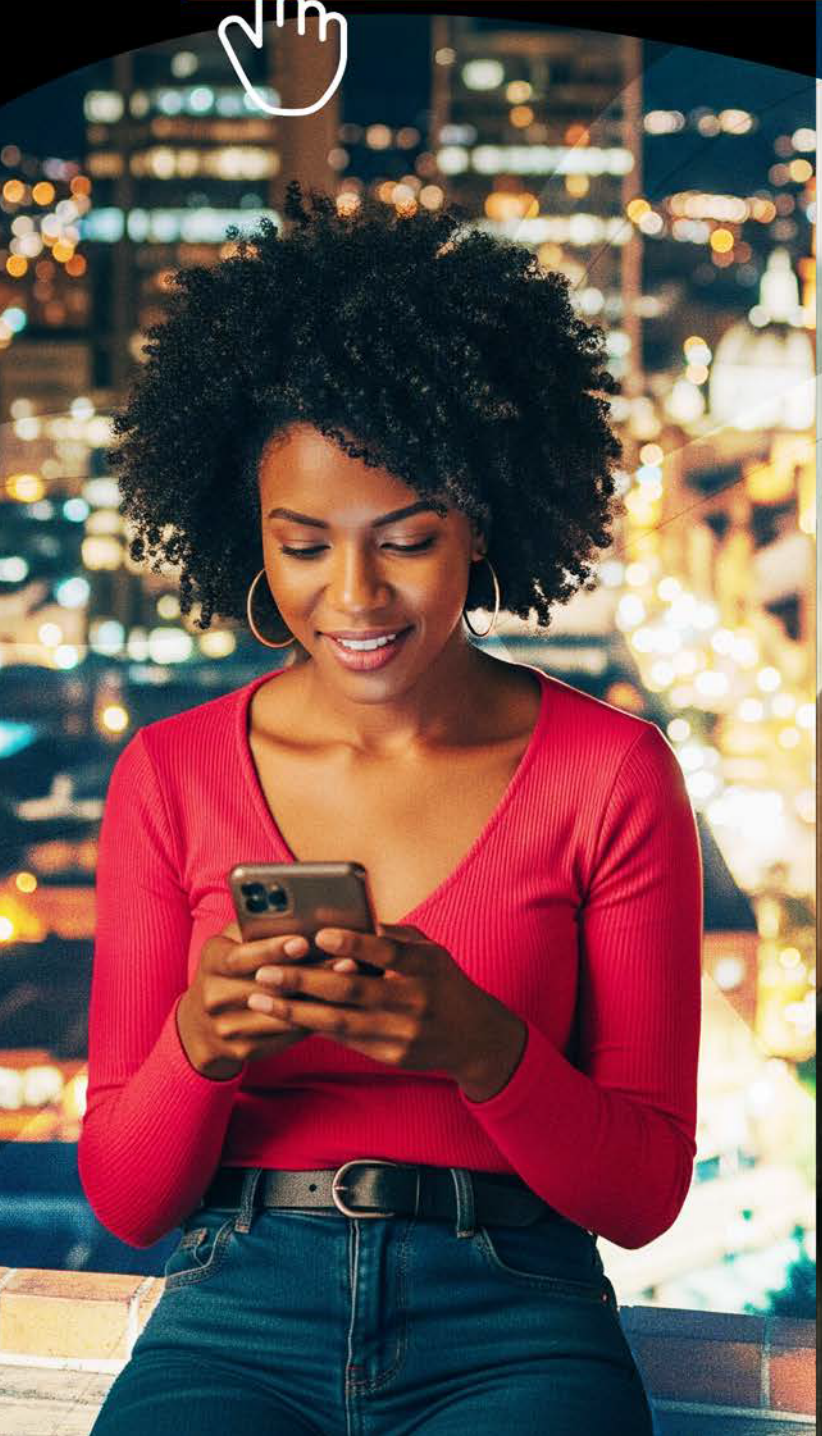
(Dis) Connected?

Digital Public Services and the Challenge of Equity





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Foreword

For those of us concerned about inequality in Latin America and the Caribbean, digitization holds a powerful promise: equal access to knowledge, services, and ultimately, opportunities. The internet and digital technologies—including artificial intelligence—allow us to imagine a future where everyone, regardless of where they were born or their social status, can exercise their rights with just a few clicks. This potential is particularly compelling for public services such as health, education, and access to employment. If these essential services become digitally accessible, they could reach those most in need more quickly, at lower cost, and with greater transparency. In essence, digitization holds the potential to become an unprecedented democratizing tool.

This is the vision we dare to imagine: a future where all citizens enjoy equal access to information and public services. This transformation could simultaneously reduce government costs by reducing spending on physical infrastructure and eliminating manual processes carried out by public officials. Today, all governments across the region are working to make this vision a reality.

However, the path to this digital future reveals an uncomfortable paradox: the very tool meant to reduce inequality may deepen it instead. Persistent gaps in internet connectivity, device availability, and digital literacy create new barriers to accessing essential services. When millions still lack reliable internet, suitable devices, or digital skills, the promise of equal access remains hollow. Without careful attention to inclusion, this dream risks becoming an empty promise. We may create a digital age where the privileged advance even faster while those who have always faced barriers—people with disabilities, older adults, rural communities, and historically marginalized groups—fall further behind. Rather than closing gaps, poorly designed digital services can widen them.

This research attempts to answer several critical questions: Are we building a digital future that truly serves everyone? How equitable has digital public service adoption been across the region? Where gaps exist, what drives them? And crucially, how can we ensure digital transformation becomes a force for inclusion rather than exclusion? Drawing on an unprecedented empirical foundation—nearly 22,000 surveys across 11 countries, extensive interviews with government

officials, and detailed case studies—this book delivers the most comprehensive analysis of digital equity in Latin America and the Caribbean to date. The findings challenge comfortable assumptions, but they also provide essential guidance for meaningful action.

We stand at a crossroads. We can continue building digital systems that serve the privileged few, or we can commit to designing policies and services that include all citizens. This book does more than sound the alarm—it charts a path toward inclusive digital transformation. The choice of whether to take that path is ours.

The conclusions are sobering: significant work lies ahead. This book provides concrete recommendations for building truly inclusive digital services—from ensuring universal accessibility and prioritizing mobile-friendly design to involving diverse users in the development process and empowering digital government agencies to champion equity alongside efficiency.

At the IDB, we are committed to the digital equity agenda. We already support a number of projects in Peru, Uruguay, and other countries that promote digital channels to foster greater equity in access to services and strengthen the enablers that allow for full use of digital channels. And we hope that many more will follow.

Our hope is that, based on this new evidence, we will begin to take action on this issue, together.

Ana María Ibáñez Londoño

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This book is the result of a collaborative effort led by the Innovation in Citizen Services Division (ICS), the Social Sector (SCL), and the Southern Cone Country Department (CSC) of the Inter-American Development Bank. Its content reflects a shared commitment to deepening our understanding of the role that the digitalization of government services plays in promoting equity across the region.

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Finally, we would like to thank the communications, translation, accessibility, editing, and design teams, whose work helped shape the final version of this publication and ensured that its message is communicated clearly and accessibly.

We hope this work inspires new conversations, partnerships, and concrete actions toward a more equitable future in the digital era.

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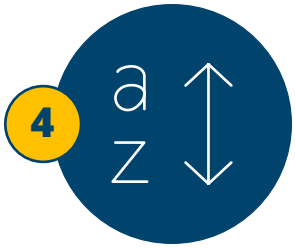
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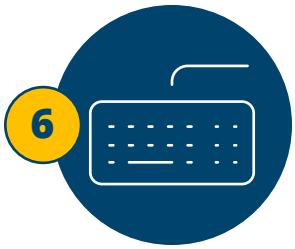
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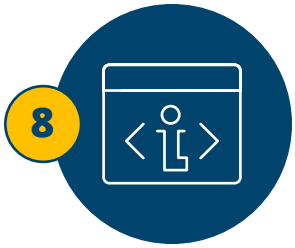
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Executive Summary

Latin America and the Caribbean is undergoing a quiet revolution: the digitalization of public services. The ability to complete government transactions from a mobile phone, at any time, without traffic, long wait lines, or paperwork, promises greater efficiency, reduced bureaucracy, and increased transparency. This transformation has the potential to become a powerful social equalizer.

Yet this promise remains partially fulfilled. Digital access is neither universal nor equal. Limited connectivity, lack of access to devices, insufficient digital skills, inaccessible service design, low awareness of online options, and deep-seated distrust continue to exclude millions from this digital revolution.

This book seeks to answer three central questions: How equitable has the use of digital public services been? Why do these services fail to reach everyone equally? And how do these digital divides manifest across key sectors? Drawing on 23,000 surveys conducted across 11 countries, interviews with public officials, and a series of case studies, this book provides the most comprehensive evidence to date on digital equity in Latin America and the Caribbean.

The findings reveal important progress, but also significant challenges. Although seven out of ten citizens completed a government transaction during the past year, only 14 % completed their most recent transaction entirely online; by contrast, 48 % did so in person. The demographic divides are stark. For instance, 29 % of individuals with tertiary education used the digital channel to complete their last transaction with the government, compared with just 7 % of those with a primary education or less. Among young adults aged 18–34, the share reaches 18 % but drops to 7 % among those aged 55 and older. Persons with disabilities, rural residents, Indigenous peoples, and Afro-descendant populations face similar gaps.

The experience of completing government transactions is also highly unequal. An in-person transaction can take nearly 6 hours to complete, whereas a digital transaction can be resolved in just 40 minutes. Yet those who stand to benefit the most from these time savings—such as people with disabilities and older adults—are the least likely to use digital channels. Furthermore, adoption does not guarantee seamless access: one in five digital users reported

encountering difficulties while conducting transactions, a hurdle that disproportionately impacts older individuals, persons with disabilities, and those with lower levels of education.

The causes of these disparities stem from a combination of demand-side and supply-side factors. From the citizen's perspective, significant gaps remain in four key areas:

1. Limited access to the internet and digital devices: Only one in four individuals who completed their most recent government transaction in person has a computer at home, compared with nine out of ten among those who completed their transaction through digital channels.

2. Digital skills deficit: One in five citizens do not feel confident handling basic digital tasks, a proportion that rises to 43 % among older adults.

3. Limited awareness of available digital services: Many citizens remain unaware that they can complete government transactions online. This gap is particularly pronounced among individuals with lower levels of education, adults over the age of 55, and Indigenous populations.

4. Divergent preferences to conduct transactions: While seven out of ten individuals with a university education would prefer to complete their next government transaction digitally, only three out of ten among those with a primary education or less express interest in using this channel.

On the government side, the services most critical to vulnerable populations remain stuck in traditional, in-person channels. This institutional bottleneck is compounded by systemic design flaws: no country meets all minimum digital accessibility standards, and only 20 % fully comply with at least five of the ten criteria assessed across government single portals. Compounding the issue is a lack of strategic vision. Of the 19 national digital government strategies reviewed, only two explicitly prioritize diversity and inclusion in dimensions such as sex, racial and ethnic self-identification, income level, or disability status.

The book takes a close look at five key sectors: education, health, social protection, employment, and public safety. In each of these areas, non-inclusive digital design locks people out of basic public services and exacerbates inequality. Education is a prime example: 97% of school

enrollments still require a physical trip to a government office. The resulting transaction costs create heavy, unequal burdens that fall hardest on women and lower-income households.

The book concludes with seven key recommendations to advance digital equity: first, promote universal access through inclusive, mobile-first design; second, embed user diversity into service development and iterative feedback loops; third, enshrine equity as a foundational principle of all national digital agendas; fourth, empower governing authorities to spearhead this mandate; fifth, offer personalized support to individuals facing the steepest barriers; sixth, invest heavily in infrastructure, devices, digital literacy, and public awareness; and seventh, optimize traditional, in-person channels by prioritizing accessibility, simplicity, and efficiency.

In sum, digitalization holds the power to democratize public services, but without a conscious strategy for inclusion, it risks remaining an unfulfilled promise. Fortunately, the region now has the evidence and tools needed to avert that failure. The path forward rests entirely on the decisions of governments and their partners: to build a digital future that is genuinely inclusive of everyone.

Chapter 1

Does the digitization of public services promote inclusion?

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Summary

This chapter presents the rationale, conceptual framework, and context that give life to this book. Digital public services promise something transformative: democratizing access, allowing anyone to carry out government transactions from anywhere and at any time. But for this promise to become a reality, several conditions must be met. First, people need a reliable internet connection, devices that enable them to connect, digital skills, knowledge about the government transactions available online, and the motivation to use them. Second, services must be available online in a user-friendly format adapted to different contexts.

Current data from both regional statistics and experimental studies suggest that significant gaps remain, making it difficult to achieve this promise. It is crucial to analyze how equitable access to and use of digital public services has been for several reasons: (1) in a region with deep inequalities, it would be a mistake for digitization to add yet another divide; (2) for governments to capture the fiscal benefits of digitization, widespread use of digital channels is essential; it cannot remain an option exclusive to the most privileged; and (3) digital government agendas are still evolving, which means there is an opportunity to adjust strategies and ensure that digitization promotes inclusion.

1.1
Why a book on digital government and inclusion?

Imagine, for a moment, a world in which everyone has connectivity, access to internet-enabled devices, strong digital skills, and confidence in using online services—in which all public services are offered digitally, in multiple languages relevant to the country, and with accessibility measures that ensure an inclusive and intuitive experience. In this scenario, digitization minimizes the costs—economic, time-related, and psychological—that people face when interacting with the government. Countries such as Estonia have demonstrated that this reality is possible: 99 % of government transactions in that country can be carried out online.

In such a world, the digitization of government services not only streamlines processes but also becomes an engine of social inclusion. By removing physical, geographic, and bureaucratic barriers, it democratizes access to rights and opportunities, thereby bringing the state closer to all individuals, regardless of their origin, status, or place of residence. This world is characterized by:

1. **Remote and continuous access:** people facing barriers such as distance, schedules, or transportation costs can access services on an equal footing.

2. **Transparency:** eliminating direct interaction between citizens and public officials reduces opportunities for corruption.

3. **Anonymity and privacy:** the digital format protects users from potential social stigma and safeguards their privacy.

4. **Ease and adaptability:** accessible interfaces with customizable options (such as font sizes, indigenous languages, or audio content) eliminate barriers and expand the reach of services.

5. **Traceability:** recording every interaction and decision allows for better tracking of the process and promotes accountability.

6. **Proximity:** people can access services through various devices, including mobile phones.

Many countries in Latin America and the Caribbean (LAC) have made significant efforts to advance their transition toward fully online public service delivery.

Figure 1.1. Evolution of the United Nations e-Government Index in Latin America, the Caribbean and OECD Countries

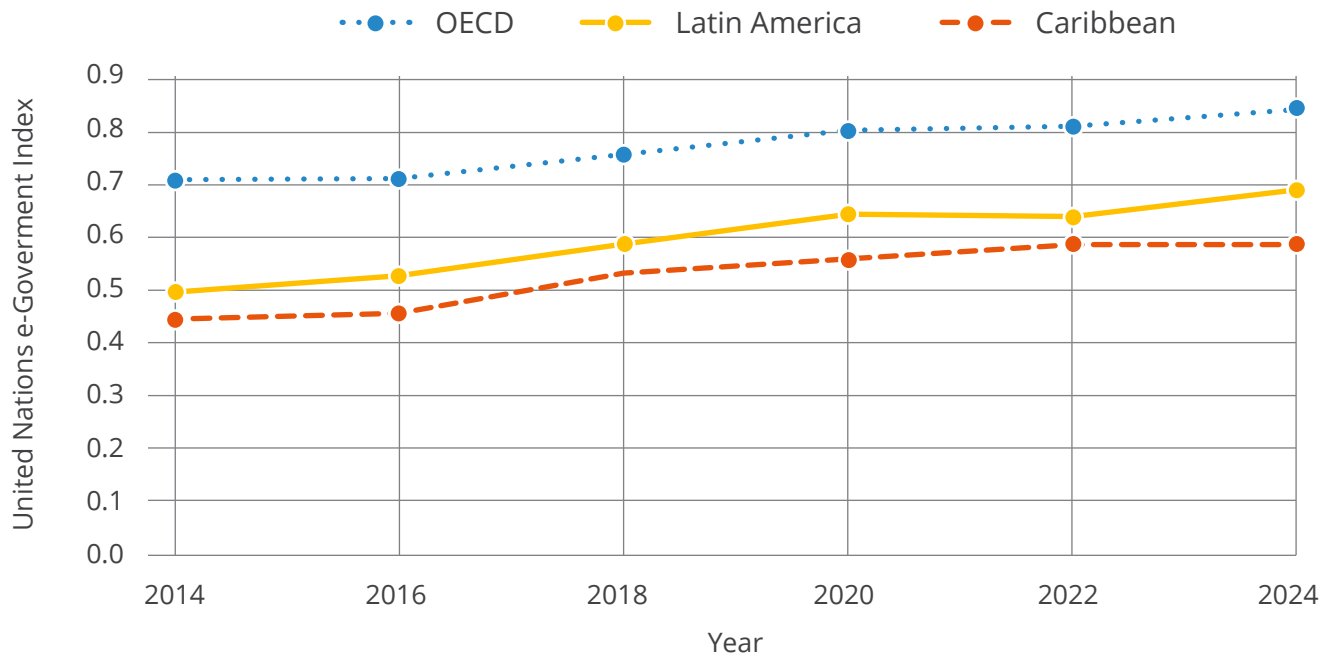


Table 1.1. Evolution of the United Nations e-Government Index in Latin America, the Caribbean and OECD Countries

Region	2014	2016	2018	2020	2022	2024
OECD	0.70	0.71	0.75	0.80	0.81	0.84
Latin America	0.49	0.53	0.59	0.64	0.64	0.69
Caribbean	0.44	0.46	0.53	0.56	0.59	0.59

Source: authors' elaboration based on data from the United Nations E-Government Index (2024).

As shown in Figure 1.1, the region's average score on the United Nations E-Government Development Index has steadily increased over time. Despite progress, we are still far from achieving a fully digital offering for all government transactions. It is therefore highly likely that not everyone will benefit equally from these advances, either because the services they most frequently use are not yet digital or because some groups face greater barriers to accessing or using the digital solutions available.

For example, a city dweller with access to education, whose daily life revolves around a computer and a cell phone, takes the advantages of digital technologies for granted. These tools are—literally and figuratively—at their fingertips. They can use them to manage banking, shopping, request documents, pay bills, taxes, or fines, all without leaving their desk. This not only saves them time and money but also spares them from the chaos of paperwork that piles up when everything is done in person.

At the same time, the limits of digital transformation are experienced by many: older adults with limited digital skills who struggles to apply for their pension in a system that only operates online, the taxi driver who was scammed when trying to renew his permits because the website he accessed was not legitimate; a color-blind person who cannot read the instructions for completing a form because the colors on the website prevent them from distinguishing the text on the screen, or a single mother who, fearing that her application for housing benefit might be rejected online, loses a day of work to travel and speak to an official in person.

Thus, if the digitalization of public services does not incorporate clear equity objectives from the outset, it risks moving toward a scenario in which digitization gaps are deepened rather than closed, and new forms of inequality are created. Such a world would be characterized by:

1. **Absence of enabling conditions:** Vulnerable groups lack access to the internet, adequate devices, digital skills, or knowledge about available online government transactions. Therefore, they do not have the option of accessing online services.

2. **Selective services:** Digitized transactions tend to benefit more advantaged sectors, while essential services for vulnerable populations remain available only in person.

3. **Poor design:** Confusing interfaces with limited language and accessibility options exclude those with fewer digital skills, people from Indigenous or foreign communities, or those with disabilities.

4. **Unequal risks:** People with low digital literacy are more likely to be victims of fraud and personal data theft.

5. **Mistrust:** In contexts with low digital literacy or where trust in institutions is low—or where capacity to safeguard sensitive information is weak—people may be reluctant to use online services.

On this path toward the complete digitization of public services, key questions arise. In a region such as LAC, marked by inequality in income, racial and ethnic self-identification, sex, and other dimensions, how is digitization impacting access to and experience with government services? Is it truly making life easier for those who need it most, or is it reinforcing existing gaps? What measures are required to ensure that its benefits reach everyone and that its risks do not once again fall disproportionately on the most vulnerable?

These are the central questions addressed in this publication.

Why is it important to know whether the digitization of public services is inclusive or exclusive? Why is it essential to identify how governments can work toward digitizing services in a way that allows all people to take advantage of them?

The main reasons are:

1. **Magnitude of impact:** The world of public services is vast. Central governments in the region typically manage between 1,000 and 5,000 different services, and the average person carries out between five and 20 government transactions per year[1] (Roseth et al., 2018). Many of these services address fundamental needs, such as legal identification, education, health, justice, and social protection. Moreover, in many cases, the state is the sole provider, with no private sector alternatives.

2. **Time and costs for citizens:** Digital government transactions are considerably more affordable than in-person transactions. On average, completing them requires 74 % less active time (Roseth et al., 2018) and results in cost savings of 83 % (Pizzolato Gonçalves and Venijio Maggion, 2022).

3. **Barriers to access and adoption:** There is a direct relationship between the costs to users in accessing services and their level of adoption. The higher the transaction costs, the less likely people are to use a service[2], even in critical cases such as applying for health insurance and scheduling cancer screenings (Gallegos et al., 2023; Moynihan et al., 2016). Thus, digitizing services is a powerful way to promote the adoption of critical services.

4. **Scope of potential exclusion:** The proportion of the population that could be excluded from the benefits of digitization is enormous: 21 % live in rural areas, 15 % have some form of disability, 16 % identify as Indigenous peoples, and 28 % do not have a secondary

1 In Mexico, the National Commission for Regulatory Improvement (CONAMER) estimates that citizens and businesses complete approximately 172 million central government transactions and 228 million state government transactions each year, for a total of 400 million government transactions annually (nearly five transactions per adult). In Chile, by comparison, approximately 270 million transactions are carried out each year through ChileAtiende's in-person service points. The difference between these estimates may be partly explained by differences in how transactions are counted (Roseth et al., 2018).

2 See, among others: Halling and Bækgaard (2024) and Gallegos et al. (2023).

education[3]. In other words, if digital services only work for highly educated people in urban areas without disabilities and from majority ethnic groups, countless individuals will remain condemned to the inefficiencies of the face-to-face channel.

5. **Equity and democratic legitimacy:** There is a strong correlation between the perception of equality in society and support for democracy (Wu et al., 2019; Krieckhaus, 2014; Morgan et al., 2024). A perception (or experience) of inequality in access to public services can contribute to a greater sense of inequity and thus affect support for democracy.

6. **Fiscal incentives for governments:** Providing a transactional service digitally results in savings of between 40 and 98 % compared with an in-person service (Pizzolato Gonçalves and Venijio Maggion, 2022; Roseth et al., 2018). However, these savings only occur if the digital channel is widely used.

Governments still have time to take decisive action on this issue.

3 Authors' calculations based on data from the Inter-American Development Bank (2025)

1.2 Existing evidence on digitization and equity

Evidence on the adoption of digital services offers encouraging signs, although many uncertainties remain. In some ways, the region has moved toward the ideal world described above, where digital public services would be equally available to all. A notable example of this progress is the increase in digital maturity across most countries in the region in recent years. As illustrated in Figure 1.2, all countries except Haiti improved their scores on the United Nations E-Government Development Index (EGDI) between 2018 and 2024, reflecting a widespread commitment to digital transformation.

Figure 1.2. United Nations e-Government Index for Latin American and Caribbean Countries, 2018 vs. 2024

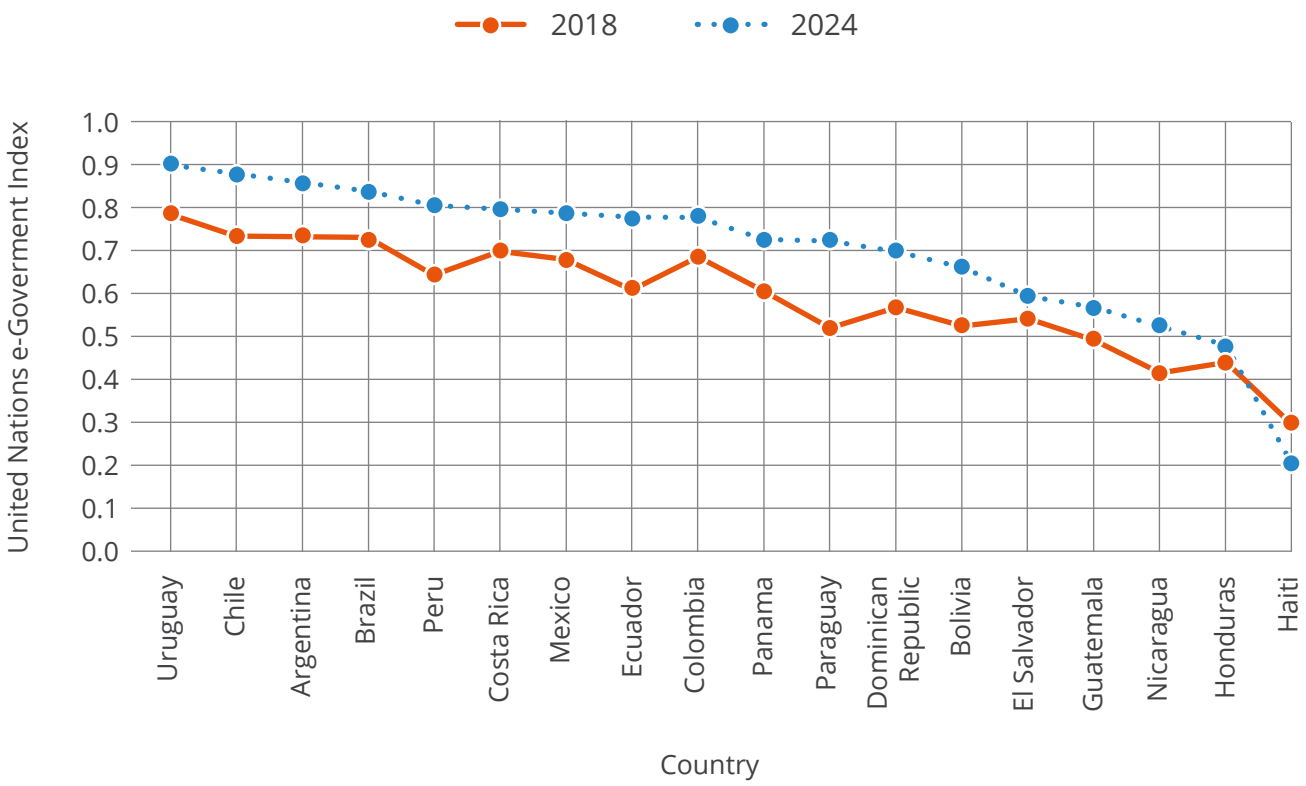


Table 1.2. Scores in the United Nations e-Government Index for Latin American and Caribbean countries, 2018 vs. 2024

Country	2018	2024
Uruguay	0.785	0.900
Chile	0.735	0.882
Argentina	0.733	0.857
Brazil	0.732	0.840
Peru	0.646	0.807
Costa Rica	0.700	0.800
Mexico	0.681	0.785
Ecuador	0.612	0.780
Colombia	0.687	0.779
Panama	0.609	0.729
Paraguay	0.525	0.725
Dominican Republic	0.572	0.701
Bolivia	0.530	0.665
El Salvador	0.546	0.598
Guatemala	0.497	0.573
Nicaragua	0.423	0.532
Honduras	0.447	0.485
Haiti	0.304	0.211

Source: authors' elaboration based on data from the United Nations E-Government Index (2024).

Another factor that promotes inclusion is the steep decline in internet prices in recent years, as shown in Figure 1.3. This has enabled a growing number of people to obtain a fixed internet connection at home, as shown in Figure 1.4.

Figure 1.3. Evolution of prices (US$) for 1GB of internet in LAC, 2019-2022

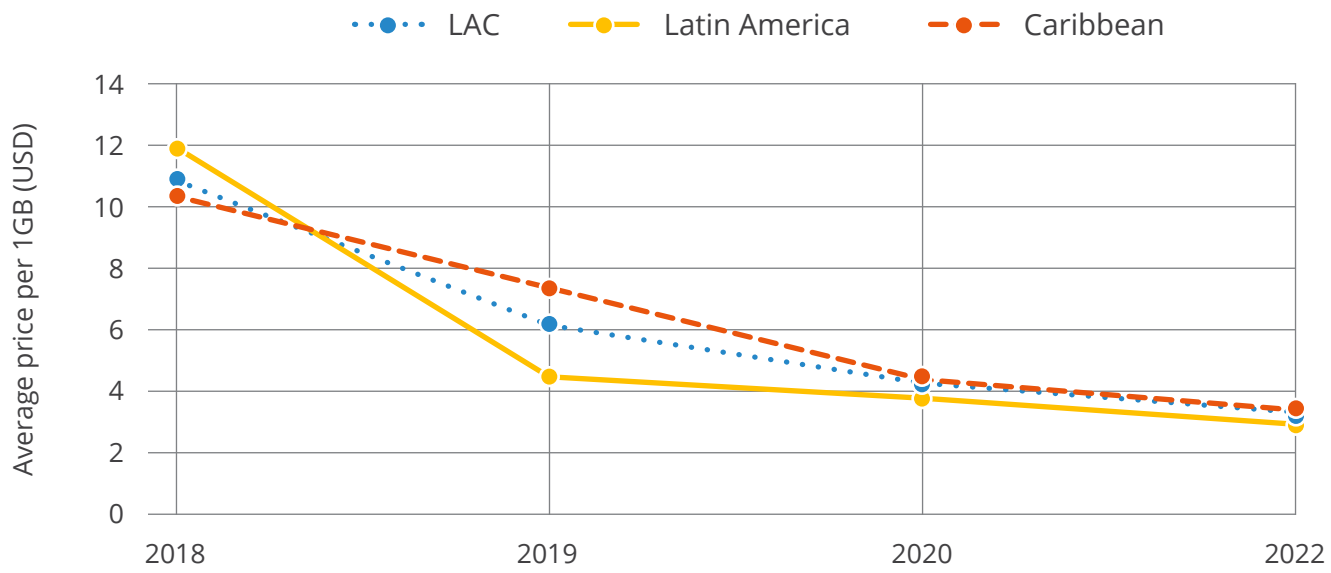


Table 1.3. Evolution of prices (US$) for 1GB of internet in LAC, 2019-2022

Region	2018	2019	2020	2022
LAC	11	6	4	3
Latin America	12	5	4	3
Caribbean	10	7	4	3

Source: adapted from cable.co.uk (2022).

Figure 1.4. Percentage of households with fixed broadband connection in LAC

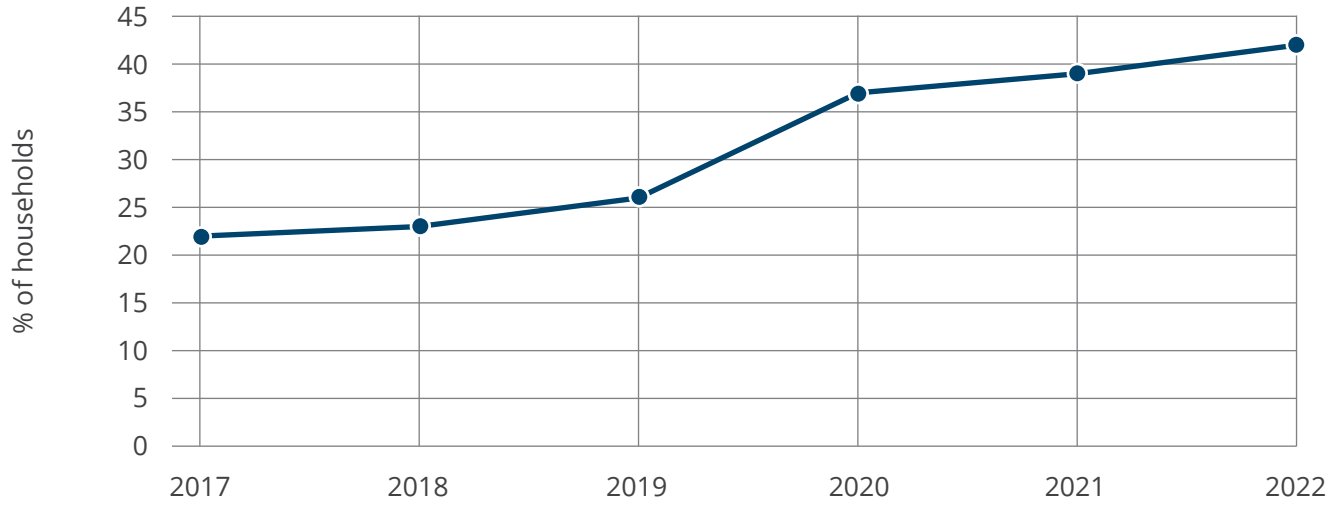


Table 1.4. Percentage of households with fixed broadband connection in LAC

Region	2017	2018	2019	2020	2021	2022
LAC	22 %	23 %	26 %	37 %	39 %	42 %

Source: authors' elaboration based on data from the International Telecommunication Union (2024).
Notes: the figure is based on complete data available for LAC countries. Since only Brazil and Mexico had sufficient information, the representation is limited to observations from these two countries.

Nevertheless, there are clear indications that the ideal world remains far from being achieved. For example, with respect to government transactions, older adults continue to use digital channels far less frequently than the in-person channel (Figure 1.5).

Figure 1.5. Percentage of people who completed their last government transaction online, by age group

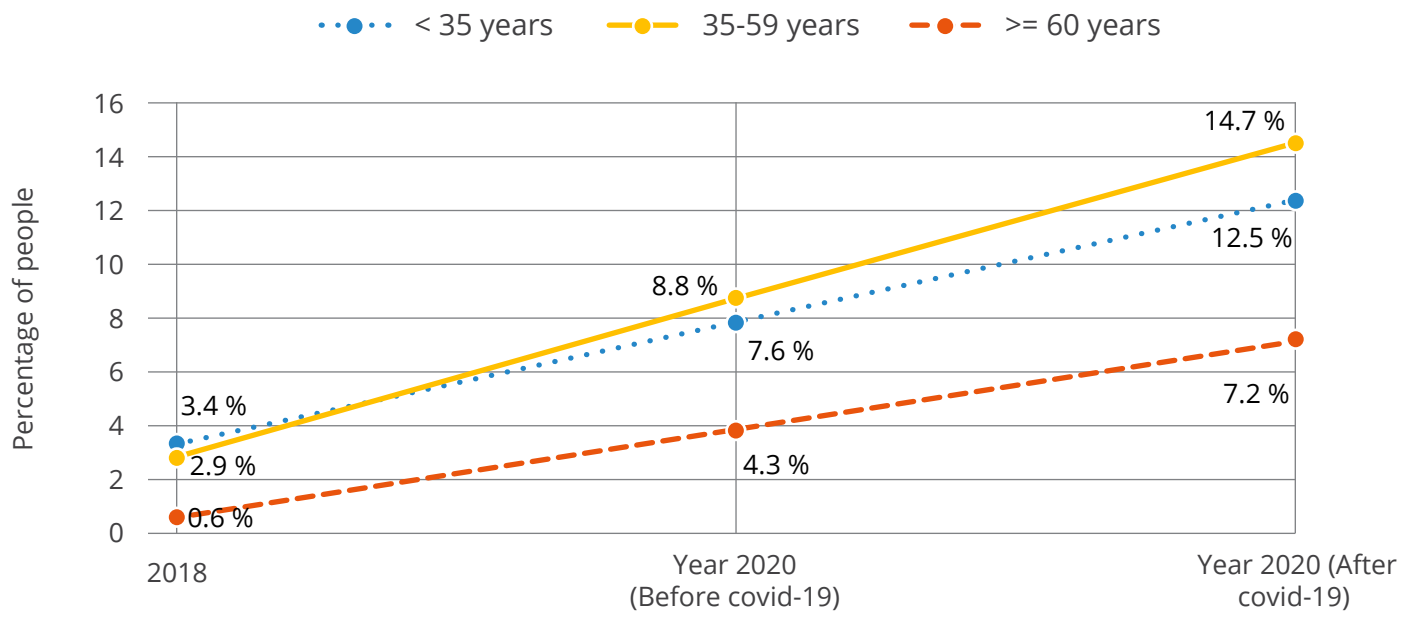


Table 1.5. Percentage of people who completed their last government transaction online, by age group

Age	Year 2018	Year 2020 (before COVID-19)	Year 2020 (after COVID-19)
< 35 years	3.4 %	7.6 %	12.5 %
35-59 years	2.9 %	8.8 %	14.7 %
>= 60 years	0.6 %	4.3 %	7.2 %

Sources: 2018 data are based on Latinobarómetro (2017), cited in Roseth et al. (2018)[4]; data before and after COVID-19 are based on telephone surveys (Roseth et al., 2021).

4 The figures in Table 1.5 come from publications that use telephone surveys conducted in Peru, Ecuador, Chile, Uruguay, Mexico, Panama, Costa Rica, Honduras, and Paraguay, for 2020 data, and from face-to-face surveys conducted in conjunction with Latinobarómetro for 2018 figures. Due to differences in methodologies and samples, the figures may vary compared to other sources presented on LAC throughout the text

There is also evidence of emerging gaps between men and women in the use of digital channels for accessing both public and private services. In 2020, Roseth et al. (2021) found that before COVID-19, 48 % of men had completed their last transaction partially or entirely online, compared to 52 % of women, with these percentages remaining the same after COVID-19. Similarly, in 2021, 64 % of men had made a digital payment, compared to 54 % of women (World Bank, 2022).

A similar trend can be observed in the gaps by education attainment and income level. In 2021, 67 % of people in LAC with secondary or higher education had made a digital payment, compared to 45 % of people with primary education or less. In the same year, 65 % of people in the richest 60 % of the population had made a digital payment, compared to 46 % of the poorest 40 % (World Bank, 2022).

An emerging body of empirical literature reinforces this evidence, showing how individual characteristics influence the use of digital public services. A study of a pilot application in Panama for renewing national identity cards found that people with a university education were seven percentage points (pp) more likely to complete the government transaction than those with lower educational attainment (Reyes et al., 2024). Similarly, a study by Sánchez et al. (2021) on the promotion of cervical cancer screening through text messages showed that the strategy was more effective for younger women with higher educational attainment and income. In a similar intervention in Bolivia, Chong et al. (2022) found that groups such as young people, less educated people, residents of rural areas, Indigenous ethnic groups, and males faced greater difficulties in completing digital applications compared to older adults, those with higher educational attainment, residents of urban areas, non-Indigenous ethnic groups, and women. However, the intervention in Bolivia also showed a positive impact: although gaps persisted, service adoption increased significantly among disadvantaged groups once the digital option was introduced, reducing inequality in service provision.

1.3
Conceptual framework

LAC governments pursue a dual objective in the provision of public services: (1) to reduce transaction costs and increase citizen satisfaction, and (2) to enhance administrative efficiency. Digitization is the most direct means of reconciling these two goals. In an ideal scenario—a 100 % digitized world—all government transactions would be completed online and the entire population would have the skills and the incentives to use them.

We are currently in a transition stage between a traditional world based on in-person and paper-based government transactions, and a fully digital one (see Figure 1.6). In this context, it is essential to maintain in-person channels to avoid excluding those who are still unable or unwilling to engage in the digital environment. At the same time, some segments of the population remain unable, for various reasons, to avail themselves of the benefits of digital public services.

Against this backdrop, the central concern raised in this book is equity in access to and use of services: Is the use of digital public services equitable? If not, there is a risk of widening existing gaps rather than closing them.

To better understand the current situation, we propose analyzing the factors that influence the use of digital public services in two blocks: demand and supply.

1. **Demand:** Unequal access to digital public services is partly explained by the conditions that enable or limit their use. The book addresses four dimensions:

    - **Resources:** the availability of quality internet connectivity and adequate electronic devices.
    - **Skills:** the ability to effectively use digital resources and platforms.
    - **Awareness:** people's knowledge of the existence and functioning of digital public services.
    - **Willingness:** the preference or motivation to carry out government transactions online rather than in person.

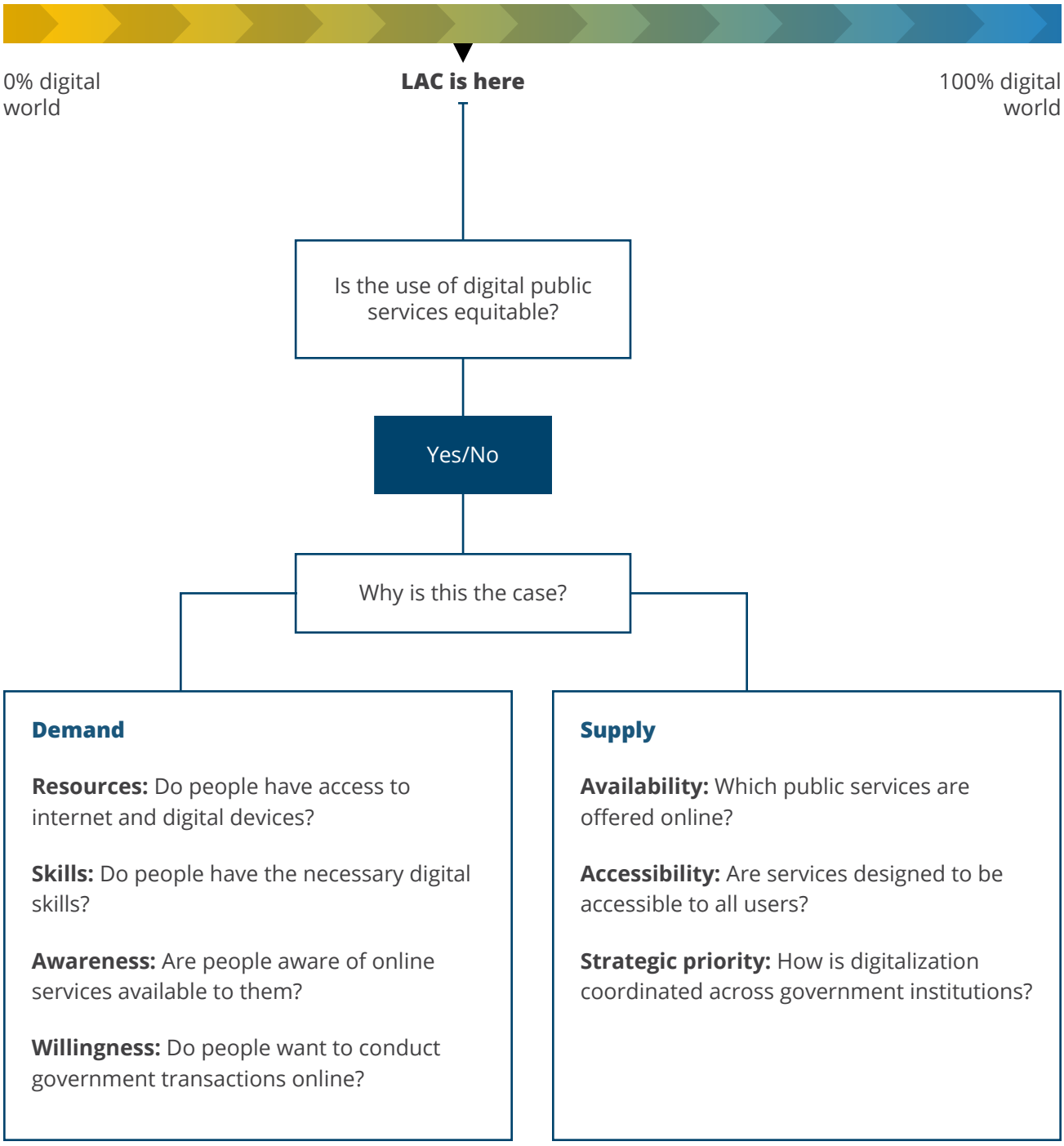
While other factors also play an important role in enabling people's access to digital public services—for instance, having electronic payment methods to receive benefits or pay service fees, and authentication mechanisms to verify identity—this publication touches on these issues only briefly.

2. **Supply:** The design and provision of digital services by the government influences their adoption by citizens. This analysis considers three dimensions:

    - **Availability:** the extent to which government transactions are available online, the types of services offered, and their relevance to people's daily lives.
    - **Accessibility:** the quality-of-service design, including whether websites apply user-centered design principles, use plain language, and provide adaptations for people with disabilities or language barriers, among other features.
    - **Strategic priority:** the degree of institutional coordination between the entities responsible for specific government transactions and the central digital government authority, as well as the existence of common standards and guidelines to support implementation.

These factors work together: the absence of any one of them can prevent adoption, even if the others are present. For example, a well-designed platform (supply) will not be used if people lack affordable internet or devices (demand), and vice versa. Still, many demand-related barriers tend to diminish over time as digital tools become part of everyday life.

Figure 1.6. Summary diagram of the conceptual framework



Source: Authors' elaboration.

1.4
Introducing the book

Following this conceptual framework, the book is guided by a central question: Has the use of digital public services been equitable for the entire population? If not, how can we move toward a digitalization process that ensures equal access to everyone, regardless of their socioeconomic characteristics?

To answer these questions, the content is organized around four pillars:

Has use been equitab?

Chapter 2 addresses this question based on a survey conducted in 11 LAC countries. The analysis identifies who is using digital public services, who is not, what types of government transactions are carried out online, and how the experience varies by sex, age, educational level, disability status, area of residence (urban or rural), and racial and ethnic self-identification (see Annex 1). The findings reveal significant gaps in access and use, showing that digitalization has not yet reached everyone equally.

Why has it not been the same for everyone?

Chapters 3 and 4 approach this issue from two complementary perspectives. Chapter 3 analyzes the demand side: what capabilities people have to access and use digital services. Factors such as knowledge of services (knowing), access to connectivity and devices (having), digital skills (being able), and motivation to use them (willingness). Chapter 4 focuses on the supply side: which services have been digitized, how accessible and user-friendly they are, and how governance, strategic frameworks, and institutional capacities shape digital inclusion. Both chapters uncover biases in digitization processes and structural barriers that hinder more equitable adoption.

How do these digital equity gaps manifest in key sectors?

Chapter 5 applies the analysis to five key sectors: education, health, labor intermediation, social protection, and justice. In each case, it highlights specific challenges and opportunities to strengthen equity in access to and use of digital services.

What can be done to close the gaps?

Finally, Chapter 6 sets out practical recommendations for policymakers. These proposals, grounded in the evidence presented throughout the book, aim to foster more inclusive digitalization and are accompanied by inspiring examples from around the world.

The organization of the book follows the conceptual framework outlined above. But before moving forward, it is necessary to define what we mean by "public service" or "government transaction." These terms are used interchangeably throughout the book.

A government transaction is the set of requirements, steps, or actions through which a person or company requests or provides information to a government entity for the purpose of exercising a right, requesting a benefit, or fulfilling an obligation to the state (Roseth et al., 2018). Some examples include applying for a driver's license, enrolling a child in school, requesting a subsidy, filing a complaint, paying taxes, or registering a business. For the purposes of this book, the concept of public service or government transaction does not include payments made or received as part of, or as a result of, the transaction request. It also excludes transactions with private entities, services such as connections or disconnections of water, gas, electricity, or other services provided by public companies, as well as voter registration and participation in elections.

Box 1.1. Why are these population segments analyzed?

The selection of the segments analyzed is based on previous evidence that identifies significant gaps in the use of public services and service delivery channels. The segments are grouped into two main categories:

Based on previous studies

The following segments were selected based on findings from previous studies (Roseth et al., 2018; Roseth et al., 2021):

- **Sex:** Men tend to use digital channels more than women. In addition, there are differences in the types of services used: men carry out more tax-related government transactions, while women use social protection services more.
- **Age:** Use of the digital channel tends to decrease with age, which highlights a significant barrier for older adults.
- **Educational attainment:** Use of the digital channel tends to increase with higher educational attainment.

Selected for possible gaps identified

Other segments were included due to evidence suggesting the existence of significant barriers to accessing and using the digital channel:

- **Disability status:** People with disabilities may face substantial barriers to accessing digital services due to physical or sensory limitations and the lack of inclusive design in digital government transactions. These barriers are compounded by lower educational attainment, which contributes to lower adoption of digital services (Deshpande and Li, 2019).
- **Place of residence (urban/rural):** Differences in broadband access between urban and rural areas are considerable, with rural areas generally having less

infrastructure and slower connection speeds (World Bank, 2021). This technological gap is compounded by lower educational levels and weaker technical skills in rural areas, which reduce the adoption of e-government services (Ntaliani and Costopoulou, 2017). Combined, these factors illustrate how the urban-rural digital divide significantly affects the use of e-government services.

- **Racial and ethnic self-identification:** the poverty gap between the Indigenous population and the rest of the population is 19 percentage points (or 50 %), meaning that Indigenous people are twice as likely to be in poverty as non-Indigenous people (Calvo-González, 2016). Indigenous populations and other ethnic minorities face greater challenges in accessing digital services due to gaps in broadband access and in educational levels. These differences reflect broader socioeconomic disparities and underscore the need to address these challenges to promote equitable digital inclusion (Bailey et al., 2023; World Bank, 2021; Hall and Owens, 2011).

On the exclusion of income level as a direct variable

Income level is not analyzed directly due to the complexities and challenges associated with measuring it through surveys, whether monetary income or multidimensional indicators. The main challenges include:

1. **Lack of trust:** In many LAC countries, respondents are reluctant to disclose their income due to privacy or mistrust in the use of data (Kuhn, 2019).

2. **Instability and informality:** Income in the region tends to fluctuate due to high levels of labor informality in some economies and the high proportion of non-labor income in some countries, making it difficult to obtain accurate data (Beegle et al., 2010).

3. **Complex multidimensional measurements:** Estimating socioeconomic status using multidimensional approaches requires detailed and extensive survey modules, which are often costly and burdensome.

Box 1.2. What are the main data sources in this book?

To produce this book, primary data were collected, including:

- **Representative sample of the Citizen Survey on Government Procedures (2025):** a nationally representative survey was conducted in Brazil, Chile, Colombia, Guatemala, Honduras, Jamaica, Panama, Paraguay, Peru, and Trinidad and Tobago. Data from Uruguay are also analyzed; there, questions for this study were included in a previous survey led by the governing body for digital government (Agency for Electronic Government and the Information and Communication Society [*Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento*, AGESIC]). The samples consisted of approximately 1,000 cases per country and included quotas by racial and ethnic self-identification and disability status. Data collection was carried out between July 2023 and December 2024. The results of this survey are analyzed in Chapters 2 and 3. The microdata, the full survey text, the breakdown of the number of respondents, and the data collection method for each country are available at this link: https://doi.org/10.60966/vgjju86h.

- **User sample of the Citizen Survey on Government Procedures:** a complementary round of data collection was carried out only among people who reported having requested a public service in the previous 12 months, in order to gather more observations that would allow the public's experience with services to be analyzed in greater detail. This survey includes the same questions about the services used as the representative-sample survey. The samples consisted of approximately 1,000 cases per country and included quotas by racial and ethnic self-identification and disability status. Box 2.1 in Chapter 2 details the quotas used. Data collection was carried out between July 2023 and December 2024. The results of this survey are analyzed in Chapters 2 and 3. The microdata, the full survey text, the breakdown of the number of respondents, and the data collection method for each country are available at this link: https://doi.org/10.60966/xecnrk2u.

- **Interviews with authorities:** as input for Chapter 4, interviews were conducted with the governing bodies for digital government and for certain social services. In

total, 10 digital-government governing bodies and 25 social-service governing bodies across 13 countries were interviewed.

- **Web portal accessibility analysis:** as input for Chapter 4, an accessibility analysis of 20 government web portals was carried out.
- **Web portal language analysis:** as input for Chapter 4, an analysis was carried out of the languages in which web portals are available in the region's countries with the largest Indigenous populations, supplemented by a few from other regions.

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Chapter 2

How equitable has the use of digital public services been?

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Summary

This chapter analyzes equity in access to and use of digital public services, considering both the mode of service delivery—in person, digital, or hybrid—and differences in user experiences across population groups (classified by educational level, age, racial and ethnic self-identification, place of residence, disability status, and sex). In Latin America and the Caribbean (LAC), findings show that only 14 % of the population completed their last transaction entirely online, with an average duration of 40 minutes. In contrast, 48 % completed their government transaction in person, despite these transactions requiring an average of 6 hours. The analysis identifies that certain demographic groups show a greater inclination toward using digital channels, particularly highly educated individuals, young people, those without disabilities, and urban residents. Furthermore, it is observed that these groups experience distinct conditions when managing government transactions, especially regarding travel times, waiting periods, and exposure to corruption.

The digital channel offers a promising alternative for citizens to access public services, reducing time, transportation costs, and exposure to corrupt practices. However, this promise can become a driver of inequality if the benefits of digitization are only available to certain population groups. While some move forward with a few clicks, others are left behind in long lines, facing significant time losses, additional costs, and, in some cases, abuse.

In LAC countries, this concern is particularly relevant given the region's progress in digitizing services in recent years and the deep inequalities that characterize the region, as presented in Chapter 1. This chapter examines equity in access to and use of digital public services from two complementary perspectives. First, it analyzes the demographic profile of users according to the mode of interaction with government services, whether in person, digital, or hybrid. Second, it explores how different population groups—classified by educational level, age, racial and ethnic self-identification, place of residence (urban or rural), disability status, and sex—experience government transactions. Based on representative surveys conducted in 11 countries in the region (described in Box 2.1), this analysis identifies current inequalities and establishes an empirical basis for subsequent chapters, which delve deeper into the causes of these gaps and propose measures to address them.

A key finding of these analyses is the highly unequal use of digital channels across demographic groups, with marked advantages for individuals with higher levels of education, younger people, urban residents, non-Indigenous populations, and those without disabilities.

However, digitization also has the potential to serve as a powerful tool for expanding access to public services, including those that benefit vulnerable segments of the population.

Box 2.1. Citizen Survey on Government Transactions and Equity, 2023–2024

Between 2023 and 2024, the IDB, in collaboration with the governments of 11 countries, conducted citizen surveys to assess the experience of different population groups with government services and their readiness for digital service delivery. In most countries, two types of surveys were conducted: (1) a nationally representative survey and (2) a survey of government service users based on demographic quotas. These surveys are innovative due to their emphasis on the collection of information on variables of interest such as sex, age, racial and ethnic self-identification, disability status, urban/rural location, and educational level. They also gathered data on connectivity, digital asset ownership, digital skills, transactions completed and users' experience with these transactions, knowledge of digital public services, and experience with specific social transactions. Table R.2.1 presents the countries where information was collected, as well as the type of survey and the number of observations obtained. For more detailed information on data collection, please refer to Annex 1.

Table R.2.1. Number of observations in citizen surveys

Country	National representative survey	Survey of government service users	Dates of collection
Brazil	2,000	1,008	February–June 2024
Chile	1,500	Not collected	April–June 2024
Colombia	1,474	1,211	September 2023–February 2024
Guatemala	1,037	1,003	July–November 2023
Honduras	1,074	1,029	December 2023–April 2024
Jamaica	2,102	Not collected	June–December 2024
Panama	1,057	1,021	December 2023–April 2024
Paraguay	1,000	1,000	November 2023–May 2024
Peru	1,179	1,107	November 2023–February 2024
Uruguay	1,191	Not collected	May–July 2024
Trinidad and Tobago	1,000	1,000	February–June 2024

Source: authors' elaboration.
Note: all surveys were conducted in person and were designed, collected, and supervised by the authors. In the case of Uruguay, the IDB collaborated with AGESIC to include additional questions in the regular telephone collection of the Survey on Knowledge, Attitudes, and Practices of Digital Citizenship. Further details about how the data were collected are provided in Annex 1.

2.1
Who uses digital public services?

In LAC countries, the use of digital public services remains limited and highly unequal, concentrated among specific demographic groups.

Although seven out of ten people carried out government transactions in the preceding year, only 24 % say they used the internet to do so, while 48 % carried out their last transaction in person. In addition, only 14 % of the population completed their last transaction exclusively online, and another 10 % did so partially online[5].

In LAC, the proportion of people who carried out government transactions in the last 12 months varies significantly, regardless of the channel used. Chile and Uruguay lead with 83 % and 84 % of the population, respectively, while Trinidad and Tobago has the lowest rate, with 59 %. With regard to the last transaction carried out, Chile and Uruguay had the highest percentages of citizens who chose to carry out transactions exclusively online, with 31 % and 29 %, respectively. In contrast, in Honduras, Trinidad and Tobago, Brazil, Paraguay, and Peru, less than 10 % of people carried out their last transaction digitally (see Figure 2.1 and Table 2.1).

5 Here, digital users are defined as those who completed their last transaction entirely digitally.

Figure 2.1. Channel used for the last government transaction, by country

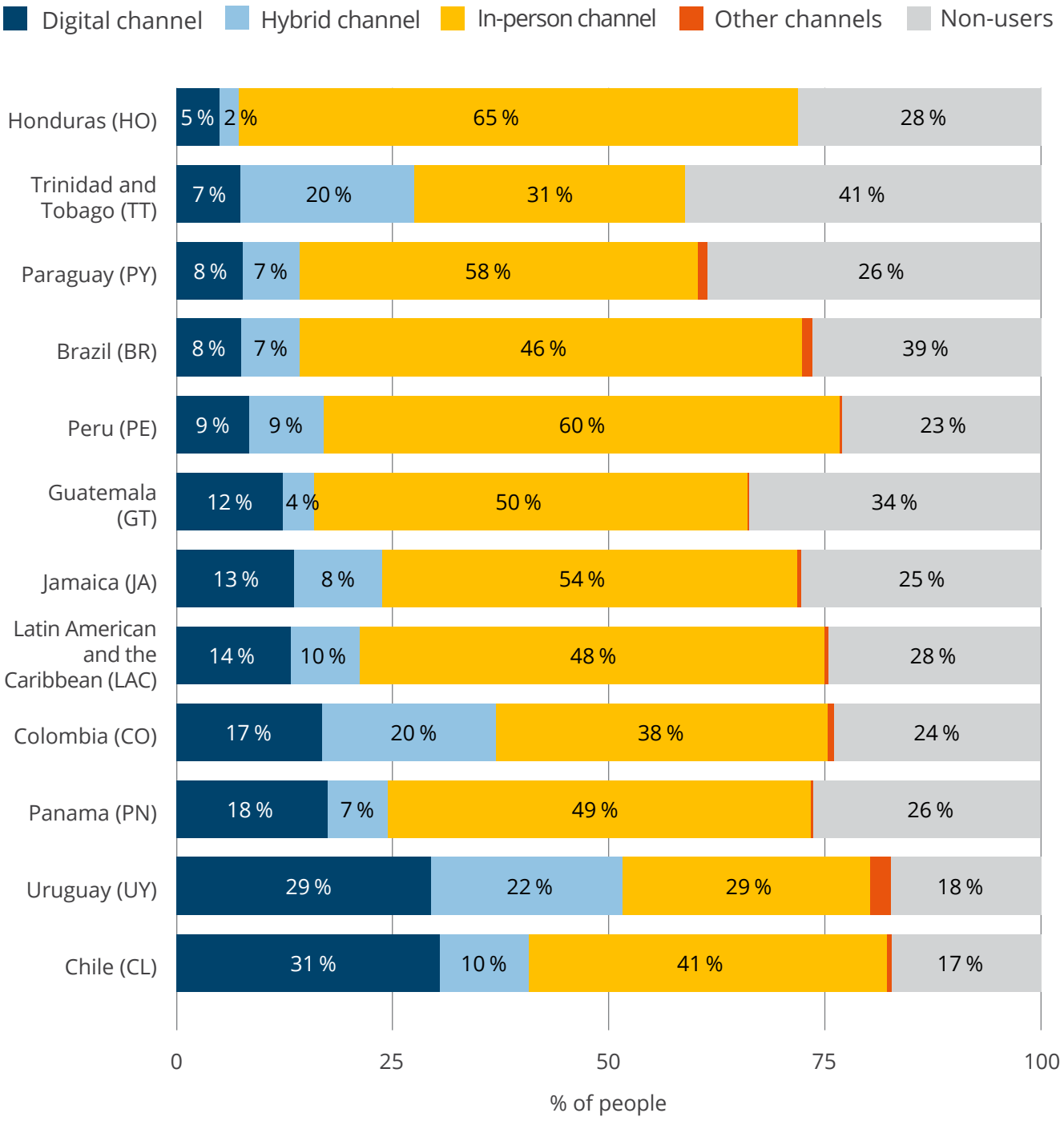


Table 2.1. Channel used for the last government transaction, by country

Country	Digital channel	Hybrid channel	In-person channel	Other channels	Non-users
Chile (CL)	31 %	10 %	41 %	1 %	17 %
Uruguay (UY)	29 %	22 %	29 %	2 %	18 %
Panama (PN)	18 %	7 %	49 %	0 %	26 %
Colombia (CO)	17 %	20 %	38 %	1 %	24 %
Latin America and the Caribbean (LAC)	14 %	10 %	48 %	1 %	28 %
Jamaica (JA)	13 %	8 %	54 %	0 %	25 %
Guatemala (GT)	12 %	4 %	50 %	0 %	34 %
Peru (PE)	9 %	9 %	60 %	0 %	23 %
Brazil (BR)	8 %	7 %	46 %	1 %	39 %
Paraguay (PY)	8 %	7 %	58 %	1 %	26 %
Trinidad and Tobago (TT)	7 %	20 %	31 %	0 %	41 %
Honduras (HO)	5 %	2 %	65 %	0 %	28 %

Source: authors' calculations based on Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Those who did not carry out any government transactions in the last 12 months are considered non-users. Labels for "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.1.

