

PUBLIC SERVICES AND DIGITAL GOVERNMENT DURING THE PANDEMIC



Perspectives of Citizens, Civil Servants,
and Government Institutions



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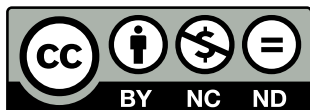
Keywords: public services, procedures, public administration, COVID-19, pandemic, digital government

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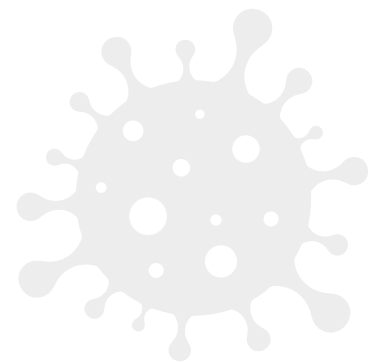
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ABSTRACT

The COVID-19 pandemic has restricted mobility and led to a sudden increase in the dependence on digital tools for providing and accessing public services, as well as for teleworking by public servants. Have government institutions in Latin America and the Caribbean been able to rise to this challenge, continue operating, and providing services?



This report seeks to answer this question by providing new descriptive evidence gathered from three perspectives: citizens (based on surveys of more than 32,000 people across 13 countries), government officials (based on a survey of more than 4,600 officials in 9 countries), and public institutions (based on a questionnaire completed by 11 digital government lead agencies and 6 brief

case studies). It finds that the crisis led many countries to digitize a significant range of services, sometimes in a matter of days. In addition, the proportion of citizens using the internet to access government transactions rose from 21 percent before the pandemic to 39 percent during it. Despite mobility restrictions, however, around 50 percent of citizens completed their last transaction in person.

With regard to teleworking in the public sector, almost half of all employees stated that they had been unable to perform critical tasks since the onset of the pandemic, many of which could have been resolved using digital government tools. These findings point to the need to improve the availability and quality of digital services, as well as the feasibility of telework in government.



INTRODUCTION

The COVID-19 pandemic, the lockdowns, and the restrictions on movement imposed in most Latin American and Caribbean countries since March 2020 have created a situation in which most social and economic activity has been limited to what people can do from home.

The effects of the coronavirus crisis have been both substantial and unequal. According to a study carried out in mid-2020 in 17 Latin American countries, 45 percent of households contained someone who had lost their job, including 71 percent in low-income households and 14 percent in high-income households (Bottan, Hoffman, and Vera-Cossio, 2020).

The pandemic has also affected governments. Overnight, government offices were forced to either close or reduce their operating hours and staffing, and many public servants were forced to work from home. As a result, a range of public services were no

longer provided in person. At the same time, many institutions experienced an increase in demand for their services and information, particularly in areas related to the health crisis and associated mitigation and support programs.

Governments introduced a range of measures to adapt to this new context. Some extended the validity of official documents due to expire in the coming months (e.g., identity documents, permits, and vehicle license plates), thus avoiding the need to visit government offices to renew them. Many chose to create new digital services and offer digital options for existing services for which it was

not feasible to extend expiry dates or conduct in-person transactions.

This new dependence on digital services represented an enormous challenge for the region given the multitude of gaps that exist. In terms of connectivity, approximately one-third of Latin Americans did not use the internet in 2018 (Zaballos et al., 2020). This proportion is much higher in some countries: in Nicaragua, for example, 72 percent of adults do not use the internet, while in El Salvador the figure is 66 percent (ibid.). The level of digital skills among citizens is generally low: even in Chile—the country with the highest percentage of adults

with basic information and communications technology (ICT) skills—the proportion is only 52 percent of the population (ibid.).

In terms of the availability and use of online public services, the situation before the pandemic was equally challenging.

In the months prior to the COVID-19 crisis, 21 percent of citizens in the countries analyzed had performed their last government transaction online. The availability of electronic services was low in most countries: in 2017, only Brazil, Mexico, and Uruguay offered online options for more than half of all service transactions provided by the central government (Roseth, Reyes, and Santiso, 2018). In many cases, user experience was less than optimal: even advanced internet users experienced difficulty in finding what they needed on the web (ibid.). In addition, a preference for in-person transactions has been documented in several countries. In Colombia,

for example, 65 percent of citizens preferred to complete transactions in government offices in 2015, while only 15 percent preferred to complete them online (Programa Nacional de Servicio al Ciudadano [National Citizen Services Program], 2015).

In Chile, a study found that 84 percent of those using ChileAtiende’s in-person services would conduct transactions in person again, even with other options available.

(University of Santiago, 2015)

Similarly, before the pandemic, many countries in the region lacked key digital government tools. In 2017, for example, only 12 countries had implemented interoperability platforms, which are key for exchanging data automatically between public entities and

avoiding repeated requests for information from citizens. In only three of these countries, 100 percent of central government institutions were connected to the platform (Roseth, Reyes, and Santiso, 2018). Likewise, as of 2017, only six countries had a national digital identification system (which allows citizens to verify their identity securely online) (ibid.).

Against this backdrop, the new pressures on digital lead agencies in the region’s governments have been enormous. These agencies were responsible for creating new digital services to implement significant parts of public health and economic policies in response to the crisis, as well as for digitizing existing services to allow continuity of access and—in some cases—facilitating telework for the public administration. In some countries, digital lead agencies were well prepared, with the staff necessary to handle these new demands. In

others, however, there was a marked scarcity of resources. In 2019, for example, only 10 of the region's 25 digital lead agencies had a digital accessibility specialist, while 11 had a user experience researcher, 12 a cloud computing specialist, and 14 a lawyer specialized in the ICT field. These functions are typically present in digital teams in countries that are more advanced in terms of digital government (Porrúa et al., 2021). All the digital lead agencies stated that a lack of budget funds had prevented them from hiring the necessary staff over the last year (ibid.).

How have the region's governments and citizens adapted to this dependence on digital tools for providing and accessing public services during the pandemic? Specifically, to what extent has continuity been maintained in access to these services? What was citizens' experience of public services during the pandemic, and what are the implications for the future? To what extent have public officials been able to continue performing their work from home? And what tools and/or capacities have they lacked? These are some of the questions that this

report seeks to answer.

The evidence reveals that the COVID-19 crisis has been accompanied by a considerable increase in the creation and use of digital public services.

The proportion of citizens performing their last government transaction online rose from 21 percent before the pandemic to 39 percent during it.

Despite this increase, substantial gaps remain. Almost 50 percent of citizens carried out their last transaction in person during the pandemic, despite the restrictions on movement in effect in all countries. Moreover, 20 percent were unable to access a government transaction that they needed, almost always because the public office was closed, and the service was not available online. Most citizens accessing services online reported difficulties in doing so, leading a significant proportion of them to state that they would not use the online option again (the proportion was particularly

high among older and less educated individuals).

In the case of civil servants, less than 30 percent had received training for telework, while only one-third had been given a laptop by their organization. Almost half said that they had been unable to perform critical tasks since the beginning of the pandemic, yet many of these tasks could have been performed using digital government tools such as digital identification and signatures, cloud computing, and document management systems. These findings point to a need for increased investment in expanding the supply of digital public services, a greater focus on the citizen experience, expanded provision of laptops and administrative tools by organizations, and greater support for telework.

This report is divided into five sections: (i) a description of the data sources generated; (ii) the results of surveys of citizens' experiences of government transactions both before and during the pandemic; (iii) the results of surveys of public officials' experiences of telework during the pandemic; (iv) the results of a survey of the region's digital lead agencies and six brief case studies of the ways digital government



DATA SOURCES

The document is based primarily on five data sources generated for this purpose: two surveys of citizens, one survey of government officials, one survey of digital government lead agencies, and a series of six case studies.



Telephone Survey of Citizens

Between July and August 2020, a representative telephone survey was conducted of adult citizens in Chile, Costa Rica, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru, and Uruguay. It included a limited set of questions covering government transactions before and during

the pandemic, in addition to future prospects. Table A.1 in the Methodological Annex contains details of the sample for each country. Representativeness was created in two stages. First, an initial quota-based sample was developed based on self-reported gender, age, education level, and region. The quotas

were set using parameters from the statistics agencies in each country. Second, ex-post weighting was applied, with the *raking method* (Deville et al., 1993)¹ used to adjust the weights of the aforementioned parameters. The survey has a confidence level of 95 percent and a margin of error of +/- 3 percent.

¹ "Raking" is a statistical adjustment process that applies weights based on observable population parameters to improve the representativeness of a sample obtained in a nonrandom manner.



Facebook Survey of Citizens

A survey was conducted using Facebook, aimed at citizens in all the countries included in the telephone survey over the course of the July–August 2020 period. Argentina, Colombia, and Trinidad and Tobago were also included. Promotion of the survey was targeted to citizens of these countries aged 18 and over, and it could be taken by anyone clicking on the link. The questionnaire included the same questions as the telephone survey plus a few additional ones. Table A.1 in the Methodological Annex contains the sample for each country. Since participation was open

to all, the initial sample was not representative. To approximate representativeness, the raking method was applied using the parameters of gender, age group, and level of education, adjusting relative weightings to population proportions consistent with national household surveys in each country. Accordingly, sample composition for the telephone and Facebook surveys was comparable in terms of gender, age, and level of education. Use of the raking process made the survey more representative in terms of observable characteristics, but not necessarily in terms

of non-observable ones. The mode of access has a significant impact on the profile of respondents, as not all citizens have access to Facebook or choose to complete surveys on that platform. This source was therefore used as a supplementary resource in the analysis, while the telephone survey was the main resource. The Facebook survey was particularly useful for analyzing different aspects of the use of digital services, based on the assumption that this population segment already had connectivity and a certain level of digital literacy.



Survey of Digital Government Lead Agencies

A questionnaire regarding the measures implemented to adapt to the pandemic was sent to members of the Elec-

tronic Government Network of Latin America and the Caribbean (Red GEALC). Eleven countries responded:

Argentina, The Bahamas, Brazil, Chile, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru, and Uruguay.



Survey of Civil Servants

A survey of regional civil servants was carried out between July and August 2020 on the topic of telework. Three channels were used: (i) email to a list of the Latin American and the Caribbean Community of Practice on Managing for Development Results (CoPLAC-MfDR); (ii) email to a list of subscribers to the IDB Blogs *Sin Miedos [Without Fear]* and *Gobernarte [The Art of Good Government]*, as well as students enrolled in the IDB digital course *Gobierno Digital [Digital Government]*; and (iii) an open invitation on Facebook. A number of questions were used as a filter to exclude those who are not currently public officials. Table A.5 in the Methodological Annex contains the sample for each country and the descriptive tables concerning their composition (A.6, A.7, and A.8). A minimum of 115 responses was required to present the results from each

country, leaving 9 countries in the analysis (Argentina, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Honduras, Mexico, and Peru). As this survey was not strictly representative (given the absence of a sampling framework and random selection of respondents), the characteristics of the participants should be taken into account. In general, respondents from all countries tended to have a high level of education (university or postgraduate education). Fifty percent of them worked for a national or central government entity, 27 percent for a state or departmental entity, and 23 percent for a municipal or local body. Most (51 percent) stated that they had a professional position, 16 percent an administrative one, 11 percent technical, and 9 percent were directors. These proportions were similar for all countries analyzed.



Case Studies

Interviews were conducted with government officials and a desk review performed to generate the following case studies:

Argentina. Identity verification from home through a single, secure platform.

Chile. Greater efficiency and productivity through telework.

Ecuador. When a government transaction is key for public health: the digital death registry.

Guatemala. Filing crime reports electronically: connecting the Public Prosecutor's Office to citizens.

Jamaica. The eBRF form: starting a business during the pandemic.

Panama. The personal identity card as a debit card.



CITIZENS

This section analyzes the experience of Latin American citizens with government transactions before and during the pandemic. It is divided into three parts.

The first part offers an overview of the numbers and types of transactions² performed and the channels used. The second covers experiences with these transactions, the complexity of interactions, and subjective reactions to these experiences.

The third describes attitudes in relation to the potential future use of digital channels to complete transactions. The main information source is a representative telephone survey carried out at the national level in Chile, Costa Rica, Ecuador, El Salvador,

Honduras, Mexico, Panama, Paraguay, Peru, and Uruguay. The secondary source is a survey carried out through Facebook in the same countries as the telephone survey, with the addition of Argentina, Colombia, and Trinidad and Tobago.³

² The definition of “government transaction” used in this report is the same as in Roseth, Reyes, and Santiso (2018): “Government transactions are defined as the set of requirements, steps, or actions through which individuals or firms can demand information from, or provide it to, a public entity, with the aim of obtaining a right—a registration, access to a service, a permit—or to fulfill an obligation.”

³ As described above, the samples for this survey have been weighted to achieve representativeness at the country level in terms of gender, age, and level of education, based on national household surveys in each country.



How Has Access to Government Transactions Changed during the Pandemic?

In general, fewer citizens performed government transactions during the pandemic than before it.⁴ The decline was sharper in some countries than in others: while access fell by approximately 50 percent in Chile and Panama, in El Salvador it dropped by 83 percent (see Figure 1). Analysis of the responses to the same questions in the Facebook

survey reveals a similar trend, albeit less marked (see Figure 2). In Chile, for example, access declined by 29 percent, while in El Salvador it fell by 56 percent. This difference between the populations responding to the telephone and Facebook surveys suggests that internet connection and digital skills have played an important role in continuity of

access to services (it should be noted that the results of the Facebook survey were weighted to achieve the same distributions as the telephone survey in terms of gender, age, and level of education). This document analyzes the role of digital services during the pandemic in greater detail below, as well as citizens' experience with them.

⁴ The period "prior to the pandemic" was defined in the survey as running from January to the end of March 2020, while "during the pandemic" encompasses the period from the end of March to the date of the survey response (between July and August). To ensure that the two periods were equivalent, the responses for the period prior to the pandemic were extrapolated in each case so that both consisted of the same number of months (five). This adjustment was only applied to the question regarding whether or not the respondent had carried out a government transaction during the pandemic. Notwithstanding the adjustments made to ensure the periods were equivalent, there may be a degree of seasonality in demand for service transactions that differentiates one period from the other, for which it is impossible to correct.

Figure 1.

Percentage of Citizens Who Carried Out a Government Transaction, before and during the Pandemic (telephone survey)

Source: Authors' elaboration, IDB (2021).



● Before COVID-19 (adjusted)

● During COVID-19

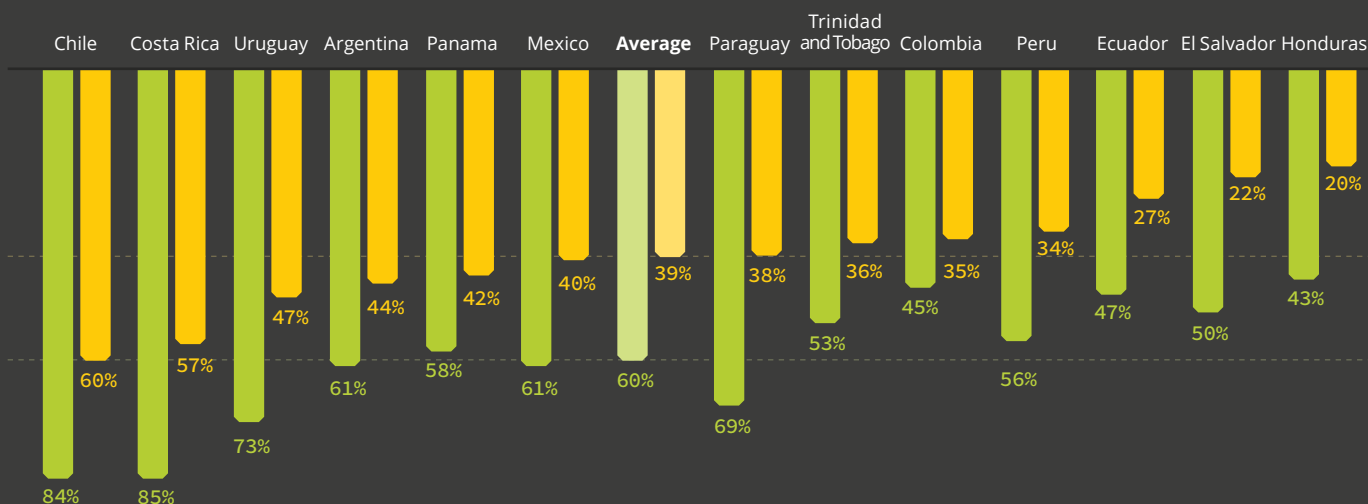
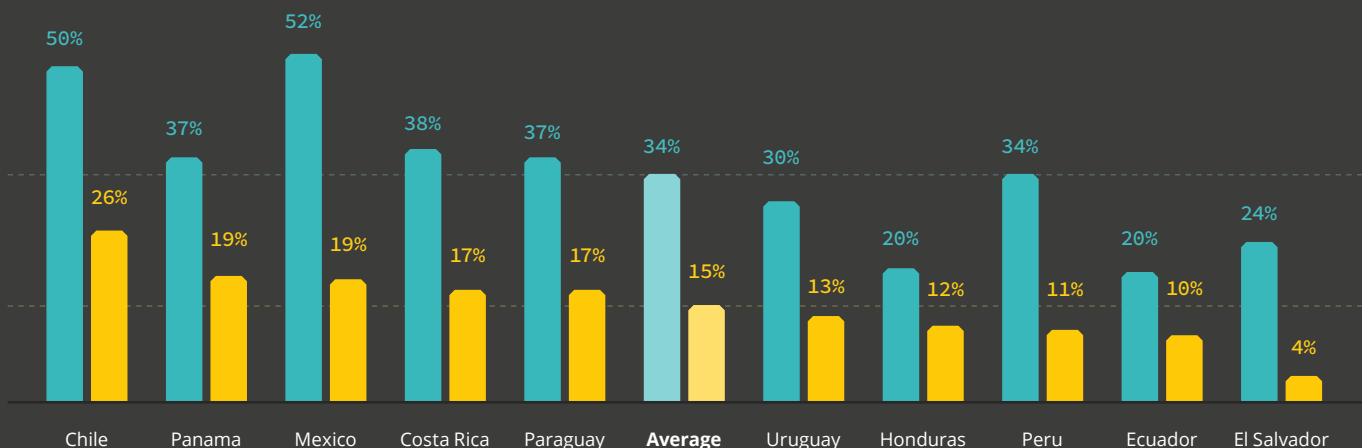


Figure 2.

Percentage of Individuals Who Carried Out a Government Transaction, before and during the Pandemic (Facebook survey)

Source: Authors' elaboration, IDB (2021).



● Before COVID-19 (adjusted)

● During COVID-19



What Types of Transactions Were Performed?

During the pandemic, there were several changes in the distribution of government transactions carried out when compared to the earlier period. In particular, there was a decline in identity and civil registry transactions, as well as vehicle-related transactions (see Figure 3).⁵ Although these are still the most frequent types

of transactions, the reduction is understandable given that identity or civil registry transactions are often prerequisites for other processes, many of which were suspended due to office closures. In terms of vehicle-related transactions, restrictions on movement (lockdowns) and permit extensions implemented by many governments⁶ meant

that there was less of a need to renew registration plates or licenses. The greatest growth was seen in transactions relating to social programs, which is also understandable given the economic hardship experienced by many people due to the lockdowns and the government programs designed in response.

⁵ For all questions regarding individual transactions (type, channel used, and experience), respondents were asked about the last transaction performed in the period analyzed.

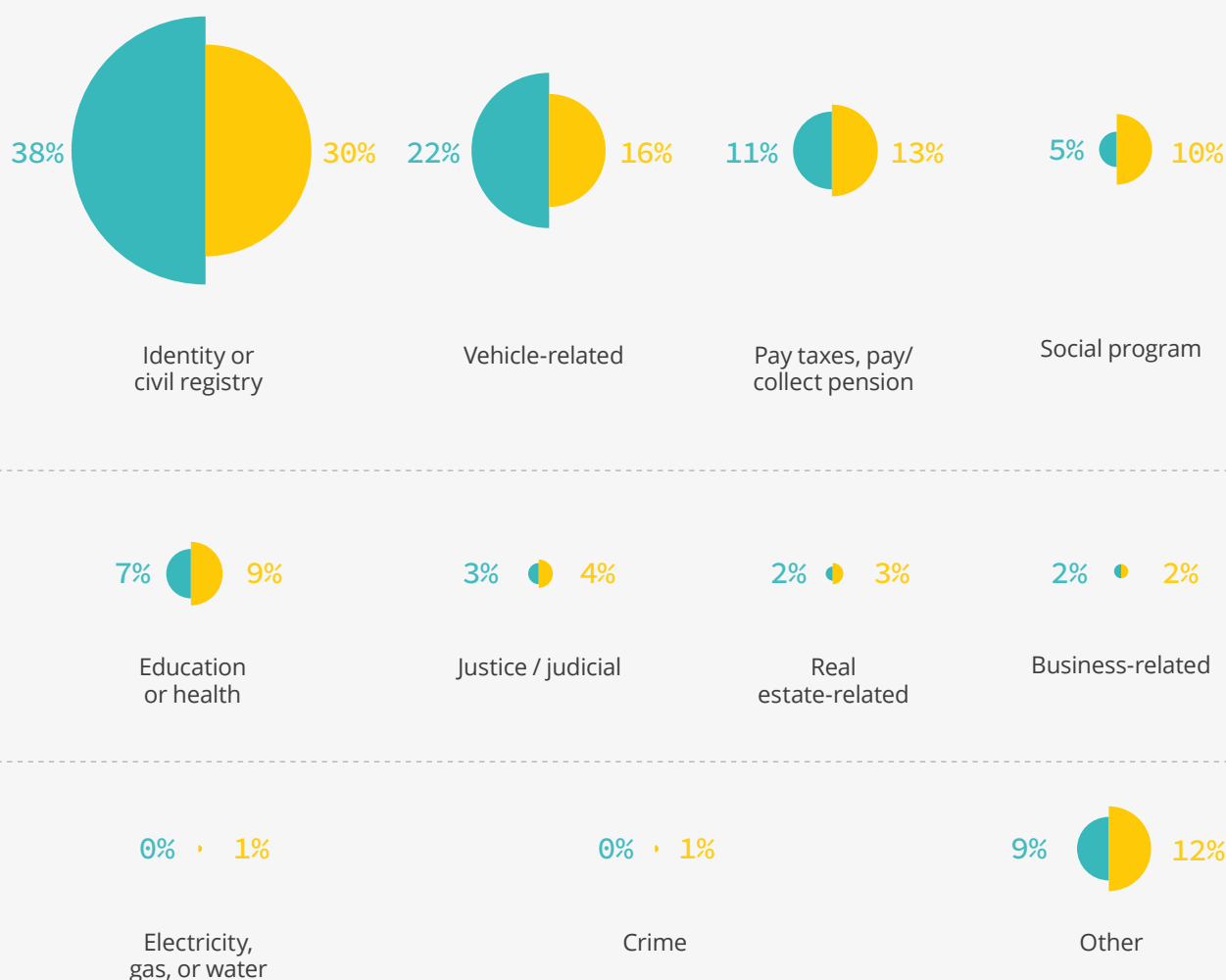
⁶ For example, extension of the expiry date for vehicle registrations in Ecuador (*El Comercio*, 2020).



Figure 3.
Types of Government Transactions Carried Out before and during the Pandemic (telephone survey)

Source: Authors' elaboration, IDB (2021).

● Before COVID-19
● During COVID-19



Notes: For this figure and all other figures containing aggregate regional data, a simple average of the averages for each country in the analysis is used. Given the high number of responses received in the "other" category, many of which could have been included in existing categories, a reclassification process was undertaken for open responses in which reallocation to an existing category was possible. This was performed by analyzing keywords contained in the open responses. A new category of "gas, water, and electricity" was created due to the high number of responses relating to this type of transaction. Responses that could not be allocated to any category were kept as "other." This process was carried out for all questions relating to the type of transaction.



What Channel Was Used to Carry Out the Transactions?

The use of digital channels to conduct transactions increased in a large majority of countries during the pandemic. In some cases, the increase was substantial: in Peru, the proportion of citizens who carried out their last transaction either partly or fully online grew from 28 percent before the pandemic to 61 percent during it, while in Panama the proportion rose from 13 percent to 27 percent (see Figure 4). The case of Honduras was an exception, as the use of digital channels declined. Despite the marked general increase in online transactions, use of the face-to-face channel remained above 50 percent in some countries (Chile, Costa Rica, Honduras, and Paraguay) (see Figure 5). Even in Uruguay—the country generally acknowledged to be

the regional leader in digital government—44 percent of citizens carried out their last transaction during the pandemic in person (this percentage could also be due to the low incidence of coronavirus in that country, with less strict restrictions on movement). At the regional level, both before and during the pandemic, the use of the digital channel was highest among younger age groups and those with highest levels of education (statistically significant correlations) (see Tables A.9, A.10, and A.11 in the Methodological Annex for details of the regression).

Figure 6 shows the channels that replaced in-person transactions in the countries analyzed. In Peru, a drop of 44 percentage points in face-to-face transactions was

offset by a sharp increase in the digital channel (34 points) and a smaller increase in the telephone channel (10 points). In Paraguay, the telephone channel bridged the entire decline in face-to-face transactions, while in Ecuador the digital channel replaced both in-person and telephone channels. In Panama, the in-person channel was supplanted by approximately equal numbers of telephone and online transactions.

On average, the digital channel was the one most frequently used in the region to substitute for face-to-face transactions.



Figure 4.

Proportion of Citizens Who Carried Out Their Last Transaction Either Partly or Fully Online (telephone survey)

Source: Authors' elaboration, IDB (2021).

