

MEXICO

Recent trends

Mexico continues to outperform Latin America and the Caribbean (LAC) in terms of shaping an inclusive digital economy and society. The country has made efforts to enhance digital access and use for all. Internet users, active mobile broadband and fixed broadband subscriptions increased in the last decade. Mexico rose in the E-Government Development Index from 0.59 in 2008 to 0.68 in 2018, which is above the LAC average and below the Organisation for Economic Co-operation and Development (OECD) average.

Mexico's performance in high-technology exports as a share of total manufactured exports has been above LAC and OECD averages in the last decade. In terms of promoting an inclusive digital society, the number of students per computer rose from 2.2 in 2015 to 2.4 in 2018, which is above LAC (1.6) and OECD averages (1.1). The Global Cybersecurity Index (0.63) shows improved and consistently higher results than the LAC average (0.43) but below the OECD average (0.79). Mexico had higher foreign direct investment restrictions than LAC and the OECD in the 2018 OECD FDI Regulatory Restrictiveness Index.

National strategies and international co-operation for digital transformation

The 2019-24 national development plan (NDP) is Mexico's main development planning instrument. The NDP embeds digital tools in specific policy areas to achieve its goals, specifically targeting productivity, inclusion, public administration and climate change. The Office of the President of the Republic developed *Estrategia Digital Nacional* (National Digital Strategy) with the goal of maximising information and communications technology (ICT) capabilities. The Coordination of the National Digital Strategy, which reports directly to the Office of the President, is responsible for the elaboration and co-ordination of the plan, as well as the development of ICT for its use in the public administration.

The National Plan to Fight Corruption and Impunity, and to Improve the Public Administration 2019-2024 uses digital tools in its execution. The goal is to establish a programme to promote efficiency in public administrations, while modernising and improving public service provision. Specifically, the programme will implement a system of digital platforms and tools for citizens to supervise federal public administration activities, including public procurement processes. It will also promote transversal ICT adoption across government entities and the implementation of the Digital Platform for Public Procurement. To mitigate the impact of the coronavirus (Covid-19), the Ministry of Public Education implemented *Aprende en Casa* (Learn at home) to enable classes during lockdown. Education content is made available online and through public television. Additionally, the government created an official website for general coronavirus (Covid-19) information (CAF, 2020).

The Ministry of Economy is responsible for implementing the Development of the Software and Innovation Industry, which focuses on industrial innovation, adoption and development. It also prioritises the digitalisation of Mexican companies as they tackle industry 4.0.

In terms of international co-operation, Mexico established the Better than Cash Alliance through multilateral co-operation with Colombia, Paraguay, Peru and other countries around the world. The partnership aims to accelerate the transition from cash to digital payment to reduce poverty and drive inclusive growth. The country co-operated with France on a digital project on information and democracy to fight disinformation and fake news.

Mexico also co-operates with the European Union, playing a major role in the plan to advance High Performance Computing (HPC). Mexico will receive support to create a roadmap for future HPC research co-operation, identify national and regional funding schemes, and improve links between research communities in Europe and Mexico and other LAC countries.

Enhancing access

Fixed broadband subscriptions (per 100 inhabitants)⁴
 Active mobile-broadband subscriptions (per 100 inhabitants)⁴

Proportion of population covered by at least 3G network⁵

Fixed broadband speed (in Mbit/s)⁴

Strengthening their effective use

E-Government Development Index (EGDI)⁶
 Share of Internet users (% of population)⁴

UNCTAD B2C E-Commerce Index⁷

Share of individuals engaging in online shopping⁸

Enabling digital innovation

High-technology exports (% of manufactured exports)⁹
 Share of ICT service imports, as % of total trade in services⁷

ICT patent applications filed under the Patent Cooperation Treaty (per million people)¹⁰

R&D expenditures, as % of GDP¹¹

OECD OURdata Index¹²

Ensuring quality jobs for all

Contributions to changes in total employment, by digital intensity of sectors, 2006-16¹³

Share of informal employment to total employment¹⁴

Tertiary gross enrolment rate (%)⁹

Tertiary graduates by field (%) - Education¹¹
 Tertiary graduates by field (%) - Health¹¹
 Tertiary graduates by field (%) - Engineering¹¹

Promoting an inclusive digital society

E-waste generated, kilograms per inhabitant¹⁵

Number of students per computer¹⁶

Percentage of women scoring at Level 2 or 3 in problem solving in technology-rich environments¹⁷

Strengthening trust

CAF GovTech Index¹⁸

Global Cybersecurity Index (ITU)¹⁹

E-commerce safety (%)²⁰
 Trust in online privacy (%)²⁰

Fostering market openness

OECD Digital Services Trade Restrictiveness Index¹³

OECD FDI RRI¹³

Sources, footnotes and technical details can be found at the end of the country notes.