An interesting phenomenon is the adoption of hybrid models, which enable people to complete transactions partly online and partly in person. This pattern is visible in countries such as Colombia, Trinidad and Tobago, and Uruguay, where this modality was frequently used to complete the last transaction. This may reflect a digitization approach in which governments make only certain stages of the transaction available online, while still requiring citizens to complete much or most of the process in person. Other alternative channels, such as telephone or home visits, account for only 1 % of government transactions carried out.

The typical profile of users of digital government services differs from the population as a whole. According to Table 2.2, digital users tend to be more educated, with most having completed a bachelor's degree or higher (22 % compared to 10 % of the total population); they are younger (49 % are between 18 and 34 years old, compared to 37 % of the population); they are more likely to live in urban areas (81 % compared to 70 %) and they tend not to have any disabilities (95 % compared to 89 %).

Table 2.2. Demographic distribution of the population and digital users of government services

Demographic group	Percentage of digital users of government services	Percentage of total population with the characteristics
Educational level		
Primary or less	27 %	52 %
Secundary	38 %	31 %
Technical/vocational tertiary	13 %	8 %
Bachelor's degree or higher	22 %	10 %
Age		
18-34	49 %	37 %
35-54	37 %	35 %
55+	15 %	28 %
Disability status		
No disability	95 %	89 %
With disability	5 %	11 %
Place of residence		
Urban	81 %	70 %
Rural	19 %	30 %
Sex		
Male	50 %	48 %
Female	50 %	52 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c), and information calculated from the most recent data from the IBD: Data and Indicators for Latin America and the Caribbean (IDB, 2025a), a collection of harmonized surveys and censuses.
Notes: digital user calculations employ weights that take into account each country's population distribution by age, sex, educational level, and place of residencia (urban or rural). Regional data assign equal weight to each country. Regarding racial and ethnic self-identification, the sample and population distribution by country is presented in Annex 3.

The gap between the general population and those who use digital government services reveals a broader pattern of exclusion in citizen-government interaction. This phenomenon is particularly concerning because the groups least likely to use digital services also tend to have more limited interaction with the government overall, thereby deepening inequalities in access to essential public services. There are some exceptions to this general pattern, in which people in vulnerable situations effectively take advantage of digital services. One example is Peru's orphan's allowance, described in Box 2.2.

In summary, while the digitization of public services in LAC has made progress, its adoption is unequal, reflecting and potentially widening existing demographic and socioeconomic gaps.

This chapter examines these inequalities in greater depth, providing a foundation for understanding the barriers and opportunities associated with digitization in the region.

Box 2.2. Expanding Access to Orphan Benefits Through Digitization in Peru

The National Comprehensive Family Welfare Program (INABIF, for its acronym in Spanish) subsidy, also known as Economic Assistance for Orphans, was implemented in Peru during the COVID-19 pandemic. The subsidy was targeted at children under 18 who had lost one or both parents (INAFIB, 2025a). At the beginning of its implementation, the number of users applying for the allowance was lower than expected, reflecting two key challenges: a lack of clarity in the information about the INABIF allowance and a complex application process that required data already available in government records.

To overcome these limitations, authorities decided to improve communication and streamline the application process through digitization, using Facilita Perú, a comprehensive platform that centralizes digital transactions. *Facilita Perú* is a digital service designed to simplify the management of public transactions and services, allowing users to access forms and queries for transactions in a single interaction or as the first step in a more complex process. This platform not only facilitates the retrieval of data already stored in the system but also allows for identity validation and cross-checking of information between different government systems. As a result, families no longer need to submit copies of birth certificates, identity cards, or death certificates, simplifying the application process and reducing the transactional burden on families.

The program's coverage has increased considerably, from 18,000 to 80,000 beneficiary families (INABIF, 2024). By the end of 2024, the subsidy had benefited a cumulative total of 106,008 children and young people (INAFIB, 2025b), with the digital channel being an important alternative for accessing the program.

2.2
Gaps in the use of digital public services

The gaps in the use of digital public services in LAC are profound and reflect pre-existing structural inequalities. This section analyzes the main disparities according to educational level, age, disability status, place of residence, racial and ethnic self-identification, and sex.

Gaps by educational level: the widest gap

According to Figure 2.2, 29 % of people with a bachelor's degree or higher completed their last government transaction entirely online, compared to only 7 % of those with primary or less education, a difference of 22 percentage points (pp). In addition, the in-person channel remains the predominant option for people with lower levels of education: 52 % opt for this modality, compared to 35 % of people with at least a bachelor's degree. Educational attainment also has a significant impact on access to public services: while 34 % of people with primary education or less and 24 % with secondary education did not carry out government transactions in the last year, this proportion falls to 14 % among those with a bachelor's degree (or higher) and 17 % among those with technical or vocational tertiary.

Educational level is the most decisive factor in the channel of access to digital services.

Figure 2.2. Channel used in the last government transaction, by educational level

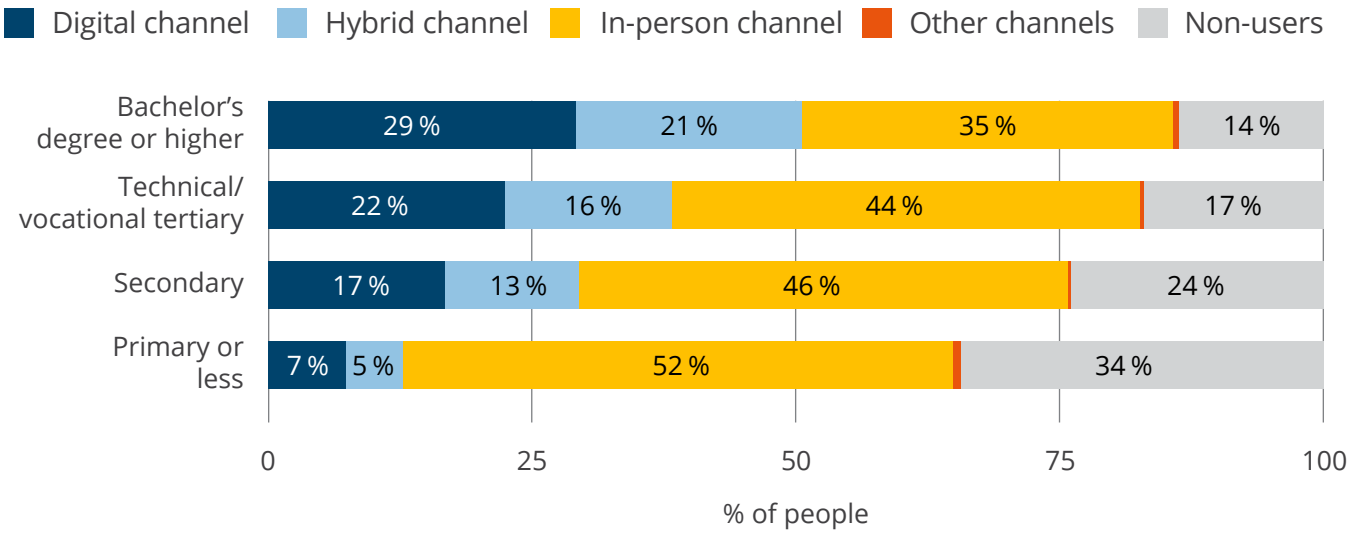


Table 2.3. Channel used in the last government transaction, by educational level

Channel used in last transaction	Primary or less	Secondary	Technical/ vocational tertiary	Bachelor's degree or higher
Digital channel	7 %	17 %	22 %	29 %
Hybrid channel	5 %	13 %	16 %	21 %
In-person channel	52 %	46 %	44 %	35 %
Other channel	1 %	0 %	0 %	0 %
Non-users	34 %	24 %	17 %	14 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Those who carried out no government transactions in the last 12 months are considered non-users. Labels for "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.3.

The gap in the use of digital public services by educational level is a consistent feature in the region, though with significant variations across countries. Uruguay shows the greatest progress toward inclusion in this regard: 23 % of people with primary education or less completed their last transaction entirely online. Chile follows with 13 % and Panama with 11 %. In the other countries, digital adoption in this educational group does not exceed 10 %, reaching its lowest levels in Peru (2 %), Honduras (3 %), and Paraguay (3 %). However, the gap in the use of digital channels for the last transaction between people with primary education or less and those with a bachelor's degree or higher education is most pronounced in Chile, where it reaches 40 pp, followed by Guatemala with 35 pp and Uruguay with 27 pp.

Figure 2.3. People who used only the digital channel to carry out their last government transaction, by educational level and country

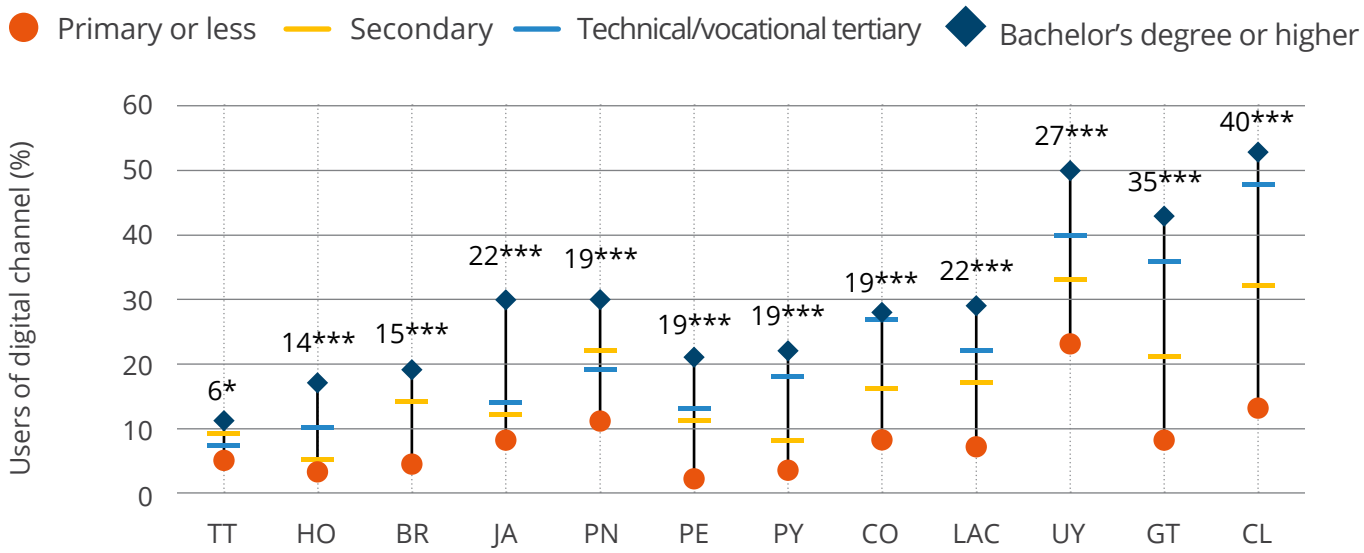


Table 2.4. People who used only the digital channel to carry out their last government transaction, by educational level and country

Country	Primary or less	Secondary	Technical/vocational tertiary	Bachelor's degree or higher
Trinidad and Tobago (TT)	5 %	9 %	7 %	11 %
Honduras (HO)	3 %	5 %	10 %	17 %
Brazil (BR)	5 %	14 %	-	19 %
Jamaica (JA)	8 %	12 %	14 %	30 %
Panama (PN)	11 %	22 %	19 %	30 %
Peru (PE)	2 %	11 %	13 %	21 %
Paraguay (PY)	3 %	8 %	18 %	22 %
Colombia (CO)	8 %	16 %	27 %	28 %
Latin America and the Caribbean (LAC)	7 %	17 %	22 %	29 %
Uruguay (UY)	23 %	32 %	40 %	49 %
Guatemala (GT)	8 %	21 %	36 %	43 %
Chile (CL)	13 %	32 %	48 %	53 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. For the figure, a difference-in-means test was conducted between people with an educational level of primary pr less and those with a bachelor's degree or higher (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$).

Generational gaps

As shown in Figure 2.4, only 7 % of people over 55 completed their last transaction entirely digitally, compared to 18 % of those aged18 to 34, representing a generational gap of 11 pp. In addition, older people also make less use of hybrid transactions (partly digital and partly in person): while 13 % of young people opted for this modality, only 5 % of those over 55 did so. On the other hand, the differences are smaller with respect to in-person channels: 45 % of young people completed their last transaction in person, compared to 51 % of older people.

Age is the second-largest gap in the use of digital public services.

It is worth noting that people over 55 tend to interact less with government services: 36 % did not carry out transactions in the last 12 months, compared to only 24 % of people aged 18 to 34. This difference could be partly explained by the fact that younger groups more frequently carry out transactions on behalf of a third party (25 % in the 18-34 age group and 26 % in the 35-54 age group, compared to 13 % in the 55+ age group). In addition, the purpose of these transactions varies according to age: while people aged 18 to 54 tend to carry them out for the benefit of minors, those aged 55 and over do so more often for other older adults.

Figure 2.4. Channel used in the last government transaction, by age group

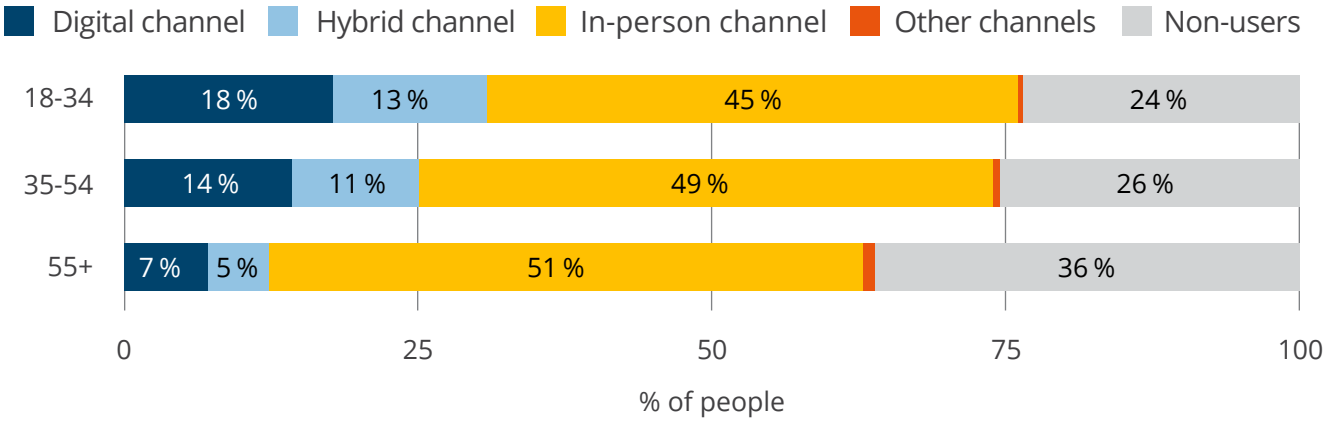


Table 2.5. Channel used in the last government transaction, by age group

Channel used in the last government transaction	18-34	35-54	55+
Digital channel	18 %	14 %	7 %
Hybrid channel	13 %	11 %	5 %
In-person channel	45 %	49 %	51 %
Other channels	0 %	1 %	1 %
Non-user	24 %	26 %	36 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used to complete the las government transaction. Those who have not carried out government transactions in the past 12 months are considered non-users. Labels for "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.5.

Across all countries analyzed, the generational gap in the use of digital public services is evident. Chile has the most pronounced disparity: 43 % of young people use these services, compared to only 12 % of those over 55, representing a difference of 31 pp. However, Chile exhibits the highest use of digital channels among both young people and older adults when compared to the other countries analyzed (except Uruguay). Other countries, such as Panama (15 pp), Jamaica (14 pp), and Peru (13 pp), also show significant inequalities, although to a lesser extent. At the opposite end of the spectrum is Uruguay, which has statistically equal use of digital channels among different age groups, with slightly higher usage among people over 55. Finally, Paraguay (5 pp), Honduras (6 pp), and Brazil (7 pp) display statistically significant gaps, which are the smallest and favor younger people.

Figure 2.5. Percentage of people who used only the digital channel to carry out their last government transaction, by age group

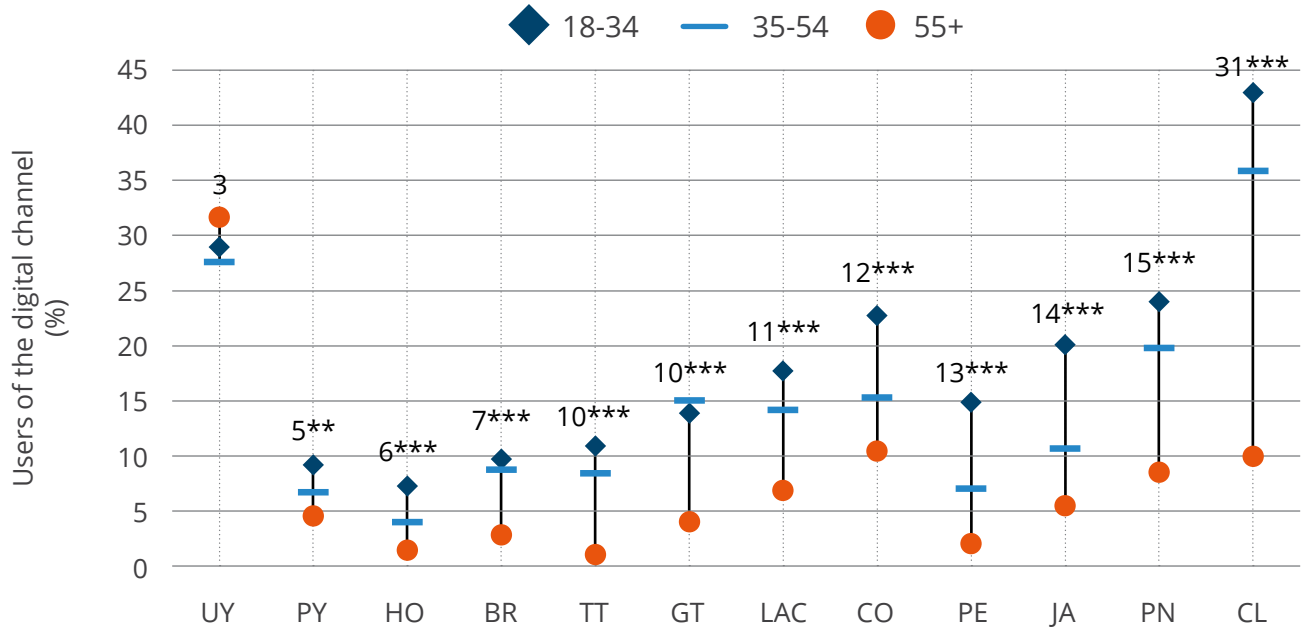


Table 2.6. Percentage of people who used only the digital channel to carry out their last government transaction, by age group

Country	18-34	35-54	55+
Uruguay (UY)	29 %	28 %	31 %
Paraguay (PY)	9 %	7 %	5 %
Honduras (HO)	8 %	4 %	2 %
Brazil (BR)	10 %	9 %	3 %
Trinidad and Tobago (TT)	11 %	9 %	2 %
Guatemala (GT)	14 %	15 %	4 %
Latin America and the Caribbean (LAC)	18 %	14 %	7 %
Colombia (CO)	23 %	15 %	11 %
Peru (PE)	15 %	7 %	2 %
Jamaica (JA)	20 %	11 %	6 %
Panama (PN)	24 %	20 %	9 %
Chile (CL)	43 %	36 %	12 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. For the figure, a difference-in-means test was conducted between people aged 18-34 and those over 55 years old (*** p < 0.01; ** p <0.05; * p < 0.1).

Gaps by disability status

People with disabilities represent the third-largest gap in access to digital services and are more dependent on in-person channels. Only 6 % of them completed transactions exclusively online, compared to 15 % of those without disabilities, a difference of 9 pp. In the combined use of in-person and digital channels, the gap is similar (6 % vs. 11 %). In addition, 59 % of people with disabilities opted for the in-person channel, compared to 47 % of those without disabilities, a difference of 12 pp. However, both groups have similar rates of interaction with the government: 72 % carried out government transactions in the last 12 months.

Figure 2.6. Channel used in the last government transaction, by disability status

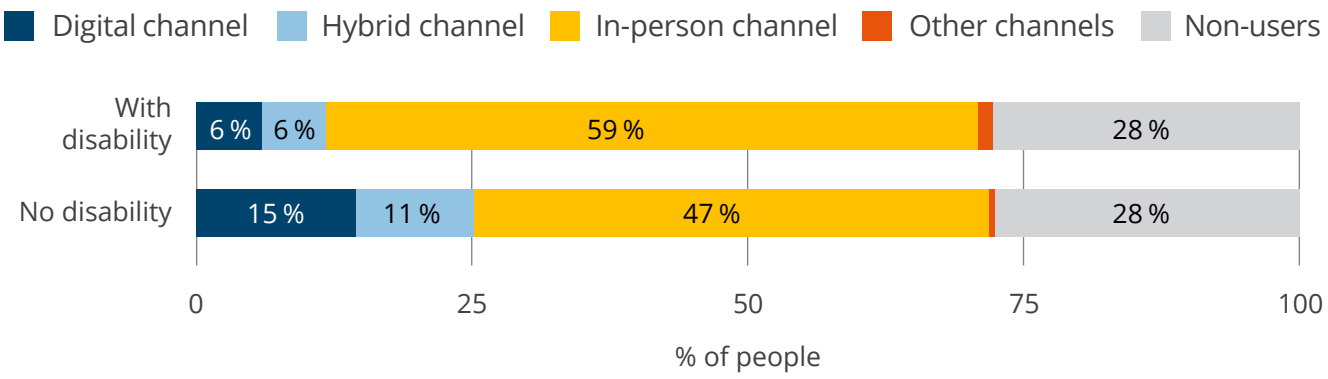


Table 2.7. Channel used in the last government transaction, by disability status

Channel used for last transaction	No disability	With disability
Digital channel	15 %	6 %
Hybrid channel	11 %	6 %
In-person channel	47 %	59 %
Other channels	1 %	1 %
Non-users	28 %	28 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used to complete the las government transaction. Those who have not carried out government transactions in the past 12 months are considered non-users. "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.7.

Among people with disabilities, those who face greater difficulties in communicating in their usual language—that is, who have problems understanding or making themselves understood—have the lowest adoption of digital services. In this group, only 0.4 % completed their last transaction entirely digitally. However, this group has a relatively high use of the hybrid modality (8 %), similar to that of people with visual impairments and higher than those with hearing, mobility, or self-care problems (1-3 %). Digital access gaps vary significantly between countries: Chile (20 pp), Panama (13 pp), Colombia (11 pp), and Uruguay (9 pp) have the widest differences, although these are not always statistically significant. Despite the wide gaps, Chile and Uruguay have the highest levels of digital channel use in the last government transaction, both for people with and without disabilities. On the other hand, Honduras and Trinidad and Tobago have smaller, but statistically significant gaps (1 and 4 pp, respectively), while in Paraguay no differences were observed in the use of the digital channel (see Figure 2.7).

Figure 2.7. People who used only the digital channel to complete the last government transaction, by disability status

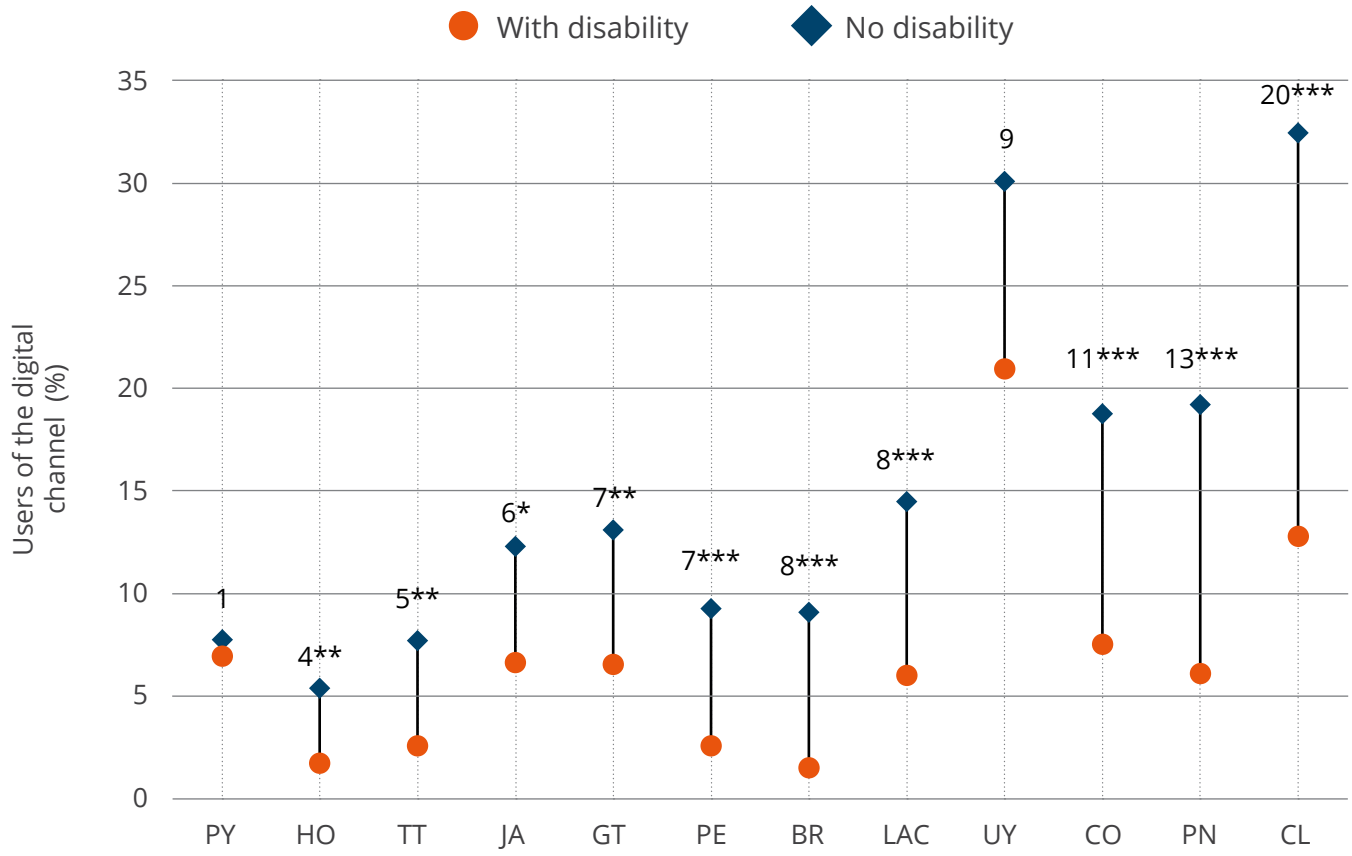


Table 2.8. People who used only the digital channel to complete their last government transaction, by disability status

Country	No disability	With disability
Paraguay (PY)	8 %	7 %
Honduras (HO)	5 %	2 %
Trinidad and Tobago (TT)	8 %	3 %
Jamaica (JA)	12 %	7 %
Guatemala (GT)	13 %	7 %
Peru (PE)	9 %	3 %
Brazil (BR)	9 %	2 %
Latin America and the Caribbean (LAC)	15 %	6 %
Uruguay (UY)	30 %	21 %
Colombia (CO)	19 %	8 %
Panama (PN)	19 %	6 %
Chile (CL)	32 %	13 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. For the figure, a difference-in-means test was conducted between people without disability and those with disability (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$).

Gaps by place of residence

The fourth most pronounced gap in the use of digital public services in LAC is between the rural and urban populations. Only 8 % of the rural population completed their last transaction exclusively online, compared to 15 % of those living in urban areas, a difference of 7 pp. Hybrid and face-to-face modalities show smaller differences: 8 % of rural people used a hybrid channel and 51 % opted for face-to-face, compared to 10 % and 47 % in urban areas. In addition, people in rural areas generally carried out fewer government transactions, with 68 % completing at least one in the last year, compared with 73 % in urban areas (see Figure 2.8).

Figure 2.8. Channel used in the last government transaction, by place of residence

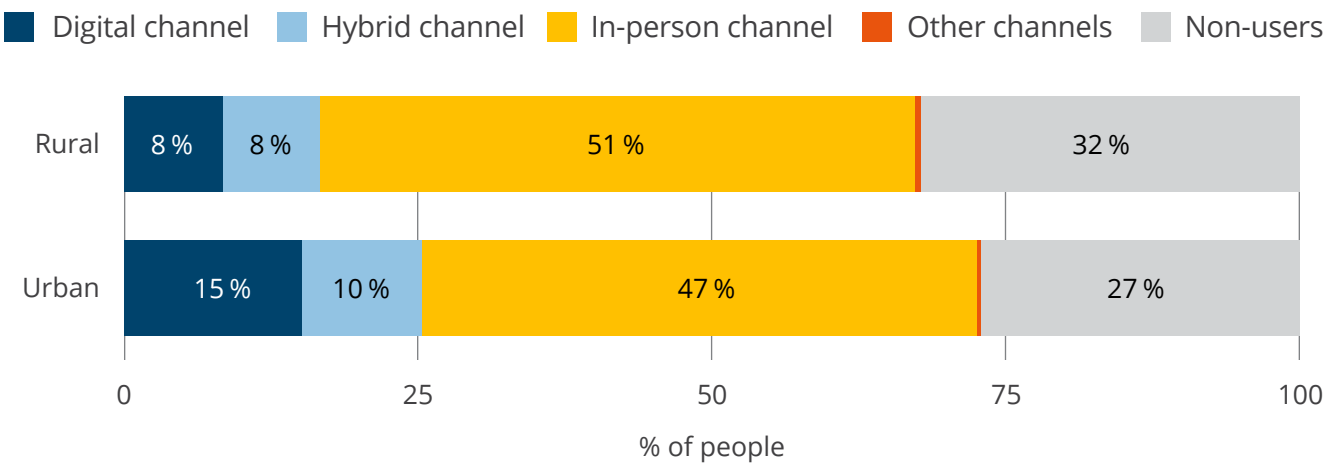


Table 2.9. Channel used in the last government transaction, by place of residence

Channel used for last transaction	Urban	Rural
Digital channel	15 %	8 %
Hybrid channel	10 %	8 %
In-person channel	47 %	51 %
Other channels	0 %	0 %
Non-users	27 %	32 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used to complete the las government transaction. Those who have not carried out government transactions in the past 12 months are considered non-users. "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.9.

The lower use of digital channels in rural areas compared to urban areas is a persistent feature in the region. According to Figure 2.9, all countries analyzed show gaps ranging from 6 to 8 pp in favor of urban areas. Colombia has the largest difference (8 pp), followed by Panama (7 pp), Brazil (6 pp), and Peru (6 pp). Meanwhile, Honduras, Trinidad and Tobago, Guatemala, and Chile show no statistically significant differences between urban and rural areas.

Figure 2.9. People who used only the digital channel to carry out their last government transaction, by place of residence

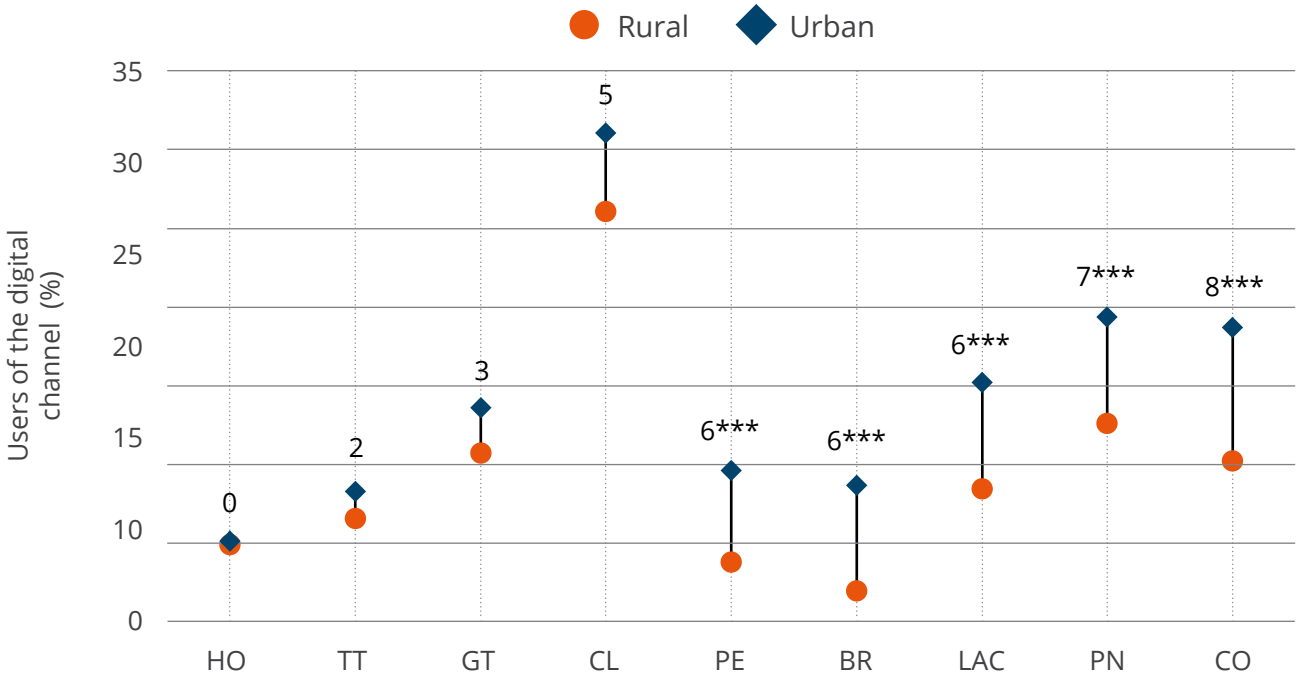


Table 2.10. People who used only the digital channel to carry out their last government transaction, by place of residence

Country	Urban	Rural
Honduras (HO)	5 %	5 %
Trinidad and Tobago (TT)	8 %	7 %
Guatemala (GT)	14 %	11 %
Chile (CL)	31 %	26 %
Peru (PE)	10 %	4 %
Brazil (BR)	9 %	2 %
Latin America and the Caribbean (LAC)	15 %	8 %
Panama (PN)	19 %	13 %
Colombia (CO)	19 %	10 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notas: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. For the figure, a difference-in-means test was conducted between who reside in urban areas and those who reside in rural areas (*** p < 0.01; ** p <0.05; * p < 0.1).

Gaps by racial and ethnic self-identification

The fifth gap in the region is associated with ethnic groups. Only 10 % of Indigenous peoples and 11 % of Afro-descendants completed their last government transaction entirely online, marking a difference of 5 and 8 pp, respectively, compared to those who do not identify as either Indigenous peoples or Afro-descendants. In terms of hybrid channel use, afro-descendants and indigenous populations show similar levels (7 %), while people identify as neither afro-descendant nor indigenous show higher adoption rates (between 9 % and 11 %). The preference for in-person channels is slightly higher among Indigenous people (53 %) and afro-descendants (50 %), compared to those who do not identify with either of these two groups (51 % and 46 %, respectively). Notably, the proportion of people who carried out no government transactions in the last year is slightly similar among the three groups, ranging from 24 % to 31 %.

Figure 2.10. Channel used in the last government transaction, by racial and ethnic self-identification

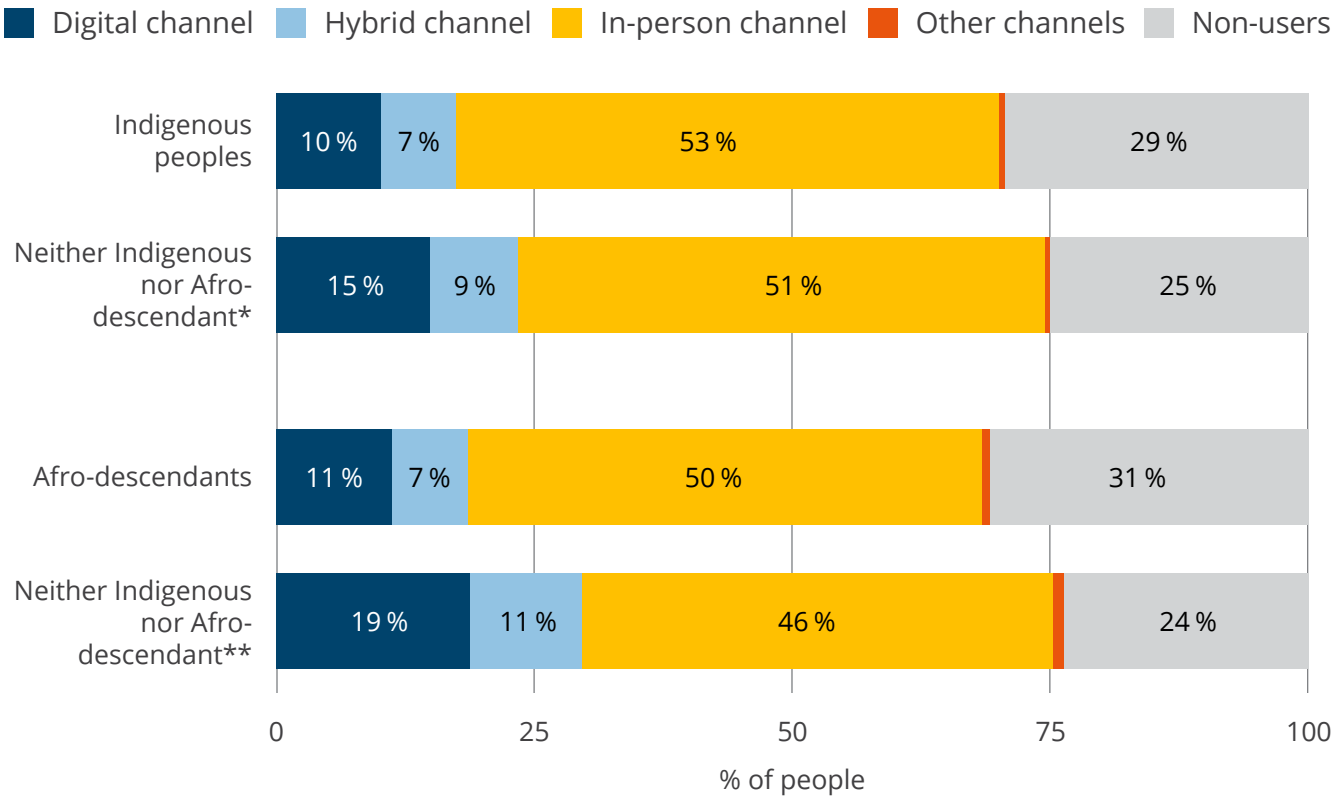


Table 2.11. Channel used in the last government transaction, by racial and ethnic self-identification

Channel used for last transaction	Indigenous peoples	Neither Indigenous nor Afro-descendant*	Afro-descendants	Neither Indigenous nor Afro-descendant**
Digital channel	10 %	15 %	11 %	19 %
Hybrid channel	7 %	9 %	7 %	11 %
In-person channel	53 %	51 %	50 %	46 %
Other channels	1 %	0 %	1 %	1 %
Non-users	29 %	25 %	31 %	24 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by calculating the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Those who have not carried out government transactions in the past 12 months are considered non-users. Jamaica, Trinidad and Tobago, and Uruguay are not included in the breakdown by racial and ethnic self-identification (see Annex 1). Due to the small number of observations, Brazil is excluded from the average indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average afro-descendant population. As a result, two averages are presented for the non-indigenous and non-afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay. Those who have not carried out government transactions in the past 12 months are considered non-users. "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.11.

Differences in access to digital public services between ethnic groups vary by country. Colombia has the widest gap, with the population without ethnic identification using the digital channel 12 pp more than the Indigenous and Afro-descendant population. In Guatemala, this gap is 8 pp with respect to the Indigenous population. Paraguay exhibits a gap of 6 pp to the detriment of the Indigenous population, while in Chile there are no differences between the population without racial and ethnic self-identification and the Indigenous population, but there is a gap of 5 pp with respect to the Afro-descendant population. In Peru, the gap is uniform, reaching 4 pp for Indigenous and Afro-descendant populations, while in the remaining countries, the differences do not exceed 2 pp.

Figure 2.11. People who used only the digital channel, by racial and ethnic self-identification

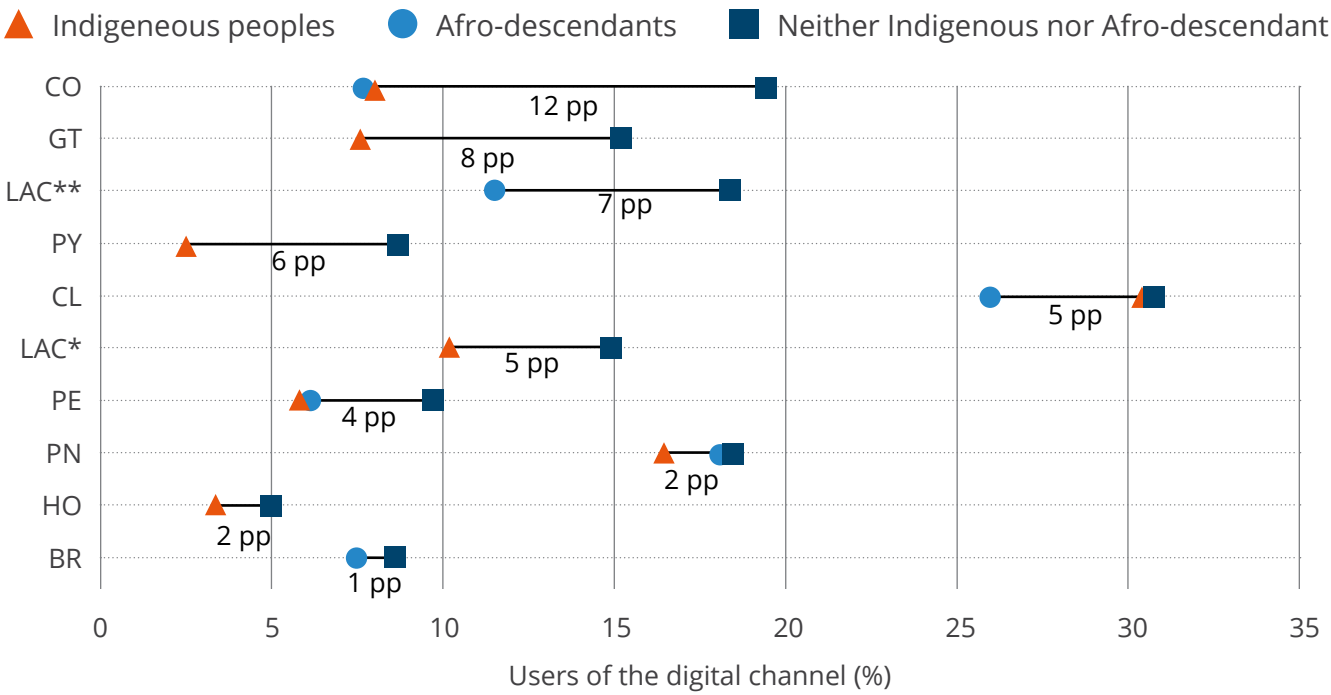


Table 2.12. Percentage of people who used only the digital channel, by racial and ethnic-self-identification

Country	Indigenous peoples	Afro-descendants	Neither indigenous nor Afro-descendant
Colombia (CO)	8 %	8 %	19 %
Latin America and the Caribbean (LAC) **	-	11 %	19 %
Guatemala (GT)	8 %	-	15 %
Paraguay (PY)	3 %	-	9 %
Chile (CL)	31 %	26 %	31 %
Latin America and the Caribbean (LAC) *	10 %	-	15 %
Peru (PE)	6 %	6 %	10 %
Panama (PN)	16 %	18 %	18 %
Honduras (HO)	3 %	-	5 %
Brazil (BR)	-	7 %	9 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by calculating the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-indigenous and non-afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Gaps by sex

The sixth and smallest gap in the region is related to sex, where women reported similar use of digital public services compared to men. Overall, 14 % of men completed their last government transaction online, compared to 13 % of women, a difference of 1 pp, which is statistically non-significant. This gap disappears in the use of the hybrid channel, which stands at 10 % in both cases. In terms of the in-person channel, women reported 2 pp higher usage, which is because they carried out the most government transactions in the last 12 months (73 % compared to 71 %). This could be due, at least in part, to the fact that 30 % of women reported having carried out transactions on behalf of someone else, compared to 22 % of men.

Figure 2.12. Channel used in the last government transaction, by sex

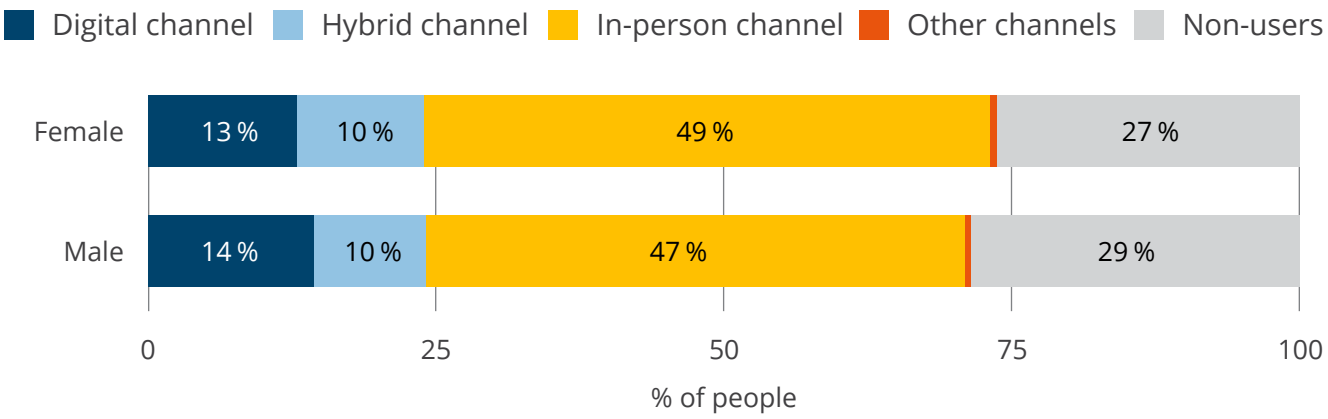


Table 2.13. Channel used for last government transaction, by sex

Channel used for last transaction	Male	Female
Digital channel	14 %	13 %
Hybrid channel	10 %	10 %
In-person channel	47 %	49 %
Other channels	1 %	1 %
Non-users	29 %	27 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notas: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Those who have not carried out government transactions in the past 12 months are considered non-users. Labels for "Other channels" usage are note shown on the bars because they represent at most 2 % of the cases, as shown in Table 2.13.

The sex gap in the use of digital public services varies across countries in the region. In Chile, 34 % of men completed their last transaction online or completely digitally, compared to 27 % of women, a difference of 8 pp. Guatemala and Peru have similar gaps, at 7 and 6 pp, respectively. In contrast, in Brazil, Honduras, Panama, Paraguay, and Uruguay, there are no significant differences by sex. This trend is reversed in Jamaica and Trinidad and Tobago, where 4 and 3 pp more women than men completed digital transactions, respectively (see Figure 2.13).

Figure 2.13. People who used only the digital channel to complete their last government transaction, by sex

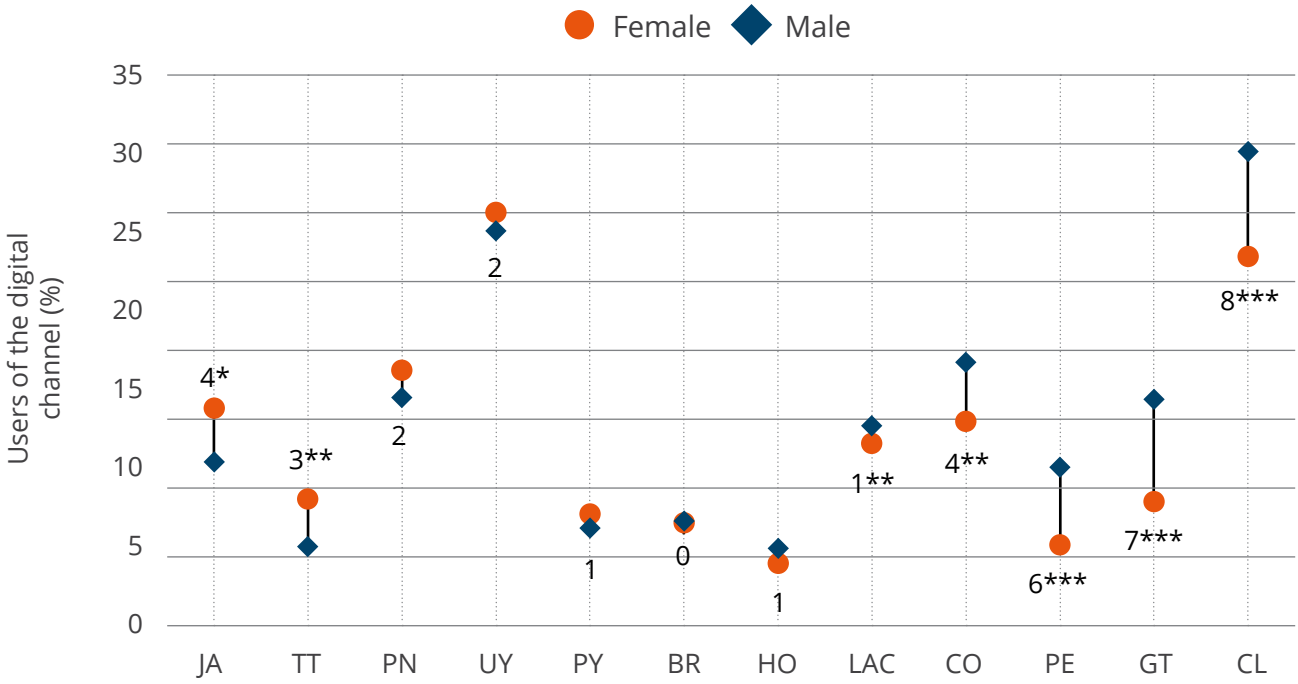


Table 2.14. Percentage of people who used only the digital channels to complete their last government transaction, by sex

Country	Female	Male
Jamaica (JA)	15 %	12 %
Trinidad and Tobago (TT)	9 %	6 %
Panama (PN)	19 %	17 %
Uruguay (UY)	30 %	28 %
Paraguay (PY)	8 %	7 %
Brazil (BR)	8 %	8 %
Honduras (HO)	5 %	6 %
Latin America and the Caribbean (LAC)	13 %	14 %
Colombia (CO)	15 %	19 %
Peru (PE)	6 %	11 %
Guatemala (GT)	9 %	16 %
Chile (CL)	27 %	34 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. For the figure, a difference-in-means test was conducted between males and females (*** p < 0.01; ** p <0.05; * p < 0.1).

2.3
How does the experience of different demographic groups vary in completing digital and in-person government transactions?

One of the main reasons governments seek to improve public services is to offer citizens a better experience. This not only involves diversifying service channels—allowing each person to find an option that suits their needs—but also reducing the barriers that make a transaction slow, difficult, or frustrating. The citizen experience when completing a transaction can be understood based on several factors. One of these is transaction costs, such as the number of times a person must go to an office, the time spent waiting, or the time it takes to get there.

In addition, there are psychological costs related to the mental effort required to understand how to complete the government transaction, especially if the process is unclear or if the service is deficient. Finally, exposure to corruption not only generates additional costs but also exacerbates inequalities in access to public services.

With these elements in mind, this section explores how the citizen experience differs between digital and in-person government transactions and how these differences affect different population groups.

Processing times

On average, completing a government transaction in the region takes around 4.9 hours, which highlights the significant amount of time that citizens must invest. Although this is still a considerable cost, it is an improvement over previous years: according to Roseth et al. (2018), based on data from the 2017 Latinobarómetro, the average time was 5.4 hours. This reduction of more than an hour could reflect the efforts made by governments in the region to improve the citizen experience, both through the digitization of services and through improved in-person service.

The time it takes to complete a government transaction varies considerably between countries. Uruguay and Chile have the lowest times, with averages of 1.5 and 2.9 hours, respectively. In contrast, Panama (6.4 hours), Honduras (6.1 hours), and Colombia and Jamaica (both with 6 hours) are the countries where people tend to spend the longest time on completing government transactions. These differences across countries can partly be explained by the extent of in-person and digital channel use, as well as by the waiting and travel times involved in in-person government transactions.

Figure 2.14. Average time spent on government transactions, by country

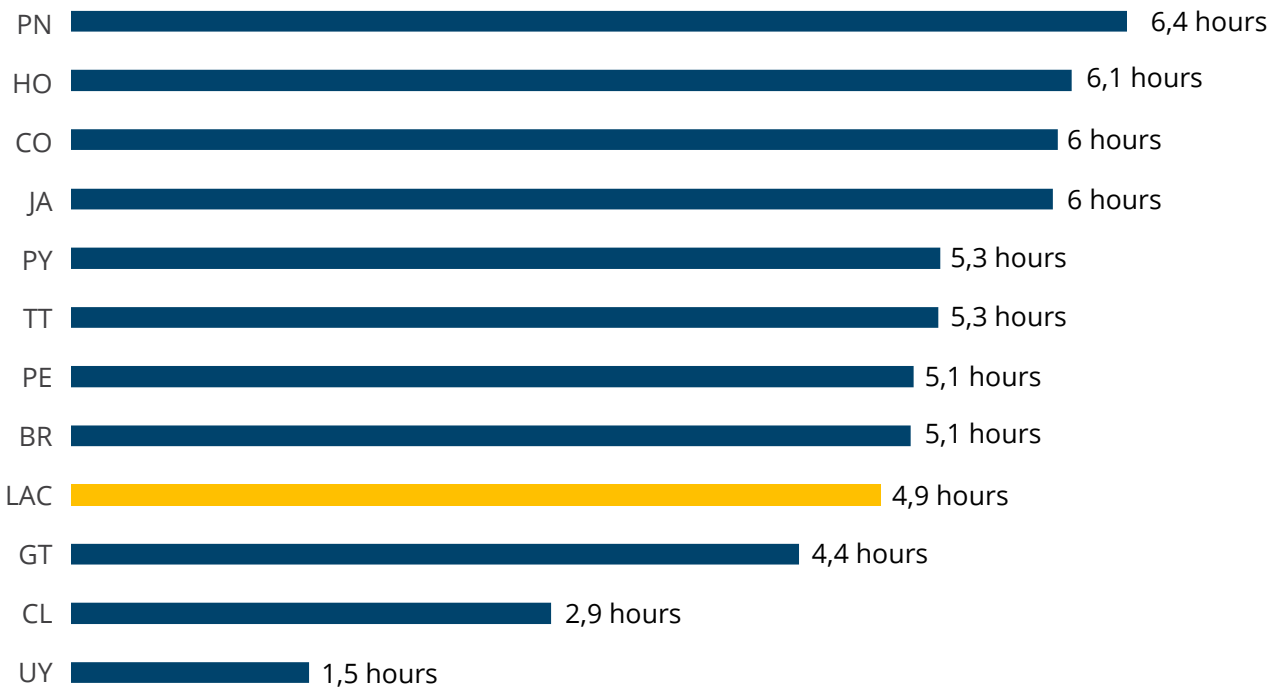


Table 2.15. Average time spent on government transactions, by country

Country	Average time
Panama (PN)	6.4 hours
Honduras (HO)	6.1 hours
Colombia (CO)	6.0 hours
Jamaica (JA)	6.0 hours
Paraguay (PY)	5.3 hours
Trinidad and Tobago (TT)	5.3 hours
Peru (PE)	5.1 hours
Brazil (BR)	5.1 hours
Latin America and the Caribbean (ALC)	4.9 hours
Guatemala (GT)	4.4 hours
Chile (CL)	2.9 hours
Uruguay (UY)	1.5 hours

Source: authors' elaboration based on the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries.

In the region, in-person government transactions take up to nine times longer than digital transactions.

While a digital transaction takes an average of 39.8 minutes, completing an in-person transaction takes 6 hours. This time considers an average of 2 visits to government offices: 51 % of in-person transactions are resolved in a single visit, 29 % require two visits, and 21 % require three or more. Each in-person visit involves two major time investments: (i) transportation: on average, it takes 1 hour and 35 minutes round trip. This time varies considerably: 40 % of citizens spend less than 30 minutes, 26 % between 30 and 59 minutes, 19 % between one and one and a half hours, and 15 % more than one and a half hours; (ii) queuing and resolution: the average time spent at the office is 1 hour and 21 minutes. In addition, 25 % of citizens wait less than 29 minutes, 22 % between 30 and 59 minutes, 19 % between one and one and a half hours, and 34 % more than an hour and a half (see Figure 2.15).

Figure 2.15. Average time spent on government transactions

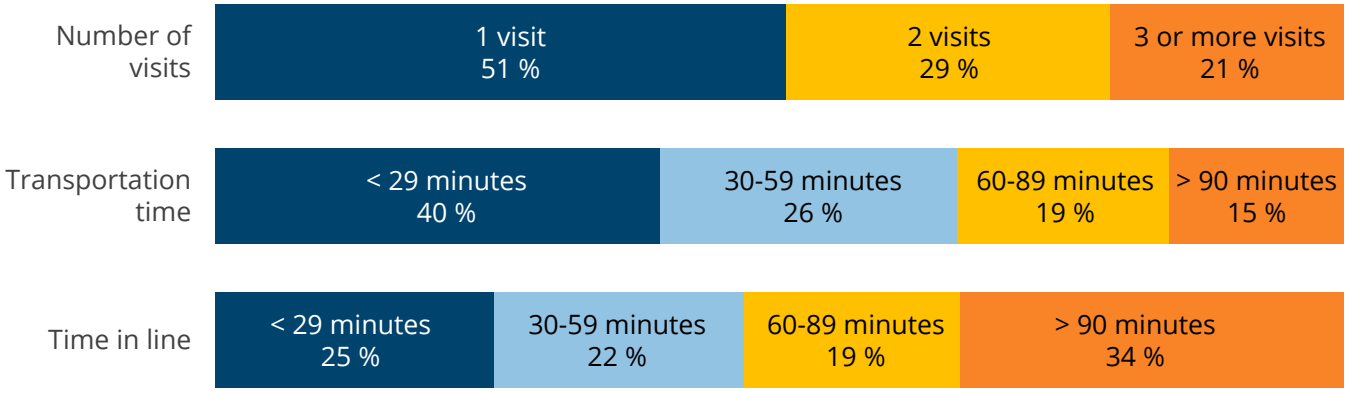


Table 2.16. Average time spent on government transactions

Category	Percentage of people
Number of visits	
1 visit	51 %
2 visits	29 %
3 or more visits	21 %
Transportation time	
Less than 29 minutes	40 %
30 to 59 minutes	26 %
60 to 89 minutes	19 %
More than 90 minutes	15 %
Time in line	
Less than 29 minutes	25 %
30 to 59 minutes	22 %
60 to 89 minutes	19 %
More than 90 minutes	34 %

Source: : authors' calculations based on the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries.

The difference in the time required to complete in-person and digital transactions is consistent across the region, even in countries where in-person transactions are relatively more streamlined, such as Uruguay and Chile. In Uruguay, for example, a digital transaction takes 10.1 times less time than an in-person transaction (19.9 minutes versus 3.4 hours), while in Chile, digital transaction are 11.2 times faster (23.1 minutes versus 4.3 hours). These two countries also have the shortest times for completing in-person transactions. In the rest of the countries, the ratio ranges from 6.1 times less time in Honduras to 11.1 times less in Peru. (see Figure 2.16).