- Before COVID-19 - Fully online
- Before COVID-19 - Partly online
- During COVID-19 - Fully online
- During COVID-19 - Partly online

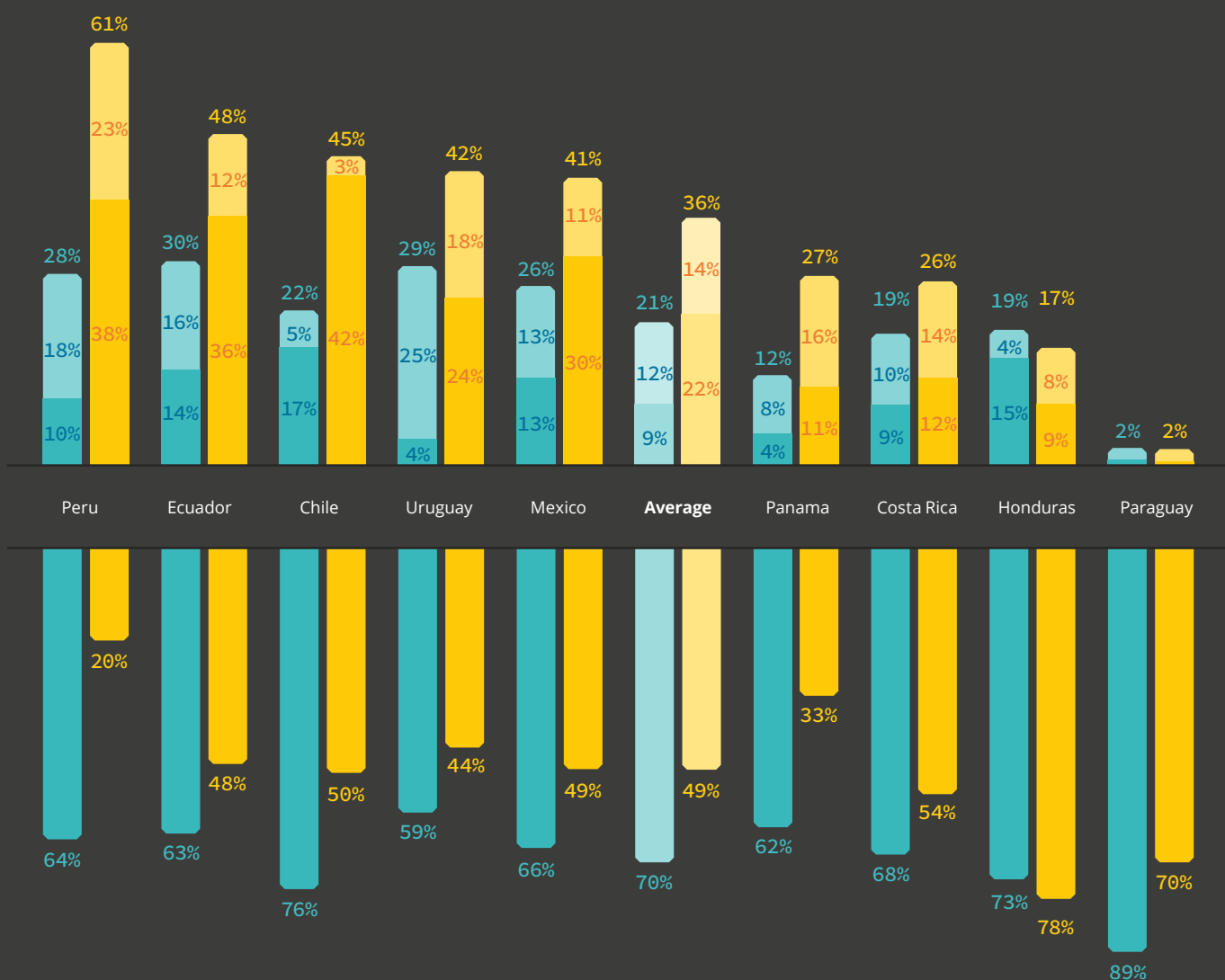


Figure 5.

Proportion of Citizens Who Carried Out Their Last Transaction in Person (telephone survey)

Source: Authors' elaboration, IDB (2021).



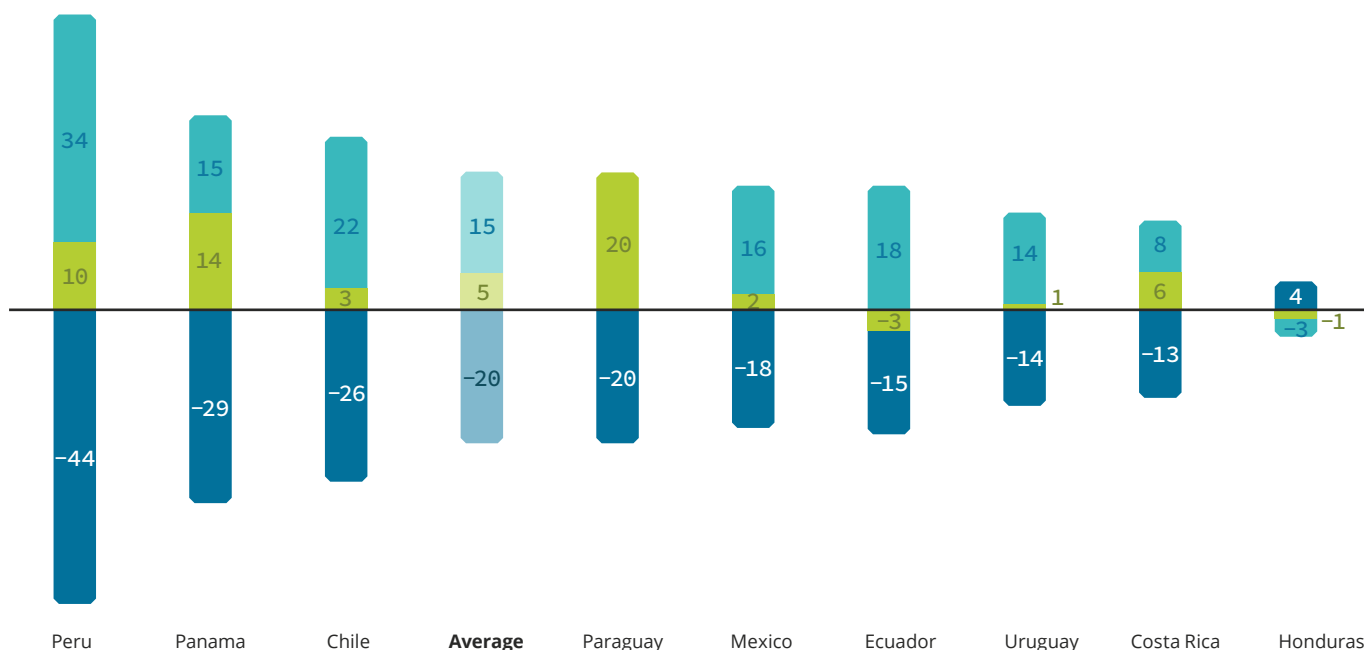
- Before COVID-19
- During COVID-19

Figure 6.

Changes in the Channels Used for Government Transactions, before versus during the Pandemic (percentage points, telephone survey)

Source: Authors' elaboration, IDB (2021).

Note: In the cases of Chile, Costa Rica, and Uruguay, the bars do not add up to zero due to rounding.



How Many Government Transactions Were Not Performed, Which Ones, and Why?

On average, 20 percent of citizens were unable to carry out a transaction during the COVID-19 crisis

(see Figure 7).

The problem was most severe in Mexico, where 26 percent of those surveyed stated that they had tried

unsuccessfully to complete a transaction during the pandemic, while it was least severe in Uruguay, at 13 percent (ibid.). The causes were generally the closure of government offices and the lack of online availability (this was the main reason recorded in 9 of the 10 countries) (see Figure 8). The most common transactions that citizens were unable to perform were

related to identity and civil registration (see Figure 9), which are a prerequisite for other procedures and can often only be conducted in person. In a region in which only three countries in 2017 allowed more than half of government transactions to be initiated online, it was inevitable that such gaps would exist (Roseth, Reyes, and Santiso, 2018).

Figure 7.

Proportion of Respondents that Attempted to Complete a Transaction during Lockdown and Were Unable to Do So (telephone survey)

Source: Authors' elaboration, IDB (2021).

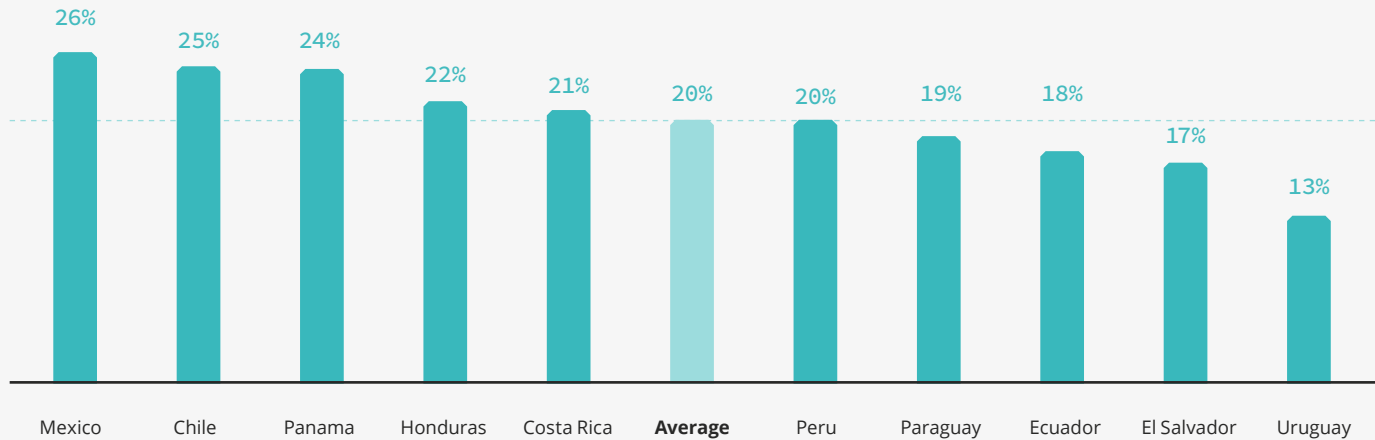
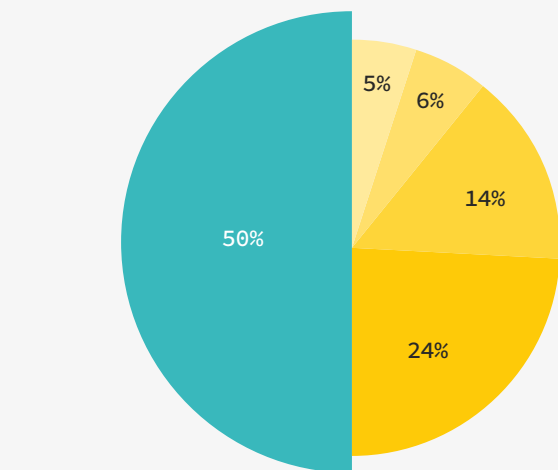


Figure 8.

Reasons for Being Unable to Access the Desired Transaction during the Pandemic (telephone survey)

Source: Authors' elaboration, IDB (2021).

Note: Calculated as a proportion of those who stated they had been unable to complete a desired transaction.

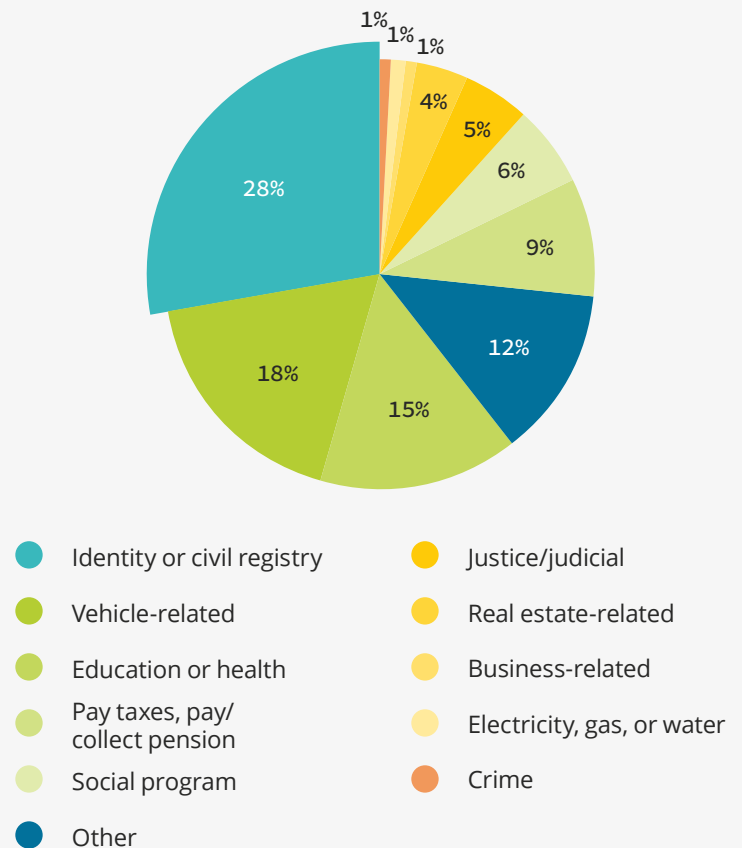


- The office was closed and the service was not available online
- Other reason
- The office was open but I did not want to go in person
- The service I wanted was available online but I was unable to complete it
- Telephone was not answered, long wait for service

Figure 9.

Type of Government Transaction You Were Unable to Complete (telephone survey)

Source: Authors' elaboration, IDB (2021).



- Identity or civil registry
- Vehicle-related
- Education or health
- Pay taxes, pay/collect pension
- Social program
- Other
- Justice/judicial
- Real estate-related
- Business-related
- Electricity, gas, or water
- Crime

How Did Citizens' Experiences Change during the Pandemic?

In general, citizens encountered greater difficulty in conducting government transactions during the pandemic. Over that period, the amount of active time required to complete a transaction increased,⁷ as did the number of interactions with the institutions providing the services⁸ (see Figures 10 and 11). Ecuador experienced the most radical change in time

frames: the average number of hours taken to complete a transaction rose from 2.6 before the pandemic to 5.0 during it. Even Uruguay, the most efficient country, recorded a significant increase from 1.4 hours to 2.6 hours. In terms of the number of interactions required, Argentina experienced the largest absolute increase, from 2.9 interactions on

average to 5.0. These results suggest that the shift toward the digital channel did not make transactions more efficient, as required time frames and interactions increased even in countries where a significant percentage of citizens moved to the digital channel to conduct transactions during the pandemic. The experience with that channel is examined below.

⁷ Active time includes travel time, wait time in the office, and time being served. In the case of digital transactions, it includes the time spent completing online forms.

⁸ An interaction is defined as any independent contact with the institution providing the service, whether to obtain information, complete the transaction, or conduct follow-up.

Figure 10.
Time Required to Complete a
Government Transaction (hours)
(Facebook survey)

Source: Authors' elaboration, IDB (2021).

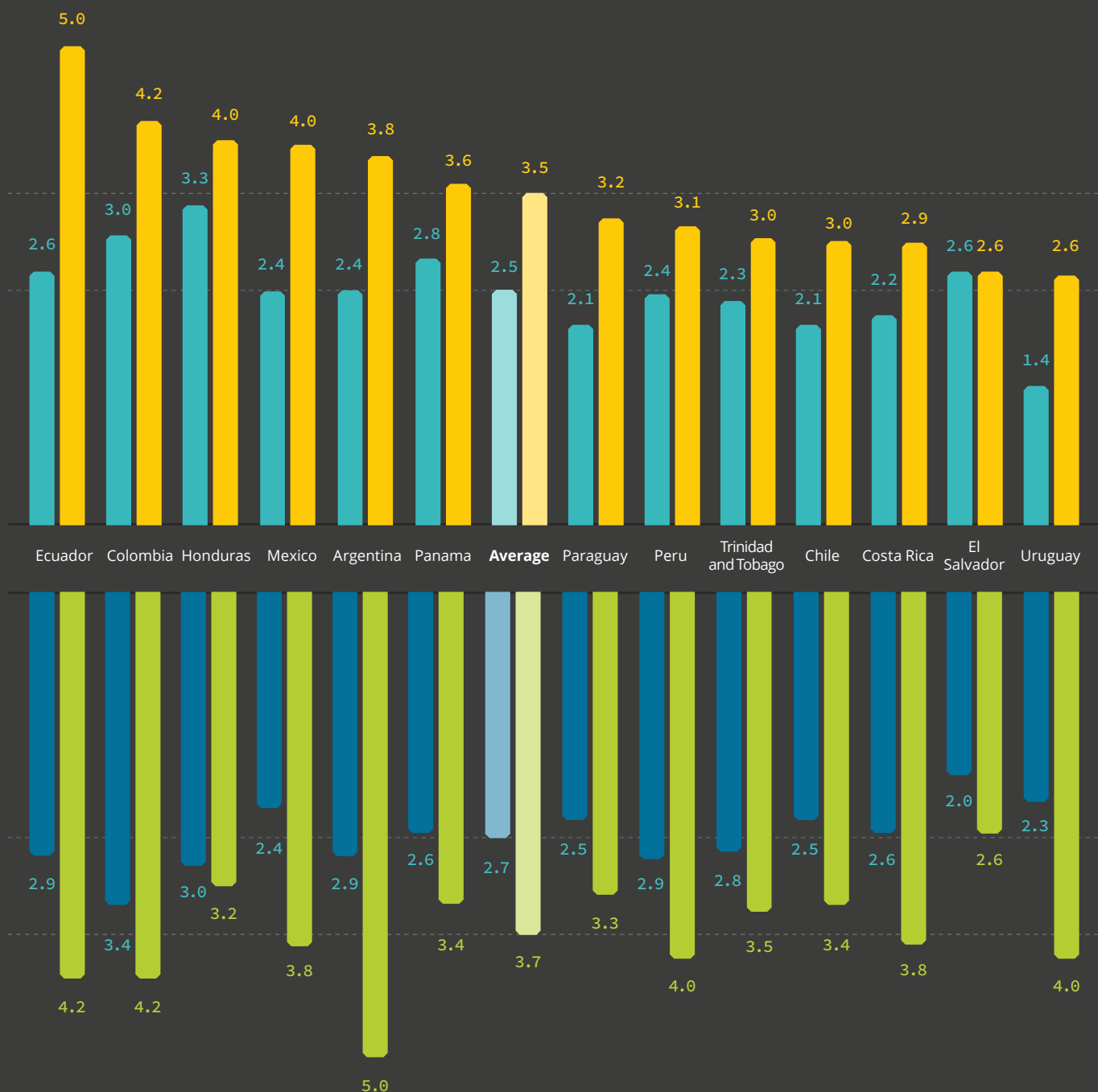
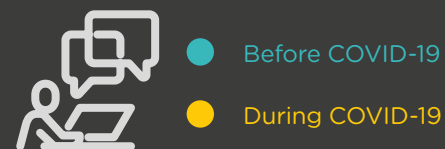
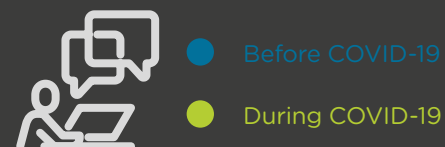


Figure 11.
Number of Interactions Required to Complete
a Government Transaction (Facebook survey)

Source: Authors' elaboration, IDB (2021).



What Was Citizens' Experience of In-Person Transactions?

Despite the efforts of many public institutions to create sanitary conditions more appropriate to the circumstances—e.g., by modifying their facilities or introducing appointment systems—this objective was not always fully

achieved. In Chile, 41 percent of those who had carried out in-person transactions stated that social distancing and health rules had not been observed during their office visit, while in El Salvador the percentage was 13 percent

(see Figure 12). The reason generally underlying this perception was that “there were a lot of people in the office and/or in line and it was impossible to maintain a distance of two meters between each person” (see Figure 13).

Figure 12. Citizens Who Conducted In-Person Transactions and Felt That Social Distancing and Health Rules Were Not Observed during Their Visit to Government Offices (Facebook survey)
Source: Authors' elaboration, IDB (2021).

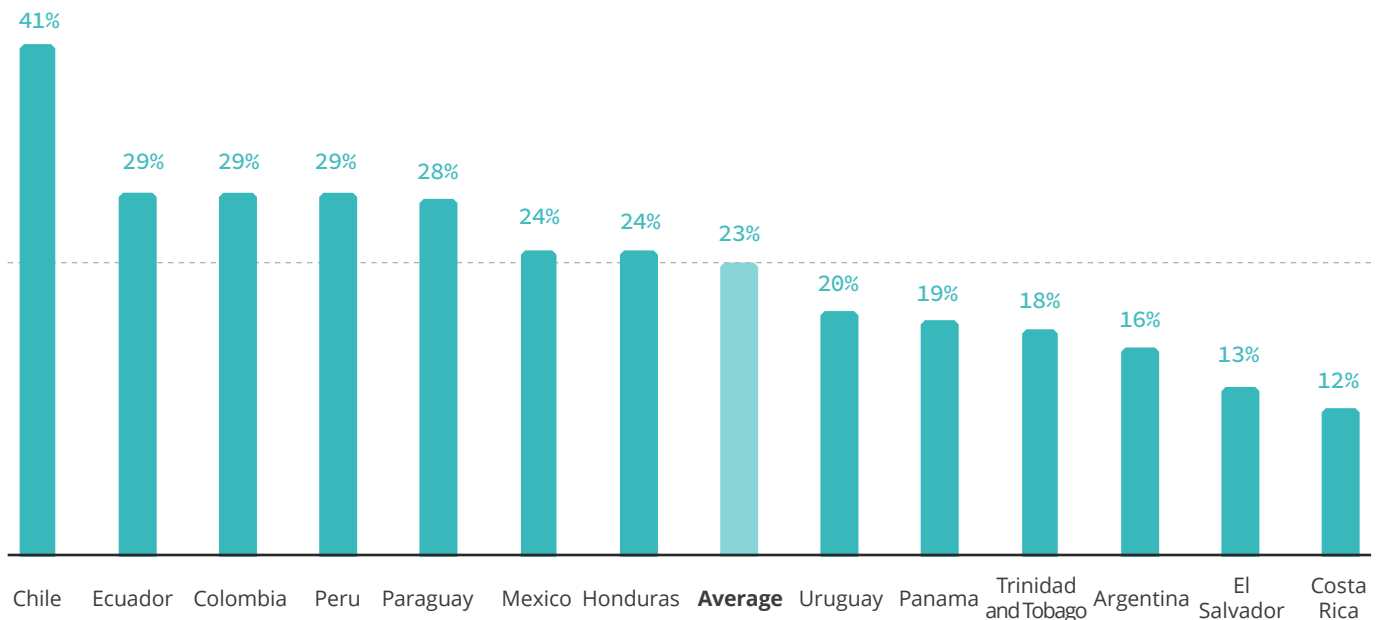
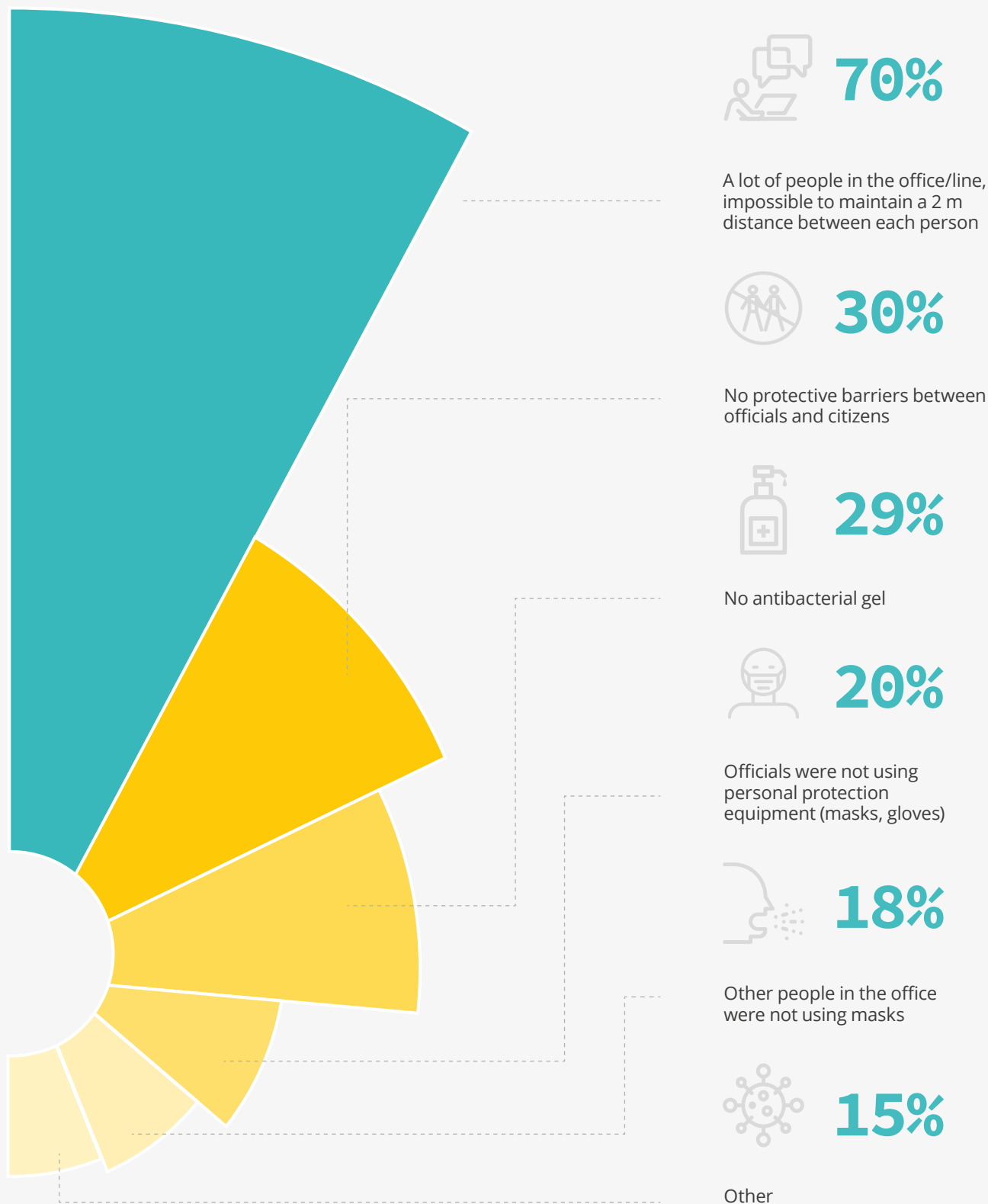


Figure 13.

Reasons Citizens Felt Health and Distancing Rules Had Not Been Observed during Their In-Person Transactions (multiple answers allowed) (Facebook survey)

Source: Authors' elaboration, IDB (2021).

Note: Calculated as a proportion of those who felt health and distancing rules had not been observed during their visit to government offices.



What Was Citizens' Experience of Digital Transactions?

