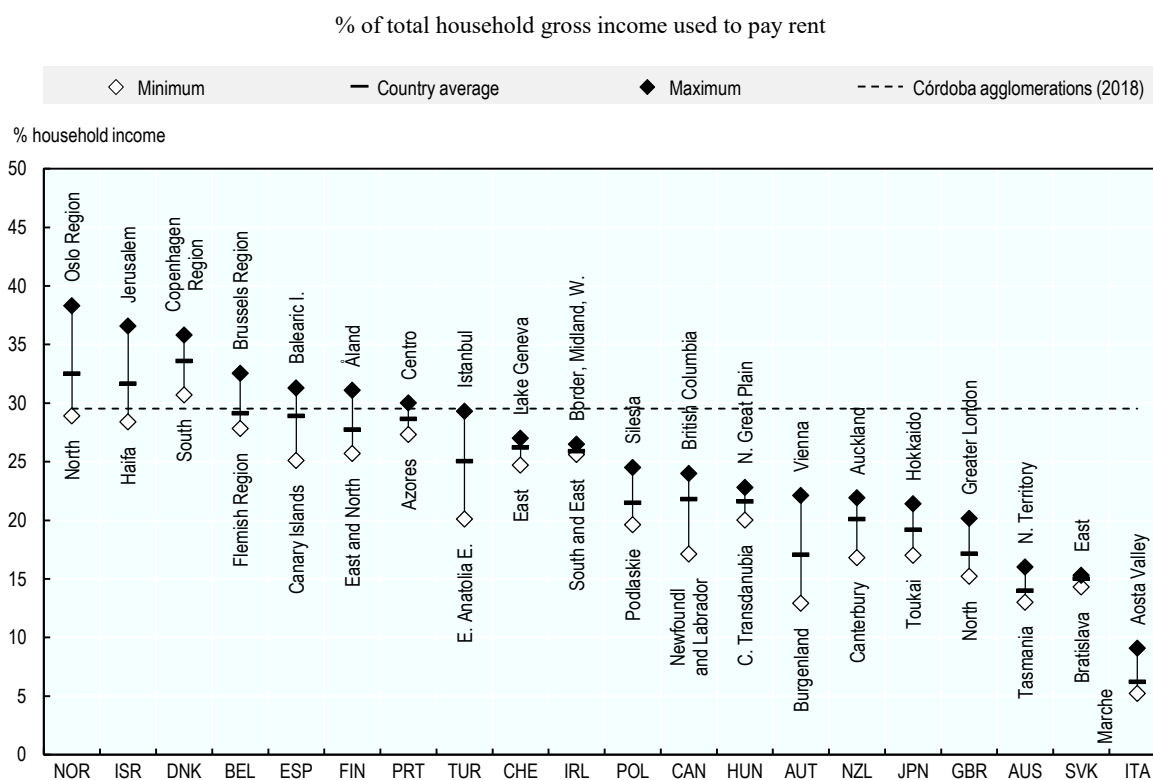


Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2017), *How's Life? 2017: Measuring Well-being*, <https://doi.org/10.1787/how-life-2017-en>.



In Córdoba, housing expenditure (rental expenditure only) accounts for around 30% of total household gross income, whereas in the OECD average region (where, besides rent, housing expenditure includes services) it accounts for around one-fifth of total household disposable income (since the comparability of the housing expenditure indicator between Córdoba agglomerations and the OECD is limited, the comparative results here discussed should be seen only as a first approximation). Housing expenditure in the Córdoba agglomerations is relatively higher than for 86% (159 out of 185) of the TL2 regions observed. Although the Córdoba agglomerations represent the urban part of the province, and the share of housing expenditure could be expected to be higher than in regions that include large rural areas (as is the case for many OECD TL2 regions), Figure 2.7 shows that even in regions that are mainly urban, such as Greater London, Vienna or Auckland, housing expenditure can be lower than one quarter of the total household disposable income.

**Figure 2.7. Housing expenditure, circa 2015**



*Note:* For the OECD regions, housing expenditure includes, besides rent, expenditure on electricity, gas and water; and it is expressed as a share of disposable income. For this reason, the comparability of this indicator between OECD regions and the Córdoba agglomerations is limited. In this graph, the value for Córdoba should be seen only as an initial approximation of total housing expenditure.

*Sources:* DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Major inequalities are observed between the Córdoba agglomerations, mainly in the indicator of dwellings without basic facilities, although differences are also observed in other housing indicators. Even if the availability of a toilet is practically universal across the four agglomerations of Córdoba, the quality of these toilets is not the same between agglomerations. Whereas in Río Cuarto-Las Higueras only 2% of people lives in dwellings



without access to a private indoor flushing toilet connected to sewer lines or to a septic tank (similar to the OECD average), in San Francisco the equivalent figure goes up to 11.4% (mainly due to the existence of numerous dwellings that are not connected to sewer lines or to a septic tank) (Table 2.3). On the other hand, San Francisco is the best performing agglomeration in terms of housing space, home ownership and housing expenditure.

**Table 2.3. Housing in the Córdoba agglomerations**

Territory	Rooms per person	Dwellings without basic facilities (%)	Home ownership (%)	Housing expenditure (%)	Households that rent their dwelling (%)
Gran Córdoba	1.31	10.24	62.71	30.11	25.8
Río Cuarto-Las Higueras	1.58	1.97	63.99	26.17	24.1
Villa María-Villa Nueva	1.44	5.95	64.12	29.51	26.7
San Francisco	1.66	11.42	68.13	25.5	24.1
Córdoba agglomerations	1.36	9.25	63.17	29.54	25.6

*Note:* The indicator of households that rent their dwelling (%) was added to contextualise the Housing expenditure (%) indicator, which for Córdoba agglomerations corresponds only to expenditure in rent. However, it should be noted that the indicator of percent of households that rent their dwelling was not selected as one of the main indicators to measure well-being in the Córdoba agglomerations.

*Source:* DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Jobs

Having a well-paid job that satisfies personal interests and development goals is decisive in achieving high well-being outcomes. A good job not only provides a source of income to satisfy material needs such as food, housing and services but also fosters a person's intellectual development, provides new skills and expands social support networks. In contrast, unemployment can have a very negative effect on the physical and mental health of the unemployed person and the people around him or her. Long-term unemployment tends to lead to a loss of working skills and abilities, creating further obstacles to return to employment, and representing a loss of individual well-being and human capital in society. A society that guarantees opportunities for all requires an inclusive labour market, with gender-equal labour force participation.

To cover the well-being dimension of jobs in the Córdoba agglomerations, the following indicators are used:

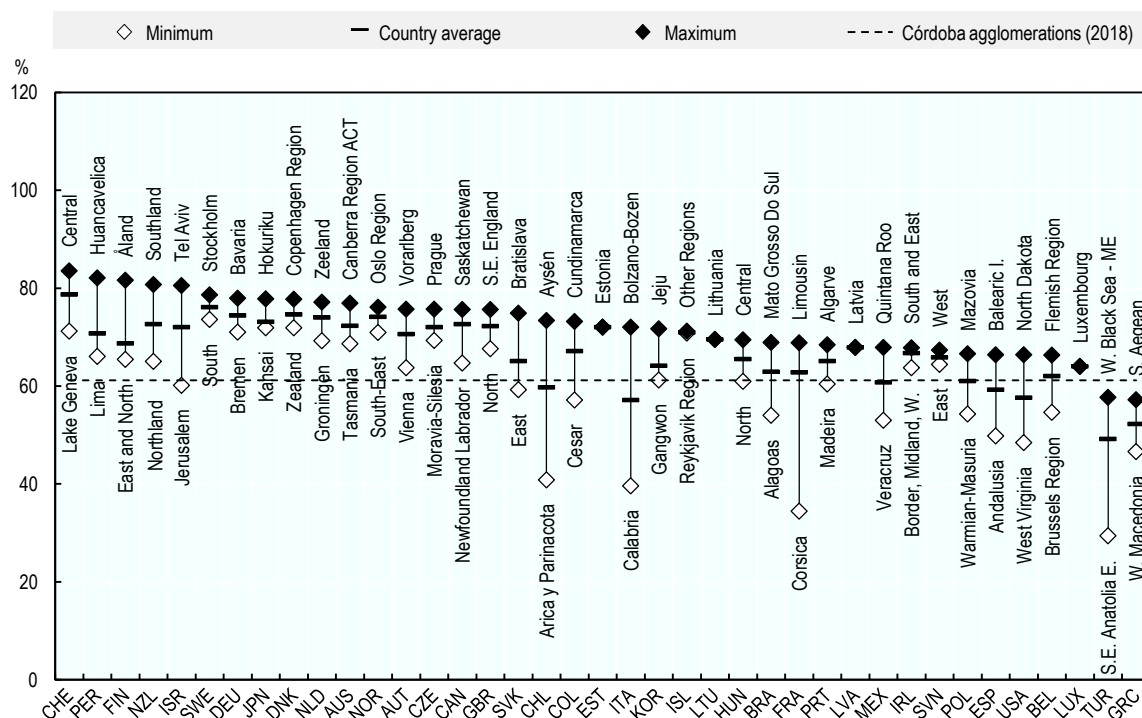
- Number of employed people as a percentage of the population (aged 15 to 64) – baseline indicator.
- Number of unemployed people as a percentage of the labour force (aged 15 to 64) – baseline indicator.
- Percentage of the labour force unemployed for more than one year (aged 15 to 64).
- Number of unemployed people as a percentage of the labour force (aged 15 to 24).
- Workers without a retirement plan as a percentage of employed people (aged 15 to 64).

The employment rate in the Córdoba agglomerations is similar to the average of the OECD regions and Brazil. Figure 2.8 shows that the employment rate in the agglomerations of

Córdoba is 61%, which is similar to the OECD average of 64% and higher than the employment rate of all the regions of Greece and Turkey. However, it is lower than that of 244 out of 386 OECD regions. In comparison with the countries of Latin America for which data is available, the employment rate in the Córdoba agglomerations is very similar to the country average of Mexico, Chile, and Brazil, and below the average for Peru and Colombia.

**Figure 2.8. Employment rate**

Number of employed people aged 15 to 64 as a percentage of the population of the same age, circa 2016

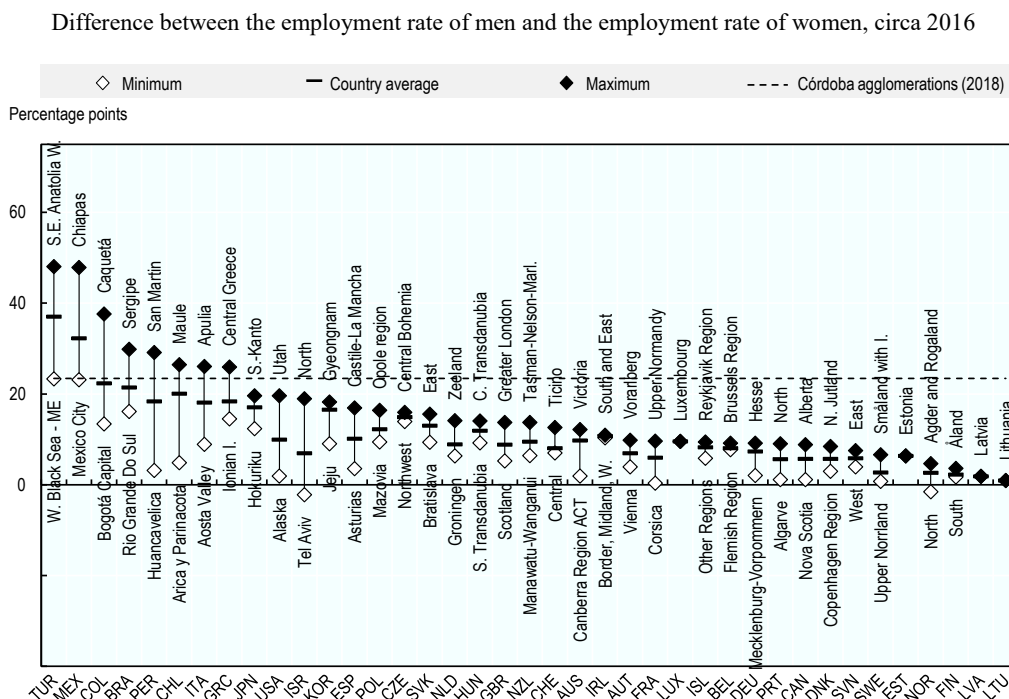


Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

The labour market participation of women in the Córdoba agglomerations is lower than that of men. Figure 2.9 shows the difference in percentage points between the male and female employment rates. The gender gap in the employment rate in the Córdoba agglomerations is 23.5 percentage points, which is 10 percentage points above the OECD average and greater than in 83% (320 out of 386) of the observed OECD regions. Only some regions of Greece, Italy, Chile, Peru, Brazil and Colombia and most of the regions of Mexico and Turkey have a larger employment gender gap than the Córdoba agglomerations.

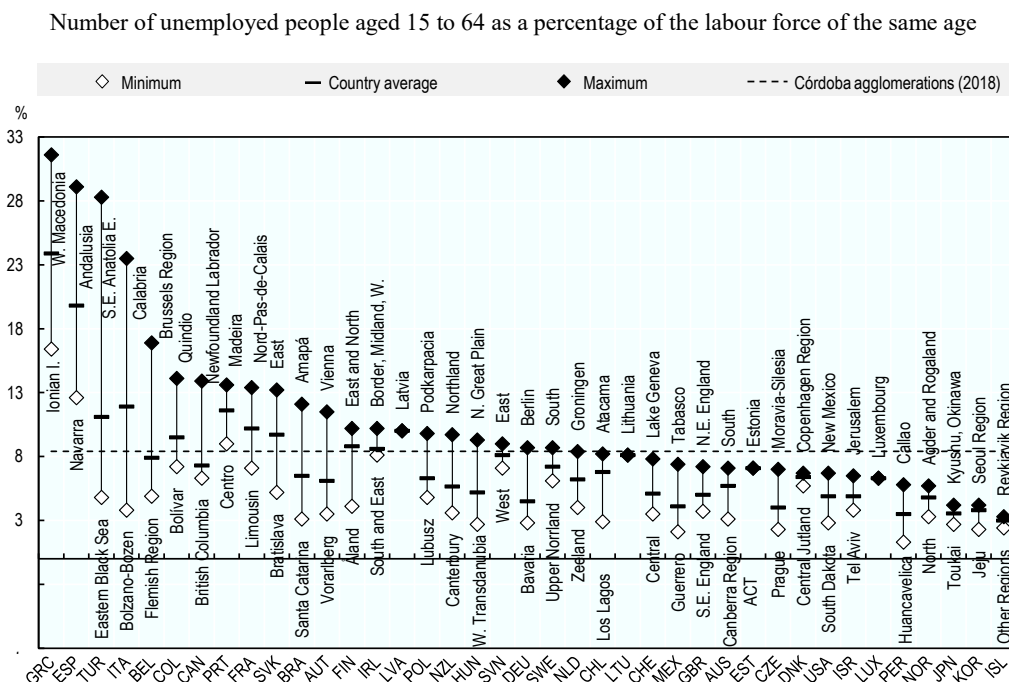
The unemployment rate in the Córdoba agglomerations is 8.4%, slightly above the OECD average, but lower than the rate observed in all the regions of Greece, Spain, Portugal and Latvia. The long-term unemployment rate in the Córdoba agglomerations (3.3%) is also very similar to the OECD average (3%). Even so, long-term unemployment in the Córdoba agglomerations is higher than in 71% of the OECD regions (Figure 2.10 and Figure 2.11).

Figure 2.9. Gender gap in the employment rate



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

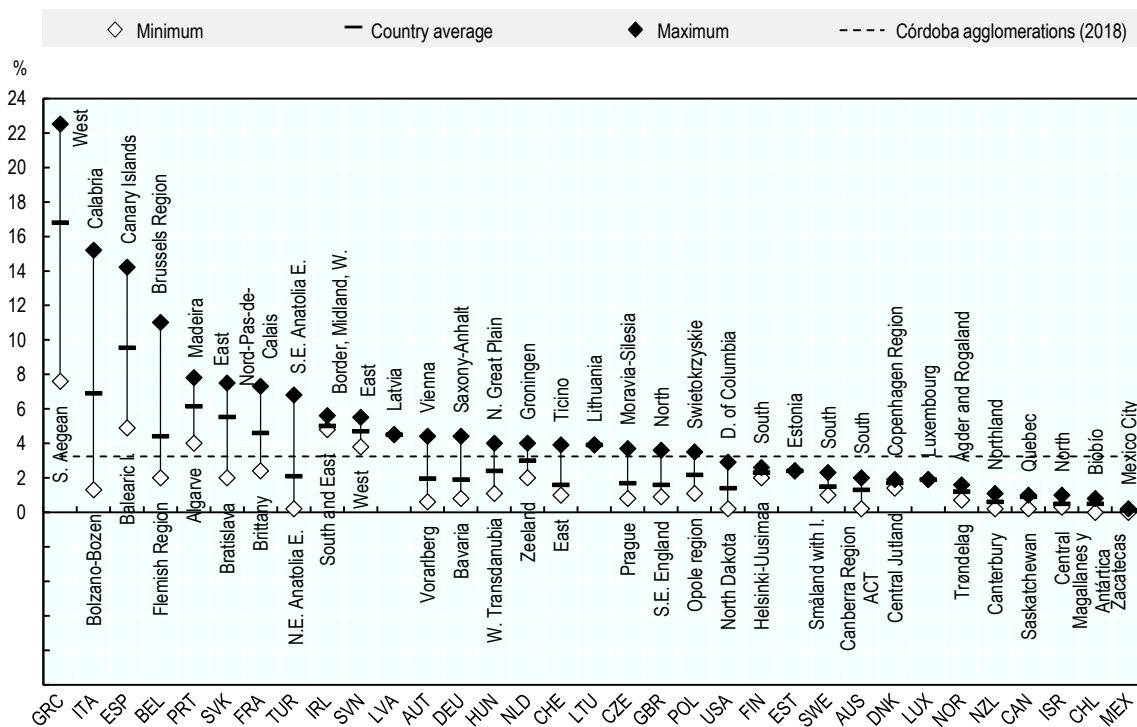
Figure 2.10. Unemployment rate, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Figure 2.11. Long-term unemployment rate, circa 2016

Number of people aged 15 to 64 unemployed for one year or more as a percentage of the labour force of the same age

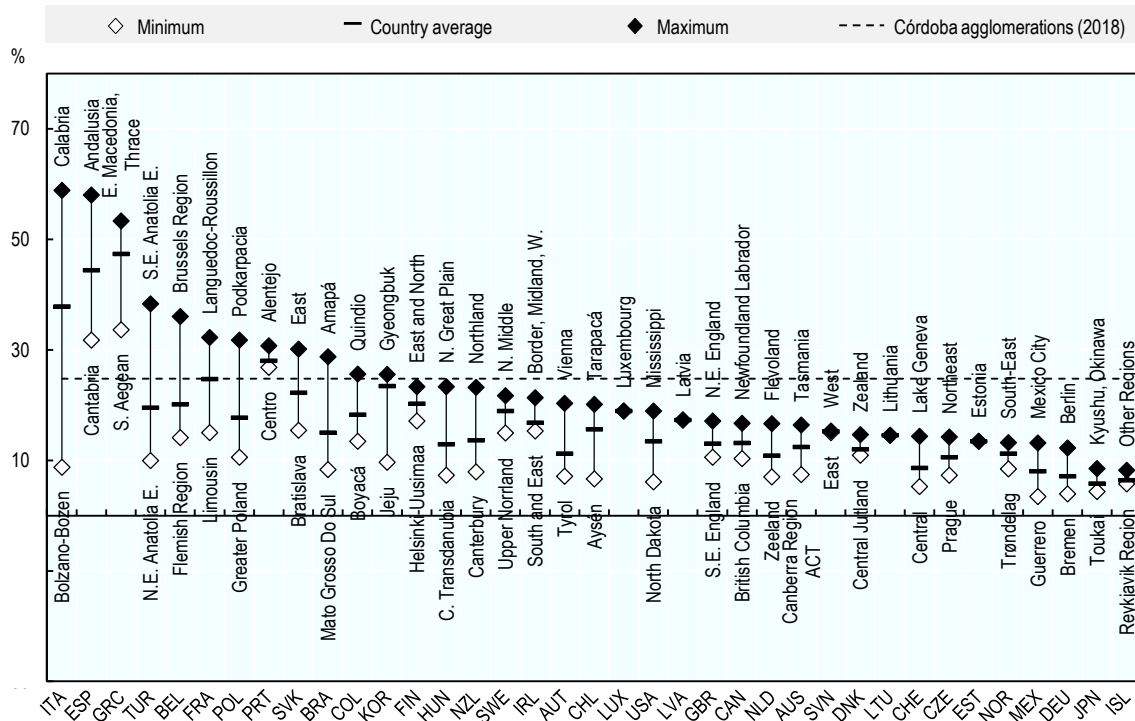


Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

In the Córdoba agglomerations, unemployment affects certain population groups more severely for reasons of age and gender. Figure 2.12 explores the youth unemployment rate (age 15 to 24), while Figure 2.13 documents the gender gap in unemployment rate. Youth unemployment in the Córdoba agglomerations is around the 25%, a level above the OECD average (17.6%). Only 18% (68 out of 375) of the OECD regions have a higher youth unemployment rate than the Córdoba agglomerations. Youth unemployment in the Córdoba agglomerations is lower than in all the regions of Spain, Portugal, Greece and Italy (with the exception of four Italian regions), all of which are regions from countries that have been deeply affected by the euro zone crisis. Figure 2.13 shows the difference between the unemployment rates of women and men (higher values indicate a greater difficulty for women to join the labour market than for men). The gender gap in the unemployment rate is 3.6 percentage points for the agglomerations of Córdoba, above the OECD average of 1.7 percentage points. This gap is higher than that observed in all the regions of 33 countries (out of 39 available). Only in some regions of Brazil, Colombia, Spain, Italy, Greece and Turkey is the observed gender gap more severe than in the Córdoba agglomerations.

Figure 2.12. Youth unemployment rate

Number of unemployed people aged 15 to 24 as a percentage of the labour force of the same age, circa 2016



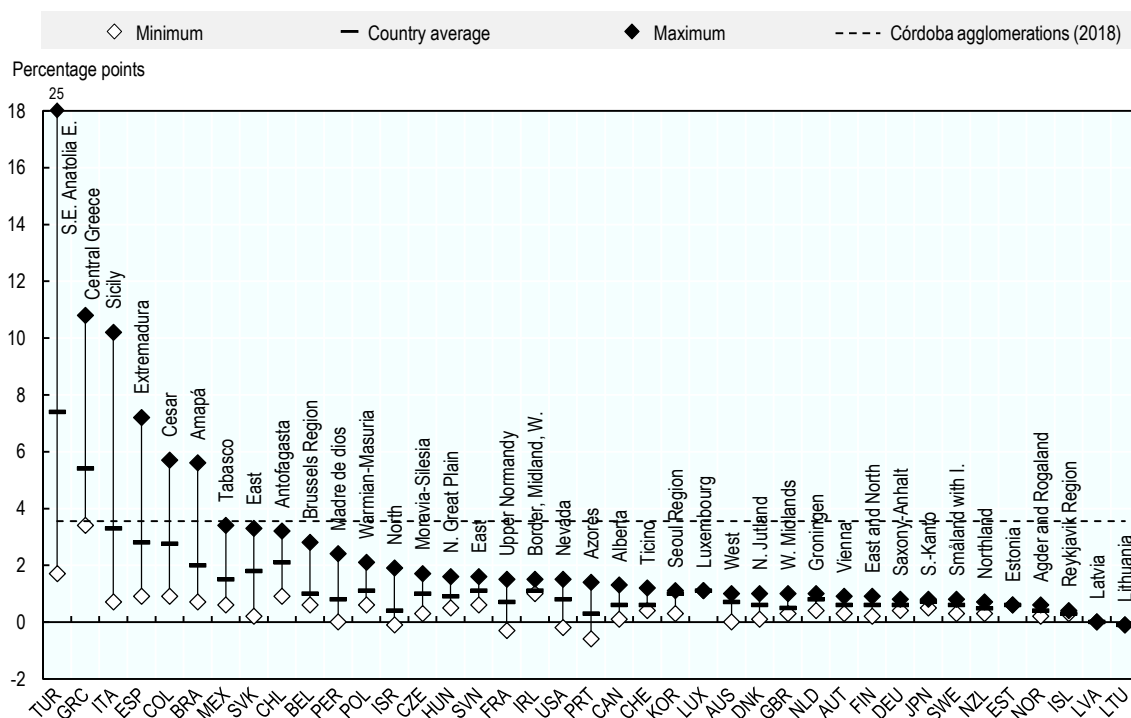
Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Although all the agglomerations need to improve labour market participation for women, in the Gran Córdoba the rigidities faced by women, relative to men, are the greatest (with an employment gender gap above the 24 percentage points). Table 2.4 shows that the gender gap in the employment rate is very high and close to 20 percentage points or more in all the agglomerations. The exception is San Francisco, where it is 16 percentage points, although still above the OECD average. Moreover, there are clear disparities between agglomerations in the unemployment gender gap. Whereas in San Francisco and Río Cuarto-Las Higueras the gap is close to zero, in Gran Córdoba the unemployment rate is 4.7 percentage points higher for women than for men.

Major disparities between agglomerations are also observed in youth unemployment and the informality rate (percentage of employees without a retirement scheme). For example, whereas in Villa María-Villa Nueva the youth unemployment rate is close to 11%, in Gran Córdoba it reaches 27%. On the other hand, Villa María-Villa Nueva is the agglomeration that performs worst in informality, with around 40% of its employees lacking any sort of contribution pension plan, 10 percentage points more than in Gran Córdoba, which is the agglomeration that performs best in this indicator.

**Figure 2.13. Gender gap in unemployment rate**

Difference between the unemployment rate of women and the unemployment rate of men, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

**Table 2.4. Jobs in the Córdoba agglomerations**

Territory	Gender	Employment (%)	Unemployment (%)	Long-term unemployment (%)	Youth unemployment (%)	Informality (%)
Gran Córdoba	Total	60.44	9.23	3.69	26.6	32.86
	Women	48.54	11.93	.	.	.
	Men	72.95	7.25	.	.	.
Río Cuarto-Las Higueras	Total	61.67	5.27	0.72	18.24	39.34
	Women	52.34	4.68	.	.	.
	Men	71.6	5.71	.	.	.
Villa María-Villa Nueva	Total	67.67	3.37	1.12	10.77	42.3
	Women	57.31	2.48	.	.	.
	Men	78.32	4.02	.	.	.
San Francisco	Total	65.58	6.09	3.32	24.75	33.35
	Women	57.7	5.41	.	.	.
	Men	73.61	6.58	.	.	.
Córdoba agglomerations	Total	61.16	8.4	3.25	24.78	34.04
	Women	49.72	10.44	4.82	33.97	.
	Men	73.16	6.89	2.1	19.66	.