Figure 2.16. Average time for completing government transactions, by country[6]

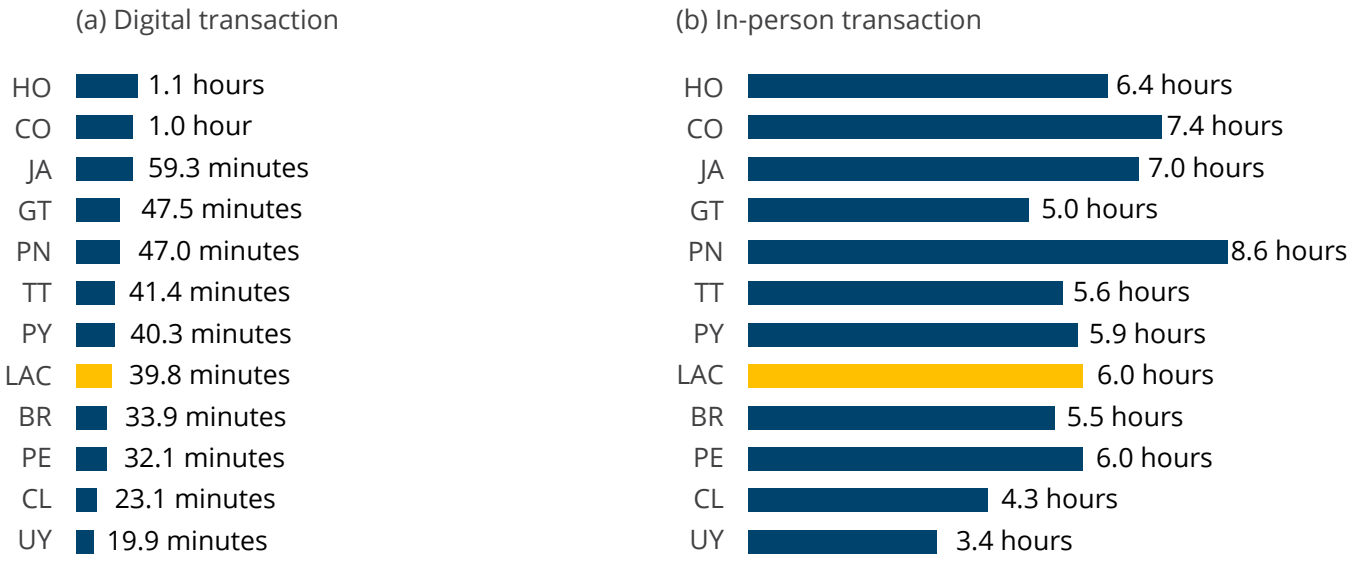


Table 2.17. Average time for completing government transactions, by country

Country	Digital	In Person
Honduras (HO)	1.1 hours	6.4 hours
Colombia (CO)	1.0 hours	7.4 hours
Jamaica (JA)	59.3 minutes	7.0 hours
Guatemala (GT)	47.5 minutes	5.0 hours
Panama (PN)	47.0 minutes	8.6 hours
Trinidad and Tobago (TT)	41.4 minutes	5.6 hours
Paraguay (PY)	40.3 minutes	5.9 hours
Latin America and the Caribbean (LAC)	39.8 minutes	6.0 hours
Brazil (BR)	33.9 minutes	5.5 hours
Peru (PE)	32.1 minutes	6.0 hours
Chile (CL)	23.1 minutes	4.3 hours
Uruguay (UY)	19.9 minutes	3.4 hours

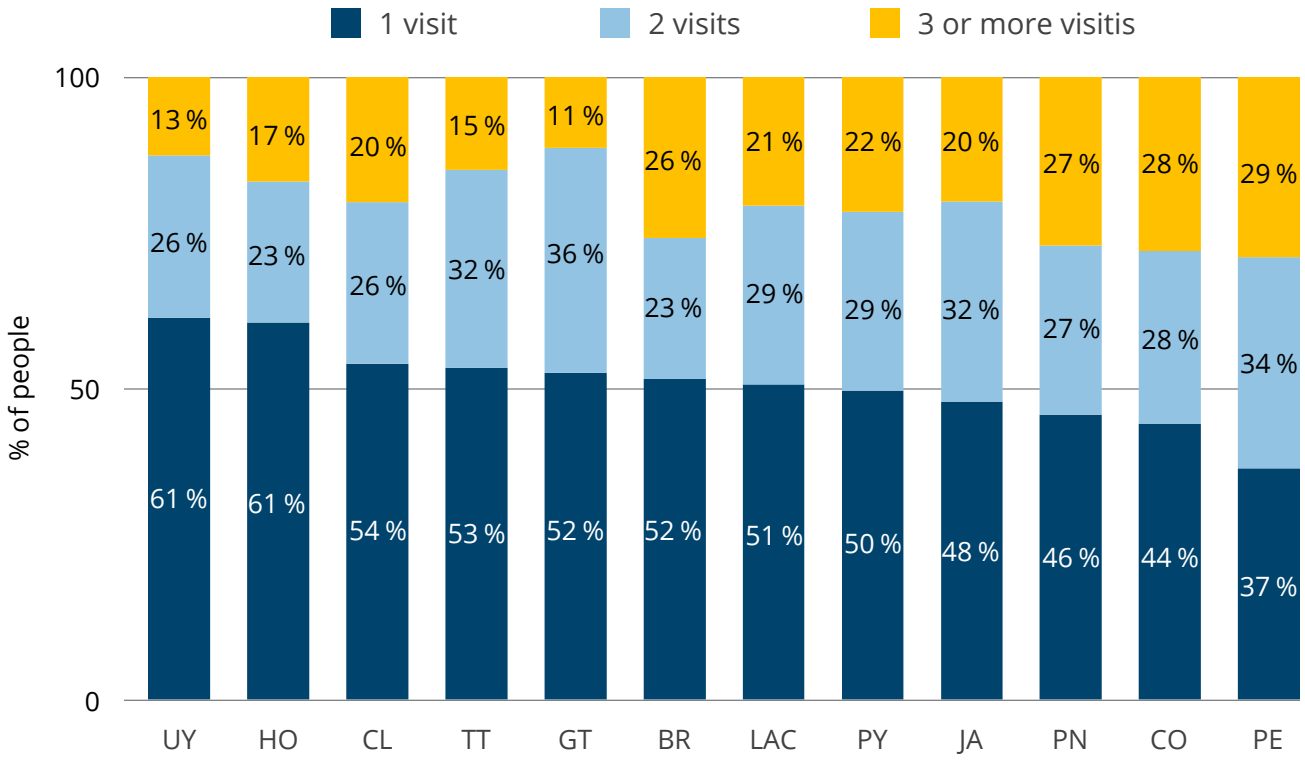
Source: authors' calculations based on the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries.

6 The figures for Brazil differ from those presented in Bergues and Lafuente (2025) for the following reasons: (i) in this document, statistics are calculated using regional weightings, as indicated in the notes to the figure; (ii) this calculation includes users of government services from the two samples collected in Brazil: the representative sample (used in Bergues and Lafuente, 2025) and the user sample; and (iii) for the analysis in this book, outliers of transaction time and typing errors were removed.

The number of visits required to complete a government transaction also varies considerably across countries. As shown in Figure 2.17, the highest shares of people who completed their last transaction in a single visit are found in Uruguay and Honduras. In contrast, in Colombia and Peru, completing a transaction most often requires at least three visits (28 % and 29 %, respectively).

In addition, in some cases, travel is even more demanding. In Jamaica, for example, 34.3 % of the population must travel to another city to complete their last transaction.

Figure 2.17. Number of visits required to complete a transaction in person, by country[7]



7 The figures for Brazil differ from those presented in Bergues and Lafuente (2025) for the following reasons: (i) in this document, statistics are calculated using regional weights, as indicated in the notes to the figure; and (ii) this calculation includes users of government services from the two samples collected in Brazil: the representative sample (used in Bergues and Lafuente, 2025) and the user sample.

Table 2.18. Number of visits required to complete a government transaction in person, by country

Country	1 visit	2 visits	3 or more visits
Uruguay (UY)	61 %	26 %	13 %
Honduras (HO)	61 %	23 %	17 %
Chile (CL)	54 %	26 %	20 %
Trinidad and Tobago (TT)	53 %	32 %	15 %
Guatemala (GT)	52 %	36 %	11 %
Brazil (BR)	52 %	23 %	26 %
Latin America and the Caribbean (LAC)	51 %	29 %	21 %
Paraguay (PY)	50 %	29 %	22 %
Jamaica (JA)	48 %	32 %	20 %
Panama (PN)	46 %	27 %	27 %
Colombia (CO)	44 %	28 %	28 %
Peru (PE)	37 %	34 %	29 %

Source: authors' calculations based on the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries.

Although digitization reduces processing times, its impact is most evident in government transactions related to social benefits, public health, and public employment, which are relatively more used by people with secondary or lower levels of education. For example, while social benefit transactions take an average of 7.7 hours when done in person the digital channel reduces this time is reduced to 37.2 minutes. Similarly, migration and public health transactions, which take between 7.9 and 7.5 hours in person, are reduced to 1.1 hours and 46.1 minutes, respectively, when carried out digitally. This could suggest that the populations that most frequently carry out these transactions would be the main beneficiaries of the transition to the digital channel. Other notable reductions in time would occur if citizens opted to use the digital channel for transactions such as public employment (from 7.3 hours to 41.5 minutes), business-related (from 7.3 hours to 48.2 minutes), and those related to public safety and justice (from 6.5 hours to 49.5 minutes).

Figure 2.18. Average time to complete government transactions, by type of transaction and channel

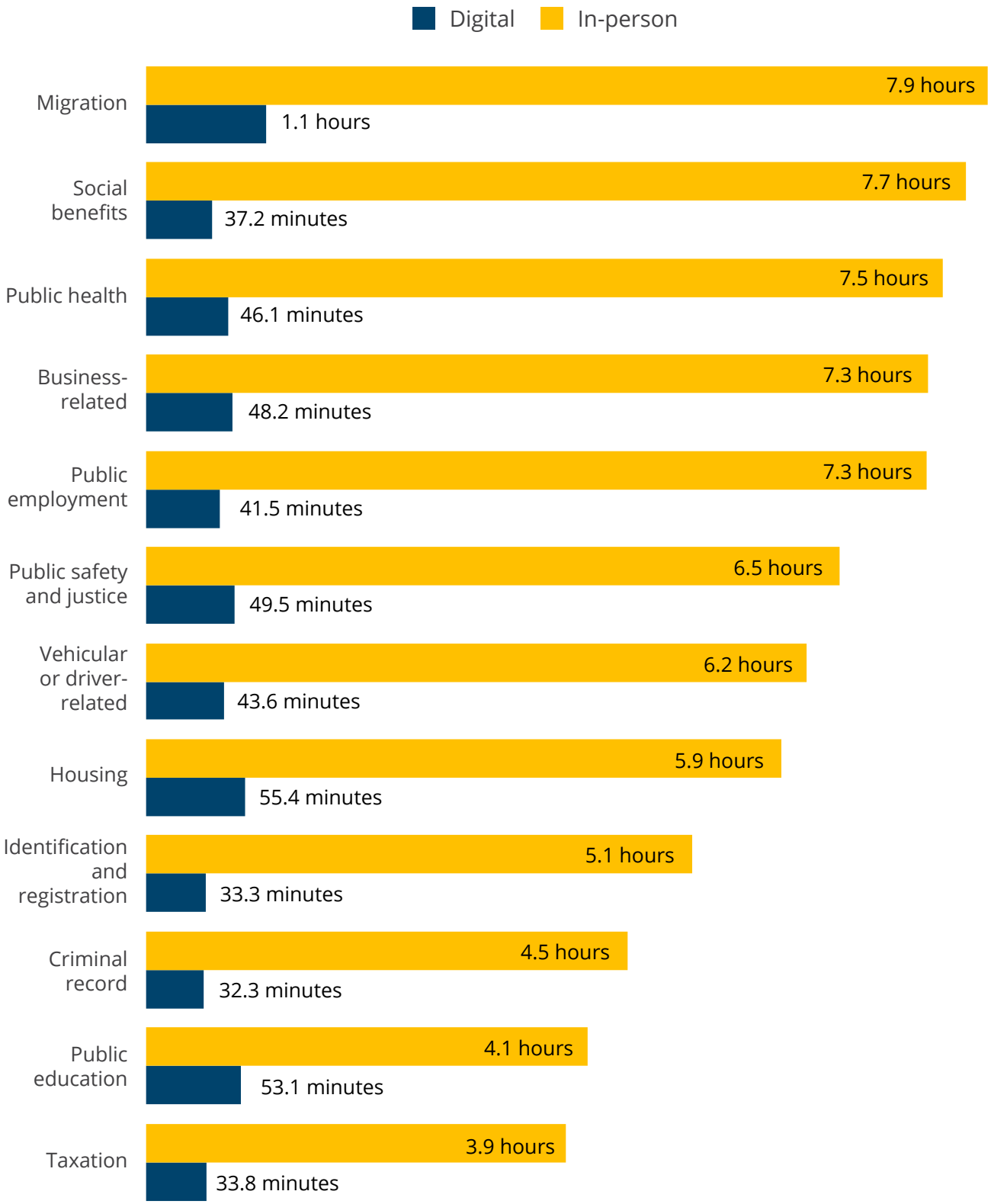


Table 2.19. Average time to complete government transactions, by type of transaction and channel

Type of transactions	Presenciales	Digitales
Taxation	3.9 hours	33.8 minutes
Public education	4.1 hours	53.1 minutes
Criminal record	4.5 hours	32.3 minutes
Identification and registration	5.1 hours	33.3 minutes
Housing	5.9 hours	55.4 minutes
Vehicular or driver-related	6.2 hours	43.6 minutes
Public safety and justice	6.5 hours	49.5 minutes
Public employment	7.3 hours	41.5 minutes
Business-related	7.3 hours	48.2 minutes
Public health	75 hours	46.1 minutes
Social benefits	7.7 hours	37.2 minutes
Migration	7.9 hours	1.1 hours

Source: authors' calculations based on the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account.

Figure 2.19. Average time to complete in-person and digital government transactions, by demographic group

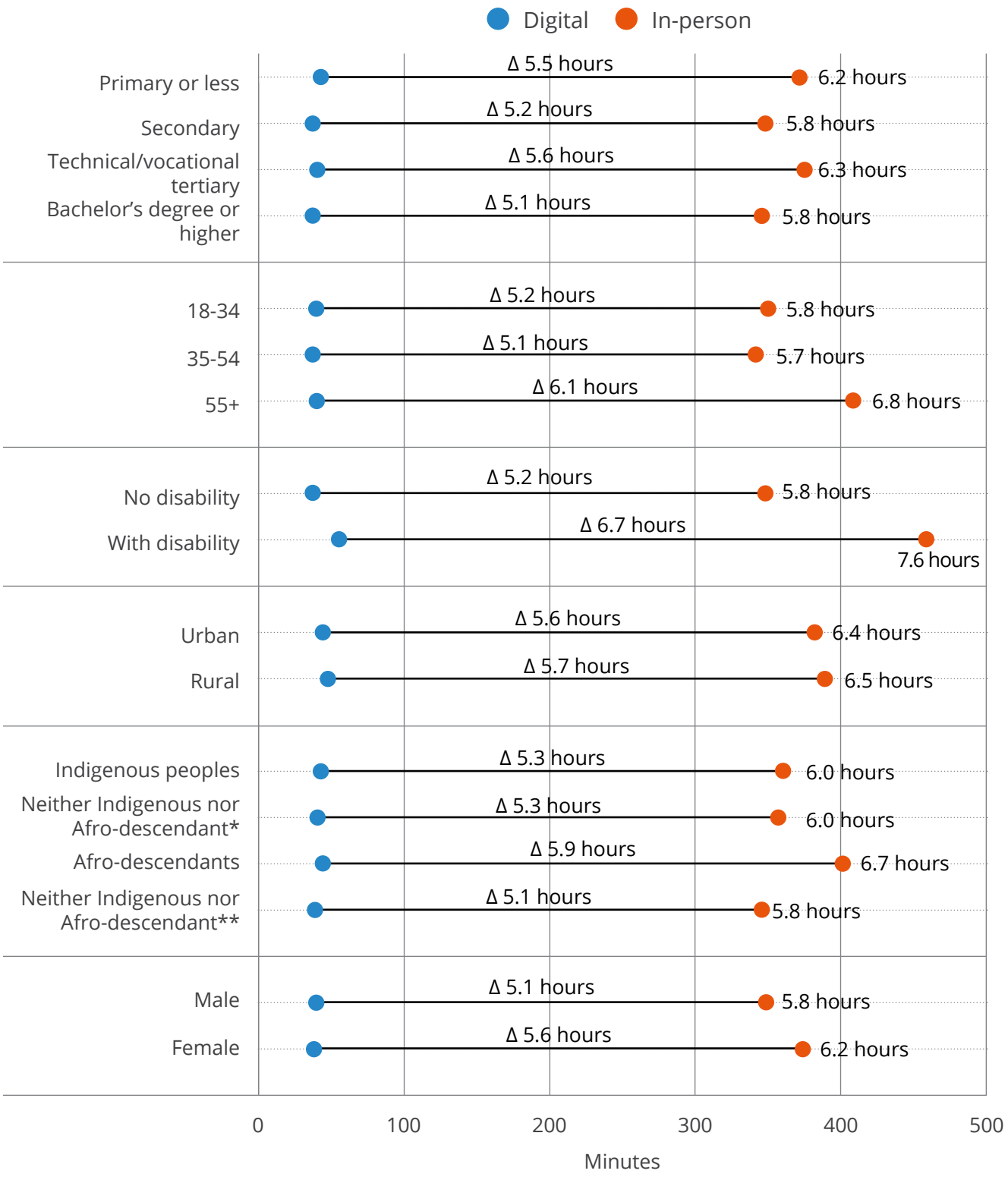


Table 2.20. Average time to complete in-person and digital government transactions, by demographic group

Demographic Group	Digital	In-person
Educational level		
Primary or less	43.4 minutes	6.2 hours
Secondary	38.1 minutes	5.8 hours
Technical/vocational tertiary	41.0 minutes	6.3 hours
Bachelor's degree or higher	38.1 minutes	5.8 hours
Age		
18-34	40.2 minutes	5.8 hours
35-54	38.7 minutes	5.7 hours
55+	40.6 minutes	6.8 hours
Disability status		
No disability	38.2 minutes	5.8 hours
With disability	56.3 minutes	7.6 hours
Place of residence		
Urban	44.1 minutes	6.4 hours
Rural	48.4 minutes	6.5 hours
Racial and ethnic self-identification		
Indigenous peoples	43.3 minutes	5.9 hours
Neither Indigenous nor Afro-descendants*	41.3 minutes	6.0 hours
Afro-descendants	44.8 minutes	6.7 hours
Neither Indigenous nor Afro-descendants**	39.8 minutes	5.8 hours
Sex		
Male	40.7 minutes	5.8 hours
Female	39.8 minutes	6.2 hours

Source: authors' elaboration based on the sample of users of the User Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025b).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries. Statistics are presented according to the channel used in the last transaction with the government. Those who have not carried out government transactions in the past 12 months are considered non-users. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the neither indigenous nor Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

On the other hand, the analysis of processing times by demographic group reveals that people with disabilities could benefit most from digitization. On average, people with disabilities take 1.8 hours longer to complete in-person government transactions than those without disabilities (7.6 hours versus 5.8 hours, respectively). However, when transactions are carried out digitally, this gap is reduced to 18.4 minutes, with an average of 56.3 minutes for people with disabilities and 38.2 minutes for those without disabilities (see Figure 2.19).

As will be discussed in Chapter 4, the most frequent transactions for this population group are those related to health and social benefits. Through the in-person channel, people with disabilities take 1.3 hours longer for health transactions and 2.7 hours longer for social benefits transactions compared to people without disabilities. When these transactions are carried out using the digital channel, people with disabilities take only 12 minutes longer for health transactions compared to people without disabilities. In contrast, for transactions related to social benefits, people with disabilities take 13.6 minutes less than their counterparts.

People aged 55 and older and women would also benefit greatly from the digitization of government transactions. People aged 55 and older spend an average of 6.8 hours on in-person transactions, compared to 5.7 hours for those aged 35 to 54, and 5.8 hours for the 18 to 34 age group, representing a gap of up to 1.1 hours. For health and social benefits transactions, which are performed relatively more often, this gap can be as much as 3 hours. In particular, people aged 55 and over take up to 17.4 minutes longer than the youngest group to complete online health transactions. In contrast, when completing social benefits transactions digitally, this group takes even less time than younger people and the 35-54 age group. Completing a government transaction in person takes women, on average, 24 minutes longer than men (6.2 hours compared to 5.8 hours). However, when completing the transaction digitally, the difference disappears: both sexes take around 40 minutes (see Figure 2.19).

Experience of corruption

Corruption in the provision of public services in Latin America and the Caribbean is not only an ethical problem, but also a factor that exacerbates inequalities in access to public services. This practice tends to disproportionately favor those with greater ability to pay, diverting public resources toward private interests. For those who cannot access government

transactions through bribes, the consequences are significant: long wait times and lower quality of care (Transparency International, 2017). A study conducted in Peru finds that corruption imposes a double burden on lower-income users. On the one hand, bribes function as a regressive tax, as these users allocate a higher percentage of their income to these payments than those with greater resources. On the other hand, in contexts where private providers exist as an alternative, low-income people are often more discouraged from seeking public services (Kaufmann et al., 2008).

Data from the regional survey reveal that around 12 % of citizens in the 10 countries covered by the survey have used contacts to carry out government transactions in the last year, and 4 % have paid bribes in the same period.

Contrary to expectations, the use of contacts to carry out government transactions is less frequent among users who completed their transactions entirely in person. According to Figure 2.20, 10 % of those who completed their last transaction in person reported having used personal contacts to access a public service in the last 12 months, compared to 16 % of those who used exclusively digital channels and 19 % of those who combined digital and in-person methods. On the other hand, the percentage of people who have paid bribes to access a government transaction in the last 12 months is quite similar, regardless of the channel used to carry out the last transaction[8]. A total of 4 % of users of in-person and digital transactions reported having paid a bribe in the last 12 months, while 5 % of those who used a hybrid method did so. This finding reveals an additional inequality: those who have greater access to the public services they need also have more opportunities to exert undue influence (personal contacts and bribes) to gain access.

8 In the survey, the service channel was asked with reference to the last transaction carried out, while questions regarding corruption were asked with reference to the last 12 months (and any transactions carried out during that period).

Figure 2.20. Use of contacts and payment of bribes in government transactions, by channel used in the last 12 months

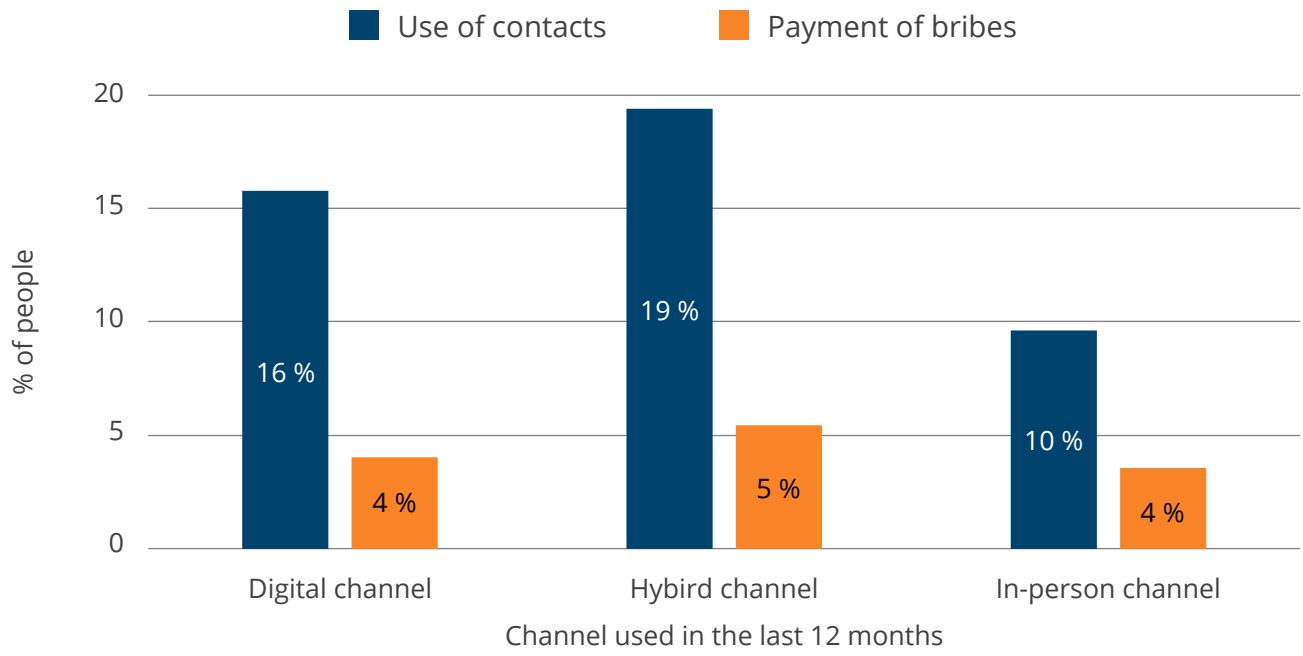


Table 2.21. Use of contacts and payment of bribes in government transactions, by channel used in the last 12 months

Channels used in the last 12 months	Contacts	Bribery
Digital channel	16 %	4 %
Hybrid channel	19 %	5 %
In-person channel	10 %	4 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age group, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

When analyzing different population groups, the results reveal mixed trends regarding the propensity to use contacts to carry out government transactions. On the one hand, people holding a bachelor's degree or higher are significantly more likely to resort to contacts, with 18 %, compared to 11 % of those with primary education or less, which represents a difference of 7 pp. This could be explained by the type of personal and professional networks that people with higher levels of education are likely to have. Young people are

slightly more likely (14 %) to use contacts than people aged 55 and over (10 %), a statistically significant difference of 4 pp.

At the other end of the spectrum, people with disabilities and Afro-descendants are more likely to turn to government contacts. The use of contacts in the last year was reported by 16 % of people with disabilities, exceeding the 13 % of people without disabilities by 3 pp. Similarly, 17 % of Afro-descendants reported using contacts, a proportion that exceeds by 5 pp those who do not self-identify as Indigenous peoples or Afro-descendants (12 %). These observations on the relationship between experience with corruption and channel selection are partial, since the survey did not include questions on corruption specifically in the context of the last government transaction carried out.

Figure 2.21. Percentage of people who used contacts to access a public service in the last 12 months, by demographic group

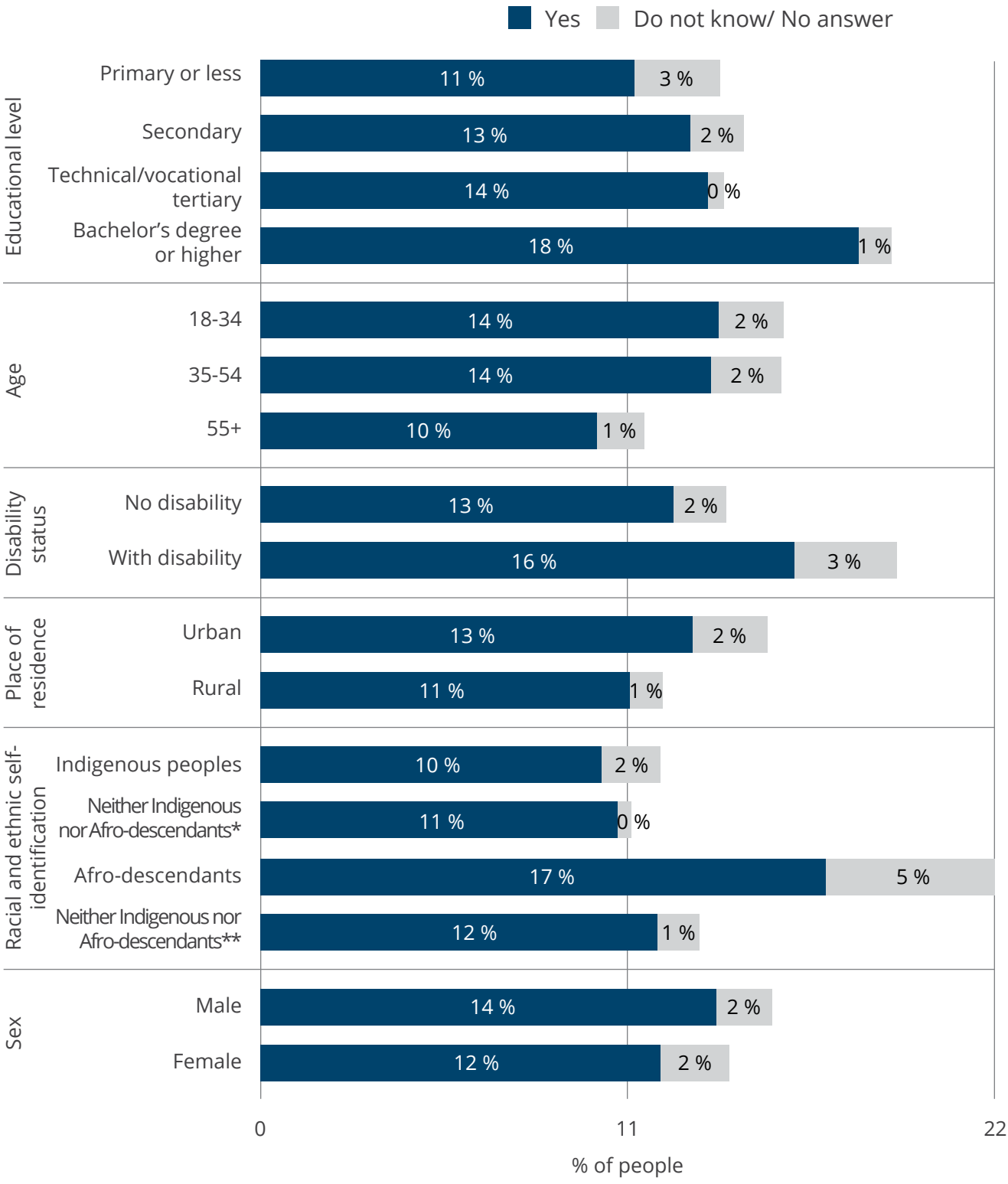


Table 2.22. Percentage of people who used contacts to access a public service in the last 12 months, by demographic group

Demographic group	Yes	Do not know / No answer
Educational level		
Primary or less	11 %	3 %
Secondary	13 %	2 %
Technical/vocational tertiary	14 %	0 %
Bachelor's degree or higher	18 %	1 %
Age		
18-34	14 %	2 %
35-54	14 %	2 %
55+	10 %	1 %
Disability status		
No disability	13 %	2 %
With disability	16 %	3 %
Place of residence		
Urban	13 %	2 %
Rural	11 %	1 %
Racial and ethnic self-identification		
Indigenous peoples	10 %	2 %
Neither Indigenous nor Afro-descendants*	11 %	0 %
Afro-descendants	17 %	5 %
Neither Indigenous nor Afro-descendants**	12 %	1 %
Sex		
Male	14 %	2 %
Female	12 %	2 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous peoples and non-Afro-descendants population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Experience and perception of digital channels

In LAC, citizens' perceptions of the ease of carrying out digital government transaction vary significantly between countries. Guatemala, Chile, and Peru rank as the countries with the highest levels of satisfaction, where more than 83 % of people report that their last digital transaction was "very easy" or "somewhat easy." Guatemala stands out, with 57 % of responses in the "very easy" category. Uruguay also has a predominantly positive experience: although only 33 % rated the process as "very easy," it is the country with the highest proportion of users who consider it "somewhat easy" (54 %). These results contrast positively with the regional average, where 81 % of people perceive digital transactions as accessible, demonstrating significant progress in certain contexts (Figure 2.22).

Figure 2.22. Degree of difficulty in completing a digital government transaction, by country

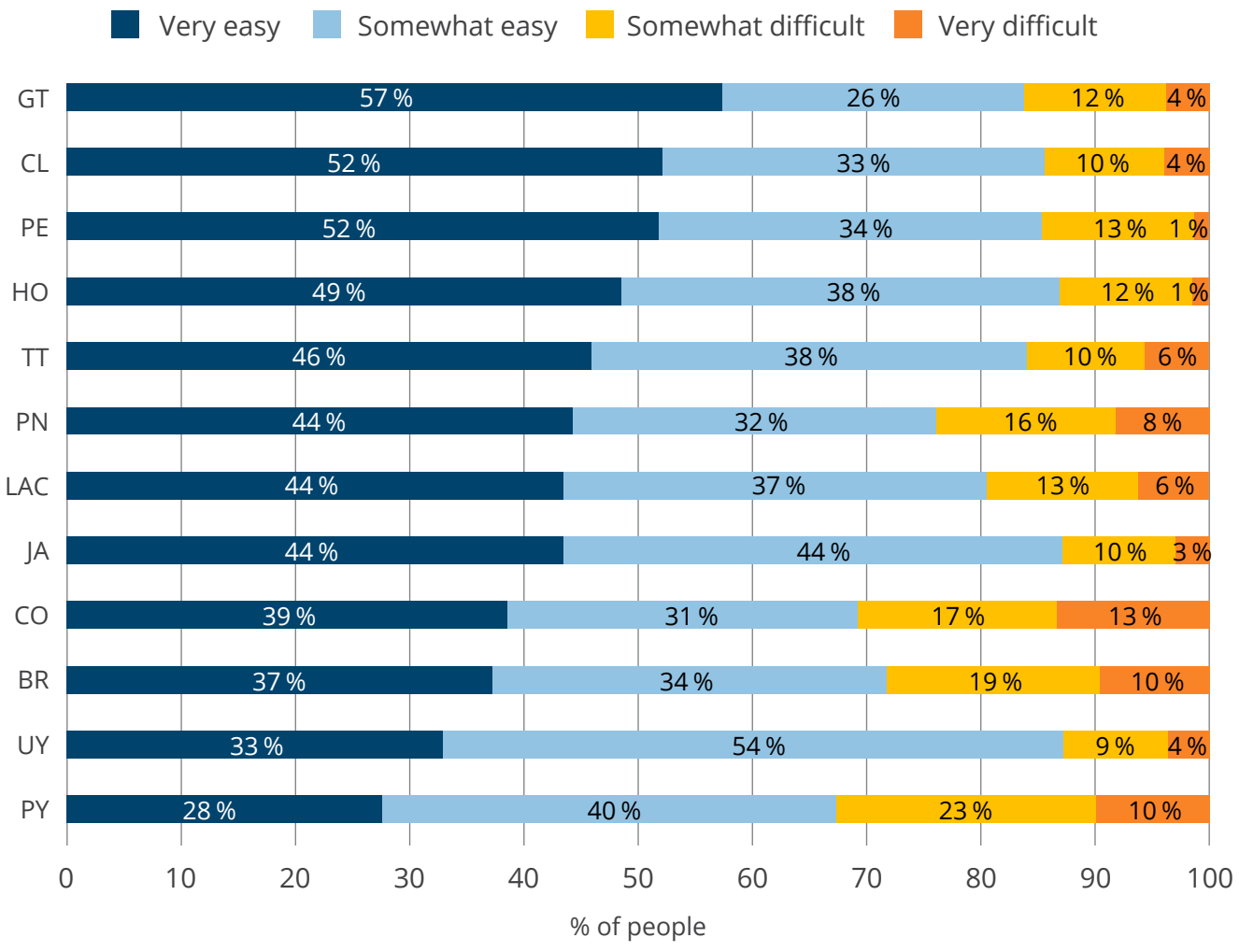


Table 2.23. Degree of difficulty in completing a digital government transaction, by country

Country	Very easy	Somewhat easy	Somewhat difficult	Very difficult
Paraguay (PY)	28 %	40 %	23 %	10 %
Uruguay (UY)	33 %	54 %	9 %	4 %
Brazil (BR)	37 %	34 %	19 %	10 %
Colombia (CO)	39 %	31 %	17 %	13 %
Jamaica (JA)	44 %	44 %	10 %	3 %
Latin America and the Caribbean (LAC)	44 %	37 %	13 %	6 %
Panama (PN)	44 %	32 %	16 %	8 %
Trinidad and Tobago (TT)	46 %	38 %	10 %	6 %
Honduras (HO)	49 %	38 %	12 %	1 %
Peru (PE)	52 %	34 %	13 %	1 %
Chile (CL)	52 %	33 %	10 %	4 %
Guatemala (GT)	57 %	26 %	12 %	4 %

Source: : authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries.

However, significant challenges remain in the region. Paraguay, Colombia, and Brazil have the highest proportions of perceived difficulty: between 29 % and 33 % of their citizens considered their experience "somewhat difficult" or "very difficult," respectively. In Colombia, for example, 13 % of users faced a high level of difficulty. These figures show that, despite overall progress, gaps persist in the digital experience that must be addressed. Improving accessibility, simplifying processes, and strengthening trust in digital channels are key elements to ensuring a truly inclusive digital transformation in the region.

The digital experience is not the same for everyone: certain demographic characteristics are strongly associated with greater levels of difficulty in completing online government transactions. In this regard, people with lower levels of education, older adults, and people with disabilities face significantly higher barriers. For example, 32 % of people with disabilities reported some difficulty in completing their digital transaction, compared to 19 % of those without disabilities. Similarly, among those with only a primary education or less, one in four users found the process "somewhat difficult" or "very difficult," while this proportion drops to 14 % among those with at least a bachelor's degree. In terms of age, people over 55 also face challenges: 27 % reported some level of difficulty, compared to only 15 % among young people aged 18 to 34 (Figure 2.23).

Figure 2.23. Degree of difficulty in completing a digital government transaction, by demographic group

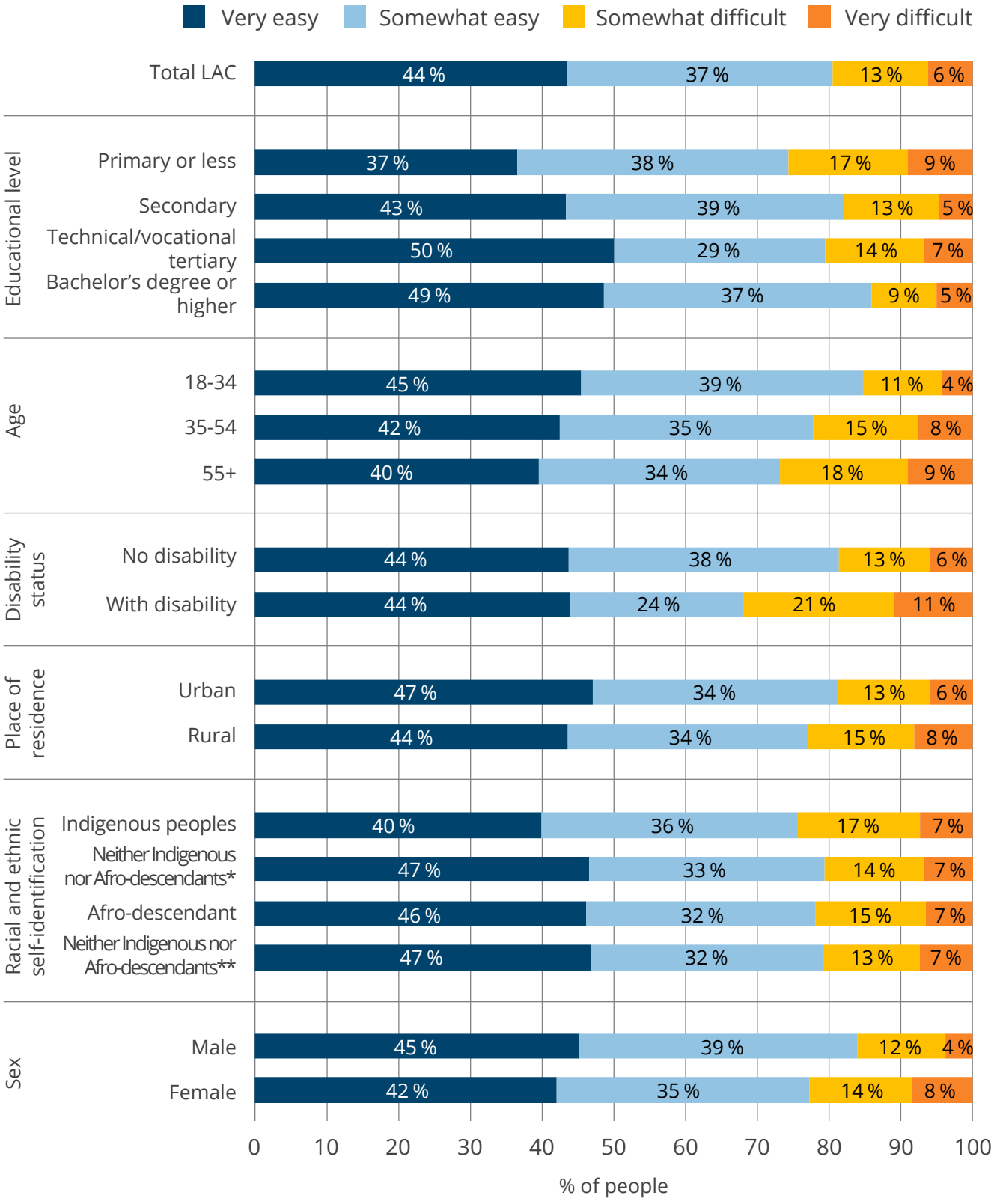


Table 2.24. Degree of difficulty in completing a digital government transaction, by demographic group

Demographic characteristic	Very easy	Somewhat easy	Somewhat difficult	Very difficult
Total LAC	44 %	37 %	13 %	6 %
Educational level				
Primary or less	37 %	38 %	17 %	9 %
Secondary	43 %	39 %	13 %	5 %
Technical/vocational tertiary	50 %	29 %	14 %	7 %
Bachelor's degree or higher	49 %	37 %	9 %	5 %
Age				
18-34	45 %	39 %	11 %	4 %
35-54	42 %	35 %	15 %	8 %
55+	40 %	34 %	18 %	9 %
Disability status				
No disability	44 %	38 %	13 %	6 %
With disability	44 %	24 %	21 %	11 %
Place of residence				
Urban	47 %	34 %	13 %	6 %
Rural	44 %	34 %	15 %	8 %
Racial and ethnic self -identification				
Indigenous peoples	40 %	36 %	17 %	7 %
Neither Afro-descendant nor Indigenous*	47 %	33 %	14 %	7 %
Afro-descendants	46 %	32 %	15 %	7 %
Neither Afro-descendant nor Indigenous**	47 %	32 %	13 %	7 %
Sex				
Male	45 %	39 %	12 %	4 %
Female	42 %	35 %	14 %	8 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country estimates use weights that take into account population distribution by sex, age group, educational attainment, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

These gaps are also evident by sex, place of residence, and racial and ethnic self-identification. Women report higher levels of difficulty than men (22 % vs. 16 %). Likewise, people living in rural areas face greater obstacles than those living in urban contexts (23 % vs. 19 %). In terms of racial and ethnic self-identification, Indigenous peoples have the most unfavorable experience: one in four reported having had difficulty completing a digital transaction. Although Afro-descendants have percentages similar to the regional average, the figures confirm that there are structural differences that must be considered when designing digital public policies. Thus, ensuring the accessibility of digital services requires addressing these disparities with inclusive, adaptive, and user-centered approaches.

As for those who were unable to access the service or complete the government transaction, there are multiple barriers facing the population in the region. Figure 2.24 reveals that, in the LAC region, the most frequent reason (22 %) why people do not complete their transaction is because they do not meet the eligibility requirements. Factors such as age, insufficient experience, and lack of necessary documents are commonly reported by individuals. Likewise, 18 % of the population indicates that lack of digital skills and the poor usability of websites of public institutions are barriers to accessing services. People frequently identified problems associated with user account management, filling out online forms, and website failures (maintenance, crashes, or service interruptions) as obstacles to completing their transactions.

Figure 2.24. Percentage distribution of reasons for not accessing the service, by educational level

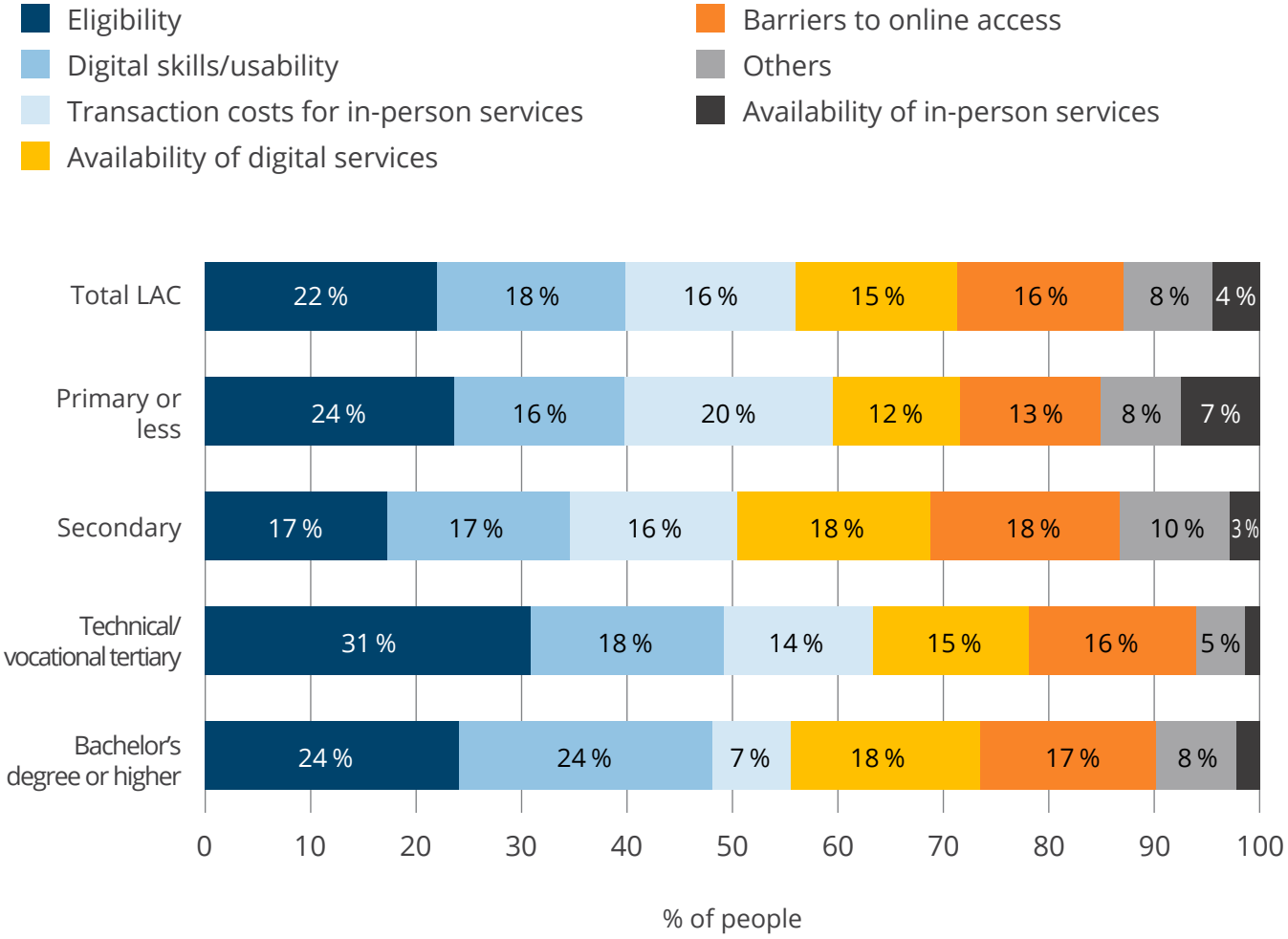


Table 2.25. Percentage distribution of reasons for not accessing the service, by educational level

Reason	Primary or less	Secondary	Technical/ vocational tertiary	Bachelor's degree or higher	Total LAC
Eligibility	24 %	17 %	31 %	24 %	22 %
Digital skills/usability	16 %	17 %	18 %	24 %	18 %
Transaction costs for in-person services	20 %	16 %	14 %	7 %	16 %
Availability of digital services	12 %	18 %	15 %	18 %	15 %
Barriers to online access	13 %	18 %	16 %	17 %	16 %
Other	8 %	10 %	5 %	8 %	8 %
Availability of in-person services	7 %	3 %	1 %	2 %	4 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025c).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the neither Afro-descendant nor Indigenous population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay. Labels not shown on the bars represent at most 2% of the cases, as shown on Table 2.25

In addition, the transaction costs of completing the process in person are considerable (16 %): long lines, long wait times, and cumbersome bureaucracy, among other issues, are problems that frequently affect users. Similarly, many people did not complete their transactions because online services were unavailable (15 %). Thus, the population in LAC faces a double barrier: when they turn to the digital channel, the service is not available, and when they choose to appear in person, the costs and obstacles are prohibitive.

Transaction costs for in-person transactions are considerably higher among people with primary education or less (20 %), especially compared to people holding a bachelor's degree or higher (7 %). However, as the level of education increases, so does the proportion of people reporting difficulties related to digital skills and usability issues with online applications (24 %). With regard to eligibility factors, no clear pattern emerges, although they remain the main barrier to completing transactions, especially among people with technical or vocational tertiary (31 %).

This shows that limitations in digitization are due to both supply and demand factors and highlights the need to train the population in the use of digital media, as well as to offer adequate web portals that make it possible to manage transactions. Similarly, although not as significant a factor within the population (16 % for the region), barriers to online access—such as the lack of internet at home or the lack of technological devices—are also obstacles that must be addressed. It is therefore crucial to provide citizens with the means to carry out digital government transactions more easily. Finally, it is a priority to reduce the barriers so that people with the necessary digital skills can carry out their transactions and access services virtually on websites or online applications via their devices.

This chapter presents evidence of a worrying trend: people in vulnerable situations are much less likely to use digital public services. However, digitization can also expand access to services, even for populations that, in aggregate statistics, appear to face significant obstacles. Three cases from Brazil, described in Box 2.3, illustrate this phenomenon.

Box 2.3. Brazil: Three examples of expanding access to social services through digitization

Sometimes digitization can help expand access to services, even when the user populations have difficulty taking advantage of the digital channel. This has been the case in three examples from Brazil's social sector: Meu INSS, the Digital Work and Social Security Card, and Digital Unemployment Insurance.

Meu INSS

Meu INSS is a platform launched in 2016 by Brazil's National Social Security Institute (INSS, by its Portuguese acronym) to facilitate citizens' access to social security services and benefits. The service transitioned from a model based on in-person assistance, physical paper processes, and offices distributed across different regions of the country to a system that allows users to request around 100 services entirely digitally.

One of the main challenges for *Meu INSS* was to communicate effectively with citizens, providing information about services in clear language, without users having to go in person to agencies or contact a call center that did not receive cell phone calls. The arrival of the COVID-19 pandemic exacerbated this challenge by forcing the closure of INSS agencies, which required innovation in how to ensure that people could access the necessary information without leaving their homes or exposing themselves to risk.

In response to this need, in 2020, a virtual assistant called Helô was added to Meu INSS. *Helô* is a chatbot designed to answer questions and guide users in using the platform. *Helô* emerged as a solution to the difficulties users faced when navigating the platform, allowing the service to be maintained during the period of social isolation. In May 2020, the chatbot received around 670,000 queries. In July 2023, *Helô* was updated to interpret natural language through free-form writing, directing users directly to the topic of their interest. Thanks to an artificial intelligence tool, the bot learns from interactions with users and from the integrated knowledge base, providing personalized responses for each situation. This improvement has allowed a greater number of people, who previously encountered technological or communication barriers, to interact effectively with government systems.

Meu INSS handles more than 45,000 service requests every day. In September 2022, 54.8 % of requests were made through the digital platform, 20.9 % by telephone, and 24.3 % in person. In addition, between March 2022 and February 2023, the INSS ranked third among the best-evaluated public agencies out of a total of 61 institutions.

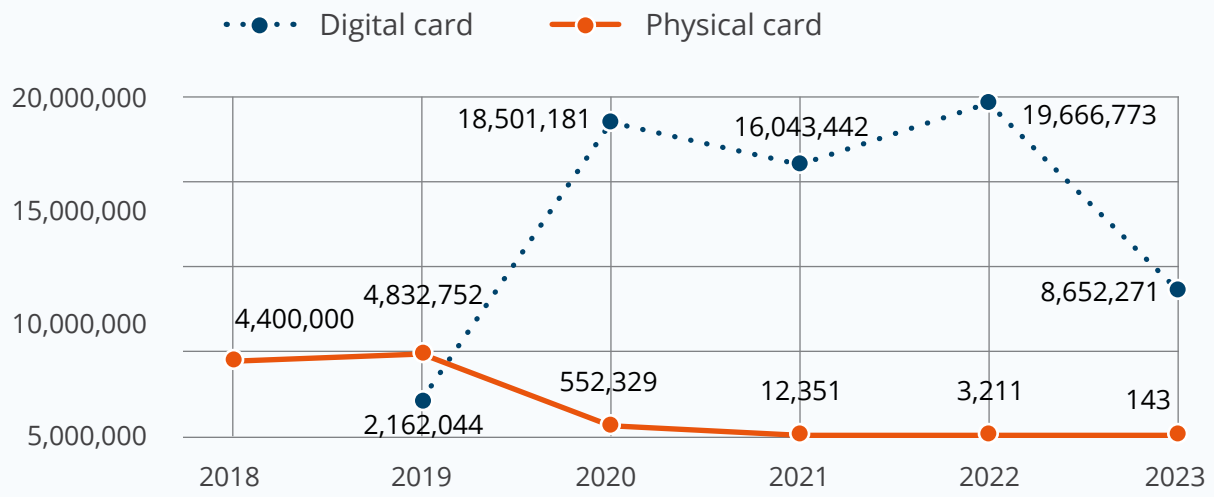
Digital Work and Social Security Card

The Work and Social Security Card is a document that records the working life of workers in Brazil, guaranteeing their access to fundamental labor rights. Until 2019, obtaining this card required workers to schedule an appointment and go in person to a service center, which could take up to 15 days and often involved traveling between municipalities, resulting in lost income due to the time spent on these government transactions. In addition, if the card was lost, all the vital information it contained was also lost.

In 2019, Brazil modernized this process by digitizing and automating access to the document for Brazilian citizens and foreigners registered in the Individual Taxpayer Registry (CPF by its Portuguese acronym). Now, the card can be obtained through a mobile app, using the CPF number as identification and a password created by the user. Along with the digitization of the Work and Social Security Card, eSocial was introduced, a platform designed to facilitate the exchange of information between employers and the government. Each time a hire is made, the employer must register the employee in eSocial using their CPF number, which automatically updates the worker's Work and Social Security Card.

The digitization of the card has not only increased the number of documents issued (Figure R2.1) but has also improved access for those living in remote areas and low-income groups. One of the groups that has benefited most from the Digital Work and Social Security Card is domestic workers, who are now required to have their records included on the eSocial platform. In addition, the digital card allows workers to access their contractual information more easily, facilitating the monitoring of their employers' obligations.

Figure R2.1. Number of applications for Digital Work and Social Security Cards, by application channel



Note: authors' elaboration based on data from the Brazilian Ministry of Labor and Employment.

Digital Unemployment Insurance

Since 2018, workers dismissed without just cause can apply for unemployment insurance digitally through the Gov.br portal or the *Carteira* de *Trabalho Digital* mobile app, receiving immediate notification of the outcome of their application. This transformation has enabled a shift from an in-person service model to a fully digital process that covers everything from the initial application to case follow-up and benefit payments, eliminating the need for citizens to visit service centers in person.

The digitization of unemployment insurance has been especially beneficial for residents of northern Brazil, who before this reform had to travel to other municipalities and even take river trips that could last more than a day. The digital channel has achieved high adoption rates: in 2019, only 1 % of applications were made digitally, but this percentage increased significantly in the following years, reaching 56.9 % in 2020, 68 % in 2021, and 75.6 % in July 2023.

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Chapter 3

How equitable has the use of digital public services been?

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Summary

To use digital services effectively, citizens must meet a series of preconditions: they must have access to appropriate devices (mobile phone, tablet, or computer) and an internet connection (resources), possess the digital skills to use the platforms (*skills*), be aware of the availability and functionality of online public services (*awareness)*, and prefer digital government transactions over in-person options (*willingness*). This chapter analyzes the extent to which citizens in the region meet these prerequisites and how the degree of compliance varies by individual characteristics. The analysis reveals significant gaps in almost all dimensions observed in Chapter 2 (by educational level, age, racial and ethnic self-identification, place of residence, and disability status, with only slight differences by sex), suggesting that differences on the demand side largely explain the heterogeneity observed in the usage levels of digital services.

The previous chapter explored how the digitization of public services can transform the relationship between citizens and the government by offering shorter transaction times and reducing the indirect costs associated with completing government transactions. The findings indicate that these benefits have not reached all populations equally. This situation suggests that there are limiting factors both on the **demand** side—elements that citizens may lack to access and adopt these services—and on the **supply** side—related to the availability and accessibility of digital public services.

This chapter focuses on demand-related factors. To this end, a conceptual framework based on four dimensions necessary for the use of digital public services is proposed: resources, skills, awareness, and willingness.

Resources

This dimension refers to the availability of infrastructure and technological resources to access digital services. It includes:

- **Internet connectivity:** stable, high-quality access to digital networks.
- **Electronic devices:** computers, smartphones, or tablets with the ability to connect to the internet.

Section 3.1 addresses the question: *Do people have the technological resources necessary to access and use digital public services?*

Skills

This dimension focuses on the skills required to use electronic devices, connect to the internet, and interact with digital platforms. This dimension includes:

- **Frequency of use:** regular use of electronic devices facilitates the development of digital skills.
- **Functional capacity:** skills to perform tasks such as searching for information on the internet or uploading documents.

Section 3.2 analyzes the question: *Can people use technological resources in a functional way?*

Awareness

This dimension addresses knowledge of the existence and functionality of digital services, including:

- **Available information:** knowing that a digital alternative exists for carrying out government transactions.
- **Navigation skills:** understanding how to access and use government platforms.

Section 3.3 answers the question: *Do people know that the public service is available online and how to complete it?*

Willingness

This refers to the willingness or preference to use the digital channel rather than other channels. This depends on:

- **Perceived value:** considering the digital channel to be more efficient or convenient.
- **Confidence in results:** feeling that the digital channel offers results equivalent to those obtained in person.

Section 3.4 explores the question: *Do people want to use the digital channel?*

It is important to note that the dimensions do not work sequentially but rather have a dynamic and multidirectional relationship. For example, lack of internet connectivity may limit a person's ability to learn about available digital services. Similarly, low digital skills may reduce interest or willingness to use online services. On the other hand, a lack of interest in exploring digital options can also hinder the development of digital skills. All these interrelationships imply that the absence of any single dimension can trigger a vicious circle that perpetuates exclusion.

3.1
Resources: Do people have the technological resources necessary to access and use digital public services?

As mentioned above, one of the necessary conditions for accessing digital public services is having the necessary technological resources. Next, we analyze how connectivity and access to digital devices in the region are related to differentiated use of the digital channel for carrying out government transactions.

Internet Connectivity

Users of digital public services have better access to the internet, both in terms of connectivity and quality of service. Among users of the digital and hybrid channel, 98 % accessed the internet in the last three months, compared to 88 % of those who carried out government transactions in person. The difference is more pronounced in access to home Wi-Fi, which offers a more stable connection than mobile internet. 77 % of digital users and 78 % of hybrid users have Wi-Fi at home, compared to 64 % of those who carry out transactions in person and 64 % of those who did not complete any transaction. Although mobile internet use is similar among all groups that carried out government transactions (between 43 % and 47 %), there are significant differences in data plan capacity.

In the last three months, 49 % of users of the in-person channel and 48 % of those who did not carry out government transactions exhausted their mobile data plans, compared to only 38 % of users of the hybrid channel and 30 % of digital channel users.