Digital indicators - Mexico¹

Mexico		LAC ²		OECD ³	
2008	2018	2008	2018	2008	2018
6.8	14.6	4.1	13.9	22.7	32.9
0.04	70.0	0.53	73.5	19.4	103.6
2015	2018	2015	2018	2015	2018
89.0	89.6	86.1	94.6	98.2	98.8
2008	2017	2008	2017	2008	2007
0.51	10.0	0.58	5.1	2.2	27.7

Mexico		LAC		OECD	
2008	2018	2008	2018	2008	2018
0.59	0.68	0.52	0.65	0.72	0.82
21.7	65.8	25.3	67.7	65.0	84.3
2015	2019	2015	2019	2015	2019
49.1	47.5	46.4	51.5	73.9	85.0
2017	2017	2017	2017	2017	2017
16.8		14.8		N/A	

Mexico		LAC		OECD	
2008	2018	2008	2018	2008	2018
20.6	21.0	9.3	8.6	15.6	15.1
1.08	0.45	3.1	3.9	4.6	6.7
2012	2016	2012	2016	2012	2016
0.21	0.32	0.14	0.34	30.9	38.2
2006	2016	2006	2016	2006	2016
0.37	0.49	0.35	0.42	1.7	1.9
2019	2019	2019	2019	2019	2019
0.71		0.43		0.61	

Mexico		LAC		OECD	
2006-15	2006-15	2006-15	2006-15	2006-15	2006-15
7.2		6.9		4.8	
2004	2018	2004	2018	2004	2018
65.9		54.9		N/A	
2007	2017	2007	2017	2007	2017
25.4	40.2	37.5	60.5	66.6	74.3
2016	2016	2016	2016	2016	2016
13.8		16.0		9.8	
9.7		13.8		14.5	
21.3		12.5		14.6	

Mexico		LAC		OECD	
2015	2016	2015	2016	2015	2016
7.9	8.2	6.9	7.2	17.7	17.7
2015	2018	2015	2018	2015	2018
2.2	2.4	2.4	1.6	1.8	1.1
2018	2018	2018	2018	2018	2018
7.6		7.7		27.7	

Mexico		LAC		OECD	
2020	2020	2020	2020	2020	2020
5.2		4.4		N/A	
2016	2018	2016	2018	2016	2018
0.32	0.63	0.36	0.43	0.56	0.79
2018	2019	2018	2019	2018	2019
84.4	65.3	72.0	63.1	61.7	58.3
66.0	51.9	52.8	54.9	41.7	45.6

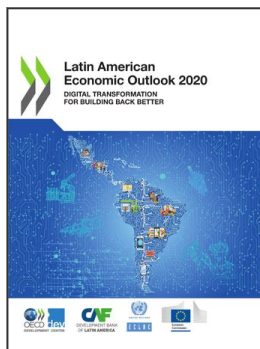
Mexico		LAC		OECD	
2015	2019	2015	2019	2015	2019
0.14	0.14	0.24	0.24	0.13	0.15
2018	2018	2018	2018	2018	2018
0.19		0.07		0.06	