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Education

Education is not only crucial for people to find a well-paid job that helps them meet their material needs, but is also a means to developing the intellect and skills and individual needs to achieve their personal life goals. By providing opportunities for all from a very early age, education can boost people's social mobility (i.e. help them move out of poverty) and reduce inequality. The OECD also uses the educational attainment of the labour force as an indicator providing information on the skills level of the labour force. A higher skilled labour force should be able to find a decent job more easily. Moreover, high levels of education among the same labour force should result in greater productivity and innovation in companies. Education also contributes to creating more democratic and functional societies; high levels of education are associated with citizens being more engaged and committed to society.

To cover the well-being dimension of education in the Córdoba agglomerations, the following indicators were selected:

- Percentage of the labour force (aged 15 to 64) with at least upper secondary education – baseline indicator.
- Percentage of the population (aged 25 to 64) with at least upper secondary education.

The performance of the Córdoba agglomerations with regards to education is below the OECD average, although it is noteworthy that there is a higher percentage of highly qualified women compared to the male population. With 73% of their adult population (25-64 year-olds) with at least upper secondary education, the Córdoba agglomerations are below the OECD average (78%) but exceed the averages of Chile, Italy, Spain, Colombia, Brazil, Portugal, Costa Rica, Turkey and Mexico – all below 65% – and Argentina (59%) (Figure 2.14). Figure 2.15 shows that the gap between the educational attainment of women and men in the Córdoba agglomerations (of 5.1 percentage points) is, alongside Portugal, Estonia, Latvia, Ireland and Lithuania, among the highest in the OECD, and higher than in 33 of the 39 countries studied.

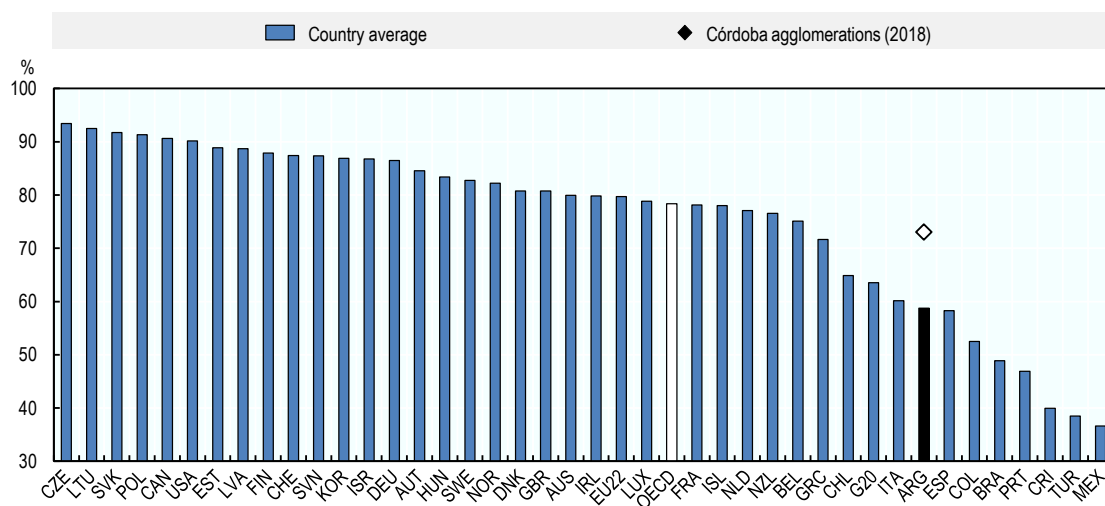
In the agglomerations of Córdoba, 75% of the labour force has achieved at least upper secondary education; the same level as the OECD average, but below the level displayed by 63% of the OECD regions (243 out of 386). Nevertheless, compared to the regions of Latin America, Córdoba lies within the top 1% of regions of Chile, Colombia, Brazil, Costa Rica and Mexico (only slightly below the Chilean region of Antofagasta) (Figure 2.16).

The intra-provincial differences in outcomes related to education (not broken down by gender) are relatively small. The largest difference between the agglomerations in educational attainment for the adult population is of around 6 percentage points (between Gran Córdoba and Río Cuarto-Las Higueras) and 6.5 percentage points when looking at the labour force's educational attainment (between Gran Córdoba and Villa María-Villa Nueva). However, there are large disparities in the gender gap in educational attainment between the adult population and the labour force, and across agglomerations. While the educational attainment gender gap (difference between outcomes for women versus men) is around 5 percentage points for the adult population, this difference increases to 11 percentage points for the labour force. The education gender gap for the labour force varies between agglomerations; while San Francisco has a gender gap of 9 percentage points, Río Cuarto-Las Higueras has a gap of around 18 percentage points (Figure 2.17; Table 2.5).



**Figure 2.14. Adult education**

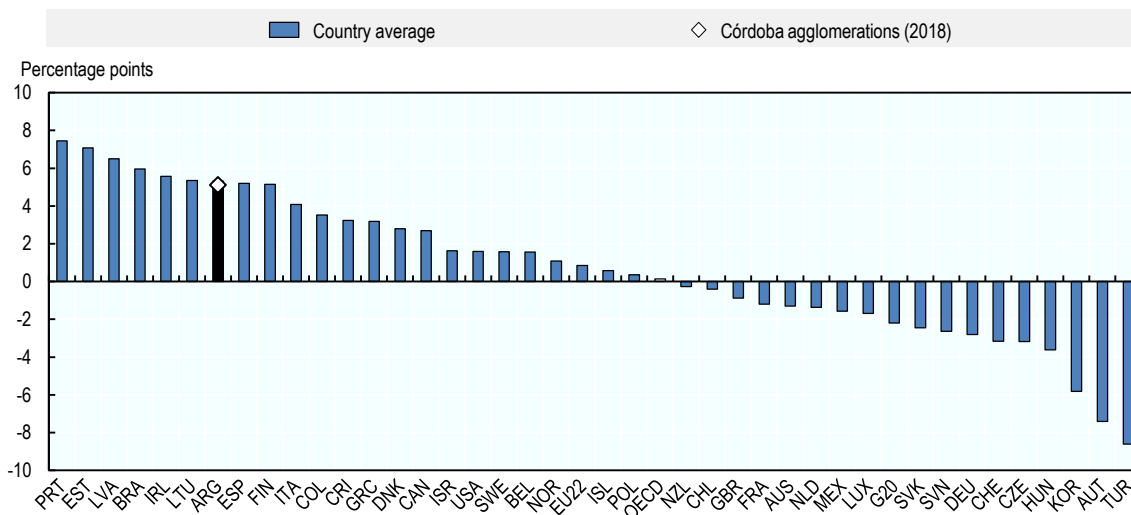
Percentage of the population aged 25 to 64 having completed at least upper secondary education, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018d), *Education at a Glance 2018: OECD Indicators*, <https://doi.org/10.1787/eag-2018-en>.

**Figure 2.15. Gender gap in adult education**

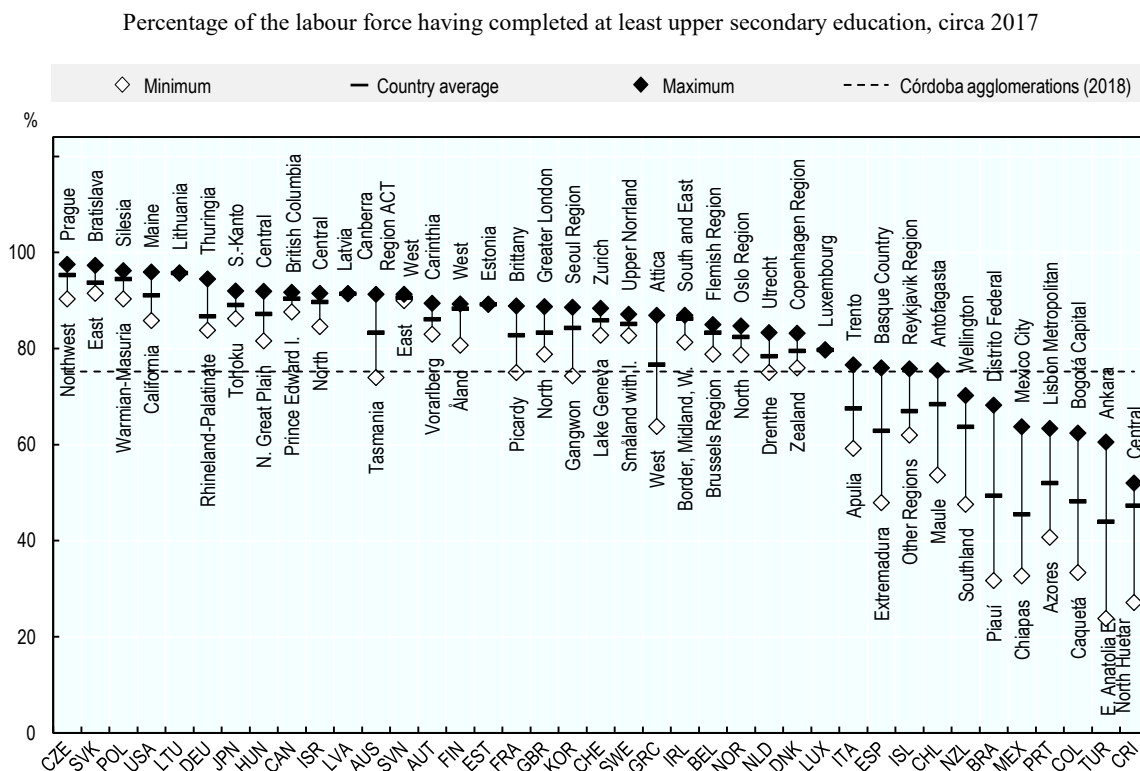
Difference in educational attainment between women and men, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018d), *Education at a Glance 2018: OECD Indicators*, <https://doi.org/10.1787/eag-2018-en>.



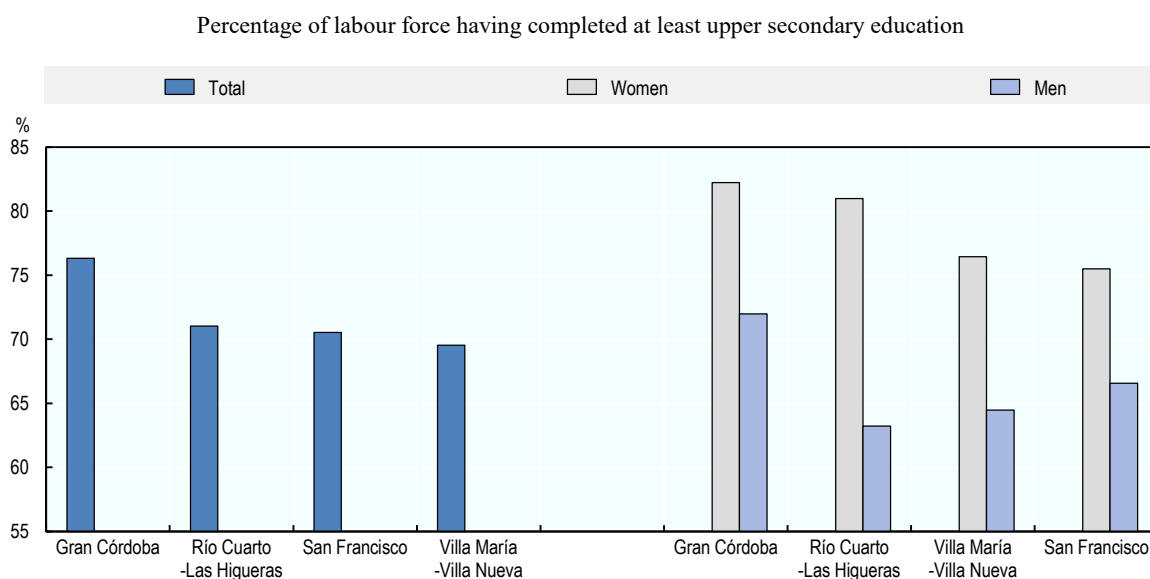
Figure 2.16. Education of labour force



Note: It should be considered that upper secondary education in Argentina is unlikely to be completed at 15 or 16 years old, which could generate a negative bias in the performance of Córdoba agglomerations in this indicator.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Figure 2.17. Intra-provincial differences in educational attainment of the labour force, 2018



Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

**Table 2.5. Education in the Córdoba agglomerations**

Area	Gender	% of adults with upper secondary education	% of labour force with upper secondary education
Gran Córdoba	Total	74.18	76.31
	Women	76.31	82.23
	Men	71.92	71.97
Río Cuarto-Las Higueras	Total	67.83	71.03
	Women	73.07	80.99
	Men	62.04	63.23
Villa María-Villa Nueva	Total	67.98	69.54
	Women	72.04	76.44
	Men	63.64	64.47
San Francisco	Total	69.29	70.52
	Women	69.82	75.48
	Men	68.74	66.55
Córdoba agglomerations	Total	73.04	75.2
	Women	75.52	81.51
	Men	70.41	70.53

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Work-life balance

Having free time is crucial for people's well-being; although this is often easier said than done, especially when one has a full-time job: since working is the activity that employed people spend the largest proportion of their time doing. While having a job is essential to meet certain material and personal needs, it is also important that individuals dedicate time to other activities that benefit their health and lives. Sport, cultural activities, family time, and having enough rest after work are fundamental to a healthy and well-balanced life. Achieving a good work-life balance is crucial not only for individuals, but also for the people around them; for example, the well-being of children may be heavily affected by the time their parents spend with them.

To measure the well-being dimension of work-life balance in the Córdoba agglomerations, the following indicators were selected:

- Percentage of employed people (aged 15 to 64) whose usual hours of work per week are 50 hours or more.
- Percentage of the employed population (aged 15 to 64) who travel to work in a municipality other than the municipality of residence.
- Percentage of the employed population (aged 15 to 64) who take 30 minutes or more to get to their main place of employment.
- Percentage of the employed population (aged 15 to 64) who use a vehicle or motorcycle to get to their main place of employment.
- Percentage of the employed population (aged 15 to 64) who use urban or suburban public transport to get to their main place of employment.

To measure work-life balance, the DGEyC decided to include an indicator that captures the percentage of "Employees working very long hours", which corresponds to workers aged 15 to 64 who have stated that they work 50 hours or more per week (see Box 2.4 for further details on the OECD definition). This indicator, which is still not available for the OECD's

TL2 regions (except for the states of Mexico; see OECD, 2015c), is compared with the country averages in Figure 2.18. The graph shows that around 16% of workers in Córdoba work 50 hours or more a week, around 4 percentage points above the OECD average. Compared to the Córdoba agglomerations, only Turkey, Mexico, Japan and Korea have a higher share of workers spending 50 hours or more a week at work. Figure 2.19 shows that the shares of employees working long hours are higher in all Mexican regions than those observed in Córdoba, with the exception of Jalisco, which performs similarly to the Córdoba agglomerations.

#### Box 2.4. Measuring work-life balance

The two work-life balance indicators used by the OECD are defined below:

Employees working very long hours: it corresponds to the employees working 50 hours or more per week as a percentage of total workers of the same age (for the agglomerations of Córdoba it was applied using the population aged 15 to 64). The limit is set at 50 hours because, factoring in commuting time, unpaid work and essential needs (such as sleeping and eating), it is likely that workers who regularly spend more than 50 hours a week at work have very few hours (one or two per week) for other activities. Furthermore, in countries with laws regulating maximum working hours, the limit tends to be at 48 hours per week. Figures are obtained from national labour force surveys and are generally comparable across countries.

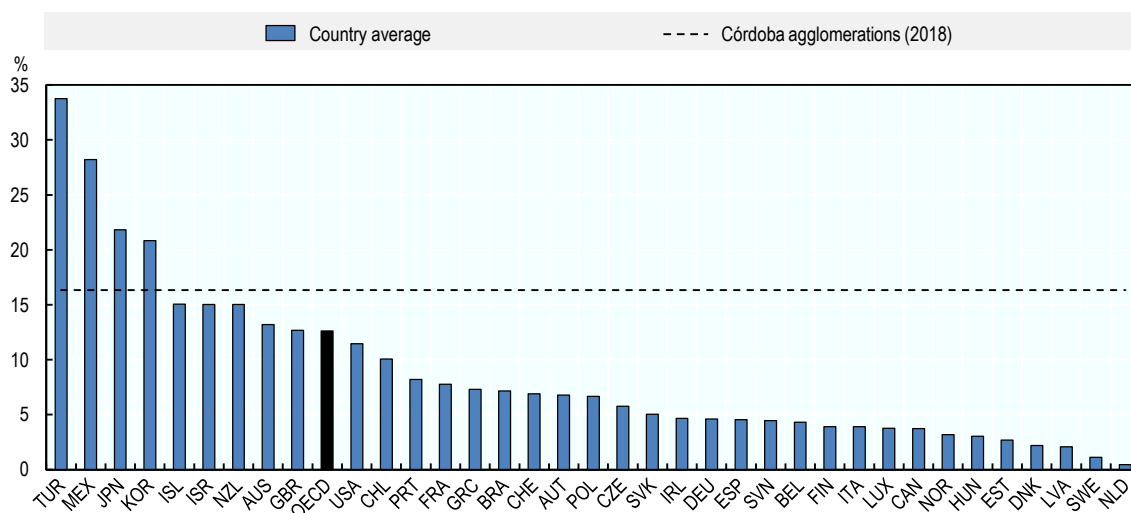
Time devoted to leisure and personal care for a normal day and for people in full-time employment. For the sole purpose of improving comparability between countries with differing employment rates, the information is collected through national time-use surveys, which involves respondents keeping track of their activities over one or more normal days over a certain period. The activities considered in the definition of “time devoted to leisure and personal care” include: sleeping, eating, hygiene, exercising, spending time with family and friends, and travelling for leisure. These surveys can be difficult to compare for certain countries and some specific type of activity. The data used by the OECD come from the Harmonised European Time Use Survey: the Eurostat database on time use, microdata and charts from the time-use surveys published by the various national offices of statistics.

The two indicators here presented provide both direct and indirect measures of time available for non-work activities that improve personal and family well-being. Nevertheless, measuring work-life balance is a more difficult task. First, how people spend their time depends on their needs, personal preferences and cultural, social and family context. In other words, what one person deems to be “balanced” might not be the same for another individual. People who run their own businesses may have an extra incentive to work longer hours each week, which is why they are excluded when calculating this indicator. However, this could affect the results if the self-employed make up a significant share of the total workforce. Second, as the indicators covered in this report only refer to the amount of time spent on different tasks, they do not provide insights into the quality of time spent outside work and therefore neither into each individual’s enjoyment of life. Third, the time-use surveys in most OECD countries are only conducted very specifically or infrequently (i.e., every 5 or 10 years), resulting in indicators that are generally outdated and thus irrelevant.

Source: OECD (2015a), *How’s Life? 2015: Measuring Well-being*, <https://doi.org/10.1787/9789264240735-es>.

**Figure 2.18. Employees working very long hours in OECD countries**

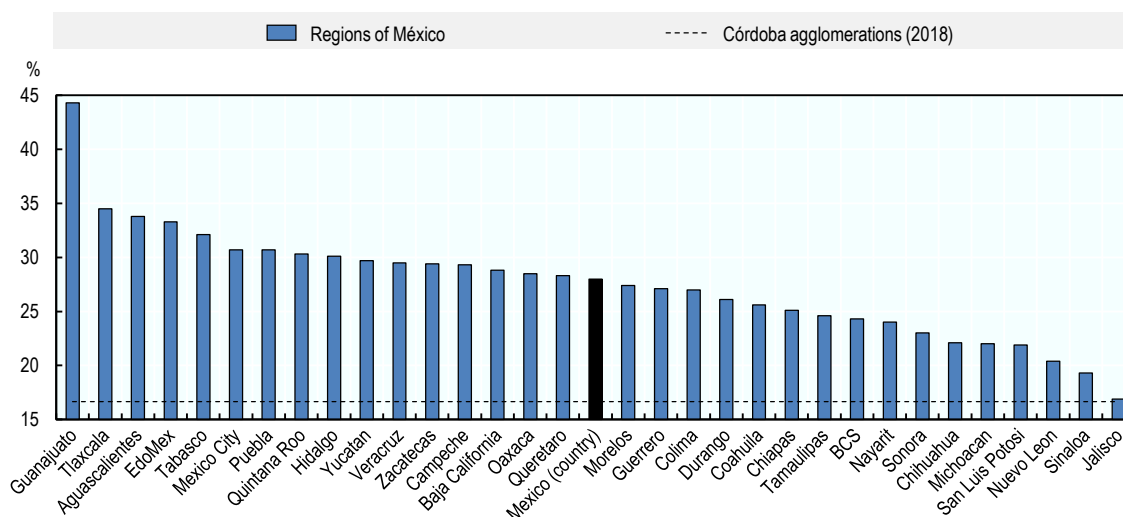
Percentage of workers aged 15 to 64 who regularly work 50 hours or more a week, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018c), *OECD Employment and Labour Market Statistics (database)*, <http://dx.doi.org/10.1787/lfs-lfs-data-en>.

**Figure 2.19. Employees working long hours in Mexico's regions**

Percentage of workers who regularly work 49 hours or more a week, 2018



Note: While the indicator for the Córdoba agglomerations corresponds to the population aged 15 to 64, for the Regions of México it corresponds to the populations aged 14 to 98.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; INEGI (2018), *National Survey of Occupation and Employment (ENOE)*, <https://www.inegi.org.mx/programas/enoe/15ymas/>.

There are some differences in work-life balance between agglomerations. With the objective to deepen their understanding of how time and transport services are used in the agglomerations, the DGEyC introduced the indicators shown in Table 2.6 (along with the indicator of working long hours). While only 15.5% of workers in Gran Córdoba declares

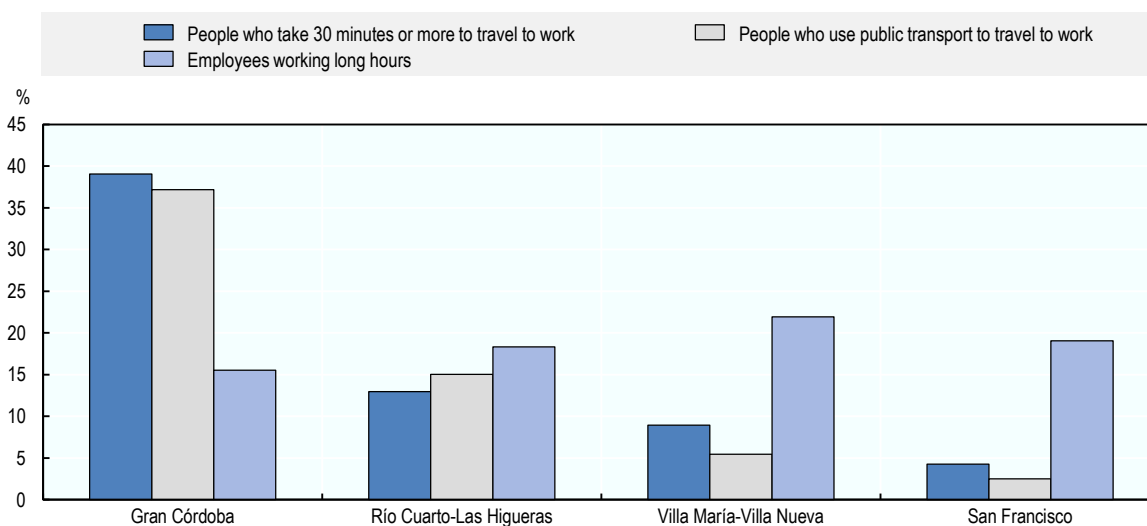
working long hours, this figure rises to 22% in Villa María-Villa Nueva. Almost 14% of Villa María-Villa Nueva's population have to travel out of their municipality to work, while only 4.7% of Gran Córdoba's inhabitants have to. That said, travel times in the latter agglomeration are longer. It can be seen that the percentage of people taking more than 30 minutes to reach their place of work and the percentage of people using public transport to get to work increase with the population size of the agglomeration. For instance, while 39% of Gran Córdoba's inhabitants take over 30 minutes to get to their main place of work, only 4% of San Francisco's inhabitants experience this (Figure 2.20).

**Table 2.6. Work-life balance in the Córdoba agglomerations**

Area	Gender	Employees working very long hours (%)	Travel outside municipality for work (%)	More than a 30-minute journey from home to work (%)	Private transport for commuting (%)	Public transport for commuting (%)
Gran Córdoba	Total	15.53	4.69	39.06	42.81	37.17
	Women	7.98	4.62	38.65	30.54	46.32
	Men	20.77	4.75	39.37	51.76	30.49
Río Cuarto-Las Higueras	Total	18.34	5.07	12.95	58.35	15.04
	Women	8.48	1.45	13.91	40.97	25.47
	Men	25.99	8.18	12.12	73.18	6.15
Villa María-Villa Nueva	Total	21.92	13.93	8.94	56.63	5.45
	Women	16.67	10.34	5.66	45.29	8.41
	Men	25.91	16.97	11.56	65.37	3.21
San Francisco	Total	19.04	2.96	4.27	71.32	2.52
	Women	14.61	0	0.04	65.89	3.88
	Men	22.59	5.48	7.59	75.59	1.46
Córdoba agglomerations	Total	16.34	5.26	33.28	46.29	31.65
	Women	8.89	4.51	32.4	34.02	39.96
	Men	21.62	5.86	33.94	55.43	25.46

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

**Figure 2.20. Intra-provincial differences in work-life balance**



Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Health

Having a long, healthy (i.e. illness-free) life is one of the most valuable things for people. As well as its intrinsic value, physical and mental health is crucial to other aspects of well-being such as employment, education and work-life balance. Poor health tends to lead to physical pain and negative emotions, which translate into lower levels of life satisfaction.

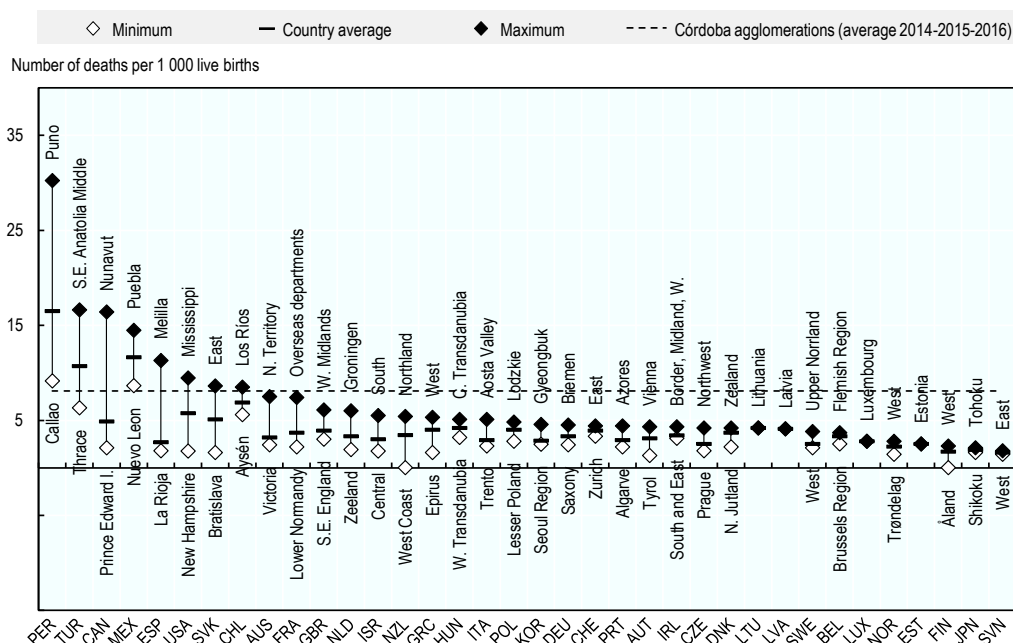
To cover the well-being dimension of health in the Córdoba agglomerations, the following indicators are considered:

- Number of years a newborn can expect to live – baseline indicator.
- Number of deaths of children younger than one year old per 1 000 live births – baseline indicator.
- Percentage of the population (aged 18 or more) who report good or very good health.