Figure 3.1. Type of internet access at home, by channel used to complete the last government transaction

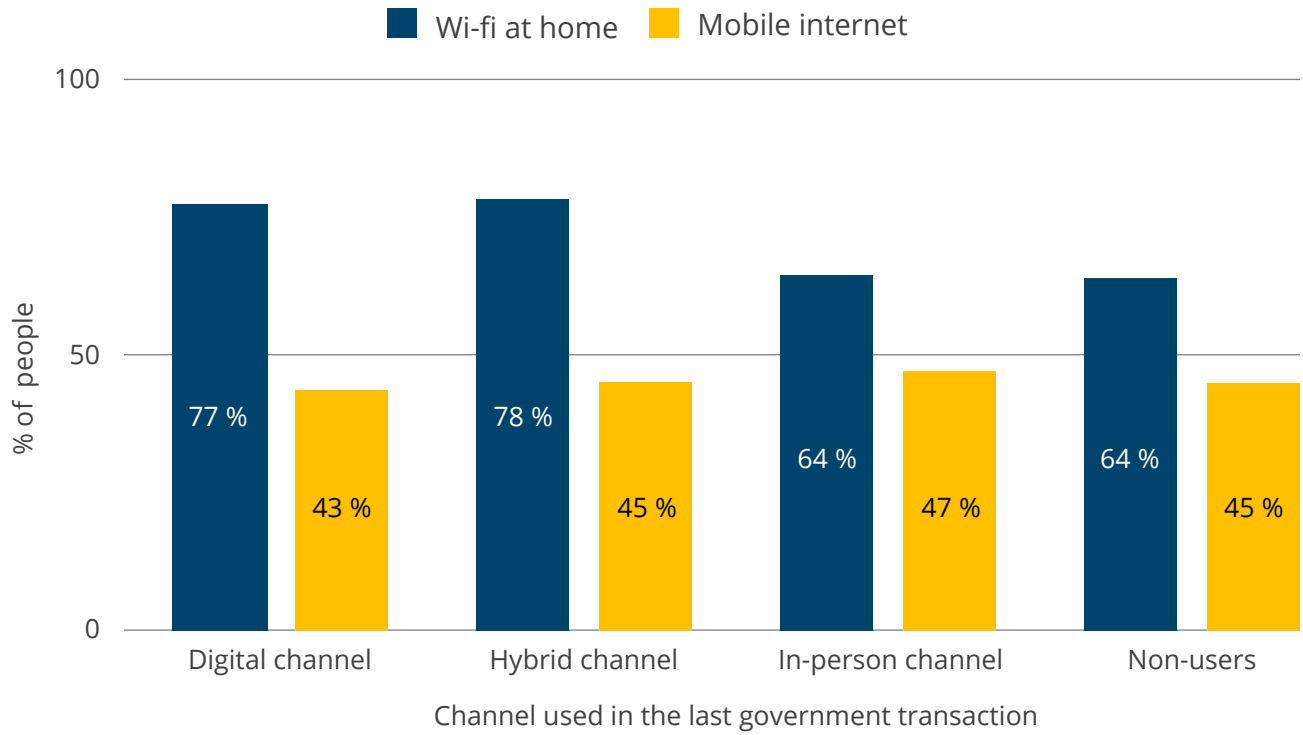


Table 3.1. Type of internet access at home, by channel used to complete the last government transaction

Channel used for the last government transaction	Percentage of people with Wi-Fi at home	Percentage of people with mobile internet at home
Digital channel	77 %	43 %
Hybrid channel	78 %	45 %
In-person channel	64 %	47 %
Non-users	64 %	45 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

Internet access and quality vary significantly across population groups, with notable gaps by age, disability status, educational level, racial and ethnic self-identification, and place of residence.

Figure 3.2. Internet use in the last three months, by demographic group

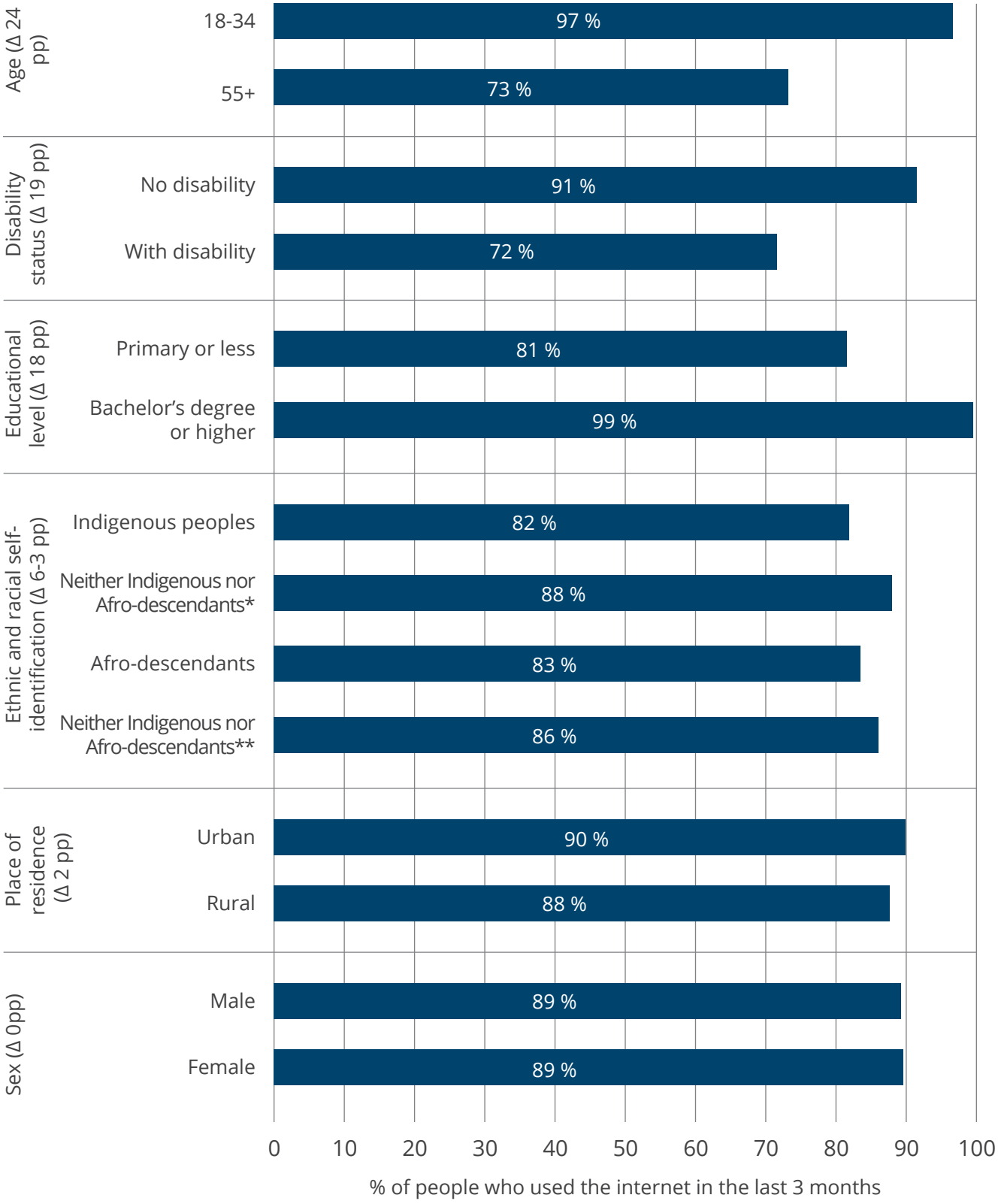


Table 3.2. Internet use in the last three months, by demographic group

Demographic group	% of people who have used the internet in the last 3 months
Age (Δ 24 pp)	
18-34	97 %
55+	73 %
Disability status (Δ 19 pp)	
No disability	91 %
With disability	72 %
Educational level (Δ 18 pp)	
Primary or less	81 %
Bachelor's degree or higher	99 %
Racial and ethnic self-identification (Δ 6-3 pp)	
Indigenous peoples	82 %
Neither Indigenous nor Afro-descendant*	88 %
Afro-descendants	83 %
Neither Indigenous nor Afro-descendant**	86 %
Place of residence (Δ 2 pp)	
Urban	90 %
Rural	88 %
Sex (Δ 0pp)	
Male	89 %
Female	89 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: Country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analyses (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Figure 3.3. People with Wi-Fi at home, by demographic group

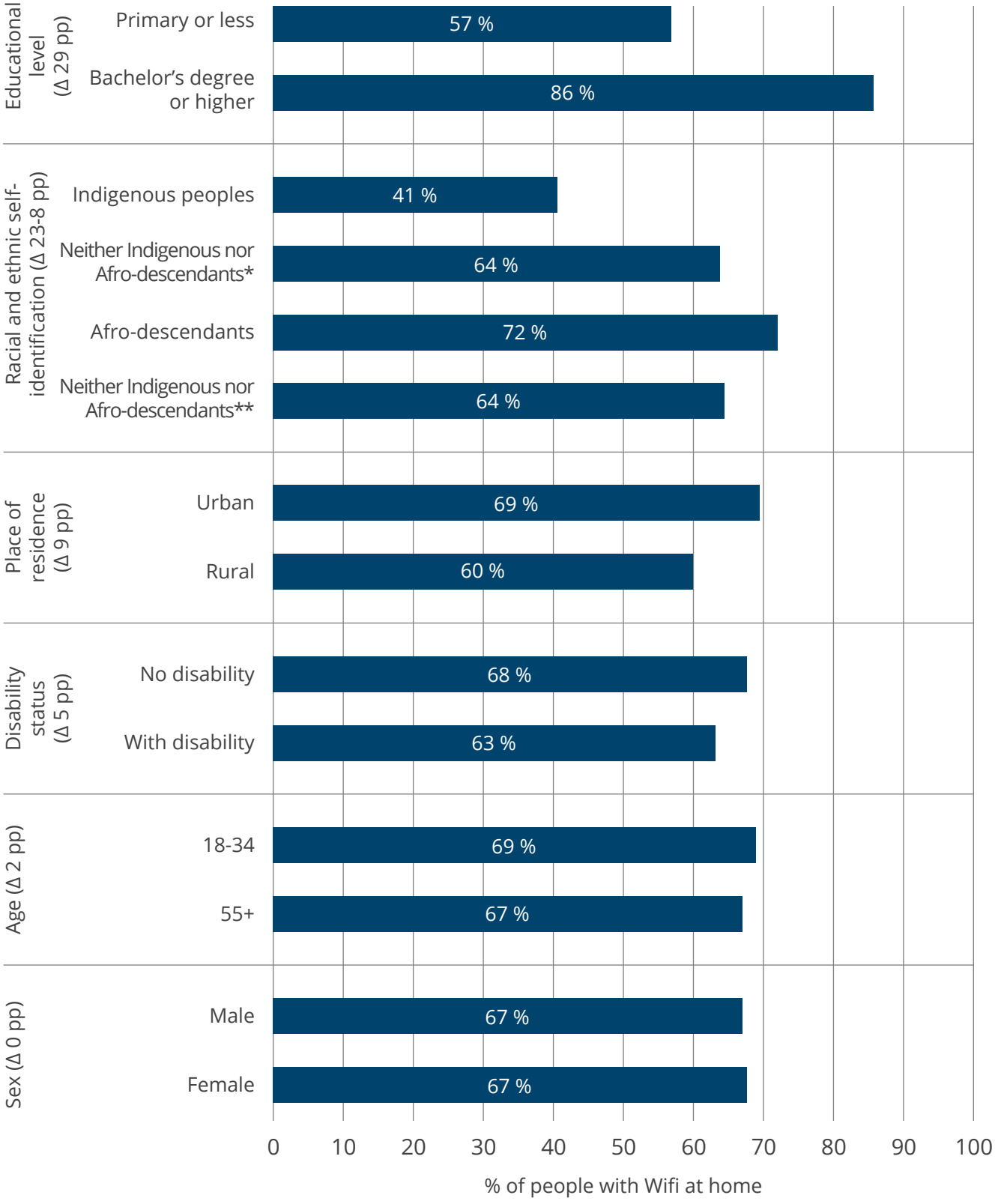


Table 3.3. People with Wi-Fi at home, by demographic group

Demographic group	% of people with Wi-Fi at home
Educational level (Δ 29 pp)	
Primary or less	57 %
Bachelor's degree or higher	86 %
Racial and ethnic self-identification (Δ 23-8 pp)	
Indigenous peoples	41 %
Neither Indigenous nor Afro-descendant*	64 %
Afro-descendants	72 %
Neither Indigenous nor Afro-descendant **	64 %
Place of residence (Δ 9 pp)	
Urban	69 %
Rural	60 %
Disability status (Δ 5 pp)	
No disability	68 %
With disability	63 %
Age (Δ 2 pp)	
18-34	69 %
55+	67 %
Sex (Δ 0 pp)	
Male	67 %
Female	67 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay, the weights do not take into account place of residence. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Generational gaps: the largest gap in internet use

The gap in internet use illustrates the generational digital divide: almost all young people aged 18 to 34 (97 %) have used it recently, while only three out of four people aged 55 and over (73 %) have done so, marking a gap of 24 percentage points (pp). However, this difference does not seem to be due to unequal access to Wi-Fi at home. The gap in this regard is minimal, at just 2 pp (69 % among

young people compared to 67 % among older people) (see Figure 3.3). It could be related to greater access to mobile internet among young people: 46 % of people aged 18 to 34 and 48 % of those aged 35 to 54 have a mobile data plan, compared to 41 % of those over 55.

Gaps by educational level: most evident in access to wi-fi and mobile internet

While almost all (99 %) of those with a bachelors' degree or higher education used the internet in the last three months, 81 % of those with primary or less education did so, marking a gap of 18 pp. This inequality is even more pronounced in access to quality internet: only 57 % of people with primary education or less have Wi-Fi at home, compared to 86 % of those with a bachelors' degree or higher, a gap of 29 pp. This inequality is a regional phenomenon, although its intensity varies significantly between countries. Peru has the largest gap in Wi-Fi access (51 pp), followed by Colombia (45 pp) and Guatemala (41 pp). In contrast, Trinidad and Tobago (7 pp), Brazil (16 pp), and Paraguay (25 pp) have less pronounced differences (see Figure 3.4). Although people with lower levels of education partially compensate with slightly greater access to mobile internet (47 % compared to 43 % of people with a bachelor's degree or higher), they face more limitations in its use: 54 % have exhausted their data plans in the last three months, more than double of the percentage for people with a bachelors' degree or higher (24 %), marking the widest gap in mobile connection quality among all demographic groups analyzed.

Figure 3.4. People with Wi-Fi at home, by country and educational level

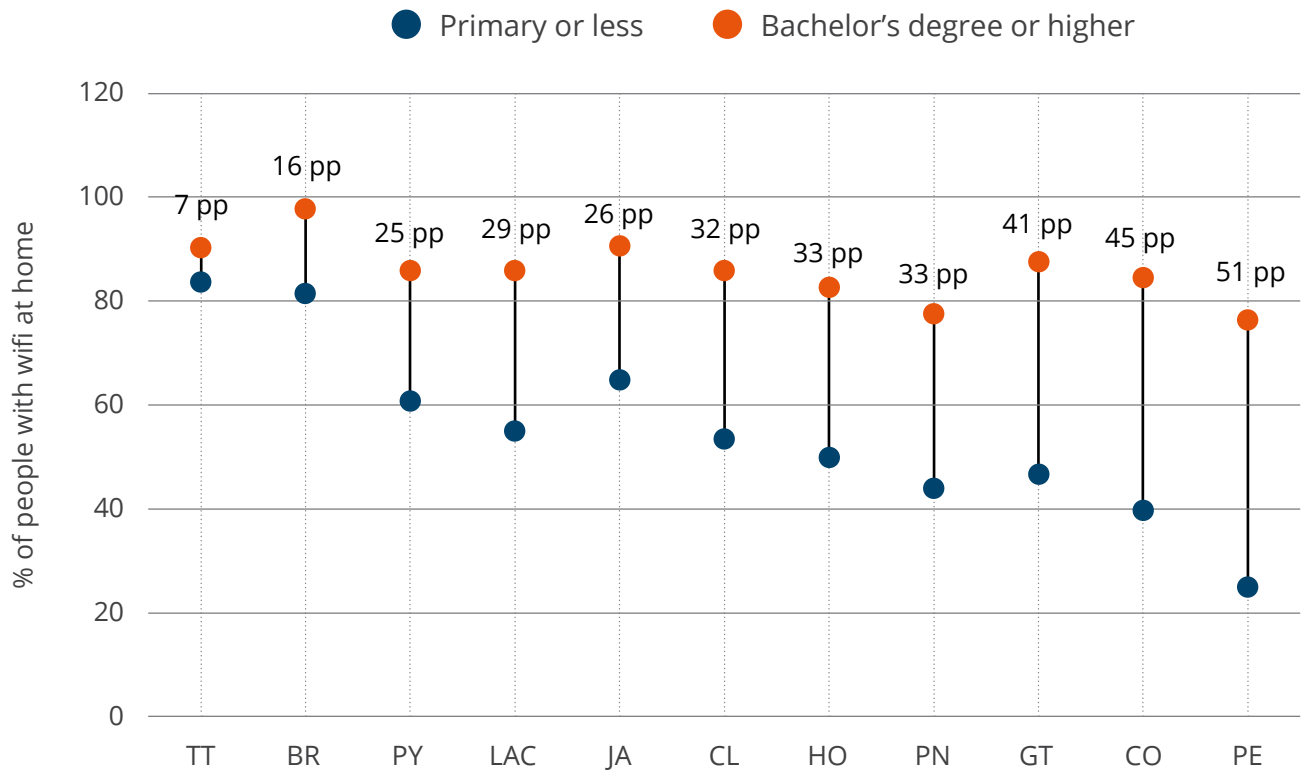


Table 3.4. Percentage of people with Wi-Fi at home, by country and educational level

Country	Primary or less	Bachelor's degree or higher	Gap
Trinidad and Tobago (TT)	84 %	90 %	7 pp
Brazil (BR)	82 %	98 %	16 pp
Paraguay (PY)	61 %	86 %	25 pp
Latin America and the Caribbean (LAC)	57 %	86 %	29 pp
Jamaica (JA)	65 %	91 %	26 pp
Chile (CL)	54 %	86 %	32 pp
Honduras (HO)	50 %	83 %	33 pp
Panama (PN)	44 %	77 %	33 pp
Guatemala (GT)	47 %	88 %	41 pp
Colombia (CO)	40 %	85 %	45 pp
Peru (PE)	25 %	76 %	51 pp

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay, the weights do not take into account place of residence.

Gaps by disability status

People with disabilities also face significant gaps in internet access and use. Only 72 % have used the internet in the last three months, compared to 91 % of people without disabilities, representing a gap of 19 pp. In terms of Wi-Fi access at home, the difference is smaller but persistent: 63 % of people with disabilities have this service, compared to 68 % of those without disabilities. While mobile internet access is similar between both groups (44 % and 46 %, respectively), people with disabilities face greater limitations in its use: 55 % report having reached their data plan limit in the last three months, compared to 44 % of people without disabilities.

Gaps by racial and ethnic self-identification

Gaps by racial and ethnic self-identification reveal complex patterns. In general internet use, the differences are moderate: 82 % of the Indigenous population and 83 % of the Afro-descendant population have used the internet recently, compared to 89 % of the non-Indigenous and non-Afro-descendant population. However, inequalities are more pronounced in access to quality internet: only 41 % of Indigenous people have Wi-Fi at home, a significantly lower proportion compared to the 72 % of the Afro-descendant population and 68 % of those who do not identify with any ethnic group. While the Indigenous population partially compensates for this gap with greater access to mobile internet (61 %, compared to 46 % of Afro-descendants and 44 % of those who do not identify with any ethnic group), they are also the ones who most frequently face limitations: 55 % report having exhausted their data plan, compared to 43 % of other groups.

These gaps vary considerably between countries: Paraguay shows the largest difference (60 pp), where the Indigenous population is 60 pp less likely to have Wi-Fi at home than the neither Indigenous nor Afro-descendant population, followed by Guatemala and Panama. The situation of the Afro-descendant population is more heterogeneous: in countries such as Chile and Panama, they are more likely to have Wi-Fi than other groups, while in Brazil the difference is not significant, and in Peru and Colombia they are disadvantaged in terms of access (see Figure 3.5).

Figure 3.5. Home Wi-Fi access, by country and racial and ethnic self-identification

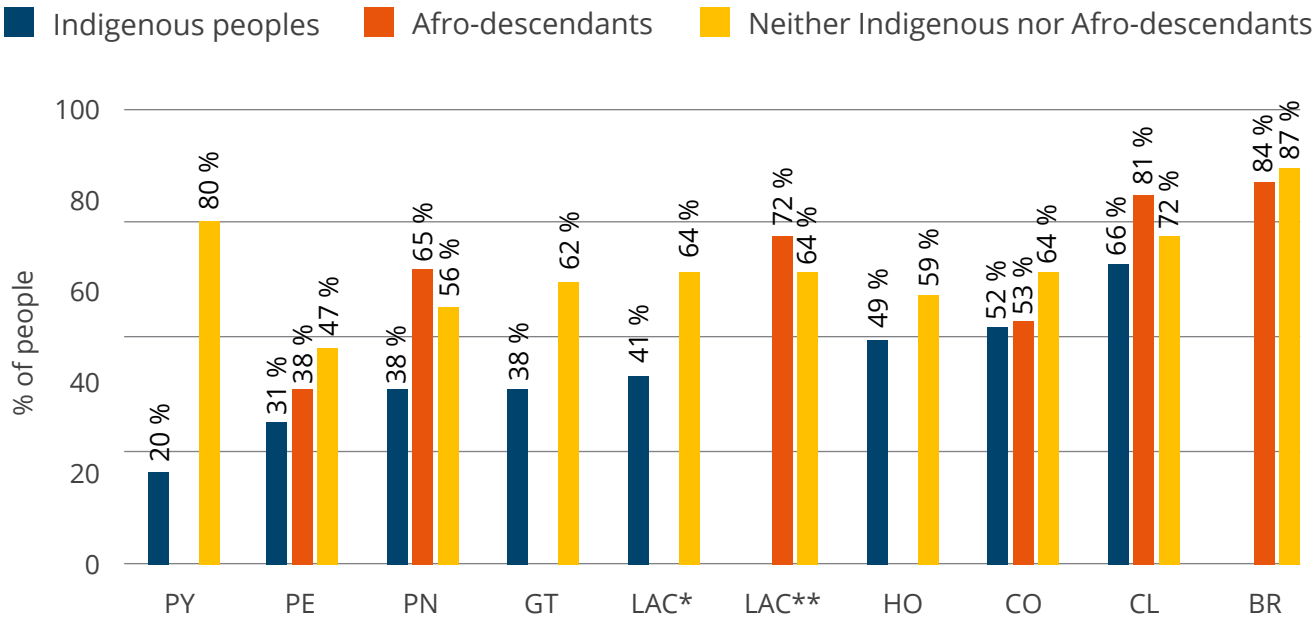


Table 3.5. Home Wi-Fi access, by country and racial and ethnic self-identification

Country	Indigenous peoples	Afro-descendants	Neither Indigenous nor Afro-descendant
Paraguay (PY)	20 %	-	80 %
Peru (PE)	31 %	38 %	47 %
Panama (PN)	38 %	65 %	56 %
Guatemala (GT)	38 %	-	62 %
Latin America and the Caribbean (LAC)*	41 %	-	64 %
Latin America and the Caribbean (LAC)**	-	72 %	64 %
Honduras (HO)	49 %	-	59 %
Colombia (CO)	52 %	53 %	64 %
Chile (CL)	66 %	81 %	72 %
Brazil (BR)	-	84 %	87 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average for the Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average for Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Gaps by place of residence

The gap in internet access between urban and rural areas is not as pronounced as that observed in other demographic groups analyzed. The difference in internet access is moderate, with a gap of only 2 pp in favor of urban areas (90 % vs. 88 %) (see Figure 3.2). However, disparities are accentuated when considering service quality and stability. A clear example is Wi-Fi access at home: while 69 % of the urban population has this service, only 60 % of rural households do, representing a gap of 9 pp (see Figure 3.3). In terms of mobile internet access, the rates are practically identical between the two places of residence (46 % in urban areas and 47 % in rural areas), but service continuity varies significantly. A total of 52 % of rural users report having exhausted their data plan limit, compared to 42 % of urban users.

Gaps by sex

The digital gap by sex is the least pronounced among all the groups analyzed: 89 % of men and women report having used the internet in the last three months. Home Wi-Fi access is also the same: 67 % of men and women have this service. A greater difference is observed in mobile internet access, where men have a 4 pp advantage (48 % vs. 44 %). It is also observed that women with mobile internet face more limitations in its use: 47 % report having exhausted their data plan limit, compared to 43 % of men. These data suggest that, although basic access is practically equal between men and women, small differences persist in the quality of the mobile service they use.

Correlation between internet access gaps and use of digital public services

Given the observed trends and the digital users profile presented in Chapter 2, access to quality internet contributes to the unequal use of digital public services. Figure 3.6 shows a positive correlation between the percentage of people with Wi-Fi access at home and those who carried out their last transaction on-line. Groups with less access to internet—such as Indigenous peoples, rural residents, individuals with primary education or less, and people with disabilities—show the lowest levels of digital public service use. In contrast, groups with higher access to Wi-Fi at home, such as those with technical or vocational or bachelors' degree or higher, have significantly higher percentages of digital transaction use.

Figure 3.6. Correlation between digital access to public services and Wi-Fi access at home

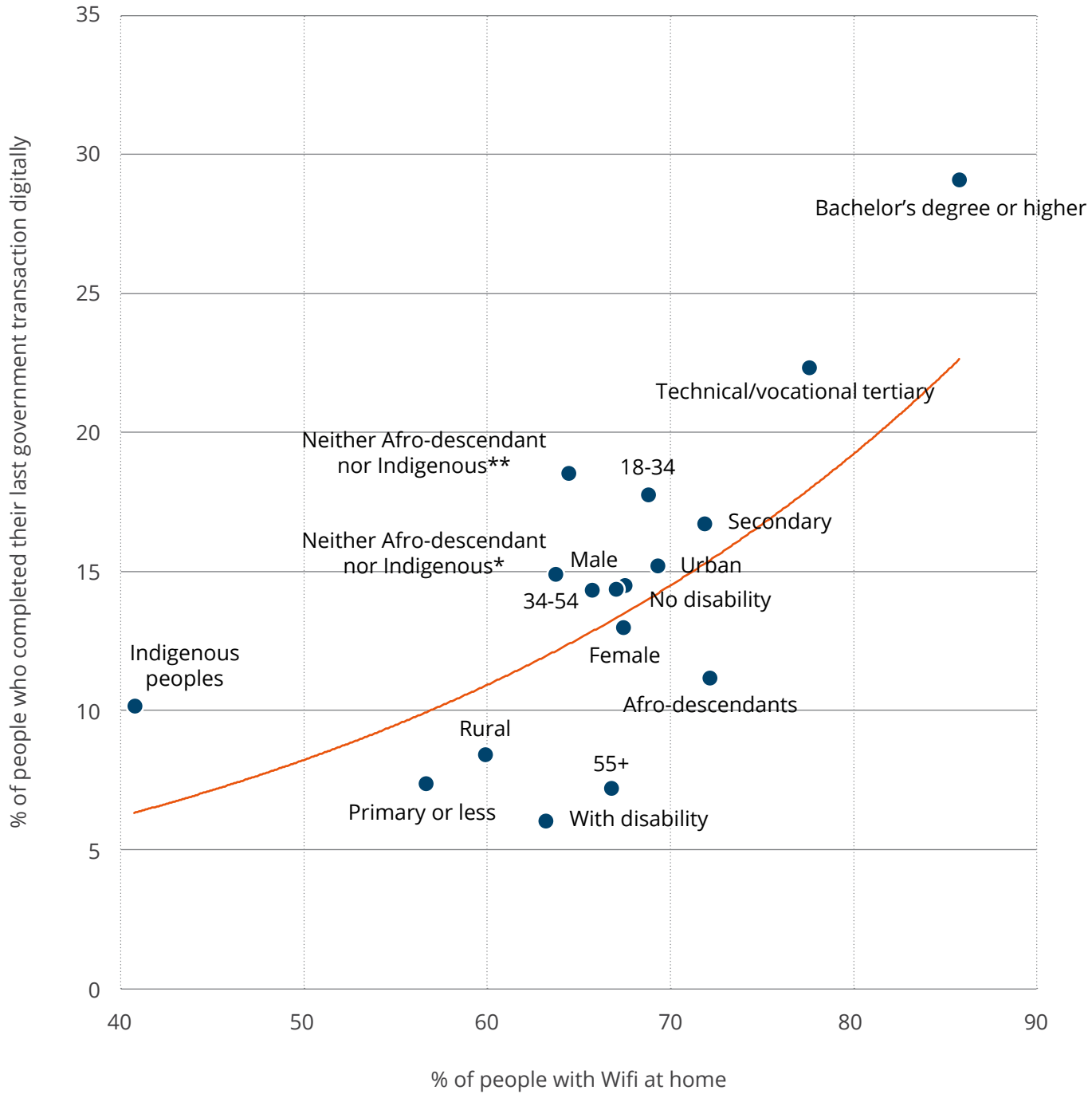


Table 3.6. Correlation between digital access to public services and home Wi-Fi access

Demographic group	% of people with Wi-Fi at home	% of people who completed their last transaction online
Educational level		
Primary or less	57 %	7 %
Secondary	72 %	17 %
Technical/vocational	78 %	22 %
Bachelor's degree or higher	86 %	29 %
Age		
18-34	69 %	18 %
35-54	66 %	14 %
55+	67 %	7 %
Racial and ethnic self-identification		
Indigenous peoples	41 %	10 %
Neither Indigenous nor Afro-descendant*	64 %	15 %
Afro-descendants	72 %	11 %
Neither Indigenous nor Afro-descendant**	64 %	19 %
Disability status		
No disability	68 %	15 %
With disability	63 %	6 %
Place of residence		
Urban	69 %	15 %
Rural	60 %	8 %
Sex		
Male	67 %	14 %
Female	67 %	13 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. Each point on the graph represents the statistic for each axis for the respective demographic group. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Based on these observations, the question arises as to whether other technological factors, such as the availability of electronic devices, also influence inequalities in access to and use of digital public services. The following section will explore how access to these devices contributes to these dynamics.

Access to electronic devices

Access to electronic devices with an internet connection is essential for interacting with digital public services. This is evident in Figure 3.7, which shows that those who carried out their last transaction partially or totally through digital channels have more access to mobile phones (a gap of up to 14 pp), computers (up to 34 pp), or tablets (up to 21 pp).

Computers play a particularly important role, as many government websites are optimized for use on these devices, offering a more fluid and accessible experience. In this context, it is concerning for the transition to the digitization of public services that only one in four people who completed their last government transaction in person reported having a computer at home, compared to one in two for those who completed the transaction partially or fully online (see Figure 3.7).

Figure 3.7. Electronic devices in the home, by channel used for the last transaction

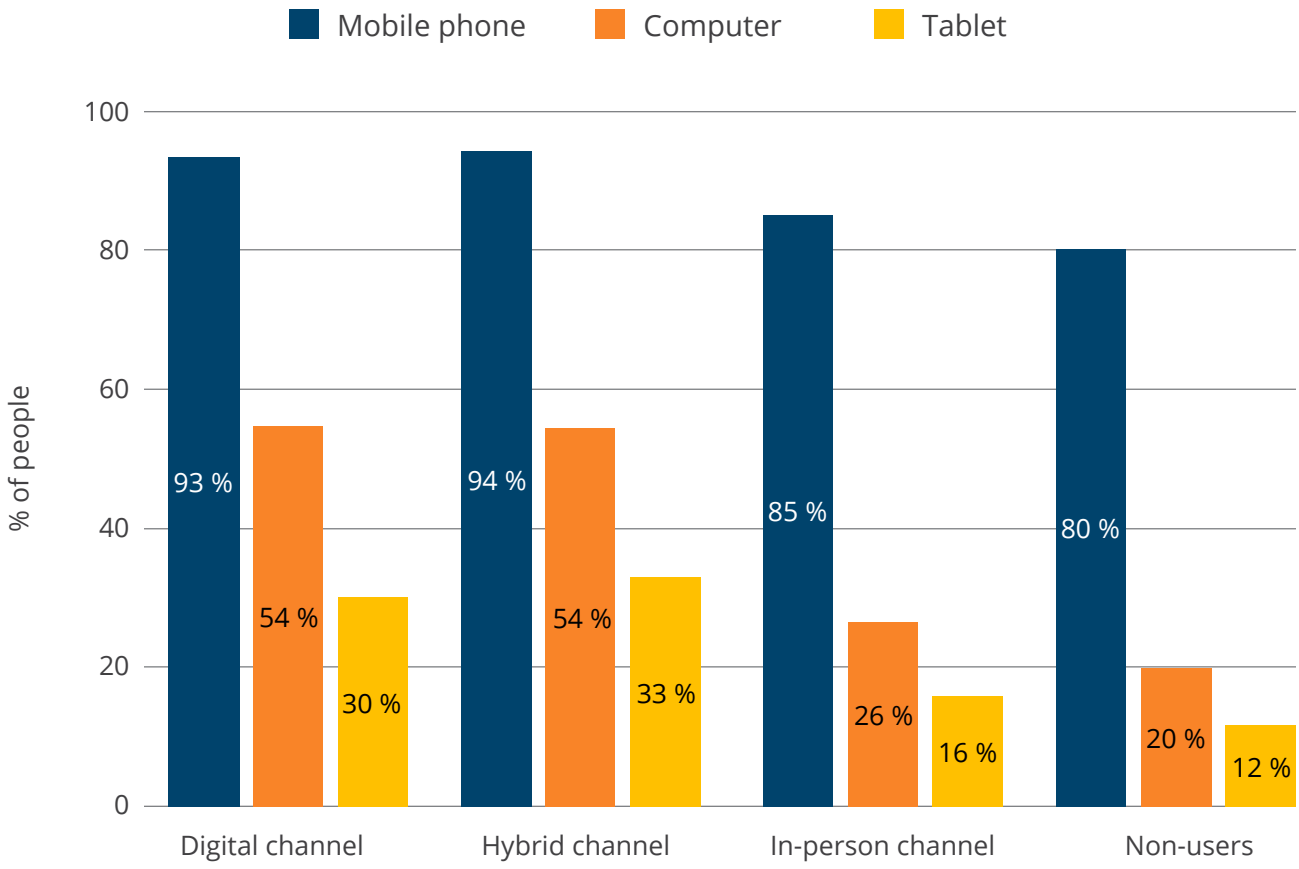


Table 3.7. Electronic devices in the home, by type of public service user

Channel used for the last transaction	Mobile phone	Computer	Tablet
Digital channel	93 %	54 %	30 %
Hybrid channel	85 %	26 %	16 %
In-person channel	94 %	54 %	33 %
Non-users	80 %	20 %	12 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

The rest of this section will analyze whether access to electronic devices has contributed to the low adoption of digital public services among certain population groups.

Gaps by educational level: the widest gaps in access to electronic devices

Only 15 % of people with primary education or less have access to a computer, compared to 74 % of those with technical or vocational education, representing a gap of 59 percentage points (see Figure 3.8). Although access to smartphones is more equitable, there is still a significant difference between those with primary education or less (77 %) and those with higher education (95 %). Access to tablets is also unequal, with only 10 % among those with primary education or less having access to them, compared to 36 % at the level of bachelors' degree or higher.

Figure 3.8. Gaps in ownership of a computer at home, by population group

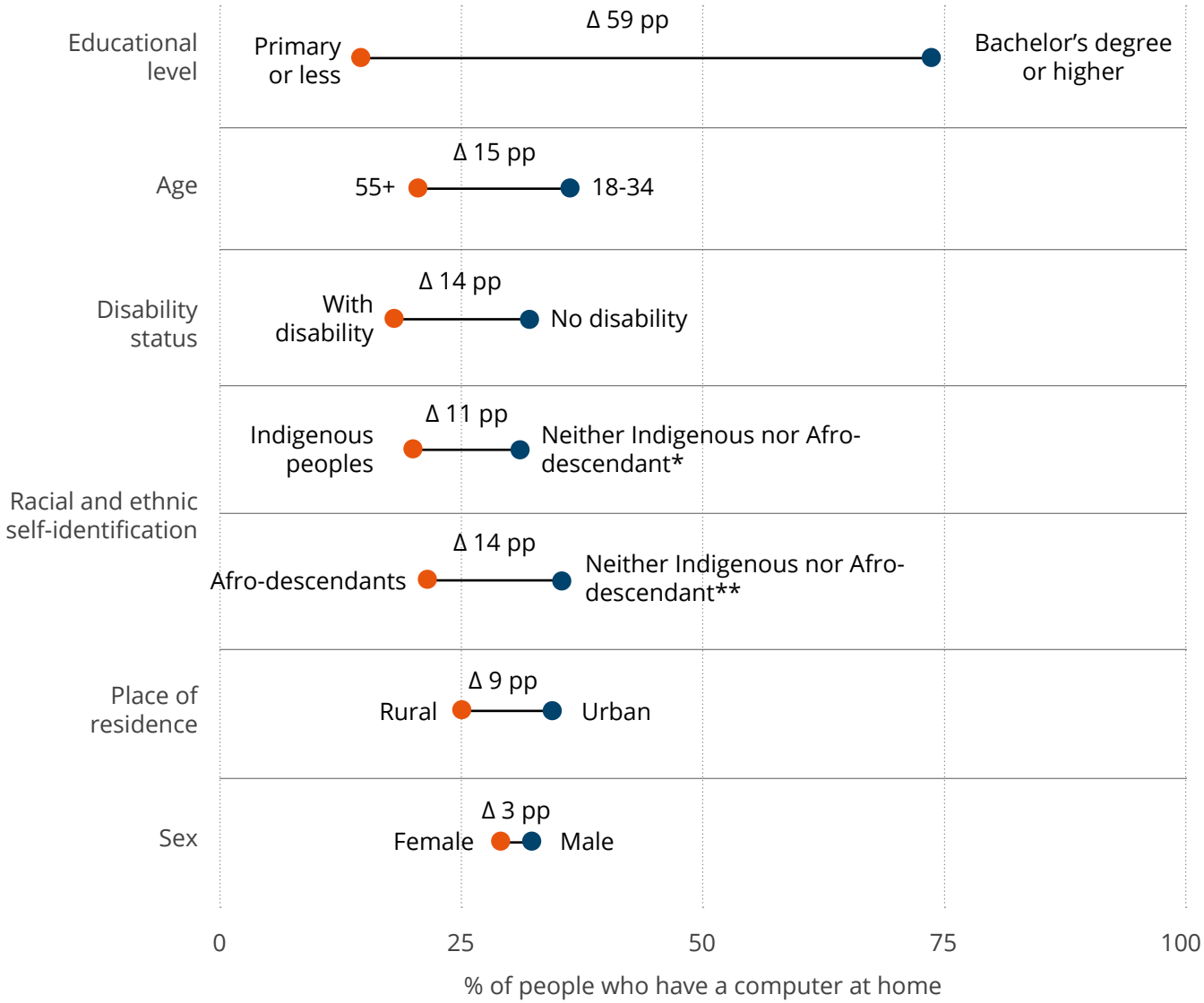


Table 3.8. Gaps in ownership of a computer at home, by demographic group

Demographic group	% of people with a computer at home	Gap
Educational level		
Primary or less	15 %	Δ 59 pp
Bachelor's degree or higher	74 %	
Age		
18-34	36 %	Δ 15 pp
55+	21 %	
Disability status		
No disability	32 %	Δ 14 pp
With disability	18 %	
Racial and ethnic self-identification		
Indigenous peoples	20 %	Δ 11 pp
Neither Indigenous nor Afro-descendant*	31 %	
Afro-descendants	22 %	Δ 14 pp
Neither Indigenous nor Afro-descendant**	36 %	
Place of residence		
Urban	34 %	Δ 9 pp
Rural	25 %	
Sex		
Male	32 %	Δ 3 pp
Female	29 %	

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average of Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average of the Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

There are significant differences between countries in terms of educational level gaps related to ownership of a computer at home. Colombia, Peru, and Brazil have the largest disparities, with gaps ranging from 61 to 74 pp between those with a bachelors' degree or higher and those with primary education or less. At the other end of the spectrum, although with still significant gaps, are Trinidad and Tobago, Panama, and Paraguay, where the differences range from 39 to 53 pp (see Figure 3.9).

Figure 3.9. Ownership of a computer at home, by educational level and country[9]

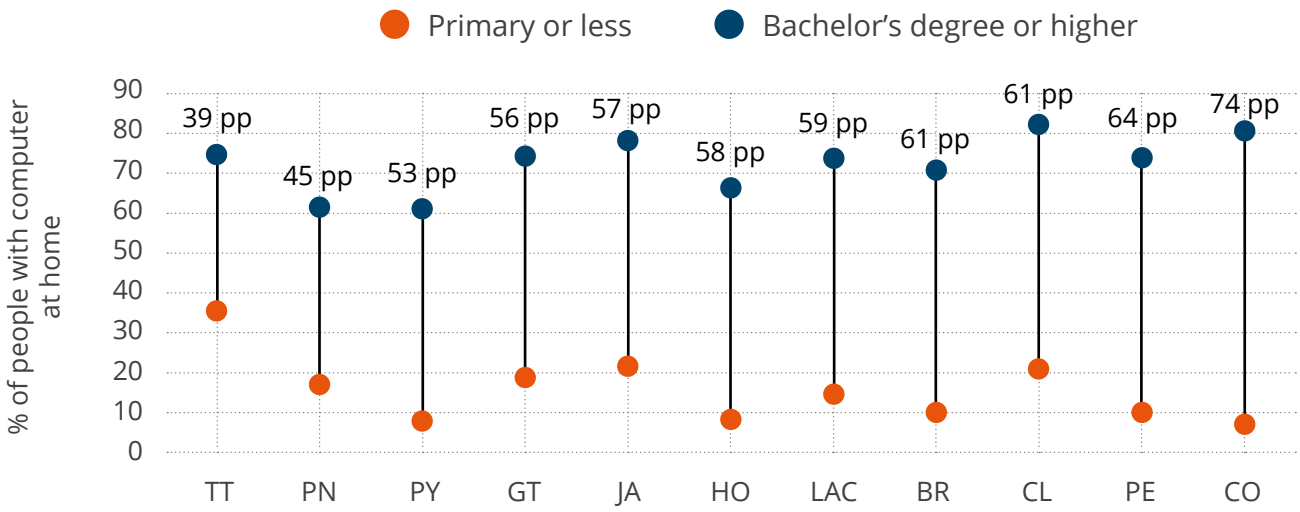


Table 3.9. Ownership of a computer at home, by educational level and country

Country	Primary or less	Bachelor's degree or higher	Gap
TT	35 %	75 %	39 pp
PN	17 %	62 %	45 pp
PY	8 %	61 %	53 pp
GT	19 %	74 %	56 pp
JA	22 %	78 %	57 pp
HO	8 %	66 %	58 pp
LAC	15 %	74 %	59 pp
BR	10 %	71 %	61 pp
CL	21 %	82 %	61 pp
PE	10 %	74 %	64 pp
CO	7 %	81 %	74 pp

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take population distribution by sex, age categories, educational level, and place of residence (urban/rural) into account. In the case of Paraguay and Uruguay, the weights do not take place of residence into account.

9 The figures for Brazil differ from those presented in Bergues and Lafuente (2025) for the following reasons: (i) in this document, statistics are calculated using regional weightings, as indicated in the footnotes; and (ii) the educational levels presented were defined differently in both studies; the definition used in this study allows for comparison at the regional level.

Gaps by age groups

Although smaller than the disparity observed by educational level, generational differences in access to devices remain significant. The younger population (18-34 years of age) shows a 15 pp advantage in the availability of computers at home (36 % compared to 21 % of people aged 55+). In terms of mobile phone ownership, the difference is even more pronounced: 9 out of 10 people aged 18 to 34 have a mobile phone, compared to 7 out of 10 in the 55 years or older age group. Similarly, the gap in tablet ownership reaches 11 pp, again favoring the younger population.

Gaps by disability status

The differences in access to electronic devices between people with and without disabilities are notable. Those without disabilities have greater access to computers at home, with a difference of 14 pp compared to those with disabilities (32 % versus 18 %, respectively). In the case of smartphones, the gap is even more pronounced: while 87 % of the population without disabilities has one, this percentage drops to 71 % among people with disabilities. A similar trend is observed in tablet ownership, where the difference reaches 8 pp (19 % vs. 11 %).

Gaps by racial and ethnic self-identification

Access to electronic devices also varies significantly according to racial and ethnic self-identification. Indigenous people face a significant disadvantage in terms of ownership of a computer at home, with a difference of 11 pp compared to the non-Indigenous and non-Afro-descendant population in countries with an Indigenous population (20 % vs. 31 %, respectively). Although smartphone ownership is high in both groups, there is an 11 pp gap, with 74 % of the Indigenous population owning a smartphone, compared to 83 % of the non-Indigenous and non-Afro-descendant population. With respect to tablets, the difference is even greater: 9 % of Indigenous peoples own a tablet compared to 14 % of neither Afro-descendant nor Indigenous.

The gaps in access to devices for the Afro-descendant population show a different pattern. Although the Afro-descendant population has less access to computers at home (22 % compared to 36 % in the neither Afro-descendant nor Indigenous population), it has a higher rate of smartphone ownership (84 % compared to 81 %). The Afro-descendant population has lower access to tablets (10 % compared to 14 %).

Gaps by place of residence

The gap in access to electronic devices between urban and rural areas is similar to that observed by racial and ethnic self-identification, with urban populations always ahead. This gap is mainly evident in the availability of computers in the home, where urban areas exceed rural areas by 9 percentage points (34 % compared to 25 %, respectively). However, the gap narrows significantly in other technologies: smartphone penetration reaches 86 % in urban areas and 84 % in rural areas, while the presence of tablets shows a minimal difference, with 19 % in urban areas and 18 % in rural areas.

Gaps by sex

Among the demographic groups analyzed, the sex gap in access to technological devices is the least pronounced. The difference in computer ownership is minimal: 32 % for men compared to 29 % for women. In terms of smartphones, access is virtually identical, with a penetration rate of 85 % for both women and men. A similar pattern is observed in the case of tablets: 19 % of women have access to them, exceeding men's access by 1 pp (18 %).

Correlation between gaps in access to electronic devices and use of digital public services

There are wide gaps in access to devices such as computers and mobile phones in the region. Figure 3.10 shows the correlation between ownership of a computer at home and the proportion of people who completed their last government transaction digitally. The trend is clear: as access to computers increases, so does the adoption of digital channels for government transactions. The groups that are most disadvantaged in terms of access to computers, such as people with disabilities, those over 55, the rural population, and Indigenous peoples and Afro-descendants, also have lower rates of digitization in the completion of government transactions. At the other end of the spectrum, people who hold a bachelors' degree or higher have the highest rates of computer ownership at home and also make up the majority of digital channels users.

Figure 3.10. Correlation between digital access to public services and ownership of a computer at home

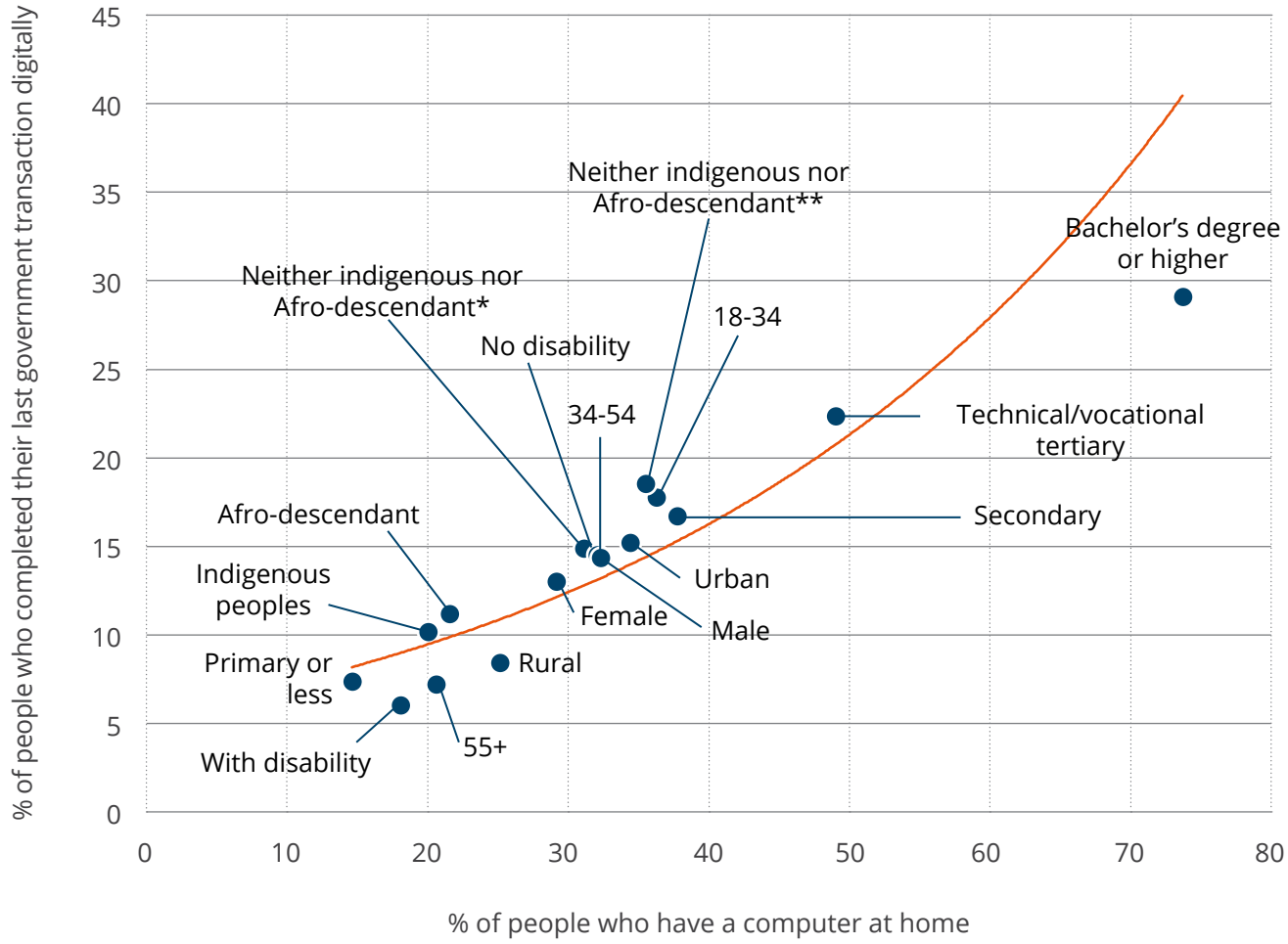


Table 3.10. Correlation between digital access to public services and ownership of a computer at home

Demographic group	% of people with a PC at home	% of people who completed their last government transaction online
Age		
18-34	36 %	18 %
35-54	32 %	14 %
55+	21 %	7 %
Educational level		
Primary or less	15 %	7 %
Secondary	38 %	17 %
Technical/vocational	49 %	22 %
Bachelor's degree or higher	74 %	29 %
Racial and ethnic self-identification		
Indigenous peoples	20 %	10 %
Neither Indigenous nor Afro-descendant*	31 %	15 %
Afro-descendants	22 %	11 %
Neither Indigenous nor Afro-descendant**	36 %	19 %
Disability status		
No disability	32 %	15 %
With disability	18 %	6 %
Sex		
Male	32 %	14 %
Female	29 %	13 %
Place of residence		
Urban	34 %	15 %
Rural	25 %	8 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

As this analysis reveals, computer ownership remains limited, especially among the most vulnerable population groups.

In contrast, mobile phone penetration in the region is significantly higher and shows smaller gaps. Given this reality, some governments have chosen to provide information and services through mobile devices. An example of this strategy is presented in Box 3.1, which describes the case of Boti, a chatbot in the City of Buenos Aires that provides information and facilitates access to public services through WhatsApp.

Finally, it is important to note that the elements analyzed in this chapter are only part of the requirements necessary for citizens to interact with digital services. There are other equally relevant factors that are not discussed in detail here, such as the ability to make online payments, which in many cases is a requirement for completing transactions. According to Findex (World Bank, 2021), financial account ownership follows similar patterns to the other analyzed dimensions: it is higher among people with higher levels of education and in urban areas, with more pronounced gaps in these groups and smaller but still significant differences by sex and place of residence.

Box 3.1. Argentina: Provision of Information and Public Services through WhatsApp

Boti, a chatbot that operates through WhatsApp, has revolutionized the relationship between the residents of the Autonomous City of Buenos Aires (CABA) and their government. Since its conception in 2012, Boti was designed with a focus on accessibility. It was initially conceived as a complement to a telephone service, with the aim of including people with hearing disabilities, offering greater coverage, and bringing the government closer to citizens. For this reason, Boti has a friendly graphic design and a warm personality. It uses simple language, incorporates emojis, and offers both relevant information for citizens and the ability to manage government transactions with identity verification.

At the time of its launch in February 2019, Boti was handling around 300,000 conversations per month. But everything changed in early 2021 when the vaccination card was integrated into the platform. The number of Boti users grew exponentially, from 1 million conversations per month in January to nearly 6.5 million conversations by December 2021. More than 20 million vaccination appointments were requested, more than 3 million COVID test results were provided, and more than 500,000 vaccination certificates were issued. The transformation was astonishing, with the number of conversations increasing from 4.5 million in 2020 to more than 40 million in total in 2021 (Secretariat for Innovation and Digital Transformation, 2024).

What was the key to this success? On the one hand, the idea of offering a service through WhatsApp in Latin America proved to be a determining factor, since in 2019, 80 % of the population had access to this platform, and today, almost 93 % use it (Secretariat of Innovation and Digital Transformation CABA). This is an advantage over other service channels that require broadband internet access, which not everyone has. In Argentina, for example, in 2019 there were 19.65 broadband subscriptions per 100 people, and by 2022, this number increased to 24.63 (World Development Indicators). Given WhatsApp's widespread coverage, Boti was destined for success from the start.

Additionally, Boti contains many services that are useful to a variety of people. In addition to the COVID card, numerous additional services were integrated in 2022, with a particular focus on gender equality and diversity. These included referrals to gender-based violence helplines, assistance for homeless people, services for the elderly, and delivery of school certificates for the population of CABA. These additions led to a 40 % increase in the number of conversations compared to 2021 (Secretariat of Innovation and Digital Transformation, 2024).

The team behind Boti also has a vision of continuously updating the bot. Recently, it added new key services for everyone, such as the ability to request birth, marriage, and death certificates. In addition, it incorporated the ability to obtain feedback from citizens through the use of the Net Promoter Score (NPS). Users are invited to rate on a scale of 1 to 10 whether they would recommend the service. Surprisingly, three out of four people give Boti a satisfaction rating of 7/10, or higher. This reflects the high level of satisfaction and usefulness that Boti provides to the population of CABA.

3.2
Skills: Do all population segments have the necessary skills to access digital public services?

Having electronic devices and internet access is only the first step; frequent use of these resources and mastery of key skills are essential for an effective interaction with government platforms. This is partially reflected in Figure 3.11, which illustrates the number of key skills by the channel used to complete the last government transaction. As can be seen, users of the digital channel are the ones who most frequently possess the seven digital skills assessed in the survey.[10] About 28 % of digital users say they are confident in all technological skills, compared to 31 % of users of the hybrid channel, 17 % of users of the in-person channel, and 21 % of non-users. On the other hand, users of the digital channel are the least likely to report feeling not confident in any of the digital skills assessed. Only 8 % say they have no skills, compared to 9 % of users of the hybrid channel, 25 % of users of the in-person channel, and 32 % of non-users.

10 The skills assessed in the survey are: identifying keywords in internet searches, installing mobile applications, sending emails with attachments, scanning documents, modifying privacy options on websites, identifying truthful information on the internet, and recognizing risky information before sharing it online. The question was: "I am going to read you a list of activities that you could do on the internet. Please tell me whether or not you are confident in your ability to perform these tasks independently with minimal difficulty, using one of the following options: confident, somewhat confident, not confident."

Figure 3.11. Number of digital skills, by channel used for the last transaction

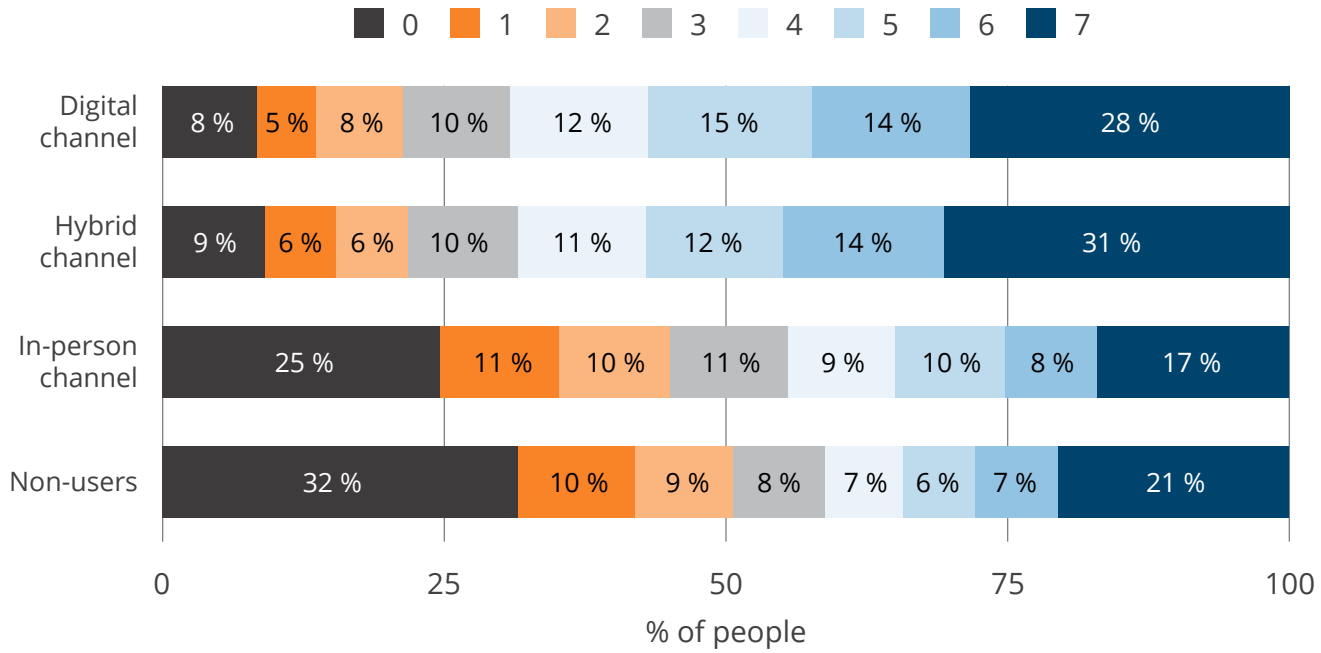


Table 3.11. Number of digital skills used to complete the last government transaction, by channel

Number of digital skills	0	1	2	3	4	5	6	7	Total
Digital channel	8 %	5 %	8 %	10 %	12 %	15 %	14 %	28 %	100 %
Hybrid channel	9 %	6 %	6 %	10 %	11 %	12 %	14 %	31 %	100 %
In-person channel	25 %	11 %	10 %	11 %	9 %	10 %	8 %	17 %	100 %
Non-users	32 %	10 %	9 %	8 %	7 %	6 %	7 %	21 %	100 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

These differences in users of the digital channel are partly explained by skill gaps across different demographic groups. This section examines gaps in frequency of use and level of digital skills among different population groups, analyzing how these differences constitute an additional barrier to ensuring equitable access to digital public services.

Frequency of use of electronic devices

Daily use of electronic devices not only reflects people's technological familiarity but also constitutes a bridge to the acquisition of key digital skills. In this area, there are also large disparities by demographic group (see Figure 3.12).

