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The **future** **of work**

in Latin America
and the Caribbean



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Index

1	Introduction	7
2	Why this?	9
3	What's up?	13
4	What's new?	21
5	What next?	35
	References	37



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www.iadb.org/futureofwork



1 | Introduction

The COVID-19 pandemic is society's most significant challenge in recent years. In addition to affecting millions of people's health, it is also [creating an economic and unemployment crisis around the world¹](#). The pandemic is changing the way of producing and consuming goods and services, increasing the likelihood that some of the effects of the crisis are permanent and that different occupations radically change or even disappear.

This crisis significantly affects Latin America and the Caribbean, since it is the world's most unequal region, making it more vulnerable. Most workers in the region work in the informal sector, where they lack social safety mechanisms. The countries in the region have faced diverse and deep crises in the past. Nonetheless, the nature of the calamity caused by COVID-19 and its effects on labor markets are unique. Quarantine and social distancing measures to mitigate the spread of the virus have affected most jobs, and several million are likely to be permanently destroyed. According to the Inter-American Development Bank's [COVID-19 Labor Observatory](#), unemployment and working poverty have increased: In June of this year, almost 24 million jobs were lost, representing the highest number registered in the region².

Digital technology has become an important tool to facilitate the recovery of lost jobs. During quarantine, a significant share of the workforce has been able to continue performing their jobs thanks to digital technology. The pandemic has acted as a catalyst for the adoption of these technologies, which had been relatively slow in the region until a few months ago: **Teleworking, distance training, and on-demand digital platforms** have become more widespread. In the first case, mandatory confinement created a significant increase

in the demand for remote-working applications that allow people to have virtual meetings, develop documents online, or sell goods and services online. The number of downloads of these mobile applications increased 20-fold between January and March of this year, from 750,000 to 15 million downloads per month. Many people have also turned to online learning. Downloads of mobile distance learning applications increased by 183% in March 2020, compared to March 2019. In the case of online platforms, digital technology has also created opportunities for the recovery of labor earnings, which already occurred in some industries, such as with using of platforms like Uber. For example, [an IDB study shows](#) that the opportunity to generate income on a flexible schedule is an aspect that is highly valued by those who provide services through these apps³.

This new installment of the series *The Future of Work in Latin America and the Caribbean* shows that digital technologies can be a great ally in the quest for labor market reactivation. They would allow for the generation of value and wealth at a moment when conventional ways of working are considered unsafe and temporarily impossible to maintain. These technologies can mitigate the negative impacts of the pandemic. These technologies can be adopted at a massive scale and in an inclusive and lasting way if many challenges are tackled. For this, it will be essential to adapt current labor regulations and the rules governing the operation of the region's social security systems. Now, more than ever, generating employment opportunities and adequate social security coverage for the populations of Latin America and the Caribbean is needed; digital technologies are a key component of the solution to this challenge.

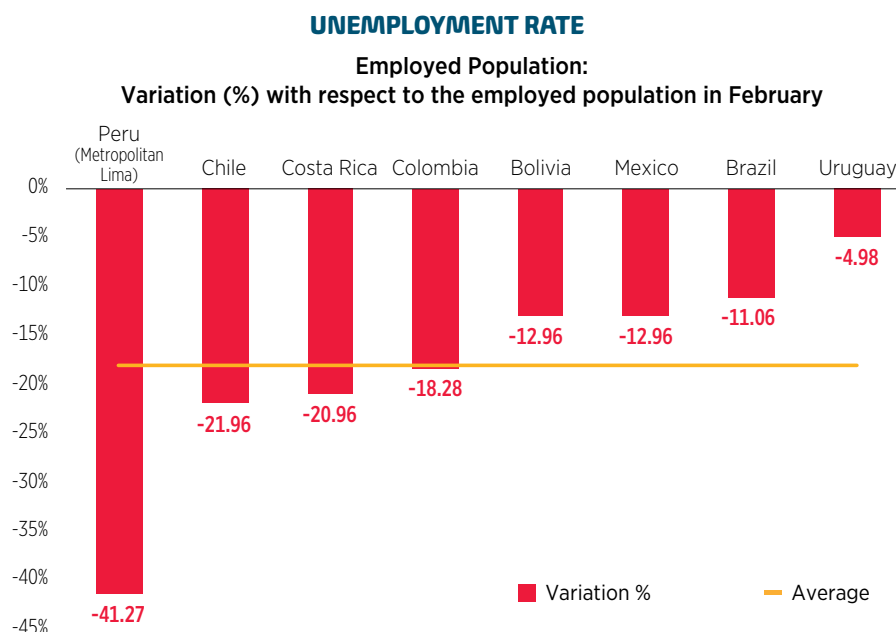


2 | Why this?

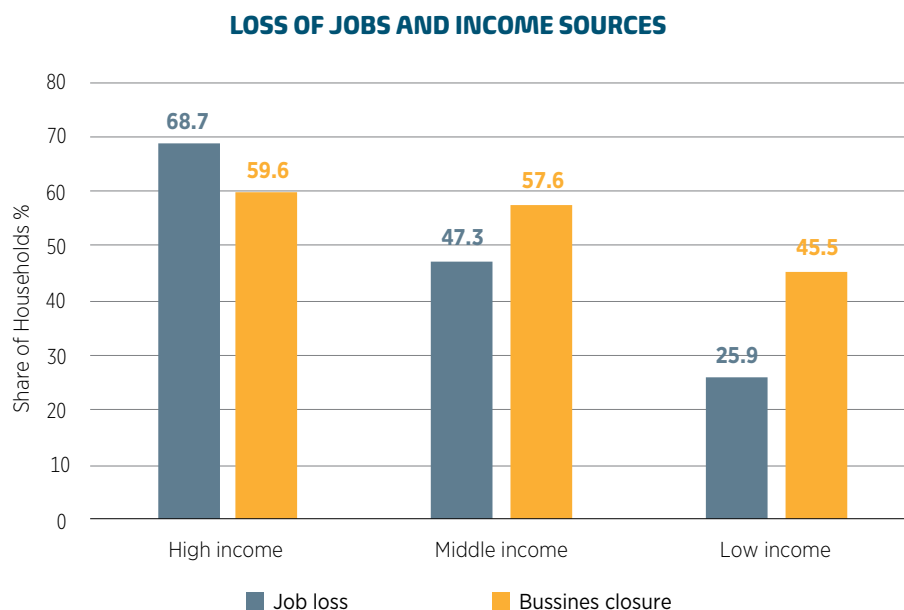
COVID-19 has not only caused a health emergency, it has also generated a crisis in the region's labor markets. Governments have taken many measures to limit the spread of the virus. These include quarantines or mandatory confinement measures that have caused a dramatic reduction in economic activity, leaving millions of people unable to work⁴. In just a few months, negative effects have been observed in any of the traditional indicators: Increases in unemployment, reductions in labor market participation and employment, and drops in both hours worked and income. Estimates suggest that [up to 17 million formal jobs could be lost](#) and the level of labor informality could reach 62% in the region, which would be equivalent to erasing all progress made in these dimensions between 2000 and 2013⁵.

Job losses have already begun to materialize in the region. 45% of participants in an [online survey of more than 200,000 people](#) in 17 countries in Latin America and the Caribbean say that at least one of their household members lost their job during the pandemic⁶. 57% of households with small businesses have had to close them. Similarly, household surveys in Bolivia, Brazil, Chile, Colombia, Mexico, Peru, and Uruguay indicate that between February and June 2020, more than 29 million jobs were lost, according to the [IDB's Labor Observatory](#)⁷. Of all these people, youth and informal workers are the ones who have been the most impacted.

FIGURE 1. THE EFFECT OF COVID-19 ON EMPLOYMENT IN LATIN AMERICA AND THE CARIBBEAN



Source: [COVID-19 Labor Observatory](#)



Source: Bottan, N., Hoffmann, B., Vera-Cossio, D. 2020. "The Unequal Burden of the Coronavirus Pandemic: Evidence from Latin America and the Caribbean". Mimeo.

Administrative records of several countries that measure formal employment performance show a loss of at least 3.4 million jobs across the region due to the pandemic. For example, more than 1.1 million formal jobs were lost in Mexico between January and June of 2020⁸. In the Dominican Republic, in just one month (between March and April), [almost 443,000 jobs were lost](#) due to containment measures related to the COVID-19 outbreak⁹. In total, the administrative records of Argentina, Chile, Colombia, Costa Rica, El Salvador, Mexico, the Dominican Republic, and Uruguay show that between February and June 2020, 3.4 million formal jobs have been lost in the region.

There are substantial differences in these labor market impacts on workers of different income levels in each country. Households belonging to the lowest income group before the pandemic (with total family income below the national

minimum wage) had the highest job loss (68%), more than 40 percentage points above those of higher-income households, a fact that will contribute to increasing inequalities. A similar pattern is observed for company closures, although one which is [less drastic to date](#)¹⁰.