The average infant mortality rate in the Córdoba agglomerations from 2014 to 2016 was of 8.1 infant deaths per 1 000 live births. This value is 60% higher than the average of OECD regions in 2015 (of 4.9 infant deaths per 1 000 live births). Furthermore, only 60 out of 391 OECD regions have a higher infant mortality rate than that registered for the Córdoba agglomerations (Figure 2.21). The Córdoba agglomerations' performance in this indicator is better when compared to the Latin American regions for which data is available. The infant mortality rate in Córdoba agglomerations is lower than that displayed in all the regions of Peru and Mexico, and in two (out of fifteen) Chilean regions. It is worth noting that infant mortality rate in Córdoba has decreased from 21.4 infant deaths per 1 000 live births in 1990-1992 to 8.1 in 2014-2016.

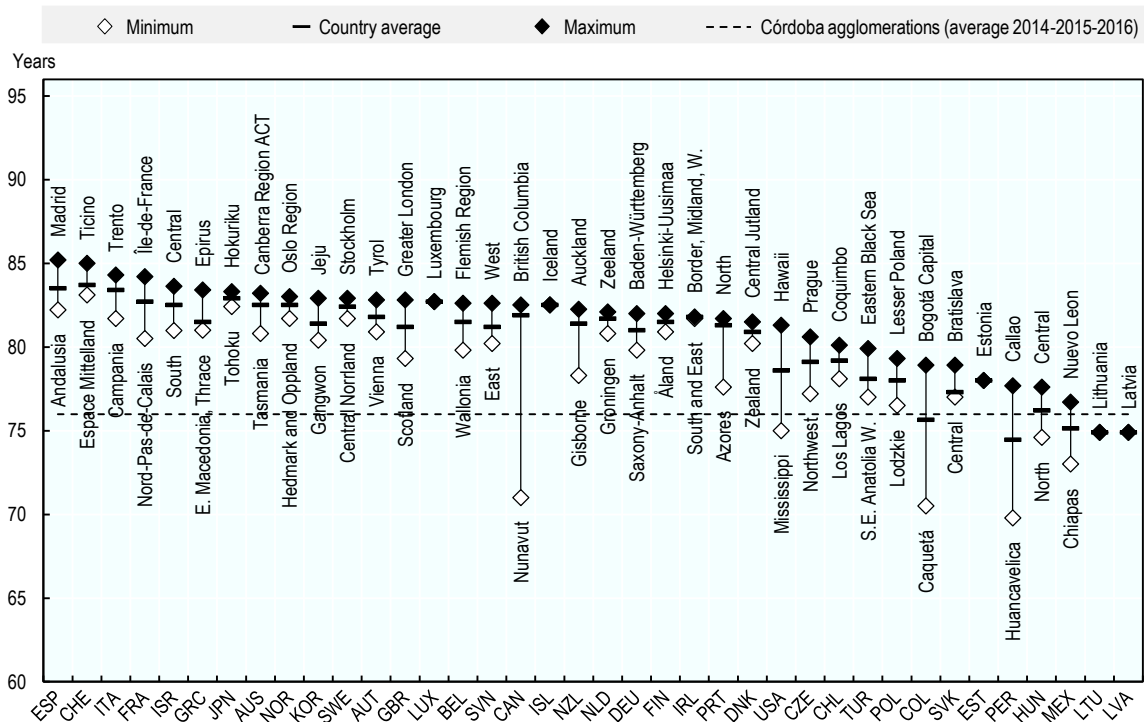
**Figure 2.21. Infant mortality rates, circa 2015**

Number of deaths of children younger than one year old per 1 000 live births



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Figure 2.22. Life expectancy at birth



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

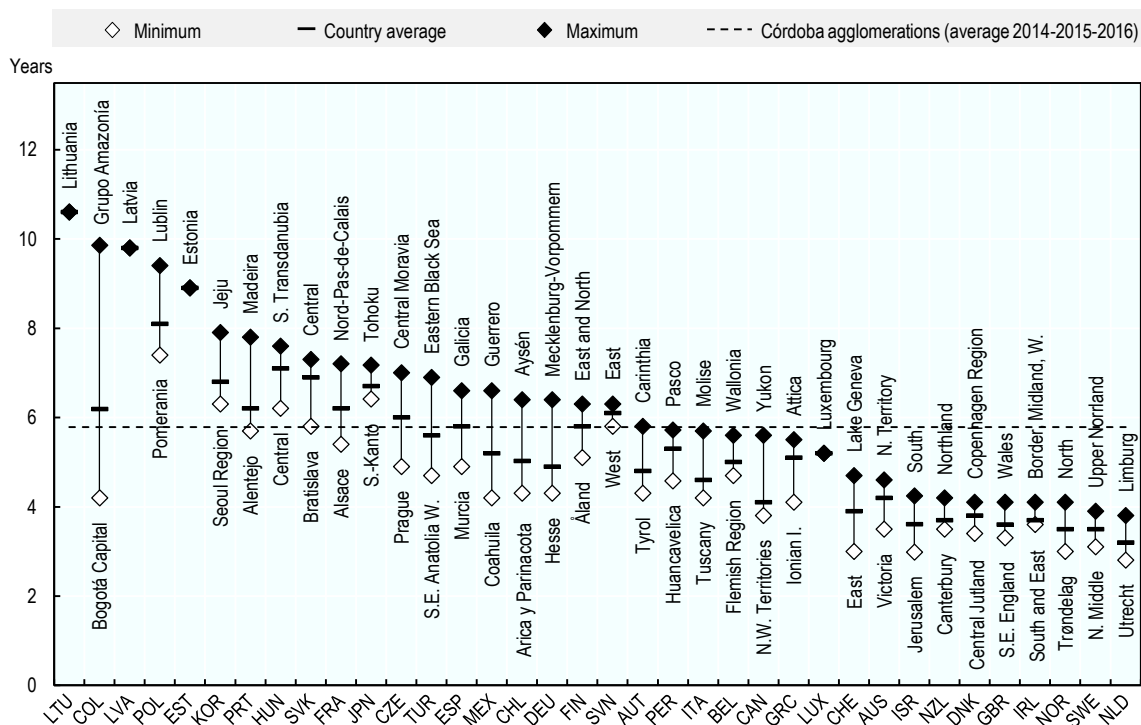
Life expectancy at birth in the agglomerations of Córdoba is 76 years, some 4 years shorter than the OECD average and below that of 85% (371 out of 444) of all TL2 regions shown in Figure 2.22. Córdoba agglomerations outperform 65% (68 out of 101) of the regions in Chile, Colombia, Mexico and Peru. The gender gap in life expectancy (difference between the life expectancy of women and of men) in the agglomerations is very similar to the OECD average (of around 5.5 years) and smaller than that of a third of the regions (112 out of 338) (Figure 2.23).

In contrast to the results for objective health indicators, the subjective indicator of perceived health shows that close to 83% of people over the age of 18 in the Córdoba agglomerations claim they are in good or very good health. This result positions the agglomerations above the OECD average (69%) and the average for 31 countries (out of 36 countries studied). Córdoba agglomerations' average is only below that of Canada, New Zealand, the United States, Australia and Israel (Figure 2.24). The perceived health gender gap (difference between women's and men's perceived health) shows that men tend to feel they are in better health than women. The gender gap in perceived health in the agglomerations of Córdoba is of 6 percentage points, just two percentage points above the OECD average (Figure 2.25). While the contrast between outcomes from objective and subjective indicators of health might seem at odds, it should be noted that the literature has been documenting these type of mismatches in recent years (e.g., Johnston et al., 2007 or Mosca et al., 2013). At the same time, when working with self-reported subjective measures of well-being, it should be always considered that these indicators might be subject to biases due to cultural aspects (Exton et al., 2015).



**Figure 2.23. Life expectancy at birth gender gap, circa 2016**

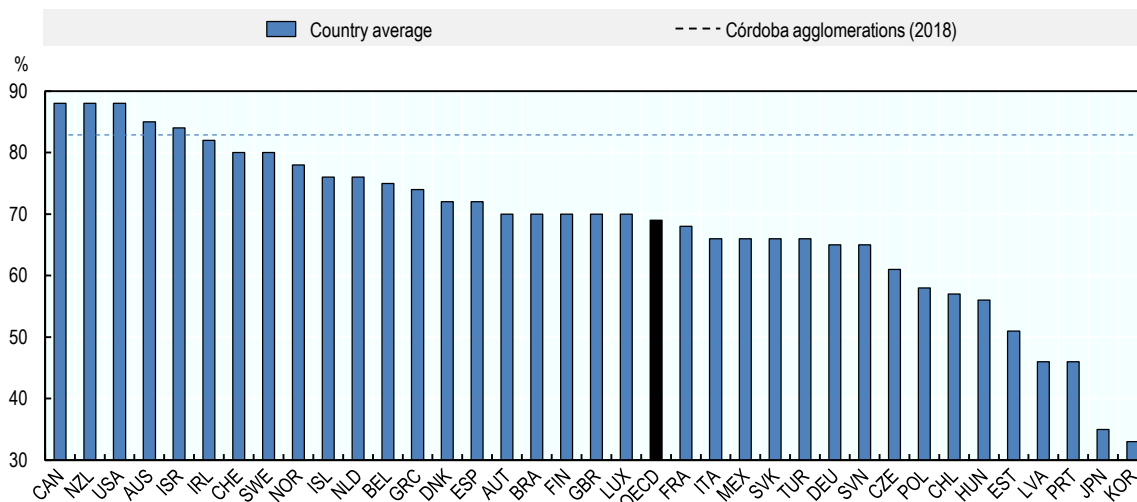
Difference between life expectancy of women and life expectancy of men



Sources: DGEyC (2018), Well-being Survey, <https://estadistica.cba.gov.ar>; OECD (2018b), OECD Regional Statistics (database), <http://dx.doi.org/10.1787/region-data-en>.

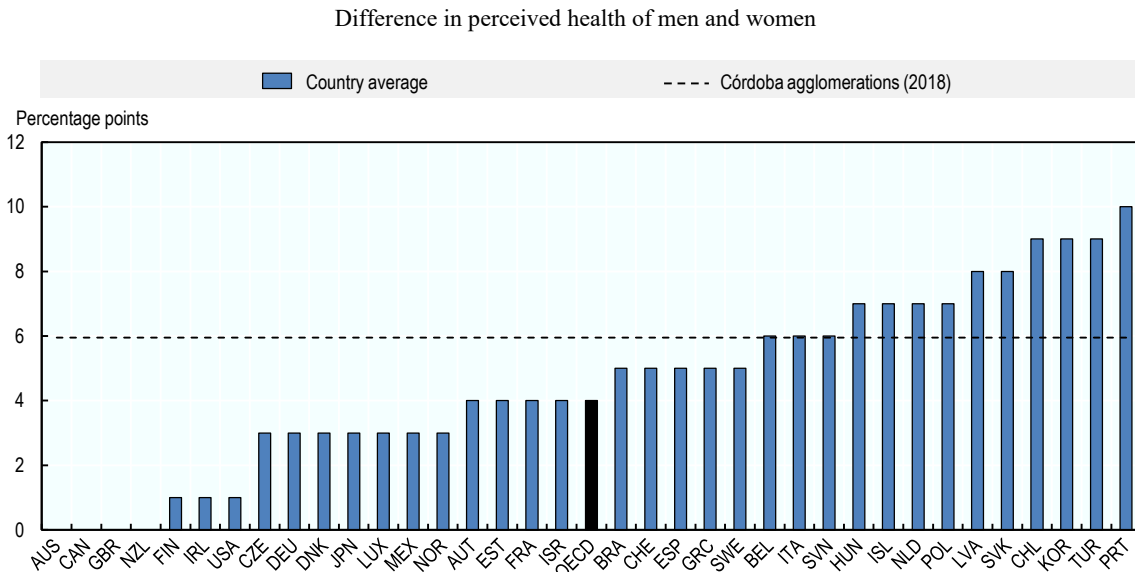
**Figure 2.24. Perceived health, circa 2015**

Percentage of people that reported good or very good health



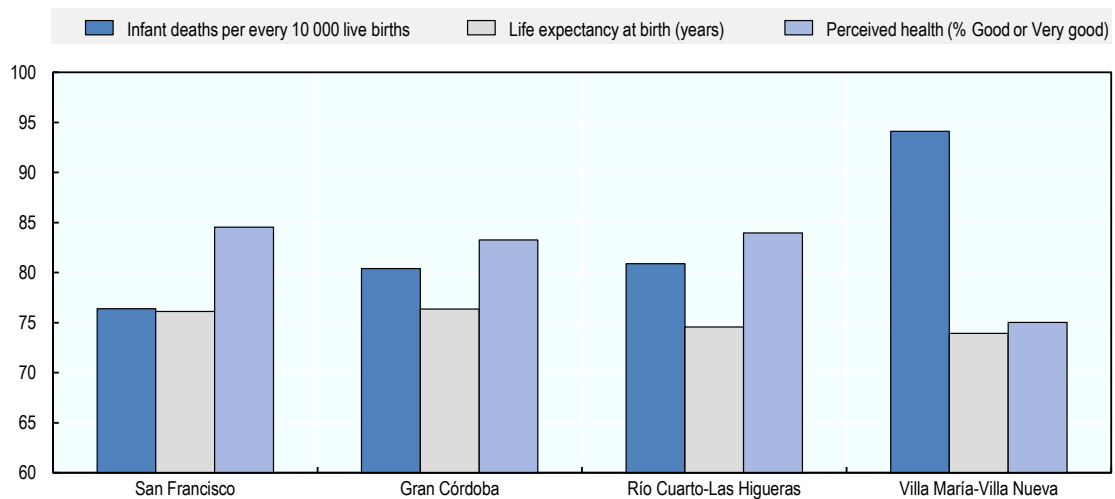
Sources: DGEyC (2018), Well-being Survey, <https://estadistica.cba.gov.ar>; OECD (2017), How's Life? 2017: Measuring Well-being, [https://doi.org/10.1787/how\\_life-2017-en](https://doi.org/10.1787/how_life-2017-en).



**Figure 2.25. Gender gap in perceived health, circa 2015**

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2017), *How's Life? 2017: Measuring Well-being*, [https://doi.org/10.1787/how\\_life-2017-en](https://doi.org/10.1787/how_life-2017-en).

Figure 2.26 shows some differences in health indicators between agglomerations. While the infant mortality rate is 7.6 in San Francisco, it rises to 9.4 in Villa María-Villa Nueva. The difference between the agglomerations with the highest and lowest perceived health scores is 9 percentage points (between Río Cuarto-Las Higueras and Villa María-Villa Nueva, respectively). Although men tend to consider themselves healthier than women do, there are some variations across agglomerations. For example, the gender gap in perceived health in San Francisco is close to the 5.5 percentage points (more similar levels of perceived health between men and women), whereas this gender gap is significantly positive and close to 9 percentage points in Villa María-Villa Nueva (men clearly self-report better health than women do) (Table 2.7).

**Figure 2.26. Intra-provincial differences in health, 2018**

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

**Table 2.7. Health in the Córdoba agglomerations**

Area	Gender	Infant mortality rate (infant deaths per 1 000 live births)	Life expectancy (years)	Perceived health (%)
Gran Córdoba	Total	8.04	76.36	83.27
	Women		79.05	80.42
	Men		73.45	86.28
Río Cuarto-Las Higueras	Total	8.09	74.56	83.95
	Women		77.44	80.89
	Men		71.54	87.16
Villa María-Villa Nueva	Total	9.41	73.92	75.03
	Women		77.17	70.51
	Men		70.56	79.06
San Francisco	Total	7.64	76.13	84.54
	Women		79.97	81.41
	Men		72.24	87.19
Córdoba agglomerations	Total	8.11	75.99	82.86
	Women		78.79	79.94
	Men		73	85.89

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Access to services

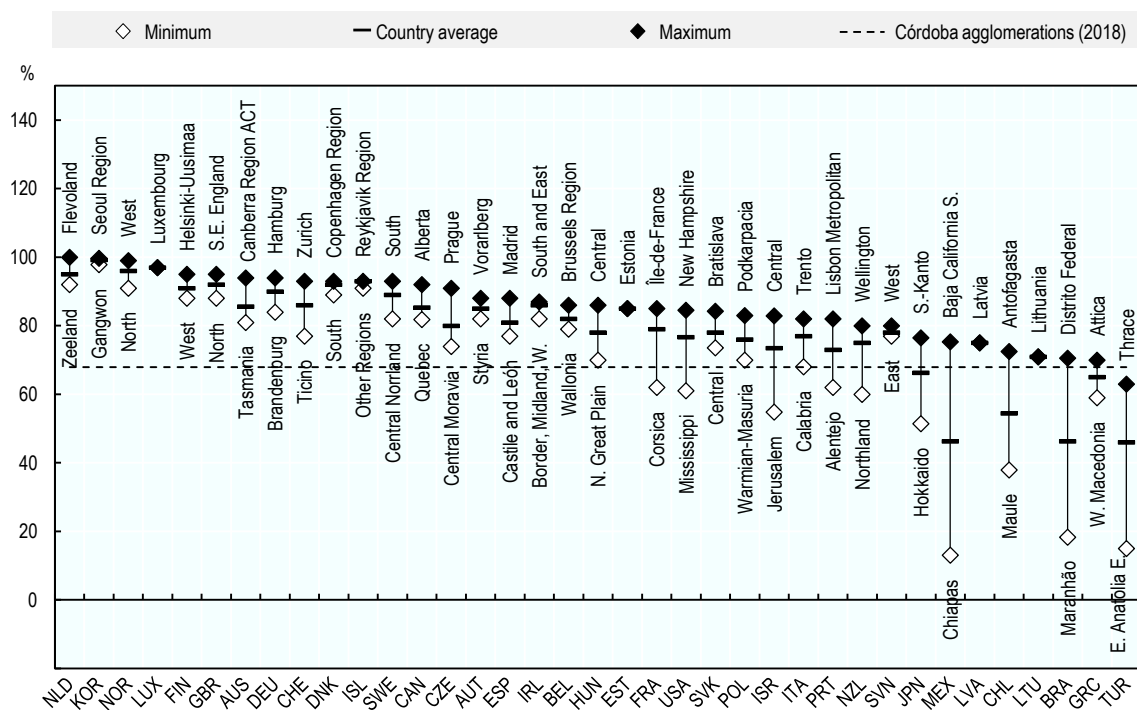
Access to services not only determines how available essential services such as drinking water, healthcare and education (e.g. hospitals and schools) are, but also affects the relocation of people and therefore the state of the housing market, demand for transport and work, etc. While internet access is not considered to be a basic service, it is becoming increasingly important. For example, as a tool that can reduce the lack of opportunities in education and jobs through all the information and professional networks that makes available for users.

To cover the well-being dimension of access to services in the Córdoba agglomerations, the following indicator is considered: Percentage of households with internet access in the dwelling – baseline indicator.

Households' access to the internet in the Córdoba agglomerations is moderate considering that it is the urban area of the province. Figure 2.27 shows that 68% of households in the agglomerations of Córdoba have internet access, 6 percentage points below the OECD average of 74%. Access to internet in the agglomerations of Córdoba is higher than the country average in Mexico, Chile, Brazil, Greece and Turkey, but below three quarters (288 out of 387) of the OECD regions.

**Figure 2.27. Internet access**

Percentage of households with internet access in the dwelling, circa 2016



Note: While for the majority of OECD regions this indicator refers to broadband internet access, this restriction does not apply for the Córdoba agglomerations.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

At an intra-provincial level, there are some differences between the four Córdoba agglomerations. While 71% of households in San Francisco have internet access, only 67% of households in Río Cuarto-Las Higueras benefit from this service (Table 2.8).

**Table 2.8. Access to services in the Córdoba agglomerations**

Area	Internet access (%)
Gran Córdoba	67.76
Río Cuarto-Las Higueras	67.24
Villa María-Villa Nueva	68.78
San Francisco	70.76
Córdoba agglomerations	67.89

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Security

Personal security (safety) is key to having a decent quality of life. Violence and a lack of security have a major impact not only on a victim's physical and psychological well-being, but also on the families around the victims and, more generally, in the cohesion of society. There may also be high levels of mistrust in institutions if the authorities are unable to guarantee security. Homicides rate is a common indicator of security; however, the OECD has also recommended other indicators that could help provide further insight into this dimension of well-being (Box 2.5).

### Box 2.5. Measuring personal security

Deaths due to assault (homicides): This indicator looks at cases where assault is registered as the cause of death in the administrative death certificates. It is shown as an age-standardised rate per 100 000 inhabitants. Cause-of-death statistics are obtained from national registry office systems, gathered by national authorities and collated by the World Health Organisation (WHO). Only medically certified deaths are included.

To measure personal security, the province of Córdoba uses the indicator of number of homicides per 100 000 people; however, the OECD has also recommended other indicators that could provide further insight into this dimension of well-being:

Self-reported victimisation: this indicator reflects the percentage of people having responded “yes” to the following question included in the Gallup World Poll (sometimes also available in victimisation surveys): “within the past 12 months, have you been assaulted or mugged?”

Feeling safe when walking alone at night: this indicator shows the percentage of people having replied positively to the question: “Do you feel safe walking alone at night in the city or area where you live?” The source of these data for the OECD is Gallup World Poll (but it can also be obtained from other perception surveys).

An ideal set of indicators of personal security would inform about the various crimes and offences experienced by individuals, and would weigh these crimes according to their seriousness. However, official crime records are not highly comparable across countries due to differences in what is defined (and counted) as a crime, and in both crime reporting and recording practices. The data shown here refer to deaths due to assault as recorded in country civil registration systems, rather than homicides as recorded by the police. A recent joint report by the National Institute of Statistics and Geography of Mexico (INEGI) and the United Nations Office on Drugs and Crime provides a roadmap to improve the availability and quality of crime statistics at national and international level (UNODC, 2013, see below).

Crime victimisation surveys are a critical tool for measuring people's experience of crime, and while these do exist in some countries, they are not based on common standards and methodologies. Survey data can bring into focus the crime problems that affect people most often and can provide measures of changes in levels of crime over time. However, the available survey data provide only a proxy for the volume of illegal acts that occur in society. First, some crimes may be underestimated or overestimated due to respondents' subjective interpretation of what constitutes a crime. Second, some people may be reluctant

to disclose information for incidents of a sensitive nature, such as sexual assaults or inter-partner violence. Third, the accuracy of victimisation surveys is influenced by people's ability to recall past crimes (the longer the elapsed period, the less likely it is that a victimisation will be recalled accurately). Finally, unconventional types of crime such as corruption may be difficult to capture through household surveys.

Risks to people's personal security can come from sources other than crime. Transport and road-traffic accidents, work-related hazards and the risk of natural disaster are among the factors that can affect personal security. Violent conflict and war also have a profound impact on security by putting people's lives and livelihoods in danger (OECD, 2015a).

Sources: OECD (2015a), *How's Life? 2015: Measuring Well-being*, <https://doi.org/10.1787/9789264240735-es>; OECD (2011), "Personal security", <http://dx.doi.org/10.1787/9789264121164-13-en>; UNODC (2013), *Report of the National Institute of Statistics and Geography of Mexico and the United Nations Office on Drugs and Crime*, <http://unstats.un.org/unsd/statcom/doc13/2013-11-CrimeStats-E.pdf>.

To cover the well-being dimension of security in the Córdoba agglomerations, this section uses the indicator of number of homicides per 100 000 inhabitants – baseline indicator.

The homicide rate in the Córdoba agglomerations is 3.56 per 100 000 inhabitants; this rate is very similar to the average in Germany, and below the country value in the United States, Peru, Chile and Mexico. However, it is higher than in 75% of OECD regions (296 out of 391). In a Latin American context, the homicide rate in the Córdoba agglomerations is one of the lowest compared to the regions of Mexico, Colombia, Peru and Chile – only 3 Latin American regions (out of 105) display lower homicide rates than the Córdoba agglomerations (Figure 2.28).

Homicide rates do not vary much across the four Córdoba agglomerations. The highest difference in this indicator is observed between Villa María-Villa Nueva with a homicide rate of 2.5 murders per every 100 000 people and Río Cuarto-Las Higueras with a homicide rate of 4.2 (only 11% higher than the average homicide rate of the OECD regions, of 3.8 homicides per 100 000 people) (Table 2.9).