For many people, the pandemic led to greater use of the digital channel. At the same time, many public institutions worked extraordinarily hard to meet the new demand for online services (examples of this are provided below). Given that public institutions had little time to develop and implement iterative testing of new digital services, it is not surprising that citizens'

experiences of digital transactions have not been uniformly positive. Only in four countries (Costa Rica, El Salvador, Panama, and Uruguay) did more people state that their online transaction had been "easy" or "very easy" than those who stated it had been "difficult" or "very difficult" (see Figure 14).⁹ To a great extent, these difficulties were due to technical problems with

websites or a lack of clear instructions (see Figure 15). Given that this question was only included in the Facebook survey—meaning that all those surveyed, by definition, had a certain level of familiarity with websites—these results can be interpreted as a best-case scenario compared to the likely experience of the wider public.

⁹ These figures are from the Facebook survey, in which more people stated that they had used the digital channel for government transactions than in the telephone survey. The number of respondents in each country who conducted online transactions during the pandemic is included in the Methodological Annex.



Figure 14.

Ease of Completing a Government Transaction Online (Facebook survey)

Source: Authors' elaboration, IDB (2021).

Note: Includes only those citizens who completed their last transaction during the pandemic.

- Very difficult
- Difficult
- Neither easy nor difficult
- Easy
- Very easy

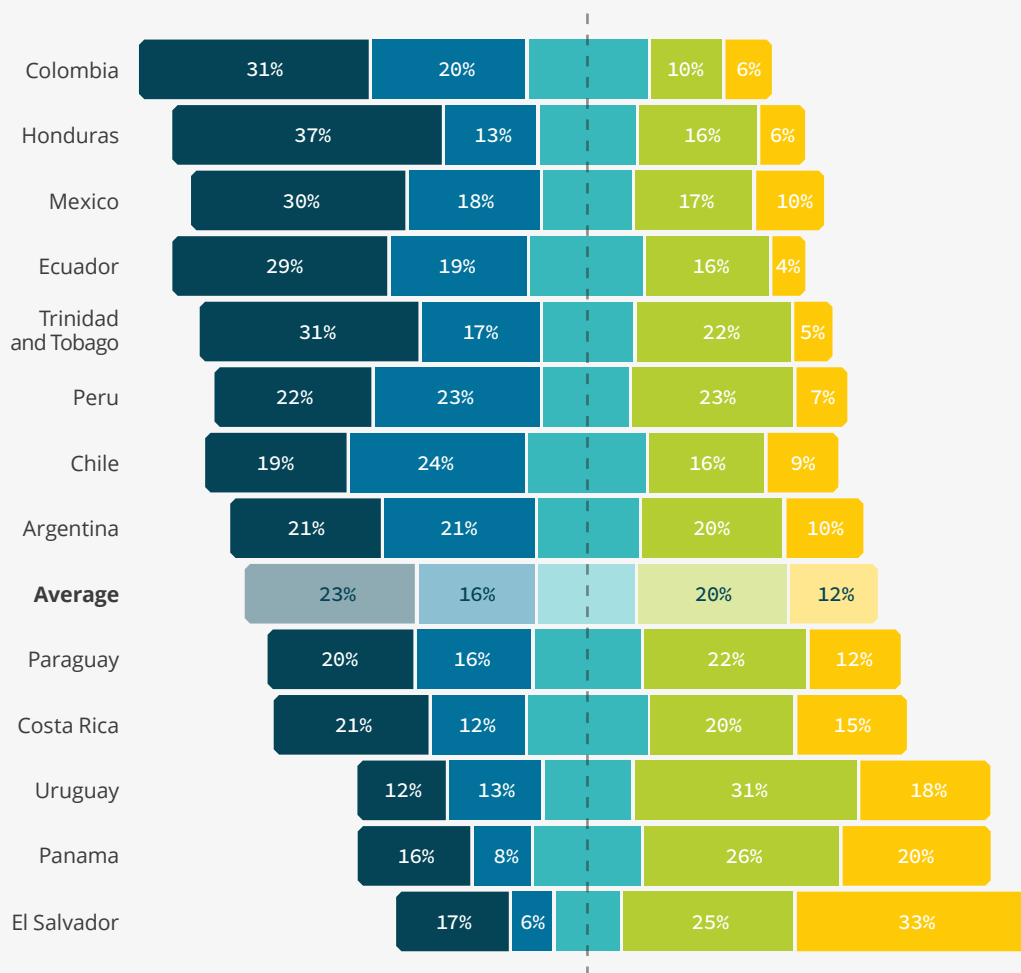
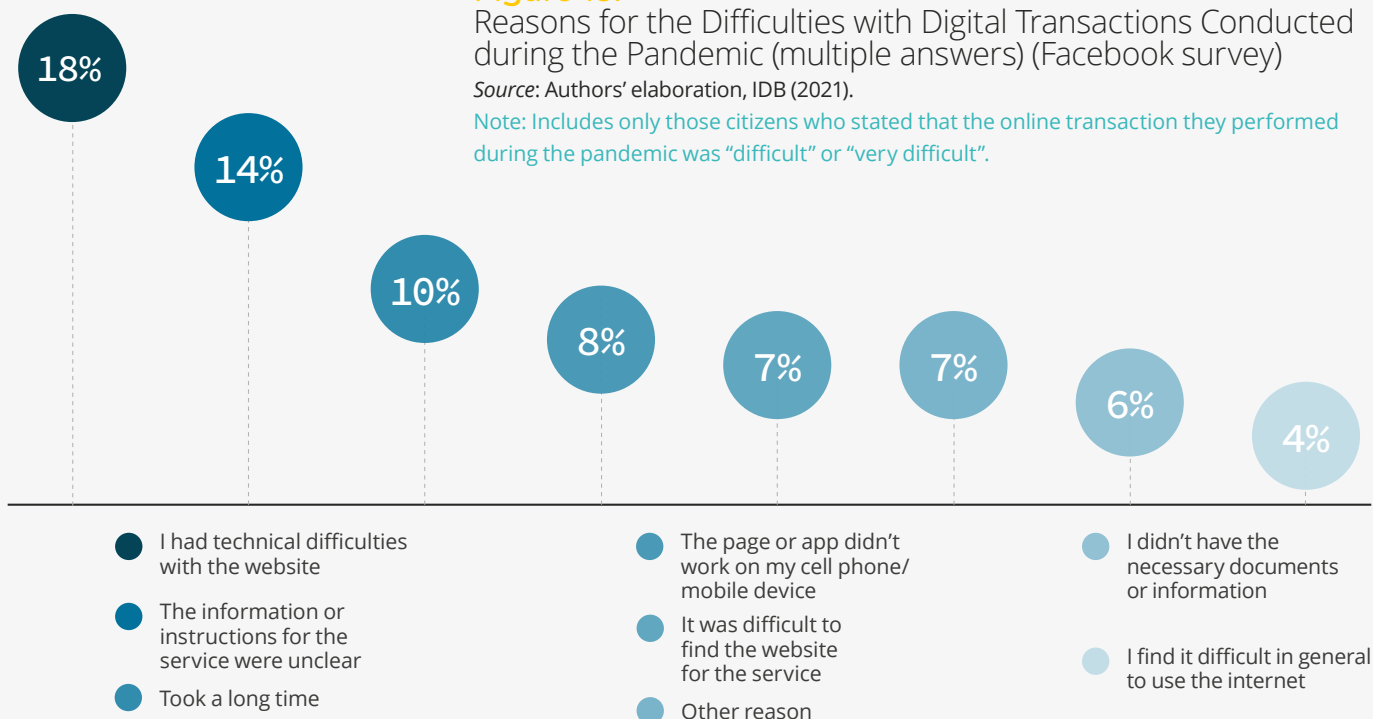


Figure 15.

Reasons for the Difficulties with Digital Transactions Conducted during the Pandemic (multiple answers) (Facebook survey)

Source: Authors' elaboration, IDB (2021).

Note: Includes only those citizens who stated that the online transaction they performed during the pandemic was "difficult" or "very difficult".





What Do These Experiences Mean for the Future of Digital Services?

Before the pandemic, most citizens in the region carried out their government transactions in person, even in countries with ample availability of online services (Roseth, Reyes, and Santiso, 2018). Some studies have even revealed a preference for the in-person channel (National Citizen Service Program, 2015; Pareja, 2020; University of Santiago, 2015). Given this background, it is understandable that a certain proportion of the population would continue to prefer face-to-face transactions. This could be seen in the surveys in two respects. First, in all countries except two (Peru and Uruguay), more than half of those conducting the

transactions digitally said that they would have preferred to do them in person (see Figure 16). These proportions are high considering that the survey was carried out using Facebook and all respondents could therefore be presumed to have a minimum degree of familiarity with the internet. Second, a lower but still significant proportion of citizens who had performed their last transaction online (27 percent on average) said that they would not use the internet again for this purpose (see Figure 17). This proportion is higher among older age groups and those with lower levels of education (see Figure 18). Furthermore, a regression analysis (see the Methodo-

logical Annex) showed that the greater the difficulty experienced in performing an online transaction, the lower the probability that a citizen would indicate that he or she would use that channel for any future procedure.

This underlines the importance of the user experience for ensuring sustainable demand and future use of online service transactions.

Figure 16.

Proportion of Digital Users That Would Have Preferred to Conduct Their Government Transaction in Person (Facebook survey)

Source: Authors' elaboration, IDB (2021).

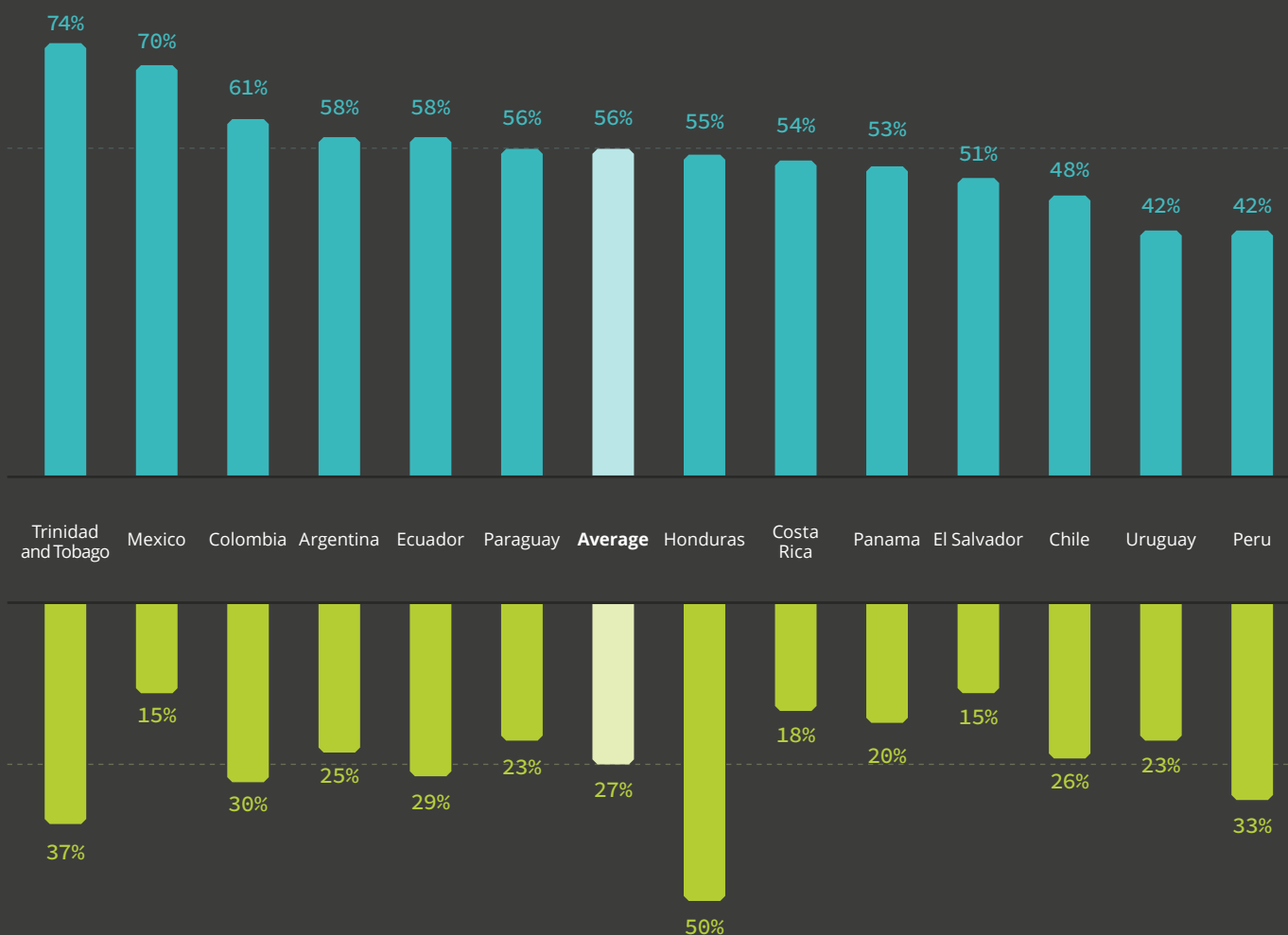
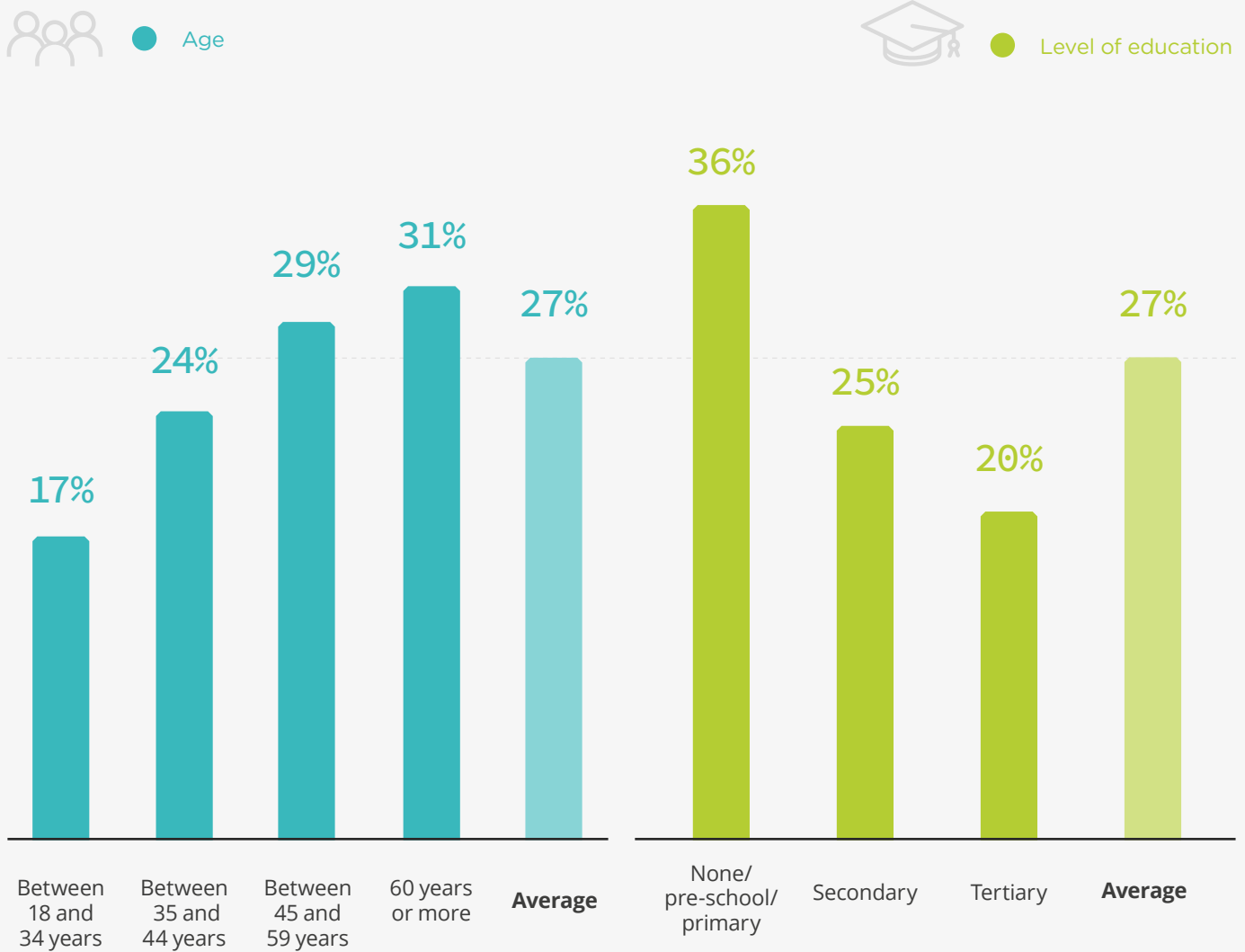


Figure 17.

Proportion of Digital Users Stating That They Would Not Use the Internet Again for Government Transactions (Facebook survey)

Source: Authors' elaboration, IDB (2021).

Figure 18.
Proportion of Digital Users Stating That They Would Not Use the Internet Again for Government Transactions, by Age and Level of Education (Facebook survey)
Source: Authors' elaboration, IDB (2021).



CIVIL SERVANTS



This section analyzes civil servants' experience of telework during the pandemic. It first looks at the extent to which they have been able to continue with their work and then goes on to examine the reasons for the difficulties experienced in maintaining continuity.

The sources of information used are two versions of an open survey of public officials in Latin American and Caribbean countries. Sample

A (indicated, where used, by an A in the figure title) consisted of 2,724 officials, while sample B (indicated by a B) consisted of 4,212 officials

(the same as in sample A plus an additional group).¹⁰ The Methodological Annex describes the representation of each sample by country.

¹⁰ The existence of two samples is a result of the data gathering process, which required two surveys to be implemented. Sample A, which comprises respondents contacted through the CoPLAC Network (as explained in the Data Sources section), encompassed a limited set of questions. Sample B, contacted through a series of other networks, received a longer questionnaire that included the same questions as Sample A.



Have Officials in the Region Been Able to Maintain Continuity in Their Work during the Pandemic?

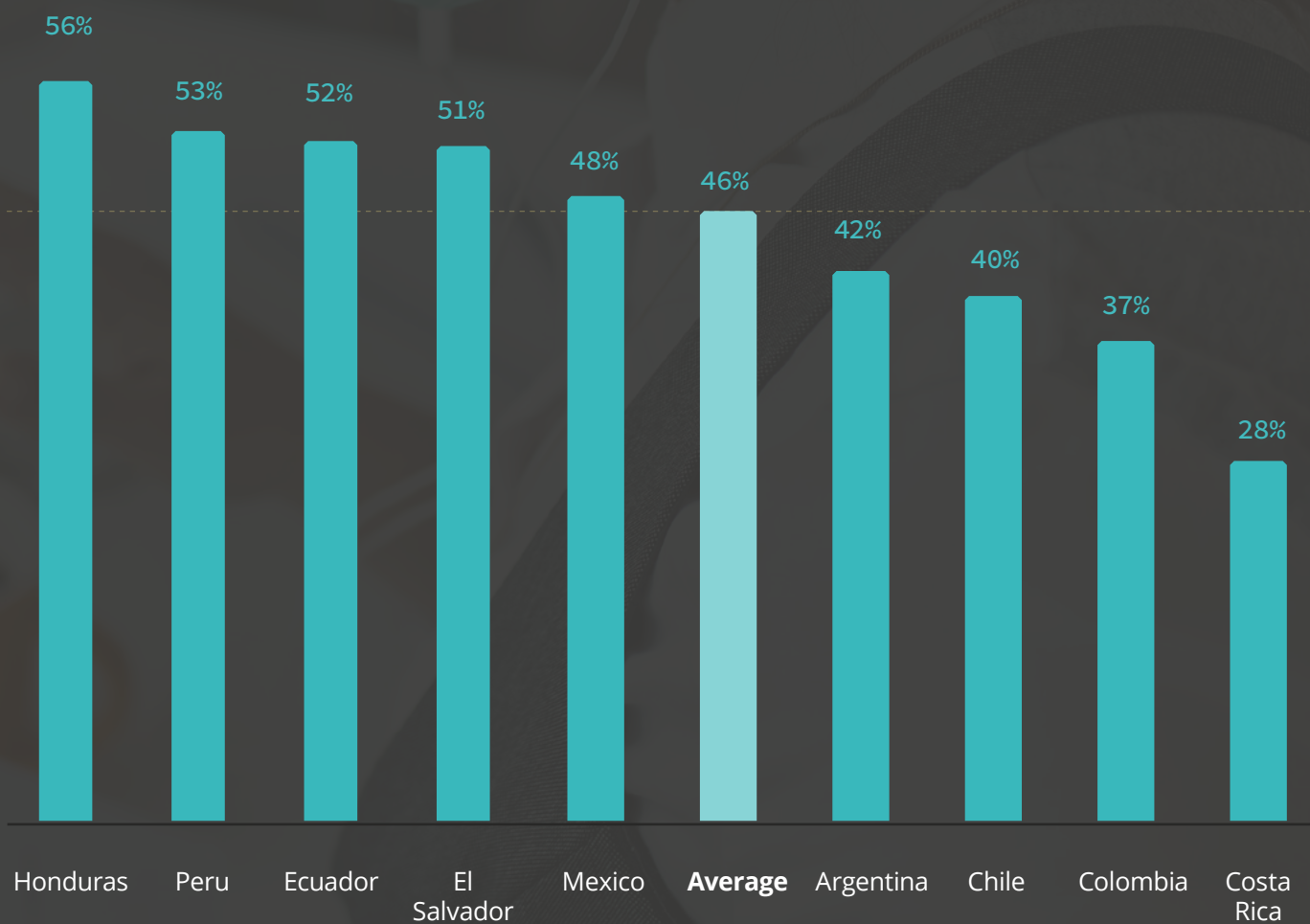
Despite efforts to maintain continuity (as analyzed in the following section), it was reasonable to expect that some tasks would no longer be performed given sudden office closures and the almost instantaneous

introduction of telework by regional governments. The magnitude of these difficulties varies between countries in the region, however. Fifty-six percent of civil servants surveyed in Honduras reported that they

had been unable to perform critical tasks during the pandemic, while in Costa Rica the proportion was only 28 percent (see Figure 19). The reasons for the difficulties in maintaining work continuity are discussed below.

Figure 19.
Proportion of Officials Reporting Having Been
Unable to Perform at Least One Critical Task
During the Pandemic ^B

Source: Authors' elaboration, IDB (2021).





Did Officials Go into the Office during the Pandemic?

Given the difficulties experienced in maintaining continuity in their work from home, it is understandable that some officials had to go into the office. In those countries analyzed, an average of almost 60 percent of public officials reported having had to go into the office after

the pandemic began (see Figure 20). This proportion varied substantially between countries, from 79 percent in Mexico to 38 percent in Colombia. The frequency of office visits also varied, from 2.2 times per week on average in Mexico and El Salvador to 0.8 in Colombia (see Figure

21). Differences were also seen depending on the seniority of workers: in Argentina, 55 percent of directors surveyed went into the office during the pandemic, while in the case of their teams the proportion was only 27 percent (Diéguez, González, and Zuvanic, 2020).

Figure 20.

Percentage of Officials Who Have Gone to the Office since the Start of the Pandemic ^B

Source: Authors' elaboration, IDB (2021).

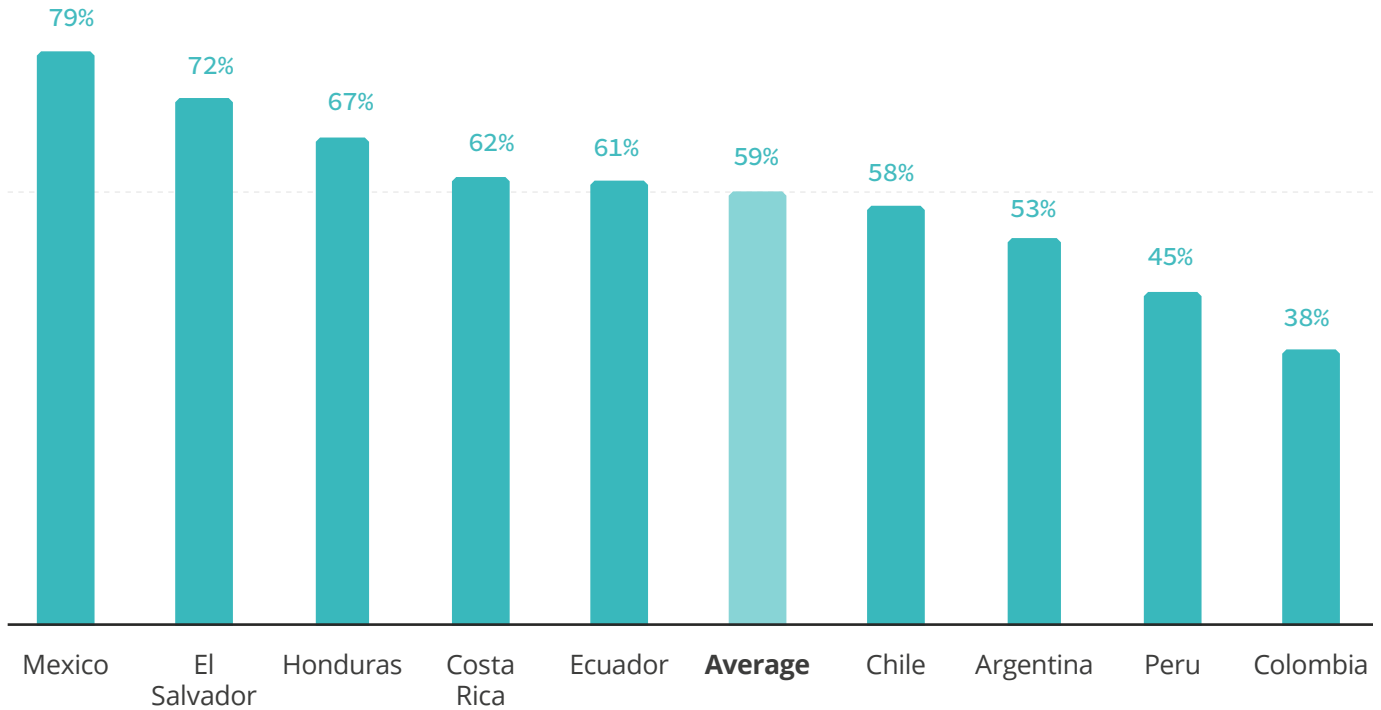
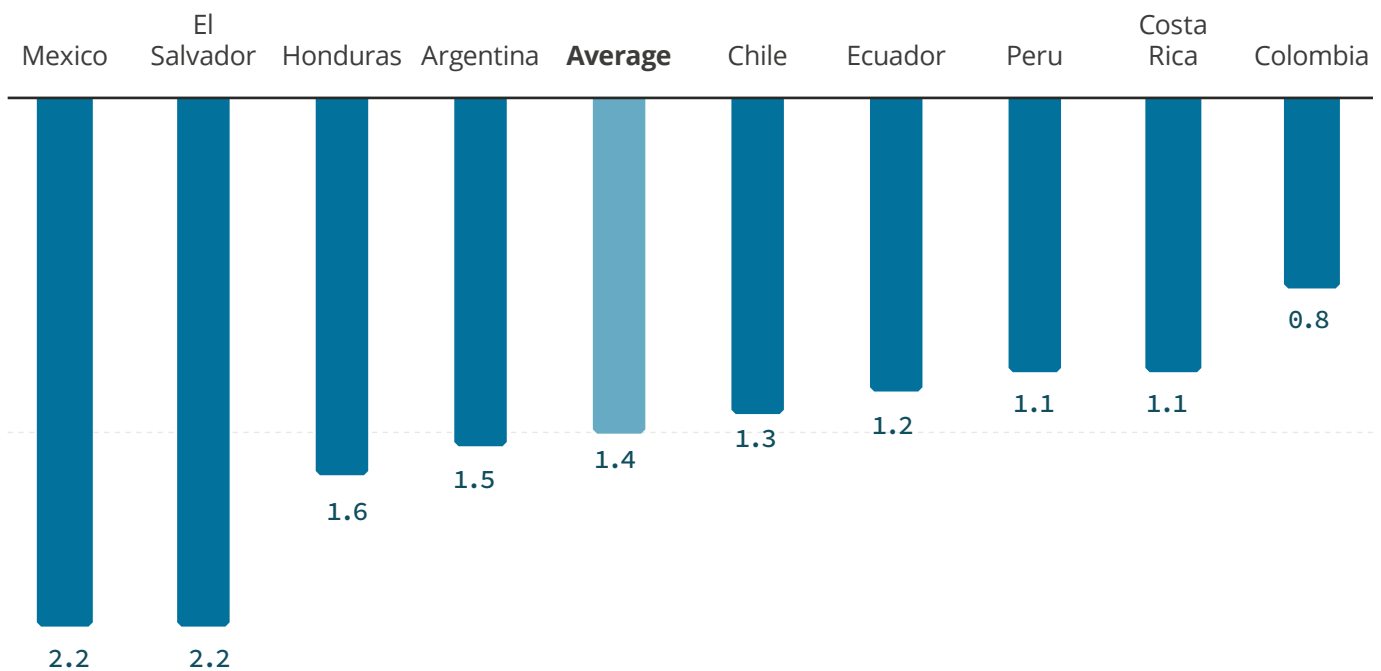


Figure 21.