Technical notes

1. The table as best as possible follows the seven key areas identified in the OECD Going Digital project: 1) enhancing access to digital technologies; 2) strengthening their effective use; 3) enabling digital innovation; 4) ensuring quality jobs for all; 5) promoting an inclusive digital society; 6) strengthening trust; and 7) fostering market openness (OECD, 2019a). Indicators are chosen depending on data availability for LAC countries. Potential bias exists from the way components have been aggregated on index indicators.
2. LAC average is a simple average. Composition of countries depends on availability of country data. Each average includes as many LAC countries as possible.
3. OECD average is a simple average that includes all OECD member countries as of May 2020.
4. Data from ITU (2020), *World Telecommunication/ICT Indicators Database 2020* (database). Fixed broadband speed in Mbit/s refers to the advertised maximum theoretical download speed guaranteed to users associated with a fixed broadband Internet monthly subscription.
5. Data from UN Statistics Division, UN Global SDG Database (database). Data for 2015 and 2018 or latest available year.
6. Data from UN E-government Knowledgebase (2019), *Data Center* (database). The E-Government Development Index is a composite indicator that consists of three indexes (Online Service Index, Telecommunication Infrastructure Index and Human Capital Index), which are equally weighted. It ranges from 0 to 1, with 1 being the most developed.
7. Data from UNCTAD (2020), *UNCTADSTAT* (database). The UNCTAD B2C E-commerce Index measures an economy's preparedness to support online shopping. It ranges from 0 to 100, with 100 being the highest support.
8. Own calculations based on data from Latinobarómetro (2019), *Libros de Códigos por País/Año* (database). Data for 2017. Data from public opinion surveys using randomly selected, nationally representative samples.
9. Data from World Bank (2020a), *World Bank DataBank* (database).
10. Data from World Bank (2020b), *TCdata360*. Data for 2012 and 2016 or latest available year.
11. Data from UNESCO (2019), *UNESCO Institute for Statistics* (database). R&D Expenditures, as % of GDP data from 2006 and 2016 or latest available year.
12. Data from OECD (2020a), *OECD.Stat* (database); and OECD (2020b). The OECD OURdata Index assesses governments' efforts to implement open data in three critical areas: openness, usefulness and re-usability of government data. It ranges from 0 to 1, with 1 being the highest score.
13. Data from OECD (2020a), *OECD.Stat* (database). The OECD Digital Services Trade Restrictiveness Index identifies, catalogues and quantifies barriers that affect trade in digitally enabled services across 46 countries. It ranges from 0 to 1, with 1 being the most restrictive. The Foreign Direct Investment Regulatory Restrictiveness Index (FDI RRI) measures four types of statutory restrictions on foreign direct investment: 1) foreign equity restrictions; 2) screening and prior approval requirements; 3) rules for key personnel; and 4) other restrictions on the operation of foreign enterprises. The FDI RRI is a composite index, which ranges from 0 to 1, with 1 being the most restrictive.
14. Data from ILOSTAT, data from 2018 or latest available year.
15. Data from the Global E-waste Statistics Partnership.
16. OECD calculations based on OECD (2020c), *Programme for International Student Assessment* (database). Data for 2015 and 2018.
17. Data from the OECD (2019d), *Survey of Adult Skills* (2018). Percentages for problem solving in technology-rich environments are computed so that the sum of percentages for the following mutually exhaustive categories equals 100%: opted out of the computer-based assessment; no computer experience; failed ICT core test; below Level 1, at Level 1, at Level 2 and at Level 3.
18. Data from CAF (2020), *The GovTech Index 2020: Unlocking the Potential of GovTech Ecosystems in Latin America, Spain and Portugal*. The GovTech Index 2020 measures the maturity of the GovTech ecosystem. It is based on 28 indicators across 7 dimensions, which on aggregate form 3 equally weighted pillars: start-up industry, government policies and procurement systems.
19. The Global Cybersecurity Index measures countries' commitment to cybersecurity at a global level. It has five pillars: 1) legal measures; 2) technical measures; 3) organisational measures; 4) capacity building; and 5) co-operation. It ranges from 0 to 1, with 1 being the highest level of cybersecurity.
20. Data from The Economist Intelligence Unit (2019), *EIU Inclusive Internet Index* (database). Indicators present perceived e-commerce safety and trust in online privacy among randomly sampled individuals in selected countries. It ranges from 0% to 100%, with 100% indicating absolute confidence in e-commerce safety and trust in online privacy.