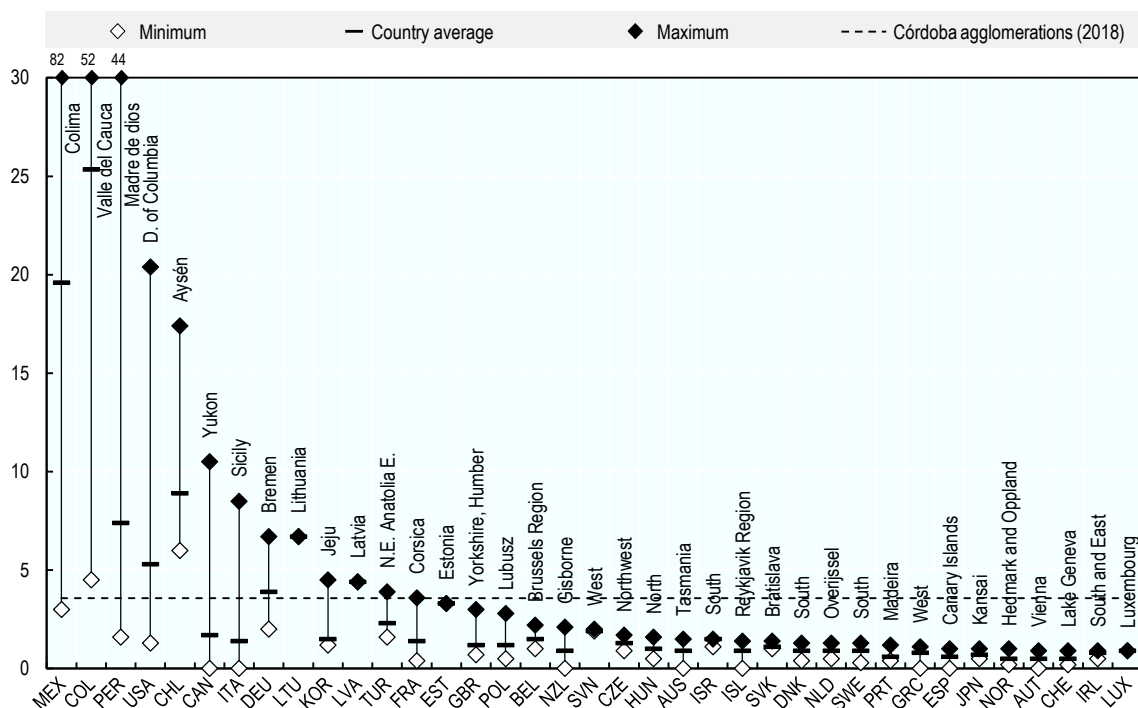
**Table 2.9. Security in the Córdoba agglomerations**

Area	Homicides per 100 000 people
Gran Córdoba	3.54
Río Cuarto-Las Higueras	4.21
Villa María-Villa Nueva	2.48
San Francisco	4.11
Córdoba agglomerations	3.56

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

Figure 2.28. Homicide rate

Homicides per 100 000 inhabitants, circa 2016



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

## Environment

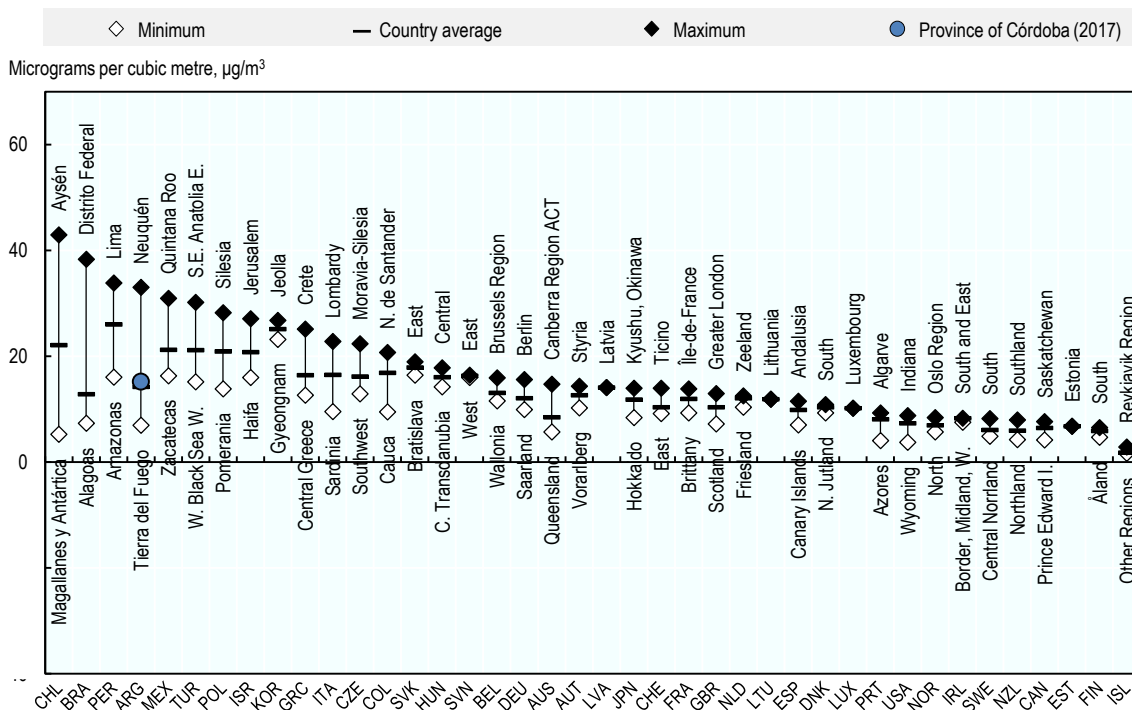
A healthy environment is key for present well-being, but also to sustain well-being over time. In terms of individual well-being, it has been shown that the quality of the environment has a crucial bearing on people's health and may therefore constitute a public health issue. What is more, a wide range of health risks are associated with exposure to poor air quality. Evidence shows that chronic exposure to particulate matter (PM) contributes to the risk of developing cardiovascular and respiratory diseases as well as lung cancer (OECD, 2014). Exposure to fine particulate matter (PM<sub>2.5</sub>), primarily from sources such as vehicle emissions, energy production, and the burning of agricultural biomass, also poses a threat to people's health.

To cover the well-being dimension of environment in the province of Córdoba, the following indicator is considered: Annual exposure to fine particles PM<sub>2.5</sub> (population-weighted exposure to PM<sub>2.5</sub> concentrations in micrograms per cubic metre) – baseline indicator. This indicator comes from the OECD Environment Statistics database (OECD, 2018b), not from the DGEyC; and it covers the whole province of Córdoba. It is worth noting that the province of Córdoba, alongside universities and technicians, has made progress in consolidating “Standards for the Air of the Province of Córdoba”. In the same line, more efforts are taking place to measure air quality from the province; however, the employed methods are still at the testing stage.

It is estimated that in 2017, 325 deaths per 1 million inhabitants in the OECD were due to poor health because of exposure to ambient particulate matter (i.e., particulate matter 2.5 or PM2.5) (OECD, 2018a). In Argentina, this estimation goes up to 337 deaths per 1 million inhabitants, representing around 15 000 deaths per year due to air pollution-related illnesses. This number of deaths in Argentina stems partly from an average annual population exposure to PM2.5 of 14.2 micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ), a value above the levels recommended by the World Health Organisation (WHO) – of 10 micrograms per cubic metre for average annual exposure (WHO, 2006). Similarly, the province of Córdoba is facing an average exposure to PM2.5 of 15.2  $\mu\text{g}/\text{m}^3$  – above of both the average levels of Argentina and the limits established by the WHO (Figure 2.29) (for further information on the definition, see Box 2.6).

**Figure 2.29. Air pollution**

Population-weighted exposure to PM2.5 concentrations, micrograms per cubic metre, 2017



Note: Values for Iceland and Turkey correspond to the average of 2013-2015.

Source: OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.



### Box 2.6. Measuring environmental quality

Annual exposure to air pollution: Refers to the population-wide average exposure to fine particulate matter that is less than 2.5 microns in diameter (PM<sub>2.5</sub>). The major components of particulate matter are sulphate, nitrates, ammonia, sodium chloride, black carbon, mineral dust and water. These are potentially the most harmful to health, compared to other air pollutants. The data shown here are drawn from the OECD Environment Statistics Database and are calculated from satellite-based observations reported in van Donkelaar et al. (2016). Population exposure is calculated by taking the estimates of air pollution (data obtained from satellites, ground-based stations and a chemical transport model) at a given resolution (e.g. 1 km<sup>2</sup>), multiplied (weighted) by the population living in that area (for further information on the methodology, see Mackie, Haščič and Cárdenas Rodríguez, 2016).

However, even within a single urban area, personal exposure to air pollution varies substantially, depending on where people live and work and on their occupations, lifestyles and behaviours. This means that the average population exposure can mask substantial variations and inequalities. The young, elderly and people who are already ill are particularly vulnerable to the damaging health effects of air pollution (Brezzi and Sanchez-Serra, 2014).

The concept of “environmental quality” is broad and an ideal set of indicators would inform on a number of environmental media (soil, water, air), on people’s access to environmental services and amenities, as well as on the impact of environmental hazards on human health. Unfortunately, available data are scattered and not comparable across countries. The absence of objective data on water quality is a significant gap and the perception-based measure shown may suffer from comparability problems. Data on access to green space is another important omission that could potentially be addressed in the future through satellite-based data (OECD, 2015a).

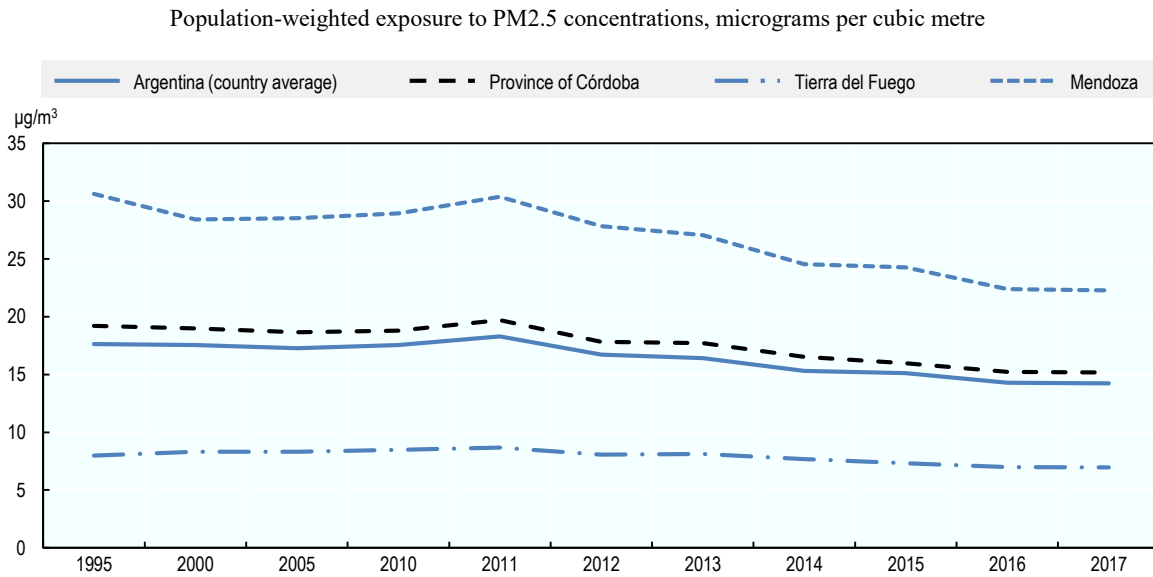
*Sources:* Mackie, A., I. Haščič and M. Cárdenas Rodríguez (2016), “Population Exposure to Fine Particles: Methodology and Results for OECD and G20 Countries”, <https://doi.org/10.1787/5jlsqs8g1t9r-en>; van Donkelaar, A. et al. (2016), “Global estimates of fine particulate matter using a combined geophysical-statistical method with information from satellites, models, and monitors”, <http://pubs.acs.org/doi/abs/10.1021/acs.est.5b05833>; OECD (2015a), *How’s Life? 2015: Measuring Well-being*, <https://doi.org/10.1787/9789264240735-es>; Brezzi, M. and D. Sanchez-Serra (2014), “Breathing the Same Air? Measuring Air Pollution in Cities and Regions”, <http://dx.doi.org/10.1787/5jxrb7rkxf21-en>.

*For more technical details:*

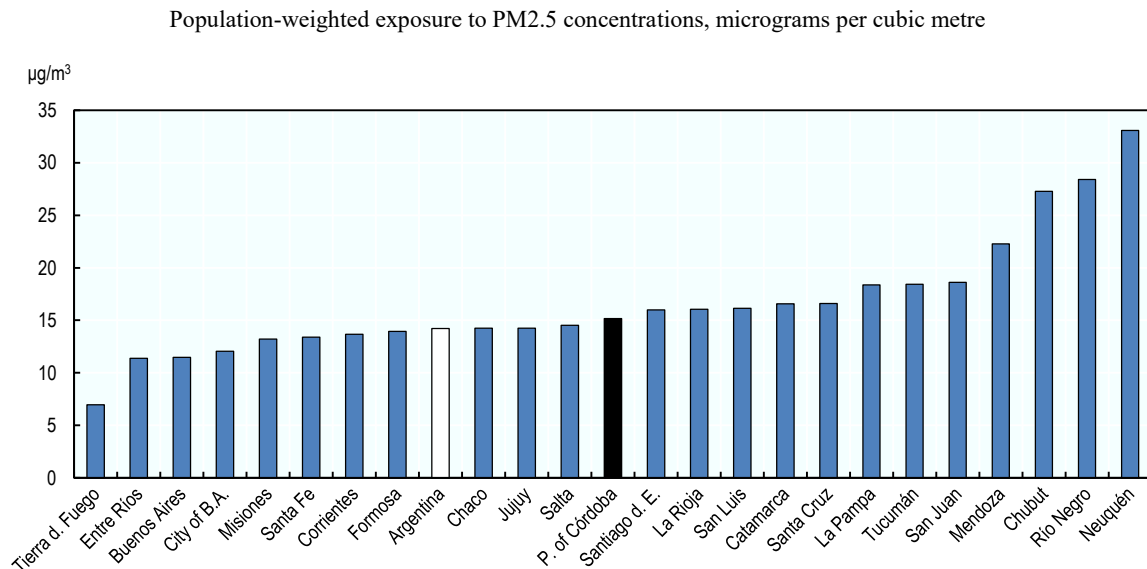
Shaddick, G. et al. (2017), “Data integration model for air quality: A hierarchical approach to the global estimation of exposures to ambient air pollution”, <http://dx.doi.org/10.1111/rssc.12227>; Shaddick, G. et al. (2017), “Data integration model for air quality: A hierarchical approach to the global estimation of exposures to ambient air pollution”, <http://dx.doi.org/10.1111/rssc.12227>.

According to Figure 2.30, exposure to PM<sub>2.5</sub> fine particles in Córdoba province has decreased steadily over the last 22 years. Between 1995 and 2017, exposure to PM<sub>2.5</sub> fine particles decreased by around 20%, from 19.2 to 15.2 micrograms per cubic metre (µg/m<sup>3</sup>) – a level that is still above the World Health Organisation’s recommended limit of 10 µg/m<sup>3</sup>. This level is slightly above the OECD average (13 µg/m<sup>3</sup>) and the average for Argentina (14.2 µg/m<sup>3</sup>), and is the median value of the 23 Argentinian provinces and the city of Buenos Aires (ranked 12 out of 24) (Figure 2.31).



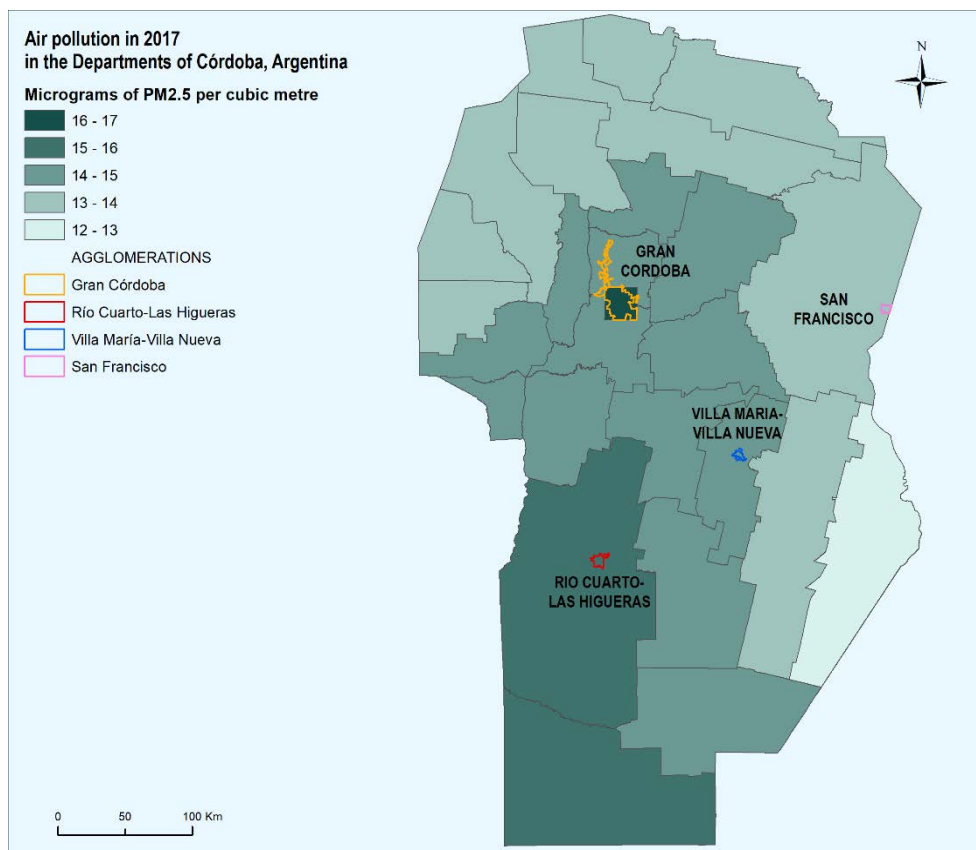
**Figure 2.30. Evolution of the Air pollution in the Province of Córdoba, 1995-2017**

Source: OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.

**Figure 2.31. Air pollution in the Argentinian provinces, 2017**

Sources: OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.

Looking within Córdoba province, 26 of Córdoba's departments are above the limits of exposure to PM2.5 fine particles recommended by the WHO – in particular the departments of Presidente Roque S. P. and Capital with the worst PM2.5 air pollution (around the 16 µg/m<sup>3</sup>). The departments of Marcos Juárez, Sobremonte, Minas and Pocho have the lowest levels of exposure to PM2.5, with levels around the 13 µg/m<sup>3</sup>. In general, Figure 2.32 shows lower levels of air pollution in the eastern and northern departments of the province, and higher levels of PM2.5 in the southern departments and in Capital.

**Figure 2.32. Air pollution in Córdoba's departments, 2017**Population-weighted exposure to PM<sub>2.5</sub> concentrations, micrograms per cubic metre

Source: OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.

### Civic engagement and governance

In a well-functioning democracy, citizens have a role to play by supporting and participating in civic activities. Through civic engagement and participation, people can influence and shape governments' decision and public policies that affect well-being. One of the most common indicators of civic engagement is voter turnout (the number of individuals who cast a ballot in a national election, as a percentage of the population registered to vote). As institutional features of voting systems vary widely across countries and by types of elections, the measures shown here refer to national elections (parliamentary or presidential), which attract the largest proportions of voters in each country. Voting is one of the traditional forms of civic engagement; however, there are other ways of supporting civic activities that, while less common, are important for a democratic society to function properly. One that the OECD, in collaboration with the INEGI and now the DGEyC, has started to explore is volunteering activities.

To cover the well-being dimension of civic engagement and governance in the agglomerations of Córdoba, the following indicators were selected:

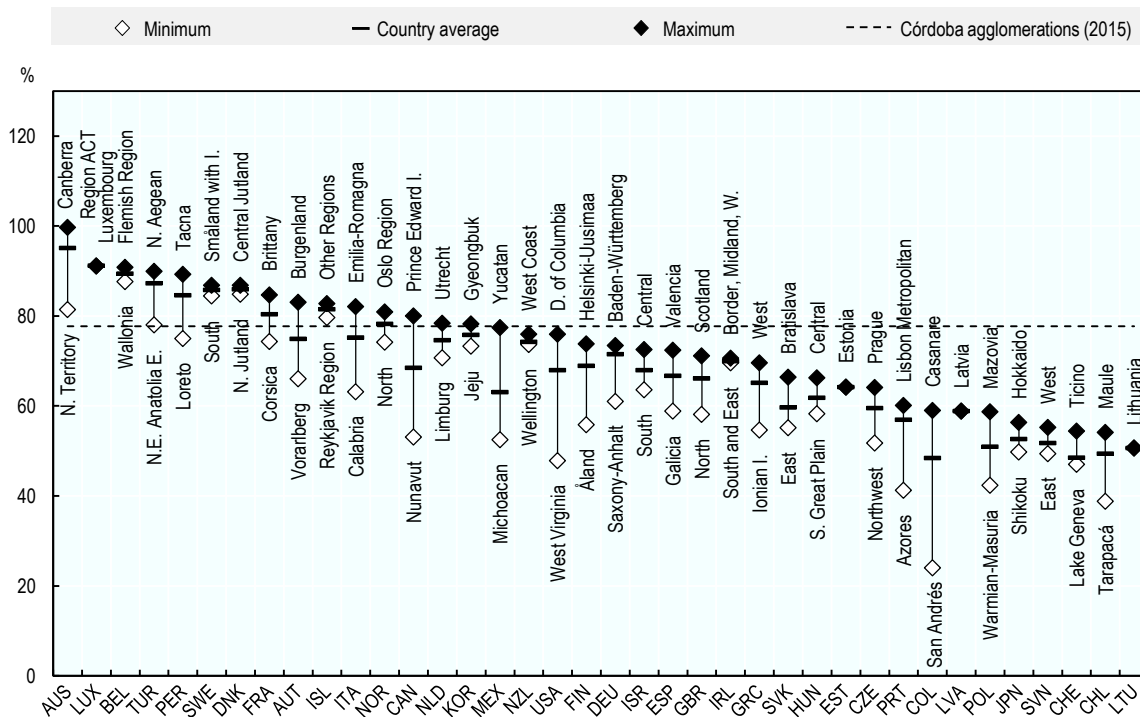
- Number of people who cast a ballot as a percentage of the population registered to vote (in the last national election) – baseline indicator.

- Percentage of people (aged 18 to 64) who participated in NGOs, charities, or other volunteering activities in the last 12 months.

Voter turnout in Córdoba is one of the highest in the OECD (Figure 2.33). With almost 78% of the registered population participating in the national elections in 2015, voter turnout in the Córdoba agglomerations is higher than in 75% (298 out of 391) of the OECD regions and 9.5 percentage points above the OECD average.

**Figure 2.33. Voter turnout**

Number of individuals casting a ballot as a percentage of the registered population to vote, circa 2015



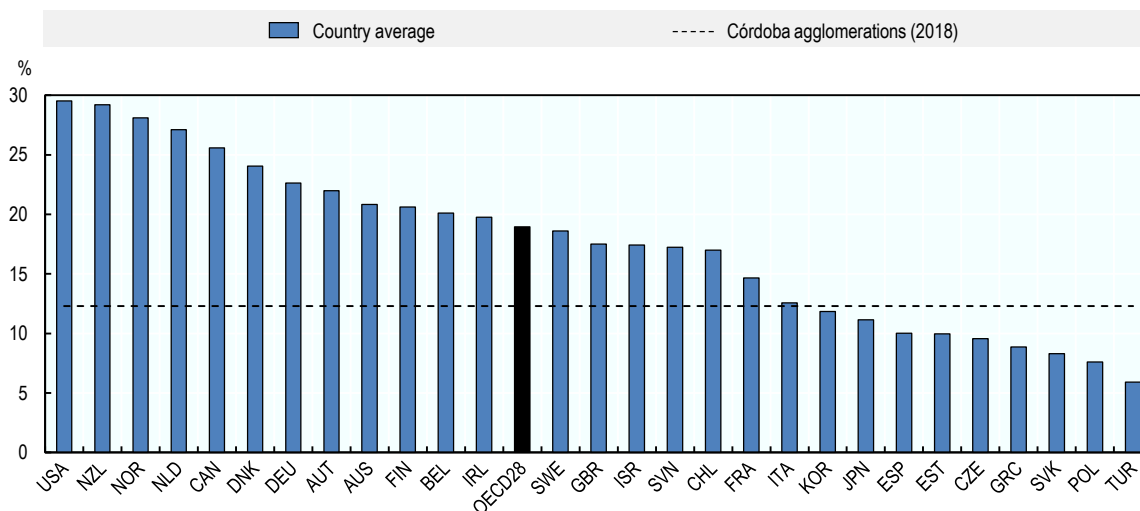
Note: It should be considered that in Córdoba agglomerations voting is mandatory, while in most OECD regions voting is voluntary.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Volunteering in the agglomerations of Córdoba is low, Figure 2.34 shows that only 12% of the population aged 18 to 64 has taken part in such activities (e.g., charities, NGOs, trade unions, school councils, etc.) in the last 12 months. The Córdoba agglomerations are ranked below 19 OECD countries (out of 28 registered countries). This level of engagement is below the country average for Chile (by almost 5 percentage points) but higher than the country average for Mexico (by around 6.5 percentage points). Figure 2.35 shows that volunteering (among those aged 18 or over) in the Córdoba agglomerations is more prevalent than in 31 of Mexico's regions (out of 32), with just the Mexican State of Colima having a higher rate.

**Figure 2.34. Volunteering in OECD countries**

Percentage of people aged 15 to 64 who have volunteered once per month in the last 12 months, circa 2012

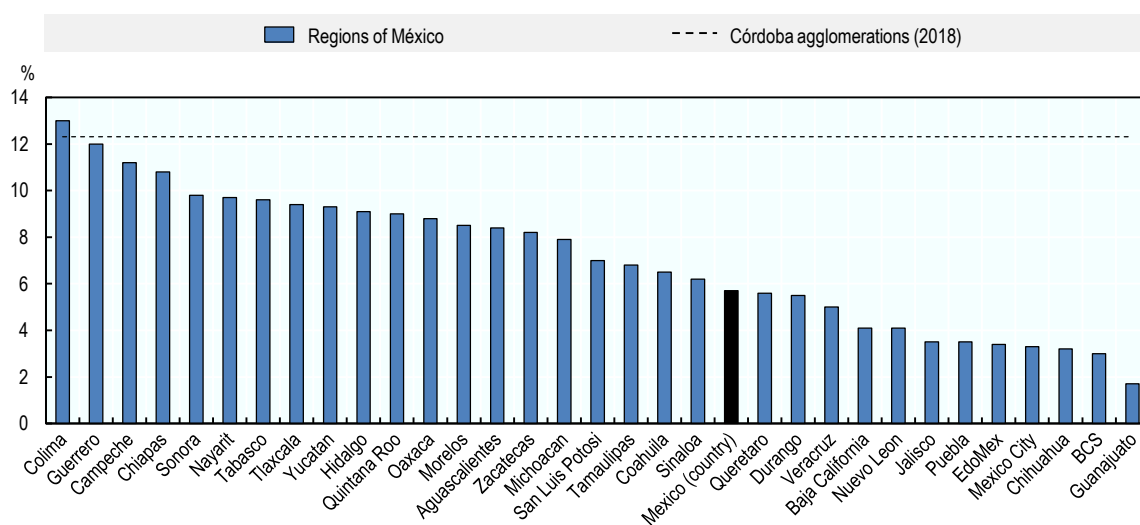


Note: The values for the OECD refer to volunteering at least once a month over the last 12 months, while the values for the Córdoba agglomerations are not restricted to monthly frequency, and refer to the population aged 18 to 64.

Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2017), *How's Life? 2017: Measuring Well-being*, [https://doi.org/10.1787/how\\_life-2017-en](https://doi.org/10.1787/how_life-2017-en).