Average Number of Times per Week Officials Have Gone to the Office ^B

Source: Authors' elaboration, IDB (2021).



What were the reasons for the difficulties experienced in maintaining business continuity?

Poor access to files and computer programs.

Twenty-seven percent of officials surveyed said that they lacked remote access to their office files and programs. This proportion ranged from 12 percent in Costa Rica to 36 percent in Honduras (see Figure 22). A significant proportion of officials who had been able to work from home were able to do so due to somewhat informal arrangements. Although 60 percent

stated that they had access through an official platform provided by their organization, 56 percent said that they had used email to recover data or documents, while 47 percent reported using personal cloud accounts (e.g., Google Drive, Dropbox, or others) and 42 percent confirmed that they had used physical media such as USB drives or CDs (see Figure 23).

At the regional level, a lack of employer-provided laptops and poor access to data and files are correlated strongly (and to a statistically significant degree) with an inability to perform critical tasks during the pandemic.

The Methodological Annex contains details of the regression exercise.

Figure 22.
Proportion of Officials Reporting Having Remote Access to Their Office Files and Computer Programs ^B

Source: Authors' elaboration, IDB (2021).

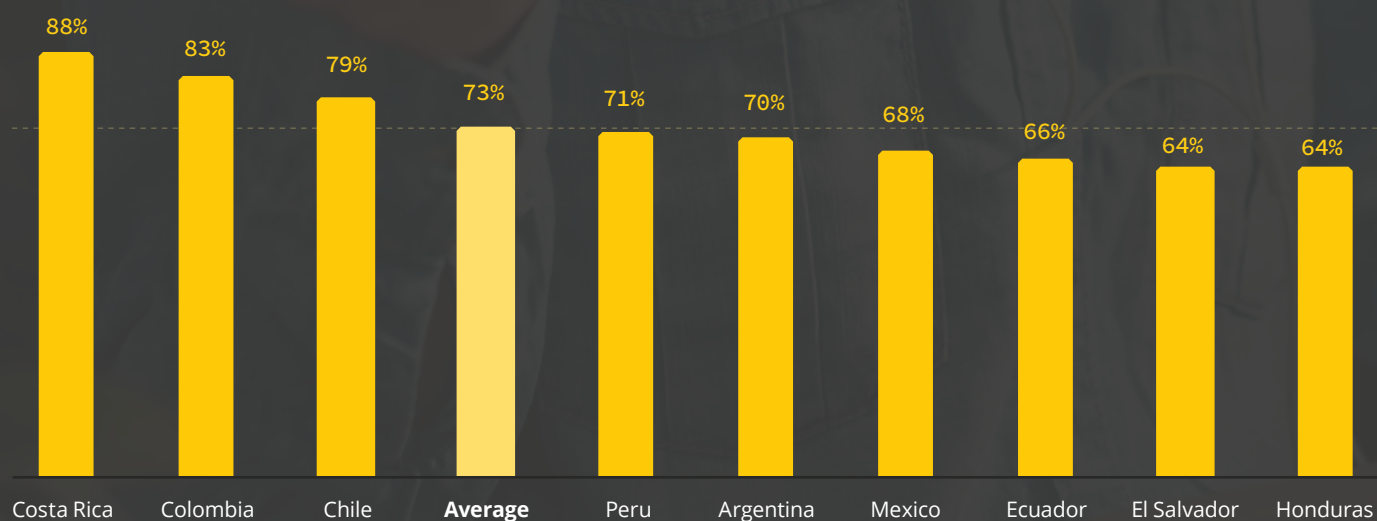
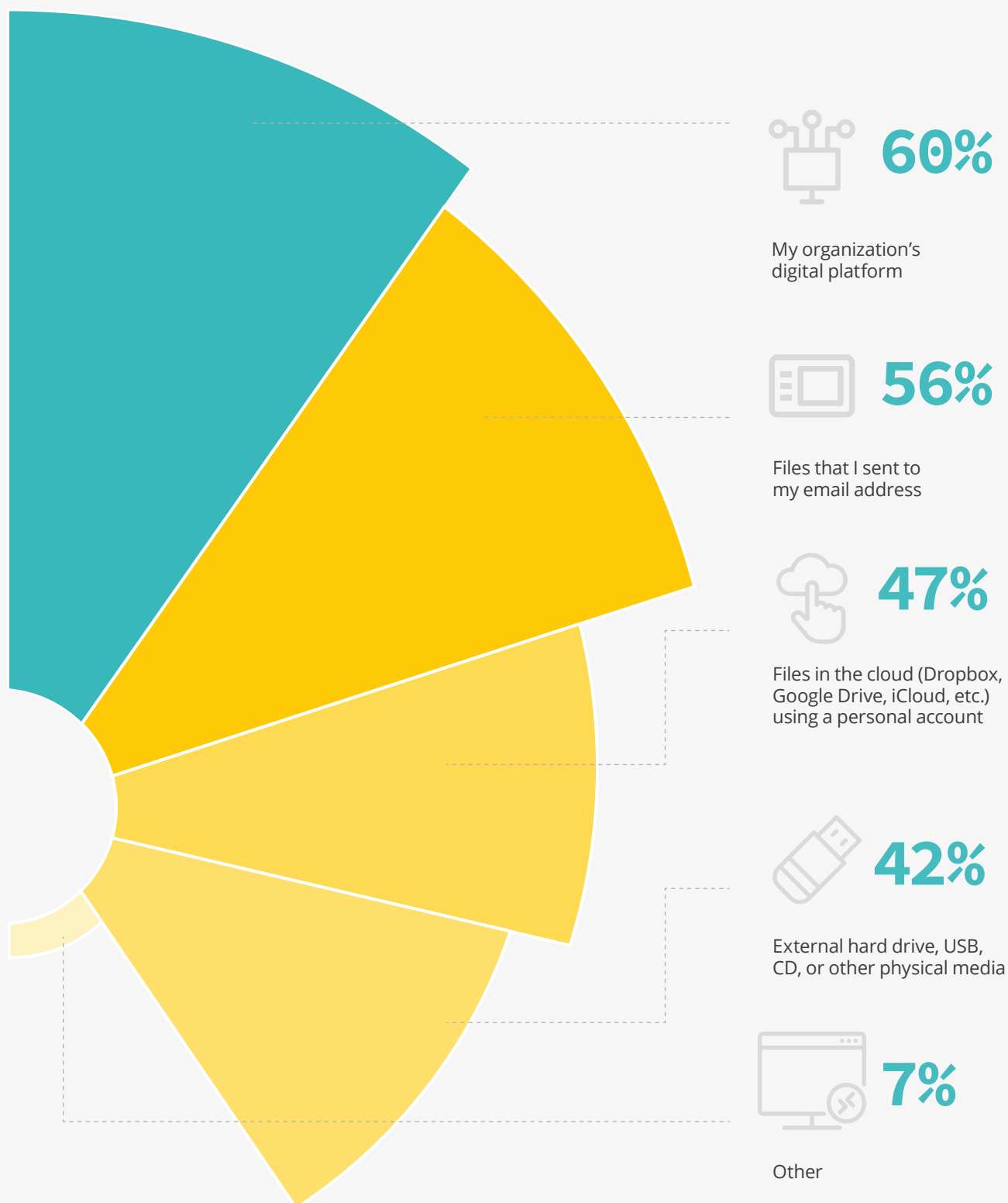


Figure 23.
Means of Accessing Office Files
and Computer Programs ^A

Source: Authors' elaboration, IDB (2021).

Note: Multiple answers allowed.



Lack of laptops.

Part of the difficulty in accessing office files and programs was due to the fact that many of the officials surveyed were using their own personal devices instead of computers provided by their organization. This raises certain risks. Officials may not have such devices, or they may share them with other household members. In

addition, devices may not meet the minimum specifications to work properly with remote access systems and may therefore compromise the security or confidentiality of sensitive information. Costa Rica is the only country analyzed in which more than half of officials had an employer-provided laptop (see Figure 24).

Generally, more senior officials usually have greater access to laptops provided by the office (see Figure 25).

Figure 24.

Percentage of Officials with an Employer-Provided Laptop ^B

Source: Authors' elaboration, IDB (2021).

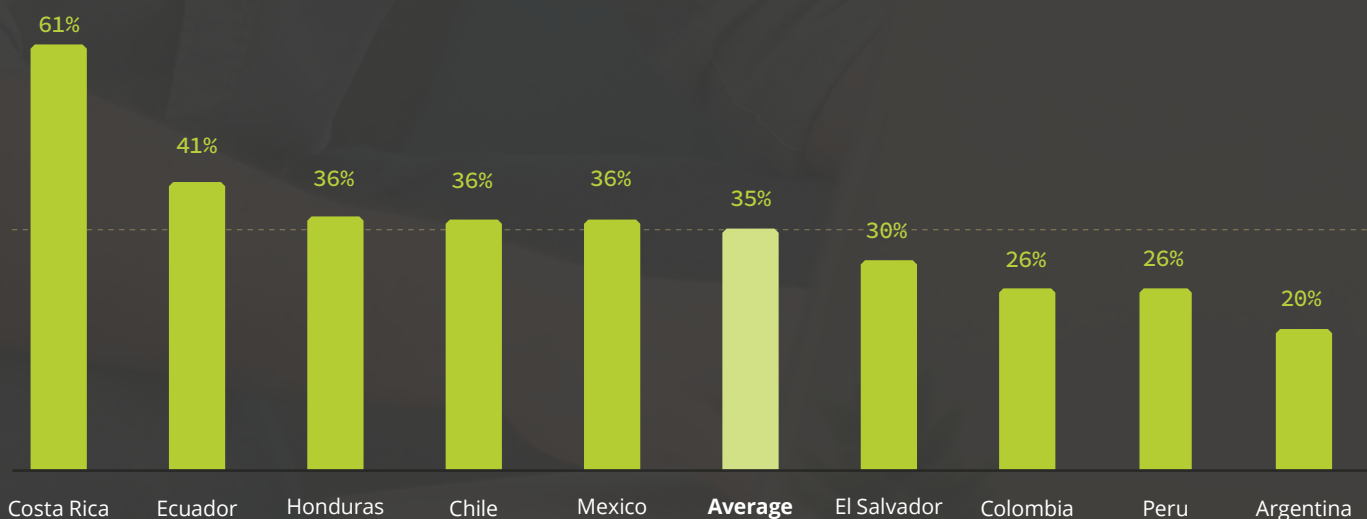
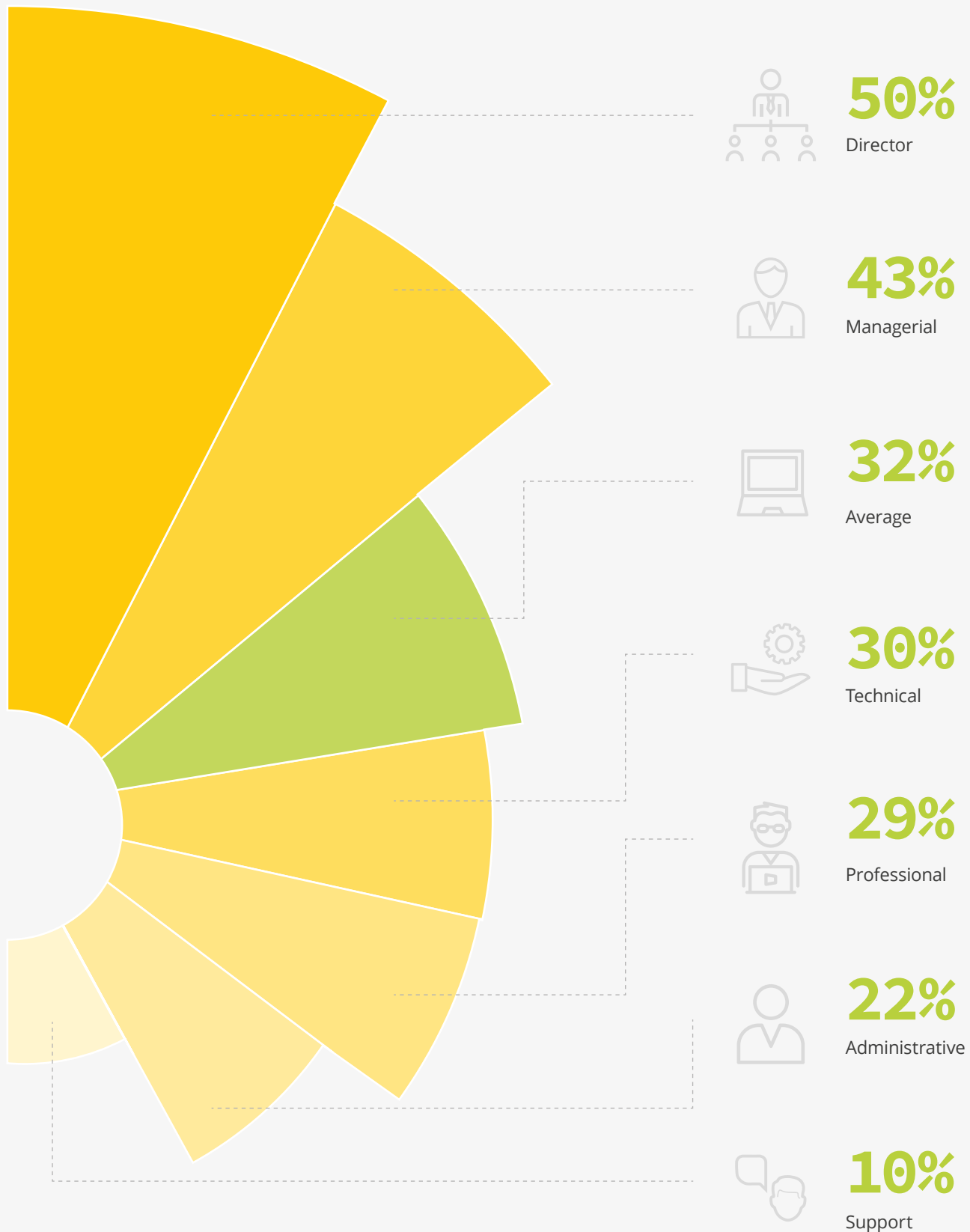


Figure 25.
Percentage of Officials with an Employer-
Provided Laptop, by Level of Seniority^B

Source: Authors' elaboration, IDB (2021).



Lack of access to digital government tools.

More than half of all officials surveyed reported that the main reason they went into the office was because there were “processes or tasks that they were unable to do at

home” (see Figure 26). The specific tasks that required more frequent visits to the office involved access to data and the management of official documents (see Figure 27).

These tasks could have been performed using common digital government tools such as document management systems and the cloud storage of documents and files.

Figure 26.
Reasons for Going to the Office ^A

Source: Authors' elaboration, IDB (2021).

Note: Calculated as a proportion of those officials who reported having had to visit the office (62 percent of the total sample).

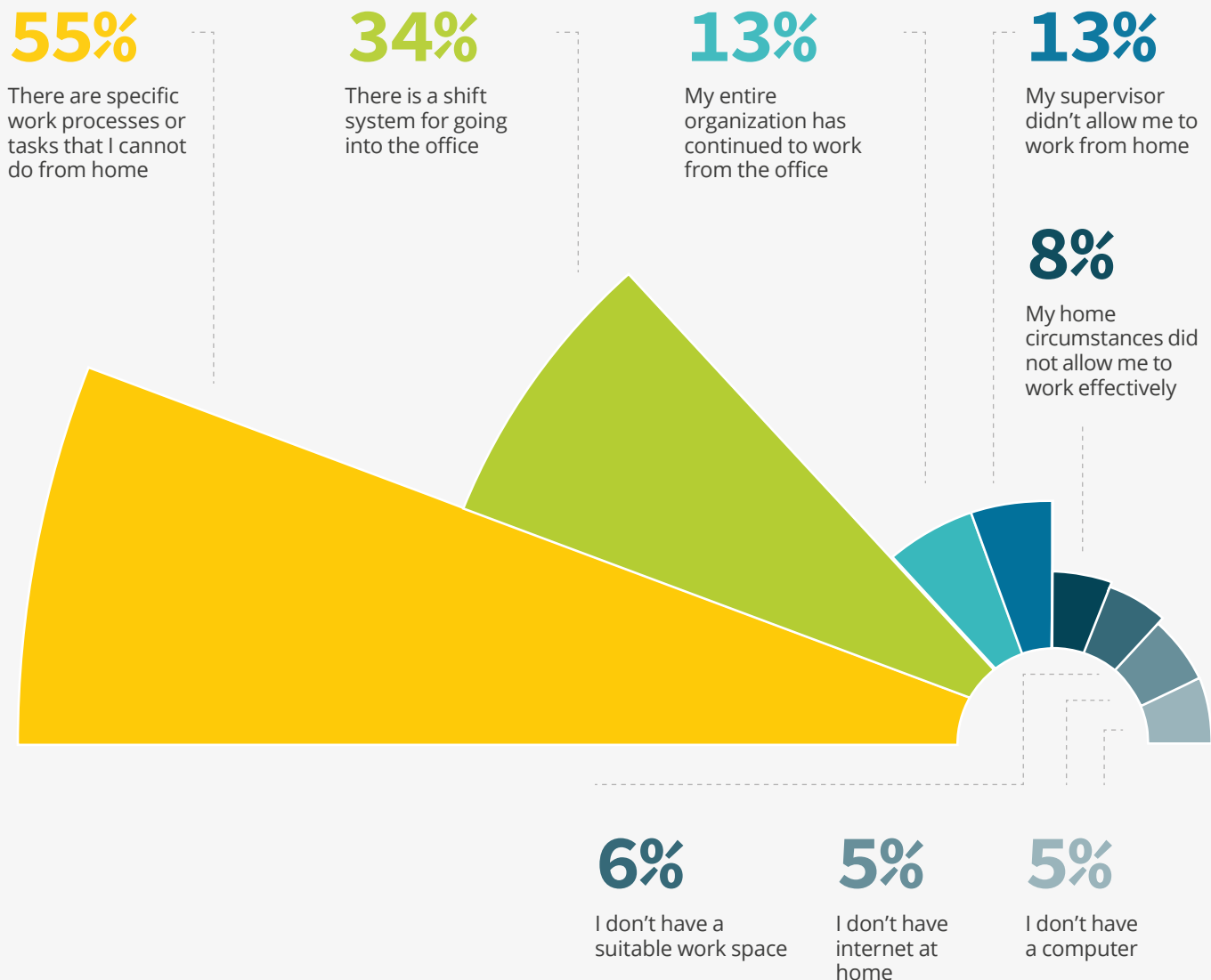
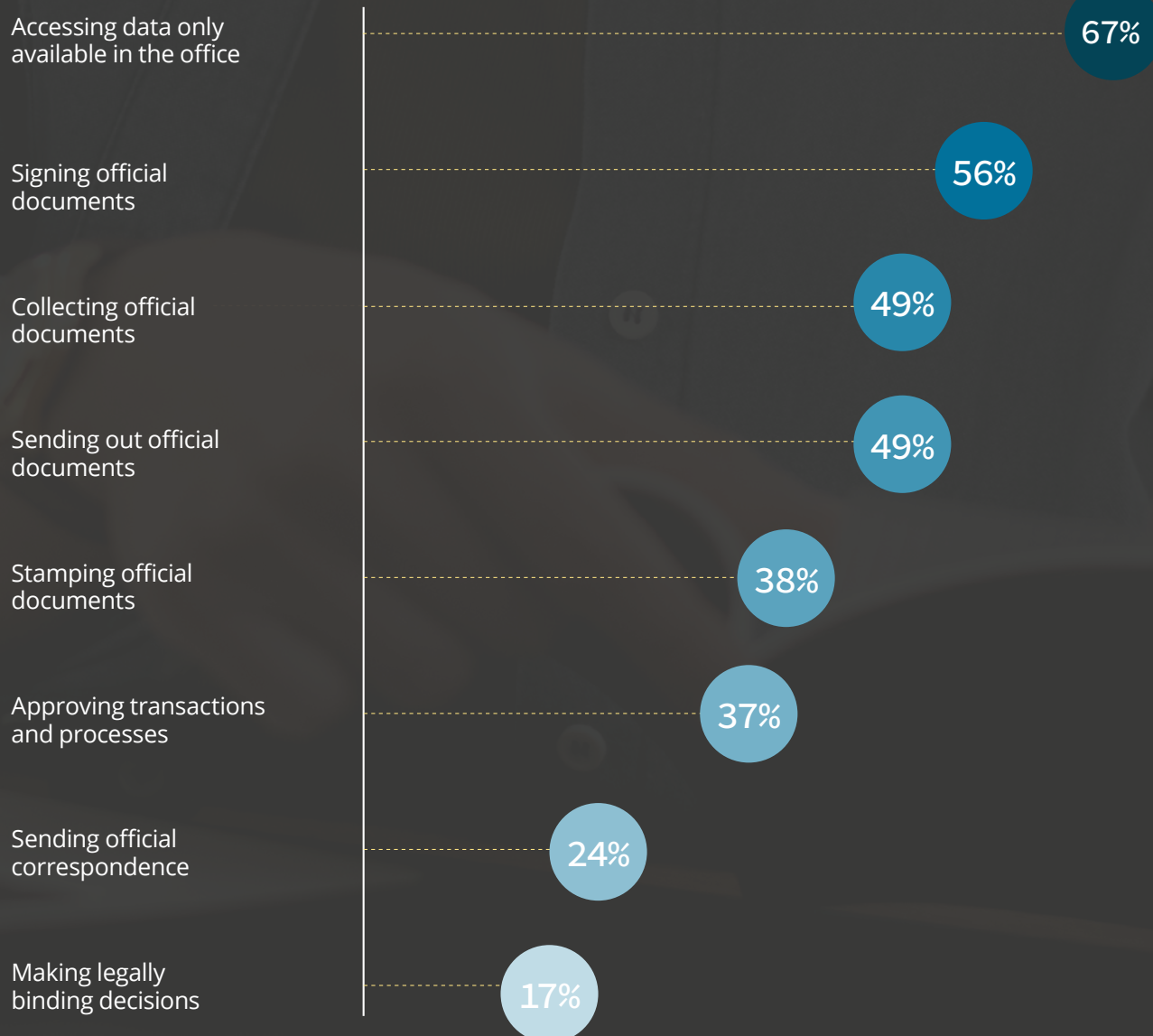




Figure 27.
Tasks That Forced Public Officials to Go to the Office ^A

Source: Authors' elaboration, IDB (2021).

Note: Calculated as a proportion of those officials who reported having had to visit the office because there were processes or tasks that could not be done from home (35 percent of the total sample).



Lack of telework training.

Part of the challenge faced by public officials in working outside the office was related to a lack of training, both in the technological tools used for teleworking and in the altered work dynamic and the particular challenges associated with it. This can be seen in a variety of ways. At a general level, only a minority of officials reported that their organization had provided guidelines on how to operate and perform their

work during the teleworking period (see Figure 28).

A minority in each country stated that they had received training in the technological tools for telework (see Figure 29).

These findings are consistent with those from Argentina, where telework training covered just 8 percent of

the teams of directors included in a survey (Diéguez, González, and Zuvanic, 2020). Similarly, officials had mixed opinions of the support they had received from their supervisors: on a scale of 0 to 100, in response to the question “How much support do you feel you have received from your manager or supervisor/director in the transition to telework?”, the average score given was 55 (see Figure 30).

Figure 28.