In some countries, women will be disproportionately affected by job losses for two main reasons. First, both globally and in the region, most women are employed in two of the hardest hit sectors: commerce and services. Second, [women are overrepresented in part-time work, self-employment, and informality](#), tend to have fixed-term employment of shorter duration, and the majority work in small firms with lower productivity¹¹. In other words, women have more precarious jobs, which are hit hardest during the pandemic. In addition, with schools and care centers closed, the burden of caring for both children and the elderly fell [mostly on women](#)¹². Before

the pandemic, women in the region already spent more than twice as many hours on unpaid domestic and caregiving activities as their male counterparts: 38 hours per week versus 16 hours for men¹³. This trend further limits their ability to work, search for a job, or train online.

The health crisis created by COVID-19 struck at an unfavorable time for the region. After a sustained period of expansion, quality job creation in Latin America and the Caribbean had been stagnating during the last five years: Countries had not made significant progress in reducing labor informality (more than half of workers, 56%, still do not contribute to a pension system, for example) nor in increasing the percentage of jobs that provide [sufficient income to overcome poverty](#)¹⁴. In other words, the lack of universal social insurance systems and automatic stabilizers

made most of the region's workers particularly vulnerable in the case that they lose their income.

The pandemic has exacerbated the region's chronic labor market challenge: how to create more and better jobs. The pandemic has highlighted problems of maintaining labor market-linked social security systems. As the economist [Santiago Levy](#) notes, social security systems implemented in the region were based on those of other countries with few similarities, so there is a structural problem in their financing and organization¹⁵. The malfunctioning of social security systems has made responding to emergencies such as COVID-19 difficult. Paradoxically, evidence of these failures could be an opportunity to confront this pending deficit and develop a new social insurance system aligned with the region's demographics, labor markets, and digital infrastructures.

New opportunities for work and training post-COVID-19

Looking towards the future, the adoption of digital labor technologies can contribute to a better prepared, more resilient, and more productive workforce. For example, [a survey of workers using different digital platforms in Argentina](#) found that the most cited reasons for using these platforms are income generation and the ease and flexibility of managing their schedules¹⁶. [The main reasons for using transportation platforms](#) among drivers are to generate more income (76%) and have scheduling flexibility (66%)¹⁷. Telework can contribute to improving work-life balance, in addition to increasing the labor participation of women and people with physical disabilities, who often face difficulties in accessing public spaces and traditional workplaces¹⁸. However, these new technologies also bring challenges, such as making access inclusive by

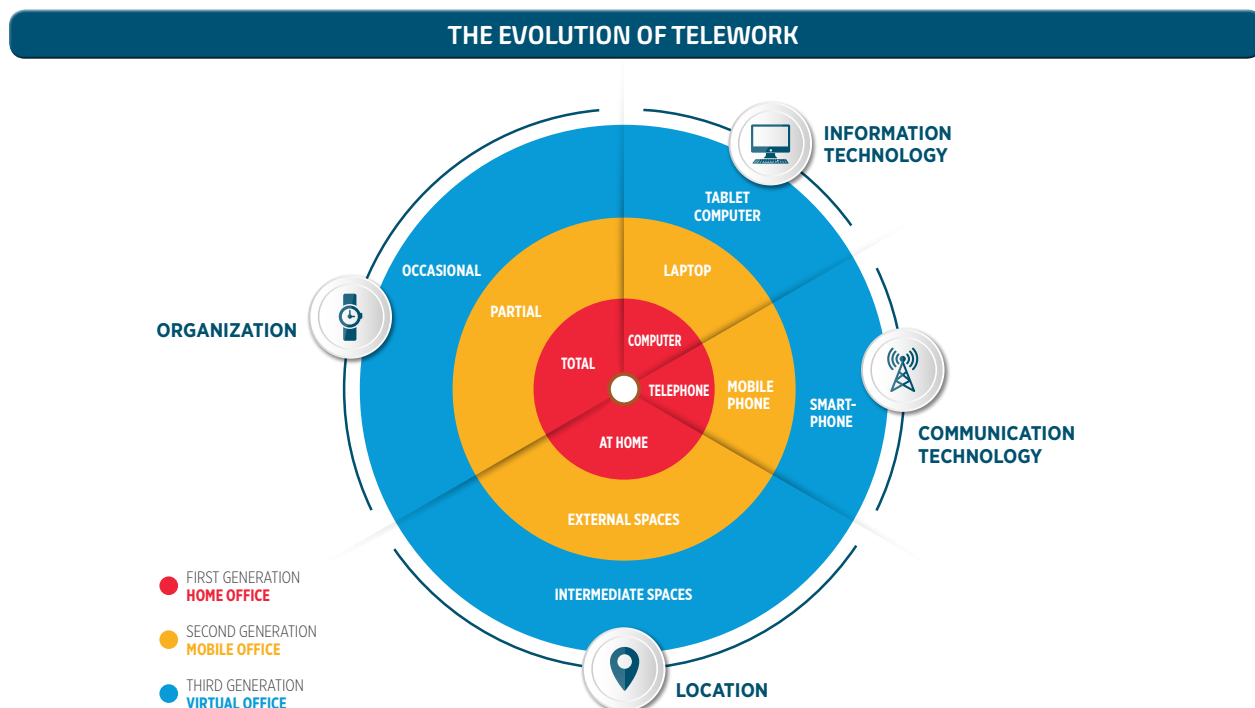
narrowing gaps between highly skilled workers and other workers who cannot telework and train online. Furthermore, there is a lack of basic digital literacy and tools (internet access, computer, smartphone, etc.), particularly among low-skilled workers. Different questions arise from these challenges and opportunities. For example, how can the boost that COVID-19 is giving to the use of digital technologies be harnessed for making the region's labor markets more productive? How can this situation contribute to promoting a paradigm shift to achieve universal social insurance, regardless of employment status?



3 | What's up?

Digital technology recently began to change the organization of work¹⁹. Initially, having a computer and internet at home opened the opportunity to work outside company walls in a “home office.” Next was the concept of a “mobile office,” in which cell phones, laptops and tablets allowed teleworking to not only be performed from one’s home; instead, people could work from anywhere with an internet connection or a data plan. The last stage of this evolution is the “virtual office,” which expands on the previous concept with smartphones and the ability to store information in the cloud, as the ILO indicates²⁰. Today, everything that many professionals need to telework is in the palm of their hand.

As discussed in the fifth installment of this series, there are different [settings for work outside of an office](#): Teleworking is carried out within the framework of an employment relationship using information and communication technologies (ICTs) as a differential and characteristic element. Teleworking can occur in the public or private sector; it is done totally or partially outside the employer’s facilities, and it initially may or may not have been face-to-face work. This type of work originated in 1970. Until 2019, [ten countries in the region had promoted an effort to regulate it](#) and formalize workers who had been doing different remote work²¹. The pandemic urged Bolivia, Chile, Panama, and Paraguay to pass their telework laws in 2020.



Source: Messenger and Gschwind (2016). [Three Generations of Telework: New ICTs and the \(R\)evolution from Home Office to Virtual Office](#).

Now, the speed of technological change makes the need to accelerate learning on the job, including mechanisms such as distance training, more pressing. There is uncertainty about possible changes that the fourth industrial revolution will bring to [work structures](#)²². What authors have shown in the series of publications on *The Future of Work in Latin America and the Caribbean* is that use of technology is replacing workers with [low qualifications](#)²³, but that they are [not generating the massive unemployment effects](#) that were anticipated at the turn of the century²⁴. In this sense, [retraining workers](#) is crucial to avoid layoffs²⁵. Another impact that is becoming more and more evident is the difficulties young people have finding employment because they cannot demonstrate the skill sets required by the productive sector. Similarly, employers are increasingly citing a large [skills gap](#)²⁶ (understood as the difference between the skills demanded by employers and those available from workers), and the growing cost of providing [training to workers who join their companies](#)²⁷. The skills that young people acquire in school and those that the labor market requires do not maintain a perfect or fixed relationship. This mismatch is due to the speed with which technological and organizational changes and innovations work. Consequently, all kinds of [educational systems have difficulties to update their content](#) for those already in the workforce²⁸.

The most successful companies are in a permanent process of reinventing their businesses, based on new information technologies, and accompanied by sustainable improvement of their human capital²⁹. Industries that have been able to adopt new technologies more quickly participate in designing training plans to empower their em-

ployees and make them the pillar of their transformation processes³⁰. Technological innovation in the delivery of educational credentials increases access to the job market and creates a wide range of new options for talent development and corporate training. Much of corporate learning is also delivered online. Consequently, the lines between learning processes in institutional settings and in the labor market are likely to continue to blur.