**Figure 2.35. Volunteering in Mexico's regions**

Population aged 18 and over who have volunteered in the last 12 months, 2014



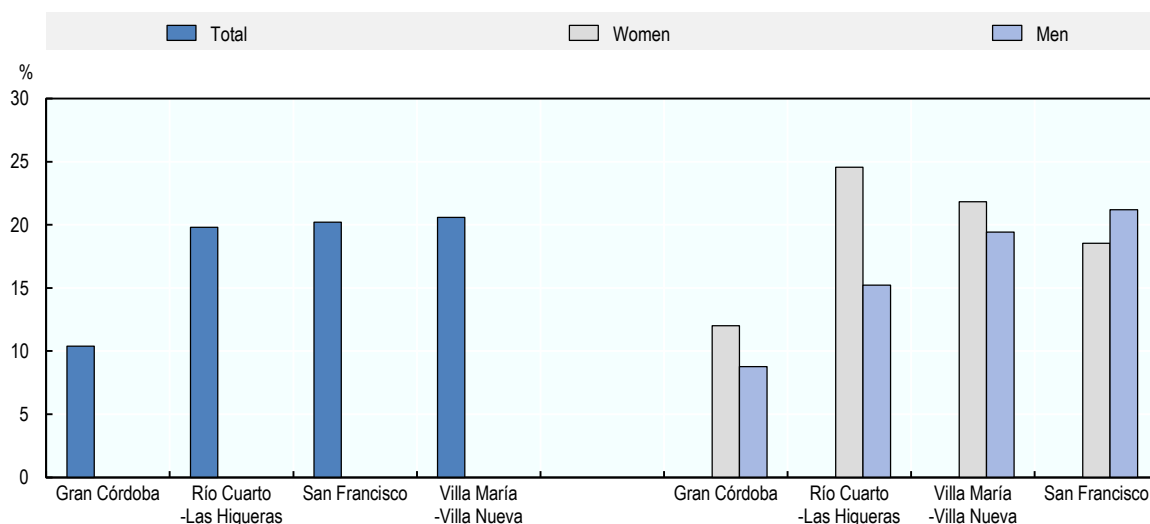
Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; INEGI (2014), *Self-reported Well-being Module (BIARE)*, <https://www.inegi.org.mx/investigacion/bienestar/ampliado/default.html>.

Table 2.10 shows that there are practically no differences in voter turnout between agglomerations. This is not the case for volunteering, where Gran Córdoba displays

volunteering levels of only 10%, and San Francisco and Villa María-Villa Nueva present rates of around 20% – slightly above the OECD average and very similar to the country average in Belgium, Finland and Australia. Lastly, looking at the differences in volunteering rates between the genders, women are more likely to volunteer than men, especially in Río Cuarto-Las Higueras, where the volunteering rate among women is of 24.5% – around 9 percentage points higher than volunteering among men (Figure 2.36).

**Figure 2.36. Intra-provincial differences in volunteering, 2018**

Population aged 18 to 64 who have volunteered in the last 12 months



Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

**Table 2.10. Civic engagement in the Córdoba agglomerations**

Area	Gender	Voter turnout (%)	Volunteering (%)
Gran Córdoba	Total	77.72	10.38
	Women	.	12
	Men	.	8.77
Río Cuarto-Las Higueras	Total	78.67	19.81
	Women	.	24.57
	Men	.	15.22
Villa María-Villa Nueva	Total	77.02	20.59
	Women	.	21.82
	Men	.	19.42
San Francisco	Total	76.59	20.22
	Women	.	18.54
	Men	.	21.19
Córdoba agglomerations	Total	77.72	12.29
	Women	.	13.93
	Men	.	10.7

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Community and social support

Positive social relationships are a powerful source of well-being for people. Loneliness and not being part of a community tend to create low subjective well-being, civic engagement and cooperation. In extreme cases, this could even include violence and criminality. Healthy social relationships not only prevent isolation, but also offer tools and support for personal development (emotional and material support when facing difficulties). In order to measure this dimension, the OECD uses an indicator looking at the percentage of people who claim they can rely on a friend or relative in case of need. That said, further indicators are required to analyse this dimension (Box 2.7).

### Box 2.7. Measuring community and social support

The perceived social network support indicator is based on the question: “If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?” The data shown here reflect the percentage of the sample responding “yes”. The source for these data is the Gallup World Poll (for further information, see Brezzi and Diaz Ramirez, 2016).

Social support can come from a variety of sources (e.g. a partner, a friend, a family member, a work colleague) and can take many different forms: emotional support; practical support (e.g. caring for dependants); financial support; and career- or work-related support, to name just a few. The measure presented here focuses on help in times of need, but does not provide any information about the quality or nature of the support provided (OECD, 2015a).

Ideally, a set of indicators of social connections would describe a range of different relationships – both in terms of quality and quantity. Some of the most common approaches to measuring social connections have relied on indirect indicators, such as statistics on membership in associations (e.g. sporting clubs or religious or professional organisations) or on the density of voluntary organisations in a given area. However, such measures have been criticised because they are limited to participation in formal networks and do not describe informal connections, such as those that people maintain with friends and relatives. Moreover, formal membership in associations and its importance for people’s well-being can differ over time and across countries, thus hampering international comparability. Time-use diaries could prove to be a useful source of information about time spent with others – both in terms of quantity, but also quality (OECD, 2015a).

Various official surveys collect information on social networks and personal relationships, e.g. the General Social Surveys in Australia, Canada and New Zealand. However, most official statistics on social connections are not internationally comparable (Scrivens and Smith, 2013).

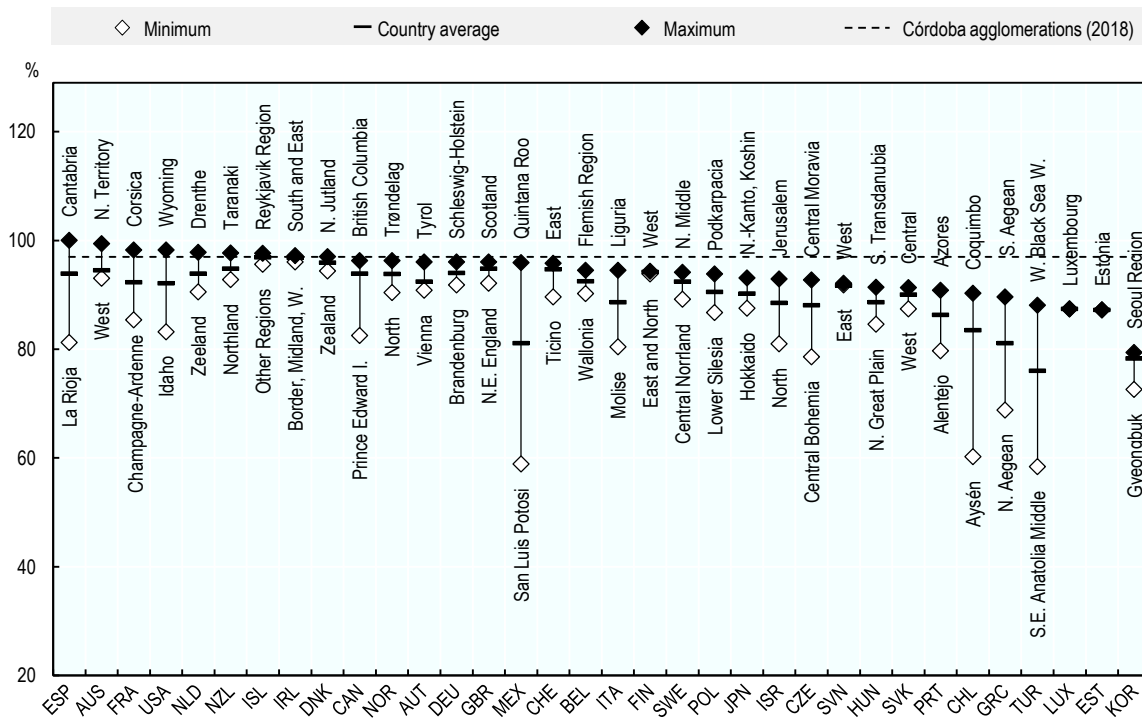
*Sources:* Brezzi, M. and M. Diaz Ramirez (2016), “Building subjective well-being indicators at the subnational level: A preliminary assessment in OECD regions”, <https://doi.org/10.1787/5jm2hbcjftvh-en>; OECD (2015a), *How’s Life? 2015: Measuring Well-being*, <https://doi.org/10.1787/9789264240735-es>; Scrivens, K. and C. Smith (2013), “Four Interpretations of Social Capital: An Agenda for Measurement”, <http://dx.doi.org/10.1787/5jzbcx010wmt-en>.

To cover the community and social support well-being dimension in the Córdoba agglomerations, the following indicator has been estimated: percent of adults who have at least one friend they can rely on if needed – baseline indicator.

With 97% of the surveyed population responding they can turn to a friend or relative in case of need, the agglomerations rank in the top 5% of OECD regions and first in the Latin American regions in this well-being dimension. Only 13 regions in 9 countries outperform the Córdoba agglomerations in this indicator (Figure 2.37).

**Figure 2.37. Social network support, 2006-14**

Percentage of people who report having someone they can rely on in times of need



Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

The levels of social support are very similar for men and women within the Córdoba agglomerations. On the other hand, although the rates for social support for men are very high (above 94%) in all the agglomerations of Córdoba, there are some differences across agglomerations. While almost 99% of the male population (aged 18 or more) in Río Cuarto-Las Higueras declares to have someone to rely on when facing difficulties, only 94% of men in Villa María-Villa Nueva say they have this type of support (Table 2.11).

**Table 2.11. Social support in the Córdoba agglomerations**

Area	Gender	Social support network (%)
Gran Córdoba	Total	96.89
	Women	96.75
	Men	97.06
Río Cuarto-Las Higueras	Total	98.6
	Women	98.49
	Men	98.72
Villa María-Villa Nueva	Total	95.59
	Women	97.28
	Men	94.12
San Francisco	Total	96.9
	Women	99.59
	Men	94.75
Córdoba agglomerations	Total	96.98
	Women	97.04
	Men	96.92

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

## Life satisfaction

The life satisfaction indicator is a measure of subjective well-being focusing on people's overall assessment of all the aspects and circumstances that constitute their lives. It is important that people can express how they assess their own lives; therefore, the OECD has developed a raft of subjective well-being measures, which include, in addition to the life satisfaction indicator, measures looking at a person's feelings and emotions and their sense of purpose and worthwhileness in life (see Box 2.8; OECD 2013b; OECD, 2015a).

### Box 2.8. Measuring subjective well-being

Life satisfaction: refers to the mean average score on an 11-point scale. It is based on survey questions that broadly follow the format recommended by the OECD Guidelines (OECD, 2013b): "Overall, how satisfied are you with life as a whole these days?" (Or a similar translation, for the Córdoba agglomerations the question in Spanish was: "En una escala del 0 al 10... ¿Cuán satisfecho está con su vida en general?"), with responses ranging from 0 ("not at all satisfied") to 10 ("completely satisfied"). The source for these data for the OECD is the Gallup World Poll (for further information, see Brezzi and Diaz Ramirez, 2016)

Although this chapter only uses the life satisfaction indicator to measure subjective well-being, the OECD also recommends other indicators to better analyse this dimension:

Life feeling worthwhile: refers to the mean average score on an 11-point scale, ranging from 0 (not worthwhile at all) to 10 (completely worthwhile). It is based on the question: "Overall, to what extent do you feel that the things you do in your life are worthwhile?" The data shown here come from the EU-SILC (European Union Statistics on Income and Living Conditions) ad hoc module on well-being and are available for all EU countries.



Positive affect balance: defined as the proportion of the population who reported experiencing more positive than negative emotions yesterday. It is based on responses to six different questions formulated as: “Did you experience the following feelings during a lot of the day yesterday?” Answers are provided using a simple yes/no response format. Negative affect is measured by experiences of worry, anger and sadness, while positive affect is captured by experiences of enjoyment, feeling well-rested, and smiling or laughing a lot. An individual is considered to have a positive affect balance if the number of “yes” responses to the positive questions is greater than the number of “yes” responses to the negative questions. The data for this indicator come from the Gallup World Poll.

The OECD Guidelines on Measuring Subjective Well-Being (OECD, 2013b) provide international recommendations on collecting, reporting and analysing subjective well-being data across the three major components of subjective well-being (life evaluations, eudaimonia and affect). The Guidelines give detailed consideration to methodological issues and survey design, and include a number of prototype question modules that national and international agencies can adopt if they wish to measure subjective well-being in their surveys.

Sources: OECD (2015a), *How's Life? 2015: Measuring Well-being*, <https://doi.org/10.1787/9789264240735-es>; Brezzi, M. and M. Diaz Ramirez (2016), “Building subjective well-being indicators at the subnational level: A preliminary assessment in OECD regions”, <https://doi.org/10.1787/5jm2hhcjftvh-en>; OECD (2013b), *OECD Guidelines on Measuring Subjective Well-being*, <https://doi.org/10.1787/9789264191655-en>.

To measure the well-being dimension of life satisfaction in the Córdoba agglomerations, the DGEyC has calculated the following indicator: Average reported life satisfaction (respondents aged 18 or more) on a scale from 0 to 10 (where 0 stands for worst possible life and 10 represents the best possible life) – baseline indicator.

The average life satisfaction score in the agglomerations of Córdoba is 7.5 (on a scale of 0 to 10, where 10 is the highest level of satisfaction) – above the OECD average (6.7) and higher than 84% (324 out of 385) of the observed regions. This level is very similar to the average in Canada, Switzerland and the Netherlands; compared with Latin American countries, only ten regions in Mexico and Aysén in Chile have higher life satisfaction scores than the Córdoba agglomerations (Figure 2.38).

Life satisfaction does not vary significantly across the four agglomerations of the province of Córdoba. Subjective life satisfaction is the highest in Río Cuarto-Las Higueras and Villa María-Villa Nueva (7.8), and the lowest in Gran Córdoba (7.4). Lastly, Table 2.12 illustrates there are no major differences in self-reported life satisfaction between men and women.

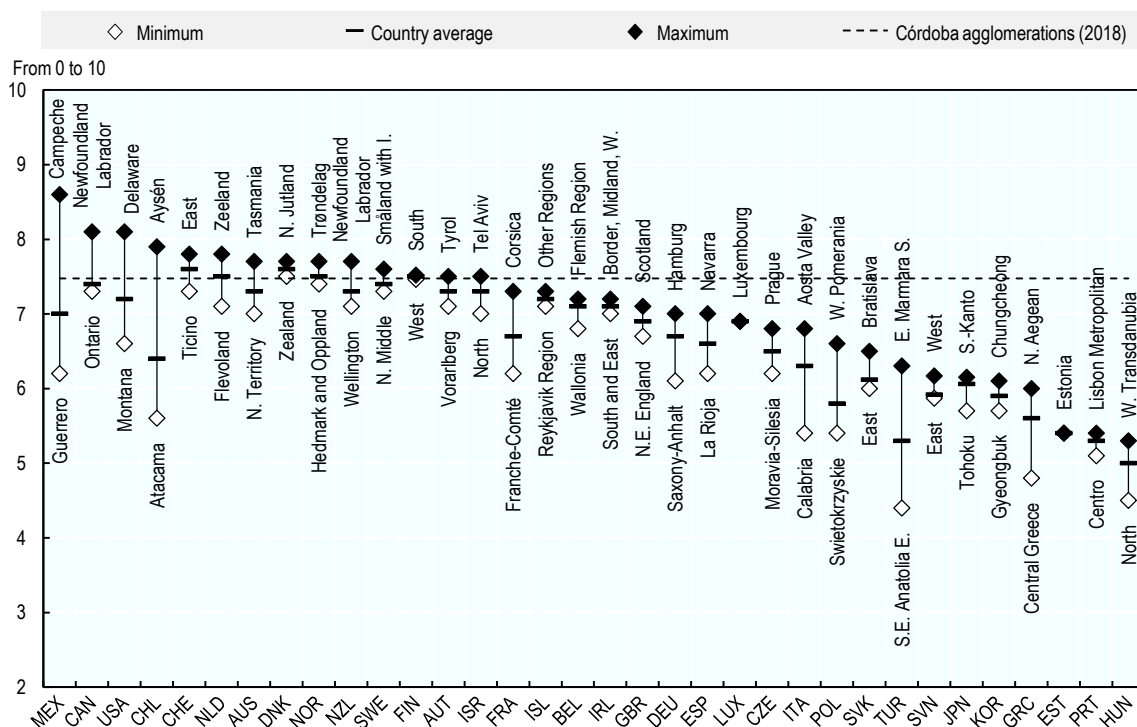
**Table 2.12. Life satisfaction in the Córdoba agglomerations**

Area	Gender	Life satisfaction (0 to 10)
Gran Córdoba	Total	7.4
	Women	7.35
	Men	7.45
Río Cuarto-Las Higueras	Total	7.8
	Women	7.79
	Men	7.81

Area	Gender	Life satisfaction (0 to 10)
Villa María-Villa Nueva	Total	7.78
	Women	7.76
	Men	7.8
San Francisco	Total	7.69
	Women	7.63
	Men	7.74
Córdoba agglomerations	Total	7.48
	Women	7.43
	Men	7.52

Source: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.

Figure 2.38. Life satisfaction, 2006-14



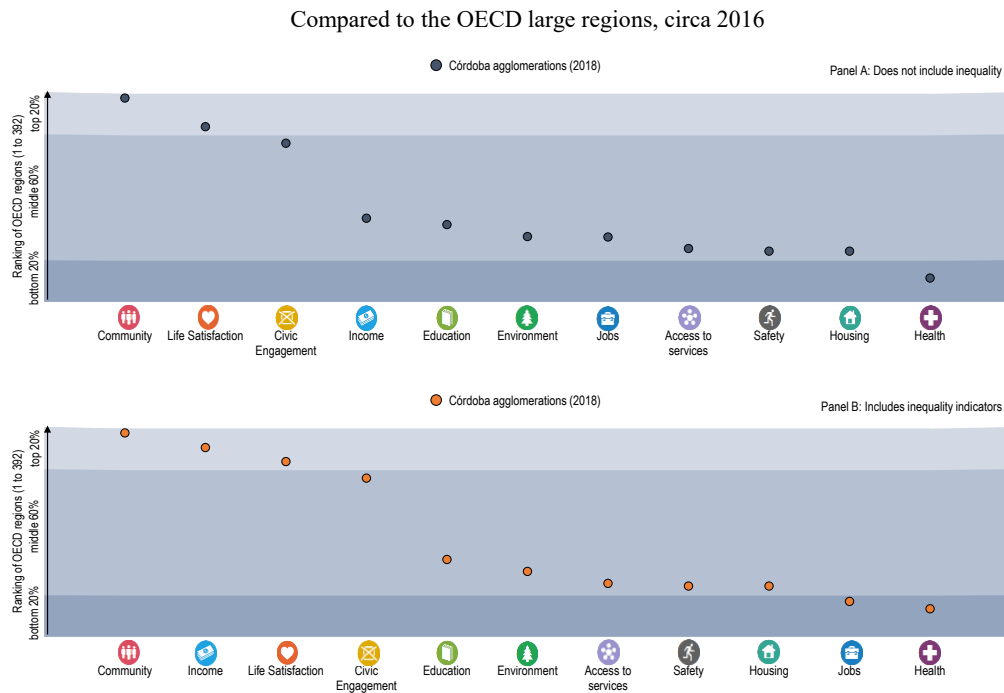
Sources: DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

### Composite indicators for each well-being dimension

The importance of measuring well-being from a multi-dimensional perspective is widely acknowledged. Nevertheless, using a large number of indicators for each dimension may hamper interpreting and reporting the observed results. This leads to the need for composite indicators. The OECD uses the min-max method to transform each indicator's value into a normalised score from 0 to 10 (where 10 represents the best outcome). Subsequently, the normalised score of a well-being dimension is calculated as the simple average of the indicators' normalised scores within the same well-being dimension (see Box 2.1).

Figure 2.39 shows the aggregated results for each well-being dimension for the Córdoba agglomerations compared with the OECD's 391 TL2 regions. Panel A is based on the 13 classic indicators in the *OECD Regional well-being tool* ([www.oecdregionalwellbeing.org](http://www.oecdregionalwellbeing.org)) – with the exception of household disposable income that was replaced with household gross income due to data availability, and the standardised mortality rate that was substituted for infant mortality rate due to the relevance of the latter in the context of Córdoba (see Table 2.13).

**Figure 2.39. Ranking of the Córdoba agglomerations by well-being dimension**



*Note:* Panel A uses the 13 baseline indicators of this report, while Panel B includes the 7 extra indicators of exclusion rate based on income, Gini index of income, long-term unemployment rate, youth unemployment rate, gender gap in employment rate, gender gap in unemployment rate, and gender gap in life expectancy at birth.

*Sources:* DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>; OECD (2018b), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>; OECD (2018a), *OECD Environment Statistics (database)*, <https://doi.org/10.1787/96171c76-en>.

Panel A (Figure 2.39) shows that using the 13 baseline indicators the agglomerations of Córdoba perform very well in the dimensions of community and social support, and life satisfaction, ranked among the top 20% of 391 OECD regions. High scores are also achieved for civic engagement, while average outcomes are registered for income, education, environment and jobs. The rankings for access to services, safety and housing are not very good for the Córdoba agglomerations, they are just slightly above the bottom 20% of OECD regions. Lastly, and primarily due to a low life expectancy at birth and above the average infant mortality rates, relative to the OECD regions, the Córdoba agglomerations rank among the bottom 20% of the OECD regions in the health dimension.

As expected, the scores and rankings for each well-being dimension are sensitive to the indicators used for the analysis. It is therefore necessary to have a set of indicators that best capture what each well-being dimension is intended to assess in the context of the region

or city where the framework is applied. The weight given to one indicator relative to another and aspects such as the distribution of an indicator between different population groups are also important elements to define.

Panel B of Figure 2.39 includes income distribution measures (income poverty and Gini coefficient), as well as gender gaps in jobs, unemployment and life expectancy (long-term unemployment and youth unemployment are also included, see Table 2.13). Panel B shows a different interpretation of performance of the jobs and income dimensions, but not for health. When measures of income distribution are included, the income dimension for Córdoba rises from the fourth best to the second best of the 11 dimensions analysed. This is due to the low income inequality of the Córdoba agglomerations, relative to the OECD large regions. In contrast, when the gaps between labour market access for women and men are factored in, Córdoba's performance in the jobs dimension drops three places relative to the 11 well-being dimensions, from the position seventh to tenth.

**Table 2.13. Indicators used for rankings**

Dimension	Indicator	Panel A	Panel B
Income	<b>Household gross income*</b>	Yes	Yes
	Exclusion rate based on income*		Yes
	Gini index of income*		Yes
Housing	<b>Rooms per person*</b>	Yes	Yes
Jobs	<b>Employment rate*</b>	Yes	Yes
	<b>Unemployment rate*</b>	Yes	Yes
	Long-term unemployment rate*		Yes
	Youth unemployment rate*		Yes
	Gender gap in employment rate*		Yes
	Gender gap in unemployment rate*		Yes
Education	<b>Educational attainment of the labour force*</b>	Yes	Yes
Health	<b>Life expectancy at birth*</b>	Yes	Yes
	<b>Infant mortality rate*</b>	Yes	Yes
	Gender gap in life expectancy at birth*		Yes
Environment	<b>Air pollution*</b>	Yes	Yes
Personal security (safety)	<b>Homicide rate*</b>	Yes	Yes
Civic engagement and governance	<b>Voter turnout*</b>	Yes	Yes
Access to services	<b>Households with internet access*</b>	Yes	Yes
Community and social support	<b>Social support network*</b>	Yes	Yes
Life satisfaction	<b>Life satisfaction*</b>	Yes	Yes

\*Available for OECD regions and countries.

Note: Baseline indicators are in bold.

## Notes

<sup>1</sup> Although practically all the households in the Córdoba agglomerations have a toilet (99.9%), not all of these toilets are indoors, or of private use, or connected to sewer lines or to a septic tank.

<sup>2</sup> In the OECD databases this indicator is also known as relative poverty rate, but to avoid confusion with respect to the absolute poverty indicators produced by INDEC and the DGEyC, it has been decided that in this report this indicator should be referred to as “exclusion rate based on income”.

## References

- Brezzi, M. and M. Diaz Ramirez (2016), “Building subjective well-being indicators at the subnational level: A preliminary assessment in OECD regions”, *OECD Regional Development Working Papers*, No. 2016/03, OECD Publishing, Paris, <https://doi.org/10.1787/5jm2hhcjftvh-en>.
- Brezzi, M. and D. Sanchez-Serra (2014), “Breathing the Same Air? Measuring Air Pollution in Cities and Regions”, *OECD Regional Development Working Papers*, No. 2014/11, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jxrb7rkxf21-en>.
- Brezzi, M., L. Dijkstra and V. Ruiz (2011), “OECD Extended Regional Typology: The Economic Performance of Remote Rural Regions”, *OECD Regional Development Working Papers*, No. 2011/06, OECD Publishing, Paris, <https://doi.org/10.1787/5kg6z83tw7f4-en>.
- DGEyC (2018), *Well-being Survey*, <https://estadistica.cba.gov.ar>.
- Exton, C., C. Smith and D. Vandendriessche (2015), “Comparing Happiness across the World: Does Culture Matter?”, *OECD Statistics Working Papers*, No. 2015/04, OECD Publishing, Paris, <https://doi.org/10.1787/5jrqqpzd9bs2-en>.
- INEGI (2018), *National Survey of Occupation and Employment (ENOE)*, <https://www.inegi.org.mx/programas/enoe/15ymas/>.
- INEGI (2014), *Self-reported Well-being Module (BIARE)*, <https://www.inegi.org.mx/investigacion/bienestar/ampliado/default.html>.
- Johnston, D.W., C. Propper and M.A. Shields (2007), “Comparing subjective and objective measures of health: Evidence from hypertension for the income/health gradient”, *IZA DP No. 2737*, <http://ftp.iza.org/dp2737.pdf>.
- Mackie, A., I. Haščič and M. Cárdenas Rodríguez (2016), “Population Exposure to Fine Particles: Methodology and Results for OECD and G20 Countries”, *OECD Green Growth Papers*, No. 2016/02, OECD Publishing, Paris, <https://doi.org/10.1787/5jlsqs8g1t9r-en>.
- Mosca, I., B.N. Bhuachalla and R.A. Kenny (2013), “Explaining significant differences in subjective and objective measures of cardiovascular health: Evidence for the socioeconomic gradient in a population-based study”, *BMC Cardiovascular Disorders*, <https://doi.org/10.1186/1471-2261-13-64>.
- OECD (2018a), *OECD Environment Statistics (database)*, OECD, Paris, <https://doi.org/10.1787/96171c76-en>.
- OECD (2018b), *OECD Regional Statistics (database)*, OECD, Paris, <http://dx.doi.org/10.1787/region-data-en>.
- OECD (2018c), “Income distribution”, *OECD Social and Welfare Statistics (database)*, OECD, Paris, <https://doi.org/10.1787/data-00654-en>;

- OECD (2018d), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/eag-2018-en>.
- OECD (2018e), *OECD Employment and Labour Market Statistics (database)*, OECD, Paris, <http://dx.doi.org/10.1787/lfs-lfs-data-en>.
- OECD (2017), *How's Life? 2017: Measuring Well-being*, OECD Publishing, Paris, [https://doi.org/10.1787/how\\_life-2017-en](https://doi.org/10.1787/how_life-2017-en).
- OECD (2016a), *Well-being in Danish Cities*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264265240-en>.
- OECD (2016b), *OECD Territorial Reviews: Córdoba, Argentina*, OECD Territorial Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264262201-en>.
- OECD (2015a), *How's Life? 2015: Measuring Well-being*, OECD Publishing, Paris, [https://doi.org/10.1787/how\\_life-2015-en](https://doi.org/10.1787/how_life-2015-en).
- OECD (2015b), *In It Together: Why Less Inequality Benefits All*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264235120-en>.
- OECD (2015c), *Measuring Well-being in Mexican States*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264246072-en>.
- OECD (2014), *How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264217416-en>.
- OECD (2013a), *How's Life? 2013: Measuring Well-being*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264201392-en>.
- OECD (2013b), *OECD Guidelines on Measuring Subjective Well-being*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264191655-en>.
- OECD (2011), "Personal security", in *How's Life?: Measuring Well-being*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264121164-13-en>.
- Piacentini, M. (2014), "Measuring Income Inequality and Poverty at the Regional Level in OECD Countries", *OECD Statistics Working Papers*, No. 2014/03, OECD Publishing, Paris, <https://doi.org/10.1787/5jxzf5khtg9t-en>.
- Scrivens, K. and C. Smith (2013), "Four Interpretations of Social Capital: An Agenda for Measurement", *OECD Statistics Working Papers*, No. 2013/06, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jzbcx010wmt-en>.
- Shaddick, G. et al. (2018), "Data integration for the assessment of population exposure to ambient air pollution for global burden of disease assessment", *Environmental Science and Technology*, <http://dx.doi.org/10.1021/acs.est.8b02864>.
- Shaddick, G. et al. (2017), "Data integration model for air quality: A hierarchical approach to the global estimation of exposures to ambient air pollution", *Journal of Royal Statistical Society, Series C (Applied Statistics)*, <http://dx.doi.org/10.1111/rssc.12227>.
- UNODC (2013), *Report of the National Institute of Statistics and Geography of Mexico and the United Nations Office on Drugs and Crime*, United Nations Office on Drugs and Crime, <http://unstats.un.org/unsd/statcom/doc13/2013-11-CrimeStats-E.pdf>.