Figure 3.12. Gaps in the frequency of computer use, by demographic group

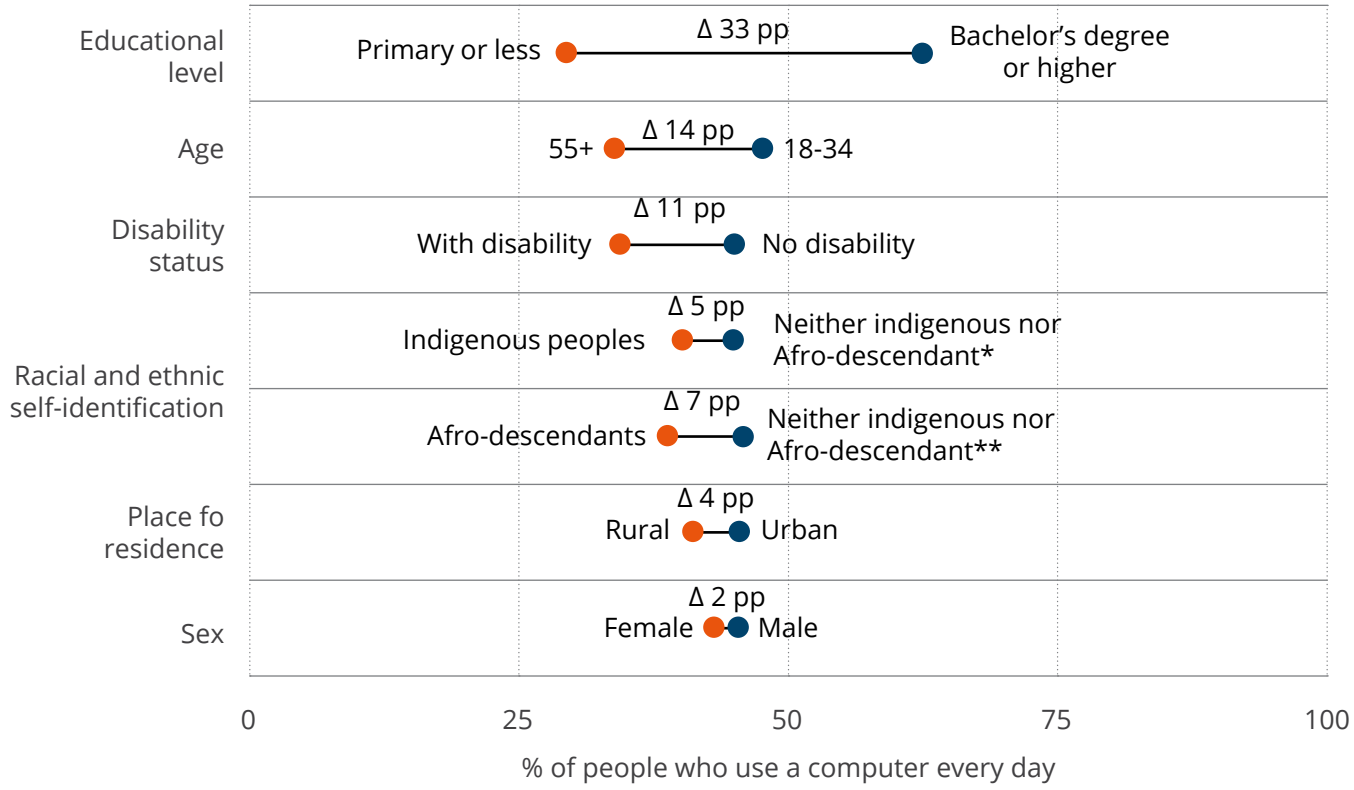


Table 3.12. Gaps in computer use frequency, by demographic group

Demographic group	Percentage of people who use a computer every day	Gap
Educational level		
Primary or less	29 %	Δ 33 pp
Bachelor's degree or higher	62 %	
Age		
18-34	48 %	Δ 14 pp
55+	34 %	
Disability status		
No disability	45 %	Δ 11 pp
With disability	34 %	
Racial and ethnic self-identification		
Indigenous peoples	40 %	Δ 5 pp
Neither Indigenous nor Afro-descendant*	45 %	
Afro-descendants	39 %	Δ 7 pp
Neither Indigenous nor Afro-descendant **	46 %	
Place of residence		
Urban	45 %	Δ 4 pp
Rural	41 %	
Sex		
Male	45 %	Δ 2 pp
Female	43 %	

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

The widest gap is observed in educational attainment: people with primary education or less are 33 pp less likely to use a computer every day than those with a bachelors' degree or higher education. Other relevant gaps include age and disability status. People over 55 use computers less frequently than those aged 18 to 34, with a difference of 14 pp. Similarly, people with disabilities are 11 pp less likely to use a computer every day than those without disabilities, highlighting additional barriers to digital access. Although differences by racial and ethnic self-identification, place of residence, and sex are smaller, they continue to reveal structural disparities. The gap between rural and urban areas is 4 pp, while women use computers daily 2 pp less than men.

Digital skills

The effective use of digital public services requires a range of technological skills, but the data reveal significant gaps within the population. 22 % do not trust their ability to perform any of the tasks analyzed, while a similar proportion (21 %) feel confident that they can perform them. The skills in which the population shows the greatest confidence are identifying keywords in internet searches (58 %) and installing mobile applications (57 %). Other tasks, such as sending emails with attachments (52 %), scanning documents (48 %), and modifying privacy options on websites (48 %), are performed with confidence by approximately half of the population.

However, confidence declines for more complex activities, such as identifying accurate information online (42 %) and recognizing information that is risky to share online (41 %), the latter being the task that most people say they do not feel confident performing (39 %) (see Figure 3.13).

Figure 3.13. Confidence in the ability to perform tasks using the internet in LAC

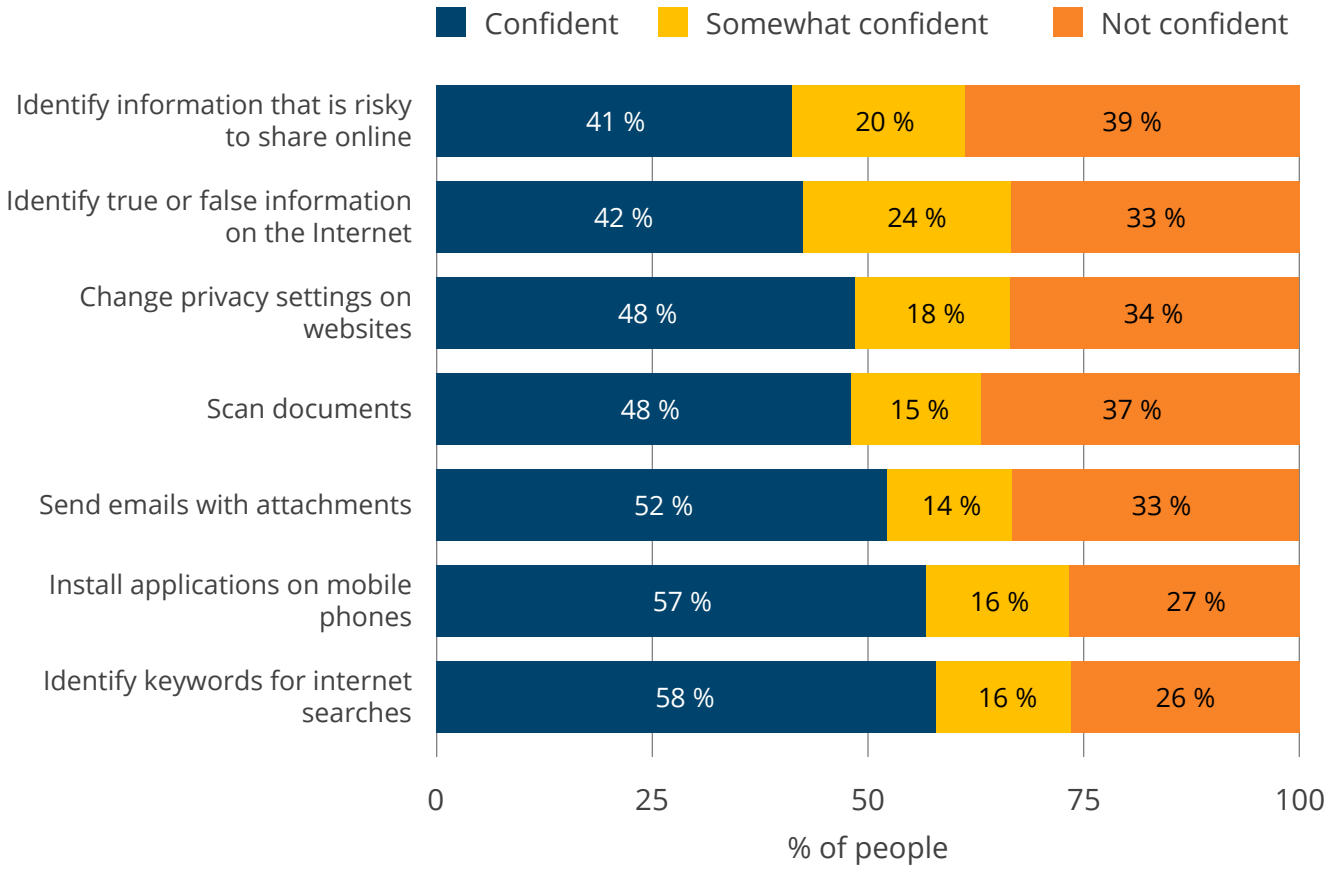


Table 3.13. Confidence in the ability to perform tasks using the internet in LAC

Tasks	Confident	Somewhat confident	Not confident
Identify information that is risky to share online	41 %	20 %	39 %
Identify true or false information on the Internet	42 %	24 %	33 %
Change privacy settings on websites	48 %	18 %	34 %
Scan documents	48 %	15 %	37 %
Send emails with attachments	52 %	14 %	33 %
Install applications on mobile phones	57 %	16 %	27 %
Identify keywords for internet searches	58 %	16 %	26 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and area of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

Generational gaps: the widest in digital skills

While 43 % of people aged 55+ do not trust their ability to perform any of the activities assessed, this percentage drops to 10 % among young people, aged 18 to 34 (see Figure 3.14). Similarly, only 12 % of older adults are proficient in all seven digital skills analyzed, compared to 27 % of young people. The disparity is also evident in specific tasks: young people show high levels of confidence in activities such as sending emails with attachments (65 %), scanning documents (60 %), and installing applications (73 %), while among people aged 55+, these percentages drop significantly to 33 %, 29 %, and 33 %, respectively. The gap narrows for more complex skills, such as identifying accurate or risky information online, where less than 30 % of older adults feel confident, compared to more than 50 % of young people.

Gaps by educational level

Among people with primary education or less, 37 % do not trust their ability to independently perform any of the digital skills analyzed, and only 12 % have confidence in all the skills evaluated. The situation is reversed in the group with a Bachelors' degree or higher education, where only 5 % report a lack of this set of digital skills, while 36 % report confidence in all seven skills measured (see Figure 3.13). In particular, it is worth noting that individuals with a bachelor's degree or higher level of education exhibit high levels of confidence (over 80 %) in activities such as sending emails with attachments (82 %), identifying keywords for internet searches (80 %), and scanning documents (79 %). In contrast, among those with only primary education, confidence in these same tasks is significantly lower, ranging from 30 % to 42 %.

Gaps by disability status

38 % of people with disabilities do not feel confident in their ability to perform any of the skills assessed, in contrast to 21 % of people without disabilities. This gap becomes even more evident when examining complete mastery of digital skills: only 6 % of people with disabilities feel confident performing the seven skills assessed, while this percentage reaches 22 % in the group of people without disabilities. The disparity is also evident in confidence in performing specific technological tasks. In the context of sending emails with attachments, 54 % of people without disabilities feel confident, while only 30 % of those with disabilities report the same level of confidence. Similar gaps are observed in other essential skills, such as installing mobile applications (59 % vs. 33 %) and the ability to identify true or false information on the internet (44 % vs. 29 %).

Figure 3.14. Distribution of the number of digital skills (0-7), by demographic group

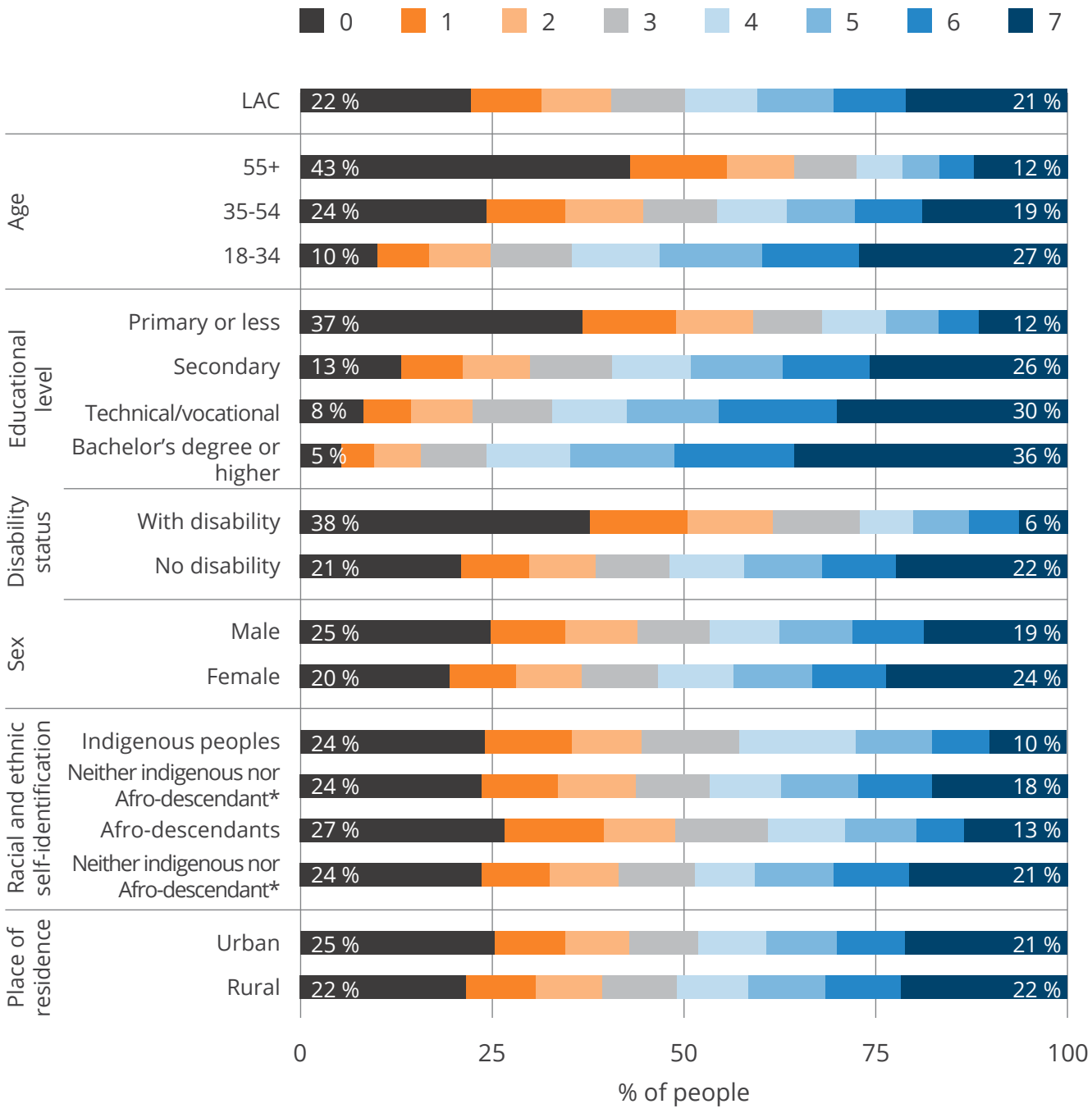


Table 3.14. Distribution of the number of digital skills (0-7), by demographic group

Demographic group	Number of digital skills							
	0	1	2	3	4	5	6	7
LAC	22 %	9 %	9 %	10 %	9 %	10 %	9 %	21 %
Age								
18-34	10 %	7 %	8 %	11 %	11 %	13 %	13 %	27 %
35-54	24 %	10 %	10 %	10 %	9 %	9 %	9 %	19 %
55 +	43 %	13 %	9 %	8 %	6 %	5 %	5 %	12 %
Educational level								
Primary or less	37 %	12 %	10 %	9 %	8 %	7 %	5 %	12 %
Secondary	13 %	8 %	9 %	11 %	10 %	12 %	11 %	26 %
Technical/vocational	8 %	6 %	8 %	10 %	10 %	12 %	15 %	30 %
Bachelor's degree or higher	5 %	4 %	6 %	9 %	11 %	14 %	16 %	36 %
Disability status								
No disability	21 %	9 %	9 %	10 %	10 %	10 %	10 %	22 %
With disability	38 %	13 %	11 %	11 %	7 %	7 %	7 %	6 %
Sex								
Male	20 %	9 %	9 %	10 %	10 %	10 %	10 %	24 %
Female	25 %	10 %	9 %	9 %	9 %	10 %	9 %	19 %
Racial and ethnic self-identification								
Indigenous peoples	24 %	11 %	9 %	13 %	15 %	10 %	8 %	10 %
Neither Indigenous nor Afro-descendant*	24 %	10 %	10 %	10 %	9 %	10 %	10 %	18 %
Afro-descendants	27 %	13 %	9 %	12 %	10 %	9 %	6 %	13 %
Neither Indigenous nor Afro-descendant**	24 %	9 %	9 %	10 %	8 %	10 %	10 %	21 %
Place of residence								
Urban	22 %	9 %	9 %	10 %	9 %	10 %	10 %	22 %
Rural	25 %	9 %	8 %	9 %	9 %	9 %	9 %	21 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Gaps by racial and ethnic self-identification

People who do not identify as Indigenous peoples or Afro-descendant appear to have an advantage over their counterparts in terms of digital skills. Only 10 % of the Indigenous population and 13 % of the Afro-descendant population feel confident in their ability to carry out the seven activities assessed, compared with 18 % and 21 % of the non-Indigenous and non-Afro-descendant population. In contrast, the percentages of those who do not feel confident to perform any of the activities are similar among the four groups analyzed: 24 % of Indigenous peoples, 21 % of Afro-descendants, and 27 % and 24 % of those who do not identify as Indigenous or Afro-descendant, considering each comparison group. The most pronounced gaps are observed in specific digital security skills. In the ability to identify information that is risky to share on the internet, there is a difference of 11-13 pp: 41 % and 40 % of the non-Indigenous and non-Afro-descendant population report confidence in having this skill, compared to 28 % of the Afro-descendant population and 29 % of the Indigenous population. Another significant gap is in the identification of true or false information on the internet. Only 30 % of the Afro-descendant population feels confident in this ability, compared to 40 % of the Indigenous population and 40 % of the non-Indigenous and non-Afro-descendant population, for both comparison groups.

Gaps by sex

The digital skills gap between men and women is modest. 24 % of men say they are confident in their ability to perform all the digital skills assessed, compared to 19 % of women—a gap of 5 pp. In addition, 20 % of men have no digital skills, compared to 25 % of women. Men tend to feel more confident than women in performing tasks such as sending emails with attachments, scanning documents, and installing applications, with differences ranging from 5 to 9 pp, respectively. The widest gap is observed in the ability of identifying true or risky information on the internet, where men are 7 pp more confident than women.

Gaps by place of residence

The differences in digital skills between urban and rural residents are the smallest. In rural areas, 25 % of the population does not trust their ability to perform any of the tasks assessed, compared to 22 % in urban areas—a gap of 3 pp. The gap in confidence in performing specific tasks is also small. In five of the seven skills analyzed, the difference in confidence among these

groups to perform the task ranges around 1 pp. The largest differences are observed in tasks such as scanning documents (51 % in urban areas vs. 44 % in rural areas) and sending emails with attachments (55 % in urban areas vs. 48 % in rural areas).

Correlation between digital skills and the use of digital public services

Figure 3.15 shows an almost direct relationship between the percentage of people who feel confident in performing the seven digital activities assessed and the percentage of people who carried out their last government transaction online. This trend is observed in groups with higher levels of education, such as people with technical or vocational or a bachelor's degree or higher, who show both greater confidence in digital skills and a higher proportion of government transactions conducted online. In contrast, groups with less education or those in more vulnerable situations, such as people with disabilities or those in rural areas, tend to show lower percentages in both dimensions.

Figure 3.15. Correlation between digital access to public services and digital skills

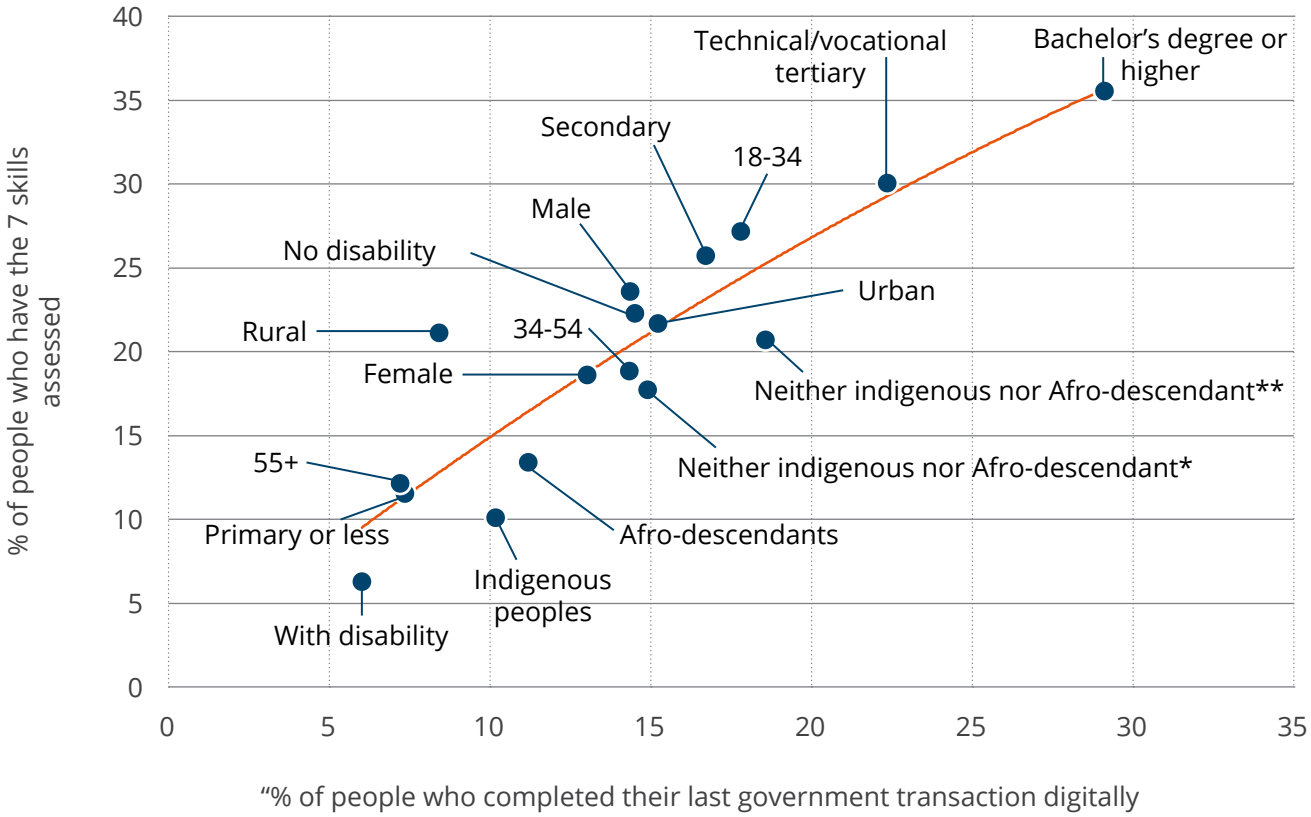


Table 3.15. Correlation between digital access to public services and digital skills

Demographic group	% of people with the seven skills assessed	% of people who completed their last transaction digitally
Educational level		
Primary or less	12 %	7 %
Secondary	26 %	17 %
Technical/vocational tertiary	30 %	22 %
Bachelor's degree or higher	36 %	29 %
Age		
18-34	27 %	18 %
35-54	19 %	14 %
55+	12 %	7 %
Disability status		
No disability	22 %	15 %
With disability	6 %	6 %
Place of residence		
Urban	22 %	15 %
Rural	21 %	8 %
Racial and ethnic self-identification		
Indigenous peoples	10 %	10 %
Neither Indigenous nor Afro-descendant*	18 %	15 %
Afro-descendants	13 %	11 %
Neither Indigenous nor Afro-descendant**	21 %	19 %
Sex		
Male	24 %	14 %
Female	19 %	13 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. As a result, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

One of the main findings of this chapter is that many people do not have the necessary preconditions to take advantage of digital public services. This reality highlights the usefulness of offering services through face-to-face channels. Box 3.3 presents three cases from Chile that illustrate this situation.

Box 3.3 Chile: When In-person Service is Essential

When the application process is complex and the target population is vulnerable, in-person channels are an attractive option for achieving good coverage. That is the central lesson that emerges from the history of three public services in Chile: a subsidy for adults, a disability subsidy (the Universal Guaranteed Pension, or PGU), and a rental subsidy. The government's one-stop shop, ChileAtiende, offers the first two, and the Ministry of Housing offers the third.

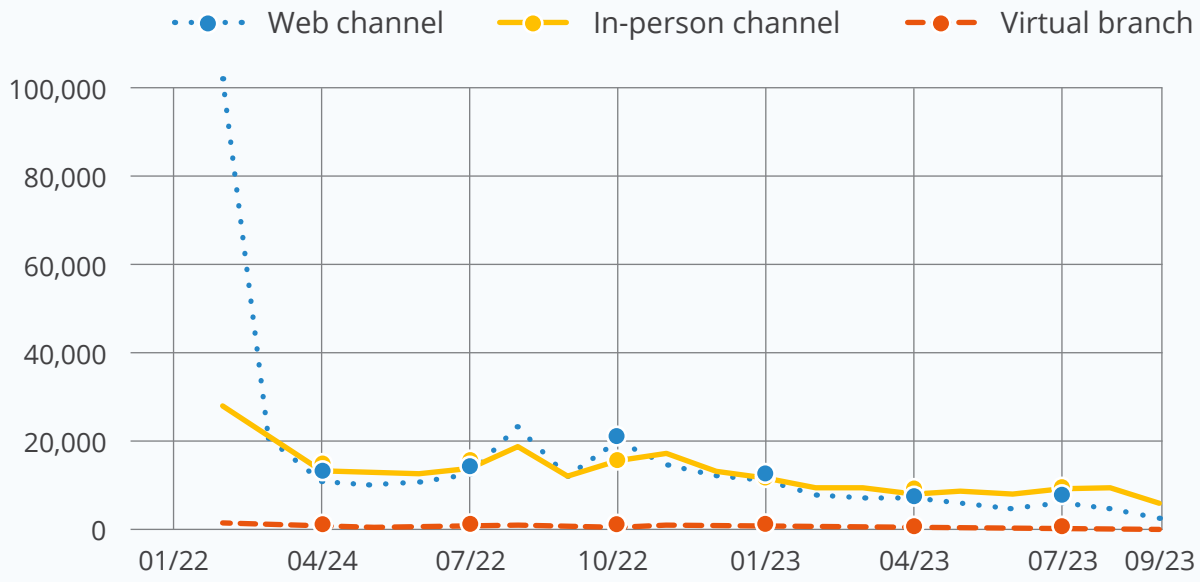
Universal Guaranteed Pension

In an effort to extend the coverage of the social safety net to the middle class, the Chilean government approved a significant reform of its main subsidy program for adults. The Solidarity Pension Contribution for Old Age (APSV) was replaced by the PGU. The new program included two main groups: (1) beneficiaries of the former APSV, who were automatically transferred to the PGU in February 2022, and (2) people who met the expanded eligibility requirements for the PGU.

Due to the expansion of coverage, the number of applications increased, especially through the digital channel. During the first few months of implementation, 102,199 self-managed applications were received through the web channel, 28,095 applications

through the in-person channel, and 1,132 applications through virtual video assistance. Public workers assisted the latter two channels. However, preference for the digital channel was short-lived: as of March 2022, more than 50 % of people used the in-person channel to apply. This change can be attributed, in part, to the extensive ChileAtiende network, which has 193 branches covering most of the country's municipalities.

Figure R3.1. Trend in PGU applications, by application channel



Note: authors' elaboration based on data provided by ChileAtiende.

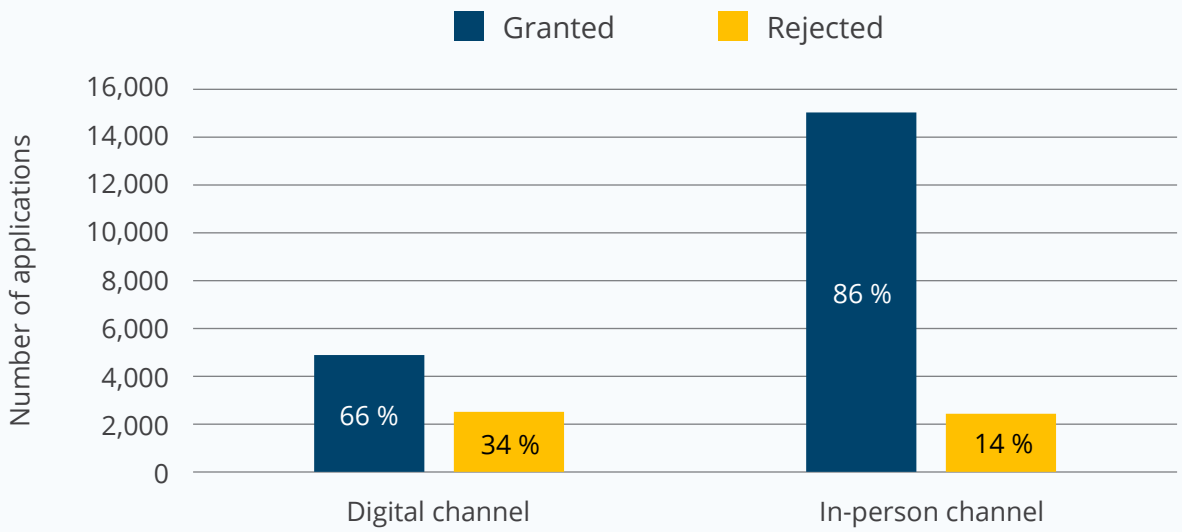
Table R3.1. Trends in PGU applications, by application channel

Quarter	Web channel	In-person channel	Virtual branch
Q1 - 2022	44,647	20,832	725
Q2 - 2022	10,500	12,901	528
Q3 - 2022	15,743	14,608	680
Q4 - 2022	15,484	15,132	405
Q1 - 2023	8,551	10,031	138
Q2 - 2023	5,955	8,028	95
Q3 - 2023	4,250	8,041	186

Notes: figure R3.1 presents the monthly number of PGU applications, while the corresponding table reports quarterly averages. The average for the first quarter of 2022 excludes January, as data for that month are not available.

The most decisive factor in the preference for the in-person channel appears to be the complexity of the process. Applicants must submit numerous documents and make complex decisions, such as choosing whether the old or new system is more profitable for one's own case and selecting a payment plan. At ChileAtiende offices, staff can assist citizens with the process and even identify and correct errors in the application, while this assistance is limited through the virtual channel. The importance of in-person assistance is evident in the data. Figure 3.2 shows that the rejection rate for online applications is 34 %, and 14 % for applications submitted in person. This is potentially the reason why the use of the digital channel has declined over time. While the percentage of applications made online in 2022 was 50 %, by 2023 it had fallen to 30 %.

Figure R3.2. Number of PGU applications, by channel and outcome of the application



Note: authors' elaboration based on data provided by ChileAtiende on the number of PGU applications between February 2022 and August 2023.

Table R3.2. Number of PGU applications, by application channel and outcome of the application

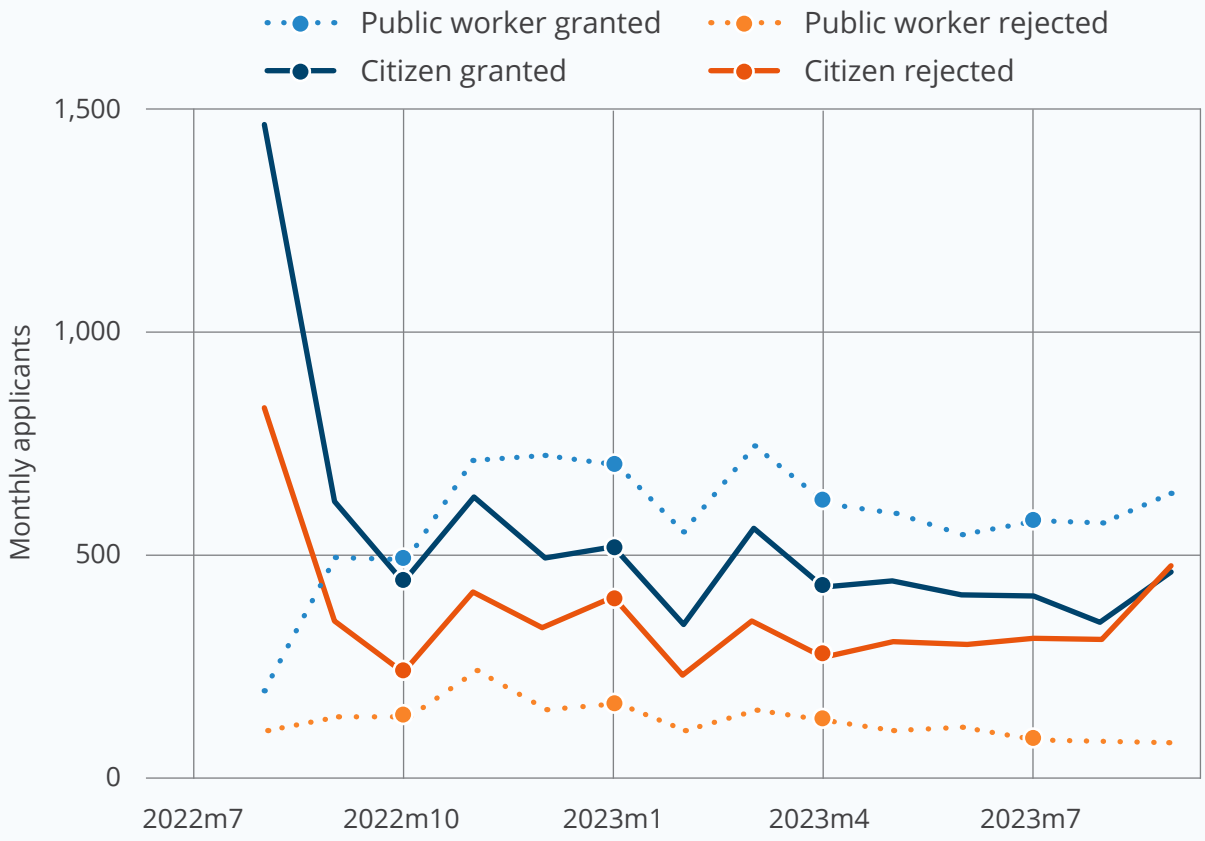
	Digital channel	In-person channel
Granted	66 %	86 %
Rejected	34 %	14 %

Disability subsidy

Before 2022, the disability subsidy focused on supporting people with mental disabilities and was decentralized: requirements varied depending on the region of residence. Following a regulatory change in the law promoting equal opportunities and social inclusion for persons with disabilities (National Congress of Chile [Congreso Nacional de Chile], 2010), implemented in February 2023, the granting of the subsidy was centralized, and coverage was expanded to include persons with physical and sensory disabilities. Currently, 68 % of applicants have reported having a mental disability, while around 32 % reported having a physical disability.

Following the restructuring, the transaction was offered online, enabling citizens to manage their applications themselves either virtually or in-person through applications made by public workers. Applicants for this subsidy are mainly parents or guardians of minors (95 %), with low socioeconomic status and an average score of 38.1 (out of 100) on the Social Household Registry (Ministry of Social Development and Family of Chile [Ministerio de Desarrollo Social y Familia de Chile], 2024). These populations often have fewer skills for completing online government transactions. Indeed, the data show that, despite the initial increase in applications initiated by citizens, the rejection rate was quite high compared to government transactions handled by public workers in person.

Figure R3.3. Number of DS applications, by applicant and outcome of the application



Note: authors' elaboration based on data provided by ChileAtiende regarding the numbers of PGU applications between February 2022 to August 2023.

Table R3.3. Number of DS applications, by applicant and outcome of the application

Quarter	Citizen		Public worker	
	Granted	Rejected	Granted	Rejected
Q3 - 2022	1,043	594	343	120
Q4 - 2022	519	330	639	176
Q1 - 2023	472	330	665	141
Q2 - 2023	426	292	585	115
Q3 - 2023	408	367	594	84

Notes: figure R3.3 presents the monthly number of DS applications, disaggregated by submitter and application outcome, while the corresponding table reports quarterly averages. The average for the third quarter of 2022 excludes July, as data for that month are not available.

Two challenges have been identified in completing the transactions: (1) mistakes that applicants make when scanning the required attachments. For example, one of the requirements involves scanning both sides of a disability certificate in PDF format. Although 97 % of applications processed by officials comply with this specification, only 71 % of people upload a suitable PDF, while the rest upload images. (2) As part of the requirements, applicants must provide an official disability certificate, which must be obtained from another public institution (Compin). There is often confusion about the sequence of these two transactions, leading people to apply for the subsidy without first obtaining the required certification. A large proportion of rejections of applications processed by citizens (69 %) are due to a lack of proof of severe disability, which is directly related to the omission of this prior transaction. Given this complexity, it is understandable that the possibility of accessing personalized assistance at ChileAtiende offices is preferred over online applications.

It should be noted that not all assistance requires specialized knowledge. A common mistake made by online users was scanning their disability card incorrectly. The regulations require applicants to submit the entire card, which consists of a sheet of paper with information on both sides. Many users submitted only the front side, which resulted in their application being automatically rejected.

Rent subsidy

In Chile, renting a home is often expensive: it is estimated that 34 % of households spend more than 30 % of their income on rent (Déficit Cero, 2022). For this reason, for the past 10 years, the government has provided a rental subsidy that beneficiaries can use in any home that meets the value and formality requirements (Rental Subsidy Program of the Ministry of Housing and Urban Development). Since the program's inception, applications have always been available in person at service offices and online; online applications increased from 18 % to 35 % in the first four years (Budget Office of Chile [Dirección de Presupuestos del Gobierno de Chile], 2019). However, the number of applications has always been low: in 2023, approximately 25 % of households were in unaffordable rental situations (Déficit Cero, 2023).

Given the high levels of intraregional migration in the last decade, which nearly doubled between 2015 and 2020 (IDB, 2022), and the high risk of ending up living in informal settlements—with the potential health and victimization problems that this entails—in 2023, the Chilean government, in partnership with the Inter-American Development Bank, launched a special pilot rental subsidy program.

The pilot program focused on households residing in four regions of the country and at risk of falling into informal settlements. With this preventive objective in mind, some application requirements, priority criteria, and consequently the means of accreditation were modified, all with the aim of targeting households furthest from formality and the State. These changes, in turn, involved modifications to the online application form and the IT processes that supported it.

These new conditions presented those in charge at the Ministry of Housing with a decision: should they continue with the digital provision of the subsidy or only allow registration through the Ministry's local offices in the participating regions? The following factors influenced the decision to opt for the in-person channel only:

a. **The adoption of new verifying means for applicants' income and residence.** Including bank records as a means of verifying income was a solution for those who

subsist on informal employment, which would facilitate access to the subsidy. Two factors associated with this new option pushed the authorities toward the in-person channel: (1) applicants might need guidance on how to obtain these records, and (2) accepting online records would require a modification to the computer system (e.g., to analyze and validate the documentation provided) that would consume time and budget that the project did not have.

b. **Complexity of the process:** Although the application form required a large amount of information, it depended on a prior transaction: the creation of the Social Household Registry, for which applicants might need support.

c. **Uncertainty about the usual channels for reaching an unusual profile:** The aim was to target households living in overcrowded or shared accommodations that had never applied for the Ministry's services. Would it be possible to reach them through television, newspapers, and social media? When in doubt, it was decided to request support from local governments and other organizations with a territorial presence through a simple message: «You can go to your nearest SERVIU office."[11]

Without knowing what would have happened in a digital format, the use of the face-to-face channel for the pilot was a success. The Ministry awarded the 3,000 subsidies available in an application period of only two weeks.

11 Housing and Urban Development Service in each region.

3.3
Awareness: Do people know about the possibility of accessing digital public services?

One of the key factors for accessing digital public services is simply knowing that they exist. However, staying informed about the digital options offered by the government is a challenge for citizens. This chapter analyzes this phenomenon from two perspectives: first, awareness of the government portal, which is often the main gateway to digital public services, and second, the degree of awareness of the availability of digital options for specific government transactions.

Single portals

Government portals are a key tool that centralizes information from various institutions and, in some cases, allows users to start or complete transactions online. For those who are familiar with these portals, it is easier to find out about the availability of digital services that may be of interest to them. Indeed, the data show a strong correlation between awareness of the single portal and choosing the digital channel for carrying out transactions. Among those who completed government transactions in the last 12 months, only 32 % had heard of the portal. This percentage increases to 38 % among those who carried out their last transaction in person. As expected, awareness of the portal is significantly higher among those who used the hybrid channel (60 %) and is highest among those who carried out their last transaction entirely online (65 %).

Awareness of these portals may be associated with unequal access to digital public services. As shown in Figure 3.16, people with higher levels of education have higher levels of awareness of the portal: 66 % of those with a bachelor's degree or higher are aware of the portal, compared to only 30 % of those with primary education or less. Similarly, young people (aged 18–34) report greater awareness (46 %), in contrast to adults aged 55 or older (35 %). Gaps are also observed regarding disability status (31 % among people with disabilities vs. 44 % among those without disabilities) and place of residence (36 % in rural areas vs. 47 % in urban areas). In terms of racial and ethnic self-identification, only 28 % of those who self-identify as Indigenous peoples are aware of their country's single portal, compared to 38 % of those who do not identify as Indigenous or Afro-descendant. The percentage of people who are aware of the portal is similar among those who identify as Afro-descendant and those who do not identify

as Afro-descendant or Indigenous. This pattern largely reflects the same trends observed in the use of digital channels to access public services.

Figure 3.16. Percentage of people who are aware of the single government portal, by demographic group

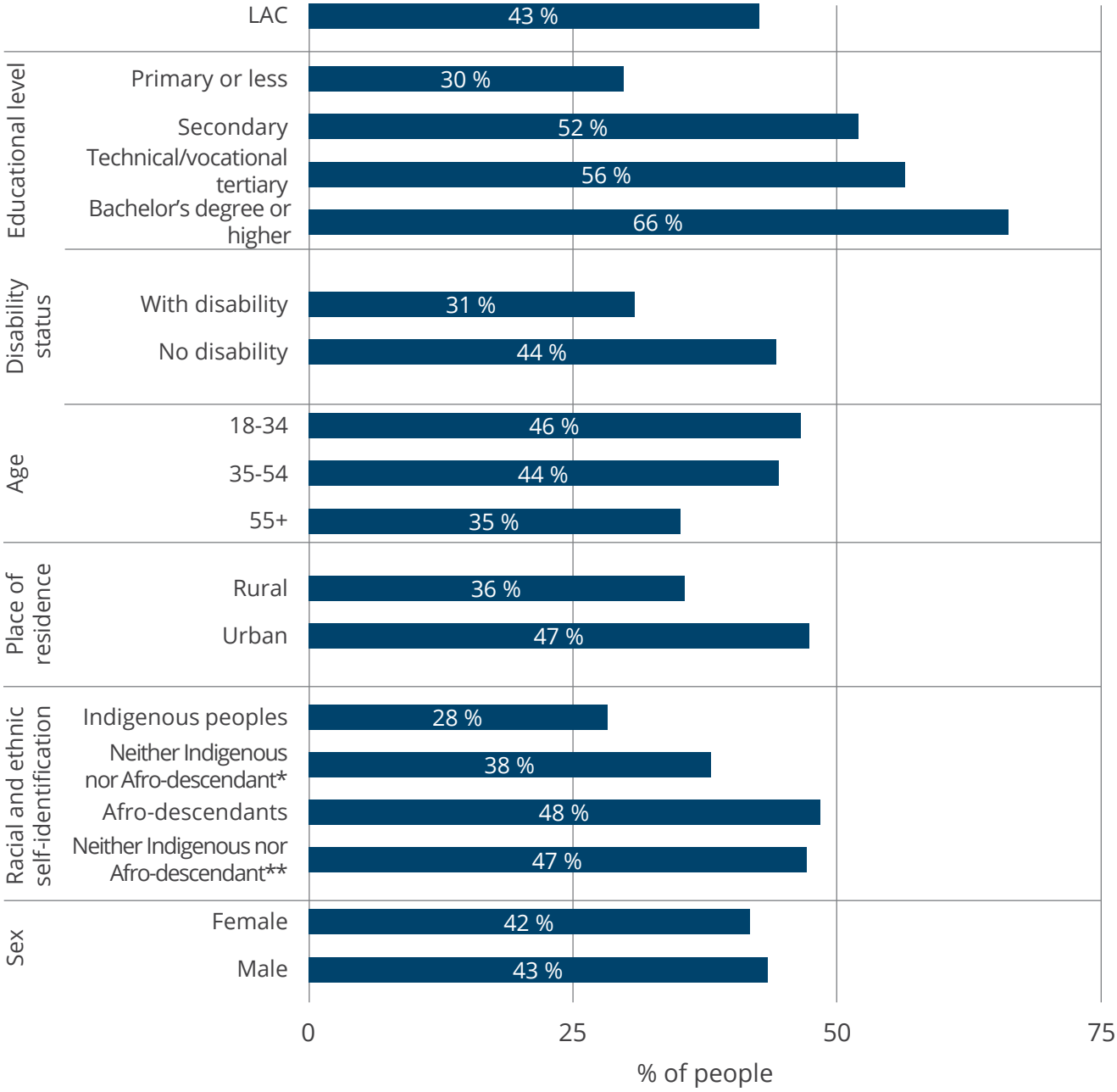


Table 3.16. Percentage of people who are aware of the single government portal, by demographic group

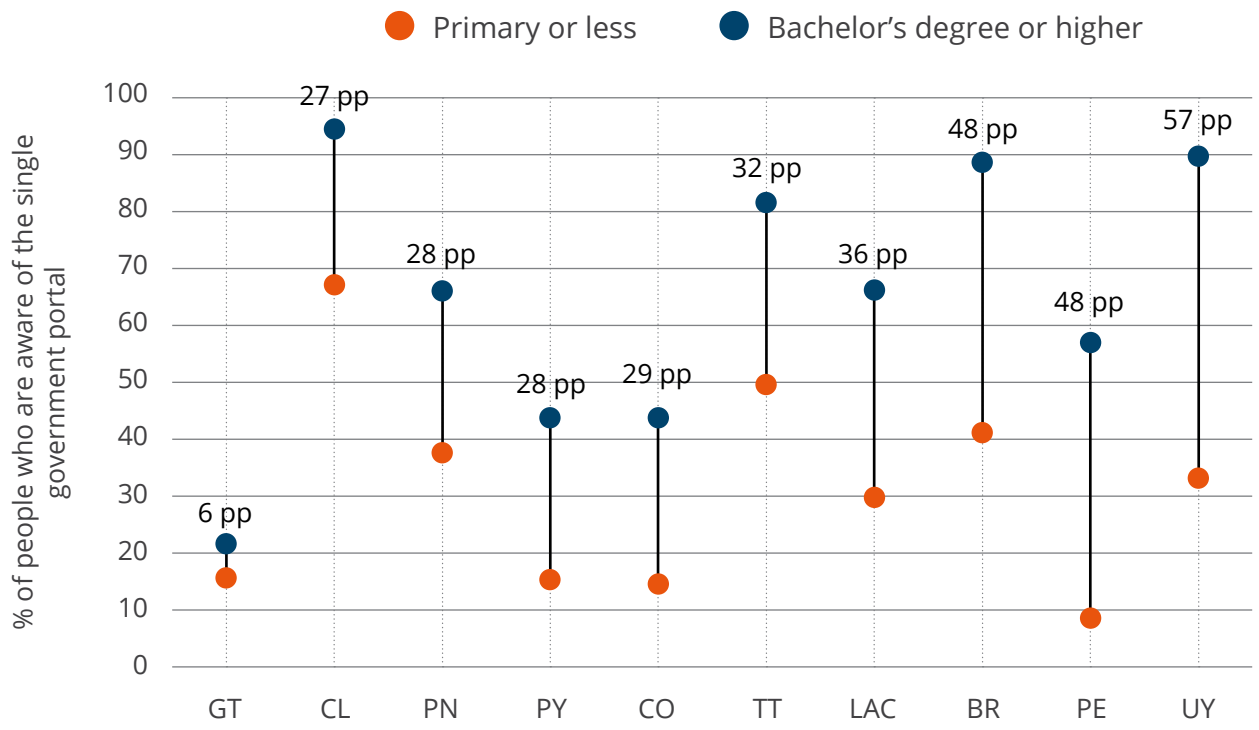
Demographic group	% of people who are aware of the single government portal
Educational level	
Primary or less	30 %
Secondary	52 %
Technical/vocational tertiary	56 %
Bachelor's degree or higher	66 %
Disability status	
No disability	44 %
With disability	31 %
Age	
18-34	46 %
35-54	44 %
55+	35 %
Place of residence	
Urban	47 %
Rural	36 %
Racial and ethnic self-identification	
Indigenous peoples	28 %
Neither Indigenous nor Afro-descendant*	38 %
Afro-descendants	48 %
Neither Indigenous nor Afro-descendant**	47 %
Sex	
Male	43 %
Female	42 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

There are large differences in the level of awareness of government portals between countries. Chile stands out, where 81 % of citizens report being aware of ChileAtiende, the most recognized single government portal in the region (among the countries included in the survey). This high degree of familiarity can be attributed to the brand's track record, established in 2012, as well as its presence across multiple channels: physical (189 branches nationwide), telephone, and digital, through its website. With 623 million transactions recorded in 2022, equivalent to approximately 32 transactions per person, its use is significant. Due to its wide recognition, despite a gap of 27 pp, ChileAtiende is one of the most recognized portals in the region among those with a bachelor's degree or higher and those with primary education or less. Other portals with high levels of recognition among citizens are those of Trinidad and Tobago (60 %), Brazil (52 %), and Uruguay (49 %).

The gaps in awareness of the government portal among population segments vary by country. Figure 3.17 shows these differences by educational level (the cut-off with the most variation). Uruguay has the largest gap in knowledge of the single portal among people with different educational levels, with a difference of 57 pp between those with primary education or less and those with a bachelor's degree or higher education. In contrast, Guatemala has the smallest gap (6 pp), but also the lowest level of recognition among the generalized countries.

Figure 3.17. Percentage of people who are aware of the single government portal, by educational level and country[12]



12 The figures for Brazil differ from those presented in Bergues and Lafuente (2025) for the following reasons: (i) in this document, statistics are calculated using regional weightings, as indicated in the footnotes; and (ii) the educational levels presented were defined differently in both studies (the definition in this study allows for comparison at the regional level).

Table 3.17. Percentage of people who are aware of the single government portal, by educational level and country

Country	Primary or less	Bachelor's degree or higher	Gap
Guatemala (GT)	16 %	22 %	6 pp
Chile (CL)	67 %	95 %	27 pp
Panama (PN)	38 %	66 %	28 pp
Paraguay (PY)	15 %	44 %	28 pp
Colombia (CO)	15 %	44 %	29 pp
Trinidad and Tobago (TT)	50 %	82 %	32 pp
Latin America and the Caribbean (LAC)	30 %	66 %	36 pp
Brazil (BR)	41 %	89 %	48 pp
Peru (PE)	9 %	57 %	48 pp
Uruguay (UY)	33 %	90 %	57 pp

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. The regional average is obtained by taking the simple average of all countries.

Awareness of digital options for specific government transactions

This dimension follows a similar pattern to that of the portals discussed above. According to Figure 3.18, 52 % of people who carried out their last transaction in person are unaware that there is an option to do it digitally. This lack of awareness disproportionately affects less-educated people, older adults, people with disabilities, those living in rural areas, people who self-identify as Indigenous, and women. This finding reveals a fact that will be analyzed in the remainder of the chapter: knowing that a digital option exists is necessary but not sufficient.

Other factors, such as trust and perceived value, also play a fundamental role in the use of digital public services.

Figure 3.18. Percentage of in-person channel users who are aware of the digital channel option, by demographic group

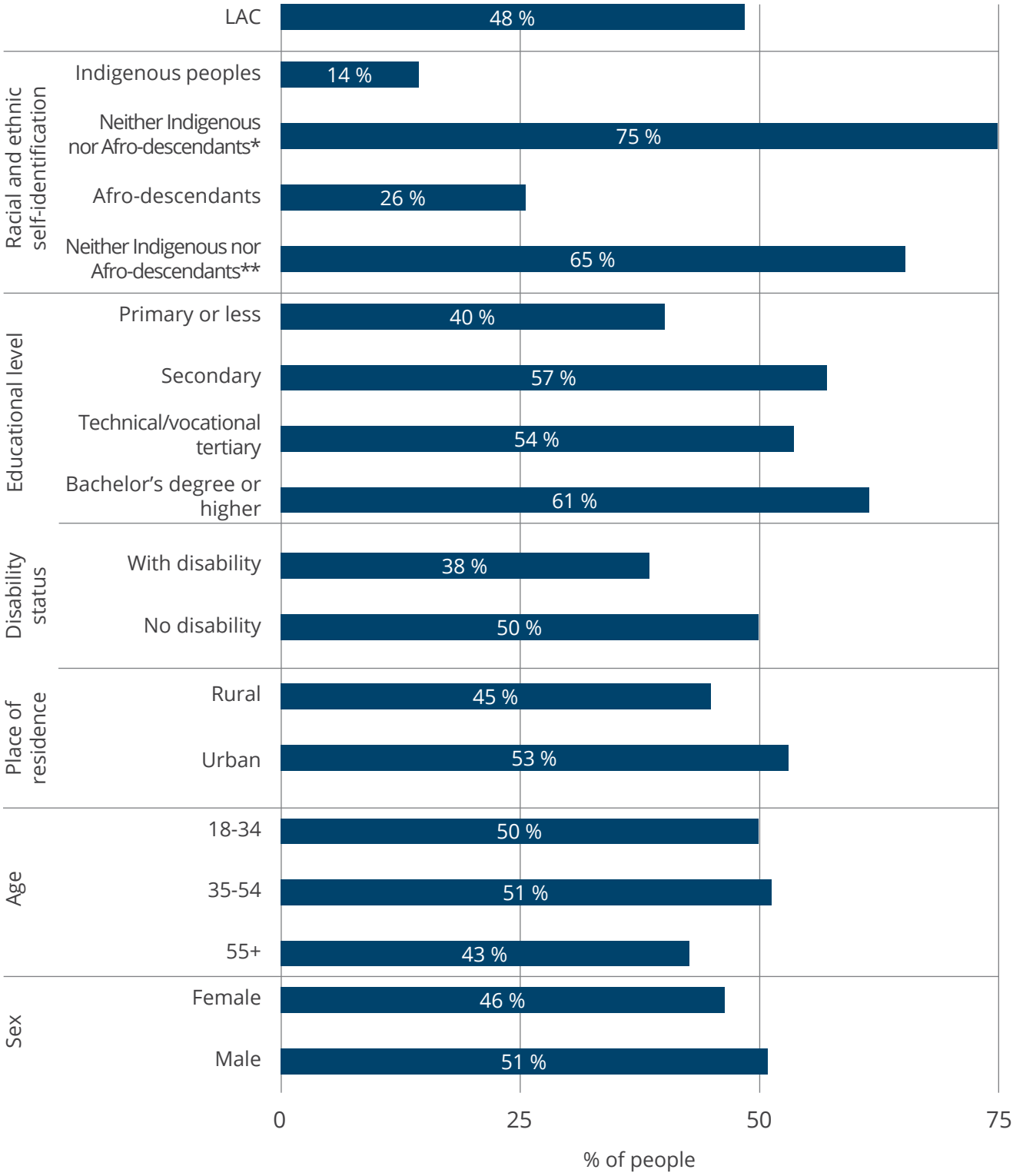


Table 3.18. Percentage of in-person channel users who are aware of the digital channel option, by demographic group

Demographic group	Percentage of people who are aware of the digital option
Racial and ethnic self-identification	
Indigenous peoples	14 %
Neither Indigenous nor Afro-descendant*	76 %
Afro-descendants	26 %
Neither Indigenous nor Afro-descendant**	65 %
Educational level	
Primary or less	40 %
Secondary	57 %
Technical/vocational tertiary	54 %
Bachelor's degree or higher	61 %
Disability status	
No disability	50 %
With disability	38 %
Place of residence	
Urban	53 %
Rural	45 %
Age	
18-34	50 %
35-54	51 %
55+	43 %
Sex	
Male	51 %
Female	46 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries. Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

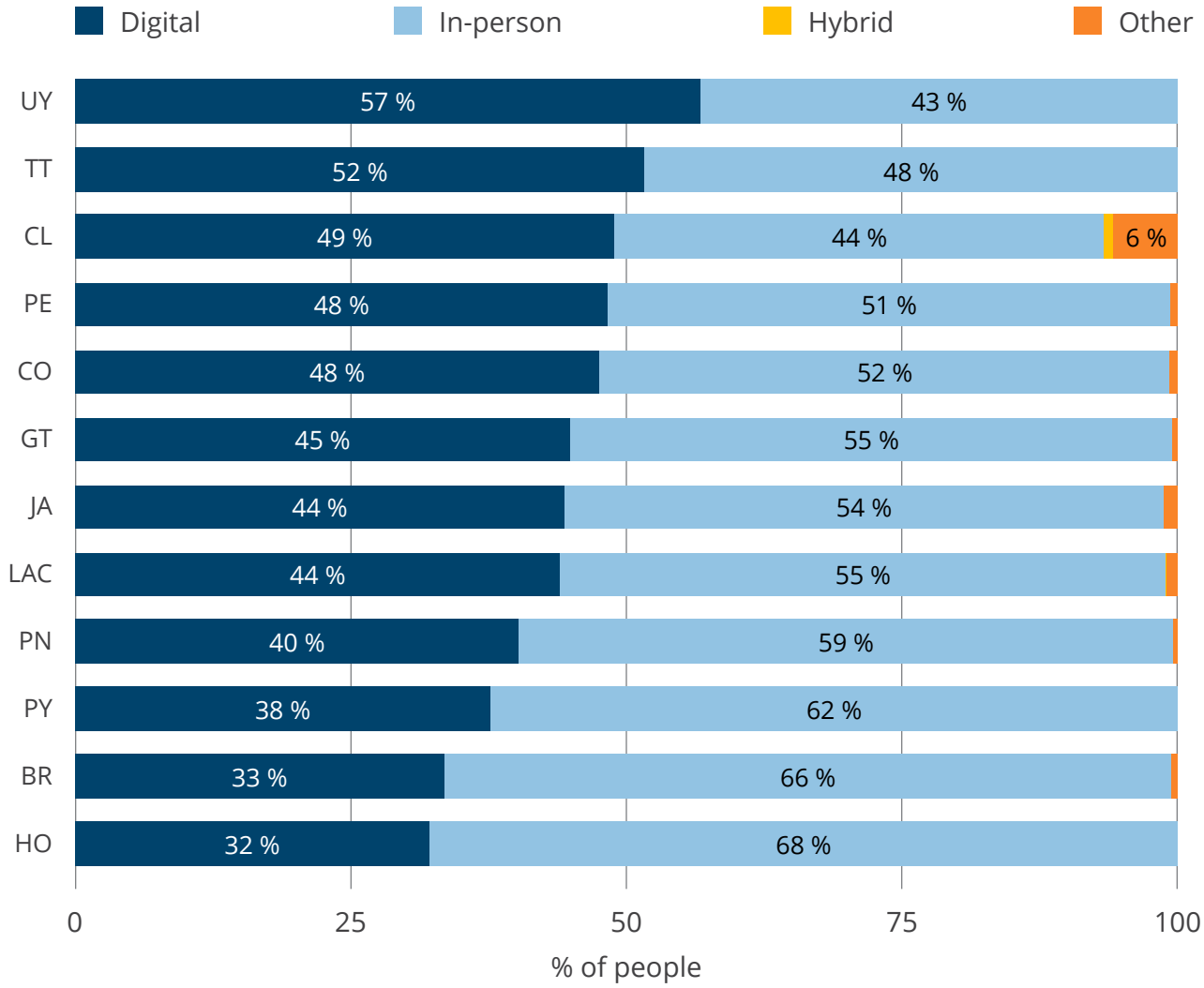
3.4
Willingness: Do people want to carry out government transactions using digital channels?

Previous studies have documented that, even when a digital option is available, many users in LAC still prefer the in-person channel.[13] The results of the surveys conducted for this study confirm that this trend continues: on average, 70 % of those who carried out their last transaction in person would prefer to use this channel again, while only 30 % would opt for the digital channel for their next transaction. However, an encouraging finding is that among those who completed their last transaction digitally, 80 % would prefer to repeat the experience, suggesting that, once tried, the digital channel can offer a satisfactory experience and encourage its continued adoption.