This occurs in a context where education and training offerings are becoming more flexible. Around the world, the public sector, schools, and training providers are focused on ensuring continuity of learning during the pandemic and promoting complete access to learning platforms and tools [through different technologies](#)³¹. In recent years platforms offering [undergraduate education](#) have been developed³². For example, top universities have created MicroBachelors programs, which include experiences by leading companies in various industries. These programs have been designed for adult students seeking career advancement. Similarly, [MicroMasters](#) programs have also been developed, which provide deep learning in a specific professional area and are recognized by employers³³. This new educational supply includes [nanodegrees](#), which are not necessarily linked to academic programs but are obtained as a signal of specific training for industries that may demand it³⁴. COVID-19 can accelerate the demand for digital and social-emotional skills, facilitating continuous learning and improving employability. The acceleration caused by the crisis could not be sustainable. However, transversal skills can improve workers' well-being, not only in times of crisis. Furthermore, there is evidence that [these skills are increasingly demanded by the labor market](#)³⁵.

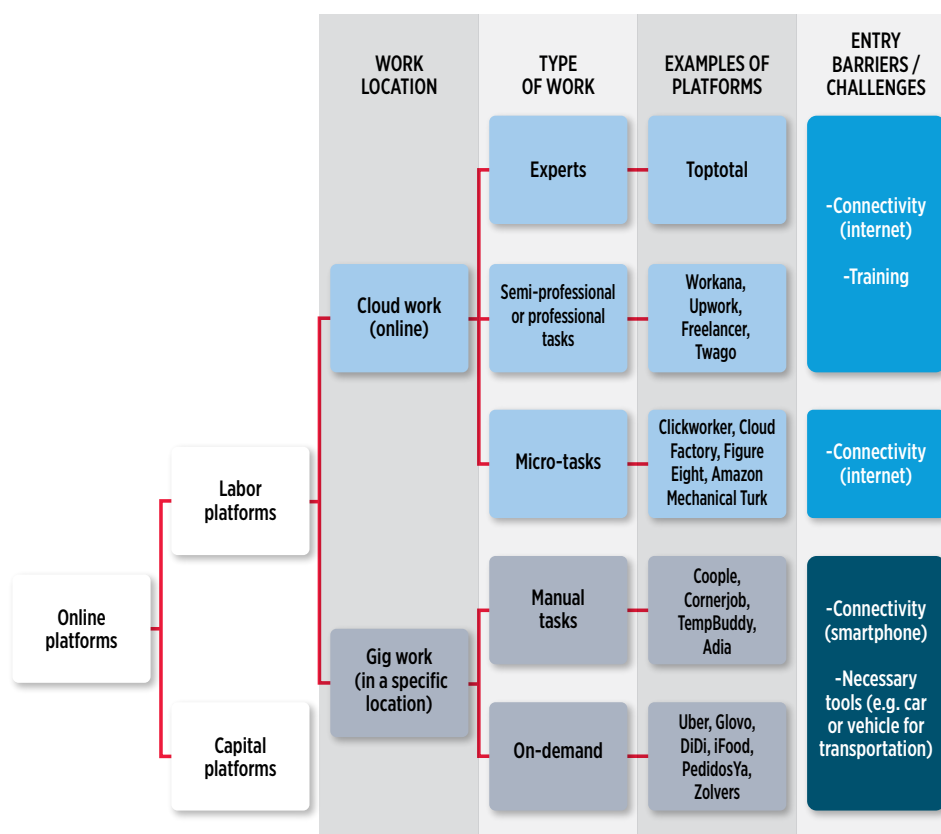
The use of platforms and the evolution of online work

Online platforms can be defined as digital marketplaces that facilitate transactions between buyers and sellers of a good or service. This document focuses on digital labor platforms, divided into two dimensions: Cloud work, and gig work in a specific location.

Cloud work jobs use telework platforms and range from highly specialized to elementary mechanical operations. They can be classified into three categories. First are the “expert” jobs, which require advanced skills and experience in a specific area, such as finance, software devel-

opment, or project management. Second are the “independent professional” (freelance) jobs, including activities with an intermediate skill level, such as translation or graphic design. Third are the “micro-tasks,” which do not require education or specific training, since they consist of essential tasks that can be carried out with something as simple as a cell phone. An example of this type of task would be categorizing certain words or images in different groups. The platforms’ role at these different levels is to connect jobs and tasks with workers who can be located anywhere in

FIGURE 2. TAXONOMY OF LABOR PLATFORMS



Note: Authors' elaboration based on conceptual frameworks in Schmidt (2018), Gray & Suri (2019) and Canigüeral (2020).

the world and who will perform them for a specific price based on the requirements and specifications defined by the person or company that published the job.

Gig work includes tasks that need to be done quickly, on time, and in a specific location. These platforms are divided into two other subcategories: On-demand and manual tasks. On-demand tasks require an instant service, either transportation (for example, Uber, Cabify or Didi) or home delivery (such as Glovo or Rappi). Manual tasks require a basic skill, such as fixing something in a home, personal assistance, or serving as a waiter, among other tasks. In both cases, platforms increase their value when attracting new users and [deepening the relationship with existing ones](#)³⁶. For example, transportation platforms allow route

tracking, real-time location verification, driver focus, and electronic payments. Users appreciate these features and promote the corresponding apps' adoption, which in turn encourages more people to provide services through them.

These jobs' characteristics have important implications for their platforms' operations, the situation of independent workers, the applied legal framework and the potentially relevant regulatory measures. Platforms that facilitate cloud work are generally more challenging to regulate because it is not always clear which legal standards apply when the three stakeholders reside in different countries. On the other hand, location-based job platforms commonly operate in urban areas and are much more visible than web-based services.

Labor platforms: Recent trends in Latin America and the Caribbean

During the last decade, technological innovation and improvements in internet connectivity have expanded the reach of labor intermediation platforms, both in terms of their geographical availability and the variety of goods and services they offer. To what degree have these labor platforms been adopted in the region? What types of platforms have the highest penetration? How does this compare with other regions?

To answer these questions, the authors drew on application download data estimated for various Latin American countries by [Sensor Tower](#)ⁱ. This data allows for tracking the evolution of different digital platforms from their launch to the present day. Overall, download data is available for 84 countries worldwide, which facilitates compar-

isons between regions and countries³⁷. However, only the evolution of platforms with mobile applications (apps) can be measured, which means that platforms that operate exclusively on web pages are not included in the analysis. Consequently, the only labor platform taxonomy categories highlighted in Figure 2 that could be tracked were “semi-professional or professional tasks”, “manual tasks”, and “work on demand.”

Prior to COVID-19, the adoption of labor platforms in Latin America and the Caribbean had been slow, both for semi-professional or professional tasks and for specific tasks. In 2019, downloads of apps for semi-professional or professional tasks in the United States stood at 525 per 100,000 inhabitants, while in Latin America

i. Sensor Tower provides download and revenue information for all applications available on the Apple App Store and Google Play Store. The data is estimated every day by country and by type of device. Applications must exceed a certain threshold of Daily Active Users (DAU) to be included in the database. Therefore, niche applications that are not widely used are likely to be excluded.

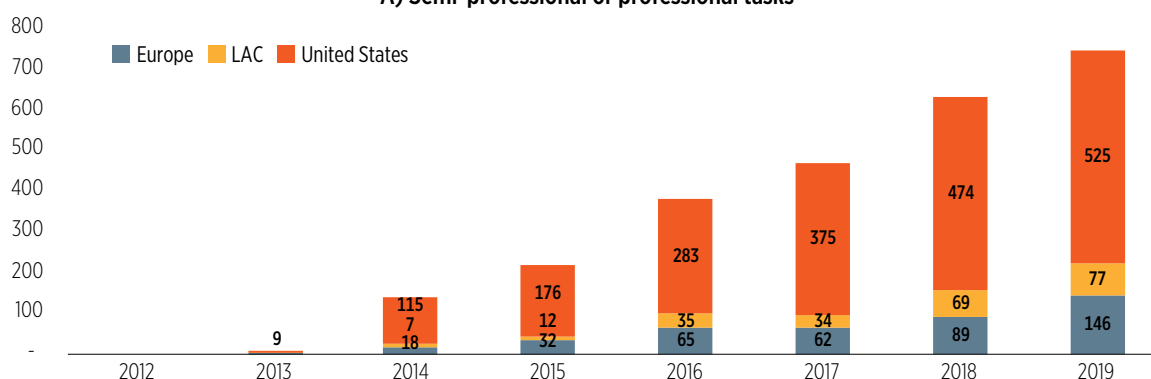
and the Caribbean, the rate was 77. However, although adoption rates in the region still have not reached those of the United States, they have grown faster than in the latter country in recent years. Manual task apps have been downloaded in much higher numbers in the United States (1,556 downloads per 100,000 inhabitants) than in Europe and Latin America (292 and 35 downloads per 100,000 inhabitants), respectively. Another new job category that has emerged, but is not yet consolidated in the region is microtask

work. The only microtask app for which regionally comparable data is available in the Sensor Tower data set is the app “Clickworker”. Based on the download data for this app, it appears that 2019 saw the emergence of the use of microtask platforms in Latin America and the Caribbean for the first time, as eight downloads per 100,000 inhabitants were registered for Clickworker in the region in that year, compared with 35 downloads per 100,000 inhabitants in the United States and 18 in Europe.