Van Donkelaar, A. et al. (2016), “Global estimates of fine particulate matter using a combined geophysical-statistical method with information from satellites, models, and monitors”, *Environmental Science and Technology*, Vol. 50(7), <http://pubs.acs.org/doi/abs/10.1021/acs.est.5b05833>.

WHO (2006), *World Health Organization: Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide, Global Update 2005*, World Health Organisation, [www.who.int/phe/health\\_topics/outdoorair/outdoorair\\_aqg/en/](http://www.who.int/phe/health_topics/outdoorair/outdoorair_aqg/en/).





### Chapter 3. Well-being indicators for regional development

*This chapter looks at how well-being indicators can be used to improve regional development in the province of Córdoba. In particular, it presents policy recommendations in three key areas of action: i) ensure that well-being indicators guide future decision-making, ii) continue strengthening and modernising the provincial statistical system to expand the evidence-base and, iii) strengthen governance arrangements for more effective, efficient and inclusive regional development policy outcomes.*

## Introduction: Well-being in the Córdoba agglomerations

The analysis in Chapter 2 provides an overview of the performance of Córdoba's four agglomerations (Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco) with regards to 30 indicators corresponding to 12 different well-being dimensions (Table 3.1). The agglomerations' performance was also assessed through a comparison with the 391 regions of the 36 OECD countries and 98 regions of Brazil, Peru, Colombia and Costa Rica. The analysis also looked at the differences between the four agglomerations for each well-being dimension. The following sections briefly summarise the detailed analysis in Chapter 2.

**Table 3.1. Well-being indicator values for the Córdoba agglomerations**

Dimension	Indicator	Córdoba agglomerations	Gran Córdoba	Río Cuarto-Las Higueras	Villa María-Villa Nueva	San Francisco
Income	Household gross income*	12755.50	12657.27	12969.99	13092.69	13825.22
	Exclusion rate based on income*	23.76	24.15	21.48	24.29	22.75
	Gini index of income*	0.37	0.37	0.34	0.36	0.36
	Income quintile share ratio (S80/S20)	6.90	7.09	5.66	6.38	6.34
	Gender gap in household gross income	2294.73	2314.90	2255.05	2115.54	2396.60
Housing	Rooms per person*	1.36	1.31	1.58	1.44	1.66
	Dwellings without basic facilities**	9.25	10.24	1.97	5.95	11.42
	Housing expenditure	29.54	30.11	26.17	29.51	25.50
	Home ownership	63.17	62.71	63.99	64.12	68.13
Jobs	Employment rate*	61.16	60.44	61.67	67.67	65.58
	Unemployment rate*	8.40	9.23	5.27	3.37	6.09
	Long-term unemployment rate*	3.25	3.69	0.72	1.12	3.32
	Youth unemployment rate*	24.78	26.60	18.24	10.77	24.75
	Informal employment rate	34.04	32.86	39.34	42.30	33.35
	Gender gap in employment rate*	23.45	24.41	19.26	21.02	15.91
	Gender gap in unemployment rate*	3.56	4.69	-1.03	-1.54	-1.17
	Gender gap in long-term unemployment rate	2.72				
Education	Educational attainment of adults**	73.04	74.18	67.83	67.98	69.29
	Educational attainment of the labour force*	75.20	76.31	71.03	69.54	70.52
	Gender gap in educational attainment of adults**	5.11	4.39	11.03	8.40	1.08
	Gender gap in educational attainment of the labour force	10.98	10.26	17.76	11.96	8.92
Work-life balance	Employees working very long hours**	16.34	15.53	18.34	21.92	19.04
	Travel to work	5.26	4.69	5.07	13.93	2.96
	Time spent travelling to work	33.28	39.06	12.95	8.94	4.27

Dimension	Indicator	Córdoba agglomerations	Gran Córdoba	Río Cuarto-Las Higueras	Villa María-Villa Nueva	San Francisco
	Private transport for travel to work	46.29	42.81	58.35	56.63	71.32
	Public transport for travel to work	31.65	37.17	15.04	5.45	2.52
Health	Life expectancy at birth*	75.99	76.36	74.56	73.92	76.13
	Infant mortality rate*	8.11	8.04	8.09	9.41	7.64
	Perceived health**	82.86	83.27	83.95	75.03	84.54
	Gender gap in perceived health**	5.95	5.86	6.27	8.55	5.78
	Gender gap in life expectancy at birth	5.79	5.60	5.89	6.61	7.73
Environment	Air pollution*	15.18				
Personal security	Homicide rate*	3.56	3.54	4.21	2.48	4.11
Civic engagement and governance	Voter turnout*	77.72	77.72	78.67	77.02	76.59
	Volunteering**	12.29	10.38	19.81	20.59	20.22
Access to services	Households with internet access*	67.89	67.76	67.24	68.78	70.76
Community and social support	Social support network*	96.98	96.89	98.60	95.59	96.90
Life satisfaction	Life satisfaction*	7.48	7.40	7.80	7.78	7.69

\* Available for most OECD regions and countries.

\*\* Only available for OECD country averages (in this report).

*Note:* The gender gaps refer to the simple difference between the indicator for women and the indicator for men, with the exception of the indicators of employment rate and perceived health, where they refer to the differences between the indicator for men and the indicator for women.

### ***Strengths and challenges of the Córdoba agglomerations***

The Córdoba agglomerations obtained very good scores compared to the OECD's TL2 regions in community and social support and life satisfaction:

- **Community and social support:** With 97% of the survey population believing they can turn to a friend or relative in case of need, the agglomerations rank in the top 5 of OECD regions and first in the Latin American regions in this well-being dimension.
- **Life satisfaction:** The average life satisfaction score in the Córdoba agglomerations is 7.5 (on a scale of 0 to 10, where 10 is the highest level of satisfaction) – above the OECD average (6.7) and higher than 84% (324 out of 385) of regions. This level is very similar to the average in Switzerland and the Netherlands; compared with Latin American countries, only ten regions in Mexico and Aysén in Chile have higher life satisfaction scores than the Córdoba agglomerations

For the other dimensions, such as jobs, education, and civic engagement and governance, scores were similar to those in other OECD regions:

- **Jobs:** Performance in the jobs dimension is very similar to that of the OECD and of Latin American countries, although there is a gender gap. Employment and

unemployment rates (total, long term and youth) in the agglomerations are very close to the average for the TL2 regions. The gender gap in the employment rate in the Córdoba agglomerations is 23.5 percentage points, which is 10 percentage points above the OECD average. Only some regions of Greece, Italy, Chile, Peru, Brazil and Colombia and most of the regions of Mexico and Turkey have a larger employment gender gap than the Córdoba agglomerations.

- **Education:** The agglomerations slightly underperform compared with the OECD average, although their score is actually high in comparison with Latin American countries. The Córdoba agglomerations' score for adult educational attainment is higher than the country average for Chile, Colombia, Brazil, Costa Rica and Mexico. Equally, educational attainment of the labour force in Córdoba ranks in the top 1% of regions in Chile, Colombia, Brazil, Costa Rica and Mexico (only slightly below the Chilean region of Antofagasta).
- **Civic engagement and governance:** There are high levels of civic engagement through voting in the Córdoba agglomerations – 78% voter turnout, higher than that of 75% of the OECD's regions. However, the volunteering indicator reveals that only 12% of 18-64 year-olds are involved in volunteering activities (e.g. with charities, NGOs, trade unions, school councils, etc.). This level of engagement is below the country average for Chile (by almost 5 percentage points) but higher than the country average for Mexico (by around 6.5 percentage points).

In income, housing, personal security, work-life balance, access to services, and the environment, the Córdoba agglomerations are below the OECD average:

- **Income:** Below the OECD average but above the average for Latin American peers. Average annual household income in the Córdoba agglomerations for 2018 was of USD 12 756 PPP (at 2010 prices), equivalent to 80% of the OECD average, and lower than in 60% (191 out of 319) of OECD regions. In the Latin American context, however, the Córdoba agglomerations is above the levels displayed by all the regions of Mexico and Chile. Moreover, the Córdoba agglomerations has low levels of relative monetary exclusion. Whereas, on average, OECD regions display around one third of their population living with incomes below the relative exclusion line (60% of the median regional income), in the Córdoba agglomerations only 23.76% of the population is living below that line. The agglomerations perform better in this indicator than 87% (268 out of 307) of OECD regions.
- **Housing:** Housing space measured in terms of rooms per person is smaller than 76% (316 out of 413) of observed regions (Córdoba: 1.36; OECD average: 1.8). The average number of rooms in the Córdoba agglomerations is very similar to the country average of Turkey and higher than in all the regions of Hungary, Israel, Estonia, Mexico, the Slovak Republic and Poland. Moreover, the percentage of the population living in dwellings without private indoor flushing toilets connected to sewer lines or septic tank is 9.2% in the Córdoba agglomerations versus 2.1% in the OECD countries.
- **Personal security:** the homicide rate in the Córdoba agglomerations is 3.56 per 100 000 inhabitants; this rate is very similar to the average in Germany and higher than in 296 out of 391 OECD regions. Nevertheless, the homicide rate in the Córdoba agglomerations is one of the lowest compared to regions in Chile, Colombia, Mexico and Peru, with only 3 Latin American regions (out of 105) having a lower rate.

- **Work-life balance:** In the Córdoba agglomerations 16% of workers work 50 hours or more a week, around 4 percentage points above the OECD average. However, it is worth noting that the shares of employees working long hours are higher in all Mexican regions than those observed in Córdoba, with the exception of Jalisco, which performs similarly to the Córdoba agglomerations.
- **Access to services:** Around 68% of households in the Córdoba agglomerations have internet access, 6 percentage points below the OECD average of 74%. Around three-quarters (288 out of 387) of the OECD regions have higher percentage of households with internet access. However, Brazil, Chile and Mexico have a lower level of internet access on average than Córdoba agglomerations.
- **Environment:** the province of Córdoba is facing an average exposure to PM2.5 of 15.2 µg/m<sup>3</sup> – above the limits established by the WHO. This level is slightly above the OECD average (13 µg/m<sup>3</sup>) and the average for Argentina (14.2 µg/m<sup>3</sup>), and is the median value of the 23 Argentinian provinces and the city of Buenos Aires (ranked 12 out of 24).

### *Disparities in well-being between Córdoba agglomerations*

The analysis of the results of the well-being indicators by agglomeration and by well-being dimension reveals differences between agglomerations in both material conditions and quality of life.

#### *Material living conditions*

The differences in annual household gross income between agglomerations are relatively small (only 9%), although measures of income distribution vary greatly across agglomerations. Indicators of relative monetary exclusion (24.15%), the Gini index (0.37) and the quintile share ratio (7.09) show that Gran Córdoba is the agglomeration with the highest challenges in terms of economic equality, while Río Cuarto-Las Higueras is the agglomeration with the best performance in terms of relative monetary exclusion (21.48%), the Gini index (0.34) and the quintile share ratio (5.66).

Major inequalities are observed between the Córdoba agglomerations, mainly in the dwellings without basic facilities indicator, although differences are also observed in other housing indicators. Whereas in Río Cuarto-Las Higueras only 2% of people lives in dwellings without access to a private indoor flushing toilet connected to sewer lines or to a septic tank (similar to the OECD average), in San Francisco this figure amounts to 11.4% (mainly due to the existence of numerous dwellings that are not connected to sewer lines or to a septic tank). On the other hand, San Francisco is the best performing agglomeration in terms of housing space, home ownership and housing expenditure.

Major disparities between agglomerations are observed in labour market access for women, youth unemployment and the informality rate. Whereas in San Francisco and Río Cuarto-Las Higueras the unemployment gender gap is close to zero, in Gran Córdoba the unemployment rate is 4.7 percentage points higher for women than for men. With regards to youth unemployment, Villa María-Villa Nueva shows rates close to 11%, whereas Gran Córdoba has rates of 27%. On the other hand, Villa María-Villa Nueva is the agglomeration that performs worst in informality, with around 40% of its employees lacking any sort of pension plan, 10 percentage points higher than in Gran Córdoba – the agglomeration with the best score for this indicator.

### *Quality of life*

Within the province, there are some differences in work-life balance between agglomerations. While only 15.5% of workers in Gran Córdoba say they work long hours, this figure rises to 21.92% in Villa María-Villa Nueva. Furthermore, 39% of Gran Córdoba's inhabitants take over 30 minutes to get to their main place of work compared to just 4% of San Francisco's inhabitants.

There are also differences between agglomerations in health and access to internet indicators. While the infant mortality rate is 7.6 in San Francisco, it rises to 9.4 in Villa María-Villa Nueva. The difference between the agglomerations with the highest and lowest perceived health scores is 9 percentage points (between Río Cuarto-Las Higueras and Villa María-Villa Nueva). Lastly, in some cases the perceived health gender gap in the agglomerations varies considerably. Although men tend to consider themselves healthier than women, there are some variations across agglomerations. For example, the gender gap in perceived health in San Francisco is close to the 5.5 percentage points (more similar levels of perceived health between men and women), whereas this gender gap is significantly positive and close to 9 percentage points in Villa María-Villa Nueva (men clearly self-report better health than women do). Access to technology varies significantly across the Córdoba agglomerations. While 71% of households in San Francisco have internet access, the number decreases to 67% of homes in Río Cuarto-Las Higueras.

In the civic engagement and governance dimension, scores for the volunteering indicator differ between agglomerations. It can be seen that volunteering falls as agglomeration population size increases, with Gran Córdoba showing the lowest level of volunteering (10%), while San Francisco and Villa María-Villa Nueva have rates of around 20%.

### *Priority areas for enhancing well-being*

The comparison of Córdoba's agglomerations' well-being performance versus that of the OECD regions highlights several challenges that are shared by all the agglomerations, primarily in the areas of income, housing, personal security, work-life balance and internet access. While the agglomerations rank among the best regions in terms of inequalities, household gross income is below average. Living space, housing quality and accessibility to housing (rental costs) are also shared challenges. With regard to personal security, while there is no crisis of violence like in other Latin American countries, levels of violence are still high compared to most OECD regions. In addition, many workers work long hours and internet access in the agglomerations is over ten percentage points below the OECD average.

There are differences across agglomerations in well-being outcomes in areas such as income distribution, housing, jobs, work-life balance, health, internet access and civic engagement and governance. For instance, in work-life balance while 15.5% of workers in Gran Córdoba work long hours, this figure rises to 21.92% in Villa María-Villa Nueva.

There are three areas of action in which the province should focus to improve well-being outcomes:

- First, ensure that well-being indicators guide future decision-making. In light of the agglomerations' performance, the primary objective should be to mainstream the well-being metrics across all levels of government, notably at the provincial level, to inform and guide decision-making. Well-being indicators can indeed help the provincial administration set regional development objectives that are measurable, define multidimensional well-being indicators to manage complementarities across

policies, redesign public investment priorities, and link existing social programmes with well-being outcomes.

- Second, continue strengthening and modernising the provincial statistical system to expand the evidence-base. The 2018 Well-being Survey is a major source of new data for the four agglomerations in the province of Córdoba. Moving forward, the Well-being Survey could expand its geographical scope to secondary cities and rural areas through alternative and less costly methods. For instance, the use of administrative registers has great potential to expand the availability of data for selected well-being dimensions, while the ongoing open data agenda can enhance trust in and accountability of the provincial government.
- Third, strengthen governance arrangements for more effective, efficient and inclusive regional development policy outcomes through: building a single register of beneficiaries of social programmes to boost the operational implementation of social programmes; increasing cooperation between the provincial and municipal level by promoting the establishment of an association of local authorities that integrates the presidents of regional communities; fostering inter-municipal cooperation to achieve economies of scale that ensure services are delivered more efficiently; and, ensuring the continuity of the well-being framework across political cycles.

### Use of well-being indicators to strengthen Córdoba's regional sustainable development strategy

Using the well-being framework to boost regional development has a number of benefits. The latter include: understanding well-being dimensions and their interactions; providing an overview of well-being performance in a city or region and identifying differences between places; fostering dialogue between ministries that can help eliminate silos and seek complementarities in policies; measuring performance in terms of impact of policies and programmes on people well-being outcomes; and, encouraging discussions on policy objectives that are not fulfilled.

However, the challenge is to ensure that well-being indicators are used in decision-making. A regional development strategy linked to well-being indicators can help ministries design integral policies, i.e. policies that take into account complementarities between well-being dimensions, and that cascade to sector-specific projects and programmes. It can also help establish monitoring and evaluation practices. Lastly, it boosts accountability, as the achievement of goals can be assessed annually.

To strengthen its regional development strategy the province of Córdoba should pursue four core actions:

1. Pursue further the efforts to link regional development goals to well-being metrics, in order to monitor and evaluate public action. In Córdoba, the government's three key policy areas of social justice, sustainable economic growth and strengthening institutions are well-defined, and well-being indicators could help monitor whether the government is achieving its targets.
2. Use interdimensional indicators to manage the complementarities between well-being policy areas. The complementarities between well-being dimensions can be measured, at least partially, using interdimensional indicators looking at two well-being dimensions side-by-side by measuring specific outcomes by social

group or individuals that share a similar result in another dimension. One example of this would be the percentage of people with low incomes reporting that they are in poor health. These indicators can be used to set common goals for ministries that have complementary well-being dimensions and to assess the impact on the province's performance.

3. Advance in monitoring how provincial social programmes contribute to well-being outcomes and help achieve goals set in the regional development strategy. Well-being programmes are currently thought of as contributing to one, or various, of the government's three key priority areas: social justice, sustainable economic growth and strengthening institutions. However, there could be wider efforts to concretely monitor how social programmes contribute to well-being outcomes.
4. Consider using well-being multidimensional criteria to allocate public funds. There are several provincial funds dedicated to boost regional development at municipality level. These investments could be more targeted by using rules based on multidimensional well-being criteria.

### ***Linking the well-being indicators with regional development goals***

#### *Remarks*

OECD (2016a) highlighted that the province did not have a formal, outcome-based development strategy. The lack of formal strategic planning was one of the top challenges identified for the province, as it has a knock-on effect, making it more difficult to measure, monitor and assess policy and programme outcomes.

The province launched a process in 2016 to define a regional development strategy. The province is using the SDGs as a framework for its regional development strategy. The latter implies defining concrete goals for the province of Córdoba, and determining which social programmes contribute to achieving which goals. The province publishes annually this information in the Government Performance Report (*Memoria de Gobierno*). The province of Córdoba has three key axes that are described in the Government Performance Report: i) social justice, ii) sustainable economic growth, iii) institutional strengthening. The provincial government stresses in the Government Performance Reports of 2016, 2017 and 2018 that sustainability is a key principle guiding the actions of the government, which aim to build a "sustainable state" enabling all the inhabitants of the province to enjoy a better quality of life.

#### *Areas for improvement*

The assessment of Córdoba agglomerations' well-being outcomes shows gaps in some dimensions that should inspire long-term goals of the regional development strategy. The most pressing challenges are in income, housing, personal security, work-life balance and access to services, where there are significant differences compared to OECD regions. The province of Córdoba could use well-being indicators to set clear regional development objectives based on its three key policy areas (social justice, sustainable economic growth, and institutional strengthening). These objectives should be incorporated into a medium- to long-term regional development strategy (5-10 years).

The OECD well-being framework can be used to achieve policy goals, such as those set out in the 2030 Agenda. The province has already conceptually linked provincial government's actions and the 2030 Agenda. In 2017, the Government Performance Report



for Córdoba aligned for the first time the 17 SDGs and the government's strategic policy areas (Table 3.2). The current objective of the province of Córdoba is to follow a coherent path that links the well-being framework to the SDGs with the ultimate objective of promoting social inclusion in the province. For this reason, the province decided to prioritise the social SDGs – i.e. SDGs from 1 to 5 plus 10 – and analyse how the other economic and environmental SDGs impact social inclusion. This is also coherent with the three axes of the government, where sustainable economic development and institutional strengthening support the social justice pillar.

**Table 3.2. Regional development priorities and the SDGs**

Development priority	Description	Related SDGs	OECD well-being dimensions
Social justice	Essential aspect of the provincial management approach on which many of the government's public policies are based. The initiatives, programmes and plans included in this priority area are people focused, concentrating especially on helping families in Córdoba to achieve their full potential with dignity and equal opportunities.	<p><b>Family / People</b></p> SDG 1: No poverty SDG 2: Zero hunger SDG 3: Good health and well-being SDG 4: Quality education SDG 5: Gender equality SDG 10: Reduced inequalities	Income Housing Education Health Personal security Life satisfaction
Sustainable economic growth	Means to furthering the development and well-being of every person in Córdoba. The focus is on initiatives, programmes and plans designed to increase prosperity while caring for the environment. This is being achieved by strengthening infrastructure to enable productive and responsible development, underpinned by innovation and accompanied by the creation of decent jobs. Environment-friendly development that promotes the use of clean and renewable energies.	<p><b>Planet</b></p> SDG 6: Clean water and sanitation SDG 12: Responsible production and consumption SDG 13: Climate action SDG 15: Life on land <p><b>Prosperity</b></p> SDG 7: Affordable and clean energy SDG 8: Decent work and economic growth SDG 9: Industry, innovation and infrastructure SDG 11: Sustainable cities and communities	Jobs Access to services Environment Work-life balance
Institutional Strengthening	Creates the conditions needed to boost the impact of the government's work and improve public institutions. This policy aim is behind all the initiatives, programmes and plans that forge partnerships and promote peace to build open, robust, dynamic and intelligent institutions that can identify people's needs as quickly as possible and in the best way.	<p><b>Partnerships and peace</b></p> SDG 16: Peace, justice and strong institutions SDG 17: Partnerships for the goals	Civic engagement and governance and social support

Source: Adapted from the Córdoba Provincial Government (2017), *Government Performance Report 2017 (Memoria de Gestión 2017)*, <https://datosgestionabierta.cba.gov.ar/?q=memoria> (accessed in July 2018).

### *Action*

Continue the current efforts to develop a medium- to long-term regional strategy based on measurable objectives, using the well-being indicators and aligned with the SDGs. The assessment of well-being outcomes in the four agglomerations of the province of Córdoba should be used to set realistic and achievable objectives. It can also help design policies

and programmes to achieve those objectives, and prioritise them according to the agglomerations' results. The strategy should follow a place-based approach by taking into account the existing differences in well-being outcomes across agglomerations.

The Government Performance Report could be used to monitor the progress in implementing the strategy (it is certified by the Global Reporting Initiative).<sup>1</sup> Other regions have similar experiences using well-being indicators to monitor the achievement of strategic objectives. In the state of Morelos (Mexico), the government uses well-being indicators to assess progress towards reaching the goals set in its State Development Plan. The Region of Southern Denmark monitors citizens well-being using a set of socioeconomic and perception indicators (Box 3.1).

### Box 3.1. Examples of linking regional development with well-being indicators

In the state of **Morelos**, 10 social well-being indicators were introduced to assess annual progress in implementing the State Development Plan 2013-2018. A baseline was established for each indicator and progress is evaluated at least once a year. The office of the State Government's Deputy Secretary for Planning prepared annual progress reports on the fulfilment of the goals of the State Development Plan. The reports include progress traffic lights that help determine if the degree of progress is as expected (based on a straight-line projection of progress made in achieving the goal). For example, if 50% of a six-year goal has been achieved in year 3, this means 100% of the goal for that year has been reached because progress is as planned. A green light is used for annual progress above 85%, an amber light is used if progress is between 60% and 85%, and a red light indicates less than 60%. These results are presented at cabinet meetings and shared with the technical planning areas of each secretariat. The latter helps ensure this information is used to make improvements to existing public programmes designed to achieve the goals.

The **Region of Southern Denmark** has devised a complete set of well-being indicators looking at personal and regional factors that improve people's well-being. The primary aim is to create the right environment for a "decent life", and focus on issues that people find the most important and where outcomes can be achieved through public policy. Underpinning the long-term regional development and growth strategy for Southern Denmark, the region assesses opportunities to live a "decent life", measuring a wide variety of material living and quality of life conditions through 15 socioeconomic indicators and 25 perception indicators. The regional statistical yearbook, *Kontur*, comprises well-being indicators that provide a detailed profile of each of the 22 municipalities in the region. Working with the National Office of Denmark, the region draws on the results of 20 000 surveys (around 1 000 per municipality) to determine what helps improve its inhabitants' lives. The region has not just identified suitable indicators but is also working to encourage citizen engagement and translate indicator scores into tangible policy measures.

*Sources:* Contribution of peer reviewer from the state of Morelos; OECD (2016b), *Well-being in Danish Cities*, <http://dx.doi.org/10.1787/9789264265240-en>.