References

- CAF (2020), *The GovTech Index 2020: Unlocking the Potential of GovTech Ecosystems in Latin America, Spain and Portugal*, Development Bank of Latin America, Caracas.
- ECLAC (2018), *Observatorio Regional de Planificación para el Desarrollo de América Latina y el Caribe* (Regional Observatory of Planning for Development of Latin America and the Caribbean), Economic Commission for Latin America and the Caribbean, Santiago, <https://observatorioplanificacion.cepal.org/es>.
- The Economist Intelligence Unit (2019), *EIU Inclusive Internet Index 2019* (database), the Economist Group, London, <https://theinclusiveinternet.eiu.com/explore/countries/performance> (accessed 11 December 2019).
- Global E-waste Statistic Partnership, website, Global E-waste Statistic Partnership, Bonn, <https://globalewaste.org/> (accessed 11 December 2019).
- ILO (2019), *ILO Statistics* (database), International Labour Organization, Geneva, www.ilo.org/global/statistics-and-databases/lang-en/index.htm (accessed 11 December 2019).
- ITU (2020), *World Telecommunication/ICT Indicators Database 2020* (database), International Telecommunication Union, Geneva, <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx> (accessed 21 August 2020).
- Latinobarómetro (2019), *Libros de Códigos por País/Año* (database), Latinobarómetro, Providencia, www.latinobarometro.org/latCodebooks.jsp (accessed 11 December 2019).
- OECD (2020a), *OECD.Stat* (database), OECD Publishing, Paris, <https://stats.oecd.org/> (accessed 11 December 2019).
- OECD (2020b), *Government at a Glance: Latin America and the Caribbean 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/13130fbb-en>.
- OECD (2020c), *Programme for International Student Assessment* (database), OECD Publishing, Paris, www.oecd.org/pisa/data/2018database/ (accessed 14 February 2020).
- OECD (2019a), *Measuring the Digital Transformation: A Roadmap for the Future*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264311992-en>.
- OECD (2019b), *OECD Reviews of Digital Transformation: Going Digital in Colombia*, OECD Publishing, Paris, <https://doi.org/10.1787/781185b1-en>.
- OECD (2019c), *Digital Government Review of Panama: Enhancing the Digital Transformation of the Public Sector*, OECD Digital Government Studies, OECD Publishing, Paris, <https://doi.org/10.1787/615a4180-en>.
- OECD (2019d), *Survey of Adult Skills*, OECD Publishing, Paris, <https://www.oecd.org/skills/piaac/data/>.
- Open Knowledge Foundation (2019), *Global Open Data Index* (database), Open Knowledge Foundation, Cambridge, United Kingdom, <https://index.okfn.org/dataset/> (accessed 19 April 2020).
- PIAAC Expert Group in Problem Solving in Technology-Rich Environments (2009), “PIAAC Problem Solving in Technology-Rich Environments: A Conceptual Framework”, *OECD Education Working Papers*, No. 36, OECD Publishing, Paris, <https://doi.org/10.1787/220262483674>.
- UN E-government Knowledgebase (2019), *Data Center* (database), United Nations Department of Economic and Social Affairs Public Institutions, New York, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (accessed 11 December 2019).
- UN Statistics Division (2018, 2015), *UN Global SDG* (database), United Nations Department of Economic and Social Affairs, New York, <https://unstats.un.org/sdgs/indicators/database/> (accessed 20 May 2020).
- UNCTAD (2020), *UNCTADSTAT* (database), United Nations Conference on Trade and Development, Geneva, <https://unctadstat.unctad.org/EN/> (accessed 11 December 2019).
- UNESCO (2019), *UNESCO Institute for Statistics* (database), UNESCO, Paris, <http://data.uis.unesco.org/Index.aspx> (accessed 20 May 2020).
- World Bank (2020a), *DataBank* (database), World Bank Group, Washington, DC, <https://databank.worldbank.org/home.aspx> (accessed 11 December 2019).
- World Bank (2020b), *TCdata360* (database), World Bank Group, Washington, DC, <https://tcdata360.worldbank.org/> (accessed 4 August 2020).
- World Economic Forum (2016), “The Global Information Technology Report 2016”, World Economic Forum, Geneva, <https://www.weforum.org/reports/the-global-information-technology-report-2016>.
- World Wide Web Foundation (2017), *OpenData Barometer* (database), World Wide Web Foundation, Geneva, <https://opendatabarometer.org/> (accessed 19 April 2020).



From:

Latin American Economic Outlook 2020

Digital Transformation for Building Back Better

Access the complete publication at:

<https://doi.org/10.1787/e6e864fb-en>

Please cite this chapter as:

OECD, *et al.* (2020), "Mexico", in *Latin American Economic Outlook 2020: Digital Transformation for Building Back Better*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/3c4313b2-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and 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. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.