FIGURE 3. HISTORIC TENDENCIES IN ANNUAL MOBILE APP DOWNLOADS BETWEEN 2012 AND 2019 (PER 100,000 INHABITANTS)

I. CLOUD WORK (ONLINE)

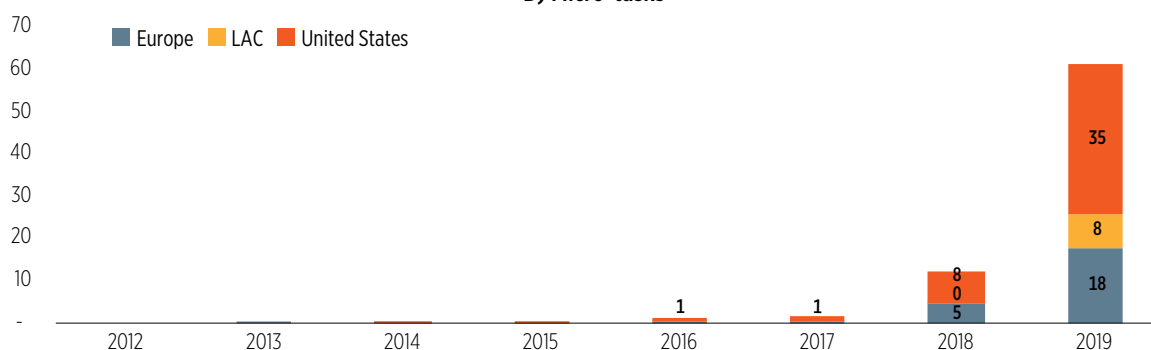
A) Semi-professional or professional tasks



Source: Authors' elaboration based on Sensor Tower data.

Note: Platforms include Fiverr, Freelancer, Microworkers, Twago, Upwork, Workana.

B) Micro-tasks

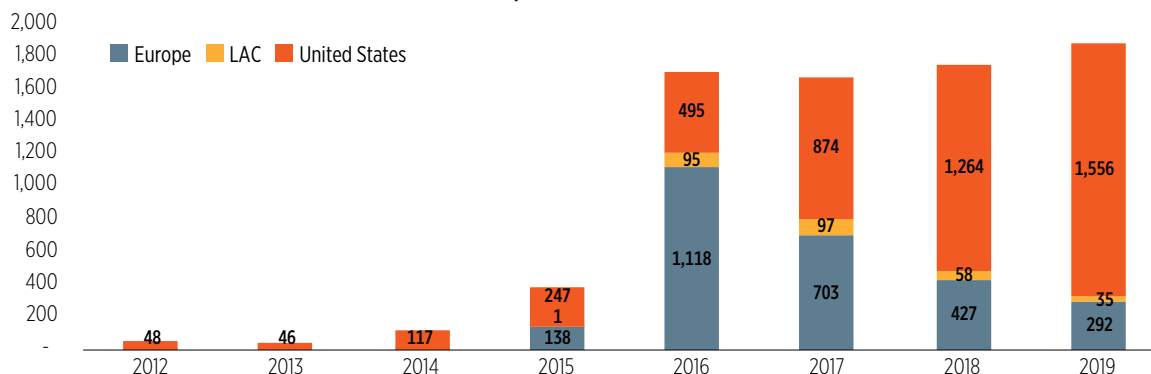


Source: Authors' elaboration based on Sensor Tower data.

Note: Platforms include Clickworker.

II. GIG WORK (IN A SPECIFIC LOCATION)

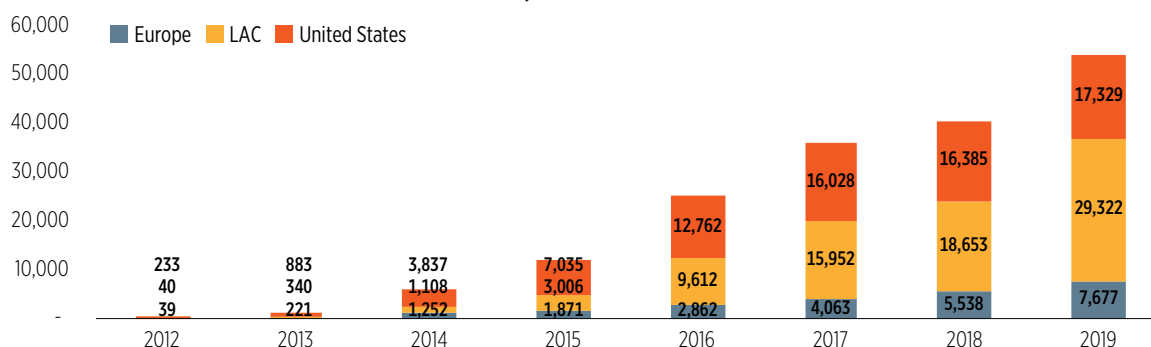
A) Manual Tasks



Source: Authors' elaboration based on Sensor Tower data.

Note: Platforms include Adia, Coople, CornerJob, Handy, HomeAdvisor, IguanaFix, Job Today, StaffyApp, TempBuddy, TaskRabbit, Thumbtack.

B) On Demand



Source: Authors' elaboration based on Sensor Tower data.

Note: Platforms include Alba, AllDelivery, Appetito24, BA Taxi, Beat Driver, BlaBlaCar, Bolt, Cabify, CarpooleAR, Carpool World, Delivery RD, Didi, DogHero, Domicilios.com, easy Taxi, Glovo, iFood, Jelp Mi, Mi Dulce Hogar, PedidosYa, Postmates, Rappi, Scharff, Shippify, SinDelantal, TruckPad, Uber, Uber Eats, Urbaner, Urbvan, Wappa, Zolvers.

Digital on-demand labor platforms, such as Uber or Glovo, are the most established labor platforms in the region. In 2019, on-demand platform app downloads in Latin America and the Caribbean reached 29 per one hundred inhabitants, almost four times those registered in Europe and close to twice those reported in the United States. These platforms are an attractive employment option for many workers, as they offer relatively easy access and have a high degree of flexibility. For this reason, they can also be the gateway for groups

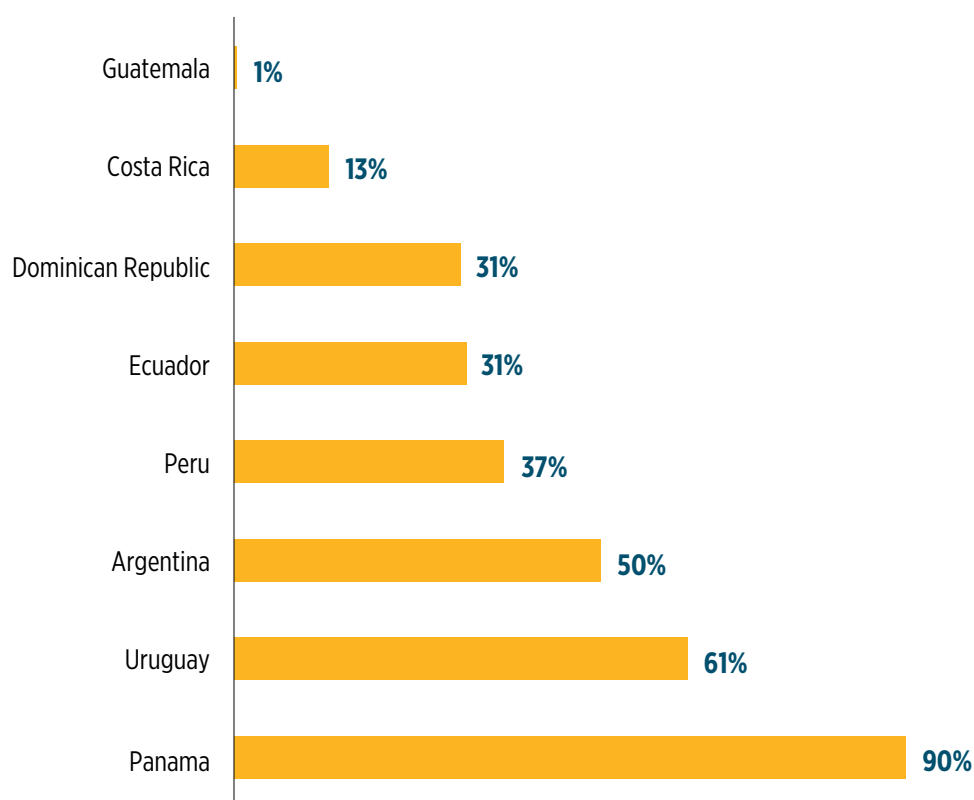
with difficulties finding employment, such as migrants, women, youth, and older adults. Furthermore, in a region that lacks universal mechanisms to protect against unemployment, they can act as “alternative unemployment insurance,” providing jobs and income to workers who have lost their work due to the pandemic and the economic crisis.