### *Managing complementarities between different well-being dimensions*

#### *Remarks*

The regional well-being framework can help coordinate and enhance complementarities across well-being policies. Examining well-being from a subnational perspective can help understand and benefit from complementarities between well-being dimensions, since the relationship between citizens and decision makers is closer. For instance, in Córdoba access to public services such as transport is closely related with the work-life balance dimension – an efficient public transport service reduces traffic and therefore commuting times. Another area where there are significant complementarities concerns environmental policy, which is linked with practically all the other policy areas (economic development, health, transport, etc.).

#### *Areas for improvement*

Complementarities between well-being dimensions can be measured, at least partially, using interdimensional indicators. Interdimensional indicators are the combination of two well-being dimensions, where the first is measured relative to the distribution of the second. The main benefit of these metrics is to monitor complementarities between policies and well-being dimensions, as well as to track specific issues or groups of people. For example, the percentage of households that spend 30% or more of their income in electricity allows to explore the complementarities between income and the environmental dimension (electricity consumption). The underlying assumption could be that household income may affect electricity consumption (e.g. a richer household can afford greener and more expensive technologies, etc.).

Interdimensional indicators are a useful tool for designing and monitoring a regional development strategy, for several reasons:

- They can be used to set common goals for different ministries with complementary policy areas and, in doing so, encourage dialogue and coordination between them. They also provide evidence of the impact of policies implemented by one ministry can have on overall performance vis-à-vis a particular indicator.
- When calculated over a time series, these indicators can provide an approximate metric of how policies in different well-being dimensions may have complemented each other, and what impact they have had on the province's performance.

#### *Action*

The province could develop interdimensional indicators that provide further information in those well-being areas where it faces the greatest challenges. The analysis presented in Chapter 2 shows that income, gender inequality in some areas such as jobs and household gross income, housing, or work-life balance are well-being dimensions in which the province underperforms relative to the OECD average. New metrics could be added to the 30 well-being indicators that are already calculated in the multidimensional framework used for the Córdoba agglomerations. These metrics should focus in assessing policies or programmes that may have an impact on various well-being dimensions. Table 3.3 provides a short list of interdimensional well-being indicators that could be of interest for the province.

Any proposal of interdimensional indicators for Córdoba must be tailored to the province’s regional development priorities and the needs of stakeholders in the province. The government of Córdoba could launch a consultation involving ministries, agencies, groups of civil servants (e.g. medical, teachers, or social workers associations) and non-profit organisations, to define which interdimensional indicators could contribute to better understand critical relationships among certain well-being dimensions. For instance, representatives from the economic, health and education sectors could be consulted to unravel the causes and effects of low-income households on children’s health and education outcomes.

**Table 3.3. Examples of interdimensional well-being indicators**

Indicator	Well-being dimensions
Income of employees working very long hours	Income, work-life balance
Female unemployment and educational attainment	Jobs, education
Hours devoted to leisure, recreational activities and family	Work-life balance, life satisfaction
Cognitive skills of the labour force	Education, jobs
Public transport connections	Access to services, environment, work-life balance

### *Linking social programmes to well-being indicators*

#### *Remarks*

The Government Performance Report is currently used to outline governmental priorities and monitor progress of social programmes implemented in the province. The report includes a “fact sheet” for each programme providing details of: programme’s contribution to the priority area (social justice, sustainable economic growth, strengthening institutions), competent authority in the provincial government, beneficiaries, allocated resources, and products and services delivered.

#### *Areas for improvement*

For the moment, the results of the programmes presented in the Government Performance Report cannot be used to assess impact. The indicators used are related to “allocated resources”, “performance” and sometimes “outcomes”. These indicators are useful to increase the transparency and accountability of the provincial government; however, they do not provide an insight into whether or not a programme is having an impact on people’s well-being or contributing to achieve the government’s objectives.

#### *Action*

The province of Córdoba could monitor how social programmes are contributing to well-being outcomes. For instance, the state of Morelos (Mexico) created a Monitoring and Evaluation System, coordinated by the Social Development Evaluation Commission (COEVAL). This public platform includes the Social Programme Catalogue (CEPS) providing the following information for 52 social programmes: diagnosis, outcome indicators, beneficiaries profile, programme assessments and recommendations to improve the programmes.

**Table 3.4. Types of indicator for monitoring policies and programmes**

Type of indicator	Description	Examples from the Performance Report
Allocated resources	Allocated resources indicators are used to measure the amount of resources allocated to a policy or programme. These input indicators may provide evidence of the efforts made to implement a policy or programme. Allocated resources indicators are only used in monitoring to provide information on the extent to which a policy is being carried out.	<p><b>Salas Cuna child care programme:</b> Total number of food packages, total number of nappies, number of carers</p> <p><b>PAICOR integrated welfare programme:</b> Number of collaborators, monthly handouts</p> <p><b>End-to-end gas infrastructure programme:</b> N.A. (no indicator in the report)</p>
Performance	Performance indicators monitor how efficiently policies are being executed. The performance indicators measure the quantities produced by a policy in achieving its objectives, but do not provide information on whether objectives are being fulfilled.	<p><b>Salas Cuna child care programme:</b> Number of care worker visits per month</p> <p><b>PAICOR integrated welfare programme:</b> Number of meals per day</p> <p><b>End-to-end gas network programme:</b> Kilometres of gas pipeline laid</p>
Outcomes	Outcomes indicators are used to monitor how effective policies and programmes are at fulfilling their objectives. They provide insight into whether the policies are well designed vis-à-vis their goals. Outcomes are the fundamental reason behind a policy but in most cases, they are only determined by the output of products.	<p><b>Salas Cuna child care programme:</b> Women able to go to work or finish their education</p> <p><b>PAICOR integrated welfare programme:</b> Children and young people who receive decent and nutritious meals at school</p> <p><b>End-to-end gas network programme:</b> Córdoba population connected to the gas network</p>

Sources: Schumann, A. (2016), “Using Outcome Indicators to Improve Policies: Methods, Design Strategies and Implementation”, <http://dx.doi.org/10.1787/5jm5cgr8j532-en>; Córdoba Provincial Government (2017), *Government Performance Report 2017 (Memoria de Gestión 2017)*, <https://datosgestionabierto.cba.gov.ar/?q=memoria> (accessed in July 2018).

### ***Setting priorities for public investment with well-being indicators***

#### ***Remarks***

In Córdoba, the General Secretariat of Government has led the development of the regional well-being framework, which will require engaging with other counterparts in the government to shape budgetary priorities. While strong connections with the budget design process may boost the impact of well-being frameworks, not all governments implement their well-being frameworks within the auspices of their ministries of finance. Thus, it is essential to build close relationships with the departments that take decisions in terms of budget allocation (Carnegie UK Trust, 2016).

Córdoba’s governmental structure can favour the link between policy decisions and well-being metrics. The DGEyC (provincial statistical department) reports to the General Secretariat of Government. The Secretariat provides advice to the Governor with regards to public management decisions. This role in the provincial government can help the Secretariat bridge the gap between the production of data and statistics and the decision-making processes.

#### ***Areas for improvement***

An option to encourage dialogue between decision makers and statisticians would be to use well-being indicators for budget allocation. The provincial government could review the operating rules of the main regional development funds allocating resources to municipalities to incorporate well-being criteria (Table 3.5). For example, the Urban Development Fund, Permanent Fund or Supplementary Infrastructure Works Fund for

Municipalities, Communes and Regional Communities (FOCOM) could prioritise projects that have a major impact in one or several well-being dimensions in which an agglomeration or municipality is performing poorly.

**Table 3.5. Provincial regional development funds operated by Córdoba's municipalities**

Fund name	Description of activities
Urban Development Fund	Construction of basic infrastructures such as curbing, pavements, gas, sewage and water networks, lighting and drains, etc. In 2017, 83% (215) of municipalities and 74% (93) of communes were carrying out public works projects.
Permanent Fund	Funding of local government projects and programmes in the province of Córdoba. In 2017, 270 municipalities and communes submitted projects, with a total budget of \$155 159 500 (Argentine peso)
Supplementary Infrastructure Works Fund for Municipalities, Communes and Regional Communities (FOCOM)	Funding works outside the remit of the municipalities and communes. In 2017, 225 agreements were signed for a total of \$165 522 535.72.

*Source:* Background report based on OECD Questionnaire, prepared and sent by provincial authorities on November 2017.

### *Action*

Operating rules could only incorporate well-being indicators when deciding projects in the four agglomerations. At present, the Well-Being Survey only provides data to compute well-being indicators in Gran Córdoba, Río Cuarto-Las Higueras, San Francisco and Villa María-Villa Nueva. Resources from regional development funds transferred to these municipalities could be allocated according to the foreseen impacts in well-being indicators.

However, there are other options that could be considered for the municipalities that are currently not covered by the well-being indicators. Multidimensional well-being criteria could be incorporated using alternative sources, such as the census, the Basic Unmet Needs (NBI) (which covers some of the OECD regional well-being dimensions) or other municipal surveys. As mentioned in Chapter 1, the last census was conducted in 2010, but the new census to be published in 2020 provides a good opportunity to update a number of indicators that are outdated.

In Latin America, some countries are trying to link their public investment decisions (especially concerning infrastructure) to multidimensional well-being criteria. In Chile, the Local Initiative Regional Fund (FRIL) allocates resources to projects that consider infrastructure development as a means to enhancing well-being from a multidimensional perspective. In Mexico, the operating rules of the Social Infrastructure Contributions Fund (FAIS) – a federal fund created by the states and municipalities to improve infrastructure in highly or very highly marginalised parts of the country – changed after the results of the multidimensional poverty index (published every two years) showed insufficient progress (Box 3.2).

### Box 3.2. Public funds and well-being indicators in Latin America

#### Local Initiative Regional Fund (Chile)

The Local Initiative Regional Fund (FRIL) was established in the region of Valparaíso (Chile) in 2008 to allocate central government funding. This regional investment instrument channels funds from the Regional Development National Fund, and was included in the Public Sector Budget Act to invest in “minor” public infrastructure projects (with total project costs of less than 2 000 monthly tax units [UTMs]). In order to tap into these funds, municipalities must submit their projects, which are evaluated through a procedure established by the regional government of Valparaíso.

The aim of the FRIL is to finance public infrastructure projects that improve the quality of life of the poorest cohorts of the commune’s population (in both rural and urban areas). Those projects should also explicitly mainstream civic engagement and gender inequality. The FRIL’s work gravitates around four areas: basic public services, urban roads, and community facilities. The FRIL allocates resources to projects that consider infrastructure development as a means to enhancing well-being from a multidimensional perspective. Between 2009 and 2015, projects funded by the FRIL have focused on sectors such as education, sport and leisure, and community organisations.

#### Social Infrastructure Contributions Fund (Mexico)

In 2015, the operating rules of the Social Infrastructure Contributions Fund (FAIS) changed to prioritise investments in infrastructure that have a direct impact on social unmet needs indicators and contribute to reducing poverty. These new rules imposed a cap of 30% for investments in projects with a complementary effect, such as paving and roads, which were previously one of the priority areas for municipalities.

The change in operating rules helped better align national and state strategies. The programme’s operating rules imposed an obligation on the state and municipalities to use the multidimensional poverty index to allocate funds and imposed caps on investments that did not directly contribute to reducing poverty. The national government also offered training to help municipalities understand the new operating rules, and held meetings to raise awareness of the importance of investing in projects contributing to decrease poverty. The FAIS also incorporated a financial incentive to prioritise investments in basic drinking water supply and sanitation infrastructure. This incentive involved match funding – the national government invested an additional peso for every peso invested by municipalities. The latter reduced investments in road paving from 53% to 8% of total investments between 2015 and 2017. It also reversed the historical trend of low investment in water infrastructure, boosting it from 26% to 63% of total investments.

Sources: OECD (2017), *Making Decentralisation Work in Chile*, <https://doi.org/10.1787/9789264279049-en>; OECD (2013), *OECD Territorial Reviews: Antofagasta, Chile 2013*, <https://doi.org/10.1787/9789264203914-en>; Santiago Metropolitan Regional Government, *Instrumentos de Inversión Regional [Regional Investment Instruments]*, <https://www.gobiernosantiago.cl/instrumentos-de-inversion-regional> (accessed on 26 August 2018); Tarapaca Regional Government (2018), *Gestión de Gobierno [Government Management]*, <https://www.goretarapaca.gov.cl/gestion/fondo-regional-de-inversion-local/> (accessed on 26 August 2018).



## Advancing the statistical agenda

The statistical agencies of OECD countries are modernising. Much of this stems from the untapped opportunities offered by digitalisation and new technological developments that have led to a plethora of new data sources and statistical methods to complement existing official statistics. In addition to these changes, there is a growing demand at all levels of government to increase the evidence base for policy design and implementation. Nevertheless, modernising statistical systems takes a long time and does not involve just generating information, but also engaging in new partnerships with other public and private actors as well as local and international organisations, working through new organisational structures within statistical agencies, and disseminating data to users in a different way.

In line with this global trend and following the policy recommendations from OECD (2016a), the province of Córdoba has launched a series of initiatives to strengthen and modernise its statistical infrastructure. These include:

- A new “*Open Data*” statistical portal: the DGEyC launched a new statistical portal in 2017 that aims to increase accessibility to data in a more user-friendly format. The portal provides data visualisations, statistical publications and open data in CKAN format (the world-leading open source data management system).
- Partnerships between the DGEyC and other public institutions: Secretary for Equity and Employment Promotion and the DGEyC worked together to prepare a Social Priority Index (IPS) that helps identify geographical areas with high priority for public action due to the living conditions of the population. The DGEyC has developed a Spatial Data Registry together with the ministries of Education, Environment, Water Resources, mining and Agriculture. Lastly, the DGEyC provided support to the Police Crime Analysis Unit to analyse geospatial crime statistics from 2016. This ICT tool includes a platform that can cross social and crime databases.
- Production of new economic indicators: some examples include the Consumer Price Index, which measures changes in the prices of a basket of goods and services of urban households residing in the City of Córdoba; and the Indexes of Goods and Services, and Public Works, which are used to renegotiate public contracts with private companies.
- Well-being Survey and using ICTs in statistical processes: the government of Córdoba has developed the Well-Being survey based on the Permanent Household Survey (EPH) of Argentina’s Institute of Statistics and Censuses (INDEC), but including new questions to be able to compute OECD’s well-being indicators. The survey provides well-being data at agglomeration level for Gran Córdoba, Río Cuarto-Las Higuerras, San Francisco and Villa María-Villa Nueva. Paper surveys have been replaced by a tablet app.

The province of Córdoba’s statistical infrastructure has experienced a significant improvement with the implementation of the Well-being Survey. The province had an overriding need for new and updated data in a number of well-being dimensions such as: work-life balance, health, civic engagement and governance, community and social support, life satisfaction and access to services.

Although traditional surveys will continue to be a key part of the statistical systems of countries and regions, the most innovative statistical offices are becoming increasingly aware of the need to explore new ways of generating data and statistics. To improve



well-being metrics at local and regional level, the province of Córdoba – along with regions in other OECD countries – will have to mobilise a variety of data sources and methodologies. These include making better use of administrative records, incorporating geographical information systems (GIS) and exploring the use of microdata.

Four actions could be pursued by the provincial government to be at the cutting edge of regional statistics: i) widen the geographical scope of the Well-being Survey by gathering data for small and medium-sized cities (through least costly methodologies) and identifying functional urban areas (FUAs); ii) using data from administrative records to produce evidence on the links between social programmes and socioeconomic outcomes; iii) further expand the open data policy; and iv) increase the use of satellite images to produce official statistics.

### ***Expanding the Well-being Survey***

#### *Remarks*

The 2018 Well-being Survey covers approximately 55% of total provincial population. As in the rest of Argentina, Córdoba is an urbanised province with a large share of the population living in a small area of its territory (Box 3.3). Indeed, the four agglomerations (Gran Córdoba, Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco) in which the Well-being Survey is conducted are home to around 2 million people, although the four together only cover 1% of provincial area.

#### **Box 3.3. Degree of urbanisation of Córdoba**

The (2016) Territorial Review for Córdoba looked at the degree of urbanisation across the province using data from the 2010 census. It was found that the province of Córdoba has a high degree of urban concentration, with the majority of the province's population living in just a few departments. The urban-rural split of the province of Córdoba's population is very similar to the national average (91%), with approximately 87% of its people living in urban areas. Gran Córdoba, in the department of Capital, is home to around 40% of the province's population, and along with five other departments (Río Cuarto, Punilla, San Justo, Colón and General San Martín) has close to 70% of the population. The remaining 20 departments in the province are home to 30% of the province's people, while the four smallest departments (Sobremonte, Minas, Pocho and Río Seco) account for less than 1% of the province's population. The most populated departments also have the greatest shares of city-dwellers. Ten out of the 26 departments are home to upwards of 80% of the province's urban population (Capital, Río Cuarto, Punilla, Colón, San Justo, General San Martín, Tercero Arriba, Marcos Juárez, Unión and Río Segundo). Although most of the departments are predominately urban, six have most of their populations living in the countryside: Minas and Pocho, which are completely rural, and Tulumba, Totoral, Sobremonte and Río Seco (over 50% of the population living in rural areas).

Source: OECD (2016a), *OECD Territorial Reviews: Córdoba, Argentina*, <http://dx.doi.org/10.1787/9789264262201-en>.

OECD (2016a) showcased the differences in well-being between urban and rural areas in the province of Córdoba. Based on 2010 census data, the percentage of the population not completing their primary education in the departments of Capital and Punilla was less than 10%, in contrast to above 30% in Sobremonte, Tulumba and Río Seco. There are also large differences in the quality of transport connections. In 2009, only 8% and 25% of secondary roads were unpaved in the departments of Capital and San Javier, respectively, whereas 75% of secondary roads were unpaved in Sobremonte, Pocho and Minas. Low quality infrastructure can affect connectivity and hamper access to services. There were also notable differences in households' access to drinking water. While less than 75% of households in the departments of General Roca, Pr. Roque Sáenz Peña, Juárez Celman and Sobremonte were connected to drinking water supply services, over 95% of households in Capital, Punilla and General San Martín were connected to the service.

### *Areas for improvement*

Although there are differences in well-being outcomes between urban and rural areas, expanding the Well-being Survey to the entire province might not be the most efficient approach. Expanding the survey to cover all municipalities would have a significant cost due to the large number of municipalities and communes (427 in total). The provincial government has already invested a considerable amount of monetary and human resources to cover four agglomerations in the survey. An even greater effort would be needed to widen the scope of the survey to cover the rest of the province.

Following a gradual approach would be more adequate to expand the geographical coverage of the Well-being Indicators. The province should follow a “value for money” logic by exploring alternative methodologies to compute well-being indicators in small and medium municipalities. While achieving representative sample for secondary cities and rural areas would be useful to guide regional development policies, the cost of expanding the Well-being Survey would be very high. However, exploring alternative methodologies (polls or short surveys, administrative registries, big data, satellite, etc.) to compute well-being indicators in small and medium-sized cities is a pressing need given that they are home to approximately 35% of the province's population. This could start by expanding to five provincial departments (Río Cuarto, Punilla, San Justo, Colón and General San Martín), which, along with Capital, are home to around 70% of the population. Next, the small and medium municipalities that best represent the remaining 20% of urban population. A final could be to expand to the dispersed rural population (approximately 10% of total population).

### *Action*

Expanding the scope of the Well-being Survey to all provincial urban areas would allow for:

- Exploring the regional development potential of small and medium cities. Well-being metrics could help analyse whether these cities have the amenities to attract human capital. For instance, if there is low access to services or personal security it is likely that a city may struggle to attract companies, as few highly-qualified or well-paid workers would be keen to move there.
- Identifying functional urban areas (FUAs) to better understand urban-rural linkages (Box 3.4). FUAs can offer information on how people commute depending on jobs, consumption habits and leisure preferences. The Well-being Survey includes three questions on commuting flows that can help identify the FUAs if the scope of

the survey is expanded to cover all the municipalities in the departments in which the four agglomerations are located. The current geographical coverage of the survey is based on the definition of an agglomeration. The latter leaves out a number of municipalities as well as other dormitory towns that are key to understanding the metropolitan dynamics of the urban area.

#### **Box 3.4. Functional urban areas**

The OECD worked with the European Commission to introduce a methodology in 2012 for defining their metropolitan areas on a consistent basis as functional economic units or what are known as functional urban areas (FUAs). The main goal was to avail of a definition for cities and metropolitan areas that better reflects the economic reach of an area than merely its administrative boundaries. This definition increases international comparability and provides units of analysis that are more useful for urban policy planning. Using population density and commuting flows as the main sources of information, FUAs are identified that are characterised by a densely inhabited city core surrounded by municipalities with smaller populations but whose labour market is highly integrated with the core. Using FUAs enables policies to be designed at the right scale; the most obvious example of this is the public transport network. An efficient transport network cannot be designed, for example, without considering the number of workers commuting into the centre of a metropolitan area from surrounding municipalities and vice versa.

The method for delimiting a FUA has two main steps. The first step is to identify the urban core using clusters of contiguous grid cells of one square kilometre (km<sup>2</sup>) with a density of at least 1 500 inhabitants per km<sup>2</sup> and a total population of at least 50 000. Commuter belts are then identified as areas that attract workers from other municipalities to the urban core, which are defined as such when at least 15% of the municipalities' workforce commutes to the urban core. The total area of a FUA is the sum of the urban core and the commuter belt.

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

Another window of opportunity for establishing the concept of FUA as a definition for city in Argentina is the national census scheduled for 2020. In Argentina, the INDEC is holding meetings with the provincial offices of statistics to coordinate the design of the census questionnaire. During these discussions, Córdoba could suggest reviewing the definition of city for statistical purposes and including questions on commuting flows.

#### ***Administrative records***

##### *Remarks*

Administrative records are one of the most prominent alternative sources of data today and can complement, or even replace, some traditional surveys. For most national statistical offices, personal and company tax records, and other systems tracking administrative records (such as driving licences, social security numbers, etc.) have become the backbone of their statistical infrastructure.

New well-being indicators could be produced with administrative records in areas such as income, personal security or health. For instance, although the results presented in Chapter 2 indicate that Córdoba is not suffering a violence crisis like a number of other Latin American countries, the province must continue to work towards achieving levels similar to most European OECD countries. A step in this direction could be to improve gender violence metrics by using crime administrative records where aggressors are reported as a male. Another area of interest could be to use financial wealth data from tax declarations to supplement income and income distribution indicators. In the area of health, information on cause of death could be used to complement indicators on mortality rates. The latter could help prioritise policies to avoid some of the most common causes of death in the province.

### *Areas for improvement*

The statistical infrastructure needed to establish a statistical system based on administrative records requires a long-term commitment. However, in the short-term Córdoba could use administrative records for specific programmes. A step in this direction would be to collect administrative data from beneficiaries of social or business programmes. The information should be collected to ensure it can be crossed with other databases.

A single register of beneficiaries could help cross-reference databases between the various social programmes in the province. It is now common in OECD countries to use similar tools for cross-analysing different administrative records. For instance, in the Netherlands three and a half year olds have their personal ID number (PIN) to monitor educational attainment. The PIN is cross-referenced with other socioeconomic data to identify the reasons for a child succeeding or failing at school. Another example is in Canada, where businesses applying to be beneficiaries of commercial programmes are required to submit a standard information form. This form includes a company number – a unique company identification code – that can then be used to access other tax and administrative records, and monitor the economic impact of each commercial programme (Box 3.5).

#### **Box 3.5. Using official records to evaluate policies and programmes**

##### **Official pupil records in the Netherlands**

In the Netherlands, a major source of information for researching and monitoring education policies is the personal ID number (PIN) assigned to all three and a half year olds in the country. Commonly known as the education number, it is the same as the tax and social security number. Schools provide the PINs along with other pupil data throughout a child's education. These data are being used more frequently to monitor educational attainment, attendance and dropouts. The PIN is a very useful tool in the country's plan to tackle school dropouts because it provides complete and reliable data on national, regional, municipal and even district dropout rates. A monthly report is produced using secondary school records on absenteeism and dropouts, which municipalities and schools can use to give priority to students at greatest risk. These data are also cross-referenced with socioeconomic information by region, city and district, including demographic information such as a person's country of origin, ethnic minorities, unemployment, people entitled to income support, etc. These statistics and the ongoing monitoring of results allow the public authorities to assess what works and

what does not and thereby introduce new or amend existing public policies to tackle the challenges faced in different communities.

#### **Business innovation programmes in Canada**

The statistical tables for clean technology review are one of the outcomes of a project undertaken by Statistics Canada in support of horizontal innovation and clean technology. They were produced from data provided by 22 federal government departments and Crown corporations. They were subsequently integrated into Statistics Canada's Linkable File Environment (LFE), which comprises a large number of administrative and business survey data. Specifically, more than 430 000 individual records were collected, from 98 business programme streams over the 2007-16 period. Programme streams were also grouped in seven aggregate categories: grants, repayable contributions, non-repayable contributions, conditional repayable contributions, financing, government performed services and other. Programme recipients at the enterprise level (whether for-profit or public entities) were matched to Statistics Canada's Business Register (BR), which contains all active enterprises in Canada, and then linked to the LFE using both deterministic and probabilistic techniques. A high match rate was achieved, representing 89.4% of all records and 96.6% of funds, corresponding to 88 415 unique recipient enterprises over the reference period. Relevant data for these enterprises, such as financial and employment variables, industry, location, profit and exporter status, were then extracted from the LFE.

*Sources:* OECD (2012a), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, <http://dx.doi.org/10.1787/9789264130852-en>; Statistics Canada (2018), *Horizontal Business Innovation and Clean Technology Review Statistical Tables*, <https://open.canada.ca/data/dataset/4112e654-b080-4ce0-a4e4-d739e8f274f7> (accessed on 24 August 2018).

#### *Action*

Córdoba's provincial government should advance the creation of a single system for social programme beneficiaries that helps cross-reference data from the various ministries, agencies and even non-government organisations. In this sense, Law 9662 aims to create a "Single system for the registration of individuals and/or families benefiting from social programmes" and a coordination unit, formed by representatives from the Ministries of Social Development and Finance, the Secretariat of Equity and Employment Promotion and the General Secretariat of Government. The law stipulates that eligible beneficiaries will be chosen according to "poverty" and "indigence" criteria established by the INDEC. Ministries, agencies, municipalities and communes are all required to submit information on social programmes to the coordination unit. The ministries and agencies responsible for executing each social programme will also be required to register beneficiaries' records in a digital tool.

#### *Open data*

#### *Remarks*

Córdoba's statistical office has made notable progress increasing public access to data, with a new section on its website dedicated to open data. The data published are subject to a protocol to increase their accessibility. Data published can be processed using software, are

provided for a minimum fee (or even free), and are not subject to any copyright restricting its use or dissemination.

### *Areas for improvement*

One of the next areas that could be explored in the province is open microdata, i.e. open data on individual entities (such as a company, a building or in some cases even an individual), although confidentiality and privacy are key considerations. Some types of microdata are becoming increasingly commonplace in the public domain and their confidentiality is not seen as a problem. Examples include address lists, building footprints, datasets with geolocation of infrastructures, amenities, service points and even company registers (Box 3.6). In fact, a large part of this information could already be obtained using publicly available satellite images.