User preference for the digital channel is particularly high in countries such as Uruguay (57 %), Trinidad and Tobago (52 %), and Chile (49 %), which indicates that citizens have accepted the digital channel. In contrast, the countries with the lowest levels of digital preference are Brazil (33 %) and Honduras (32 %), where a significant majority prefer to use the in-person channel (66 % and 68 %, respectively) (see Figure 3.19). Interestingly, Chile has the highest percentage of people who would choose an alternative channel to carry out transactions (6 % chose the "other" option). Among these respondents, most said they would prefer to carry out their next transaction by telephone.

13 See, among others, Roseth et al. (2021).

Figure 3.19. Preferred channel for completing the next government transaction[14]



14 The figures for Brazil differ from those presented in Bergues and Lafuente (2025) for the following reasons: (i) in this document, statistics are calculated using regional weights, as indicated in the footnotes; and (ii) this calculation includes users of government services from the two samples collected in Brazil: the representative sample (used in Bergues and Lafuente, 2025) and the user sample.

Table 3.19. Preferred channel for completing the next government transaction

Country	Digital	Hybrid	In-person	Other
Uruguay (UY)	57 %	0 %	43 %	0 %
Trinidad and Tobago (TT)	52 %	0 %	48 %	0 %
Chile (CL)	49 %	1 %	44 %	6 %
Peru (PE)	48 %	0 %	51 %	1 %
Jamaica (JA)	48 %	0 %	52 %	1 %
Colombia (CO)	45 %	0 %	55 %	0 %
Guatemala (GT)	44 %	0 %	54 %	1 %
Jamaica (JA)	44 %	0 %	55 %	1 %
Latin America and the Caribbean (LAC)	40 %	0 %	59 %	0 %
Paraguay (PY)	38 %	0 %	62 %	0 %
Brazil (BR)	33 %	0 %	66 %	1 %
Honduras (HO)	32 %	0 %	68 %	0 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. The regional average is obtained by taking the simple average of all countries.

Channel preference varies in the same way as in previous analyses, with a greater inclination toward digital channels among people with higher levels of education, young people, urban residents, people without disabilities, and non-Indigenous peoples. The most marked difference is observed in educational level (see Figure 3.20): while only 30 % of those with primary education or less prefer to carry out their next transaction digitally, this percentage increases significantly among those with a bachelor's degree or higher, reaching 70 %. Significant gaps are also observed in terms of age, with a digital preference of 54 % among young people aged 18-34 compared to only 29 % among adults over 55 years, and in terms of disability status, where people without disabilities show a greater inclination to use the digital channel (46 %) compared to those with disabilities (27 %).

Figure 3.20. Preferred channel for the next government transaction, by demographic group

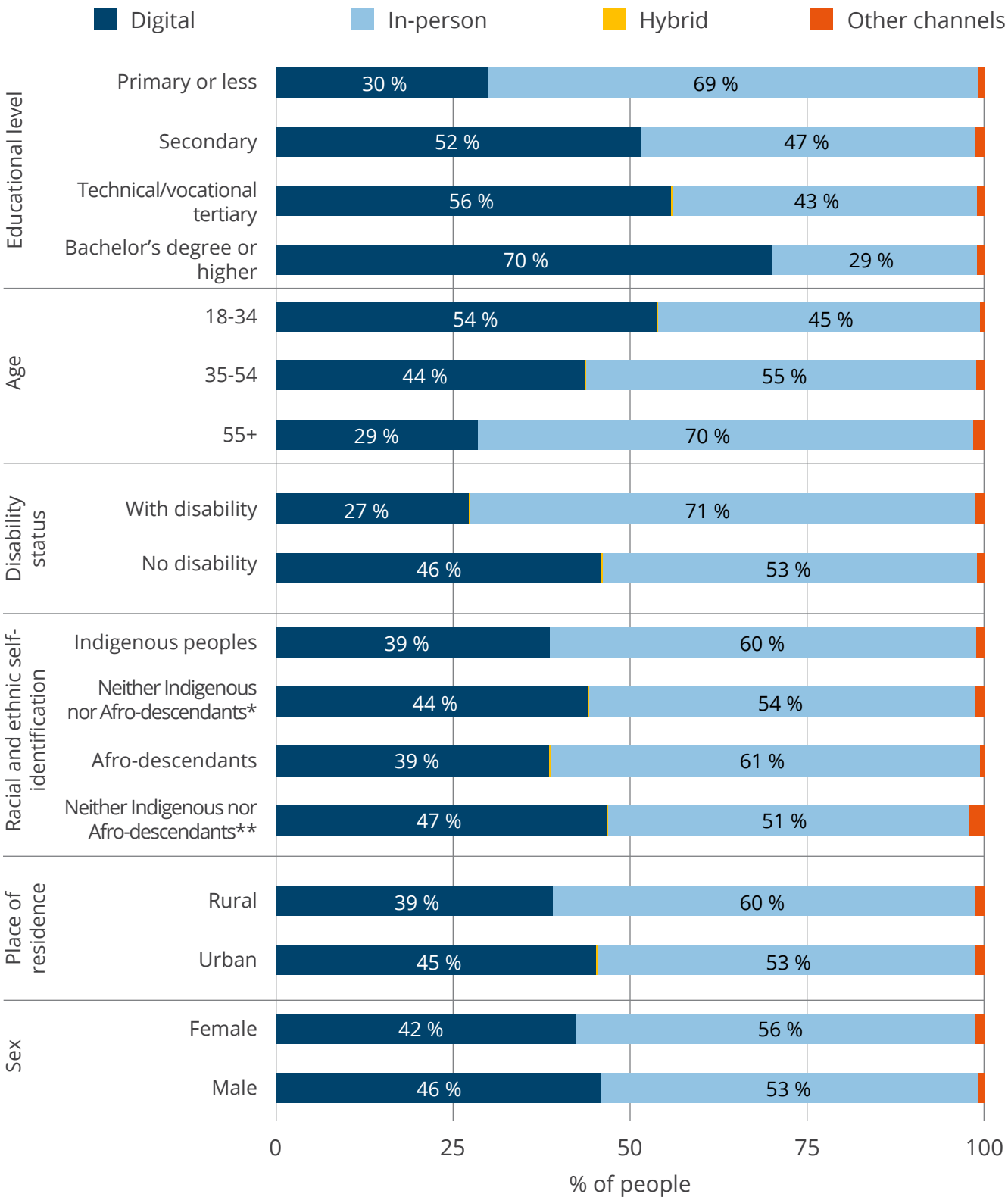


Table 3.20. Preferred channel for the next government transaction, by demographic group

Demographic group	Digital	Hybrid	In person	Other
Educational level				
Primary or less	30 %	0 %	69 %	1 %
Secondary	52 %	0 %	47 %	1 %
Technical/vocational tertiary	56 %	0 %	43 %	1 %
Bachelor's degree or higher	70 %	0 %	29 %	1 %
Age				
18-34	54 %	0 %	45 %	1 %
35-54	44 %	0 %	55 %	1 %
55+	29 %	0 %	70 %	2 %
Disability status				
No disability	46 %	0 %	53 %	1 %
With disability	27 %	0 %	71 %	1 %
Racial and ethnic self-identification				
Indigenous peoples	39 %	0 %	60 %	1 %
Neither Indigenous nor Afro-descendant*	44 %	0 %	54 %	1 %
Afro-descendants	39 %	0 %	61 %	1 %
Neither Indigenous nor Afro-descendant**	47 %	0 %	51 %	2 %
Place of residence				
Urban	45 %	0 %	53 %	1 %
Rural	39 %	0 %	60 %	1 %
Sex				
Male	46 %	0 %	53 %	1 %
Female	42 %	0 %	56 %	1 %

Source: authors' calculations based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country-level estimates use survey weights that account for the population distribution by sex, age, educational level, and place of residence (urban/rural). For Paraguay and Uruguay, the survey weights do not take into account place of residence. The average for the Afro-descendant population excludes Guatemala, Honduras, Paraguay, and Uruguay for the same reason, as well as Jamaica, where the Afro-descendant population is not a minority (see Annex 1 for more details). Within each country, the average for the population that is neither Indigenous nor Afro-descendant reflects these same data restrictions.

Among those who say they do not want to use digital channels for future transactions, the main reason is that they have no knowledge or experience in carrying out digital transactions (26 %), followed by those who doubt that these transactions are as valid as in-person transactions (16 %). In addition, 12 % mention that digital transactions are difficult to carry out.

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Chapter 4

Why has the use of public services not been equitable? The Other Side of the Problem: Supply

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Summary

For digital public services to be used by everyone, digitization processes must ensure that the services in the highest demand and those that benefit the most vulnerable sectors are available online and that these services are accessible to all citizens. This chapter examines how governments in the region are addressing these challenges, focusing on the prioritization of services to be digitized and their accessibility. The analysis shows that the digitization of public services in the region has been fragmented and biased toward specific types of government transactions (e.g., taxation) and has not prioritized those services in the highest demand or the ones that can benefit vulnerable segments of society. This is mainly due to the absence of comprehensive prioritization mechanisms and the lack of a mandate for digital government regulatory agencies to coordinate digitization processes across the public administration. In addition, digitized services are less accessible.

In previous chapters, we showed that the use of digital public services is limited in the region and varies by sociodemographic factors (Chapter 2). Part of the variation is due to barriers to access to enablers such as connectivity, access to devices, and digital skills (Chapter 3). This chapter examines the other side of the problem: supply. First, it analyzes the availability of different types of online services and how availability differs from citizen needs. Second, it analyzes the accessibility of digital public services. Finally, it discusses the institutional factors underlying the gaps in availability and accessibility.

4.1
What services are available online?

Government transactions must be available online for people to use the digitally.

However, in most of LAC countries, the digitization of services has been partial. This indicates that some services are being prioritized, either explicitly or implicitly, for early digitization. Since different services are used by different groups of people (for example, tax services are used more by men, while social services are used more by women),[15] digitizing some services may benefit specific users, while others must continue to face the inefficiencies of the in-person channel. This prioritization may help explain the differences in the levels of adoption of digital services among different population segments, as discussed in Chapter 2.

There is a significant disconnect between the level of demand for different types of government transactions and their corresponding level of digitization. Figure 4.1 shows this dynamic. For example, identification and registration transactions are the most requested but are among those with the lowest digital use. Next are public health transactions, which are among the most requested transactions, yet only 11 % of citizens carried out their last health transaction online. On the other hand, public employment, taxation, criminal record, and business-related transactions have the highest levels of digital channel usage, but are less demanded. This affects which user groups benefit from digitization.

15 This and other gender differences are documented in Roseth et al. (2018).

Figure 4.1. Most requested public transaction vs. use of the digital channel

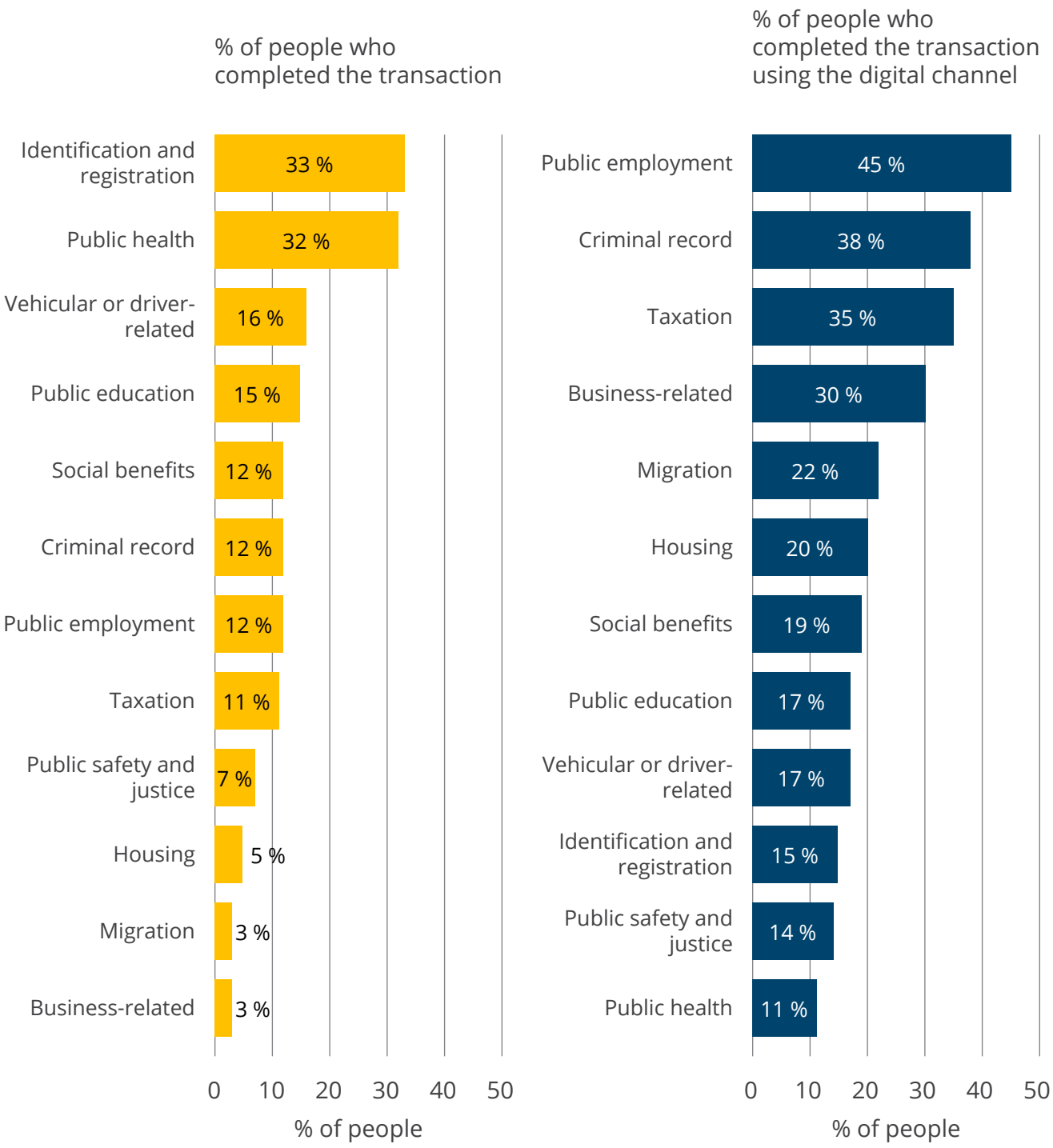


Table 4.1. Most requested public transaction vs. use of the digital channel

Last public transaction carried out	% of people who completed this transaction	% of people who completed this transaction using the digital channel
Identification and registration	33 %	15 %
Public health	32 %	11 %
Vehicular or driver-related	16 %	17 %
Social benefits	12 %	19 %
Criminal record	12 %	38 %
Taxation	11 %	35 %
Public education	15 %	17 %
Public employment	12 %	45 %
Housing	5 %	20 %
Migration	3 %	22 %
Public safety and justice	7 %	14 %
Business-related	3 %	30 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account. Likewise, the percentage of people who completed the transaction is calculated based on the total number of people who completed the transaction in the last 12 months. On the other hand, the percentage of people who carried out their last transaction digitally is calculated only considering those who reported that transaction as their last and that they completed it digitally. For this reason, the percentages presented in the graph have different denominators and should be interpreted accordingly.

The discrepancy between the level of demand for certain transaction and the level of use of the digital channel may be due to variations in the levels of availability of public transactions in different sectors. This can be seen in Table 4.2,[16] which shows, for Mexico and Brazil,[17] the level of digitization by type of transaction, based on an analysis of national transaction catalogs. In addition to observing different levels of digitization in general—13 % of government transactions in Mexico can be initiated and completed online, compared to 87 % in Brazil—in both countries, there is greater digital availability of certain types of transactions. In both countries, there is a higher

16 In Brazil, many of the services mentioned in the survey are provided by subnational, not federal, levels and tend to be less digitized.

17 Brazil and Mexico were selected for this analysis because they are the two countries in the region with the most comprehensive catalogs of government transactions, including the level of digitization of each transaction.

proportion of digitized taxation-related transactions and a lower proportion of digitized social services transactions. The degree of progress on digitization may have significant implications in terms of this inequality. The most striking difference is in Mexico, where 65 % of taxation-related transactions can be completed entirely online, compared to 24 % of social benefits transactions, 21 % of education transactions, and 6 % of health-related transactions. In Brazil, digitization levels are higher, and the differences are less pronounced: 100 % of taxation transactions, 87 % of social security transactions, 78 % of education transactions, and 80 % of health transactions can be completed online.

Table 4.2. Brazil and Mexico: online transactions by type[18]

Type of transaction	Mexico			Brazil		
	Number of transactions	% that can be started online	% that can be completed online	Number of transactions	% that can be started online	% that can be completed online
Taxation	63	71 %	65 %	315	100 %	100 %
Public education	131	47 %	21 %	1,525	87 %	78 %
Migration	163	42 %	2 %	53	100 %	100 %
Identification and registration	30	33 %	13 %	42	100 %	98 %
Social benefits	156	28 %	24 %	158	93 %	87 %
Vehicular or driver-related	29	28 %	28 %	102	94 %	94 %
Public health	171	24 %	6 %	715	82 %	80 %
Public employment	52	23 %	13 %	86	98 %	95 %
Business-related	333	16 %	15 %	1,391	97 %	94 %
Housing	76	16 %	14 %	83	95 %	93 %
Public safety and justice	146	2 %	1 %	425	94 %	89 %
Other	341	10 %	7 %	91	97 %	95 %
Total	743	23 %	13 %	2,910	92 %	87 %

Source: authors' analysis based on data available at Gob.mx (Mexico) and Gob.br (Brazil).

18 The definition of government transaction and the categorization of digital availability were taken from the data presented on the respective portals; no independent verification of all government transactions was conducted.

While some services are inherently more difficult to digitize due to their in-person components, this alone does not fully explain the variation in digitization levels. Proof of this is that several countries have already made high percentages of government transactions available online. One example is Uruguay, which announced that 93 % of central government transactions could be completed entirely online by May 2023. Other countries in the region, such as Brazil, are close to achieving the same goal (Table 4.2).

The implications in terms of inequity due to uneven digitization by sector are clear. The demand for government transactions varies significantly among people with different demographic characteristics. For example, Figure 4.2 shows the distribution of educational level among users of each type of transaction analyzed, and Figure 4.3 shows the distribution by disability status. They reveal that health and social benefits transactions are relatively more demanded by people with low levels of education, while migration, taxation, and business-related transactions are more in demand by people with more education. Similarly, the proportion of people with disabilities is higher for social benefits transactions.

The disconnect between citizen demand and digital availability may partly explain the findings in Chapter 2 regarding the lower use of the digital channel among people with low levels of education and disabilities.

Figure 4.2. Distribution of educational level, by category of last government transaction carried out

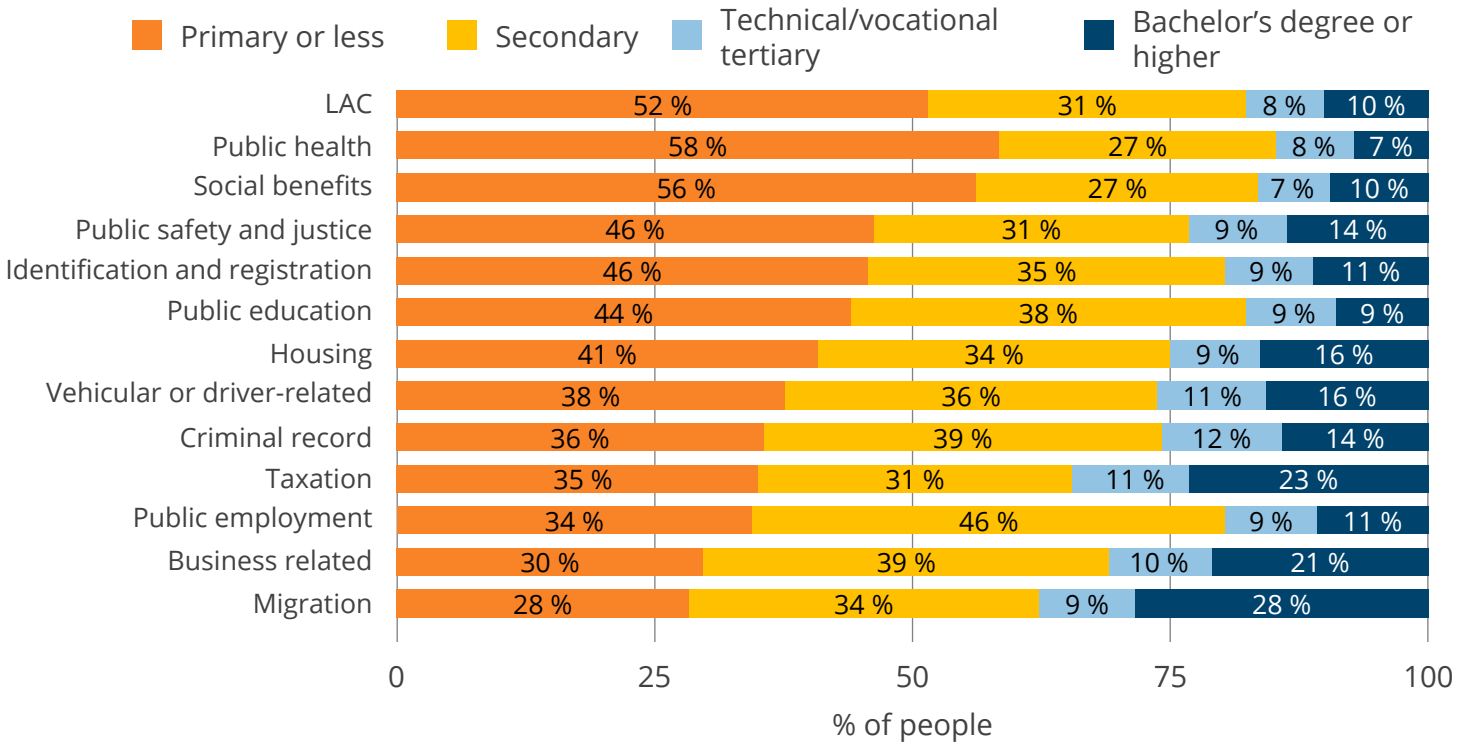


Table 4.3. Distribution of educational level, by category of last government transaction carried out

Last transaction carried out	Primary or less	Secondary	Technical/vocational tertiary	Bachelor's degree or higher
Migration	28 %	34 %	9 %	28 %
Business-related	30 %	39 %	10 %	21 %
Public employment	34 %	46 %	9 %	11 %
Taxation	35 %	31 %	11 %	23 %
Criminal record	36 %	39 %	12 %	14 %
Vehicular or driver-related	38 %	36 %	11 %	16 %
Housing	41 %	34 %	9 %	16 %
Public education	44 %	38 %	9 %	9 %
Identification and registration	46 %	35 %	9 %	11 %
Public safety and justice	46 %	31 %	9 %	14 %
Social benefits	56 %	27 %	7 %	10 %
Public health	58 %	27 %	8 %	7 %
Latin America and the Caribbean (LAC)	52 %	31 %	8 %	10 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence.

Figure 4.3. Distribution of disability status, by category of last government transaction carried out

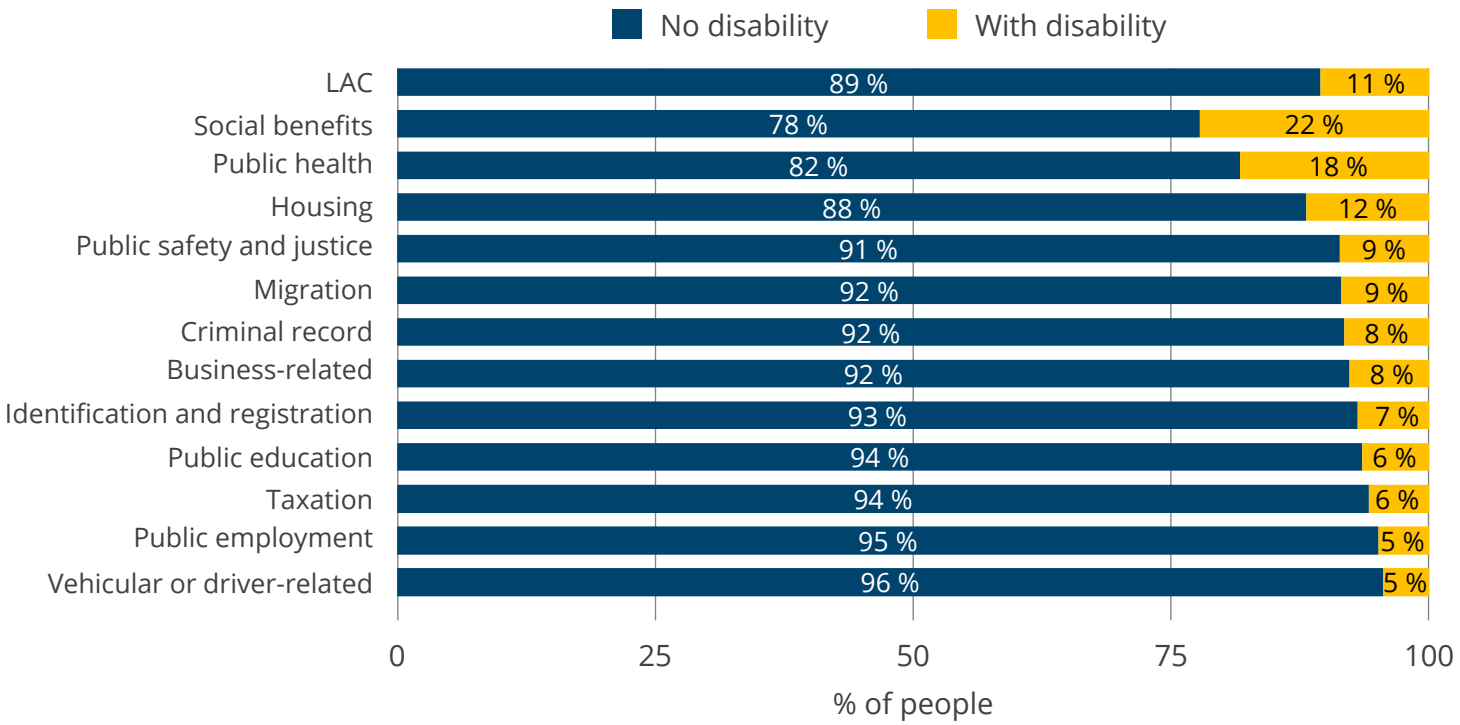


Table 4.4. Distribution of disability status, by category of last government transaction carried out

Last transaction carried out	No disability	With disability
Vehicular or driver-related	96 %	5 %
Public employment	95 %	5 %
Taxation	94 %	6 %
Public education	94 %	6 %
Identification and registration	93 %	7 %
Business-related	92 %	8 %
Criminal record	92 %	8 %
Migration	92 %	9 %
Public safety and justice	91 %	9 %
Housing	88 %	12 %
Public health	82 %	18 %
Social benefits	78 %	22 %
Latin America and the Caribbean (LAC)	89 %	11 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not consider place of residence.

4.2
Are digital public services designed to be accessible to all citizens?

Once a service is available online, the next criterion for it to be used effectively is that it must be accessible. This requirement is particularly important for people with motor, visual, cognitive, and linguistic difficulties or differences, as well as those with low connectivity or outdated devices. This section assesses the level of accessibility of some important government websites. The analysis in divided in three parts. First, it reviews of government portals[19] from 20 countries, listed in Annex 2, according to the criteria outlined below. Second, it analyzes the availability of government portals by the languages in which those portals are available, compared to the languages spoken in the country. Third, it analyzes the accessibility and loading speed of coronavirus information.

Accessibility of Portals

The portals analyzed are usually managed by entities with greater digital capacity. Thus, they should represent a "best case" for accessibility in the public sector. The level of accessibility of these portals was analyzed based on the following ten criteria:

- **Simple language and form elements:** The use of clear language facilitates understanding of the content, especially for users with cognitive difficulties. However, few portals prioritize simplicity of language or the use of accessible forms, such as visible labels and keyboard-compatible navigation.

19 The government portal is the central website where information on a wide range of public services is typically stored. The evaluation included: home page, contact page and flow, search flow, news section, information or transaction flows, and accessibility statement page for each portal.

- **Page language specification:** It is crucial that the language be clearly specified in the HTML code so that assistive technologies, such as screen readers, can adjust the pronunciation correctly.

- **Page title:** Titles identify each page (and its respective content) on a website. They should help users answer questions about where they are and what they can expect to find. To be recognized by screen readers, page titles should be descriptive and unique, so that no two pages on a website have the same name.

- **200 % zoom:** The zoom function in the browser allows users to increase the size of what they see on the page. This tool is ideal for people with low vision or who use small devices. We evaluated whether the page maintained its structure when zoomed in, without obstructing the content.

- **Alternative text:** This is text that describes visual information in an image, figure, illustration, or other graphic element on a website. It is used so that screen readers can read aloud a general description of the graphic elements that provide information to the website. Decorative elements on the site do not require alternative text, but empty attributes should be used so that screen readers can skip the information and make it easier for the user to understand.

- **Contrast and use of color:** Adequate contrast between text and background colors makes reading easier, especially for people with low vision. Although most websites partially comply with this test, inconsistent use of color remains a barrier for many users.

- **Structure and heading:** The hierarchy of headings helps organize information and allows users to navigate logically. Nesting errors or missing headings in key elements make navigation difficult.

- **Landmarks:** These are reference points that allow users to navigate the structure of a page and quickly review the content of a website. For example, landmarks can be the areas that divide the content: main content, additional information, or banner. These are essential for keyboard navigation or screen readers.

- **Screen readers:** These convert visual content into audio, allowing blind or visually impaired people to interact with the content. The analysis examined whether images contained alternative text and whether the page structure allowed for smooth navigation. Many websites were found to lack adequate alternative text, making them difficult to use for these users.

- **Keyboard navigation:** This is essential for people with motor disabilities who have difficulty or are unable to use a mouse. The tests verified that all interactive elements were accessible with the keyboard and that a visual focus was included to indicate the user's position on the page. However, few portals fully comply with these requirements.

Table 4.5 shows the results of this analysis. The websites of Argentina, Brazil, Ecuador, and Uruguay are the most accessible, while those of the Bahamas, Costa Rica, and Honduras are the least accessible.

Table 4.5. Accessibility analysis results

Country	Simple language	Page language	Page title	200% zoom	Alternative text	Color	Structure and heading	Landmarks	Screen reader	Keyboard	Overall score (The maximum score is 10)
Argentina	●	●	●	◑	●	◑	◑	◑	◑	◑	7
Bahamas	◑	○	◑	○	○	◑	○	◑	○	◑	2.5
Barbados	●	●	○	◑	○	◑	○	◑	◑	○	4
Bolivia	●	○	◑	●	◑	◑	○	○	◑	○	4
Brazil (a)	●	●	●	◑	○	●	●	◑	◑	◑	7
Brazil (b)	●	●	●	●	○	◑	●	●	◑	○	7
Chile (c)	●	●	○	●	○	◑	◑	◑	○	○	4.5
Chile (d)	◑	●	○	○	●	◑	●	○	◑	◑	5.5
Colombia (e)	●	●	●	●	○	◑	○	○	◑	●	6
Colombia (f)	◑	●	●	◑	○	●	◑	○	◑	◑	5.5
Costa Rica (g)	●	○	○	◑	○	◑	○	○	◑	◑	3
Costa Rica (h)	●	○	○	●	○	◑	○	○	○	◑	3
Ecuador	●	●	●	●	●	◑	◑	◑	●	◑	8
Guatemala	●	○	●	◑	◑	◑	◑	●	◑	◑	6
Honduras	●	○	○	◑	○	○	○	○	◑	◑	2.5
Jamaica	◑	●	○	◑	○	◑	◑	◑	○	◑	4
Mexico	●	○	◑	◑	◑	◑	◑	◑	◑	◑	5
Panama	◑	○	◑	◑	○	◑	◑	○	◑	◑	4
Paraguay	●	●	○	●	○	◑	◑	◑	◑	◑	5.5
Peru	●	●	●	●	-	◑	◑	◑	◑	◑	6.5
Dominican Republic	●	○	●	◑	◑	◑	◑	◑	◑	◑	5
Suriname	◑	○	●	◑	◑	◑	○	○	◑	◑	4
Trinidad and Tobago	●	●	●	●	○	●	○	◑	◑	◑	6.5
Uruguay	●	●	●	◑	●	◑	◑	◑	◑	◑	7

Source: authors' elaboration based on Pallero and Márquez (2023). Report on the digital accessibility of government websites in Latin American and Caribbean countries. Consulting report for the Inter-American Development Bank
Notes: analysis of single central government portals. For countries with more than one row, the portals analyzed are: (a) Services and information in Brazil; (b) CadÚnico; (c) School admission system; (d) National Disability Service; (e) Identification system for potential beneficiaries of social programs; (f) Government transactions portal; (g) National Information System and Single Registry of Beneficiaries; (h) Pura Vida Digital.
● Criteria met; ◑ Criteria partially met; ○ Criteria not met.

Portal languages

In several countries in the region, a significant share of the population speaks a language other than the dominant one. As a proxy for the accessibility of digital services for these language groups, we studied the languages in which government portals are available. The results are presented in Table 4.6. In no country in the region is the portal offered in an Indigenous language. This contrasts with the portals of some advanced countries, such as Spain and Switzerland. The Spanish portal[20] is available in six languages,[21] including Euskara, spoken by 2.15 % of the population; the Swiss portal[22] is available in five languages,[23] including Romansh, spoken by 0.5 % of the population.

20 Administracion.gob.es

21 English, Catalan, Basque, Galician, Valencian

22 https://www.admin.ch/gov/en/start.html

23 German, French, Italian, English, and Romansh

Table 4.6. Availability of government websites in different languages

Country	Languages offered on the government website	Non-official or minority languages in the country	% of the population speaking the respective languages
Estonia	Estonian, Russian, English	Russian	28.47 %
Finland	Finnish, Swedish, English	Swedish	5.20 %
Spain	Spanish, English, Catalan, Basque, Galician, Valencian	Catalan	8.68 %
		Valencian	3.88 %
		Galician	3.55 %
		Basque	1.60 %
Switzerland	German, French, Italian, Romansh, English	Italian	7.21 %
		English	3.73 %
		Romansh	0.47 %
Chile	Spanish	Mapudungun	9.93 %
Peru	Spanish	Quechua	12.91 %
		Aymara	1.53 %
Mexico	Spanish	Nahuatl	1.33 %
Ecuador	Spanish	Quichua	4.07 %
Panama	Spanish, English	Ngäbe	7.64 %
		Kuna	2.36 %
Paraguay	Spanish	Guaraní	68.17 %
Bolivia	Spanish	Quechua	16.54 %
		Aymara	10.01 %
Suriname	Dutch, English	Hindi-Sarnami	27.41 %
		Ndyuka, Saramaccan, other Creole languages	21.71 %
		Sranan Tongo	16.41 %
Guatemala	Spanish	Q'eqchi'	7.57 %
		K'iche'	7.08 %
		Mam	3.96 %
Venezuela	Spanish	Wayuu/Guajiro	1.52 %
Belize	English	Spanish	30.89 %
		Creole	24.38 %
		Maya	3.29 %

Source: authors' elaboration based on population censuses from each country (see Annex 1 for more details).
Note: the table does not cover all languages spoken in the listed countries.

Accessibility and loading speed of coronavirus information pages

Many governments adopted the web channel as their main mechanism of communication with citizens during the COVID-19 pandemic. It was the place where the government issued updated health recommendations, movement restrictions, and vaccination options, among other things. For this reason, it was vital that these pages were as accessible as possible. However, this was not always the case. Table 4.7 presents a summary of the analysis carried out by the consulting firm Public Digital in mid-2020, using two metrics: page loading speed and accessibility (measured with Google PageSpeed Insights and Lighthouse tools). As can be seen, the pages of many countries in the region have significantly lower scores than those of world leaders, particularly in terms of loading speed. This means that people with poor connectivity or less powerful devices had significant difficulty viewing the content of these pages.

Table 4.7. Loading speed and accessibility of coronavirus information pages

Country	Web page	Loading speed	Accessibility
United States	https://covid19.ca.gov/	0.99	1
United Kingdom	https://www.gov.uk/coronavirus	0.95	1
Chile	https://www.gob.cl/coronavirus/	0.66	0.91
Switzerland	https://www.bag.admin.ch/bag/en/home/krankheiten/ausbruec...	0.55	0.85
Paraguay	https://www.mspbs.gov.py/covid-19.php	0.46	0.65
Bolivia	https://boliviasegura.gob.bo/	0.41	0.83
Brazil	https://coronavirus.saude.gov.br/	0.32	0.63
Peru	https://www.gob.pe/coronavirus	0.28	0.76
Colombia	https://coronaviruscolombia.gov.co/	0.2	1
Uruguay	https://www.gub.uy/ministerio-salud-publica/coronavirus	0.18	0.91
Mexico	https://coronavirus.gob.mx/	0.1	0.53
Honduras	https://covid19honduras.org/	0.04	0.78
Trinidad and Tobago	http://www.ttconnect.gov.tt/gortt/portal/ttconnect/!ut/p/...	0.03	0.66
Guatemala	https://www.mspas.gob.gt/index.php/noticias/covid-19/coro...	0.03	0.72
Jamaica	https://jamcovid19.moh.gov.jm/index.html	0	0.74

Source: public Digital (2020) analyzes the performance of government websites on COVID-19.
Notes: scores of 0.9 and above are considered good scores, indicating that the websites analyzed are fast and meet basic accessibility standards. Results of 0 indicate that the metric could not be generated.

In conclusion, the accessibility of digital services in the region is limited. Accessibility barriers in key areas such as navigation, structure, language clarity, language, and loading speed hinder access for certain population groups.

4.3
What are the challenges associated with equity and inclusion in the provision of digital services?

The analysis presented above reveals several challenges in terms of equity and inclusion in the provision of digital public services. Section 4.1 described a disconnect between the public transactions demanded by citizens and the level of digitization of different types of transactions, resulting in a lower level of digital availability for people in vulnerable situations. Section 4.2 described the low level of accessibility to digital public services, which disproportionately affects people with different types of challenges (e.g., poor connectivity, limited digital skills, visual or cognitive disabilities). This section presents three possible explanations for the challenges of equity and inclusion. First, governments lack a strategic focus on this problem. Second, governance of digitization processes tends to be fragmented. Third, there is a lack of installed capacity.

Lack of strategic focus

One possible explanation for the gaps documented here is that inclusion is simply not a goal in governments' digital transformation agendas. To verify this possibility, we conducted an analysis of the digital government strategies of countries in the region and some digital leaders from outside the region. The analysis, presented in Table 4.8, only notes which inclusion criteria are mentioned in the strategies without judging the depth of the mention. Thus, the results should be interpreted as statements of intent rather than effective implementation. The criteria analyzed are gender, ethnicity, socioeconomic status, youth, elderly, and people with disabilities. The results reveal a mixed picture. On the one hand, countries with the

highest levels of digital maturity, such as Argentina and Brazil, make no reference to inclusion in their strategies, while Ecuador, Honduras, the Dominican Republic, and Trinidad and Tobago mention almost all the criteria. In this regard, LAC countries are in line with leading countries outside the region—some mention several of the criteria (Singapore includes four of the six and New Zealand three); others mention fewer (the United Kingdom mentions all the criteria and Estonia one).

From another angle, this analysis also reveals which criteria are the most important overall. The socioeconomic situation is mentioned in 14 of the 23 strategies analyzed (11 of 19 in LAC). Youth are mentioned in 11 strategies (nine in the region). People with disabilities are mentioned in 14 strategies (12 in the region), ethnicity is mentioned in nine (five in the region), gender in seven (six in the region), and the elderly in nine (seven in the region).

Table 4.8. Mention of inclusion criteria in digital government strategies

Country	Year	Link	Gender	Ethnic origin	Socioeconomic status	Children, adolescents	Elderly	People with disabilities
Argentina	2022	National Strategy for the Federal Program for Digital Public Transformation						
Belize	2022	Digital Government Bill						Yes
Bolivia	2017 - 2025	E-Government Plan		Yes		Yes		Yes
Brazil	2024 - 2027	National Digital Government Strategy			Yes	Yes		Yes
Chile	2025 - 2030	Digital Government Strategy		Yes	Yes	Yes	Yes	Yes
Colombia	2022 - 2026	Digital Government Policy						Yes
Costa Rica	2023 - 2027	Digital Transformation Strategy	Yes	Yes	Yes	Yes	Yes	Yes
Ecuador	2022 - 2025	Digital Transformation Agenda	Yes		Yes	Yes	Yes	Yes
El Salvador	2020 -2030	Digital Government Agenda	Yes			Yes		
Guatemala	2021 - 2026	Digital government plan			Yes			
Honduras	2023 - 2026	National Digital Government Plan						Yes
Jamaica	2016	Roadmap and Action Plan for ICT Transformation in Government						
Mexico	2021 - 2024	National Digital Strategy (Digital Policy of the Federal Public Admin.)						
Panama	2024- 2029	Strategic Drivers National Agency for Government Innovation			Yes			
Paraguay	2022- 2030	National Plan for Information and Communication Technologies (ICT)		Yes	Yes			Yes
Peru	2023 - 2030	National Digital Transformation Policy	Yes	Yes	Yes	Yes	Yes	Yes

Country	Year	Link	Gender	Ethnic origin	Socioeconomic status	Children, adolescents	Elderly	People with disabilities
Dominican Republic	2022 - 2030	Digital Agenda	Yes		Yes	Yes	Yes	Yes
Trinidad and Tobago	2024 - 2027	National Digital Strategy			Yes		Yes	Yes
Uruguay	2021 - 2025	Uruguay Digital Agenda 2025	Yes		Yes	Yes	Yes	
Estonia	2021 - 2030	Digital Agenda 2030		Yes				
New Zealand	2019	Digital Public Service Strategy		Yes	Yes	Yes		
United Kingdom	2024-2030	Digital Development Strategy	Yes	Yes	Yes	Yes	Yes	Yes
Singapore	2020	A Model for Digital Government		Yes	Yes		Yes	Yes

Source: authors' elaboration based on an analysis of each government portal, listed in column (3).

Fragmented governance of digitization processes

The governance of public service digitization processes affects what is digitized and how. Since almost all countries have a digital government strategy that encompasses the entire public sector, in theory it would be possible to list the services that should be digitized as a priority and empower the digital governing body to implement that prioritization. As shown in Table 4.1 above, which presents the levels of digitization of different government transactions in Mexico and Brazil, it could be that what is presented there reflects a strategic approach. If this were the case, it would mean that, in Mexico, there is an explicit decision to digitize taxation services three times more than public education services, four times more than business-related services, and ten times more than public health services. However, nothing in Mexico's digital government strategy indicates that this is the case. It is more likely, then, that the disparate levels of digitization across service types are attributable to fragmented governance of digitization processes.

It is uncommon to find centralized governance of digitization processes led by the digital regulatory authority and guided by a clear strategy. More frequently, a hybrid model prevails: some strong institutions (such as tax authorities, which tend to have broad autonomy and strong incentives to digitize) go their own way, digitizing services they consider a priority without consulting the regulatory authority. Others consult with the digital regulatory authority

without much direct involvement. In other cases, the digital government regulatory authority supports institutions throughout the process, thereby exerting a degree of influence over what gets digitized and how. This diversity of governance agreements can be seen in the specific case of digital school enrollment: in only one country in the region, the ministry of education coordinates with the digital regulatory authority on the rollout of this tool (out of a total of six countries analyzed that offer digital enrollment).

Fragmented governance of digitization processes can be seen from two angles. First, the digital regulatory authorities themselves report that there is little structure in the prioritization of services to be digitized. In interviews with representatives of ten regulatory authorities in 2024,[24] they reported that they prioritized using predefined criteria (such as starting with central government transactions) or practical criteria (such as transaction volume, alignment with political priorities, and technical feasibility of digitization). Only Bolivia took into account the importance of the service for vulnerable populations as a prioritization criterion, and even there it was applied informally.

The low number of government transactions available on single government portals is another sign of the fragmentation of digitalization governance. In principle, these websites should be the main place where citizens go to conduct online transactions. They are typically managed by the digital government authority and can host services from across the government. However, in practice, these portals often reflect the limited influence of the regulatory authority on the digitization processes of public entities. In other words, in the cases analyzed (see Figure 4.4), the services available on these platforms tend to be few and not representative of the universe of services provided by the government. For example, in Panama, there are only 61 services on the transactions portal, while in 2017, the government reported having 2,398 government transactions managed by the central administration; in Costa Rica, there are only 24 services on the transactions portal, while in 2017, the government reported having 1,614 transactions managed by the central administration (Roseth et al., 2018). In three of the four countries analyzed, there are no taxation services available on the portal. Colombia only offers one taxation service, even though there are several digital taxation transactions in all the countries analyzed. Again, this suggests that digitization processes in governments are diverse and

24 Annex 1 includes a list of the governing bodies interviewed.

not entirely strategic: some institutions digitize independently; others do so in conjunction with digital regulatory authorities guided by formal criteria; and in other cases, there are no established criteria to guide these processes.

Table 4.9. Digital services available on government service portals

Government transaction	Number of digital services available by country			
	Chile	Colombia	Panama	Costa Rica
Social benefits	36	2	2	1
Public health	5	1	10	2
Vehicular or driver-related	15	0	0	0
Migration	1	2	1	2
Public safety and justice	5	2	2	4
Public employment	5	7	10	9
Taxation	0	1	0	0
Public education	5	5	4	0
Housing	0	4	7	0
Business-related	4	0	10	2
Identification and registration	2	0	0	0
Other	5	0	15	6

Source: authors' elaboration based on data available from Panama Digital (Panama), ClaveÚnica.gov (Chile), TramitaYa (Costa Rica), and Gov.co (Colombia).
Note: in the case of Chile, information on digital services was collected exclusively from the Clave Única and ChileAtiende portals. Therefore, only transactions that can be initiated and completed through these platforms were counted. This means that digital services that cannot be completed on these portals were not included in the count. This exclusion does not necessarily indicate that they are not available in digital format through other service channels, such as other government websites. In total, the ChileAtiende portal provides information on 535 transactions that can be completed entirely online.

Limited institutional capacity to incorporate accessibility criteria

Creating accessible digital services is a complex process. It requires understanding the barriers that users face and implementing tactical improvements to overcome them. It is unlikely that every public entity will have the necessary capabilities to design inclusive services. The best-positioned entity to promote accessibility in digitization is usually the digital government authority, as its mandate generally includes supporting digitization processes across the government, and its teams include professionals specialized in service design. In theory, these governing authorities could ensure that digitized services meet accessibility criteria.

However, this rarely happens, for two main reasons. First, governing authorities tend to have limited influence over digitization processes in the rest of the public administration (as discussed in this text), so their ability to promote accessibility is restricted. Second, many of these authorities lack a strategy or established practices for integrating accessibility into their work. This was observed in interviews with governing authorities, which inquired about the existence of user experience teams on the one hand and standards that would promote accessibility in digital services on the other. Regarding user experience teams, four of the ten governing bodies interviewed stated that they did not have a dedicated team.[25] Regarding the standards that would promote accessibility in digital services, the following types of standards were identified:

- **Physical accessibility:** Ensure that all people, regardless of their physical abilities, can use digital services.
- **Involvement of users in the design:** Include users in the design process to help create services focused on their needs.
- **Simple language:** Present information in a clear, simple, and understandable way.
- **Usability:** Ensure that digital services are intuitive and easy to use.

25 Authorities in Costa Rica, Guatemala, Honduras, and Suriname stated that they did not have a user experience team. Authorities in Belize, Bolivia, Chile, Jamaica, Peru, and Uruguay stated that they did.

- **Linguistic accessibility:** Produce versions of services in the languages spoken by the local population.

As shown in Figure 4.4, most governing authorities have physical accessibility standards and involve users in the design process. However, only half use simple language and usability standards, and only three authorities apply linguistic accessibility standards.

Figure 4.4. Countries reporting standards for digital service design

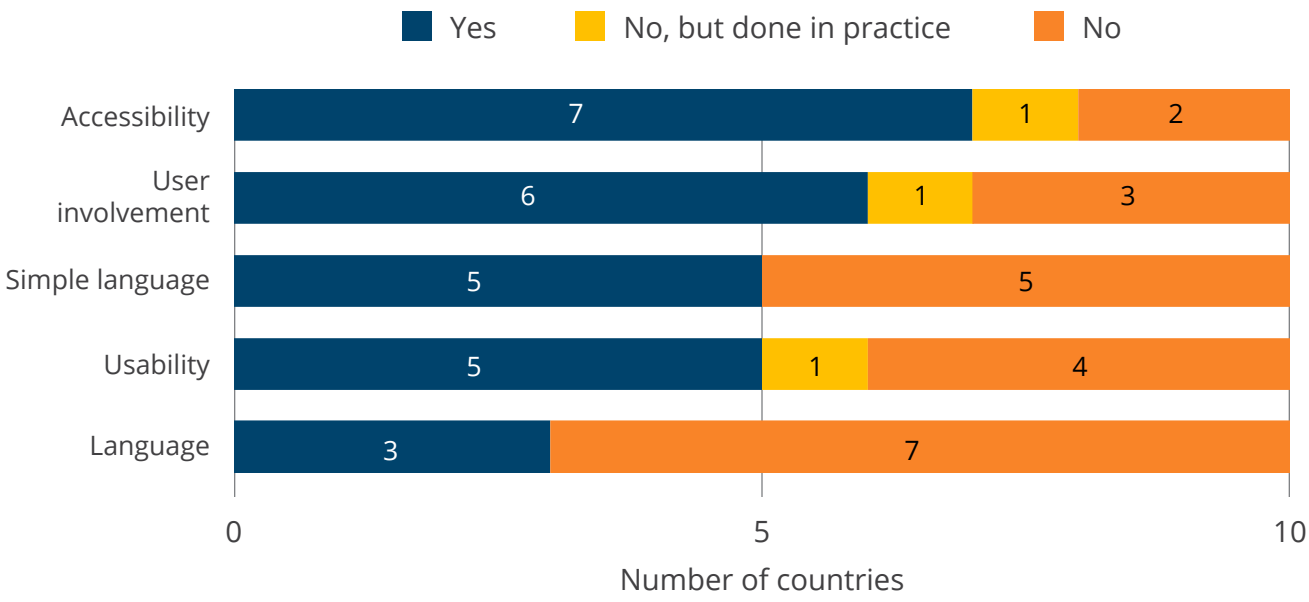


Table 4.10. Countries that report having standards for digital service design

Standards	Yes	No, but done in practice	No
Accessibility	7	1	2
User involvement	6	1	3
Simple language	5	0	5
Usability	5	1	4
Language	3	0	7

Source: authors' elaboration based on interviews with digital government authorities in Belize, Bolivia, Chile, Costa Rica, Guatemala, Honduras, Jamaica, Peru, Suriname, and Uruguay.

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Chapter 5

School enrollment, health, social protection, labor intermediation, and public safety: Does digital government contribute to equity in the provision of these services?

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Summary

Access to essential services such as education, health, social protection, security, and employment in Latin America and the Caribbean (LAC) continues to be marked by profound inequalities derived from factors such as income, education, sex, racial and ethnic self-identification, and place of residence. This chapter explores how digitization can mitigate or exacerbate these gaps by analyzing five key cases: school enrollment, health, social protection, labor intermediation, and citizen security. Although digitization has the potential to improve efficiency and equity in these services by reducing physical and information barriers, the results also reveal significant challenges associated with unequal access to digital devices and skills.

The analysis highlights advances in the digitization of school enrollment, which has centralized processes and improved equity in access to quality schools, yet challenges persist in regions characterized by unequal infrastructure. In health, tools such as patient portals and telemedicine have improved efficiency, but their impact on equity depends on inclusive design and access. In social protection, digital systems have streamlined beneficiary identification and payments, although coverage gaps persist. Finally, in labor intermediation, digital systems have reduced costs and expanded the reach of public services, but vulnerable groups face barriers in using these tools. The chapter emphasizes that in order for digital services to effectively promote equity, they must be designed with an inclusive approach that takes the needs of the most disadvantaged populations into account.

A country's productivity, growth, and development depend on the availability and quality of its public goods and services. However, providing these essential elements is often challenging due to information asymmetries, high transaction costs, and weak institutions, resulting in variations in their scope and quality (Aker, 2017, 2011; Nakasone, 2006). In response to these obstacles, the last two decades have witnessed remarkable growth in the coverage and adoption of digital technologies. These technologies offer promising alternatives to overcome existing limitations: they can improve citizens' access to crucial information, both public and private, facilitate better coordination between individuals, and improve data collection, which is essential for a more efficient allocation of public goods and services (Aker, 2017).

In LAC countries, differences in income, educational level, sex, racial and ethnic self-identification, age, and language determine the level of access to essential services such as education, health, social protection, employment, and security (Busso and Messina, 2020).

Although the region has improved access to public services, significant quality gaps remain (Cardona et al., 2013). Digitalization has the potential to mitigate these inequalities by redesigning systems and expanding coverage, as long as its design incorporates equity and inclusion criteria. However, it can also widen existing gaps, especially for those who lack access to computers, the internet, or digital skills.

Social government transactions, which include services related to education, health, social protection, employment, and citizen security, represent a significant part of interactions with public services: 5 out of 10 people carried out one of these types of transactions in their last contact. Health transactions are the most frequent (32 %), followed by public education (15 %) and public employment (12 %), partly because they involve multiple steps, such as scheduling appointments and consultations.

Currently, social government transactions[26] are mostly carried out in person: 72 % use this channel, compared to 16 % who opt for digital mechanisms and 11 % who combine both. The preference for in-person services is higher for health (79 %) and education (69 %) transactions, while only 41 % of employment transactions are carried out in person (Figure 5.1).

26 Social government transactions are (1) social assistance or social security services (e.g., applying for state aid or subsidies, registering for a program, applying for a pension), (2) public health services (e.g., making an appointment at a hospital or public health center, applying for access to public health insurance), (3) public education (e.g., enrolling a minor in a public education center, applying for funding to access public education), (4) public safety and justice (e.g., filing a complaint, attending a trial), and (5) employment (e.g., job search assistance, unemployment benefits).

Figure 5.1. Percentage of users who conducted a social government transaction by channel

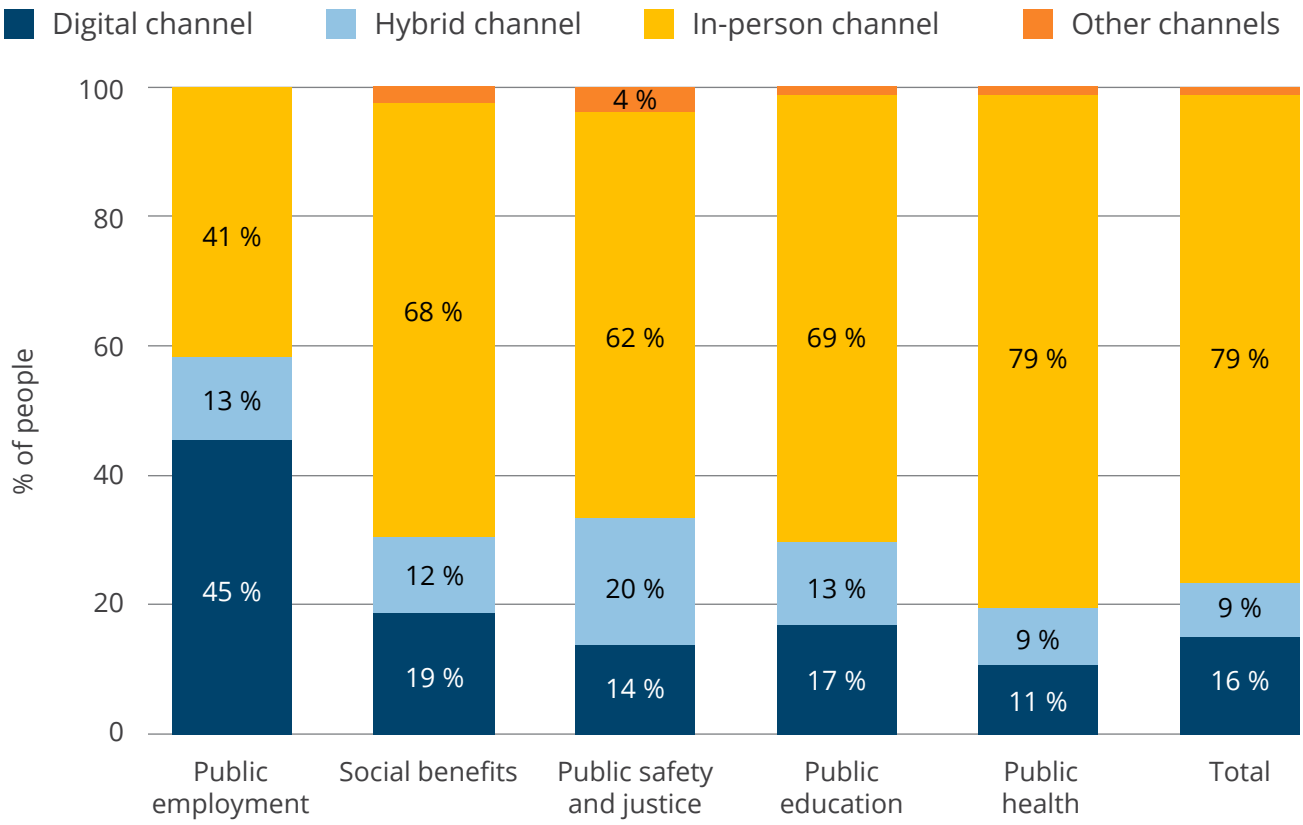


Table 5.1. Percentage of users who carried out social government transactions, by channel

Government transaction	Digital channel	Hybrid channel	In-person channel	Other channels
Public employment	45 %	13 %	41 %	0 %
Social benefits	19 %	12 %	68 %	2 %
Public safety and justice	14 %	20 %	62 %	4 %
Public education	17 %	13 %	69 %	1 %
Public health	11 %	9 %	79 %	1 %
Total	16 %	9 %	79 %	1 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take place of residence into account.

Although full digitization is still a distant goal, those who have already carried out social government transactions online demonstrate a high willingness to use the digital channel again: 72 % would do so. Public safety and justice services (filing a complaint, attending a trial) are a notable example, with 81 % of people willing to repeat the transaction digitally, compared to 70 % for public health-related transactions.

Closing inequality gaps is key to advancing digitization. Currently, women conduct most social government transactions, often for the benefit of third parties. In this sense, 30 % of the transactions carried out by women are on behalf of a minor, an older adult, or a person with a disability, compared to 24 % in the case of men.

Previous chapters showed how digitization of government transactions lacks a clear focus on equity and inclusion. This chapter analyzes its implications on key transactions, such as school enrollment; appointment scheduling and the use of telemedicine in health care; job search through digital labor intermediation services; and the delivery of cash transfers in social protection.

5.1
Digitization of labor intermediation services: Does it reduce inequality in access to quality jobs?

Labor intermediation systems seek to close gaps between labor supply and demand by connecting job seekers with vacancies and training opportunities (Mazza, 2004). They include services such as job search, training, information tools, and placement through public employment services (PES), private agencies, and civil society organizations.

These services can be offered through various channels, from in-person to digital, including call centers and online portals (Urquidi, González, and Ortega, 2020). However, the challenges of the in-person channel include limited coverage in rural areas and inefficient manual processes. In Paraguay, for example, the use of paper-based processes hindered service delivery, follow-up, and information analysis (Urquidi, González, and Ortega, 2023).

In today's labor market, technological innovation and changing skill requirements require great flexibility to manage frequent job transitions such as entering the labor market, returning after a period of family care, going through periods of unemployment, between periods of education and training, changing jobs, or moving from one region or country to another (IDB et. al , 2016). This section explores the challenges associated with labor intermediation processes and how equity can be improved through public employment services.

Equity challenges in labor intermediation processes

Labor intermediation systems face several challenges that affect equity in access to employment opportunities, which are summarized below:

- Costs associated with job search: Interviews with job seekers during the first years of implementation of the Labor Market Insertion Support Program in Paraguay[27] revealed that the costs associated with job search, such as transportation and printing of paper resumes, are significant and recurring for each application (Urquidi, González, and Ortega, 2023). These economic barriers particularly affect the most vulnerable groups, limiting their employment opportunities and perpetuating the cycle of social exclusion.

- Limited reach: Public employment services (PES) are usually located in urban centers, far from the communities that need them most. This location creates barriers to access, such as transportation costs, which make it difficult for job seekers with limited resources to use these services. In the early 21st century, studies by Mazza (2004, 2011) showed that most job seekers in Latin America relied on family or friends to access job opportunities. This practice persists and puts low-skilled workers at a disadvantage, as they have less access to networks with diverse or high-quality job connections. The lack of open dissemination of job vacancies remains a barrier for these groups (Mazza, 2013).