Flexibility and low entry barriers are the main attractions of digital on-demand labor platforms. Surveys among workers on these platforms suggest that platforms reduce market entry

barriers. They are an attractive option for those seeking employment or additional income, and that they make an economic activity more productive, reducing costs to participate that in other conditions, only large companies could pay. For instance, workers from different platforms in Argentina highlighted the ease of entry into this platform as one of its key benefits³⁸. Similarly, platforms have emerged as an attractive employ-

ment option for migrants. For example, 39% of the delivery people who provide services on the Glovo platform were not born in the country where they work. This proportion varies significantly between countries: in Guatemala, only 1% are foreign-born, while in Panama, 90% are foreign-born. Of the total of Glovo's foreign-born delivery people, 82% are Venezuelan, followed by Colombians (6%), Peruvians (3%), Nicaraguans (2%), and Haitians (1%).

FIGURE 4. FOREIGN-BORN GLOVO DELIVERY PEOPLE (PERCENTAGE OF TOTAL WORKERS)



Source: Authors' elaboration based on data from the Glovo delivery people survey, 2019.

FIGURE 5. MOTIVATIONS FOR WORKING WITH THE GLOVO PLATFORM



Source: Authors' elaboration based on data from the Glovo delivery people survey, 2019.

MULTIMEDIA CONTENTS

TO DOWNLOAD THE INTERACTIVE VERSION OF THIS NOTE AND ACCESS THE NEXT CHAPTER'S **MULTIMEDIA CONTENTS**, VISIT OUR WEBSITE, www.iadb.org/futureofwork AND OUR PROFILES IN YOUTUBE, VIMEO, AND SOUNDCLOUD

VIDEO

HOW DO PEOPLE EXPERIENCE TELEWORK IN LATIN AMERICA AND THE CARIBBEAN?

AUDIOS

TELEWORK BEFORE AND AFTER COVID-19

ONLINE TRAINING: THE NEW WAY TO LEARN?

CORONAVIRUS AND ON-DEMAND DIGITAL LABOR PLATFORMS

CAN WE RETHINK SOCIAL SECURITY SYSTEMS FOR A POST-COVID-19 WORLD?

4 | What's new?

The pandemic has acted as a catalyst for technology adoption processes that until now had been slow: Teleworking, distance training, and the use of digital labor platforms beyond on-de-

mand work platforms. This section analyzes the main trends, opportunities, and challenges of these means of work and training based on the number of relevant application downloads in the region.

The impact of quarantines on telework

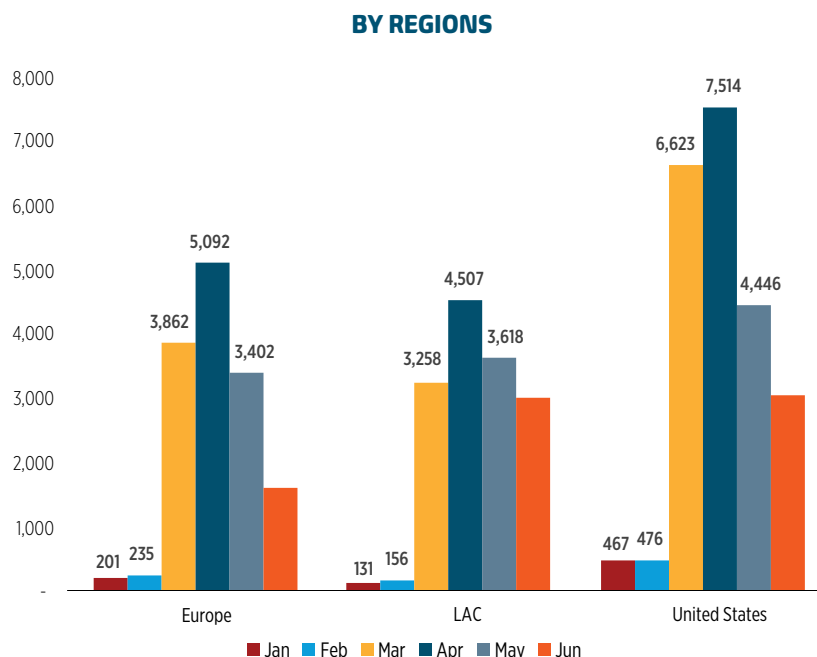
The increase in teleworking is reflected, in part, by the rise in app downloads such as Zoom, Skype for Business, or Microsoft Teams, which, among other things, facilitate videoconferences and work among remote teams. Between January and April 2020, the number of downloads of these applications increased substantially: 3,340% in Latin America and the Caribbean, 2,433% in Europe, and 1,509% in the United States. Within the region, the countries with the highest penetration of telework applications are Ecuador, Costa Rica, Chile, Panama, and Peru. Downloads in May ranged from five to eight per 100 inhabitants. As shown in Figure 6, the peak of telework downloads occurred in April 2020, coinciding with the month with the highest mandatory confinement worldwide, given that in May, some economies began re-opening processes.

Many of the people in the region have had their first experience with teleworking during the pandemic. In May 2020, a survey of 1,192 workers promoted on social networks in [Uruguay](#) showed that only 5% had worked remotely prior to COVID-19, 17% were working remotely due to the coronavirus, and 78% were not working remotely³⁹. In Peru, [14% of adults](#) interviewed in April 2020 indicated that they worked from home⁴⁰. In Chile, 24.9% of employed people had done at least one hour remotely during the last week of

May 2020 (around 1.8 million people). There are also significant differences by gender. In Mexico, according to data from the [Telephone Survey on COVID-19 and the Labor Market \(ECOVIM-ML\)](#) from April 2020, the average of people working from home was 23.5%. Still, this number hides a gender difference: 34.7% of women worked from home, versus 16.6% of men⁴¹.

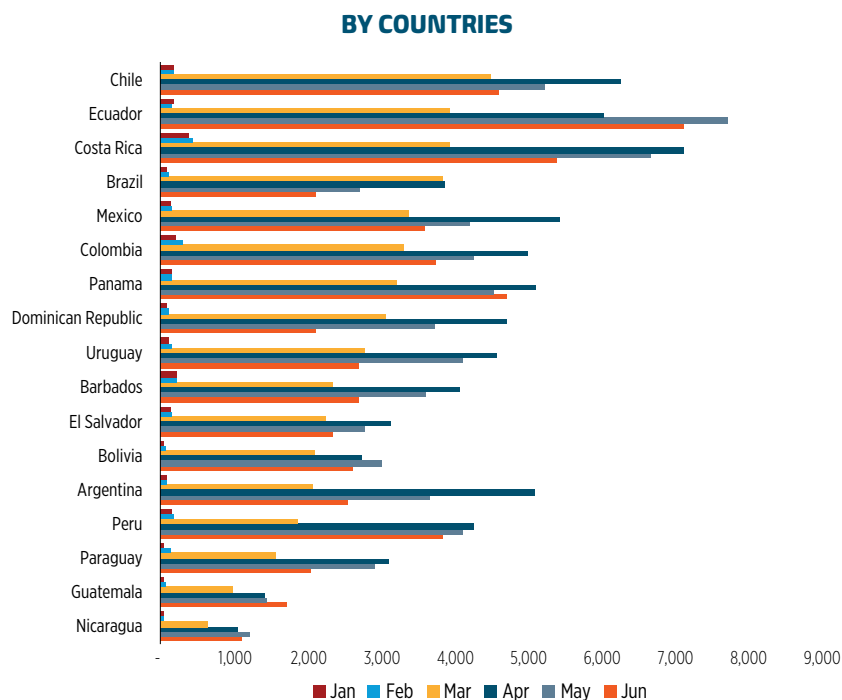
Profiles of those who worked from home before COVID-19 are very different from those who started during the pandemic. In the [Uruguay](#) survey, the pre-pandemic remote workers were, for the most part, self-employed (60%), performed manual and creative tasks, were mainly informal (58%), and were over 50 years old (42%). In contrast, workers who began working at home as a result of the pandemic were salaried (74%), carried out intellectual tasks (77%), had completed a tertiary education level (66%), and were employed in the formal sector (86%)⁴².