Proportion of Officials Reporting That Their Organization Had Provided Guidelines on How to Operate and Perform Their Work during the Teleworking Period ^A

Source: Authors' elaboration, IDB (2021).

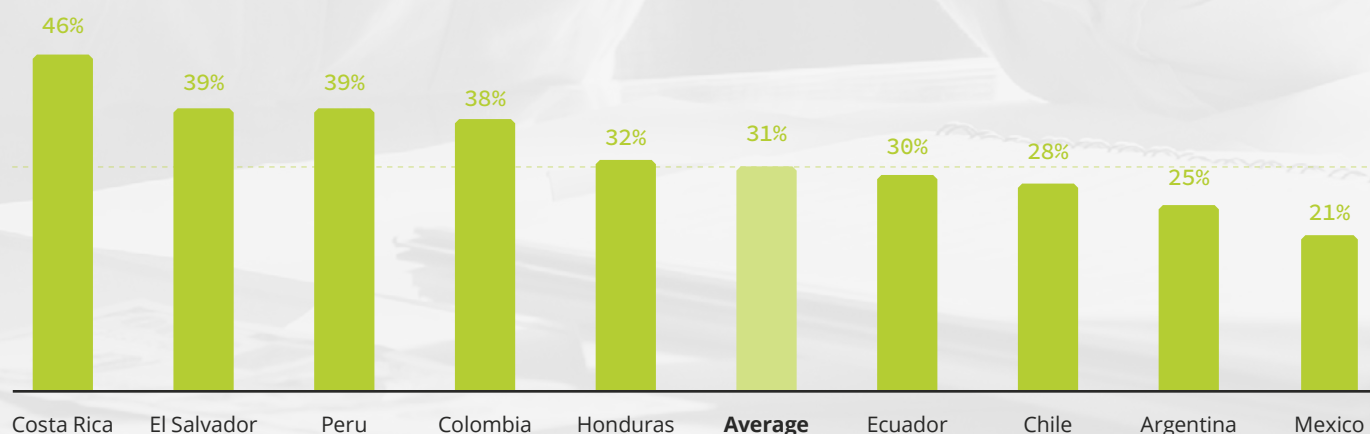


Figure 29.

Proportion of Officials Who Received Training in the Use of Technological Tools for Telework before or during Lockdown ^A

Source: Authors' elaboration, IDB (2021).

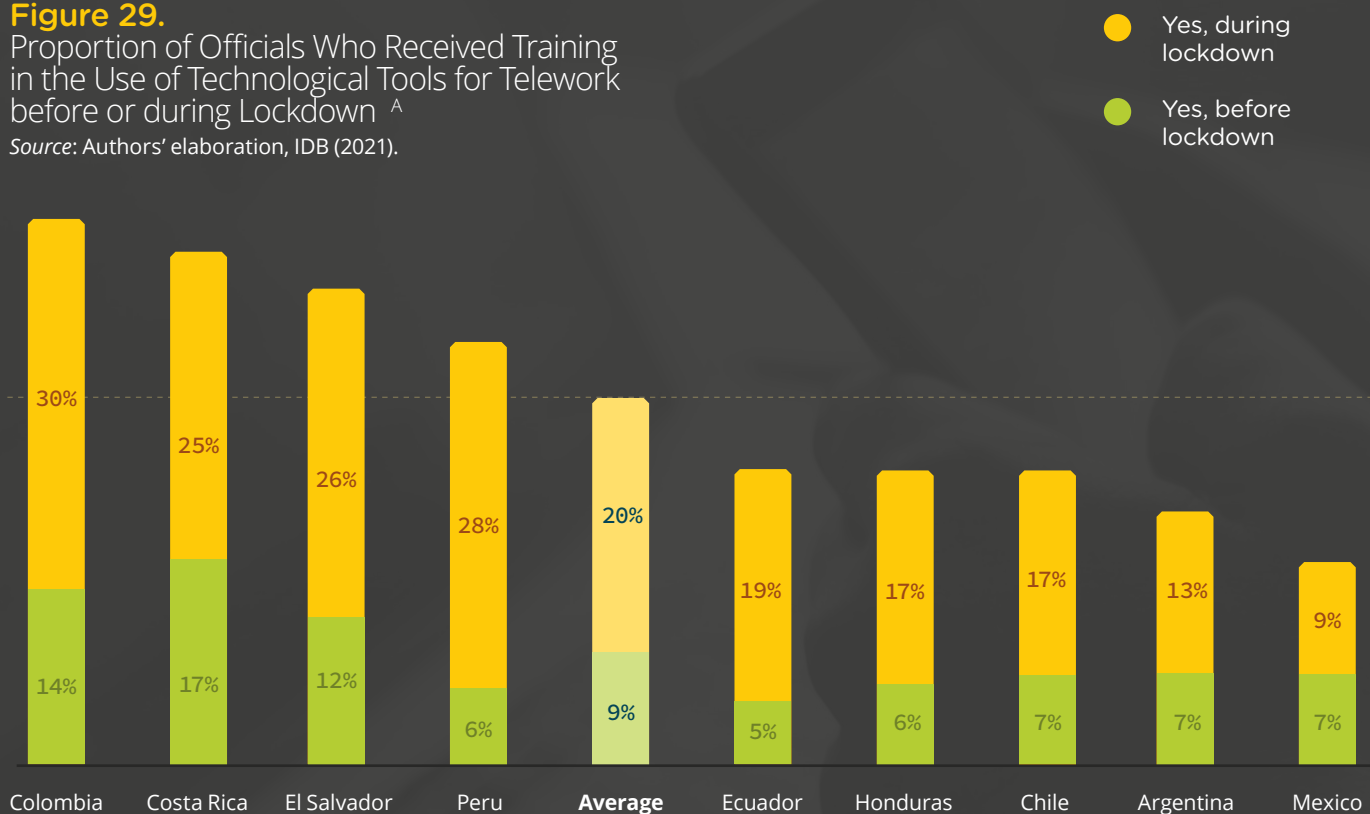
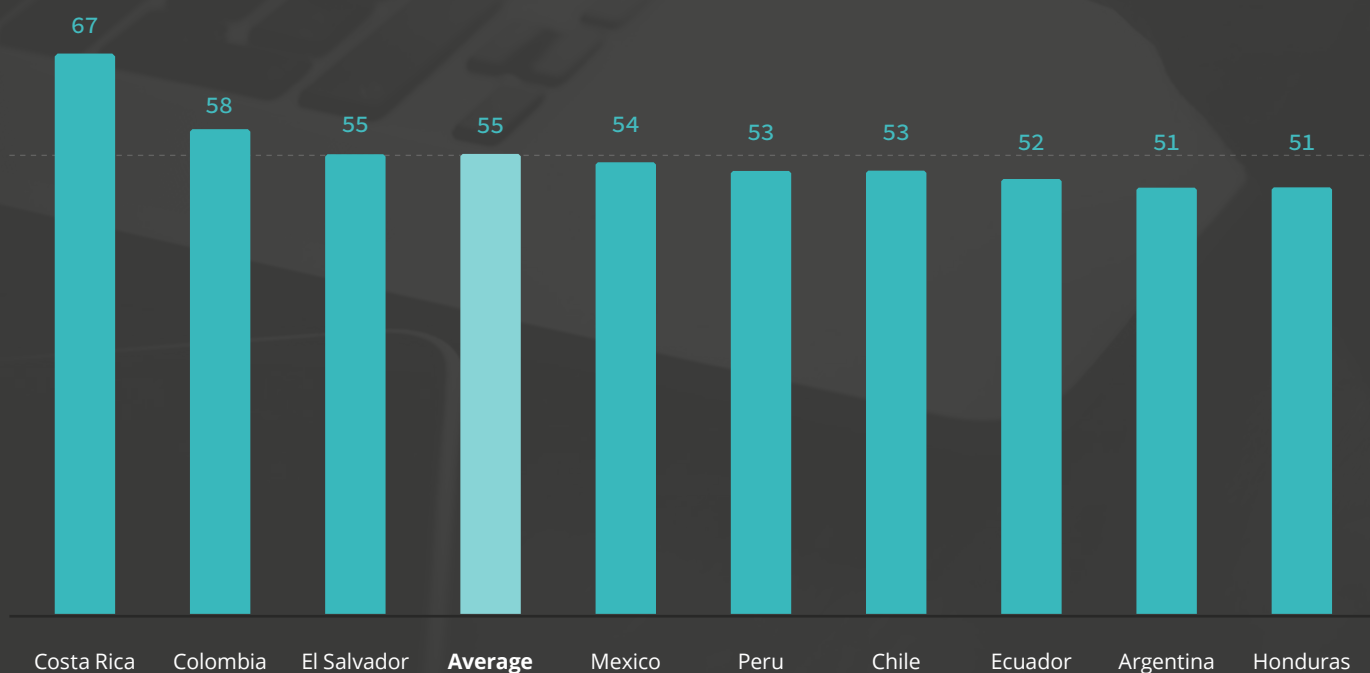


Figure 30.

How Much Support Do You Feel You Have Received from Your Manager or Supervisor/Director in the Transition to Telework? (0: no support, 100: full support) ^A

Source: Authors' elaboration, IDB (2021).



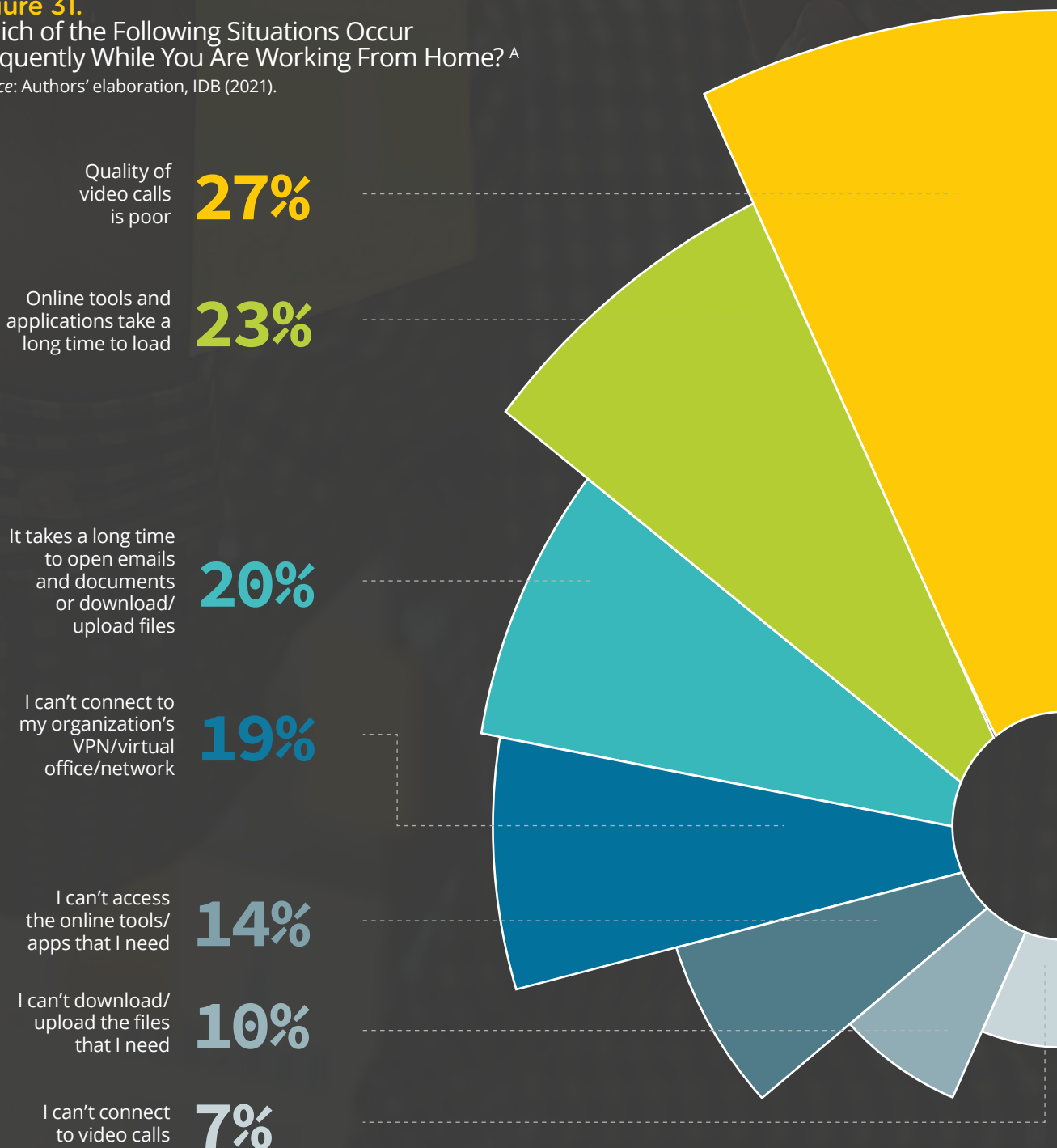
Poor connectivity.

The ability to work from home frequently depends on the availability and quality of internet services. Many of the officials surveyed had experien-

ced connectivity problems: 27 percent of respondents reported experiencing poor quality in videoconferencing, 23 percent had experienced problems with

online tools and applications taking a long time to load, and 20 percent stated that opening emails and documents took a long time (see Figure 31).

Figure 31.
Which of the Following Situations Occur Frequently While You Are Working From Home? ^A
Source: Authors' elaboration, IDB (2021).



Economic difficulties in working from home.

Spending more time at home avoids possible transportation and other expenses associated with going to the office, but it increases the use of electricity and other services. Increased electricity costs have caused economic

difficulties in a high proportion of cases: 64 percent of officials in Honduras, 53 percent in Ecuador, and 51 percent in El Salvador (see Figure 32). Again, these results may hide an even harsher reality for the wider

population of public officials: there is an inverse correlation between seniority and the likelihood of reporting economic difficulties due to an increase in electricity costs while working from home (see Figure 33).

Figure 32.

Proportion of Public Officials Reporting Economic Difficulties Due to Increased Electricity Costs after Commencing Telework ^A

Source: Authors' elaboration, IDB (2021).

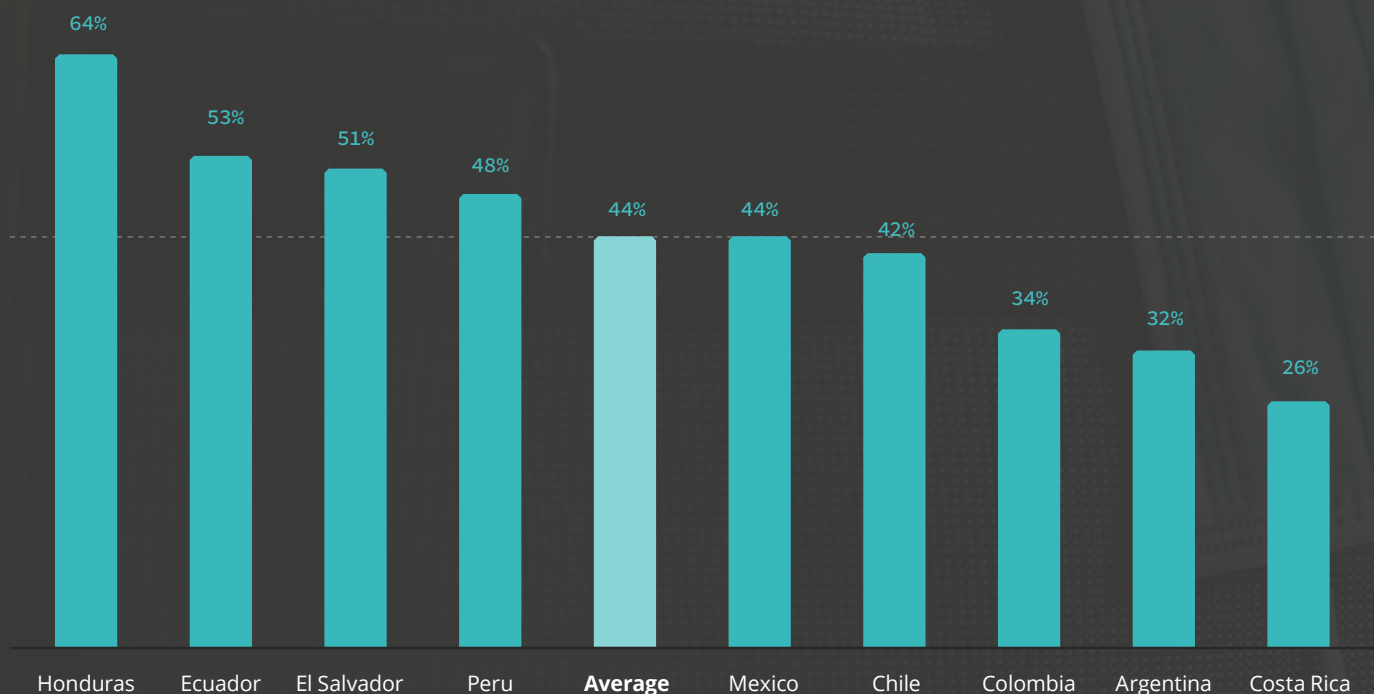
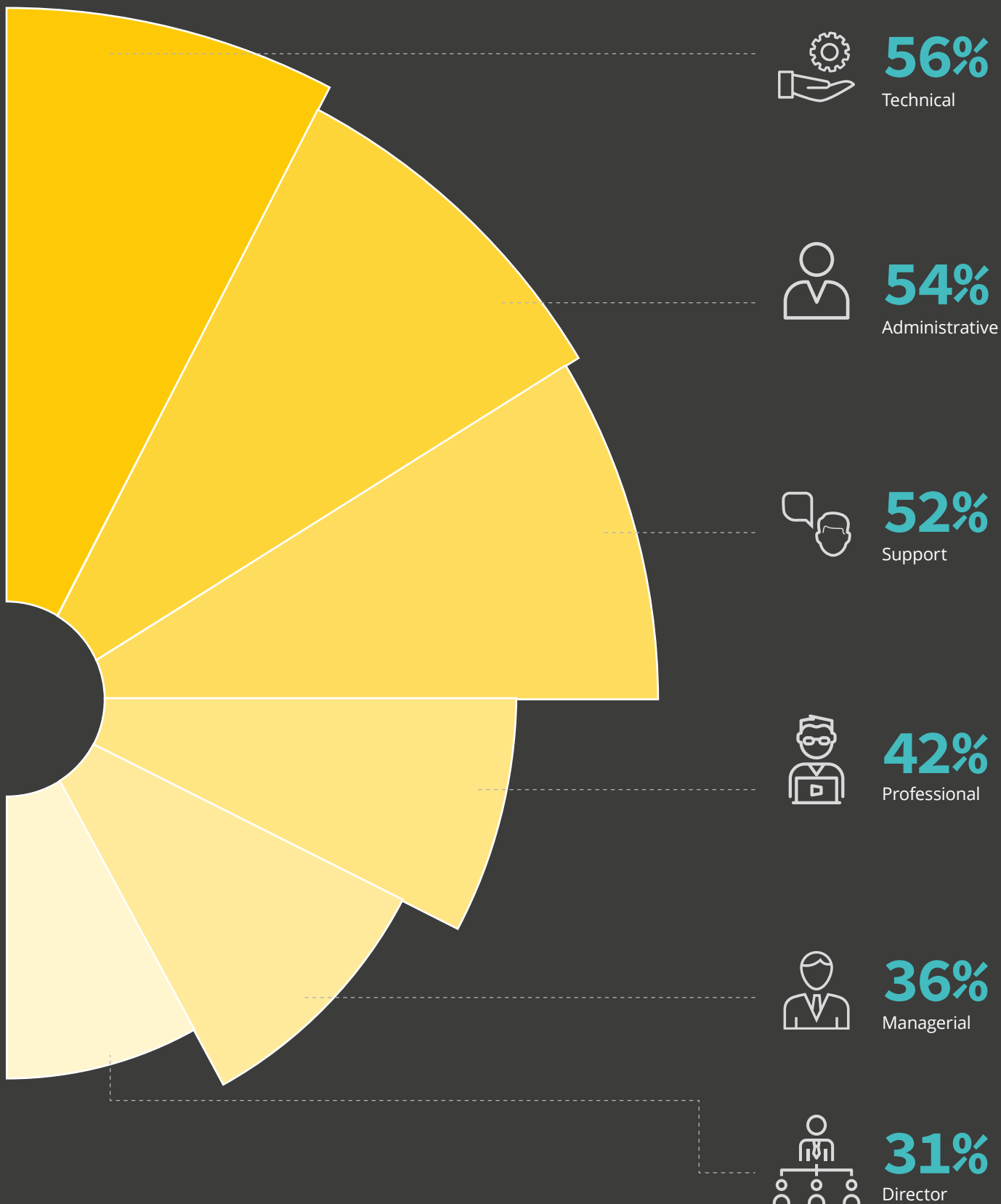


Figure 33.

Proportion of Public Officials Reporting Economic Difficulties Due to Increased Electricity Costs after Commencing Telework, by Level of Seniority ^A

Source: Authors' elaboration. IDB (2021).





Box 1.

Work Intensity and Well-Being of Civil Servants during the Pandemic

Working from home can offer both advantages and disadvantages for public officials. On the plus side, it avoids the need to commute and significantly reduces exposure to the virus. On the downside, however, it is sometimes difficult to set limits on working hours, reconcile family demands with work-related ones, and find a

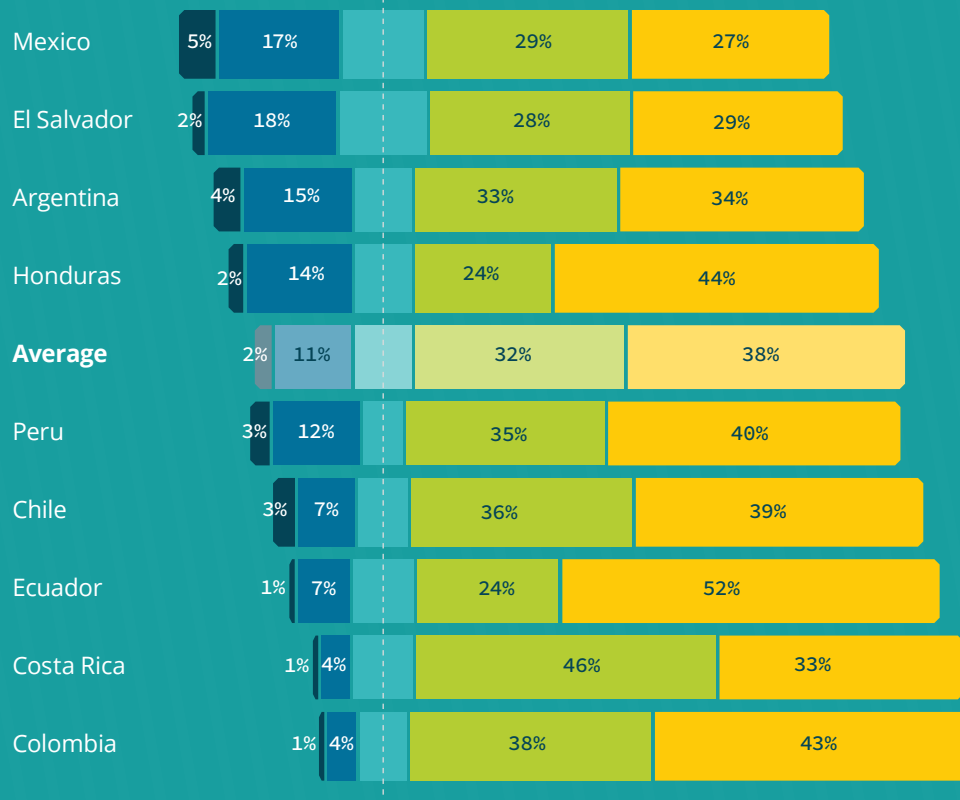
comfortable space to work in, among other challenges. In all of the countries studied, most officials reported having worked longer hours during the pandemic than before it (see Figure B.1). Similarly, in seven of the nine countries, more officials reported a deterioration in their well-being than an improvement (see Figure B.2).

Figure B.1.

Have You Worked More, Less, or the Same Amount of Time during the Pandemic?

Source: Authors' elaboration, IDB (2021).

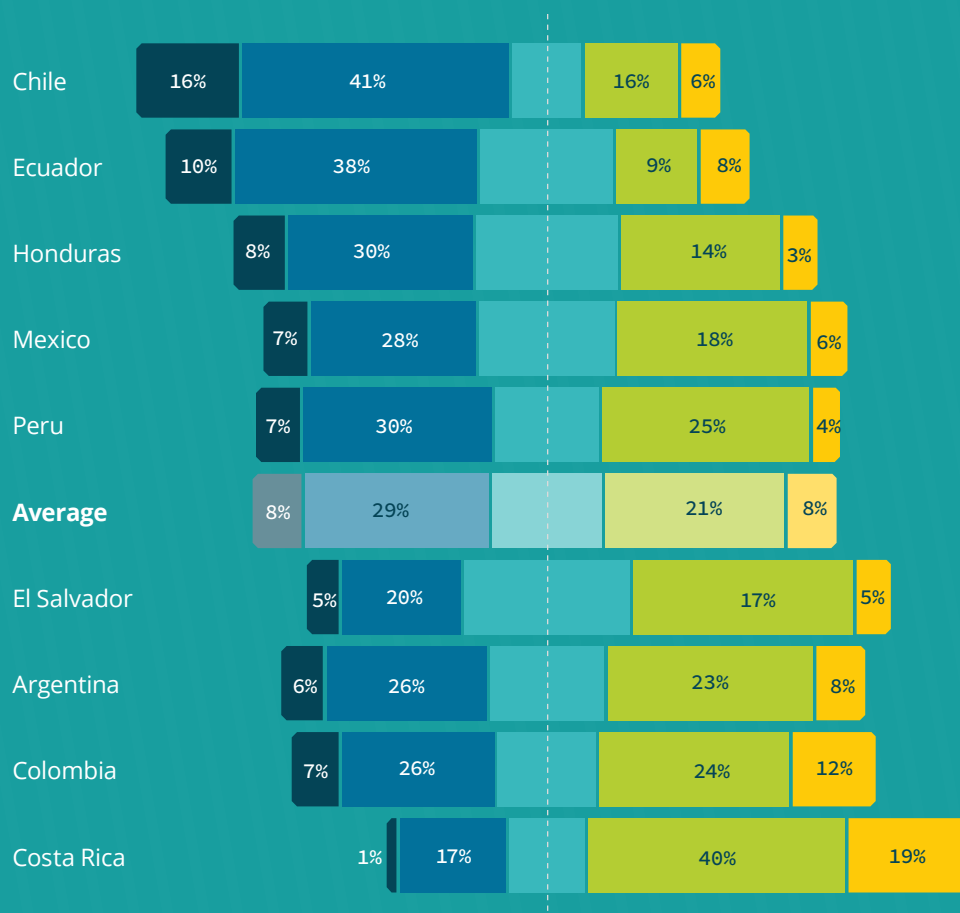
- Far less hours
- Less hours
- Same number of hours
- More hours
- Far more hours

**Figure B.2.**

In General, Do You Feel That Telework Has Had a Negative or a Positive Impact on Your Health and/or Well-Being?