### *Action*

Apart from making new sources of data available to the public, there are other steps the DGEyC should consider to ensure the set of well-being indicators are widely disseminated. The DGEyC could provide academics and expert audiences with a methodological guide and the codes used to calculate well-being indicators.

#### **Box 3.6. Examples of open data policies in the OECD**

##### **Official enterprise registers in Quebec, Canada**

The enterprise register is a legal public system for all companies operating in Quebec, irrespective of their legal form. It is also a public data bank that can be accessed by the general public. This public register was set up pursuant to the Act respecting the legal publicity of enterprise, which aims to protect the public and businesses in their socioeconomic and commercial affairs. Since 1 January 1994, all companies doing business in Quebec have to be registered. Companies must declare, in particular: their activities; the names and domiciles of their shareholders, directors, partners and executives if they are not members of the board of directors; the addresses of their establishments; and any other names used to conduct their activities. Since 4 July 2016, some of the data from the enterprise register have been published on the Données Québec website, which contains open data (administrative data and data that are in the public interest) from the government of Quebec and certain municipalities. The purpose of the register is to boost the government's administrative efficiency and facilitate communications between the government and associations and businesses. The registry therefore allocates registered companies a Quebec Enterprise Number (QEN) and supplies information to the government departments and agencies responsible for managing public business programmes.

##### **Municipal address data set in Denmark**

Before 1996, address data was registered and collected individually by the 270 Danish municipalities. Although public data were available, organisations wanting to access the data had to make separate access and pricing agreements with each municipality, rendering the data practically inaccessible. The lack of an accessible, unified public data set resulted in the development of several private databases of varying quality. The agreement between municipalities called "Better Access to Public Data" (more widely known as the "free of



charge agreement”) came into effect on 1 January 2003, but legal issues delayed its full implementation until 2005 when the law governing the Public Data Server was amended. The agreement removed the legal restrictions on the distribution of address data to third parties, as well as the fee for distribution. The agreement made available data from the Cadastre and municipal property and dwelling registers, which comprised address data and their associated geographic coordinates, free of charge through a government portal, with those accessing it paying only the cost of distribution. The municipalities were compensated €1.3 million for loss of income from sales of data for the three years after the agreement was reached.

*Sources:* Government of Quebec (2018a), “Act respecting the legal publicity of enterprises”, <http://www.legis.quebec.gouv.qc.ca/en/ShowDoc/cs/P-44.1> (accessed on 24 August 2018); Government of Quebec (2018b), *Données Québec*, <https://www.donneesquebec.ca/recherche/fr/dataset/registre-des-entreprises> (accessed on 24 August 2018); GOVLAB (2018), *Denmark’s Open Address Data Set*, <http://odimpact.org/case-denmarks-open-address-data-set.html> (accessed on 15 September 2018).

### Improving governance to foster regional development

To achieve its regional development goals the province of Córdoba should continue enhancing certain aspects of governance and its institutions – some of which were already highlighted in the OECD (2016a) report:

- Coordinating the design and implementation of social programmes to avoid duplications or overlaps
- Cooperating with municipalities and communes (427) to effectively implement social programmes.
- Fostering metropolitan governance in the four agglomerations to address common challenges that cannot be tackled alone by a single municipality.
- Ensuring the well-being framework is used as a regional development tool that crosses policy cycles and promotes people-centric policies.

#### *Operational implementation of social programmes*

##### *Remarks*

In Córdoba there is a large number of social programmes across the various ministries and secretariats. Each provincial ministry and secretariat has a wide range of programmes in place to solve the well-being challenges faced in the province.

Provincial decrees clearly assign roles and responsibilities for the implementation of social programmes. The provincial government must approve a provincial decree before a social programme can be implemented. These decrees set out the programme’s objectives and geographical scope, as well as the competent public authorities that should lead the implementation of the programme. It also assigns powers to the competent authority to sign agreements with other institutions (public, private, or non-profit) that can help the programme implementation. Decrees assign ultimate responsibility for allocating funds to the Ministry of Finance. For instance, the provincial decree for the programme “Más Leche, Más Proteínas” (More Milk, More Protein) sets:

- Objective: to ensure adequate nutrition of children from birth to 11 years old by providing fortified and whole milk
- Service provision: the product will be distributed through childcare centres, health centres and primary schools
- Competent authority: Social Development Ministry
- Authorities providing technical assistance: Ministry of Health, Ministry of Education and Secretariat of Equity and Employment Promotion
- Powers to sign agreements with public and private entities and municipalities and communes to implement the programme
- Ministry of Finance should make the necessary budget provisions.

#### *Areas for improvement*

The decrees have been effective in coordinating the implementation of social programmes in the province. Examples of where such coordination is essential are the *Salas Cuna* programme, the *Más Leche, Más Proteínas* programme, and the PAICOR programme. These programmes have very similar objectives and duplications have to be avoided. On the one hand, the General Secretariat of Government submits to the Ministry of Social Development the PAICOR beneficiaries register to help define who can benefit from the *Más Leche, Más Proteínas* programme. It also shares the same information to the Secretariat of Equity and Employment Promotion to ensure *Salas Cuna* beneficiaries do not receive products from the *Más Leche, Más Proteínas* programme. Another example of effective coordination is the “Plan Vida Digna” (Decent Life Plan). In this instance, the Ministry of Social Development identifies beneficiaries through social assistance surveys. The Ministry of Housing is responsible for the expenditure of this programme and the Ministry of Social Development controls expenditure. Since the plan involves providing subsidies and loans based on a beneficiary’s status, the Bank of Córdoba also intervenes as the collection agent.

#### *Action*

A single register of beneficiaries of social programmes is one way of boosting the operational coordination of programmes. Creating a single system would contribute to making the package of social programmes of the province of Córdoba more effective and efficient. First, it would allow to identify beneficiaries receiving duplicate products or services. Second, it would allow to identify beneficiaries who qualify for more than one social programme, but are only signed up to one social programme for some reason (because they are unaware of the existence of other programmes, the administrative procedure is burdensome, etc). Lastly, it would allow the total number of beneficiaries in the province to be monitored over time and, ultimately, to be classified according to the well-being areas for which they require a service. The latter could help determine which well-being areas need to be prioritised.

#### ***Provincial-municipal cooperation***

#### *Remarks*

Cooperating with the 427 municipalities and communes across the province (Box 3.7) to deliver services is crucial to implementing well-being programmes. Córdoba’s



geographical scale generally means the neediest in society are those who have the least contact with the provincial government, because they live in a remote area of the province or in sparsely populated areas where it is difficult to deliver services. Municipalities and their mayors therefore play an essential role in informing inhabitants of available programmes and delivering some of those services. For example, milk for the *Más Leche*, *Más Proteínas* programme is purchased by the provincial government but distributed by municipalities because the centres to deliver the milk are managed by municipalities (primary healthcare centres, childcare centres and primary schools).

To overcome the scale challenge, the province of Córdoba has tried to cooperate with municipalities through the presidents of regional communities. The presidents of regional communities are elected for each of the 26 departments by municipalities within the department. Each president is responsible for communicating provincial programmes to municipalities so that municipalities can inform citizens of the services on offer.

### Box 3.7. Municipalities and communes in the province of Córdoba

The 427 municipalities in Córdoba are institutional, financial, economic, administrative and political entities that are self-governing, as laid down in the Provincial Constitution. They are also autonomous in the way they carry out their functions and the competencies assigned to them in the Provincial Constitution and the laws deriving from it. Córdoba's Constitution establishes that any settlement with more than 2 000 inhabitants must be considered a municipality; municipalities are self-governing, responsible for how provincial funds are used, and able to generate their own revenue. The number of municipalities in Córdoba is unusual in Argentina. Along with the neighbouring province of Santa Fé, Córdoba is the province with the greatest number of municipalities in the country. The most highly populated province, Buenos Aires, has 134 municipalities, and the average number of municipalities per province is just 91. Tier-three governments are subject to a Municipal Organic Charter, in the case of cities, or the Municipal Organic Law for those municipalities without an organic charter. Each municipality draws up its own Organic Charter, the provisions of which are established in the corresponding provincial constitution.

Source: OECD (2016), *OECD Territorial Reviews: Córdoba, Argentina*, <https://doi.org/10.1787/9789264262201-en>.

#### *Areas for improvement*

Presidents of the regional communities have not always been completely effective in implementing social programmes. This may be because agreements have had to be signed individually with each municipality to ensure a service is delivered appropriately. This ad hoc approach leads to differences in how the services are delivered – for example a municipality could refuse to cooperate with the provincial government, due to political allegiances.

#### *Action*

An option to promote cooperation between the provincial and municipal level could be the establishment of an association of local authorities that integrates the presidents of regional communities. Although, there is the Argentinian Federation of Municipalities at national

level (88 municipalities of the province of Córdoba are members), there is no provincial association. In some OECD countries, these associations have proven useful as a forum for identifying shared objectives, interests, challenges and solutions (OECD, 2016a). They also act as a single voice to establish a common position when negotiating with the provincial government. Some regions in the OECD have created their own associations (Box 3.8). In the province of Córdoba, this association could also set up technical committees that:

- Identify the various challenges and problems the population in the hinterland faces in relation to the various well-being dimensions.
- Discuss how programmes are designed and analyse the challenges of implementing them at municipality level.
- Monitor and evaluate social programmes, focusing especially on the well-being challenges in the province's rural areas

### **Box 3.8. Associations of municipalities in the OECD**

#### **Association of Flemish Cities and Towns (VVSG)**

The VVSG is made up of 308 towns and cities and was founded in 1993 to create a partnership network of Flemish local authorities. The VVSG offers local governments advice regarding their international cooperation activities and provides training to local municipal staff on using social networks, designing multi-year plans and managing human resources. The VVSG acts as a coordinator between Flemish local governments to foster inter-municipality cooperation when delivering public services and managing risks. To achieve this, a decree was enacted in 2001 establishing 4 municipal cooperation mechanisms, from so-called “soft” associations to others referred to as “exhaustive”: inter-local associations, project-specific associations, associations for the delivery of services, and associations with clear remits. Waste management, drinking water supplies and public transport services are the areas in which the VVSG has helped create the most partnerships.

#### **ANCI Toscana**

ANCI is the Association of Italian Municipalities, comprising several regional associations with statutory autonomy such as ANCI Toscana. This regional association provides technical and political assistance and coordinates municipalities in Tuscany in order to forge a permanent relationship with state and regional authorities and with representatives of social, cultural, trade unions and business organisations. To achieve this, ANCI Toscana provides training, runs awareness-raising campaigns (for example on discrimination or disease prevention) and hosts events to boost horizontal collaboration between municipalities and raise the municipalities' profile on the international stage. ANCI Toscana is structured around five working groups: the Confederation of Municipal Boards, the Small Municipalities Board, the Municipal Trade Unions Board, the ANCI Coordination Board for Young People, and the Mountains Board. There are also a number of thematic areas of work such as the environment, regional governance and innovation, and mobility.

### **Association of Municipalities of Antofagasta Region**

The goals of this association of municipalities are: to help find solutions to common problems concerning urban development and meeting basic needs (such as water, clean energy and sewage) among others; to play a part in better managing available funds, championing municipal self-governance; to defend local interests; and to enhance the democratic process in the municipalities. To do so, it encourages dialogue and interaction between communes and national and international bodies by providing technical assistance to its members and training municipal staff.

The Technical Unit of the Association of Municipalities of Antofagasta Region was set up in 2013 to support civil servants in the municipalities to perform their duties, when these individuals lack the resources or ability to do so alone. The unit has championed a raft of improvements in urban and rural areas across the region's nine communes. It has contributed to meeting basic requirements for drinking water, clean energy and sewerage by designing public works projects. The unit consists of seven experts in architecture and civil engineering, who are responsible for designing and coordinating the projects developed for each of the nine communes. It also carries out preliminary analysis of programmes proposed by the communes, to procure finance from the Deputy Secretary of Administrative and Regional Development (SUBDERE).

*Sources:* OECD (2018), *Reshaping Decentralised Development Co-operation: The Key Role of Cities and Regions for the 2030 Agenda*, <https://doi.org/10.1787/9789264302914-en>; Anci Toscana (n.d.), *Homepage*, <http://ancitoscana.it/> (accessed on 26 August 2018); VVSG (2017), "Local authorities and public service delivery in Flanders", <https://www.oecd.org/regional/regional-policy/Local-Authorities-ENG.pdf>; AMRA (2017), *Gestión Asociativa [Joined Up Management]*, <http://www.amra.cl/somos/gestion/> (accessed on 26 August 2018).

## ***Cooperation in metropolitan areas***

### *Remarks*

In the province of Córdoba, the results of the various well-being indicators show that there are common problems across the municipalities that integrate agglomerations. The provincial government is aware that the challenges faced by the main municipalities in the province not only lie within their administrative boundaries but also within their metropolitan area. This is why the Well-being Survey conducted for the agglomerations of Gran Córdoba, Río Cuarto-Las Higueras, San Francisco and Villa María-Villa Nueva include neighbouring municipalities with which they heavily interact.

### *Areas for improvement*

As highlighted in OECD (2016a), the degree of autonomy of the municipalities affect inter-municipal cooperation in the delivery of services. The most illustrative example is the case of the city of Córdoba and the other municipalities within the Gran Córdoba. Gran Córdoba has low population density – it covers approximately 50 square kilometres from its centre, containing 46 municipalities and approximately 1.8 million inhabitants. The functional urban area is even larger since workers can commute from up to 100 kilometres away. Río Cuarto-Las Higueras, Villa María-Villa Nueva and San Francisco also have economic, social and environmental relationships with surrounding municipalities. All this means the municipalities within the agglomerations face common challenges when delivering public

services such as sewerage, urban traffic congestion management, and waste management (OECD 2016a).

### *Action*

Increasing inter-municipal cooperation to achieve economies of scale that ensure services are delivered more efficiently is crucial for the province. The Survey is an opportunity to begin establishing a metropolitan approach in the province's main agglomerations. Publishing indicators for the entire agglomeration and not by municipality could raise awareness among municipal authorities and citizens that the agglomerations' challenges are shared problems with common solutions. The results of the well-being indicators at agglomeration level could be used to bring municipalities together and begin discussing joint actions to improve certain areas of well-being. The evidence provided by these indicators could therefore be used to negotiate agreements or forge partnerships in certain policy areas.

### ***Ensuring the well-being framework cuts across policy cycles***

#### *Remarks*

Ensuring the longevity of well-being frameworks is a challenge for many regions because of the political perception around these initiatives. Although the leadership of a politician or group of politicians is critical for the success of regional well-being initiatives, the question is whether such initiatives will survive a change in government. For a framework to survive a change of political leadership, it is essential for it to be accepted by the public administration, i.e. unelected civil servants (Carnegie UK Trust, 2016).

In Córdoba, the General Secretariat of Government, backed by the Governor, has championed the development of the well-being framework and invested time and monetary resources in establishing it. Nevertheless, a specific well-being agenda could be seen as the brainchild of a particular political party and, therefore, not something that has been agreed among the various political factions.

#### *Areas for improvement*

To increase the likelihood of a well-being framework cutting across political cycles, non-government stakeholders – including civil society and special interest groups – have to feed identified with the framework concepts and indicators. The more stakeholders commit to a framework, the more likely it is that they will insist on its continuity. The General Secretariat of Government and the OECD have worked jointly to consult the various ministries and agencies responsible for regional well-being policies, as well as the Provincial Council for Social Policies (formed by representatives from the public, private, academic and not-for-profit sectors) during the design phase of the well-being framework.

### *Action*

Some actions could help ensure the continuity of the well-being framework in the medium and long-term:

- Foster a single vision for the province through a regional development strategy that goes beyond the view of a provincial government. Civil servants, politicians and stakeholders should work towards long-term well-being strategies. To this end, a

step forward are the current efforts to link the regional development strategy with the SDGs, an international agenda setting goals for 2030.

- Instil the idea that the well-being framework is technical in nature and not politicised, and that it provides evidence to improve policies and budgetary decisions. It is therefore crucial to emphasise the reliability of the data collected through the Well-being Survey – an open data policy can help in this regard. Another action is to highlight in official documents how well-being metrics have contributed to decision-making.
- Formalise well-being frameworks through legislative mechanisms. Using the well-being framework in parliamentary structures also enhances its sustainability; an incentive for this is to legislate so that governments are required to consider regional well-being. For example, this has been achieved in Scotland through the 2015 Community Empowerment Act. In Victoria (Australia) the Municipal Public Health and Well-being Act requires municipalities to draw up evidence-based policies fundamentally aimed at protecting health and enhancing well-being of citizens (Box 3.9).

### **Box 3.9. Legislative mechanisms to support regional well-being initiatives**

#### **Scotland: Community Empowerment Act (2015)**

The bill was passed by the Scottish parliament on 17 June 2015 and aims to empower community bodies through the ownership or control of land and buildings, and by strengthening their voices in decisions about public services. The new act gives community bodies a right to request to buy, lease, manage or use land and buildings belonging to local authorities, Scottish public bodies or Scottish ministries. It also establishes new obligations for the public sector authorities. There are situations where lot of land which is abandoned, neglected and/or causing harm to the well-being of the community, and the owner is not willing to sell that land. To acquire these buildings and land, community bodies must set out what they plan to do with the land and what benefits it will bring to the community. Their proposals will be approved based on their compatibility with sustainable development in these spaces. The public sector authorities will consider whether the proposals will improve economic development, regeneration, health, or social or environmental well-being, or reduce inequalities. This initiative is a major step in engaging the community in regional planning and encouraging dialogue on local issues and services.

#### **Victoria, Australia: Municipal Public Health and Well-being Act (2008)**

This act was designed to protect the health and well-being of Victoria's inhabitants, foster community involvement in prevention measures, and bolster health protection, promotion and prevention systems across all sectors and tiers of government. The act was therefore also intended to better equip individuals and enable the local community to start, support and manage healthcare planning. One of the fundamental aspects of this is the Municipal Public Health and Well-being Plan (MPHWP) because it sets out the approach and strategy of each local council to enable local citizens to be as happy and healthy as possible. Each municipal plan must cover the priorities set forth in the Public Health and Well-being Plan of Victoria, which is renewed every 4 years. It is crucial to achieving tangible health and well-being outcomes that municipal strategies and those

at the Victoria state level are joined up. These plans have also contributed to forging successful partnerships with other players from academia, the private sector and healthcare. This act stands out because it recognises the importance of promoting conditions for a healthy life and the concept of sustainability, which means that people must avail of the resources needed to have a decent life now and in the future, and to protect the health of future generations.

*Sources:* Community Empowerment (Scotland) Act 2015, <https://beta.gov.scot/publications/community-empowerment-scotland-act-summary/> Public Health and Well-being Act 2008 (Vic) s 4(2) (Australia); Gostin, L.O. et al. (2017), *Advancing the Right to Health: The Vital Role of Law*, World Health Organization, Geneva, <https://scholarship.law.georgetown.edu/facpub/1973>.

## Policy recommendations

Use the regional well-being framework to improve the outcomes of regional development policies in Córdoba.

- **Pursue further the efforts to link regional development goals to well-being metrics, in order to monitor and evaluate public action.** In Córdoba, the government's three key policy areas of social justice, sustainable economic growth and strengthening institutions are well defined, and well-being indicators could help monitor whether the government is achieving its targets.
- **Use interdimensional indicators to manage the complementarities between well-being policy areas.** The complementarities between well-being dimensions can be measured, at least partially, using interdimensional indicators looking at two well-being dimensions side-by-side by measuring specific outcomes by social group or individuals that share a similar result in another dimension.
- **Link well-being programmes to well-being outcomes.** This would help quantify the extent to which social programmes contribute to achieving the government's strategic objectives.
- **Consider using well-being multidimensional criteria to allocate public funds.** There are several provincial funds dedicated to boost regional development at municipality level. These investments could be targeted by using rules based on multidimensional well-being criteria.

Establish Córdoba as a test bed for innovation and experimentation in improving Argentina's statistical system.

- **Take a step-by-step approach to widening the geographical coverage of the Well-being Indicators, considering "value for money".** Expanding the coverage of Well-being indicators beyond four agglomerations (currently covering 55% of the province's population) to include other urban areas (close to 90% of the province is urban):
  - Start with obtaining representative samples (with less costly methodologies as traditional surveys and alternative methods such as administrative registers or satellite imagery) from the five provincial departments (Río Cuarto, Punilla, San Justo, Colón and General San Martín) which, along with Capital, are home to around 70% of the population.

- Continue with the small and medium-sized municipalities that best represent the remaining 20% of the urban population.
- A final step could involve investing in other types of less costly surveys or polls that help to determine the well-being of the rural population.
- **Push further the use of administrative records to produce official statistics.** Produce new well-being indicators by making better use of administrative records, including income (through tax returns), personal security (police crime records) or health (death certificates).
- **Further develop the open data policy to increase users' confidence in well-being indicators.** The set of well-being indicators could be disseminated by enabling access to microdata, and providing academics and experts with a methodological guide and the codes used to calculate the indicators.

Enhance public governance to boost regional development:

- **Progress with the creation of a single register of beneficiaries of social programmes to:**
  - Identify beneficiaries receiving duplicate public services through different programmes.
  - Increase the total number of potential beneficiaries by being able to identify beneficiaries who qualify for more than one social programme but are only signed up to one.
  - Monitoring changes over time in the total number of beneficiaries in the province.
- **Improve cooperation between provincial and municipal authorities by:**
  - Establishing an association of municipalities (or similar mechanism). This association could serve as a forum to identify common goals, interests, challenges and possible solutions. It would also act as a single voice to establish a common position when negotiating with the provincial government.
- **Use the Survey as an opportunity to establish a metropolitan approach in the province's main agglomerations.** The results of the well-being indicators at agglomeration level could be used to bring municipalities together and begin discussing joint action at metropolitan level.
- **Ensure the well-being framework cuts across political cycles:**
  - Promote the idea that the well-being framework is technical, not politicised, and is used to improve the decision-making process.
  - Formalise the well-being framework through legislative mechanisms. Using the well-being framework in parliamentary structures also enhances its sustainability.
  - Members of the Provincial Council for Social Policies (CPSP) could become ambassadors of the well-being framework.



## Note

<sup>1</sup> GRI is an institution that is world renowned for being a pioneer in defining indicators for preparing sustainability reports since 1997. Córdoba is the first province or region to comprehensively report on its management performance as per this international organisation's standards.

## References

- AMRA (2017), *Gestión Asociativa [Joined Up Management]*, Association of Municipalities of Antofagasta Region, <http://www.amra.cl/somos/gestion/> (accessed on 26 August 2018).
- Anci Toscana (n.d.), *Homepage*, <http://ancitoscana.it/> (accessed on 26 August 2018).
- Carnegie UK Trust (2016), *Sharpening our Focus: Guidance on Wellbeing Frameworks for Regions and Cities*, <https://www.carnegieuktrust.org.uk/publications/sharpening-focus-guidance-wellbeing-frameworks-cities-regions/>.
- Córdoba Provincial Government (2017), *Government Performance Report 2017 (Memoria de Gestión 2017)*, <https://datosgestionabierta.cba.gov.ar/?q=memoria> (accessed in July 2018).
- Gostin, L.O. et al. (2017), *Advancing the Right to Health: The Vital Role of Law*, World Health Organization, Geneva, <https://scholarship.law.georgetown.edu/facpub/1973>.
- Government of Quebec (2018a), “Act respecting the legal publicity of enterprises”, <http://www.legisquebec.gouv.qc.ca/en/ShowDoc/cs/P-44.1> (accessed on 26 August 2018).
- Government of Quebec (2018b), *Données Quebec*, <https://www.donneesquebec.ca/recherche/fr/dataset/registre-des-entreprises> (accessed on 26 August 2018).
- GOVLAB (2018), *Denmark's Open Address Data Set*, <http://odimpact.org/case-denmarks-open-address-data-set.html> (accessed 15 September 2018).
- OECD (2018), *Reshaping Decentralised Development Co-operation: The Key Role of Cities and Regions for the 2030 Agenda*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264302914-en>.
- OECD (2017), *Making Decentralisation Work in Chile: Towards Stronger Municipalities*, OECD Multi-level Governance Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264279049-en>.
- OECD (2016a), *OECD Territorial Reviews: Córdoba, Argentina*, OECD Territorial Reviews, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264262201-en>.
- OECD (2016b), *Well-being in Danish Cities*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264265240-en>.
- OECD (2013), *OECD Territorial Reviews: Antofagasta, Chile 2013*, OECD Territorial Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264203914-en>.
- OECD (2012a), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264130852-en>.
- OECD (2012b), *Redefining “Urban”: A New Way to Measure Metropolitan Areas*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264174108-en>.
- Santiago Metropolitan Regional Government (n.d.), *Instrumentos de Inversión Regional [Regional Investment Instruments]*, Santiago, <https://www.gobiernosantiago.cl/instrumentos-de-inversion-regional> (accessed on 26 August 2018).



- Schumann, A. (2016), “Using Outcome Indicators to Improve Policies: Methods, Design Strategies and Implementation”, *OECD Regional Development Working Papers*, No. 2016/02, OECD Publishing, Paris, <https://doi.org/10.1787/5jm5cgr8j532-en>.
- Statistics Canada (2018), *Horizontal Business Innovation and Clean Technology Review Statistical Tables*, <https://open.canada.ca/data/dataset/4112e654-b080-4ce0-a4e4-d739e8f274f7> (accessed on 26 August 2018).
- Tarapaca Regional Government (2018), *Gestión de Gobierno [Government Management]*, Iquique, <https://www.goretarapaca.gov.cl/gestion/fondo-regional-de-inversion-local/> (accessed on 26 August 2018).
- VVSG (2017), “Local authorities and public service delivery in Flanders”, Presentation, Lviv, <https://www.oecd.org/regional/regional-policy/Local-Authorities-ENG.pdf>.



## **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

# How's Life in the Province of Córdoba, Argentina?

This report assesses well-being in the four largest urban agglomerations of the province of Córdoba and provides policy recommendations to strengthen regional development practices, and ultimately improve people's well-being. Using around 30 statistical indicators, the report analyses the performance of Córdoba's agglomerations in 12 well-being dimensions in comparison with 391 regions of 36 OECD countries and 98 regions of Brazil, Peru, Colombia and Costa Rica. The report also documents the well-being inequalities between Córdoba's four agglomerations and suggests three priorities areas which the province should focus on to tackle well-being challenges: i) Ensure that well-being indicators guide future decision-making; ii) Continue strengthening and modernising the provincial statistical system to expand the evidence-base; and, iii) Strengthen governance arrangements for more effective, efficient and inclusive regional development policy outcomes.

Consult this publication on line at <https://doi.org/10.1787/97f189b1-en>.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases. Visit [www.oecd-ilibrary.org](http://www.oecd-ilibrary.org) for more information.



ISBN 978-92-64-35229-2