Workers highlight several advantages and disadvantages of teleworking. [Telework is attractive because it offers flexible scheduling](#), a better work-life balance, and increased productivity⁴³. However, despite providing more scheduling flexibility, it also makes it more difficult to define work hours, which can negatively affect workers' mental and physical health. For example, in [a survey](#)

FIGURE 6. DOWNLOADS OF TELEWORK APPLICATIONS PER 100,000 INHABITANTS (2020)


Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population.

Note: Telework platforms include Zoom, Microsoft Teams, Skype for Business, and Slack.



Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population.

Note: Telework platforms include Zoom, Microsoft Teams, Skype for Business, and Slack.

[with call center employees](#) who telework in Brazil, 98% of respondents report a better quality of life, particularly because they save travel time (93%) and have more time with their families (91%)⁴⁴. However, half reported that teleworking interfered

in their personal lives⁴⁵. Regarding productivity, teleworking's effects will depend on factors such as the agility of the company's information and communication systems, corporate culture, and supervisors' ability to support workers.

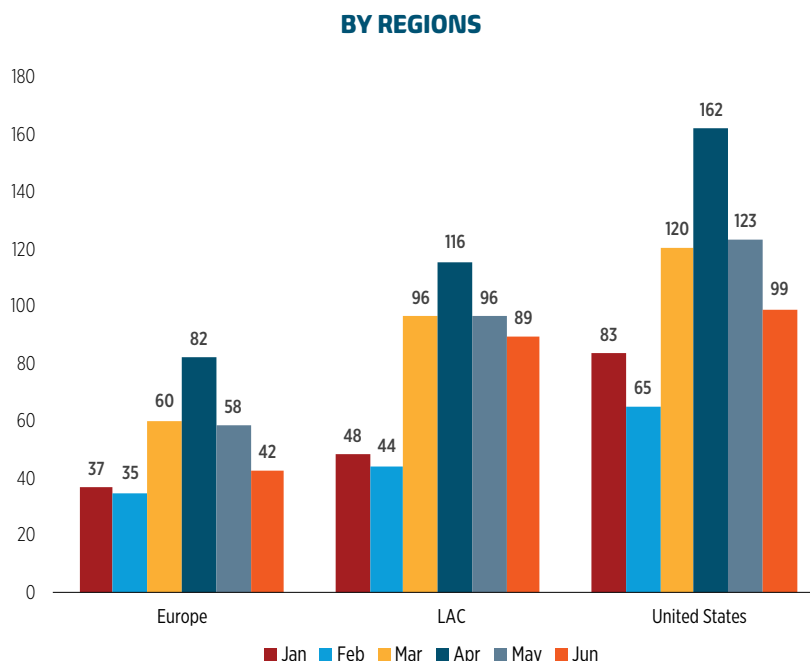
Quarantines and remote training

Information from app downloads suggests that many people have taken advantage of the time at home to develop new skills, or at least have tried. In March 2020, the month in which widespread lockdowns began to limit the spread of COVID-19, there were 96 downloads of training applications per 100,000 inhabitants in Latin America and the Caribbean, double the 44 in February or the 48 in January. The number of downloads in March was even higher than in Europe (60 downloads per 100,000 inhabitants). This trend continued in April and has stabilized since May. However, it is still higher than in January and February, prior to the pandemic.

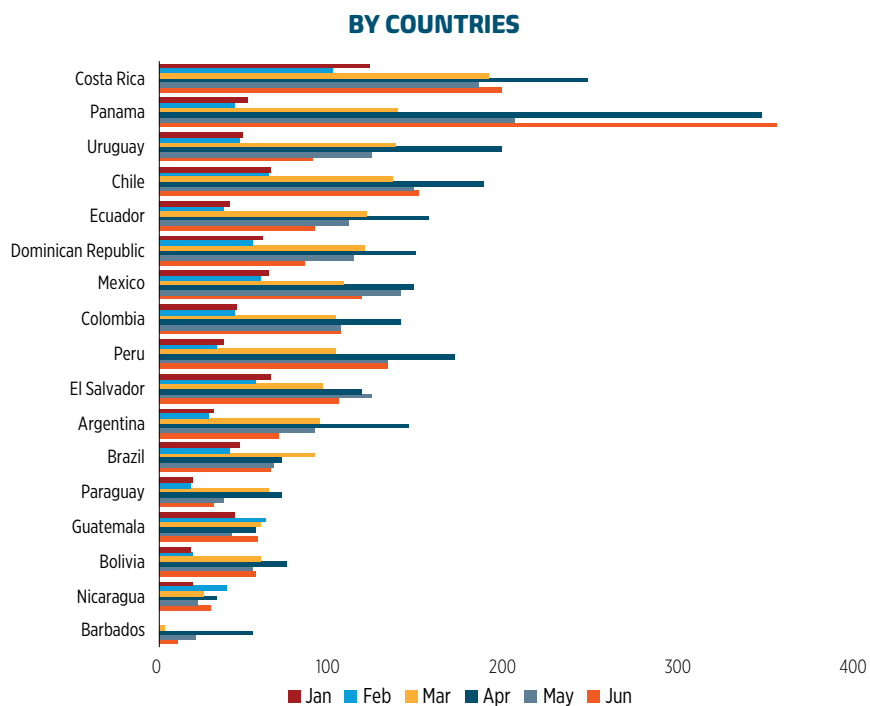
In almost all countries in Latin America and the Caribbean, there was an increase in downloads of training apps between February and March 2020, when the pandemic broke out. In March 2020, Costa Rica was the country with the highest number of downloads per 100,000 inhabitants, with 188, followed by Panama (136).

This trend in the downloads of apps for remote training may also reflect the region's initiatives from governments. Some countries have made free online courses available to the public through open platforms (MOOCs) of national training institutes (such as INTECAP in Guatemala and INSAFORP in El Salvador). Furthermore, several countries are trying to give continuity to technical-professional training through multichannelⁱⁱ strategies. These strategies include the use of Learning Management System (LMS) platforms (such as Moodle, Blackboard, and Google Classroom), email and WhatsApp, among others, to reach different populations with lower connectivity. Some examples are INFOTEP's mobile workshops in the Dominican Republic, mobile applications and SENA's social networks in Colombia, and Zoom classrooms at the Peru Tourism Training Center. These [strategies](#) also include tools and training in online education for teachers, as in Uruguay and Costa Rica⁴⁶.

ii. Synchronous and asynchronous are learning modalities that differ in the nature of the interaction between the instructor and the student. In synchronous learning, both are working at the same time, regardless of whether they are in different physical spaces. That is, they work simultaneously. In asynchronous learning, the instructor and the student interact at different times. The instructor prepares learning materials, and then the student can use this material without having to interact directly with the instructor.

FIGURE 7. DOWNLOADS OF TRAINING PLATFORM APPLICATIONS PER 100,000 INHABITANTS (2020)


Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population. **Note:** Telework platforms include edX, Coursera, LinkedIn Learning, Udemy, aprende.org, Cell-Ed, Crehana, Domestika, Tutellus, DataCamp, SkillShare.



Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population. **Note:** Telework platforms include edX, Coursera, LinkedIn Learning, Udemy, aprende.org, Cell-Ed, Crehana, Domestika, Tutellus, DataCamp, SkillShare.

Technology opens opportunities to recover income sources

Due to the pandemic, the use of on-demand work platforms increased in Latin America. The use of home delivery platforms such as Glovo, Rappi, iFood and UberEats [increased by 50% on average between the first and last week of March, although with differences between countries, depending on local quarantine measures](#)⁴⁷.

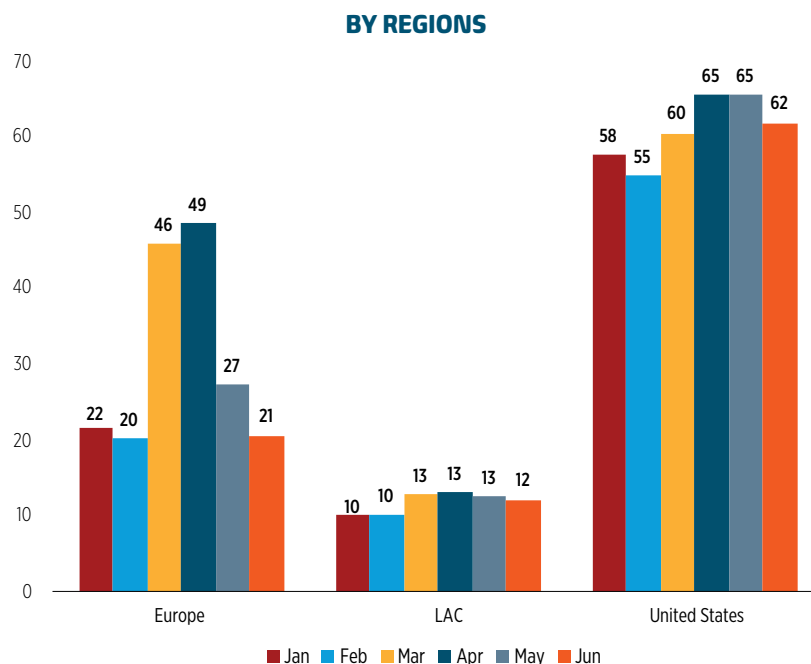
While in El Salvador, downloads quintupled in this period, in Bolivia, they decreased by 76%. In this sense, physical restrictions demonstrated the utility of platforms, allowing workers to carry out semi-professional or professional tasks and micro-tasks, in the cloud. The latter, such as Amazon Mechanical Turk, is an option for low-skilled workers to supplement their income. They are simple tasks and can be completed online, without contact with anyone.