Digital services: An alternative to enhance public employment services

PES plays an essential role in connecting workers and employers, managing the labor market, and mitigating impacts during economic changes. Their key functions include managing job portals, providing labor market information, implementing active employment policies, managing social benefits, and administering labor migration (Pieterson et al., 2023). PES serve both job seekers and employers. Job seekers receive support in career guidance, personalized training, and assistance for vulnerable groups, while companies have access to services such as candidate pre-selection, group testing, and vacancy management.

Since the beginning of the 21st century, PES in the region have begun to incorporate digital services in response to people's place of residence (Mazza, 2004). Although some initiatives have integrated advanced technologies such as artificial intelligence (AI) to improve the match

27 Project PR-L1066 implemented under contract 2660/OC-PR by the Ministry of Labor, Employment, and Social Security of Paraguay.

between labor supply and demand (Urquidi & Ortega, 2020),[28] most job seekers still find basic digital platforms, similar to traditional job boards. This constraints the scope of services, especially for users with low digital skills or who need additional guidance.[29]

The use of AI in PES has shown potential for identifying unconventional career paths and facilitating more efficient transitions. However, it also presents risks, as the information generated may be too complex for those with fewer digital skills. To avoid these problems, it is essential to design digital transformation processes focused on the user experience, with human involvement[30] to mitigate biases inherent in AI (Urquidi and Ortega, 2020). Additionally, it is also important to recognize that the implementation of AI requires manual oversight mechanisms, algorithmic transparency frameworks, and other control measures to ensure that these mechanisms do not replicate biases (Chen, 2023).

The digitization of PES not only enhances the efficiency of labor intermediation processes but also represents an opportunity to promote greater equity in access to employment. However, it requires overcoming specific barriers from the perspective of job seekers, companies, and intermediary agencies.

28 As in the cases of Paraguay, Peru, and Costa Rica, for example (Urquidi, González, and Ortega, 2023).

29 Systems such as LinkedIn require a high level of digital skills given their target group, although they have also established themselves as platforms supporting state intermediation services. Other private portals provide information without necessarily giving access to employment guidance.

30 For example, according to research by Forrester Consulting, two-thirds of users prefer human customer service representatives to chatbots, as they feel they understand them better and take their problems seriously. Chatbots vs. Humans: the Pros and Cons, and What Customers Really Think – The Daily Duck (uoregon.edu) The biggest limitation stems from the fact that chatbot technologies respond very well to a high volume of simple queries, but they lack the flexibility and ability of a human to understand problems, both of which are essential skills for job guidance (Mazza, 2004).

Barriers on the demand side

Although PES have the potential to foster inclusion and improve access to job opportunities, demand-side barriers limit their effectiveness, especially for the most vulnerable groups in society.

Lack of Access to Information and Adaptation of Platforms for Vulnerable Groups

In LAC countries, the labor inclusion of people with disabilities remains a major challenge. While 13 % of the region's population, equivalent to 85 million people, has some degree of disability (Duryea et al., 2019), less than 10 % of companies employ people with disabilities (Urquidi, Otazú and Sardán, 2023).

Labor intermediation systems do not always consider the diverse needs of subgroups of people with disabilities. For example, mental disabilities require different approaches than physical disabilities. Furthermore, the solutions designed are not necessarily applicable to all limitations. This same challenge is observed in services aimed at other vulnerable groups, such as Indigenous peoples, who need tools in native languages, and older adults, who require intuitive and adapted interfaces.

A clear example of specific barriers is the lack of digital accessibility for people with visual impairments. Even if inclusive job offers exist, if digital portals are not accessible, these individuals cannot fully participate. To address this problem, it is essential to develop inclusive digital solutions, raise awareness among employers, and provide support such as training, subsidies, and specialized assistance. Similarly, Indigenous populations and recent migrants need culturally and linguistically adapted services, as well as employer sensitization initiatives aimed at reducing bias in hiring processes.[31]

31 See, for example, the intercultural problems reported between employers and young people in the 2015 labor market study on young migrants in El Alto, Bolivia (Oxfam, 2016). In addition to ensuring adequate access to information, the experience of the project "Intercultural model for the labor market integration of young migrants in El Alto" (ATN/ME-14734-BO), funded by the IDB Lab (then the Multilateral Investment Fund [FOMIN]) and implemented by Oxfam-Quebec, shows that it is necessary to raise awareness among employers about the cultural aspects of rural-urban migrants and to provide training in specific and socio-emotional skills, especially those that improve communication.

In addition, users of PES tend to have lower digital literacy. Only 40 % of them have basic digital skills, such as sending an email with an attachment (ITU, 2020). This hinders their ability to apply for job opportunities available online.

Use of Digital Platforms

Although digitization enables PES to offer more efficient and accessible services, the adoption of these tools faces resistance. A regional survey found that 40 % of users identified resistance to change as a major obstacle, surpassed only by a lack of resources (Pieterson, 2023). This mistrust of digital platforms limits the effectiveness of PES.

However, there is significant potential to increase the use of these tools. Of those who recently completed digital government transactions, 80 % said they would repeat them in the future, describing their experience as highly satisfactory (IDB, 2025). To capitalize on this potential, it is important to promote digital education campaigns and build trust in the platforms.

Lack of Internet Access and Digital Skills Among Job Seekers

Unequal access to the internet and low digital literacy are significant barriers. In 2018, only 40 % of households had access to the internet, and 67 % of people had mobile broadband. In addition, one-third of the population did not use the internet, with women, people over 55, and low-income individuals the most affected. This digital divide limits access to online job opportunities.

At the same time, only 40 % of PES users have basic digital skills (Gómez et al., 2023). This significantly reduces their ability to interact with digital employment services. Therefore, it is vital to invest in programs that expand internet access, improve digital skills, and bring users closer to the job opportunities offered by PES.

Demand-side barriers reflect structural inequalities that limit the effectiveness of PES. Overcoming them requires comprehensive actions: designing accessible and inclusive services, promoting digital literacy, and reducing resistance to the use of digital platforms through awareness campaigns and technical support. These measures are essential to ensure that PES can close equity gaps in the labor market.

Barriers on the supply side

Associated with the Public Employment System and Intermediation Agencies

One of the main barriers to the accessible digitization of PES is the lack of infrastructure and technical capabilities. According to Pieterson et al. (2023), 70 % of PES in the region identify resource shortages as the main obstacle to improving their services. The lack of trained staff and digital tools also negatively affect follow-up with job seekers: only one in three receives follow-up after the first visit (IDB, 2025).

Follow-up channels are uneven in terms of accessibility. Digital channels, for example, are more widely used by people with higher levels of education in urban areas, while telephone follow-up is predominant among people with lower levels of education and older adults (IDB, 2025). This imbalance reflects the need to close gaps in both the use and accessibility of different channels.

In addition, the implementation of technologies in PES tends to be fragmented, with initiatives that are not always integrated into a coherent strategic framework. This hinders the alignment and execution of projects with organizational priorities, limiting the impact of technological advances (Urquidi and Ortega, 2020).

Associated with Companies

On the business side, a major barrier is the lack of knowledge and understanding of the benefits and functionalities of labor intermediation systems. This may be due to limited dissemination or outreach by PES, as well as lack of internet access or digital skills among business teams. The adaptation of business personnel to digital tools is crucial for them to be able to register their vacancies and take advantage of these systems.

In Bolivia, for example, 72 % of companies surveyed in the 2022 Labor Market Survey demanded basic computer skills from their employees. However, persistent deficiencies in these skills are an obstacle to the full adoption of digital solutions (Urquidi, Otazú, and Sardán, 2023).

The experience of teleworking during the pandemic also illustrates these barriers. In urban areas of Bolivia, only 22 % of households had at least one person working remotely in 2020, reflecting the limited adaptability of many companies. However, those that had already digitized processes, such as electronic payments, showed greater willingness to implement teleworking in 2021 (Serrate et al., 2023).

Another challenge is the quality of information provided by employers when registering their vacancies. Job descriptions are often insufficient or misaligned with actual market needs, making it difficult to find suitable candidates. To address this, PESs should have specialized staff to support companies in uploading information and raise awareness among human resources teams about the importance of clear and realistic job postings. This support may include adjustments to job profiles to match the actual demands of the position and avoid unnecessary overqualification.

Effects of digital public employment services on job seekers

The implementation of a digital PES offers opportunities to overcome traditional barriers to accessing government transactions, such as long travel times and restrictive hours. However, ensuring inclusion requires adopting a multi-channel system that combines digital tools with in-person assistance, especially for those who lack connectivity, devices, or digital skills.

A key component in maximizing the efficiency of PES is interoperability between government systems. This allows people to provide their information once and have it used across multiple public services, reducing redundant paperwork and optimizing their time. In addition to directly benefiting citizens, interoperability improves the sustainability and effectiveness of public policies, resulting in a positive long-term impact (Pombo et al., 2019).

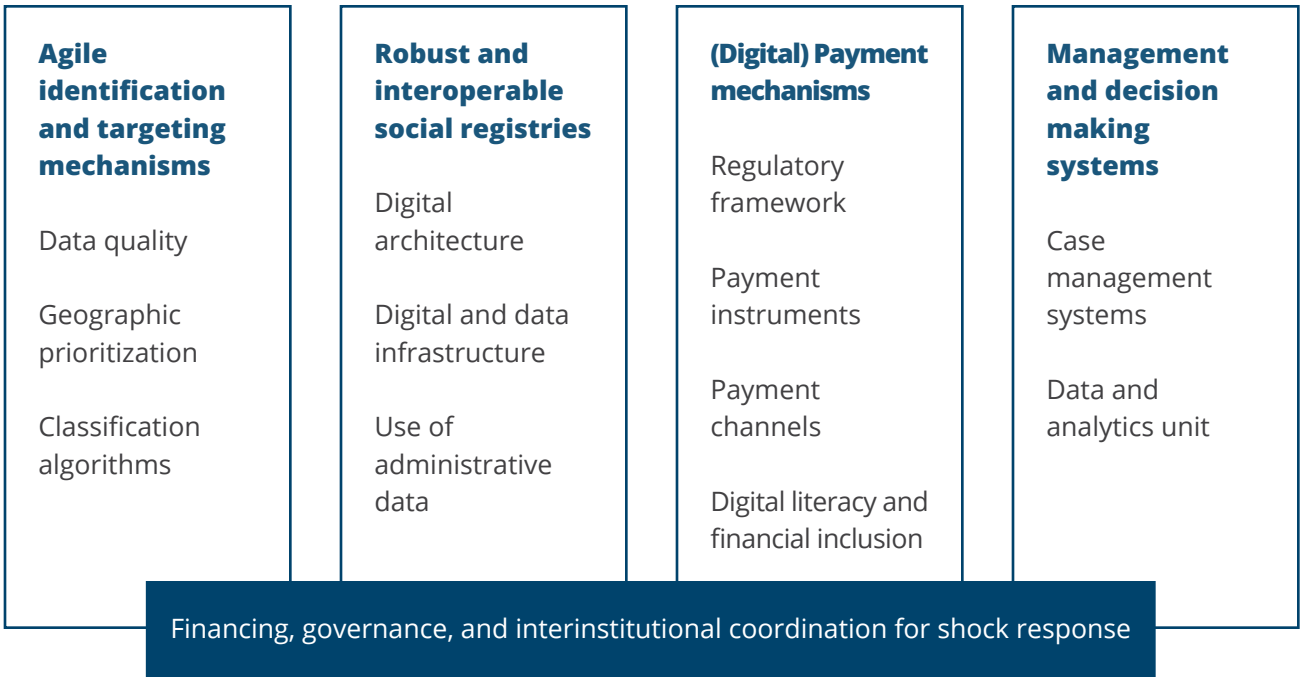
5.2 Benefits of digitizing social protection services: The case of cash transfers

Non-contributory social protection is an essential public policy instrument in the region. Cash transfer programs—either direct or through bank accounts—for vulnerable populations are particularly noteworthy. About 26 % of the general population and 65 % of the population living in extreme poverty benefit from these programs, according to information available for 17 countries (Stampini et al., 2021). The existence of such systems enabled governments to react quickly during the pandemic; in Colombia, Guatemala, and Peru, these systems made it possible to incorporate new beneficiaries into existing programs or other initiatives created to address this serious unforeseen situation (Stampini et al., 2021).

Social protection systems are central to social policy. Digital advances have enabled greater agility in responding to emergencies, as was the case with the COVID-19 pandemic. These systems have four key elements (Figure 5.2): (1) beneficiary identification mechanisms, (2) interoperable social registries, (3) payment mechanisms, and (4) management systems.

Among these, beneficiary identification and selection mechanisms, as well as payment mechanisms, are the points of direct contact with potential beneficiaries in the target populations and therefore play a crucial role in the equity and effectiveness of the system.

Figure 5.2. Elements of a social protection system



Source: authors' elaboration.

Identification and selection of beneficiaries

The identification and selection of beneficiaries face problems of undue exclusion and inclusion, generally due to a lack of sources of information on potential beneficiaries or errors in assessing their eligibility. More and more countries have adopted social registries, systems that collect information through surveys in neighborhoods or municipalities prioritized for poverty, or lists of people who decide to apply for social programs at public offices. In both cases, socioeconomic information is obtained from households, and a rule for selecting eligible households is used to obtain program benefits. These data are processed with algorithms that generate indices to determine household eligibility. However, the process can fail, excluding families because they are unaware of the program, have erroneous expectations, or because of targeting deficiencies. These challenges affect the coverage of social programs, either because beneficiaries are not in the records or because the algorithms make selection errors (Coady and Parker, 2009).

Use of digital tools for beneficiary identification and program targeting

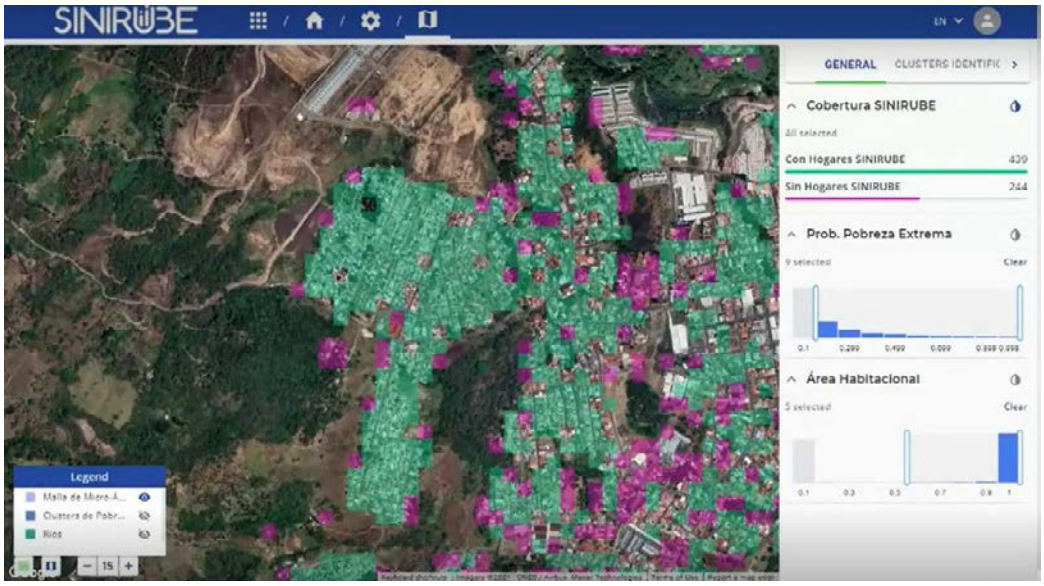
The use of digital tools has significantly improved the identification and classification of beneficiaries, which has helped reduce exclusion problems. Currently, social registries cover an average of 54 % of the population in the region (Maldonado and Tejerina, 2010). Digital tools could expand this coverage, especially among the poorest households. During the pandemic, database interoperability made it possible to proactively identify people who were not included in social registries (Monge and Tejerina, 2023).

Satellite tools

The use of satellite imagery has also been key in locating homes with a high probability of poverty. Figure 5.3 shows a satellite image used to identify homes with a high probability of poverty.[32] These data, cross-referenced with georeferenced social records, make it possible to identify excluded households and collect the information needed to include them in transfer programs. This approach reduces inequality by making vulnerable families visible that would otherwise remain beyond the reach of the public sector.

32 This exercise involves careful cleaning of the data to avoid capturing, for example, factories, warehouses, or other non-housing infrastructure.

Figure 5.3. Satellite tools for beneficiary identification



Source: image taken from Monge and Tejerina (2023).

Social registry portals and self-registration

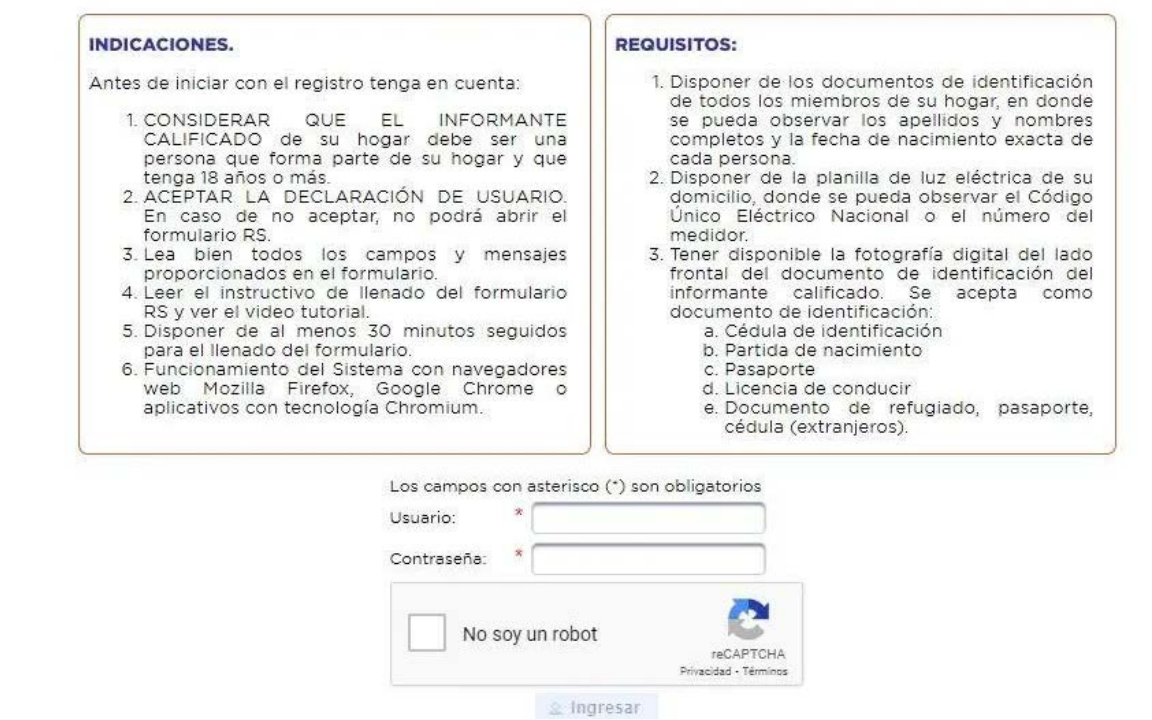
Social registry portals can support beneficiary identification. They allow households to self-register or request visits from census takers, a practice that intensified during the pandemic. However, they are not always accessible to groups with disabilities, language barriers, or low literacy.

To avoid exclusion, inclusive design that prioritizes images, symbols, and audio messages adapted to local cultures and languages, including Indigenous languages, is essential (United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP], 2022). These elements facilitate access for people with disabilities or older adults. A review of the websites for these registries in Latin America and the Caribbean—where households can validate their information or apply to join a social program— indicates that slightly less than 50 % meet the basic digital inclusion criteria established in the international standard for Web Content Accessibility Guidelines, created by the Web Accessibility Initiative of the World Wide Web Consortium (Pallero and Márquez, 2023).[33]

33 For more information, see https://www.w3.org/WAI/.

Self-registration also carries the risk of incorrect information, whether intentional or not. This risk can be mitigated by validation through interoperability with state databases, such as property records, or random checks, a practice implemented in Chile (Box 5.1).

Box 5.1. Self-registration window in Chile



Source: social Household Registry (2024).

Classification algorithms

Another method of identifying beneficiaries of social programs is through classification algorithms. Here, variables are used to decide whether a household is eligible for a transfer. These are useful tools for identifying beneficiaries of social programs, but they carry risks of undue exclusion and inclusion, as do other methods. Predictive variables such as household size, even if accurate on average, can exclude poor households with atypical characteristics, such as those where children live with grandparents or older adults live alone.

It is important to adjust algorithms to avoid these exclusions, especially in households with persons with disabilities, who may not apply for assistance due to lack of knowledge or fear of stigma. In addition, simple algorithms may exclude people with more education but no income. Incorporating inclusive outreach measures and differentiated classifications, such as those based on the Washington Group Short Set, helps ensure a more equitable and representative selection. Some questions include: *Do you have difficulty seeing, even when wearing your glasses?* and *Do you have difficulty caring for yourself, such as washing your body or getting dressed?* (Sammon et al., 2021).

Digital payment mechanisms

In many cases, transfer payments continue to be made through mass events where cash is handed out or through payments at bank branches, where beneficiaries go to collect their total amount, imposing significant costs on beneficiaries in terms of time and travel. The transition to digital payment mechanisms is crucial to overcoming these limitations. These systems allow funds to be withdrawn at various locations, such as supermarkets, reducing unnecessary travel and facilitating savings or partial use of resources. However, they also present equity challenges, especially among populations with low financial literacy, limited technology adoption, or residents in remote areas with poor digital service coverage.

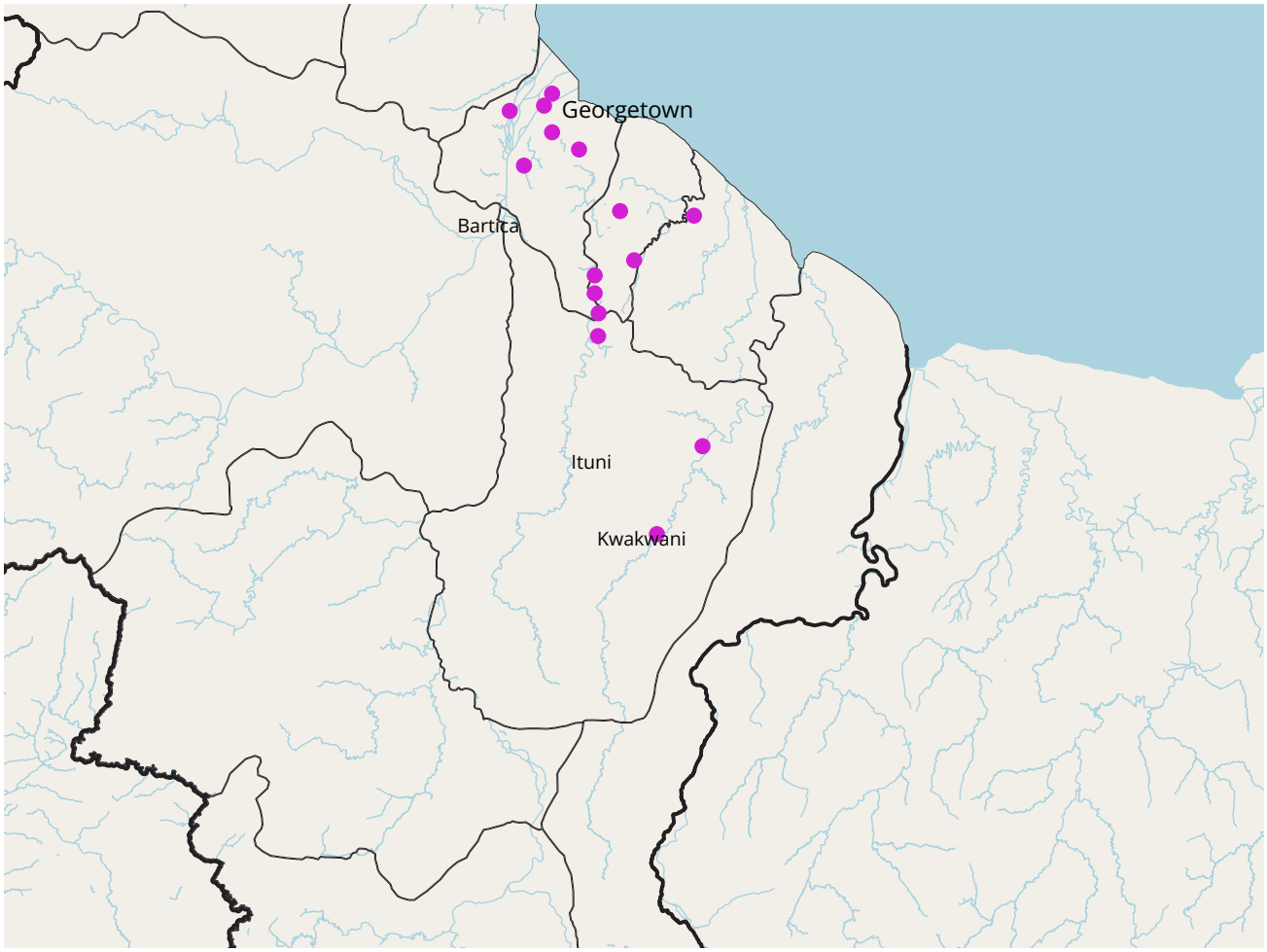
LAC has higher digital payment usage than the average for developing countries (65 vs. 57 % in 2021), although far from the 95 % in high-income countries. In addition, 63 % of people in the region can use a bank account without assistance, compared to 36 % in developing countries. Even so, significant challenges remain.

A study in Colombia found that up to a third of those who need help using digital payments do not receive all of their transfers (Maldonado and Tejerina, 2010). This underscores that complete digitization does not eliminate problems such as improper charges, excessive fees, or the loss of activities that are valuable to beneficiaries, such as socializing at in-person payment events. One example is Guyana, where complaints about the digitization of pension payments for older adults led to the retention of traditional methods as an option.

Geographic analysis in Guyana also demonstrates how expanding strategic payment points can reduce the distance that beneficiaries must travel and translate into better access to services. Figure 5.4 shows an example of the use of population layers and the location of senior citizen

pension payment points in Guyana. The aim is to identify those places where expanding the payment network would have the greatest effect in terms of reducing the percentage of users who are more than five kilometers from one of these points.

Figure 5.4. Senior citizen pension payment points in Guyana



Source: prosperia (2024).

5.3
Digitalization in security and citizen justice: The case of digital complaints

Crime underreporting is a phenomenon that undermines governments' efforts to promote citizen security: it makes it impossible to investigate and prosecute crimes and reduces the quality of information available to authorities for decision making. This leads to inefficient allocation of resources to combat and prevent crime (Alameri et al., 2022; Hardy, 2019). Unfortunately, underreporting in LAC is high. Pérez-Vincent et al. (2024) analyze ten recent victimization surveys in LAC countries, finding that, on average, only about one in four crimes is reported to the authorities. The main reasons for not reporting include distrust of the authorities, the perception that incidents are trivial, and concerns about the complexity of the reporting process, among others.

Given this complexity, digital reporting channels can be valuable tools. Digital methods, such as online platforms and mobile applications, as well as specialized telephone hotlines, can mitigate material barriers such as time, cost, and distance, which often deter victims from reporting. In addition, depending on how they are implemented, these channels have the potential to reduce revictimization by preventing victims from having to repeat their testimony; offer a more comfortable environment for those who are intimidated by the idea of going to a police station; and limit retaliation by perpetrators, as they are discreet methods that could even allow anonymous reporting. However, there are challenges on both the demand side (citizens) and the supply side (public institutions) that may prevent the benefits of digital reporting from being realized. These challenges are discussed in general terms below, followed by a case study of a digital reporting tool in Colombia called *¡ADenunciar!*

Barriers on the demand side

On the demand side, it is essential to recognize and understand the barriers to access that different population groups may face in accessing these services. For example, according to the Study of Unmet Justice Needs in Argentina (Ministry of Justice and Human Rights, 2019), the general population reports legal problems at a rate of 41 %, a figure that rises to 48 % among people with disabilities, 73 % among those in extreme poverty, and 89 % among the Indigenous population. Unmet legal needs are also considerably higher among persons with disabilities, those living in extreme poverty, and Indigenous communities, highlighting a significant gap in access to justice (Figure 5.5.). In the area of security, for example, the 2018 LAPOP survey, which collects information from more than 17 countries in the region, documents longer response times by police services when dealing with households with lower levels of education.

Figure 5.5. Prevalence of legal problems, legal needs, and unmet legal needs

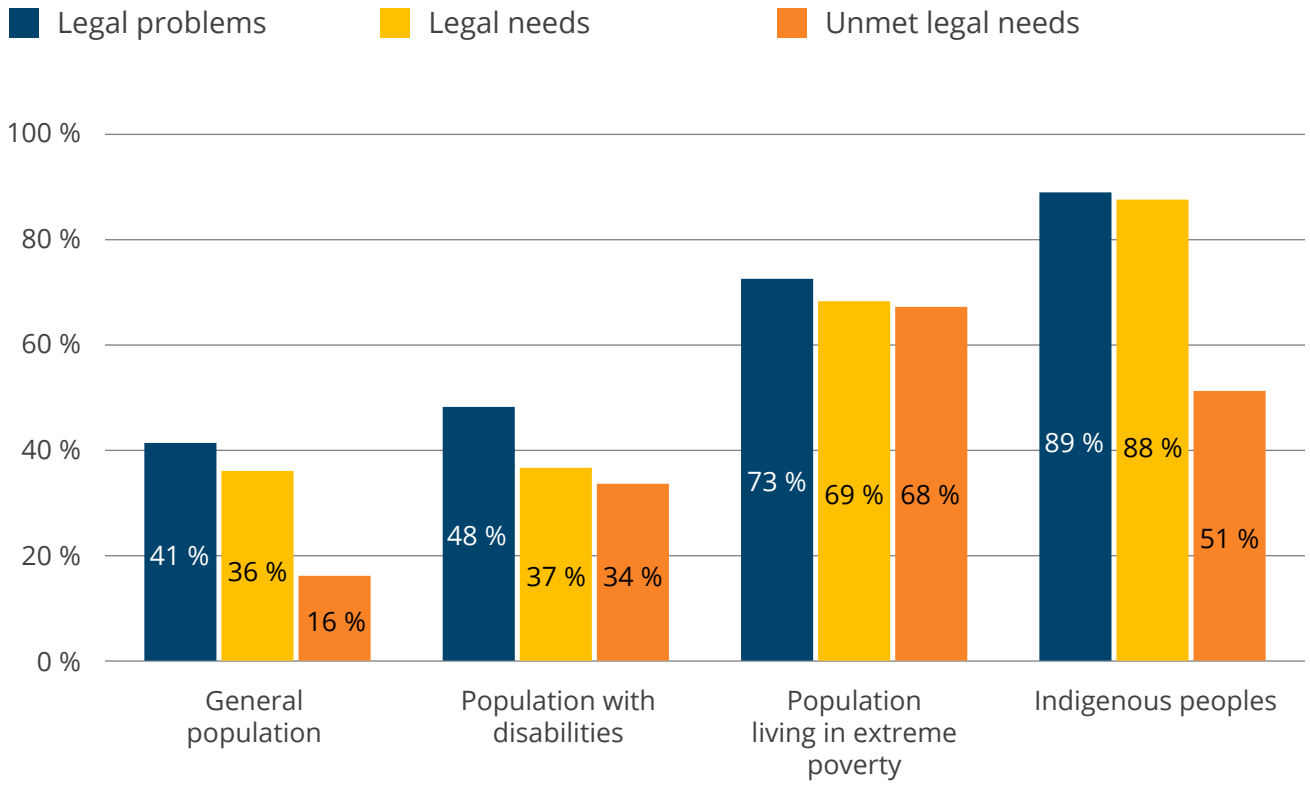


Table 5.2. Prevalence of legal problems, legal needs, and unmet legal needs

Population	Legal problems	Legal needs	Unmet legal needs
General population	41.4 %	36.3 %	16.3 %
Population with disabilities	48.4 %	36.6 %	33.9 %
Population living in extreme poverty	72.7 %	68.6 %	67.8 %
Indigenous peoples	89.2 %	88.0 %	51.1 %

Source: study on Unmet Justice Needs in Argentina (Ministry of Justice and Human Rights of Argentina [Ministerio de Justicia y Derechos Humanos de Argentina], 2019).

These differences in legal needs between population groups are compounded by different probabilities of reporting crimes. Pérez-Vincent et al. (2024) find that people with higher levels of education report crimes more frequently and cite fear for their safety less often as a reason for not doing so, while in some countries women are more likely not to report crimes due to concerns about their personal safety. These gaps are compounded by difficulties in accessing digital services, especially among people with lower levels of education, who face more barriers in terms of connectivity, device ownership, digital skills, and knowledge of digital options, as discussed in Chapter 3.

Barriers related to reporting crime may limit the use of reporting channels. Several studies have argued that the community context plays a crucial role in crime reporting. For example, in high-crime neighborhoods, where mistrust of the police is prevalent and negative experiences are common (Reisig and Parks, 2000; Sampson and Bartusch, 1998; Terrill and Reisig, 2003), a "street code" can emerge, discouraging cooperation with the police and undermining their legitimacy. Without addressing these factors of mistrust and subcultural values, digital reporting tools may prove insufficient for increased reporting and cooperation in certain contexts and social groups. For this reason, partly driven by the COVID-19 pandemic, governments have expanded the range of digital reporting channels through phone apps or web channels.

However, the use of digital reporting channels reflects the same gaps identified in Chapter 2. The educational gap is the most pronounced: only 5 % of people with primary education or less are aware of these channels, compared to 21 % of those holding a bachelor's degree or higher, representing a difference of 16 pp. Geographical differences are also notable: while 12 % of the

urban population is aware of some digital reporting channel, this figure drops to 6 % in rural areas. Age is another determining factor: awareness of these channels is considerably lower among the population aged 55 and over (4 %), in contrast to 13 % among those aged 18 to 54. The gaps by disability status and sex, although smaller, remain significant. Among people with disabilities, 5 % are aware of digital channels, compared to 10 % of those without disabilities. In terms of sex, 9% of women are aware of these channels, versus 10% of men (Figure 5.6)

Figure 5.6. Percentage of people who are aware of at least one digital reporting channel, by demographic group

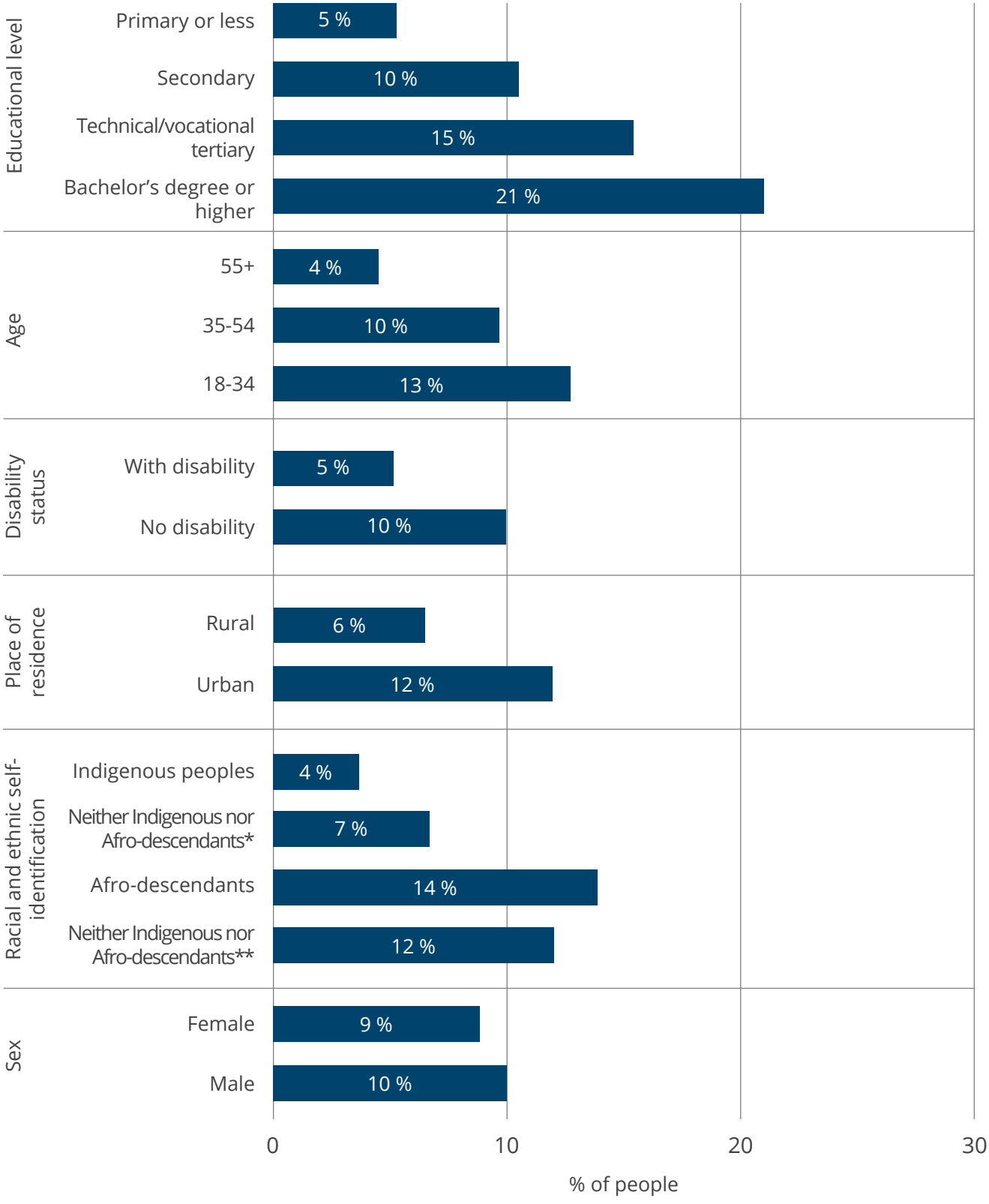


Table 5.3. Percentage of people who are aware of at least one digital reporting channel

Demographic group	% of people who are aware of the channel
Educational level	
Bachelor's degree or higher	21 %
Technical/vocational tertiary	15 %
Secondary	10 %
Primary or less	5 %
Age	
18-34	13 %
35-54	10 %
55+	4 %
Disability status	
No disability	10 %
With disability	5 %
Place of residence	
Urban	12 %
Rural	6 %
Racial and ethnic self- identification	
Indigenous peoples	4 %
Non-Indigenous or non-Afro descendant*	7 %
Afro-descendants	14 %
Neither Indigenous nor Afro-descendant**	12 %
Sex	
Male	10 %
Female	9 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay, the weights do not take into account place of residence. Jamaica, Trinidad and Tobago, and Uruguay are not included in the racial and ethnic self-identification analysis (see Annex 1 for more details). Due to the small number of observations in the survey, Brazil is excluded from the average Indigenous population, while Guatemala, Honduras, and Paraguay are excluded from the average Afro-descendant population. Consequently, two averages are presented for the non-Indigenous and non-Afro-descendant population: the first (*) without Brazil and the second (**) without Guatemala, Honduras, and Paraguay.

Barriers on the supply side

On the supply side, it is essential to analyze the challenges and progress faced by institutions responsible for citizen security and justice when digitizing their services. This can help to understand which specific aspects can be transformed and how the digitization process adapts or fails to adapt to the real needs of users.

The digitization of reporting channels is a concrete case that reflects the complexities inherent in the provision of digitization in the field of public safety and justice. On the one hand, the increase in the reporting of minor incidents as a result of the accessibility of the digital channel could overload the response capacity of the criminal justice system, diverting resources from more serious cases and causing congestion and delays in the resolution of cases. On the other hand, receiving complaints through a digital channel (without the assistance of a person trained in taking complaints) can affect the quality of the information collected, which in turn could impact the effectiveness of crime investigation and resolution. These effects could undermine public trust in institutions if response expectations are not managed properly.

Added to this, there are tensions over how to implement the digitization of reporting channels. One essential aspect concerns the option of allowing anonymous reports, which reflects the need to maintain a balance between the desire to encourage citizen participation and the need to preserve the integrity of the justice process. Anonymity, which reduces fear of reprisals, can encourage participation, but it also increases the risk of false or unfounded reports, which translates into additional challenges for the authorities. Achieving this balance may require the creation of appropriate legal frameworks, the provision of clear information on the benefits of each option, and the adaptation of the system's design to take into account variations between different types of crimes and the needs of victims.

Beyond these tensions, most Latin American countries have adopted strategies to improve access to and efficiency of security and justice services, including digital reporting channels. The general trend has been to require that reports not be anonymous, although in some cases and for certain crimes, the option to report anonymously has been made available. Among the initiatives implemented are mobile applications and websites designed to encourage citizen reporting and reduce underreporting of crimes. These channels are typically designed for reporting crimes that do not pose an immediate risk to safety and do not require urgent medical attention. One example is the ¡ADenunciar! platform, which has been in

use in Colombia since 2017 (see Box 5.4). In addition, numerous digital channels have been developed to report incidents involving the security forces and public employees, with the aim of increasing transparency and accountability.

Box 5.2. *¡ADenunciar!*

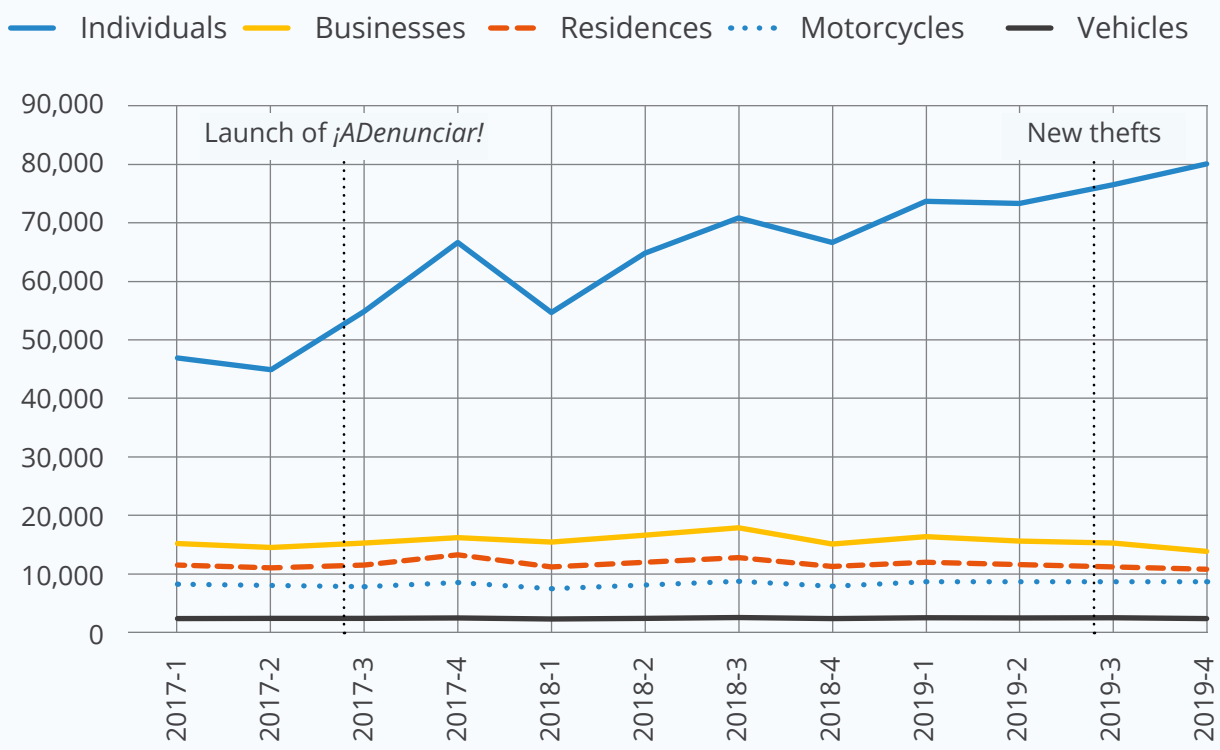
The digital reporting channel *¡ADenunciar!* in Colombia, a national virtual reporting system, is the result of coordinated work between the National Police and the Attorney General's Office—the institutions responsible for providing security and citizen justice services in that country. This channel complements other reporting channels.

¡ADenunciar! is a virtual application that offers four options: (1) virtual reporting, (2) criminal record checks, (3) PQRS registration, and (4) registration of lost documents. The first option is categorized according to cybercrimes, material containing child sexual exploitation, extortion, complaint rooms, document and personnel fraud, scams, animal abuse, gender-based violence, and theft. Those who enter the platform will find definitions of each crime, and the app offers filters to advance the process. For example, at the beginning, it provides a definition of extortion, asks if the user has received threats to their physical integrity or that of their family, if they have been forced to tolerate or omit something, and if any financial demands have been made. If the answer to any of these questions is «no,» the system will not allow the user to continue. Once the platform has completed the request, the user must wait 24 hours for the incident to be validated as a crime before they can begin exercising their right to access justice. They will then receive confirmation of the registration by email.

This channel, in addition to enabling integrated work between two state entities, allows crimes to be reported from any device with an internet connection, saving costs associated with the bureaucratic process (such as transportation and time). It is available 24 hours a day and requires users to log in to the platform, accept the terms and conditions, file the report, register their details, and attach any relevant information.

The implementation of this system completed its first phase in July 2017. Its initial purpose was to offer victims of theft (whether businesses, individuals, or residences), cybercrimes, child sexual content, and extortion the possibility of filing formal complaints with the authorities through a web platform or a smartphone app. Its implementation reduced the time it took to file a report from an hour and a half—in person—to just 40 minutes through the digital channel provided by *¡ADenunciar!* The initial expectation for the implementation of this initiative was that there would be an increase in the number of crimes reported. In other words, a decrease in the underreporting of crimes in Colombia was anticipated.

Figure R5.1. Colombia: Number of thefts reported per week, before and after the launch of *¡ADenunciar!* in 2017-2020



Source: authors' elaboration based on data from the *¡ADenunciar!* platform.

During its first year and a half of operation, *¡ADenunciar!* received 17 % of all national reports, demonstrating its favorable reception by the public (National Police, 2019). This led to the launch of a second phase in May 2019, which added the crimes of fraud, falsification

of public and private documents, and different types of theft, now specified (cell phones, vehicles, bicycles, motorcycles, and cattle rustling).

Figure R5.1 shows the number of reports filed in Colombia for theft from individuals, businesses, and residences, as well as motorcycle and vehicle theft during the 2017-2020 period. It highlights two points of intersection. The first is the date when the first phase of the *¡ADenunciar!* platform was introduced, when it only allowed reports of theft related to individuals, businesses, and residences. The second intersection corresponds to the second phase, when the option to report motorcycle and vehicle theft was enabled. The rollout of the platform had an almost immediate impact on the number of reports, which increased significantly, especially in terms of theft from individuals.

The number of reports of theft from individuals rose from 15,678 in July 2017 to 20,027 in August 2017. This change represented an increase of 4,349 reports in just one month, corresponding to a variation of 27.7 %, the highest of the year. Although reports of theft from homes and commercial establishments also increased, the variations were relatively minor compared to reports of theft from individuals: 6.7 % and 5.2 %, respectively. In the second stage of the app's rollout—when the channel for reporting vehicle and motorcycle theft was enabled—there was no unusual increase in the number of reports in these categories: both continued the trend prior to the implementation of *¡ADenunciar!*

It should be noted, however, that based on the descriptive analysis, it is not possible to differentiate whether the increase in the number of reports was the result of an increase in actual crime or the implementation of *¡ADenunciar!* Nor is it possible to determine whether the use and appropriation of the new digital reporting channel occurred uniformly across all municipalities in Colombia or whether its use could be correlated with variables such as the degree of connectivity, income level, or size of the municipality.

Pérez-Vincent, Romero, and Vera-Cala (2024) evaluate the impact of *¡ADenunciar!* as a technological strategy that could contribute to reducing underreporting of crime in Colombia. The author finds that the enabling of this digital channel increases the rate of reports of theft from individuals, residences, and businesses by approximately

0.3 percentage points per week and municipality, an effect that rises to 1.045 when measuring the change in reports of theft from individuals alone. In addition, the authors find that the impact is heterogeneous, depending on the percentage of households in multidimensional poverty, level of connectivity, and municipal category.

The results indicate that municipalities with less poverty and higher connectivity recorded the largest increase in the weekly theft rate as a result of the implementation of *¡ADenunciar!* In relation to the municipal category variable—which classifies municipalities by population size and disposable income—those in the special category accounted for most of the increase in the number of reports once *¡ADenunciar!* became operational.

Conclusion

Although the provision of digital channels for reporting crime could reduce the gap between actual and reported crime, the institutions and governments responsible for providing these services must consider existing inequalities. This applies not only to income levels, but also to access, ownership, and use of digital services. This aspect is particularly relevant in the LAC region, which lags behind other regions in the provision of digital services (IDB, 2022). Added to this is the low level of trust in the police and the justice system in the region, which influences individuals' decisions to report crime (Heredia-González et al., 2022). Therefore, there is a need to address the digital divide to ensure that all people have access to digital public services for reporting crime, and to use strategies that contribute to improving trust and legitimacy in security and justice institutions.

5.4.
Does the digitization of school enrollment provide more access to quality schools?

Education in Latin America and the Caribbean faces major challenges in terms of coverage and quality. On average, 35 % of young people aged 21 to 23 have not completed secondary education. More than half of 15-year-old students do not reach the minimum level of proficiency in reading and science, and 75 % are deficient in mathematics (Arias et al., 2023).

The school that a student attends plays a central role in their educational trajectory, especially in the context of high inequality in the distribution of human and financial resources among schools. Therefore, student enrollment and assignment processes are key to ensuring a more equitable distribution of learning opportunities.

Enrolling students in schools is one of the most complex processes in education, both for families and for education authorities.[34] Until just a few years ago, these processes were carried out exclusively in person, in a decentralized manner. That is, each public school had its own process and, therefore, people had to enroll at each center to apply for a vacancy (Elacqua et al., 2021).[35]

Digitizing enrollment can transform this landscape by centralizing information, standardizing processes, and improving transparency, thus allowing for a more equitable allocation of school places. This particularly benefits the most vulnerable families by facilitating access to higher-quality schools through platforms that prioritize efficiency and equity (Elacqua et al., 2021). This section documents the experience of digitizing enrollment in the region and explores how greater equity in access to quality schools can be achieved.

34 "Traditional" vs. digitalized.

35 For example, transportation costs to cover travel to different schools or the payment of discretionary fees to access job vacancies (Elacqua et al., 2021).

Inequality in the traditional enrollment process in public schools

In the decentralized and non-digitized enrollment system, families must register their children in person, facing significant costs in terms of time, distance, and schedules. This particularly affects low-income families with informal jobs and inflexible schedules, and women, who carry out two out of every three educational transactions (IDB, 2025), assuming greater burdens of care and unpaid work. This model generates inequalities, especially when the allocation of places depends on the order of arrival, favoring those who have the capacity to overcome barriers of time, distance, and schedules.

In addition, information asymmetry harms vulnerable households, which are often unaware of quality options and choose nearby but low-performing schools. This perpetuates educational inequalities and limits access to better opportunities (Bosetti, 2004; Elacqua et al., 2016; Schneider et al., 1998). It also reinforces educational segregation, which restricts opportunities for social interaction and reproduces socioeconomic inequalities (Aguilera et al., 2022; Elacqua et al., 2021).

On the supply side, a lack of transparency in admission processes favors discretion, leading to discriminatory practices and additional barriers for Indigenous peoples, Afro-descendants, and disabled populations. Cultural and linguistic factors also make enrollment difficult for certain groups.

It is clear that the digitization of enrollment does not directly solve the problem of educational quality. However, it can reduce barriers such as time, distance, and schedules, decrease information asymmetry, and make processes more transparent, and thus limit discretion. All of this could increase the likelihood that the most vulnerable households will access better quality schools and overcome obstacles that have historically limited their access to better educational opportunities.

The digitization of enrollment still has a low level of penetration in the LAC region. Cities such as Santiago, Bogotá, and Buenos Aires have implemented this model. Manta (Ecuador) and Palmira (Colombia) are conducting pilot tests, while Peru has begun scaling up in Tacna, and in

Recife (Brazil) the program is already in place.[36] The survey data show that school enrollment continues to occur predominantly in person: 97 % of people who enrolled someone in a public school did so in person. In all countries surveyed, less than 11 % reported having enrolled their child in a public school through digital channels. The exception is Brazil, where several states have developed digital enrollment policies and, accordingly, 29 % of respondents indicated that they had enrolled their children through this channel.

User perceptions of barriers to traditional enrollment

Families with children in public schools who enrolled them in person identified the main barriers to the in-person enrollment process as schedules (14 %), time required (12 %), and limited spaces (10 %), followed by costs (9 %) and distance (9 %). These data suggest that those who must enroll their children in person face significant transactional difficulties.

Potential of the digital enrollment process: Solutions and new challenges for equity in access to quality schools

The digitization of education systems in the region seeks to improve efficiency and reduce costs for providers, families, and students (Aguilera et al., 2022). Beyond savings and efficiency, the digitization of enrollment has the potential to promote equity in access to quality schools, especially for the most vulnerable populations.

A centralized digital enrollment and assignment system is built on an online platform that brings together all information about available educational offerings in one place. This makes it easier for families to register for subsequent assignments. It also centralizes educational information and simplifies processes, reducing costs and expanding access to available offerings. All of this increases the likelihood that students will be assigned to schools of their choice and improves not only the efficiency of the system but also family satisfaction (Aguilera et al., 2022). Evidence suggests that this can improve school performance and reduce discrimination against minority groups (Abdulkadiroglu et al., 2017; Aguilera et al., 2022; Arteaga et al., 2021; Carrasco et al., 2019).

36 For more information, see Centralized Choice and Assignment Systems.

Table 5.4. Characteristics of face-to-face (traditional) and digital enrollment by stakeholder group

Group	Decentralized traditional allocation system	Centralized digital allocation system
Status	More expensive monitoring: must be carried out at the level of each school Difficult to support families due to the dispersion of applications	Creation of the algorithm and definition of allocation criteria At least a website is required where vacancies can be posted, and families can register their applications Vacancies and dates are published centrally, as well as allocation and tie-breaking criteria Centralized monitoring Remote support for families or through support desks
School	Each school has its own admission criteria, publishes vacancies, and sets dates depending on its resources and regulations. The process is implemented as follows: in-person reception of family members, definition of admission criteria, background review, assignment, communication of results, and enrollment process Each school is responsible for communicating its policies to inform families	Each school communicates available vacancies to the centralized system Once the results have been communicated by the competent authority, each school carries out the enrollment process.
Family	There are significant barriers to access because information about the process and available vacancies depends on the dates and means established by each school. Applicants must attend in person to apply for a vacancy. If the number of students exceeds the number of places available, the tie-breaking criteria are defined by each school, which generates mistrust and a lack of transparency	All information about available vacancies is available online. Applications are submitted online and can be done outside of working hours. The allocation and tie-breaking criteria are established by the authority before the start of each process and are communicated clearly and transparently to families and institutions. The competent entity makes the final allocation using an algorithm and informs families and schools of the allocation results.

Source: adapted from Elacqua et al. (2021).

Box 5.3. A practical example of enrollment digitization: the case of Chile

In 2016, Chile enacted the School Admission System, a centralized, non-discriminatory selection process that is mandatory for all public and subsidized schools, covering about 90 % of the country's schools. From a regulatory standpoint, the system is governed by the School Inclusion Law and by the regulations governing the admission process for students in educational establishments that receive free education subsidies or state contributions (Ministry of Education of Chile [Ministerio de Educación de Chile], 2016).

On this single platform, families and students explore schools, select those they wish to apply to, and rank them in order of preference. A period is defined for the submission of applications, regardless of the order in which they arrive on the platform. A deferred acceptance algorithm is then used to assign students to schools according to the priorities established by the Ministry of Education. The algorithm makes the assignment based on the objective of giving each student the highest possible preference, depending on the vacancies available in the schools. Some of the prioritization criteria that the algorithm may include are family logistics (to give priority to applicants whose siblings attend a particular institution); equity for applicants from lower socioeconomic backgrounds, migrants, and those with special educational needs, among others; and distance between home and the institution (Elacqua et al., 2021; Elacqua and Kutscher, 2023).

Effects of digital enrollment on demand and supply

Digital enrollment has two main effects on demand: it eliminates logistical barriers and reduces information asymmetry about educational offerings.

- **Logistical barriers:** digitization significantly reduces the time needed to enroll a student, from almost four hours in person to an average of 65 minutes online (IDB, 2025). This facilitates the participation of families with mobility restrictions or work obligations. It particularly benefits women, who carry out most of the administrative tasks related to their children. Survey data show a decrease in the perception of time and schedules as barriers to the digital enrollment process, compared to the traditional method (see Figure 5.7).

- **Transparency of information:** Digital platforms centralize data on vacancies, admission criteria, and school quality, enabling parents to make more informed decisions. This greater transparency is especially valuable for vulnerable families, helping them choose educational options that better align with their children's needs (Elacqua et al., 2021).

On the supply side, digital enrollment could have a positive impact by reducing the complexity of processes, improving transparency in admissions, and lowering application costs.

- **Simpler processes:** Digitization centralizes and standardizes enrollment criteria, making it easier for families to submit applications and documents from home. This simplifies the experience for both families and education administrators.

- **Greater transparency:** By using algorithms based on defined criteria, digital enrollment eliminates discretion in the allocation of places, thereby reducing discrimination and improving equity in access to schools. Despite this, the identification of lack of transparency as a barrier in the enrollment process is equally significant among users of both digital and traditional channels (see Figure 5.7). This suggests that digital channel mechanisms, including their algorithms, can generate a similar perception of lack of transparency when their criteria and operation are not adequately explained.

- **Lower costs:** By standardizing criteria and processes, centralized digital enrollment eliminates the possibility of some schools imposing high or unnecessary costs on the

enrollment process. This is reflected in the fact that only 1 % of digital channel users identified costs as one of the main barriers, compared to 10 % of in-person channel users.

- **Better educational data:** An important result of digital enrollment systems is the collection of valuable data on school supply and demand, which enables more effective resource allocation.