Source: Authors' elaboration, IDB (2021).

- Far worse
- Worse
- The same
- Better
- Far better





PUBLIC INSTITUTIONS

Digital services have been an essential tool for responding to the pandemic. They have allowed civil servants to perform their work from home and citizens to continue accessing public services, including critical services created in response to the COVID-19 crisis. This section describes the efforts and achievements of government institutions in using digital tools to adapt to the new situation. The first part discusses the findings from data gathered from digital government agencies in 11 countries in the region, while the second presents six brief case studies.



Creation of New Digital Services in Response to the Pandemic

In all of the countries analyzed, many government institutions created new digital services in response to the pandemic—particularly the lead agencies for digital government (see Figure 34 for the services developed by these institutions as of August 2020). These services serve a variety of purposes. First, some countries established websites with information on the coronavirus, current restrictions on movement, and links to

apply for travel permits, to mention just a few. Second, they introduced new economic assistance programs using digital enrollment forms. These services were established with remarkable speed, with some even created in a matter of days. Many of these were for mass use. [Peru's official coronavirus page](#), for example, was created in three days and was visited more than 450 million times between the end of March and the end

of August. Table 1 presents a selection of the services created, along with the time taken to create them (from concrete identification of the need to the time they became accessible) and the number of times they had been used as of end-August 2020. The speed with which these services were produced was sometimes accompanied by weaknesses in terms of usability (as documented above), capacity,¹¹ and security.¹²

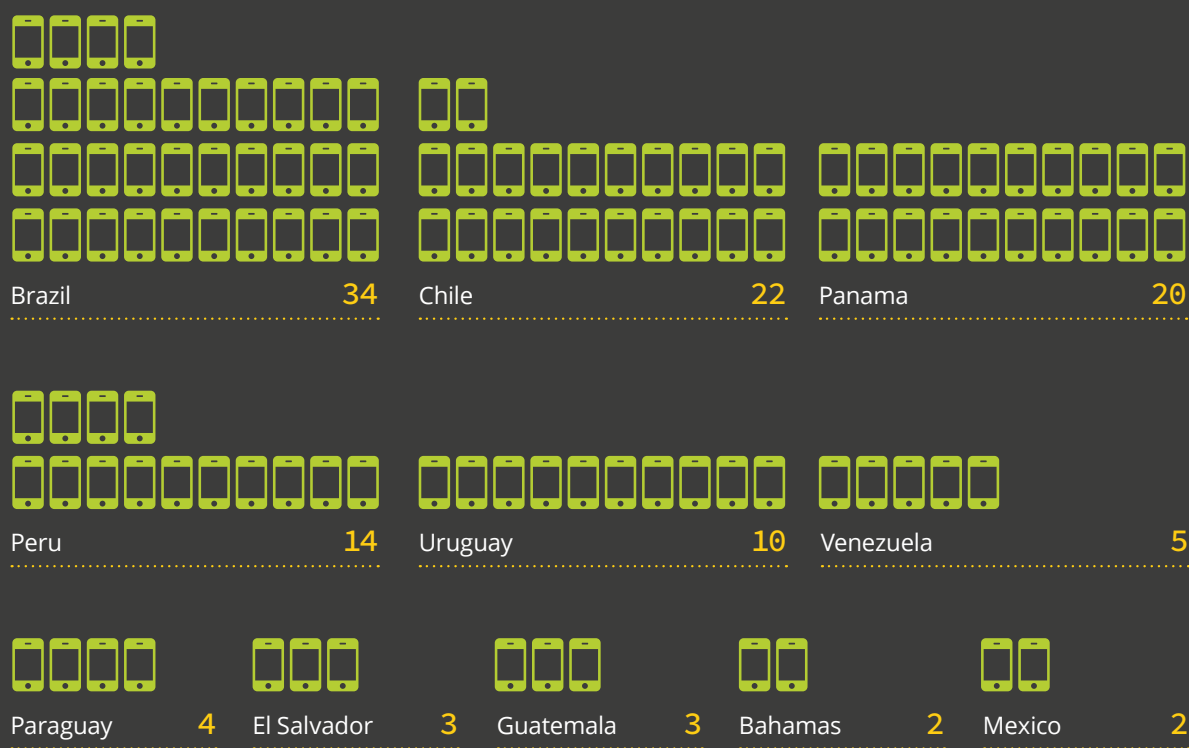
¹¹ For example, the services of Chile's Virtual Police Station suffered outages due to excess demand ([El Mostrador, 2020](#)).

¹² For example, Peru's Bono Universal was subject to cyberattacks, cyberattacks ([Nivel 4 Labs, 2020](#)).

Figure 34.

Number of New Digital Services Created by Digital Government Agencies during the Pandemic

Source: Authors' elaboration, IDB (2021).

**Table 1.**

Examples of New Digital Services Created during the Pandemic

Source: Authors' elaboration, IDB (2021).

Country	Service	Days taken to develop	Number of times used (from mid/end-March to August 2020)
Bahamas	Contact tracing app for health officials	5	Daily use by a team of 100 contact tracers
Brazil	Emergency assistance request	20	67 million+
Chile	Temporary travel permits during lockdown	7	108 million+
El Salvador	Directory of economic assistance for citizens	4	2 million+
Guatemala	Temporary employment suspension	45	100,000
Paraguay	Economic assistance program	14	1.5 million+
Peru	Official coronavirus website	3	450 million+



Digitization of Existing Services

The need to provide distance services encouraged the digitization of existing services. In some cases, efforts were substantial: in Argentina, Brazil, Chile, Panama, and Uruguay, more than 50 services were fully digitized (see Figure 35). Table 2 presents a number of examples. In some cases, the need for digital access to services exceeded the authorities' ability to complete all of the steps required for full digitization (e.g., analysis of user processes and journeys, identification of reengineering opportunities, creation of forms, database connections, usability tests,

etc.). Two of the countries studied—Argentina and Paraguay—created a generic digital service as a gateway to all the other, non-digitized services. In Argentina, this solution—known as “Presentación ciudadana ante el Poder Ejecutivo [Citizen submissions to the Executive Branch]”—allows an individual or company to carry out any non-digitized transaction virtually. The applicant accesses the Distance Services ([Trámites a distancia, or TAD](#)) platform, completes a form indicating which agency the request should be directed to, and includes all relevant information in the “comments”

field. Documents may be uploaded if desired. Once the request has been submitted, it is sent to the inbox of the relevant agency through the Electronic Document Management (Gestión Documental Electrónica, or GDE) platform and is then forwarded to the correct department using the same platform. Fulfillment of the request is communicated to the applicant through the TAD platform. This case highlights the usefulness of having crosscutting digital governments platform in place before the pandemic: without the GDE and TAD, this solution would not have been possible.

Figure 35.
Existing Services Digitized by Digital Government Agencies during the Pandemic

Source: Authors' elaboration, IDB (2021).



Table 2.
Examples of Existing Services Digitized during the Pandemic

Source: Authors' elaboration, IDB (2021).

Country	Service	Number of times used (from mid/end-March to August 2020)
Argentina	Presentación Ciudadana ante el Poder Ejecutivo [Citizen submissions to the Executive Branch]	16,758
Paraguay	Mesa de Entrada de las Instituciones Públicas [Government Institutions Inbox]	70,000
Brazil	Unemployment benefit application for domestic workers	2,129
Chile	Programa Denuncia Seguro [Safe Reporting Program]	400,000
Uruguay	Vehicle inspection permits	2,812

Case Studies

The case studies presented below are concrete examples of how advances in digital government prior to the pandemic have been a critical asset for adapting public services to

the new working requirements and needs for remote service delivery brought by the pandemic, thus allowing governments to continue providing services to their populations.



Chile. Greater Efficiency and Productivity through Telework¹³

How did SUSESO¹⁴ manage to transition to telework for all of its employees and continue delivering services remotely during the quarantine? The situation did not take them by surprise. In 2018, the

office introduced plans to implement a telework system aimed at improving its efficiency. One year later, it began implementing telework pilot programs involving around 5 percent of its staff.¹⁵ Thanks to these

earlier actions and given the online availability of all government transactions,¹⁶ this regulatory and oversight body was able to continue performing its main functions remotely during the lockdown period.

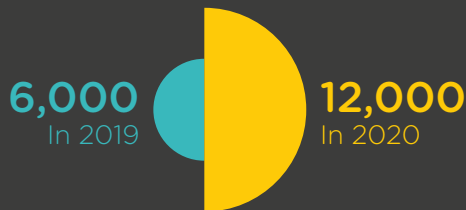
¹³ We are grateful for the information provided by the staff of Chile's SUSESO and the support of María José Jarquín, Modernization of the State Lead Specialist (IDB), in preparing this section.

¹⁴ SUSESO is an autonomous state body responsible for overseeing compliance with social security regulations and ensuring that the rights of citizens—particularly workers, pensioners, and their families—are respected. Beneficiaries first apply to the relevant pension fund administrators and can appeal to SUSESO as a last resort if their application is rejected.

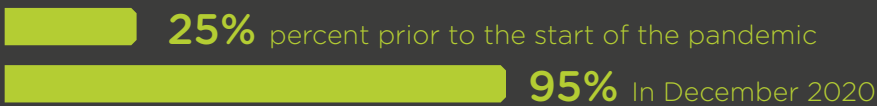
¹⁵ In 2017, 17 employees of INAPI (Instituto Nacional de Propiedad Industrial or National Institute of Industrial Property) participated in a telework pilot project under Law 20,971 of 2016, which allowed up to 10 percent of staff to work outside the office. Another four Chilean government institutions subsequently joined this initiative and began implementing pilot telework programs: INE, ChileCompra (the public procurement agency), the Office of the Comptroller General, and SUSESO. Dirección de Presupuesto (DIPRES) coordinated the initiative ([Chilean Center for Government Systems, 2020](#)).

¹⁶ Since 2019, all [SUSESO](#) government transactions have been available through its web portal.

Number of Rulings Issued



Percent of Claims Submitted through the Institution's Web Portal



Telework has proven more productive than office-based work: while 102,759 claims were entered in the January-September 2020 period (51 percent more than in the previous year), the number of rulings increased substantially to 78,059 (52 percent more than in the same period of 2019). In April 2020, with all officials teleworking, the number of rulings issued reached a historic peak of 12,000, compared to

6,000 the previous year. In December 2020, 95 percent of claims were submitted through the institution's web portal (compared to 25 percent prior to the start of the pandemic).¹⁷ Good telework practices, such as respect for working hours and personal time, have also helped boost productivity and improve employees' quality of life. In addition, the institution has saved money on paper and three office rental contracts.

¹⁷ The portal provides access to electronic dossiers or Electronic Administrative Procedures (Procedimientos Administrativos Electrónicos, or PAE), which allow claims and appeals (e.g., rejection of medical leave and decisions on family subsidies such as the COVID-19 allowance) to be submitted, analyzed, and resolved, and claimants to be notified. The electronic dossier allows the entire process to be tracked online automatically.

Other digital services made available by SUSESO are My Portal (Mi Portal), a coordinated effort involving more than 600 social security benefit administrators and multiple public bodies that allows citizens to access their social security information, and the Digital Filing Office (la Oficina de Partes Digital), which allows documents to be sent by email, thus reducing the submission of physical documents and, accordingly, numbers of visits and potential instances of virus transmission. Between 2015 and the first half of 2020, the wide range of digital services offered by SUSESO allowed it to almost double its coverage of claims (from 50,000 to 90,000) and reduce by more than half the time taken to resolve medical leave issues (from 94 days to 44) (Pauta, 2020). More than 200,000 documents were exchanged digitally with the entities responsible for administering the social benefits concerned. Significantly, the shift to the digital channel did not create any problems in terms of access, and SUSESO continues to serve vulnerable populations both

online and by telephone with a view to ensuring that services are provided to the entire population.

COVID-19 accelerated a process of change and innovation that had already been underway for 15 years, with the creation of a technological ecosystem, more integrated and interoperable information systems, and the Comprehensive Citizen Services Improvement Project (Proyecto de Mejora Integral de los Procesos de Atención Ciudadana, or PMI) (IDB, 2014),¹⁸ an ambitious and disruptive digital transformation strategy developed from 2016 to 2018. SUSESO has become an agile, modern public service by redesigning its services, using technology as a tool rather than an end in itself. It performs more efficiently, has taken steps to go paperless, and prioritizes user experience and satisfaction. Change management and communication with the institution's leaders and its employees were essential for achieving this transformation. These measures helped to manage expectations and mediate both resistance among those opposed to

innovation and impatience among those favoring rapid change, while also altering the concept of public service, with priority given to results-based service delivery rather than time spent sitting at a desk.

SUSESO's experience of modernization shows that it is possible to achieve digital transformation that benefits both citizens and public officials while allowing operational continuity amid a crisis. This disruptive model is here to stay. SUSESO is seeking to extend and consolidate the teleworking modality to encompass at least 40 percent of its staff in 2021. Savings from this modality will allow the Office of the Superintendent to continue without cutbacks to staffing or salaries, even in the face of expected budget constraints driven by the country's economic recovery process. This experience sets a precedent that may convince other government institutions of the benefits of digital transformation, consistent with the objectives of the Digital Transformation Law that was published in 2019 and is expected to enter into force in mid-2021.

¹⁸ Implemented as part of the Public Management and Citizen Services Improvement Program developed by the government of Chile and the IDB (IDB press release, 2014).



Panama. The Personal Identity Card as a Debit Card¹⁹

With the arrival of COVID-19, the government of Panama launched the “Panamá Solidario” (Solidary Panama) Plan, a temporary emergency and social assistance plan consisting of cash allowances and bags of food for those whose income or employment situation had been affected by the pandemic-driven economic crisis. However, given the social distancing measures introduced in the country and scant access to banking services, the government faced an enormous challenge: how to get this benefit to those most in need as quickly and reliably as possible.

The initial plan was to distribute assistance using prepaid debit cards. However, a more effective alternative was found that would help to minimize exposure of citizens and public servants and leverage the benefits of digital channels to offer the service remotely: enabling people to use their personal identity cards as debit cards.

This government innovation has allowed beneficiaries to receive a monthly Digital Allowance (Bono Digital) of US\$100 (initially US\$80) to cover basic needs for medicines, food, and hygiene

products at participating supermarket chains and other businesses in the local area. Beneficiaries can access the benefits and pay directly with their personal identity card (the card is scanned at the time of payment)²⁰ without needing to go to a government office in person or have a bank account, as the Digital Allowance transfer is linked to the barcode or QR code on the individual's identity card.²¹ To ensure that all eligible individuals receive the benefits, the digital allowances are provided as a complement to physical cash payments and bags of food.

¹⁹ We are grateful for to the staff of Panama's National Authority for Government Innovation (Autoridad Nacional para la Innovación Gubernamental, or AIG) and the support of María Inés Vásquez Rossi, Modernization of the State Senior Specialist (IDB), in preparing this section.

²⁰ Identity cards are scanned in the store, but the ID number can be entered manually if the store lacks a suitable scanner, the card is damaged, or the individual has a digital form from the Electoral Court for an expedited copy of an identity card.

²¹ Digital allowances are consumption credits, meaning that they remain on the card until they are used by the beneficiary. At the end of each month, stores submit the bill to governments for reimbursement, allowing more efficient spending and control of public funds. Funds may be carried over between cycles but are suspended if they remain unused over a three-month period. Citizens can confirm their eligibility for support and/or check their balance through the [program website](#), by calling 140, or by using the virtual platform and chatbot [SARA](#).

The health emergency necessitated a swift response and the timely, coordinated mobilization of the government under the leadership of Panama's National Authority for Government Innovation (Autoridad Nacional para la Innovación Gubernamental, or AIG), the institution responsible for modernization of Panama's public administration. Several projects that had been expected to take two or three years had to be implemented in a matter of weeks. AIG staff worked overtime to implement the necessary tests and adjustments to the system, building partnerships with different businesses and training their staff in the new

payment modality. Less than one week after the first case of COVID-19 was confirmed in the country (March 9, 2020) the authorities launched a pilot program for the Digital Allowance in the municipality of Cerro Silvestre, and in April 2020 it was rolled out nationally. By the end of November, more than 1,200,000 Panamanians had received the Digital Allowance, and this number is expected to continue rising as more businesses sign up, public awareness campaigns continue, and more beneficiaries transition from cash payments to the digital alternative.

One challenge for the transfer program is efficient and

transparent targeting. The AIG has worked hand-in-hand with the Electoral Court (Tribunal Electoral, or TE), which issues and regulates personal identity cards, and other public institutions to build a centralized database of population records, allowing it to identify individuals eligible for the program based on their employment situation and earnings.²² As the pandemic has progressed, families' needs and economic situations have continued to change. To ensure satisfactory targeting, the list of beneficiaries is reviewed each month based on the program's selection and exclusion criteria.²³

²² The AIG has used this information to develop an [interactive dashboard](#) showing disbursement and delivery statistics for allowances and food bags.

²³ In 2020, the Panamá Solidario Plan provided support to people meeting one of the following four criteria: multidimensional poverty, residing in remote areas, annual income below US\$11,000, or suspension of formal employment (the latter criterion applied only to the Digital Allowance). However, changes to the eligibility criteria are expected in 2021. More information can be found at [Panamá Solidario](#).



By the end of
November, more than
1,200,000
Panamanians
had received the
Digital Allowance.



Progress under these initiatives has been possible due to both the level of commitment shown by the AIG and the favorable political environment. The Office of the President and other government institutions supported the digital transformation of public services, as well as the redesign, standardization, simplification, and digitization of government processes with a focus on users (as set out in Panama's Digital Agenda 4.0 [2014–2019] and the current Digital Agenda 2020). The Electoral Court has also taken significant steps to modernize its services: in 2019, it implemented a pilot program with the IDB for identity renewal applications. It has also recently begun to offer digital appointments for identity card renewals

and first-time identity applications, and it plans to roll out the pilot app for online identity card renewals to the entire country.

AIG's leadership and strategic vision has enabled opportunities to be identified; regulatory, managerial, and technological elements to be integrated; and key government and private actors to be coordinated to allow the national identity document to be adapted in record time to allow delivery of the Digital Allowance. Not only has this innovative policy allowed the authorities to meet immediate needs, but it has also helped to meet the broader objectives of the digital government agenda and strengthen the culture of digital services and banking in Panama.



Argentina. Identity Verification from Home through a Single, Secure Platform ²⁴

With the onset of the pandemic and the sudden requirement to stay at home, one of the main challenges was to ensure that platforms and apps were available to allow citizens to continue performing government transactions and accessing public services and social programs remotely. Added to this was the complex task of digitally verifying citizens' identities. How did the government of Argentina manage to offer the identity verification service to more than 2 million users swiftly and securely in the middle of a pandemic? This was made possible by

the AUTENTICAR platform, which merges various identity verification services into a single, delegated electronic verification process. The Undersecretariat for Administrative Innovation in the Public Innovation Secretariat (Subsecretaría de Innovación Administrativa, from the Secretaría de Innovación Pública), attached to the Office of the Chief of Cabinet in the Argentine government, developed the platform.²⁵

This platform allows users to verify their identity online when accessing a service, applying for a license,

conducting a transaction, or submitting a claim to different private or government entities in the country. There are no direct users of AUTENTICAR; instead, "users" are those who access one of the client apps verified by AUTENTICAR, as the apps implement the services provided by the platform. The process varies depending on the type of verification required (digital certificate, fingerprint, username and passcode, or facial identification). In many cases, it requires only a national identity document or temporary residence permit.

²⁴ We are grateful for the information provided by the staff of Argentina's Undersecretariat for Administrative Innovation (Subsecretaría de Innovación Administrativa de Argentina) and the support of Mauricio Mejía, Modernization of the State Lead Specialist (IDB), in preparing this section.

²⁵ More information can be found on the websites for the Government of Argentina's [Central Electronic Verification Platform](#) and [AUTENTICAR](#).

In the second half of December 2020 alone, 2,508,916 identity verifications were performed.

The AUTENTICAR platform offers security and convenience and saves time and money, as users can verify their identity and sign documents digitally using the internet. The service is secure because the platform does not save user information; it simply establishes a connection, and the relevant verification provider certifies the user's credentials. Moreover, it brings together different verification providers into a single, standardized platform;²⁶ uses

multiple verification techniques; offers various forms of electronic payment and single and joint signing options; fosters interoperability with other government bodies; and operates with a single sign-on, which avoids the need for different passwords and logins and makes it easier for users to navigate between apps. Complementing AUTENTICAR is the Central Electronic Verification Platform (Plataforma de Autenticación Electrónica Central, or PAEC), which was established in 2016 to allow private or government entities

to verify user identity for their websites, systems, or apps.²⁷

A growing number of identity providers, public and private institutions, and citizens are already using these services. In the second half of December 2020 alone, 2,508,916 identity verifications were performed. The number of providers using AUTENTICAR and PAEC grew to 86 in the April-August 2020 period (a 21 percent increase over the pre-pandemic period), while at the end of 2020 the number was 112.

²⁶ Some of the government agencies currently providing identity services through the platform include the Federal Public Revenue Administration, the National Social Security Administration, Mi Argentina, the National Internet Domain Name Registration Department, and the National Citizen Registry.

²⁷ Private companies or entities can request verification of the identity of users of their systems or apps through the Distance Services platform, while government entities can use the Electronic Document Management system for this purpose.

This verification initiative by the Undersecretariat for Administrative Innovation is part of an effort to modernize, simplify, and streamline the federal public administration.

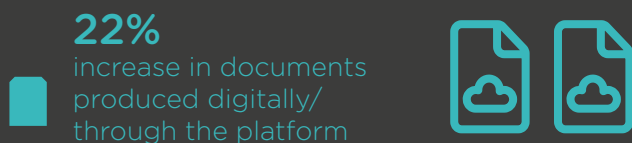
An example of large-scale use is the 2020/2021 National Economic Census, which was planned to be carried out online at the end of 2020. The National Statistics and Census Institute (Instituto Nacional de Estadísticas y Censos, or INDEC) aimed to include more than 5.5 million individuals and corporations via a digital questionnaire. This requires identity to be verified through the AUTENTICAR platform of the Federal Public Revenue Administration (Administración Federal de Ingresos Públicos, or AFIP) using the Single Taxpayer Identification Code and associated fiscal code (INDEC, 2020).

This verification initiative by the Undersecretariat for Administrative Innovation is part of an effort to modernize, simplify, and streamline the federal public administration;

improve integration with the private sector; and supplement the range of other basic digital tools such as distance services, electronic signatures, and the Digital Document Management (Gestión Documental Digital, or GDE) system, with a view to generating and storing official electronic documents digitally. During the pandemic, online identity verification services have been key for allowing both access to and use of the Distance Services (Trámites a Distancia) platform. Compared to the earlier period (June 2016-April 2020), the period during the pandemic (April-August 2020) saw increases of 130 percent in the number of registered users, 41 percent in completed transactions, 22 percent in documents produced digitally/ through the platform, and 59 percent in revenue from digital transactions.

Online identity verification allows citizens to access public and private services securely, reliably, and more simply, even in situations as complex as the pandemic. The number of identity providers and users on the platform continues to grow, and the Undersecretariat of Administrative Innovation is clear that as more interactions and transactions are carried out using the internet, it will be crucial to continue strengthening digital identity systems and their adoption by citizens. This explains its commitment to continue improving the platform and user experience, promoting greater inter-operability between government entities, including more nongovernmental actors, and strengthening security systems and protocols.

Online identity verification services have been key for allowing both **access to and use of the Distance Services.**





Jamaica. The eBRF Form: Facilitating Starting a Business during the Pandemic²⁸

Governments across the world have been forced to make difficult decisions to balance citizens' health and economic activity. This has led to the temporary or permanent closure of businesses, linked to lockdown measures and the impact of the pandemic on the economy. In this context, government resources to assist businesses are critical. A noteworthy example of this is Jamaica, where the entire process of registering a company can be completed

online thanks to the Electronic Business Registration Form (eBRF). This online form, unique in the Caribbean region, is issued by the Companies Office of Jamaica (COJ), an executive agency responsible for registering and regulating companies and trade names, as well as other related services. The eBRF was developed by the COJ in partnership with the Cabinet Office's Public Sector Transformation and Modernisation Programme (PSTM)

and with the support of the IDB-financed Public Sector Efficiency Program.²⁹

Users can access the eBRF through the [COJ's website](#) using a computer or smart phone. They fill out the interactive form, upload the required documentation, and make the necessary payments. The application can be tracked online, and the COJ responds via email within two days, providing an electronic copy of the Registration Certificate.

²⁸ We are grateful for the information provided by the COJ and the support of Francesco De Simone, Modernization of the State Senior Specialist (IDB), and consultant Althea Deanie McBean (IDB) in preparing this section.

²⁹ The form was implemented in two phases: phase 1 in 2018, to facilitate the implementation of business name reservation and registration for sole proprietors and partnerships (individual); and phase 2 in August 2019, for corporate sole proprietors and partnerships, as well as company incorporation (limited by shares and limited by guarantee). More information can be found on the [Ministry of Industry, Trade, and Investment](#) and [Jamaica Information System](#) websites.



eBRF achievements



More than
800 Online registrations in
the first half of 2020



6th

in the world in the “**Starting a Business**”
category in the World Bank’s *Doing
Business* rankings.

In the ranking *Doing Business*, its
score increased from



A key step toward creating the eBRF was the introduction in 2014 of the first online form on the [COJ website](#), which replaced a paper Superform. This offered a single window for registering a business,

allowing companies to perform the transaction just once instead of separately with another three or four government agencies. As a result, the number of forms required was reduced from 13 to one

to register a business and two for companies (World Bank, 2020). The simplified process has reduced registration times for businesses from five days to one or two days.