Semi-professional or professional task platforms do not have as much coverage or volume as transportation and logistics in the region. Still, their presence has increased as a result of COVID-19. Although Latin America and the Caribbean have a shallow penetration of applications for independent professional work (10 per 100,000 inhabitants) compared to Europe (22) or the United States (58), between January and March 2020, downloads increased by 30%. In LAC, Panama stands out. In Panama, downloads

of applications for freelancers increased from 21 to 60 per 100,000 inhabitants (an increase of 186%) between February and April 2020. However, most countries in the region have seen only modest changes.

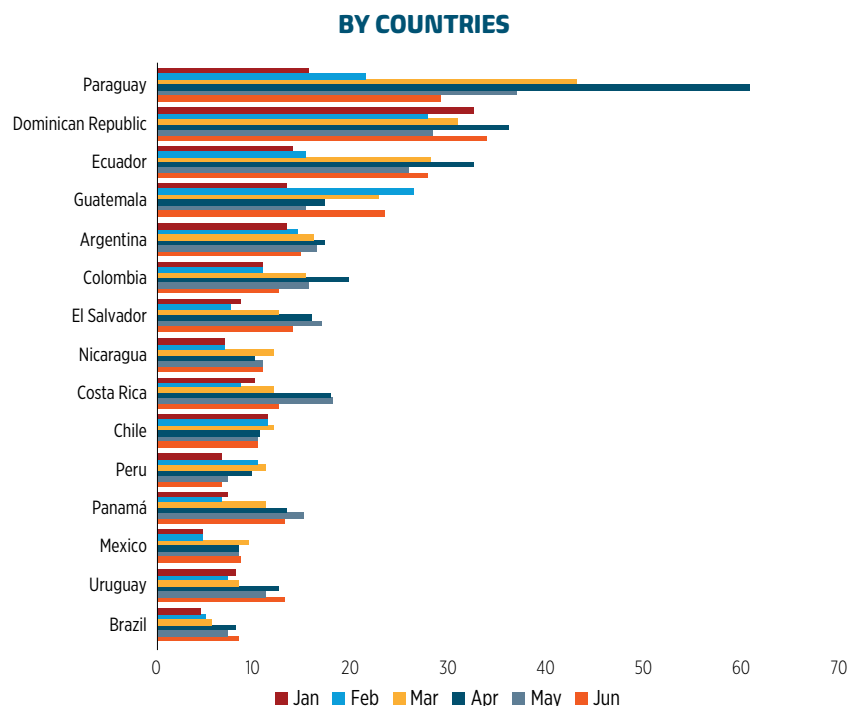
One of the challenges of working on semi-professional or professional platforms is requiring a level of training or education in a specialized area. According to Freelancer.com, one of the largest platforms for semi-professional or professional jobs online, in Mexico, Colombia, Argentina, and Chile, the most requested job is [open source programmer](#)⁴⁸. Other requested jobs are writing articles, translations, and digital marketing. Therefore, entry barriers are higher than in the case of on-demand platforms, which have achieved greater reach in Latin America and the Caribbean. In this sense, the increase in the use of training platforms in the region, such as edX, Coursera or Udemy, is a positive step toward breaking down some of the entry barriers, since these platforms offer computer courses, programming, and even business and marketing. However, a significant challenge continues to exist for a greater volume of workers to take advantage of semi-professional or professional work platforms: Internet connectivity.

FIGURE 8. DOWNLOADS OF SEMI-PROFESSIONAL OR PROFESSIONAL GIG PLATFORM APPLICATIONS PER 100,000 INHABITANTS (2020)



Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population.

Note: Telework platforms include Fiverr, Freelancer, Microworkers, Twago, Upwork, Workana, People per hour, Bark, Envato, Truelancer.



Source: Authors' elaboration based on Sensor Tower data for the number of downloads and World Bank data for population.

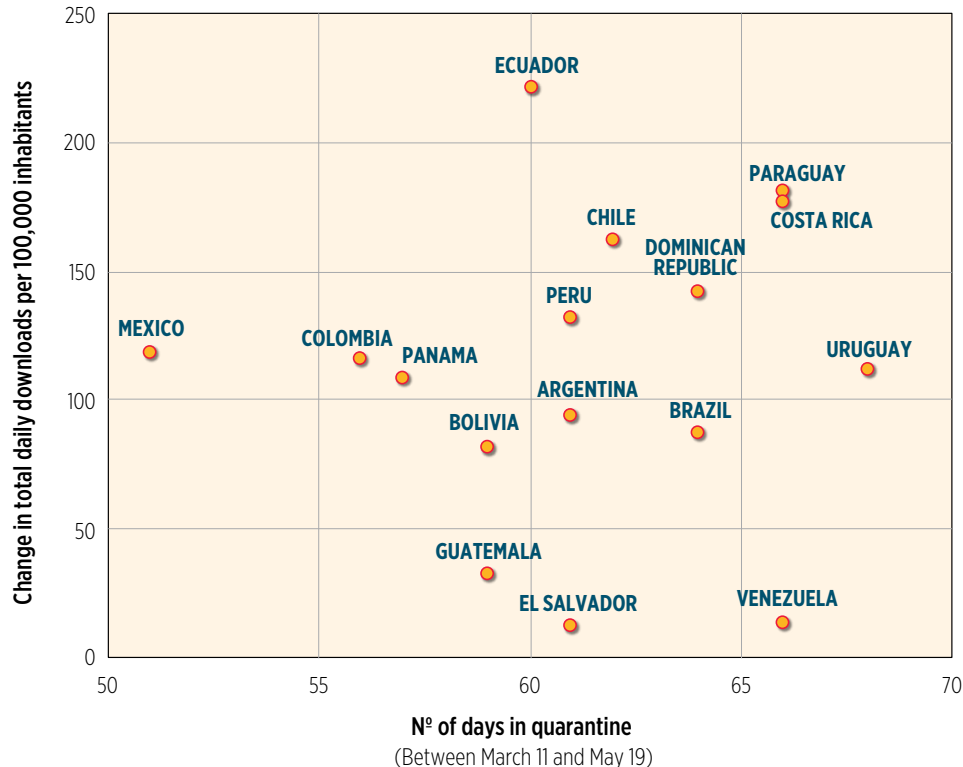
Note: Telework platforms include Fiverr, Freelancer, Microworkers, Twago, Upwork, Workana, People per hour, Bark, Envato, Truelancer.

Challenges to expanding new technological tools

Downloads of these applications appear to have reached their current potential, as more days of quarantine does not translate into more downloads. This is shown in Figure 9 and indicates significant challenges to overcome to expand the platforms' reach in an inclusive way. Among these challenges, a lack of access to essential tools to benefit from the digital economy (internet, smartphone, computer), workers' insufficient development of digital skills, and a lack of companies' technological preparation stand out.

Although the penetration of ICTs in the region is above the world average, there are significant lags. Table 1 shows a great variation in access to different technology services for countries in LAC. Access to mobile phones is almost universal, although more than a third of the population does not access the internet. Likewise, broadband access is limited, so the type of activities that are performed online are also limited.

FIGURE 9. RELATIONSHIP BETWEEN DAYS IN QUARANTINE AND USE OF TELEWORK PLATFORMS



Source: Authors' elaboration using Sensor Tower data and government data regarding quarantine

Note: Total downloads of telework platforms include Skype for Business, Microsoft Teams, and Zoom between March 11 and May 19, 2020.

TABLE 1. ACCESS TO ICTS IN LATIN AMERICA AND THE CARIBBEAN

COUNTRY	MOBILE PHONES PER 100 INHABITANTS	INDIVIDUALS USING THE INTERNET (%)	BROADBAND SUBSCRIPTIONS PER 100 INHABITANTS
Argentina	132	74	19
Bahamas	99	85	23
Barbados	115	82	31
Belize	86	47	6
Bolivia	93	48	4
Brazil	99	70	15
Canadá	90	91	39
Chile	134	82	17
Colombia	130	64	13
Dominican Republic	84	75	7
Ecuador	92	57	11
El Salvador	147	34	8
Guatemala	119	65	3
Guyana	83	37	8
Haiti	58	32	na
Honduras	79	32	4
Mexico	95	66	15
Nicaragua	115	28	3
Panama	137	58	13
Paraguay	107	65	5
Peru	124	53	7
Trinidad & Tobago	142	77	25
United States	129	87	34
Uruguay	150	75	28
Venezuela	72	72	9
Latin America and the Caribbean	110	77	14
World	108	54	12
High-income countries	129	88	36

Source: [Measuring digital development: Facts and figures](#) (2019). ITU Publications.