Figure 5.7. Percentage of users, by type of barrier faced in the admission and enrollment process

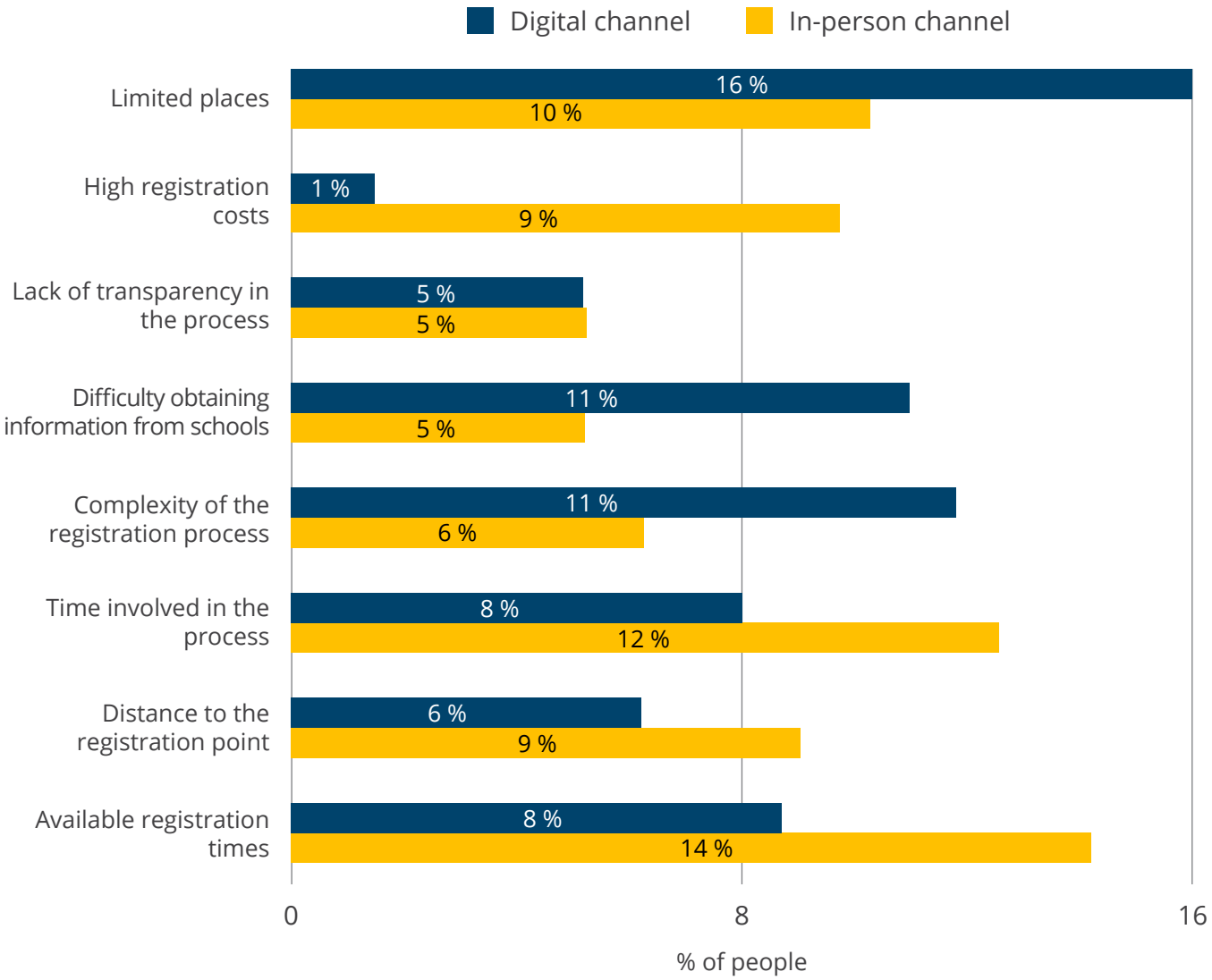


Table 5.5. Percentage of users who faced barriers in the admission and enrollment process, by channel

Barrier	In-person channel	Digital channel
Available registration times	14 %	8 %
Distance to the registration point	9 %	6 %
Time involved in the registration process	12 %	8 %
Complexity of the registration process	6 %	11 %
Difficulty obtaining information from schools	5 %	11 %
Lack of transparency in the process	5 %	5 %
High registration costs	9 %	1 %
Limited places	10 %	16 %

Source: authors' elaboration based on the Citizen Survey on Government Transactions and Equity, 2023-2024 (IDB, 2025).
Notes: country calculations use weights that take into account population distribution by sex, age categories, educational level, and place of residence (urban/rural). In the case of Paraguay and Uruguay, the weights do not take into account place of residence. Barriers to enrollment reported by people with children or dependents between the ages of 6 and 17.

From the users' perspective, digital enrollment appears to reduce the transactional barriers associated with the in-person process, such as schedules, distance, and time, which have lower percentages in the digital channel. However, this channel also introduces significant new barriers. The lack of places is the main concern for those who use the digital modality, with 16 % of users identifying it as a barrier, compared to 10 % in the in-person channel. In addition, the complexity of the process is perceived as a greater obstacle in digital enrollment (11 %) than in face-to-face enrollment (6 %), as is the difficulty in obtaining information (11 % vs. 5 %). The complexity of the process and lack of places could be interconnected, since when families do not adequately understand the allocation algorithm and the overall process, they tend to apply for a small number of places, which often leaves them without a place

This suggests that improving communication and explanation of the process is an important area for improvement in the digital channel.

Box 5.4. Digital enrollment in Recife, Brazil

The potential of centralized digital school enrollment systems to reduce inequalities in access to high-quality schools may be limited by information asymmetries. However, the digital environment also opens up new opportunities to implement low-cost, targeted interventions to help close these gaps.

With this objective in mind, the IDB's Education Division experimentally evaluated a low-cost intervention in the centralized school admission system Matrícula Digital in Recife, Brazil. The intervention modified the order in which school vacancies were presented on the enrollment platform: the treatment group first saw schools ranked by quality, while the control group saw them in the default order, based on proximity to the student's home.

The results indicate that, overall, the change in the order of presentation did not have a significant impact on the average quality of the schools selected. However, it did have a positive effect for families living near at least one of the top three schools on the list. This impact decreases as the distance between home and school increases, and ceases to be statistically significant beyond a threshold of 3 km. A post-admission survey revealed that 80 % of parents identified proximity to home as the most important factor in their school choice. This suggests that, although providing information about school quality can influence some decisions, distance remains a key criterion in families' choices.

These findings highlight the importance of implementing digital enrollment systems accompanied by low-cost *nudges* to reduce barriers and information asymmetries about school quality. This can especially benefit the most vulnerable families by encouraging them to choose higher-quality schools. However, the results indicate that these mechanisms are only effective when there is a sufficient supply of high-quality schools within a reasonable proximity. This underscores the need to consider both quality and location in the design of school enrollment and admission policies, as well as in the strategic planning of seat allocation.

Conclusion

Education in Latin America and the Caribbean faces deep and persistent challenges, both structural and systemic, that affect the opportunities and quality of education available to young people. Traditional enrollment has reinforced these inequalities, restricting access to quality schools for the most vulnerable. The transition to digital enrollment systems offers an opportunity to transform this reality. By centralizing information and automating selection processes, physical and bureaucratic barriers are reduced, giving families, especially those with low incomes or mobility restrictions, the opportunity to choose quality education for their children. This shift toward digitization, while not without challenges, represents a significant step toward democratizing access to education, underscoring the importance of inclusion and equity in the region's education systems.

5.5 The role of digitization in promoting health equity

Access to health services in LAC has improved (PAHO, 2022a), but significant inequalities persist, especially among the economically disadvantaged. Although skilled personnel attended on average 97 % of births (Pan American Health Organization, 2022b), in Guatemala and Haiti this figure is below 50 % for women in the lowest income quintile. Socioeconomic differences also affect neonatal mortality: in Bolivia, Colombia,[37] Peru, and Paraguay, rates are significantly higher among less educated women (PAHO, 2008, 2022b; UNICEF, 2016).

Wait times, distances to health centers, and the quality of services reflect additional inequalities compared to people with high incomes or those living in urban areas, who have easier access to adequate infrastructure. In contrast, poor households face transportation difficulties because roads are difficult to traverse during certain times of the year (Economic

37 For more information on Colombia, see Giles Álvarez et al. (2024).

Commission for Latin America and the Caribbean [ECLAC], Food and Agriculture Organization of the United Nations [FAO], & International Network for Farming Systems Research Methodology [RIMISP], 2003; Roberti et al., 2024).

Although the evidence is not yet conclusive, digital tools for easy access to medical records, telemedicine services, decision-making support systems, and clinical information interoperability have been shown to improve the efficiency and quality of health service delivery. These tools reduce medical errors, adverse effects from drug interactions or allergic reactions, and duplicate tests, among other benefits (IDB, 2022). During the COVID-19 pandemic, telemedicine services mitigated the disruption of care for patients with chronic diseases (Savedoff et al., 2023), and patient portals demonstrated benefits in health monitoring and interaction with medical staff (Carini et al., 2021).

However, the impact of these tools on inequality is less clear. While telemedicine can help close geographic gaps in access to specialized services (Barbosa et al., 2021), its implementation can lead to new inequalities due to unequal access based on factors such as socioeconomic status, age, and education (Yao et al., 2022).

A relevant example is patient portals, which allow citizens to carry out various activities online, such as consulting their electronic medical records, scheduling appointments electronically, accessing online prescriptions, and using telemedicine services. This section analyzes the use of these portals and telemedicine services among different demographic groups.

Supply of patient portals and their potential

Patient portals are electronic applications that allow people to manage, store, and share their health information in a private and secure environment (PAHO, 2021). Without these tools, scheduling appointments, picking up lab results, and delivering physical documentation during multiple medical visits would be cumbersome. A patient portal facilitates these processes by allowing users to schedule appointments online, access telemedicine, receive results directly, and obtain electronic prescriptions, saving time and optimizing healthcare system resources.

During the pandemic, some countries in the region, such as Costa Rica (Box 5.5) and Uruguay, developed public sector portals that allowed citizens to access and share their

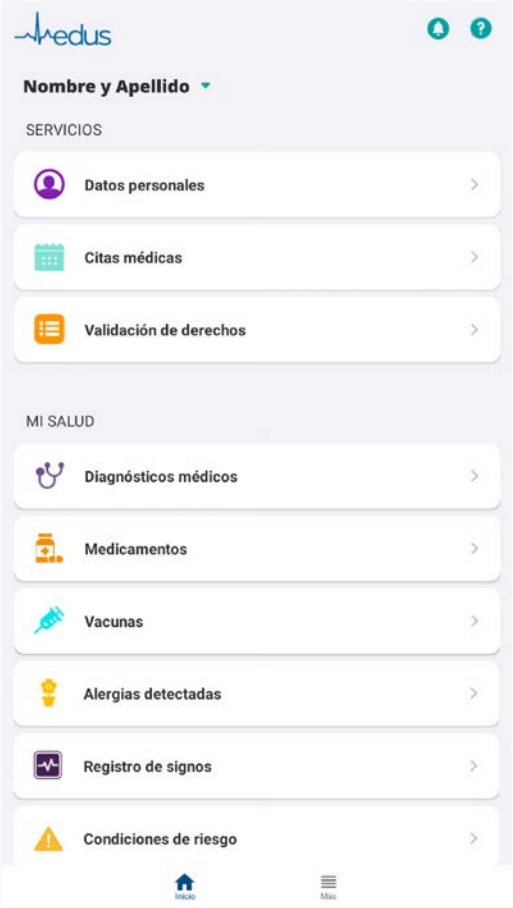
personal health information. Brazil uses artificial intelligence to provide telemedicine services in remote areas. In Chile, the patient portal has improved the scheduling process, helping to reduce waiting lists (Bagolle et al., 2022).

Still, the availability of telemedicine services remains limited. In this sense, 74 % of people in the region indicated that providers do not offer options such as scheduling appointments by phone or video. This shortfall is due to limited availability and, in some cases, to the low visibility or publicity for these services. The percentage is higher among people in rural areas (80%) and those with primary education or less (79 %), suggesting a combination of lack of supply and information (IDB, 2025).

Box 5.5. The case of Costa Rica: Single Digital Health Record (EDUS)

The following is an image of the patient portal containing Costa Rica's Single Digital Health Record (EDUS) system, with its different categories of information. EDUS is a product developed internally by the Costa Rican Social Security Fund (CCSS), which has enabled the customization and continuous growth of the system through the integration of other systems such as vaccination, pathology, and epidemiology, among others. Its features include support for the administrative and clinical management of patient care; the presentation of clinical information that feeds into the diagnosis and treatment of pathologies; automation of pre-consultation, consultation, and post-consultation processes; standardization of recording the vaccines administered to each patient; management of hospital admissions and clinical laboratory results; and the administration of data related to hospitalization processes.

Categories of information on the EDUS patient portal in Costa Rica



Source: screenshot of the EDUS app (Costa Rica's single digital record), January 20, 2023

The benefits offered by EDUS include reduced care processing times and improved schedule compliance. It has also enhanced the quality of information available for decision making, standardized government transactions, and increased the productivity of CCSS staff. Above all, this system has provided predictive analytics capabilities and helped reduce the digital divide in care centers. As of February 15, 2022, just over three years after its launch in 2018, more than 63 million medical consultations and more than 76 million outpatient appointments had been carried out (Ochoa et al., 2023).

Demand for patient portals and telemedicine services

The use of portals and telemedicine is still limited in the region. Only 30 % of people have scheduled a medical appointment online, 14 % have obtained their lab results online, and 12 % have had medical consultations by phone. The least common services are video consultations and access to personal health information (IDB, 2025).

Access to and use of digital tools can amplify inequalities if the barriers faced by certain demographic groups are not reviewed and corrected. Evidence indicates that patient portal use is less frequent among older adults, Indigenous communities and other ethnic groups, low-income and low-educated populations (including those with limited knowledge of health issues), and people with disabilities (Goel et al., 2011).

The literature indicates that limited access to devices, low internet access, poor digital skills, and low motivation can become multipliers of this unequal use. For example, the absence of broadband in a neighborhood has been associated with non-adoption of patient portals (Veinot et al., 2018). Enabling mobile access in a region increases the frequency and timeliness of patient portal use, according to a study of minorities in the United States (Graetz et al., 2019). Within these groups, older adults living in rural areas appear to be particularly vulnerable (Kontos et al., 2014; Latulipe et al., 2015), which is often related to their socioeconomic status. In this study, less educated patients are significantly less likely to seek an online healthcare provider.

Portals are a challenge for people with disabilities. Goedhart et al. (2021) study the design of patient portals in the Netherlands and find that, although the patient's perspective is considered, people with disabilities and with less digital knowledge will be automatically excluded. This is because calls for participation in the design of the portal are made via email (Goedhart et al., 2021), which is less frequently used by people with severe disabilities or older people with impairments in vision and memorizing information (Gell et al., 2015). Exclusion may be even greater if we consider users who, in addition to having a disability, have a low socioeconomic or educational level, as they experience a double barrier to access due to a lack of resources to acquire assistive technologies and limitations in digital skills to use and understand information (Gell et al., 2015). Furthermore, some vulnerable populations are overlooked in the design process. This may occur because the social organizations consulted tend to represent groups with higher socioeconomic and educational levels, or because

it is considered too costly to make the necessary adjustments to reach these populations (Goedhart et al., 2021).

With regard to older people, the survey reveals that only 31 % of this population has used telemedicine services,[38] compared to younger people (45 % for the 18-34 age group). However, their online experience is much better than their in-person experience: 49 % of people aged 55+ say that their experience with these services was better than in person, in contrast to only 13 % who say that the online experience was worse (IDB, 2025).

Anxiety about using computers, as well as difficulty remembering passwords, usernames, or website URLs, represent additional barriers to access (Beckers et al., 2006). These barriers, which depend on specific cognitive functions, could be alleviated through design considerations and training targeted at vulnerable populations, including older adults and people with disabilities. Such interventions have significantly increased the use of patient portals, thereby reducing health inequalities caused by their relatively low use (Grossman et al., 2019).

38 The services analyzed in the Citizen Survey on Government Transactions and Equity 2023-2024 are: attending a medical consultation by video call, attending a medical consultation by telephone, scheduling appointments, requesting the renewal of a medication, accessing laboratory results, or accessing other personal health information online.

Effects of medical service portals on users' health

Although evidence on the impact of patient portals is limited and comes mainly from OECD countries, existing studies indicate that these tools can improve preventive behaviors and some health outcomes. For example, users of these platforms showed significantly higher rates of annual influenza vaccination, blood pressure monitoring, lipid level screening, and colorectal cancer screening, as well as improvements in diabetes management, asthma control, and mental health (Carini et al., 2021). However, these effects vary according to the characteristics of each portal, as they are not standardized tools.

The use of these portals, and therefore their benefits, also varies by population group. A study by the state of Ohio highlights a usage rate of 30 % for the population aged 18 to 64 and 16 % for those over 80. However, the same study indicates that, among platform users, adults over 80 use the portals just as much, or even more frequently, for activities such as sending questions or reading messages. A similar trend is observed among African Americans and Hispanics (Perzynski et al., 2017).

There are several ways to encourage the use of patient portals (Grossman, 2019). One option is training programs for patients, especially those from vulnerable groups, in order to strengthen inclusion (Casey, 2016; Nazi et al., 2013). Another alternative is a policy of universal access to patient portals (rather than offering the option of signing up), which appears to be useful in closing gaps based on age, racial and ethnic self-identification, and race, although not for lower-income groups (Ancker et al., 2017).

In conclusion, although LAC countries have made progress in access to health services, significant inequalities persist, especially among the most vulnerable groups. Electronic health records and telemedicine have improved the efficiency and quality of services, but their impact on equity remains uncertain and depends on their design, implementation, and accessibility. For these technologies to act as a bridge rather than a barrier, the needs of the most disadvantaged must be prioritized. Equity in access to health requires not only technological innovation, but also a commitment to inclusion and social justice.

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Chapter 6

Recommendations

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Promote universal digitization and mobile-first inclusive design. 248

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Include people with different characteristics in both the design of services and their continuous improvement. 249

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Establish equity as a strategic objective and guiding principle in strategic plans for the digital transformation of public services. 250

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Empower digital governing bodies to lead the digital equity agenda in partnership with other partners. 251

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Provide personalized assistance, focused on populations with greater access difficulties, to encourage the adoption of digital services. 254

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Invest in key enablers: connectivity, digital skills, electronic devices, and awareness of digital options, particularly for groups with low levels of digital use. 255

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Improve in-person services based on the principles of consolidation, accessibility, simplicity, proximity, and efficiency. 256

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The analysis presented in this book reveals a troubling scenario: there are wide gaps in the use of digital public services, particularly among people with low levels of education, older adults, those living in rural areas, persons with disabilities, and Indigenous peoples. These gaps threaten the great democratizing promise of digitization—to level the playing field in access to public services for all—and risk creating yet another layer of inequality in an already highly unequal region. This risk is compounded by the fiscal pressures faced by many governments, which may view digitization primarily to cut infrastructure and staffing costs. In the worst-case scenario, disinvestment in face-to-face service channels, combined with the persistence of current shortcomings in the deployment of digital services, could generate a significant divide in access to public services, further disadvantaging groups in society that already encounter major barriers in other areas.

It is therefore urgent that governments change course and strengthen their focus on equity and inclusion in the provision of digital public services. This chapter provides general recommendations on how to address this task. The recommendations presented below aim to promote a region in which:

- More people use digital channels to access public services.
- Differences in the level of digital channel across demographic characteristics are minimized.
- Digital services are tailored to the needs of all people.
- Individuals who wish or need to use in-person channels benefit from a level of simplicity and efficiency comparable to that experienced by digital channels users.

A compendium of country-specific recommendations and examples from around the world is included in Annex 3.

The most direct way to promote greater equity in the use of digital public services is:

6.1
Promote universal digitization and mobile-first inclusive design.

To foster equity, all public services should be available both in person and online. The closer countries come to achieving 100 % online availability of public services, the less scope there is for implicit prioritization between groups of beneficiaries in terms of digital access. Services should also be designed to be accessible and easy to use from mobile phones and computers. This not only reduces access barriers for populations without computers or home internet access but also optimizes public investment in connectivity.

To maximize impact, digital design must address accessibility from multiple angles:

- Universal accessibility: The most widely recognized standard for web accessibility is the W3C,[39] which seeks to meet the needs of users with visual, hearing, motor, speech, cognitive, and learning disabilities, as well as sensory disorders. Compliance with this standard represents an important step toward including all people in the digital environment.

- Language accessibility: As documented in Chapter 4, many people speak languages that are not majority languages in their respective countries. Publishing web pages and services in these languages facilitates access for their speakers.

- Data load: Many people in the region have poor-quality internet connections (see Chapter 3). Moreover, government websites are often heavy (see Chapter 4, box on coronavirus websites). Designing lightweight pages—for example, compressing images, prioritizing content loading, simplifying code, among other tactics—makes it easier for these users to effectively access the content they need.

39 See: https://www.w3.org/TR/wcag-3.0/

- Digital skills: Complex navigation can be an insurmountable obstacle even for people without disabilities, with computers, and with reliable internet access. Simplifying design—and standardizing it across different services offered by the same government—facilitates access for everyone.

Finally, it is important to emphasize that inclusive design does not eliminate the need for in-person government transaction, especially in cases where user population face significant difficulties accessing services online. Recommendation 7 addresses this issue in greater depth.

For this to be achieved, it is advisable to establish solid institutional and procedural foundations:

6.2
Include people with different characteristics in both the design of services and their continuous improvement.

It is difficult to design policies, programs, and practices to foster equitable access to public services without understanding the experience of all users. Given the wide gaps in the frequency of digital channel use across population segments, as well as the different experiences people have with the digital channel, it is essential to include people with diverse characteristics in user experience studies. In general, this means analyzing the experience of people with low educational levels, older adults, those living in rural areas, persons with disabilities, and ethnic minorities.

To achieve this, a variety of research methods can be applied, such as surveys, interviews, focus groups, co-creation activities in a laboratory setting, mystery shopping, and direct observation at the point of service delivery, among others. These tools not only allow for the collection of quantitative and qualitative information; they also support segmented analysis of the results for each population group.

6.3
Establish equity as a strategic objective and guiding principle in strategic plans for the digital transformation of public services.

It is evident that a strategy can be little more than a statement of intent in the absence of "hard" measures such as an allocated budget, a designated team, and follow-up actions. However, starting intent can be an important step in triggering such measures. In this regard, it is recommended that equity be incorporated as a central facet of digital transformation, digital government, or similar strategies in two ways.

First, equity can be included as an objective. This makes it possible to establish (1) quantitative targets regarding the digitization of services that benefit specific populations, the adoption of digital services by different population segments, and the level of progress with respect to enablers such as connectivity, digital skills, access to devices, digital self-confidence, and awareness of online options, among others; and (2) specific lines of action aimed at achieving the targets. Setting clear goals also facilitates monitoring and evaluation. Potential examples of indicators include:

- The percentage of government transactions in specific sectors (e.g., social programs) that can be completed fully online.
- The percentage of people with specific characteristics (e.g., over 65 years of age, with a secondary education or less) who have completed an online government transaction in the last year or who report being aware of the government's single portal.
- The level of satisfaction that different user groups have with digital services.

Second, equity can be included as a guiding principle. A guiding principle can permeate every aspect of the organization's digital work (whether it is the digital government authority or a sectoral institution), from the establishment of design principles to the

formation of internal teams to the development of institutional partnerships. An example of a guiding principle focused on equity can be found in the *UK Government Design Principles:*

> This is for everyone. Accessible design is good design. Everything we build should be as inclusive, readable, and easy to use as possible. If we have to sacrifice elegance, so be it. We build for needs, not for an audience. We design for the whole country, not just for those who are used to using the web. The people who need our services the most are often the ones who have the most trouble using them. Let's think about them from the beginning. (2012, para. 6)

6.4
Empower digital governing bodies to lead the digital equity agenda in partnership with other partners.

In most LAC countries, no entity is responsible for ensuring equity in the digital agenda. The obvious actor for this role is the digital government governing body. This entity typically has the authority to coordinate cross-cutting aspects of the digital agenda within the government and, in some cases, with external actors, such as the private sector, academia, and civil society. Digital governing bodies can implement a series of actions to promote equity, including the following:

- Incorporate strategic objectives and guiding principles on equity into digital government strategies (see Recommendation 5).

- Design and promulgate accessible digital design standards. To the extent permitted by its mandate, the governing body may also enforce these standards. Compliance can be promoted through softer measures, such as providing technical assistance, or through stronger measures, such as prohibiting the publication of services that fail to meet accessibility the standards on the government portal or blocking the procurement of technological tools without adequate accessibility provisions.

- Simplify government transactions as part of the digitization process.

- Develop and implement design guidelines tailored to specific populations or services.
- Support the accessible digitization of services that benefit populations facing digital divides when the owning institution lacks the capacity to do so.
- Conduct periodic studies to monitor the use of digital services by different population groups and the reasons behind their adoption or non-adoption.
- Create and support the adoption of products that enhance accessibility. Among others:
    - Single domain: consolidating the government's entire web presence in a single site reduces the burden of citizens navigating multiple pages and learning how they work. For site managers, it facilitates the incorporation of universal web design guidelines in one place (as mentioned in Recommendation 6). The canonical example of a single domain, replicated in many countries around the world, is the United Kingdom (GOV.UK, n.d.).
    - Citizen folder: A citizen folder consolidates all transactional interactions between citizens and the government in a single place. Similar to the single domain, this reduces the need to navigate multiple pages. An example of this model can be found in Spain (Secretariat for Digital Administration [Agencia Estatal de Administración Digital], n.d.).
    - Interoperability: This simplifies digital services by reducing the need for people to submit the same information multiple times. It also makes it easier to submit a request from a mobile phone (for example, by eliminating the need to upload scanned documents).
    - Digital identity: This reduces the need to obtain and remember multiple passwords. It facilitates identity authentication, a key step for many services.

Much work extends beyond the scope of governing bodies. This underscores the importance of joint efforts. At least three types of key partners can be highlighted:

- Service providers: In many cases, service providers retain primary responsibility for digitizing their services. Therefore, equity considerations must also permeate their work, both in defining what is digitized first and in how digital services are designed. Service providers and governing bodies should build close relationships to ensure that service providers take full advantage of what governing bodies offer in terms of standards, technical support, and tools.

- Owners of enablers: Several key digital enablers often fall under the responsibility of other entities. For instance, the promotion of digital skills is typically led by ministries of education. Connectivity is often the responsibility of a public telecommunications company or public works agency. This highlights the need for high-level coordination to prioritize closing gaps in access to the digital environment.

- Cybersecurity and personal data protection authorities: It is essential that all digital services guarantee the protection of personal data and the integrity of processes. This includes protecting personal information databases, ensuring the responsible use of personal data, and safeguarding against the illegal imitation of websites and electronic communications of public entities. In some contexts, the institutions that own services may lack capacity in these areas, making partnerships with the relevant authorities essential.

Even with these elements in place, some people are likely to remain unable to access digital public services (efficiently). Therefore, the following additional actions are recommended:

6.5
Provide personalized assistance, focused on populations with greater access difficulties, to encourage the adoption of digital services.

This can consist of at least two elements: proactive invitations and personalized assistance. Support can be provided to assist with specific questions or to complete entire government transactions. One objective of this support, in addition to facilitating access to a service, is to strengthen citizens' capacity and confidence to carry out government transactions online.

- Proactive invitations: As noted in Chapter 3, one reason for low digital channel usage is lack of awareness: people are often unaware that a service they need is available online. Therefore, one way to increase the adoption of digital services is through proactive invitations. Often, the government frequently already knows which people may benefit from specific services. This information can be used to send personalized invitations that encourage digital use of the service. Such invitation can also have the added benefit of increasing adoption of the service itself (not just encouraging a change in access channel).

- Personalized assistance: In some cases, the only way to guide a person to the digital channel is through step-by-step support. This may be necessary especially when the person faces several of the barriers discussed in Chapter 3, including: not knowing that a digital option exists for the service they need or not knowing how to access it, lacking convenient access to an internet-connected device, having low digital skills, or low self-confidence in their ability to complete these government transactions online. One-on-one assistance can be used to inform the person about the availability of a digital option, indicate where

a device is available to submit the request, and help them complete the online application. This type of support can take several forms:

- Social programs that include home visits.
- Community internet centers where user support is provided.
- Digital skills training courses.
- In-person citizen service locations (public offices or integrated service centers).
- Helplines (for example, with the number listed on the government transaction website).
- Citizen service chatbots available on social media (e.g., WhatsApp).

6.6
Invest in key enablers: connectivity, digital skills, electronic devices, and awareness of digital options, particularly for groups with low levels of digital use.

The intention of Recommendation 1 is that all digital services should be accessible from a cell phone and simple to use, so that neither a computer, home internet connection, nor sophisticated digital skills are required. However, in the medium term, many critical services are likely to remain more accessible from a computer and still complex to navigate, meaning that some people would benefit from strengthening their digital capabilities. Therefore, continued investment in connectivity, devices, and digital skills is recommended.

The groups with the least access to these enablers, overall, are people with low education levels, older adults, those living in rural areas, people with disabilities, and Indigenous peoples. Similarly, investment is needed in awareness campaigns to inform citizens about the availability of digital options, emphasizing that the digital version is just as valid as the in-person version.

6.7
Improve in-person services based on the principles of consolidation, accessibility, simplicity, proximity, and efficiency.

The results of the citizen surveys conducted for this book indicate that many people in the region will not be able, or will not choose, to use the digital channel to access public services for a significant period of time. This is due to gaps in connectivity, access to devices, digital skills, lack of knowledge about available digital options, and persistent preferences for the in-person channel. Eliminating in-person options and forcing all users to access services exclusively online can lead to several negative outcomes, including psychological stress, the imposition of costs for hiring intermediaries, errors in applications, increased exposure to fraud, and an inability to access services, among others. In this regard, governments must not only maintain in-person options for accessing public services, but also strengthen them.

There is significant experience in this area around the world, which allows us to identify some common principles:

- Consolidation of services: Providing services from multiple entities under one roof saves time by enabling persons to carry out government transactions involving different institutions on a single visit.

- Accessibility: Incorporating a wide range of accessibility guidelines—physical, linguistic, cognitive, among others—allows everyone to access both the space and the services provided.

- Efficiency: Many networks of integrated service centers incorporate management systems that make the citizen experience more efficient. One aspect of these systems is to empower officials to provide services from multiple entities. This allows for the implementation of the “one-stop shop” concept in person. Another aspect is appointment and scheduling systems, which minimize wait times for citizens.

- Proximity: Locating integrated service centers in many places throughout the country reduces travel times for persons. Sometimes this is achieved by taking advantage of the existing infrastructure of a public institution with a strong territorial presence, such as post offices. Other options for bringing services closer to people include service fairs, where representatives of public entities are present in a location that is not their permanent headquarters, or mobile brigades, which take the integrated center model from municipality to municipality.

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Annex 1: Relevant definitions

Population Segments Analyzed

Sex: biological characteristics, mainly related to reproductive organs, which, based on social perceptions, allow people to be classified as male or female.

Racial and ethnic self-identification: membership of a human group that shares a common culture, history, and customs, united by a collective sense of identity. It is officially measured through self-recognition or self-identification, defined as the free and autonomous act of expressing a sense of belonging to a collective and the individual awareness of sharing institutions, customs, and practices with a human group.

- Indigenous peoples: in accordance with the Bank's Operational Policy on Indigenous Peoples (OP-765) and the International Labour Organization (ILO) Convention 169 (Inter-American Development Bank, 2005; ILO, 2014), Indigenous peoples are defined on the basis of three criteria: (1) historical continuity, that is, those who are descendants of peoples or societies that existed prior to colonization; (2) shared political, cultural, economic, and sometimes linguistic institutions; and (3) self-identification as belonging to Indigenous or pre-colonial peoples.

- Afro-descendants: According to the United Nations (n.d.), individuals of African descent are defined as those persons of African ancestry who reside in the Americas and other regions linked to the African diaspora as a historical result of the process of enslavement. Likewise, the term *Afro-descendants* encompasses both those who recognize themselves as part of this identity and traditional communities with African roots, such as the quilombolas, palenqueros, raizales, and cimarrones, among others (IDB, 2022). This concept varies according to context and, depending on the country or region, may be associated with other terms such as "black," "mulatto," "pardo," or "palenquero," among others. In demographic analysis based on surveys, people from Jamaica are not included in the Afro-descendant group since Jamaica'smajority Afro-descendant population has traditionally been excluded from regional statistics on this group, as have other Caribbean countries.

In the Citizen Survey, the ethnicity variable was collected using the official definitions of each country's National Institute of Statistics, in accordance with the criteria established in their national censuses or surveys. Based on this information, and on the racial and ethnic self-identification reported by the respondents, during the cleaning and standardization process, all responses were grouped into three categories that are comparable at the regional level: Indigenous persons, Afro-descendants, and non-Indigenous and non-Afro-descendants.

Disability status: from the "social model," disability is understood as a constantly changing concept that results from the interaction between people with difficulties (or impairments) and external barriers—whether attitudinal or environmental—that limit their "full and effective participation in society" (UN, 2006). The Washington Group standards indicate that disability is manifested when a person has significant difficulty in their daily life or is unable to perform any of the following activities: seeing, hearing, walking, concentrating, self-caring, and communicating.

In the Citizen Survey, the disability status was measured using an adapted version of the Washington Group on Disability Statistics short set of questions on disability. All respondents were asked whether they had no, some, or a lot of difficulty (or could not so at all) in five activities, even with assistive devices: seeing, hearing, walking or climbing stairs, communicating in their usual language, and self-care (e.g., washing or dressing). The cognitive dimension of the original module (related to remembering or concentrating) was not included, so cognitive disabilities were not captured.

Rural/urban: An urban area is characterized by contiguous buildings, streets, and the presence of administrative authorities (Economic Commission for Latin America and the Caribbean [ECLAC], n.d.; National Administrative Department of Statistics [Departamento Administrativo Nacional de Estadística, DANE], 2020; UN-Habitat, 2018). It is also defined by a high level of human occupation, although the ranges of population size or density vary between countries. A rural area is characterized by more dispersed housing, low population density, and a predominance of agricultural activities.

Educational attainment: The highest level of formal education (institutionalized, organized by accredited entities) that a person has successfully completed and that can be certified (UNESCO, 2011).

Age group: Classification based on individual's age and their life stages (childhood, adolescence, youth, adulthood, and older age) associated with different needs, capacities, and responsibilities.

Key Concepts

Equity: equal opportunities to access digital services, guaranteeing minimum conditions regardless of demographic or socioeconomic characteristics.

Digital equity: equal access to the conditions necessary to use digital services (awareness, willingness, and skills), addressing not only inequalities in devices and connectivity, but also skills, awareness, and motivation (Resta and Laferrière, 2015).

Social inclusion: the process of ensuring that disadvantaged people participate fully in society by improving their ability, opportunity, and dignity (World Bank, 2014). Although equity and inclusion are interrelated, equity implies equal opportunities, while inclusion is the process necessary to achieve it.

Public services: government transactions defined as the set of requirements, steps, or actions to obtain a right (creation of a registry, access to a service, obtaining a permit) or fulfill an obligation (Roseth et al., 2018). This analysis does not address the content of services, such as what happens inside a classroom or a doctor's office.

Digital gap: difference in access, use, or impact of digital technologies among different population groups, determined by factors such as income, location, education, or sex.

Digital transformation: the process of integrating digital technologies into government activities to improve efficiency, accessibility, and equity in service delivery.

Digital accessibility: design of digital interfaces and platforms that ensure effective use by all people, including people with disabilities.

Government transactions: the set of requirements, steps, or actions through which individuals or businesses request or submit information to a public entity to obtain a right—creation of a record, access to a service, obtaining a permit—or to comply with an obligation.

Annex 2: Examples from the recommendations

Promote universal digitization and mobile-first inclusive design.

Universal Digitization

Uruguay: Uruguay has been a pioneer in the digitization of its public services through the "100% Online Government Transactions" program (Agency for Electronic Government and Information and Knowledge Society [Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento, AGESIC], 2020). The main motivation behind this initiative was to bring the State closer to its citizens, optimizing time and resources and expanding access to public services. Led by the Agency for Electronic Government and the Information and Knowledge Society (Agesic), the program ensured that 100 % of central government transactions could be initiated digitally and that 93 % were completed entirely online by 2020. This progress has enabled citizens to access public services 365 days a year, 24 hours a day, from anywhere in the country, reducing territorial gaps and improving efficiency in interactions with the State (AGESIC, 2020).

Estonia: The e-Estonia program was motivated by the need to modernize and digitize government services to improve efficiency and transparency. The Estonian government led the effort beginning in the 1990s with a clear vision of creating a society where almost all bureaucratic tasks could be performed online. The proposal sought to reduce bureaucracy, increase transparency, and facilitate access to government services for all people.

The e-Estonia program has made more than 99 % of government services available online, allowing for quick and efficient processing of paperwork. Each person's unique digital identity facilitates the signing of digital documents and contracts, increasing transparency and reducing corruption. In addition, the e-Residency program has attracted global entrepreneurs, boosting Estonia's digital economy. Digital platforms have also improved education and health, with access to online educational resources and electronic medical records (e-Estonia, n.d.).

Inclusive Design

Germany: In Germany, the Social Insurance for Agriculture, Forestry, and Horticulture created a web application in 2021 aimed primarily at seasonal workers to provide information and improve dissemination of occupational risks and occupational health guidelines. Since most of these workers come from Eastern Europe, the website was designed to overcome cultural and language barriers. It was offered in nine languages, and its content focused on providing clear, easy-to-understand, and engaging information on various aspects of occupational safety and health, using text, web, images, and videos. This application generated more than a dozen digital newsletters and videos focused on seasonal workers in different languages (International Social Security Association [ISSA], 2022a).

Finland: Similarly, the Social Insurance Institution in Finland launched the "Kela" chatbot in 2017. This chatbot understands the country's official languages, Finnish and Swedish, as well as English, and uses contextual variables to give advice to users without the need for specific questions. For example, it suggests a format for entering requested dates and sources for finding required information about spouses.[40]

United Kingdom: An AI-powered search engine was implemented in the last half of 2024 on its main website, GOV.UK, which serves as the hub for a wide range of public services and information. Its goal is to make the process of finding important information easier and faster for all users, regardless of their digital skills. This search engine uses natural, conversational language, thus adapting to different levels of digital skills. During its trial period, this new search engine achieved a 14 % increase in users clicking on relevant results and an 8 % reduction in users leaving the website from the search page. (Consultancy UK, 2024).

India: Another strategy to overcome barriers to accessing government services imposed by digital skill levels is to allow a family member to act as a representative for a user with limited digital skills. This strategy was part of India's CoWIN program in 2021, which included a wide range of components to ensure access to COVID-19 vaccination for all. Since many people in India do not have access to a smartphone or do not have high digital skills, the

40 See https://www.issa.int/gp/218314. Accessed on November 28, 2024.

program allowed up to four members of a family to request a vaccine and complete the entire vaccination process under a single account. By the end of 2021, the platform had more than 900 million registered users and had helped administer 130 million doses of COVID-19 vaccines (Exemplars Health, 2024).

Bangladesh: By 2022, it is estimated that in low- and middle-income countries, mobile phone penetration with access to a mobile network was nearly 100 % (World Bank, 2024). This makes these devices a great tool for governments to expand the coverage of their services. An example of a comprehensive mobile service is the "MyGov" app in Bangladesh, launched in 2021. This all-in-one app was designed to provide a wide range of government services from various state agencies. It allows users to complete applications for different services, check the status of the requested service, and make any required payments. It also integrates a national helpline called "333," focused on users with low education and low familiarity with technology (A2i, 2024).

Spain: In Spain, more than half (54.4 %) of the population has difficulty understanding how public offices work and accessing public services. This level of difficulty increases to 58.9 % among people with some form of cognitive disability or mental health disorder. In response to this situation, the Spanish Center for Cognitive Accessibility (CEACOG) was created. It is an agency under the Royal Board on Disability, managed by Plena Inclusión and funded by the Recovery, Transformation, and Resilience Plan of Spain and the European Union. The aim of CEACOG, or "the office of ease," as it is also known, is to make it easier for people to understand how public administrations work.

The organization has a coherent discourse and approach—from the composition of its staff, of which 70 % is comprised of professionals with cognitive and developmental disabilities, to the design of its website, which complies with various web accessibility guidelines, from the use of contrasting colors, the use of alternative text, and the inclusion of a plug-in with accessibility tools that allows users to adjust the text size, increase contrast, underline links, or view the site in grayscale. Another exceptional feature of the site is the ability to listen to all texts and adapt them to an easy-to-read version, which converts complex paragraphs into short, easy-to-understand sentences, aligned to the left and using simple words.

In October 2023, CEACOG launched a campaign under the slogan "If it's easy, it's fair" with the aim of promoting cognitive accessibility in public services and positioning the institution (ISSA, 2022b).

Include people with different characteristics in the design of services and in their continuous improvement.

Peru: The digital platform *Alerta Contra el Racismo* (Alert Against Racism) is a notable example of how designing digital services with an inclusive approach can reduce structural barriers and promote equity. Created in 2012 and made official in 2015, it allows acts of racism to be reported in a georeferenced manner in Quechua, Aymara, and Spanish, facilitating access for historically excluded communities, such as Indigenous and Afro-Peruvian peoples.[41]

Its development was a response to problems such as the reproduction of racist discourse, citizens' lack of awareness of their rights, and the lack of inclusive policies (Perona Zevallos, 2017). In November 2024, through Supreme Decree No. 007-2024-MC, the Ministry of Culture ordered its restructuring in compliance with Supreme Decree No. 033-2018-PCM, which establishes the Peruvian State's Single Digital Platform. This update seeks to improve citizen services and consolidate a more coordinated digital government. In addition, data on complaints between 2018 and 2024 are available on the national open data platform, which reinforces transparency and accountability. With national coverage, this tool has strengthened citizen action and contributed to raising awareness and combating racism in the country.

Germany: Between 2017 and 2018, workshops called data walks were organized, in which older adults actively participated in the design of a digital neighborhood guide. During these walks, participants explored data and public services at themed stations related to key aspects of their daily lives, such as health and transportation (Jarke, 2019). With the support of facilitators, they identified technological barriers and proposed solutions tailored to their needs. This approach promoted both digital literacy and equity in access to essential services for older adults.

41 For more information, visit: https://datosabiertos.gob.pe/dataset/alerta-contra-el-racismo

Latvia: Between 2019 and 2021, the government redesigned the Latvija.lv portal to make it more accessible, involving people with visual disabilities in co-creation sessions. Innovative methods such as check-in check-out, idea dashboard, and brainstorming were used to identify barriers, such as incompatibility with assistive technologies, and propose solutions tailored to users' needs. Among the improvements implemented was a more intuitive interface that made the portal easier to use. The nationwide intervention aimed to improve the user experience, promote digital inclusion, and strengthen the government's commitment to equity. As a result, a more accessible portal and greater participation by vulnerable groups were achieved (Muravska et al., 2018).

India: The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), implemented in February 2006 to guarantee job opportunities in rural communities, involved the local population in the creation and continuous improvement of nrega.nic.in. This digital platform, designed to address the shortage of employment, publishes information on job vacancies, payments, and reports. It promotes transparency and adapts to the needs of each locality. By 2011, the program had reached 3,500 villages and, in Ganjam (Orissa) alone, benefited 367,000 households. Thanks to community participation, the number of jobs created increased from 2.6 million to 9.7 million between 2006 and 2009. Likewise, monitoring through social audits and ICT tools made it possible to detect and correct irregularities in real time, promoting the use of bank accounts to make 90 % of payments, which significantly reduced anomalies in the distribution of funds (Das et al., 2011).

Empower digital governing bodies to lead the digital equity agenda, in conjunction with other partners.

Brazil: The Secretariat of Digital Government (SGD) acts as the governing body for the digital transformation of the Brazilian State, with an emphasis on an inclusive approach to digital government. It participates in the strategic framework of E-Digital, which coordinates digital transformation actions in all areas of government. One of the specific objectives of E-Digital is to bring the Brazilian State closer and more accessible to citizens, while optimizing the efficiency of service delivery, demonstrating the inclusive nature of the transformation. In addition, the SGD coordinated and developed the first edition of the National Digital Government Strategy, which serves as a guide for all levels of government in the country, according to Decree No. 12.069 of 2024. This strategy aims to create a State that facilitates the inclusion of all citizens in an effective, proactive, and sustainable manner, by offering solutions

that respond to their needs and recognize both social inequalities and barriers to access to public services (Presidency of the Republic of Brazil [Presidência da República], 2024). It is also responsible for implementing the Federal Digital Government Strategy, which coordinates the inclusive approach in the initiatives of all federal agencies. Specific examples include initiatives such as the availability of V-Libras as an accessibility solution, which promotes the inclusion of people with hearing disabilities; the review of accessibility standards for digital channels; and the expansion of Balcón GOV.BR, which guarantees hybrid and multichannel service for users of the GOV.BR platform.

Chile: The Digital Transformation Strategy highlights this commitment through the pillar "Chile conectado sin brechas" (Chile connected without gaps) (Órdenes et al., 2023). This approach prioritizes connectivity and the equitable development of digital skills, focusing on rural areas and groups affected by digital exclusion. The quantitative targets are ambitious: by 2035, 100 % of the population will have access to high-speed broadband (100 Mbps download and 50 Mbps upload), 95 % of households will have adequate technological devices, and at least 90 % of the population will have basic digital skills (Órdenes et al., 2024). To advance toward these goals, initiatives such as the Zero Digital Divide Plan have been implemented, which by 2024 had achieved 94.3 % of households with their own paid internet access (Chilean Undersecretariat of Telecommunications [Subsecretaría de Telecomunicaciones], 2024). This demonstrated tangible progress in digital inclusion throughout the country.

Colombia: The National Development Plan "Pact for Equity 2018-2022" established equity as a fundamental guiding principle in digital transformation policies, aimed at guaranteeing equal opportunities through modern social policy and the social and productive inclusion of citizens. Among the key strategies was the Pact for the Digital Transformation of Colombia, designed to connect governments, the private sector, and households to the knowledge era. This commitment was backed by a budget of 507,882 billion pesos in 2018, equivalent to 46.3 % of the country's total investment budget for the development and implementation of the Plan in the period 2019-2022 (DNP, 2018; DNP 2019). The results, as evidenced by the Digital Divide Index (IBD) measured by the ICT Ministry, showed significant progress, with a 9.1 % reduction in the digital divide from 0.44 % in 2018 to 0.40 % in 2022 (Ministry of Information and Communications Technology [Ministerio de Tecnologías de la Información y las Comunicaciones, MinTIC], 2023b).

Provide personalized attention, focused on populations with greater access difficulties, to promote the adoption of digital services.

Proactive Invitations

Uruguay: The IDB, together with the government, conducted a study to see how to increase the proportion of women undergoing cervical cancer screening (Gallegos et al., 2023). They found that a text message with an invitation to make an appointment through the usual channels increased the proportion of women undergoing this check-up by 78 % compared to the control group, and that a reminder with a link to make an appointment online increased the proportion by 168 %. This result highlights the potential of a proactive approach combined with digital service.

Panama: A similar experiment was conducted with contrasting results. The study (Reyes et al., 2024) analyzed the relative effectiveness of text message reminders versus text message reminders with a link to a digital service in increasing the proportion of people who renewed their identity cards on time. Messages are sent to people with ID cards that are about to expire. In this case, a simple text message was more effective in promoting timely renewal (with a 21 % increase compared to the control group) than a text message that included a link (with a 15 % increase). The main explanation for this surprising result is the poor user experience offered by the digital renewal service: although 25 % of people who received an invitation to start the renewal process online began the process, only 6 % were able to complete it. This finding highlights the importance of user-friendly digital interfaces in attracting users.

Personalized Assistance

For information on personalized assistance in the context of community internet centers and digital training courses, see the examples under Recommendation 8, Invest in key enablers: connectivity, digital skills, and electronic devices—particularly for groups with low digital use

Uruguay: In the context of the expansion of cash transfer programs in Latin America, Uruguay implemented the Social Card Uruguaya (TUS) in 2008, an unconditional cash transfer program targeting households in situations of extreme economic vulnerability. This card allows people to purchase food and basic necessities in stores participating in the initiative, with the aim

of providing resources to meet basic needs and reduce poverty, thereby promoting equity in access to essential goods. To facilitate access to this benefit, the Uruguayan government established a mechanism that allows applicants to receive assistance through a home visit.

During this visit, a technical team uses electronic devices, such as tablets, to collect the necessary information through a standardized form. Based on the data obtained, officials help applicants process their applications, ensuring that the process is accessible, even for those who do not have digital tools. In 2020, around 90,000 households received the benefit, exceeding the initial target of 60,000 households due to the expansion of the program, especially in response to the COVID-19 pandemic. That year, the program reached 7.7 % of households in the country. According to INE data, in 2019, the TUS contributed to reducing poverty by 0.1 %. In addition, research has shown positive effects in areas such as school enrollment among the poorest households, formal employment, coverage and preventive use of health services, housing conditions, household spending, and dietary diversification, among others (Amarante et al., 2023; Ministry of Social Development [Ministerio de Desarrollo Social, MIDES], n.d.).

Spain: In Spain, the Malaga City Council launched a digitization project in Community Social Service Centers (CSSC) in 2023 with the aim of improving the efficiency and accessibility of social services. The intervention, motivated by the need to reduce geographical and technological barriers, seeks to simplify administrative government transactions and enable social workers to visit vulnerable people in their homes using portable devices. The aim is to avoid unnecessary travel, facilitating access to care and improving equity in access to government services. The project began as a pilot in some centers and will be extended to all 12 centers with a budget of €166,363.09, financed by European funds. The initiative seeks to improve the quality of services and facilitate access to care for vulnerable groups (Sánchez, 2024).

Invest in key enablers: connectivity, digital skills, electronic devices, and awareness of digital options—particularly for groups with low levels of digital use.

Connectivity

Colombia: Digital Centers are an initiative led by Colombia's Ministry of Information and Communications Technologies that seeks to bring free, permanent connectivity to rural

and marginalized communities. The project involves the installation of 14,057 digital centers that serve as internal connection points. These include computer rooms with computers and Wi-Fi connection in schools; external access points with Wi-Fi connection so that the surrounding community can connect, located mostly in rural schools (98 %) and in Indigenous communities, natural parks, and other strategic locations. Each center has internal and external wireless connection points with a range of up to 7,800 m², benefiting both students and residents of surrounding areas. With an investment of over US$561 million, implementation began in 2021. This project aims to promote digital literacy; to this end, MINTIC trains the population through courses and workshops. It also aims to improve the quality of education by enabling students to use the internet in their learning processes. In addition, it facilitates entrepreneurship and e-commerce for the community. In this way, the project promotes equity in access to information technologies (Ministry of Information and Communications Technologies [MinTIC], 2021).

Peru: Internet for All (IPT) is a joint initiative of Telefónica, Facebook, IDB Invest, and CAF, which aims to close the digital divide in Latin America through a sustainable model. Since its creation, IPT has connected nearly 3.3 million people in more than 17,100 rural locations, using more than 2,200 base stations with 4G technology. The project operates under the Rural Mobile Infrastructure Operator model, which allows operators such as Telefónica, Claro, and Entel to extend their voice and data services to hard-to-reach communities at low cost, thereby facilitating the provision of affordable plans for beneficiaries. Although IPT does not provide free connections, financial support from IDB Invest, CAF, and Facebook (Meta) reduces economic barriers and encourages the implementation of necessary infrastructure. Although the government is not leading the project, it supports its implementation through regulatory policies and the use of infrastructure for initiatives such as digital education during the pandemic (IDB, 2021).

Digital Skills

Rwanda: The Digital Ambassadors Programme is an initiative led by Rwanda's Ministry of ICT and Innovation, which aims to improve the digital literacy of 5 million people and encourage the use of digital services. Since 2017, young entrepreneurs have been trained as digital ambassadors to teach their communities how to use online services, such as e-government, e-agriculture, and mobile banking applications. The program has 262 access points equipped with technology and has trained more than 67,000 people across the country. In addition

to promoting digital inclusion, the program connects ambassadors with companies in the technology sector, providing opportunities for employment and sustainable income generation (Rwanda Ministry of ICT and Innovation, 2017).

Peru: Niñas Digitales Perú is a program designed to promote equal opportunities and close the gender gap in STEAM (science, technology, engineering, arts, and mathematics) areas. Through free digital skills training for girls and adolescents aged 6 to 17, this program has trained more than 7,000 participants since its creation. The initiative seeks to empower girls with technological skills, encourage their participation in traditionally male-dominated disciplines, and promote inclusive practices in the professional and personal development of young women. The program is led by the Ministry of Education (MINEDU), in collaboration with the Secretariat of Government and Digital Transformation (SGTD) of the Presidency of the Council of Ministers (PCM) and the Ministry of Women and Vulnerable Populations (MIMP) (Peruvian Ministry of Education [Ministerio de Educación, MINEDU], 2024).

Spain: In Palencia, Spain, the CyL Digital program, active since 2012, focuses on closing the digital divide in rural areas and vulnerable groups such as the elderly, immigrants, and people with disabilities. Through workshops on online banking, social media, and artificial intelligence, the program has improved digital skills and prevented technological exclusion. Its network of 17 associated rural centers has facilitated digital training for communities with limited access. At the regional level, it has reached more than 111,000 in-person users and 55,000 through distance learning, thereby establishing itself as a model of equitable technological inclusion (Cadena Ser, 2024; Regional Government of Castilla y León [Junta de Castilla y León], 2024; Palencia en la Red, 2024).

Devices

Colombia: Computadores para Educar (Computers for Education) is a program of the Colombian national government that promotes educational innovation through access to digital technologies, with more than 2.6 million devices distributed since 2010. These terminals are computers and tablets, mainly intended for educational centers, public libraries, and cultural centers throughout the country. The program has benefited 14.5 million students and trained 332,764 teachers and parents in the pedagogical use of information and communication technology. Led by the ICT and Education Ministries and SENA, it also addresses environmental sustainability through e-waste management, with an approximate

investment of US$1.07 billion (Ministry of Information and Communications Technology [Ministerio de Tecnologías de la Información y las Comunicaciones, MinTIC], 2023a).

Connectivity, Devices, and Digital Skills

Panama: *Infoplazas* are community centers that are currently operating in more than 400 locations throughout rural Panama. They offer services such as internet access, document printing and digitization, and short training courses. They also provide personalized assistance to help citizens perform online tasks, such as accessing information, requesting public services, and completing paperwork. Complementing this initiative, they have a mobile unit called *Infoplaza Móvil,* consisting of a vehicle equipped with state-of-the-art computers and the necessary personnel to provide training to anyone who wants it. These initiatives are managed by the National Secretariat for Science, Technology, and Innovation (National Secretariat for Science, Technology and Innovation [Secretaría Nacional de Ciencia, Tecnología e Innovación, SENACYT], 2021).

Uruguay: The Ceibal Plan, launched in Uruguay in 2007, is a pioneering initiative that seeks to reduce the digital divide and improve education by providing free technological devices to students and teachers in public education. As of December 2023, the program had distributed more than 2.9 million laptops and tablets, of which 635,375 are currently in use by primary and secondary school students and teachers. In addition, 34,288 devices are available in library mode to support teaching processes. Ceibal also guarantees internet connectivity, reaching 100 % of schools and 778,300 users through broadband and Wi-Fi networks in schools. For rural populations, access includes videoconferencing and mobile networks, covering 197 educational facilities. These efforts are complemented by the provision of micro:bit boards and digital laboratories to promote programming and robotics.

The program benefits both students and teachers, who receive ongoing training in pedagogy, mathematics, and computational thinking, with more than 6,600 participants in 2023. Ceibal in English, another key component, covers 97.7 % of urban primary schools through videoconferencing classes, benefiting more than 73,000 students. This model, managed by the Uruguayan government, is led by the Ceibal Center, an executive unit that coordinates activities in collaboration with the National Public Education Administration, the Ministry of Education and Culture, and the Ministry of Economy and Finance (Ceibal Center [Centro Ceibal], 2023).

Uruguay: The Ibirapitá Plan, launched in 2015, addressed infrastructure, connectivity, and digital skills inequalities among low-income retirees by providing tablets, in-person workshops, and plans for home internet access. By 2018, it had benefited 190,000 people and promoted the use of devices for communication and online services. A 2015 survey revealed that 70 % of beneficiaries used the tablets weekly for activities such as browsing Facebook (36 %), using the camera (72 %), and communicating with family members (75 %). This means a reduction in loneliness and the promotion of social inclusion (Escuder et al., 2020; Presidency of the Eastern Republic of Uruguay [Presidencia de la República Oriental del Uruguay], 2016).

United Kingdom: In 2019, the UK government established the Smart Homes program, funded by the Department for Digital, Culture, Media and Sport, to improve the digital skills of older people in rural areas. Led by the Uttlesford Volunteer Services Council, it trained older homeowners in West Essex as 'digital boomers', who, after receiving a digital assessment and technological equipment in their homes, opened their doors to others to learn how to use smart technology. Activities included controlling appliances, booking medical appointments online, communicating via video, and shopping online. In addition, younger digital buddies provided additional support. This approach facilitated the acquisition of digital skills in a familiar and accessible environment, promoting digital inclusion and reducing loneliness at home (GOV.UK, 2019).

Improve in-person services based on the principles of consolidation, accessibility, simplicity, proximity, and efficiency.

Chile: The most representative example in the region is Chile, with its ChileAtiende multichannel model, established in 2011 with the aim of making government services more accessible to all through a single point of access, which brings together services from 28 institutions, with a total of 254 services available. In its face-to-face service channel, ChileAtiende has 254 physical locations, of which 192 are permanent and the rest are mobile. In particular, ChileAtiende aims to have one in five centers be mobile and change location periodically to ensure that the most remote communities have equitable access to government services. Together, these points cover 80 % of Chilean territory. Thirty-nine of these centers are designed to be inclusive spaces, with facilities for breastfeeding and child entertainment, and where users can also access translations via video call, ensuring accessibility for more diverse groups (Organization for Economic Co-operation and Development [OECD], 2020).

Azerbaijan: An interesting example of the use of mobile centers to expand service coverage is the ASAN centers in Azerbaijan. These spaces facilitate government transactions such as the issuance of passports and driver's licenses through digital tools. These mobile offices have a fleet of buses that can operate on solar energy when not in motion, ATMs to provide financial services, electronic equipment, and satellite internet to provide a wide variety of services (World Bank, 2017b). Thanks to this, more than 135,000 people who were unable to reach a permanent center received the government services they needed (Centre for Public Impact, 2016).

Latvia: With the aim of facilitating access to electronic services for people with limited digital skills or resources, the State Social Insurance Agency of Latvia (SSIA) implemented the electronic assistant program. These assistants are employees of physical service centers who help citizens apply electronically for SSIA benefits on their behalf. People can go to a nearby service center with an ID document to request assistance; the electronic assistant takes care of the digital application process and informs the citizen about important dates in the process. Initially launched as a pilot program in seven centers, the program has expanded to 122 centers in 35 municipalities since 2019. This initiative enables citizens to transition to digital service delivery channels with the necessary support, thus leveraging the country's growing digital infrastructure (International Social Security Association, 2022a).

Colombia: In 2018, an Integrated Service Center was opened in Chaparral, Colombia. The population of this municipality faced significant challenges, such as poverty and lack of access to basic services. In addition, 66 % of its population lives in rural areas, and by 2015, only 8.5 % of national government transactions were available in person, and 73 % of the population did not have internet access from home. Following the implementation of the Integrated Service Center, the availability of transactions increased to 21 %, almost triple the initial number. There was also an increase in citizens' perception of the availability of transactions. More importantly, with this center, rural residents experienced a reduction of approximately one hour in the travel time required to complete government transactions, which facilitated access to government services (Muñoz et al., 2020).

Dominican Republic: *Formalízate* was launched in 2013 in the Dominican Republic. This program consisted of integrated service points for business registration, with the aim of increasing incentives for microenterprises to enter the formal sector by reducing the time and costs associated with business registration and providing information about the process.

An important effect of these centers was an approximately 20 % increase in female labor participation as independent entrepreneurs, compared to values prior to the launch of the centers. Since women traditionally face more barriers to accessing formal employment, this result highlights the program's effectiveness in increasing gender equity in the workplace (Bobić et al., 2023).

Vietnam: The government has gradually implemented integrated service centers since 2003. In 2016, there were a total of 12,638 centers throughout Vietnam at all administrative levels. The centers' broad coverage allowed citizens to access all services offered within a few kilometers. In addition, each center included strategic communication targeting vulnerable populations, such as ethnic minorities, using local languages (World Bank, 2017a).

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Annex 3: Supplementary tables

Racial and ethnic self-identification across countries

Racial and ethnic self-identification varies considerably across the countries in the region, and its conception may even differ from one culture to another. For this reason, the following considerations were made:

- Jamaica, Trinidad and Tobago, and Uruguay are not included in the disaggregation by racial and ethnic self-identification (see Annex 1).
- Due to the small number of observations in the survey, the proportion for the Indigenous peoples population is not calculated for Brazil.
- For Guatemala, Honduras, and Paraguay, the proportion for the Afro-descendant population is not calculated.
- In Uruguay, the racial and ethnic self-identification variable was not collected.

The ethnic composition of the Caribbean (Jamaica and Trinidad and Tobago) differs significantly from the main categories used in the rest of Central and South America; for this reason, these countries are excluded from the analysis. When comparing the sample

distribution with the population distribution (estimated using weights constructed from the demographic structure of each country) across the remaining countries, only slight differences are observed, indicating that the sample satisfactorily reflects the composition of the countries analyzed.

Table A3.1. Distribution of racial and ethnic self-identification by country

Country	Sample distribution			Population distribution		
	Indigenous peoples	Afro-descendants	Neither Indigenous nor Afro-descendant	Indigenous Peoples	Afro-descendants	Neither Indigenous nor Afro-descendant
BR	0 %	55 %	45 %	0 %	58 %	42 %
CL	13 %	6 %	81 %	14 %	5 %	80 %
CO	7 %	11 %	82 %	7 %	11 %	82 %
GT	30 %	0 %	70 %	35 %	0 %	65 %
HO	7 %	0 %	93 %	7 %	0 %	93 %
JA	0 %	0 %	0 %	0 %	0 %	0 %
PE	21 %	8 %	71 %	23 %	9 %	68 %
PN	12 %	42 %	46 %	15 %	38 %	47 %
PY	10 %	0 %	90 %	17 %	0 %	83 %
TT	0 %	0 %	0 %	0 %	0 %	0 %
UY	0 %	0 %	0 %	0 %	0 %	0 %

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