This, in turn, has led to an increase in online registrations, which rose from around 10 in 2019 to more than 800 in the first half of 2020 (representing 25 percent of all registrations). Of these, 400 occurred in the March-May period alone (Government of Jamaica, 2020). The eBRF has helped to simplify and digitize the business registration process, making it a key support for entrepreneurs and for fostering the creation of businesses. It has also created an additional source of revenue to support COJ operations and help to offset the decline in fees from in-person registration due to the lockdown. The availability of an online registration form has also helped to generate updated data that the COJ can access and share securely with other government agencies (such as the Tax Administration Services Department) to support more coordinated and timely decision making.

After just one year of full operations and against the complex backdrop of the pandemic, the eBRF has gained the recognition of the local international business community and has positioned Jamaica as a regional leader in terms of opening businesses.

Indeed, Jamaica ranks sixth in the world in the “Starting a Business” category in the World Bank’s *Doing Business* rankings. Its score increased from 81.5 in 2004 to 97.4 in 2020,³⁰ and it has become the best-performing country in Latin America and the Caribbean.³¹ The country’s rise in the rankings is largely due to the fact that it reduced the process of creating a business to just two steps: verifying availability of the business name and submitting the application forms. The ave-

rage number of steps is 8.2 in Latin America and the Caribbean and 4.9 in countries belonging to the Organisation for Economic Co-operation and Development (OECD).³²

The development of the eBRF represents another step forward in Jamaica’s ongoing efforts to modernize and digitize government services with a view to improving efficiency, effectiveness, and customer service across the entire public sector. These reforms have had a substantial impact in the context of the COVID-19 crisis, as they have allowed continuity of public service delivery. Once the pandemic comes to an end, the ease of registering a new business or company will be a powerful support for economic recovery in the country, fostering business creation, encouraging greater local and foreign investment, attracting more entrepreneurs into the formal economy, broadening the tax base, and promoting higher levels of employment.

³⁰ The methodology has changed a number of times over the years.

³¹ More information can be found on the [World Bank website](#).

³² *Wait No More: Citizens, Red Tape, and Digital Government Caribbean Edition*. Box 1, p.23.



Ecuador. When a Government Transaction Is Key for Public Health: The Digital Death Registry³³

The beginning of the pandemic in Ecuador was marked by rapid growth in the number of cases of COVID-19 and deaths. This made it essential to keep population registries up to date so as to identify and support the provinces with the most urgent needs. Such was the case of the Province of Guayas, the epicenter of the COVID-19 crisis in the country, which registered more than 9,000 deaths in the month of April alone. Consequently, the demand for death registrations was high. Against this backdrop of crisis, and with a progressive tightening of lockdown measures, the Civil Registration, Identification, and Documentation Directorate (Dirección

General de Registro Civil, Identificación y Cedulación, or DIGERCIC) adapted swiftly by expanding its digital channels, thus ensuring continuity in the delivery of civil registry and identification services.

Only two weeks after the introduction of lockdown, the platform for receiving online death registration applications was already up and running. Thanks to this service, citizens can register online with the Virtual [Civil Registry Agency](#), select the death certificate service, enter the details of the deceased, and upload the Death Registration Form,³⁴ which needs to be completed and signed by the health professional or

individual responsible for the health facility that attended the deceased. The Civil Registry subsequently issues the Death Certificate and sends it out by email.

Since the transaction does not need to be performed in person, the digital Death Certificate has helped to protect the health of both citizens and public officials. It is a faster and more straight-forward option for families to manage the legal identity of their deceased relatives. In the period from April to August 2020, approximately 50 percent of deaths in Ecuador were registered online.³⁵

³³ We are grateful for the information provided by staff of the Civil Registration, Identification, and Documentation Directorate (Dirección General de Registro Civil, Identificación y Cedulación or DIGERCIC, in Spanish) of Ecuador, as well as the support of Camila Mejía Giraldo, Modernization of the State Senior Specialist (IDB), and consultants Fabricio Rodríguez and Verónica Vásquez (IDB) in preparing this section.

³⁴ Available through the [National Statistics and Census Institute](#) website.

³⁵ Since September, however, online death registrations have declined, due in part to the elimination of free registrations within 48 hours of death and the introduction of extended hours for in-person channels.

The rapid implementation of the digital Death Certificate was possible due to the existence of the Virtual Civil Registry Agency.³⁶ Launched in 2017, this virtual platform allows a variety of certificates to be downloaded via the internet (births, civil partnerships, marriage, death, etc.). It has continued to broaden its portfolio of digital services during the pandemic, extending expiry dates for identity cards, expanding the usage of identity and marital status certificates (which have the same validity as identity cards but at a lower cost), and offering online services 24/7. Another recently added service is appointment scheduling, which was introduced gradually starting in May 2020. From June to November of that year, demand was high for transactions such as the issuance of identity documents (470,000 appointments), birth registrations

(117,000), and passport applications (114,000). This helped to minimize waiting time in offices, reducing the risk of exposure and transmission of the coronavirus.

Thanks to the growing availability of online services, there has been an increase in the number of people preferring the virtual channel. In May 2019, there were almost 13,000 users registered with the Virtual Agency; by October 2020, the figure was over 82,000. The number of electronic certificates issued has also increased significantly, rising from an average of 6,000 in 2019 to more than 15,000 in 2020, with a peak of more than 21,000 in May alone.

This resilience and ability to adapt has been underpinned by a comprehensive strategy that has been underway for more than a decade: the Modernization Plan of the

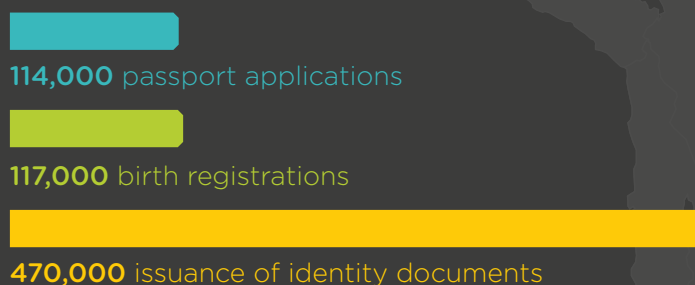
General Directorate of Civil Registry, Identification and Identification Cards (Dirección General de Registro Civil, Identificación y Cedulación, or DIGERCIC), launched by the government of Ecuador with IDB technical and financial support. This strategy seeks to simplify, expedite, and digitize Civil Registry operations and services to improve the coverage and quality of public service delivery. The initiative falls under the umbrella of the Ministry of Telecommunications' "Digital Ecuador" strategy, particularly the specific activities that seek to improve innovation and competitiveness in the country to create a digital technology-based economy, connect citizens to services, and make 100 percent of government transactions available online by 2022 (currently, 60 percent of transactions are digitized) ([Government of Ecuador](#)).

³⁶ The Virtual Agency is one of the many other digital channels developed by the Civil Registry, such as the [Electronic Services Portal](#) for validating citizens' identities and the Electronic Vital Data Registry (REVIT) for the online registration of live births.

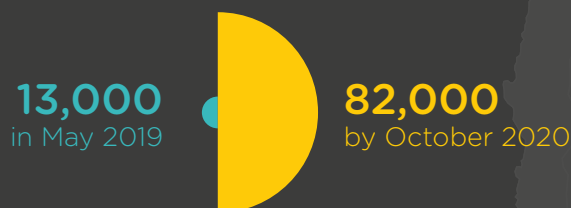
Despite the challenges of the pandemic, the Civil Registry has reaffirmed its commitment to ensuring timely registration and the reduction of under-registration in the country and has continued to make progress toward those goals. The institution is committed to further expanding the range of electronic civil registry and identification services, strengthening coordination with other government entities, and improving communication with citizens to increase their adoption of digital services and trust in their validity. This may have very positive effects in terms of condensing the number of transactions required and avoiding duplication, between transactions such as death certificates and death forms. Accordingly, it expects to continue consolidating the modernization project in the post-pandemic period, serving all citizens who require its services and continuing to improve registration culture in the country, thus safeguarding the principle of legal identity for the entire population.



From June to November of 2020, Demand Was High for Online Transactions



Users Registered with the Virtual Agency



Number of Electronic Certificates





Guatemala. Filing Crime Reports Electronically: Connecting the Public Prosecutor's Office to Citizens³⁷

The situation of uncertainty, economic crisis, and confinement at home created by COVID-19 has led to a drastic increase in crimes such as domestic violence (*Sin Miedos*, IDB, 2020). Institutions responsible for dispensing justice, such as Guatemala's Public Prosecutor's Office (Ministerio Público, or MP), therefore play an important role. The MP is committed to digital transformation as a means of both offering a variety of service channels and extending its services to all households in the country, particularly given the environment of emergency and isolation. The aim is to achieve more immediate and comprehensive care for victims while

improving the effectiveness of prosecutors' offices.

Prior to the pandemic, the MP already had digital tools in place that allowed it to continue providing services. These include the Sistema de Denuncias Electrónicas (Electronic Reporting System), launched in December 2018 for the reporting of administrative offenses such as stolen or missing cell phones, objects, and personal documents, and the *Reportes MP* (MP Reports) app,³⁸ which facilitates the reporting of crimes such as extortion and violence against women. *Reportes MP* also offers a panic button function³⁹ that allows victims of gender-ba-

sed or domestic violence to alert special agents of the National Civil Police Force, who then send a patrol to that person's home.

To complement its range of digital services, in November 2020 the MP launched a redesign of its website and extended coverage of the Electronic Reporting System through "Yo Denuncio (I Report)," in coordination with the Electronic Investigation Control System of the Public Prosecutor's Office (Sistema Informático de Control de la Investigación del Ministerio Público, or SICOMP). This now allows a report to be filed on any criminal event.⁴¹

³⁷ We are grateful for the information provided by the staff of Guatemala's MP and the support of Andrés Restrepo, Citizen Security Lead Specialist (IDB), in preparing this section.

³⁸ Currently only available on Android systems.

³⁹ More information can be found on the website for the MP's [Women's Observatory](#).

⁴⁰ For further information, see [República](#).

In October 2020, the MP recorded around 30,000 reports

15% were submitted electronically

The Electronic Reporting System is available 24/7 and allows individuals or institutions to file crime reports or service complaints using their computer, tablet, or cell phone. Citizens can conduct these processes through the MP website⁴² or the *Reportes MP* app and must confirm their details by providing their Personal Identity Document number and date of birth (Guatemalan citizens) or their passport number and country of issue (foreigners). All reports are received by the Oficina de Atención Permanente [24-hour service office], which forwards them to the appropriate prosecutor's office within 5 to 6 hours on average. Once the prosecutor's office has reviewed the case, a certificate is then sent via email with an authorized

digital signature, ensuring security and legal validity.⁴³ The report number is unique and remains the same throughout the process, allowing the victim to track the status of the process. The MP receives around 400,000 reports per year. In October 2020, it recorded around 30,000, 15 percent of which (4,621) were submitted electronically (website and mobile app). Now that the platform accepts all types of crime reports, this number is expected to continue increasing.

In addition, the availability of a standardized report number and the SICOMP system means that all files managed by the MP can be entered, controlled, traced, and monitored digitally. Prosecutors can access information elec-

tronically, and coordination within teams and communication between MP staff is easier. All of this is highly necessary given the urgency of continuing to offer these services remotely during the health emergency.

Due to these advances in the digital field—which complement others underway, such as an expansion in national coverage, with 90 new municipal prosecutor's offices⁴⁴—progress continues toward the objectives of the MP's 2018–2023 Strategic Plan. The Plan aims to strengthen the rule of law in Guatemala, reinforce the MP's prosecution capabilities, and improve access and quality in justice services for all those in Guatemalan territory.

⁴² See the [MP website](#) for further information.

⁴³ For further information, see [Prensa Libre](#).

⁴⁴ Between 1994 and May 2018, the MP only covered 16 percent of the country (64 municipalities). However, this was increased to 54 percent (183 municipalities) in the period from May 2018 to February 2020. Ninety new MP agencies were expected to open over the remainder of 2020, with the goal of achieving 100 percent coverage of the country within a short space of time.

A woman wearing a face mask and a dark blazer over a white top is holding a dark folder. She is looking slightly to the left. The background is blurred, showing other people, including a man in a white shirt and another person in a white shirt. The entire image has a teal overlay. In the bottom left corner, there are several white circles of different sizes, resembling a virus or a splash.

POLICY RECOMMENDATIONS

The evidence presented in this report allows us to draw conclusions and identify key areas for improvement in terms of continuity of access to services, supply of digital services, and the operations of government institutions amid the pandemic.

Based on this experience, countries are expected to continue deepening their digital transformation with a view to improving the quantity and quality of services offered through digital channels. Recommendations are categorized according to the three perspectives addressed in the study: citizens, government officials, and government institutions.



Citizens. The following measures are recommended to foster continuity of access to public services:

Expand the supply of online services

The study shows that a significant proportion of citizens were unable to access a desired service, mainly because the relevant office was closed, and the service was not available online. Similarly, many citizens who conducted in-person transactions felt that they were endangered by sharing the physical space with others. To avoid gaps in access—and in-person experiences that pose a risk to health—it will be critical to continue digitizing services, ensuring that each process is available online from beginning to end.

Improve user experience

Digital government transactions should be quick, intuitive, and accessible to all. Digitization alone is not enough: it is crucial that all users are able to (and want to) use the services offered online. Many citizens have endured complicated digital experiences, to the extent that some say they will avoid using the digital channel in the future. These results send a clear message: the usability of digital transactions needs to be improved. To improve the user experience, it first needs to be understood using methods such as direct observation, co-design pro-

cesses with users, surveys, the Standard Cost Model, or mystery shopper exercises.

It is also recommended that practices already proven by digital teams from around the world be implemented to study user experiences and constantly develop new iterations of services.



Civil Servants. The following steps are recommended to foster continuity in the work of government officials:

Provide more laptops with secure remote access platforms

Many government officials in the region have experienced difficulties in performing critical tasks, due largely to a lack of access to their files and office programs. This is understandable given the low percentage of officials that have employer-provided laptops and/or remote work platforms, and it has led many officials to use their own devices for work, as well as nonofficial services such as cloud storage (e.g., Dropbox). Providing all officials with employer laptops equipped with work collaboration platforms (e.g., Google Suite, Microsoft Teams, etc.) would facilitate access to key tools and documents, provide greater data security, and

offer a means of real-time communication and collaboration, irrespective of where an official is located.

Build more digital systems to support administrative management

Many officials had to go to their offices to access data, approve transactions, or sign, collect, send, or stamp documents.

All of these tasks could have been performed remotely and securely using a set of digital government tools such as digital identification, interoperability, and document management and electronic file systems, all available in the cloud.

Provide greater support to officials working from home

Officials responding to the surveys reported experiencing limited access to digital government tools, a lack of training for telework, increased workloads, scant support from supervisors, and difficulty maintaining work-life balance. In light of the uncertainties, urgent needs, and concerns created by the pandemic, which could lead to other crises, it is essential that officials be supported in working from home. Factors such as access infrastructure, training, and opportunities for dialogue and teamwork can help to foster productivity, motivation, and well-being among public officials.



Institutions. The following measures are recommended with a view to providing the tools that citizens and public officials need:

Strengthen digital lead agencies and the foundations for digital transformation

The surveys and case studies demonstrate a marked increase in dependence on digital tools for both delivering and accessing public services. Behind these tools are human teams who have worked against the clock to create new digital services, digitize existing ones, and support remote work by the rest of the public administration. To improve governments' ability to respond digitally to a crisis like COVID-19, it will be critical to strengthen those responsible for the digital transformation. It is unrealistic to expect digital resilience to be the solution for adapting

to the pandemic—or any other crisis—unless these teams are strong. These lead agencies are responsible for spearheading digital transformation and thus require trained, multidisciplinary teams, sufficient budgets, an enabling regulatory framework, and political support to fulfill their important missions.

At the same time, digital lead agencies must have sufficient political and budgetary support to build, implement, and maintain the technological and regulatory foundations for digital transformation. Experience shows that those countries and institutions that already had tools to enable digital transformation—interoperability platforms, digital identifica-

tion and signature systems, electronic filing and/or document management systems, and the corresponding regulatory frameworks—were able to adapt swiftly to circumstances, using existing tools to expand their range of services for the benefit of both officials and citizens. More investment in these enabling tools will ensure that countries are more digitally resilient in the face of any future adverse circumstances.

Cybersecurity is key for protecting against the risks associated with the more intensive use of digital systems and should also be taken into account.

Citizens



Expand the supply of online services.

Civil servants



- Provide more laptops with secure remote access platforms.
- Build more digital systems to support administrative management.
- Provide greater support to officials working from home.

Institutions



Strengthen digital lead agencies and the foundations for digital transformation.



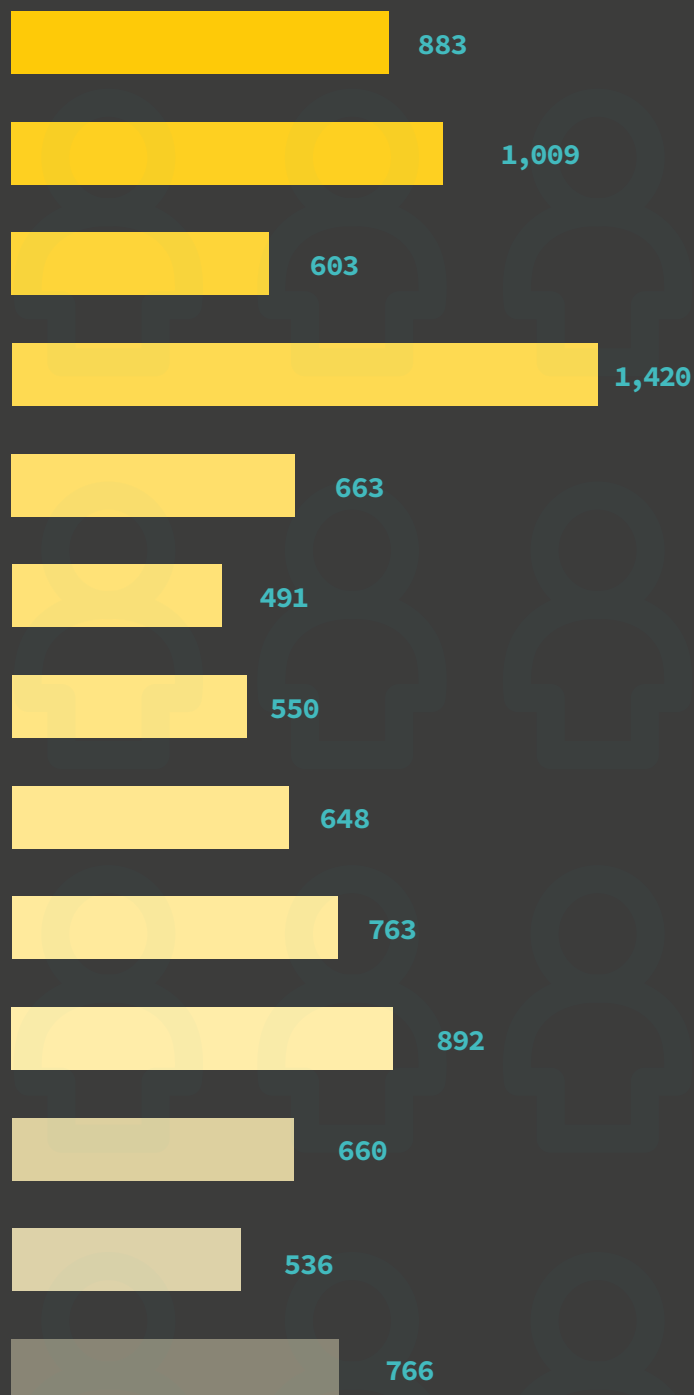
METHODOLOGICAL ANNEX

A.1. Citizen Surveys (telephone and Facebook)

Country	Telephone survey	Facebook survey
Argentina	-	1,856
Chile	1,000	1,776
Colombia	-	1,598
Costa Rica	984	2,249
Ecuador	994	1,819
El Salvador	995	1,666
Honduras	997	1,949
Mexico	1,213	1,412
Panama	992	1,401
Paraguay	1,021	1,823
Peru	1,007	1,871
Trinidad and Tobago	-	1,277
Uruguay	1,004	1,419

TOTAL: 10,207 22,116

A.2. Number of Citizens Who Completed a Government Transaction Online during the Pandemic (Facebook survey)



TOTAL: 9,834



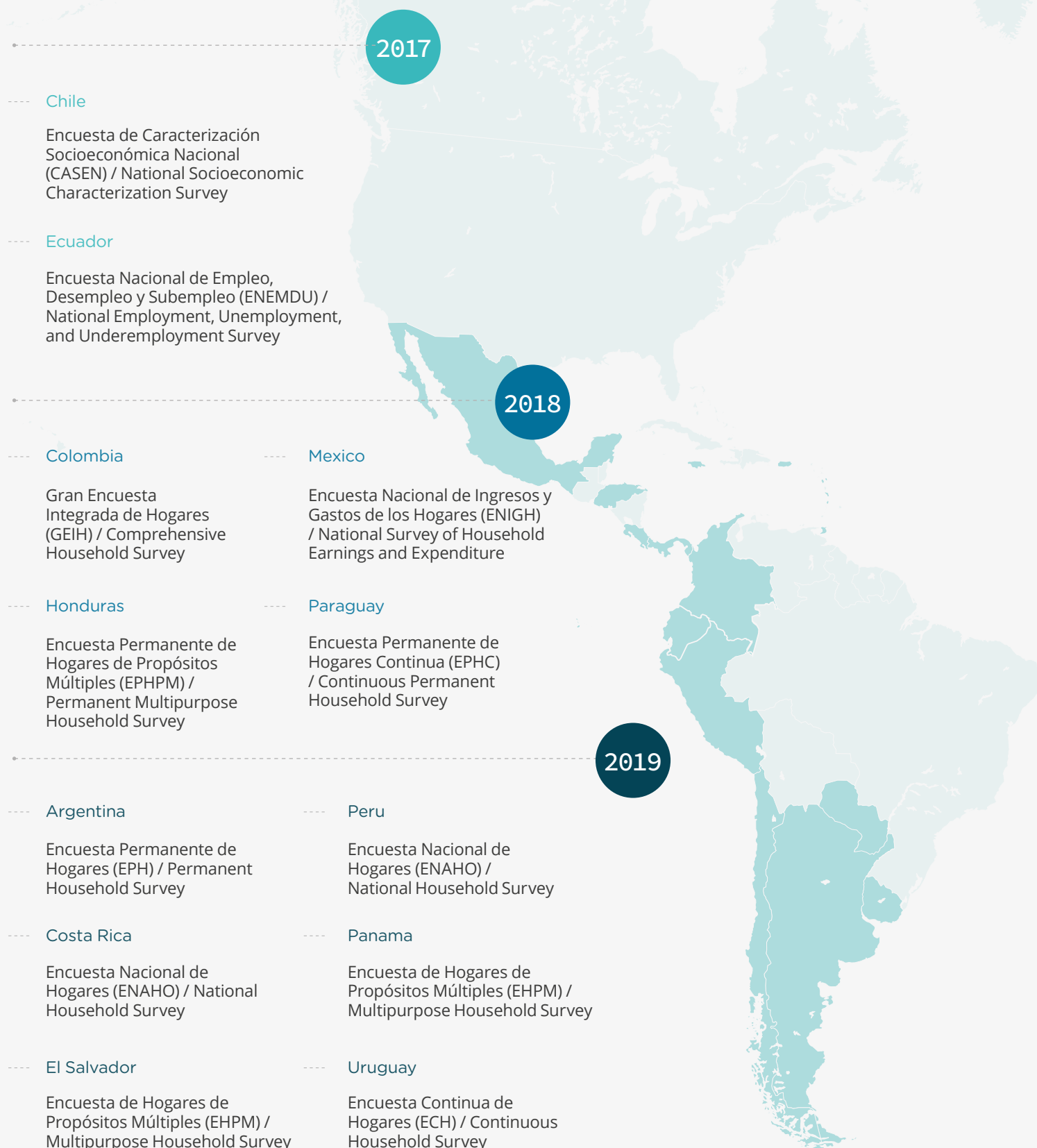
Facebook Survey: Description of the Statistical Raking Process

The citizen survey (Facebook) is a non-probabilistic online survey carried out on a voluntary basis. Accordingly, ex-post statistical adjustments were required to correct its representativeness and permit its findings to be generalized to the population of each country. To this end, the calibration algorithm known as iterative proportional fitting, or raking, was used through the statistics [program Stata](#) (version MP 15.1). This method involves the use of a data source that is representative of the desired population—e.g., a household survey or population census. For this study, microdata from national household surveys were used, which are availa-

ble through the IDB's Center for Harmonized Microdata from Latin American and Caribbean Household Surveys (CMAEH). In Stata, the process begins with calculation of the matrices corresponding to the population totals for the different variables selected for adjustment (in this case, gender, age, and level of education were chosen). The education level variable used for the raking procedure is specific to the education system in each country. Once these totals have been calculated, they are saved in matrices in Stata's memory. The *ipfraking* calibration algorithm is then applied. Given that this weight adjustment involves more than one variable, the

process is an iterative one. The weights are adjusted so that the groups for the first variable are in the correct proportion, and they are then adjusted for the second variable. If the distribution for the first variable is disrupted, the weights are adjusted a second time. This process is repeated until the resulting weights ensure that the distribution of the variables either coincides with or is as close as possible to the population of the surveys. The algorithm adjusts the proportions for the gender, age group, and level of education variables in the sample so that they agree with the distribution in the household surveys, which are representative.

A.3. Household Surveys Used



A.4.

Population Parameter Comparison Tables for the Citizen Survey (Facebook, pre- and post-raking) and the Respective Household Survey, by Country and Gender, Age Group, and Level of Education

Gender

COUNTRY	GENDER	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n.º	%	n.º	%	n.º	%
Argentina	Male	493	26.56	6,887,833	43.14	9,745,788	47.02
	Female	1,363	73.44	9,077,442	56.86	10,980,428	52.98
	Total	1,856	100.00	15,965,275	100.00	20,726,216	100.00
Chile	Male	367	20.66	4,610,926	39.65	6,307,136	46.32
	Female	1,409	79.34	7,018,352	60.35	7,310,337	53.68
	Total	1,776	100.00	11,629,278	100.00	13,617,473	100.00
Colombia	Male	454	28.41	13,362,901	44.46	16,138,072	48.14
	Female	1,144	71.59	16,692,606	55.54	17,383,185	51.86
	Total	1,598	100.00	30,055,507	100.00	33,521,257	100.00
Costa Rica	Male	807	35.88	1,409,367	43.00	1,800,869	47.56
	Female	1,442	64.12	1,868,042	57.00	1,985,647	52.44
	Total	2,249	100.00	3,277,409	100.00	3,786,516	100.00
Ecuador	Male	789	43.38	4,254,608	46.97	5,231,977	48.17
	Female	1,030	56.62	4,804,317	53.03	5,630,182	51.83
	Total	1,819	100.00	9,058,925	100.00	10,862,159	100.00
El Salvador	Male	557	33.43	1,309,173	42.30	1,797,820	46.36
	Female	1,109	66.57	1,785,843	57.70	2,080,328	53.64
	Total	1,666	100.00	3,095,016	100.00	3,878,148	100.00
Honduras	Male	777	39.87	1,178,788	45.79	2,442,964	46.68
	Female	1,172	60.13	1,395,310	54.21	2,790,871	53.32
	Total	1,949	100.00	2,574,098	100.00	5,233,835	100.00
Mexico	Male	543	38.46	28,131,076	45.50	40,544,146	47.30
	Female	869	61.54	33,688,764	54.50	45,168,134	52.70
	Total	1,412	100.00	61,819,840	100.00	85,712,280	100.00
Panama	Male	513	36.62	922,861	41.67	1,352,041	47.95
	Female	888	63.38	1,291,709	58.33	1,467,573	52.05
	Total	1,401	100.00	2,214,570	100.00	2,819,614	100.00
Paraguay	Male	669	36.70	1,584,574	51.61	2,224,507	50.00
	Female	1,154	63.30	1,485,774	48.39	2,224,206	50.00
	Total	1,823	100.00	3,070,348	100.00	4,448,713	100.00
Peru	Male	985	52.65	8,557,855	50.01	10,596,337	49.28
	Female	886	47.35	8,554,343	49.99	10,905,072	50.72
	Total	1,871	100.00	17,112,198	100.00	21,501,409	100.00
Uruguay	Male	259	18.25	788,073	37.74	1,245,683	47.45
	Female	1,160	81.75	1,300,060	62.26	1,379,803	52.55
	Total	1,419	100.00	2,088,133	100.00	2,625,486	100.00
Trinidad and Tobago	Male	241	18.87	360,033	41.71	517,010	49.42
	Female	1,036	81.13	503,120	58.29	529,187	50.58
	Total	1,277	100.00	863,153	100.00	1,046,197	100.00

Age

COUNTRY	AGE	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n.º	%	n.º	%	n.º	%
Argentina	18-24 years	33	1.78	810,660	5.08	3,149,707	15.20
	25-34 years	109	5.87	2,300,177	14.41	4,018,616	19.39
	35-44 years	245	13.20	3,258,878	20.41	3,811,457	18.39
	45-59 years	602	32.44	4,511,357	28.26	4,661,701	22.49
	60+ years	867	46.71	5,084,203	31.85	5,084,735	24.53
	Total	1,856	100.00	15,965,275	100.00	20,726,216	100.00
Chile	18-24 years	48	2.70	1,114,593	9.58	2,004,384	14.72
	25-34 years	179	10.08	2,136,000	18.37	2,615,976	19.21
	35-44 years	273	15.37	1,955,135	16.81	2,139,895	15.71
	45-59 years	664	37.39	3,255,770	28.00	3,430,401	25.19
	60+ years	612	34.46	3,167,780	27.24	3,426,817	25.16
	Total	1,776	100.00	11,629,278	100.00	13,617,473	100.00
Colombia	18-24 years	58	3.63	4,158,650	13.84	5,832,672	17.40
	25-34 years	185	11.58	6,488,597	21.59	7,618,999	22.73
	35-44 years	413	25.84	6,070,749	20.20	6,285,201	18.75
	45-59 years	634	39.67	7,764,639	25.83	7,816,686	23.32
	60+ years	308	19.27	5,572,872	18.54	5,967,699	17.80
	Total	1,598	100.00	30,055,507	100.00	33,521,257	100.00
Costa Rica	18-24 years	200	8.89	504,260	15.39	583,897	15.42
	25-34 years	622	27.66	759,612	23.18	770,055	20.34
	35-44 years	789	35.08	691,963	21.11	692,485	18.29
	45-59 years	456	20.28	831,017	25.36	912,090	24.09
	60+ years	182	8.09	490,557	14.97	827,989	21.87
	Total	2,249	100.00	3,277,409	100.00	3,786,516	100.00
Ecuador	18-24 years	105	5.77	1,264,808	13.96	2,009,320	18.50
	25-34 years	333	18.31	2,085,682	23.02	2,534,768	23.34
	35-44 years	740	40.68	2,103,006	23.21	2,190,156	20.16
	45-59 years	484	26.61	2,267,421	25.03	2,358,908	21.72
	60+ years	157	8.63	1,338,008	14.77	1,769,007	16.29
	Total	1,819	100.00	9,058,925	100.00	10,862,159	100.00
El Salvador	18-24 years	94	5.64	408,144	13.19	697,241	17.98
	25-34 years	237	14.23	598,224	19.33	914,070	23.57
	35-44 years	402	24.13	730,119	23.59	795,640	20.52
	45-59 years	642	38.54	853,048	27.56	859,185	22.15
	60+ years	291	17.47	505,481	16.33	612,012	15.78
	Total	1,666	100.00	3,095,016	100.00	3,878,148	100.00

COUNTRY	AGE	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n.º	%	n.º	%	n.º	%
Honduras	18-24 years	121	6.21	562,337	21.85	999,471	19.10
	25-34 years	447	22.93	428,069	16.63	1,185,576	22.65
	35-44 years	574	29.45	584,982	22.73	1,007,005	19.24
	45-59 years	629	32.27	633,784	24.62	1,106,392	21.14
	60+ years	178	9.13	364,926	14.18	935,391	17.87
	Total	1,949	100.00	2,574,098	100.00	5,233,835	100.00
Mexico	18-24 years	32	2.27	7,935,214	12.84	14,846,054	17.32
	25-34 years	91	6.44	14,741,696	23.85	18,201,014	21.24
	35-44 years	307	21.74	12,093,197	19.56	16,965,364	19.79
	45-59 years	558	39.52	15,685,190	25.37	20,552,197	23.98
	60+ years	424	30.03	11,364,543	18.38	15,147,651	17.67
	Total	1,412	100.00	61,819,840	100.00	85,712,280	100.00
Panama	18-24 years	102	7.28	391,597	17.68	472,588	16.76
	25-34 years	283	20.20	389,852	17.60	495,496	17.57
	35-44 years	353	25.20	388,188	17.53	506,091	17.95
	45-59 years	460	32.83	543,543	24.54	725,098	25.72
	60+ years	203	14.49	501,390	22.64	620,341	22.00
	Total	1,401	100.00	2,214,570	100.00	2,819,614	100.00
Paraguay	18-24 years	144	7.90	642,833	20.94	900,652	20.25
	25-34 years	432	23.70	532,609	17.35	1,157,668	26.02
	35-44 years	530	29.07	729,435	23.76	858,542	19.30
	45-59 years	536	29.40	746,577	24.32	901,227	20.26
	60+ years	181	9.93	418,894	13.64	630,624	14.18
	Total	1,823	100.00	3,070,348	100.00	4,448,713	100.00
Peru	18-24 years	49	2.62	2,041,754	11.93	3,493,213	16.25
	25-34 years	102	5.45	2,969,525	17.35	4,084,626	19.00
	35-44 years	314	16.78	3,443,966	20.13	4,170,730	19.40
	45-59 years	753	40.25	4,773,057	27.89	5,393,390	25.08
	60+ years	653	34.90	3,883,896	22.70	4,359,450	20.28
	Total	1,871	100.00	17,112,198	100.00	21,501,409	100.00
Uruguay	18-24 years	79	5.57	250,961	12.02	379,203	14.44
	25-34 years	206	14.52	317,904	15.22	449,161	17.11
	35-44 years	255	17.97	391,208	18.73	483,659	18.42
	45-59 years	404	28.47	553,906	26.53	635,730	24.21
	60+ years	475	33.47	574,154	27.50	677,733	25.81
	Total	1,419	100.00	2,088,133	100.00	2,625,486	100.00
Trinidad and Tobago	18-24 years	45	3.52	95,612	11.08	130,708	12.49
	25-34 years	230	18.01	175,368	20.32	228,903	21.88
	35-44 years	398	31.17	179,919	20.84	189,215	18.09
	45-59 years	403	31.56	237,270	27.49	268,304	25.65
	60+ years	201	15.74	174,984	20.27	229,067	21.90
	Total	1,277	100.00	863,153	100.00	1,046,197	100.00

Level of Education

COUNTRY	LEVEL OF EDUCATION	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n.º	%	n.º	%	n.º	%
Argentina	None, Nursery, Preschool, Prekindergarten, Kindergarten	6	0.32	104,047	0.65	136,428	0.66
	Primary, Basic Education	142	7.65	3,215,758	20.14	4,774,859	23.04
	Secondary, Upper Secondary, High School Diploma	583	31.41	6,851,383	42.91	8,666,971	41.82
	Tertiary, University/Nonuniversity Qualification, Postgraduate	1,125	60.61	5,794,087	36.29	7,147,958	34.49
	Total	1,856	100.00	15,965,275	100.00	20,726,216	100.00
Chile	None, Nursery, Preschool, Prekindergarten, Kindergarten	17	0.95	91,337	0.78	274,947	2.02
	Primary, Basic Education	133	7.49	2,169,828	18.66	3,040,152	22.33
	Secondary, Upper Secondary, High School Diploma	761	42.85	5,167,628	44.44	5,889,223	43.25
	Tertiary, University/Nonuniversity Qualification, Postgraduate	862	48.54	4,163,092	35.8	4,367,919	32.08
	Other	3	0.17	37,393	0.32	45,232	0.33
	Total	1,776	100.00	11,629,278	100.00	13,617,473	100.00
Colombia	None, Nursery, Preschool, Prekindergarten, Kindergarten	12	0.75	872,198	2.9	1,813,357	5.41
	Primary, Basic Education	147	9.2	7,705,916	25.64	8,552,440	25.52
	Secondary, Upper Secondary, High School Diploma	727	45.49	12,567,842	41.82	14,043,558	41.9
	Tertiary, University/Nonuniversity Qualification, Postgraduate	712	44.56	8,909,551	29.64	9,107,892	27.17
	Total	1,598	100.00	30,055,507	100.00	33,517,247	100.00
Costa Rica	None, Nursery, Preschool, Prekindergarten, Kindergarten	67	2.98	99,921	3.05	125,851	3.33
	Primary, Basic Education	222	9.87	994,974	30.36	1,360,032	35.92
	Secondary, Upper Secondary, High School Diploma	538	23.92	1,320,199	40.28	1,437,404	37.96
	Tertiary, University/Nonuniversity Qualification, Postgraduate	1,422	63.23	862,315	26.31	863,229	22.8
	Total	2,249	100.00	3,277,409	100.00	3,786,516	100.00

COUNTRY	LEVEL OF EDUCATION	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n.º	%	n.º	%	n.º	%
Ecuador	None, Nursery, Preschool, Prekindergarten, Kindergarten	17	0.93	311,237	3.44	584,914	5.38
	Primary, Basic Education	232	12.75	2 609,383	28.8	3,689,933	33.97
	Secondary, Upper Secondary, High School Diploma	680	37.38	3,918,584	43.26	4,367,434	40.21
	Tertiary, University/Nonuniversity Qualification, Postgraduate	890	48.93	2,219,721	24.5	2,220,168	20.44
	Total	1,819	100.00	9,058,925	100.00	10,862,449	100.00
El Salvador	None, Nursery, Preschool, Prekindergarten, Kindergarten	26	1.56	46,104	1.49	103,644	2.67
	Primary, Basic Education	200	12	1,545,800	49.94	2,233,646	57.6
	Secondary, Upper Secondary, High School Diploma	450	27.01	1,088,230	35.16	1,125,652	29.03
	Tertiary, University/Nonuniversity Qualification, Postgraduate	974	58.46	413,203	13.35	413,520	10.66
	Other	16	0.96	1,679	0.05	1,686	0.04
	Total	1,666	100.00	3,095,016	100.00	3,878,148	100.00
Honduras	None, Nursery, Preschool, Prekindergarten, Kindergarten	33	1.69	57,567	2.23	657,889	12.57
	Primary, Basic Education	63	3.23	845,586	32.85	2,878,647	55
	Secondary, Upper Secondary, High School Diploma	387	19.86	1,304,852	50.69	1,330,695	25.42
	Tertiary, University/Nonuniversity Qualification, Postgraduate	1,466	75.22	366,093	14.22	366,604	7
	Total	1,949	100.00	2,574,098	100.00	5,233,835	100.00
Mexico	None, Nursery, Preschool, Prekindergarten, Kindergarten	3	0.21	839,634	1.36	4,777,245	5.57
	Primary, Basic Education	41	2.9	11,474,998	18.56	21,059,014	24.57
	Secondary, Upper Secondary, High School Diploma	423	29.96	29,632,666	47.93	39,557,894	46.15
	Tertiary, University/Nonuniversity Qualification, Postgraduate	945	66.93	19,872,542	32.15	20,318,127	23.71
	Total	1,412	100.00	61,819,840	100.00	85,712,280	100.00
Panama	Primary, Basic Education	2	0.14	14,896	0.67	106,913	3.79
	Secondary, Upper Secondary, High School Diploma	23	1.64	171,304	7.74	645,900	22.91
	Tertiary, University/Nonuniversity Qualification, Postgraduate	334	23.84	1,275,333	57.59	1,313,211	46.57
	Other	1,042	74.38	753,037	34	753,590	26.73
	Total	1,401	100.00	2,214,570	100.00	2,819,614	100.00

COUNTRY	LEVEL OF EDUCATION	CITIZENS (pre raking)		CITIZENS (post raking)		HOUSEHOLD SURVEY	
		n. ^o	%	n. ^o	%	n. ^o	%
Paraguay	None, Nursery, Preschool, Prekindergarten, Kindergarten	19	1.04	30,839	1	30,845	0.69
	Primary, Basic Education	86	4.72	785,828	25.59	1,576,458	35.44
	Secondary, Upper Secondary, High School Diploma	558	30.61	1,151,365	37.5	1,737,982	39.07
	Tertiary, University/Nonuniversity Qualification, Postgraduate	1,150	63.08	1,099,023	35.79	1,100,131	24.73
	Other	10	0.55	3,293	0.11	3,297	0.07
	Total	1,823	100.00	3,070,348	100.00	4,448,713	100.00
Peru	Primary, Basic Education	2	0.14	14,896	0.67	106,913	3.79
	Secondary, Upper Secondary, High School Diploma	23	1.64	171,304	7.74	645,900	22.91
	Tertiary, University/Nonuniversity Qualification, Postgraduate	334	23.84	1,275,333	57.59	1,313,211	46.57
	Total	1,042	74.38	753,037	34	753,590	26.73
	None, Nursery, Preschool, Prekindergarten, Kindergarten	1,401	100.00	2,214,570	100.00	2,819,614	100.00
Uruguay	Primary, Basic Education	98	6.91	490,230	23.48	837,642	31.9
	Secondary, Upper Secondary, High School Diploma	521	36.72	1,271,369	60.89	1,460,865	55.64
	Tertiary, University/Nonuniversity Qualification, Postgraduate	800	56.38	326,534	15.64	326,979	12.45
	Other	1,419	100.00	2,088,133	100.00	2,625,486	100.00
Trinidad and Tobago	Ninguno, Jardín, Preescolar, Prekinder, Kinder	6	0.47	6,571	0.76	8,815	0.84
	Primaria, Educación Básica	63	4.93	170,114	19.71	303,400	29.00
	Secondary, Upper Secondary, High School Diploma	670	52.47	557,663	64.61	602,290	57.57
	Tertiary, University/Nonuniversity Qualification, Postgraduate	532	41.66	127,456	14.77	130,339	12.46
	Other	6	0.47	1,349	0.16	1,353	0.13
	Total	1,277	100.00	863,153	100.00	1,046,197	100.00

Survey of Government Officials

A.5. Sample by Country, Versions A and B

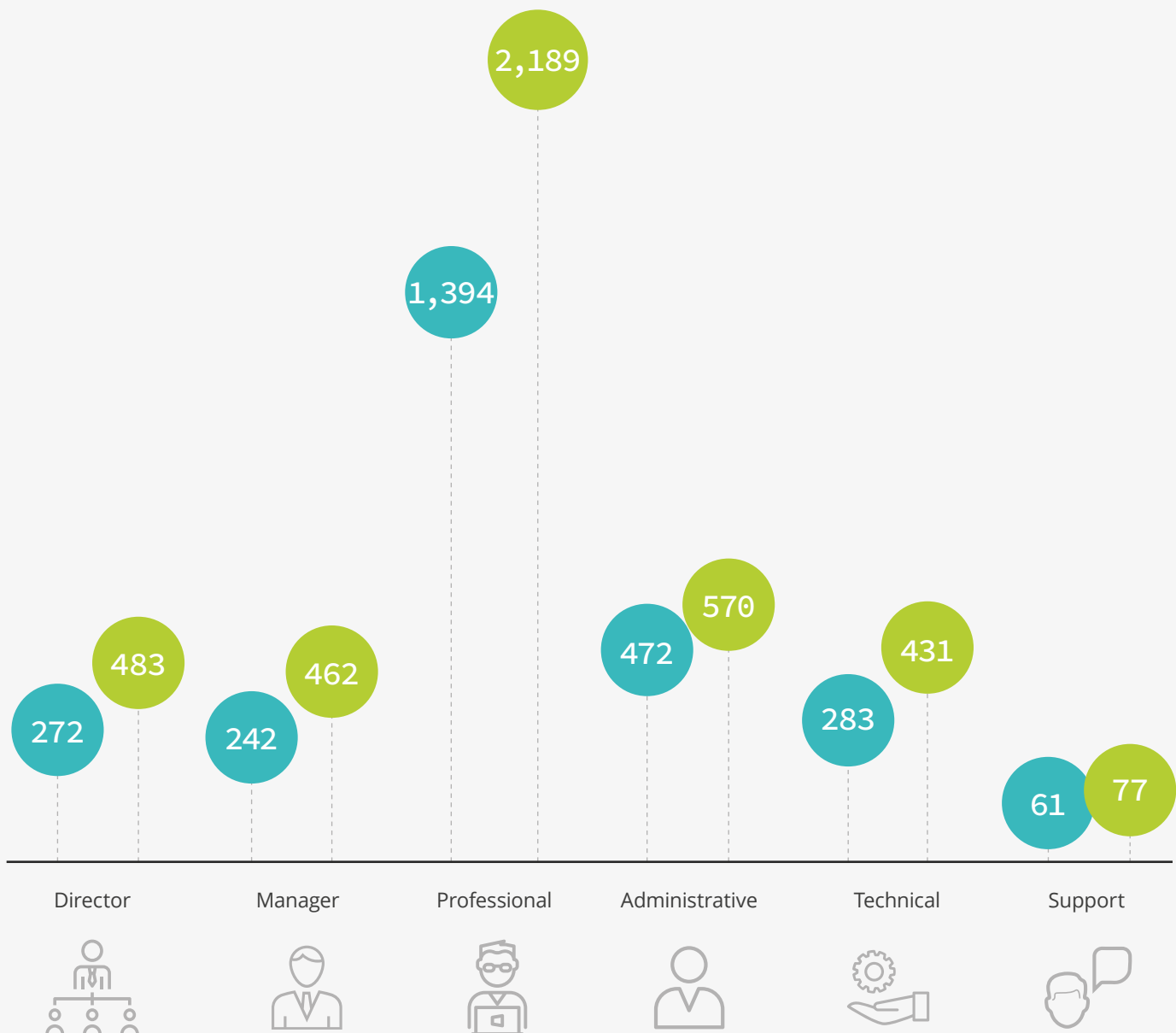


Descriptive Tables of the Survey of Government Officials. Education, and Seniority Levels

A.6.

Survey of Government Officials: Sample Distribution by Level of Seniority

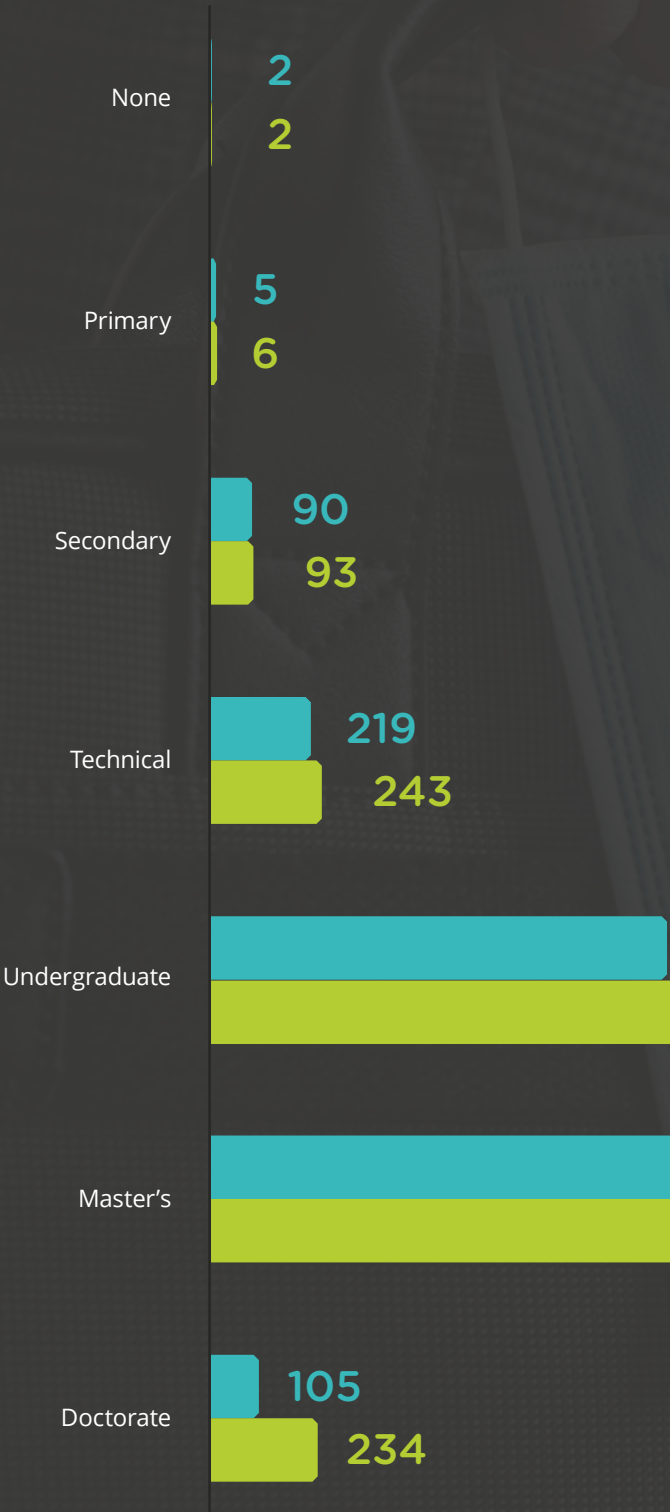
● Sample A ● Sample B





A.7.

Survey of Government
Officials: Sample Distribution
by Level of Education



A.8.

Survey of Government
Officials: Sample Distribution
by Level of Government

	Sample A	Sample B
National/Central	1,324	2,107
State/Departmental	724	1,130
Local/Municipal	676	975
Total	2,724	4,212



Details of Regressions

A.9.

Determinants of the Use of the Digital Channel (full or partial)

Data source: Citizen survey (telephone)

		(1) Use of the digital channel before COVID-19	(2) Use of the digital channel during COVID-19
Age (base:<25)	25-34	0.030 (0.030)	-0.001 (0.039)
	35-44	-0.016 (0.031)	-0.023 (0.041)
	45-59	0.008 (0.029)	-0.040 (0.046)
	60+	-0.094*** (0.029)	-0.093*** (0.046)
Education (base: Post-secondary)	Primary or none	-0.157*** (0.026)	-0.225*** (0.037)
	Secondary	-0.085*** (0.019)	-0.173*** (0.025)
Female		-0.023 (0.017)	-0.023 (0.024)
Outcome mean		0.231	0.393
Observations		2,262	1,556
R-squared		0.0777	0.131
Country Fixed Effects		Yes	Yes

This table presents the marginal effects of logit regressions using data from the telephone survey of citizens. Standard errors are clustered and displayed in parenthesis.***p<0.01, **p<0.05, *p<0.1

A.10.**Factors Determining whether a Citizen Would Conduct a Government Transaction Online Again**

Data source: Citizen survey (Facebook).

Would you conduct a transaction online again? (Yes = 1)

Reported ease of conducting an online transaction during COVID-19 (base: Easy or very easy)	Neither easy nor difficult	-0.098*** (0.012)
	Difficult or very difficult	-0.374*** (0.013)
Age (base:18-24)	25-34	0.060* (0.032)
	35-44	0.049 (0.030)
	45-59	0.030 (0.031)
	60+	0.044 (0.032)
Education (base: Post-secondary)	Primary or none	-0.137*** (0.035)
	Secondary	-0.073*** (0.014)
Female		-0.024* (0.012)
Outcome mean		0.763
Observations		4,571
Country Fixed Effects		Yes
R-squared		0.181

This table presents the marginal effects of a logit regression using data from the Facebook survey of citizens. Robust standard errors are displayed in parenthesis.***p<0.01, **p<0.05, *p<0.1

A.11.**Factors Determining the Likelihood that a Public Official Would Be Unable to Perform Critical Tasks during the Pandemic**

Data source: The survey of civil servants.

Were there any critical tasks that you were unable to perform during the pandemic? (Yes = 1)

Has employer-provided laptop	-0.059*** (0.022)
Access to organization's programs and files	-0.092*** (0.021)
Training in technological tools for telework	0.013 (0.022)
Outcome mean	0.465
Observations	2,724
Country Fixed Effects	Yes
R-squared	0.0235

This table presents the marginal effects of a logit regression using data from the survey of public servants. Robust standard errors are displayed in parenthesis.***p<0.01, **p<0.05, *p<0.1



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