Internet access in Latin America and the Caribbean is higher than in other global regions.

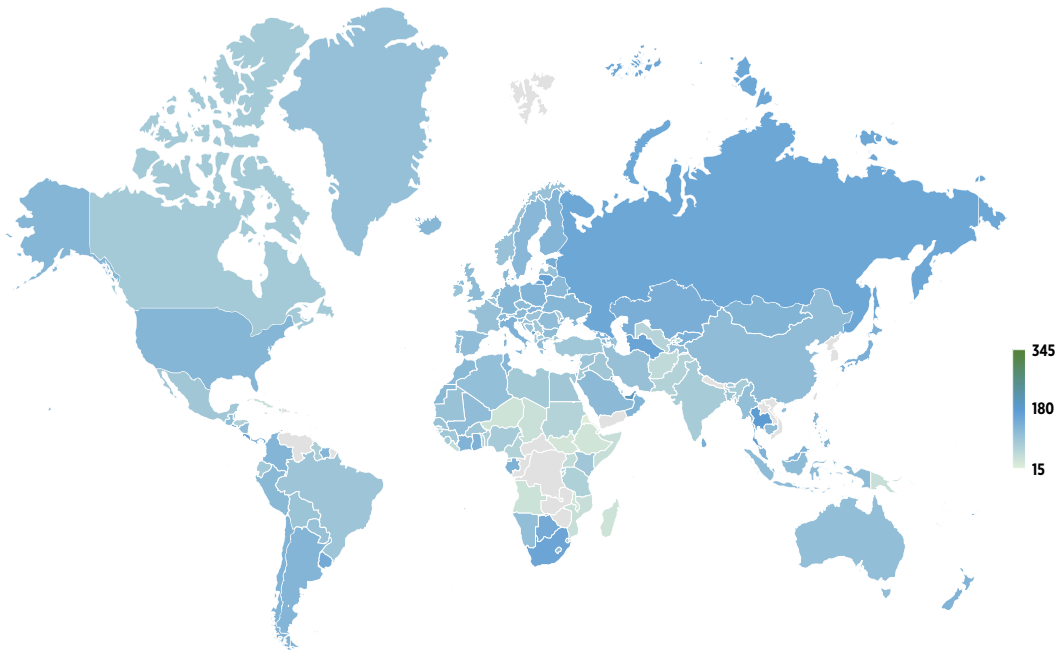
However, most access is through mobile devices, limiting the type of activities that can be carried out. The population with internet access is 60%, higher than Asia-Pacific, Africa and the Middle East. Broadband has limited access compared to more developed countries: A third of the population has fixed broadband subscriptions in high-income countries, while in Latin America and the Caribbean, it barely reaches 14%. This reduces the type of activities that users can perform.

Differences in access to ICTs can exacerbate inequalities between and within countries if policies are not implemented to ensure greater

adoption. Digital technologies are a useful tool to maintain millions of people's employment in circumstances as complicated as those generated by COVID-19. However, a [study](#) based on surveys in 53 countries⁴⁹ shows that the potential for teleworking increases with the level of economic development of the country. Jobs in low-income countries are more intensively physical or manual, require less information and communication technology, and have low connectivity. The study also concludes that women, college graduates, and salaried and formal workers have an easier time teleworking than the average worker, unlike hotel and restaurant, construction, agricultural and commercial workers.

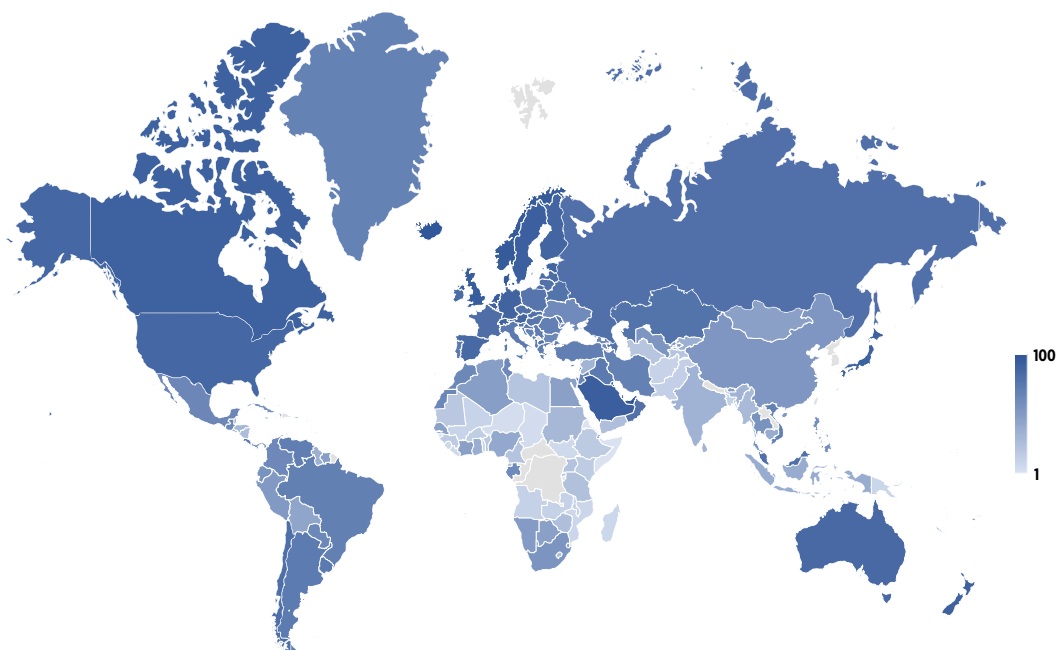
FIGURE 10. GLOBAL ACCESS TO ICTS

MOBILE PHONE NUMBERS PER 100 INHABITANTS



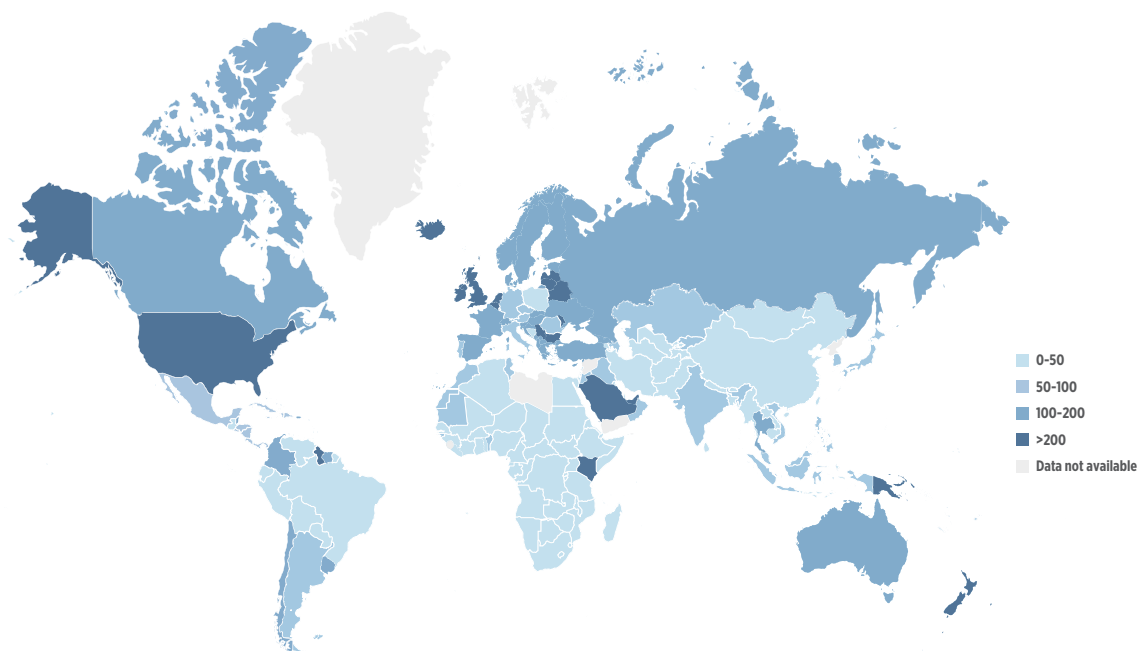
Source: [Measuring digital development: Facts and figures](#) (2019). ITU Publications.

PERCENT OF THE POPULATION WITH INTERNET ACCESS



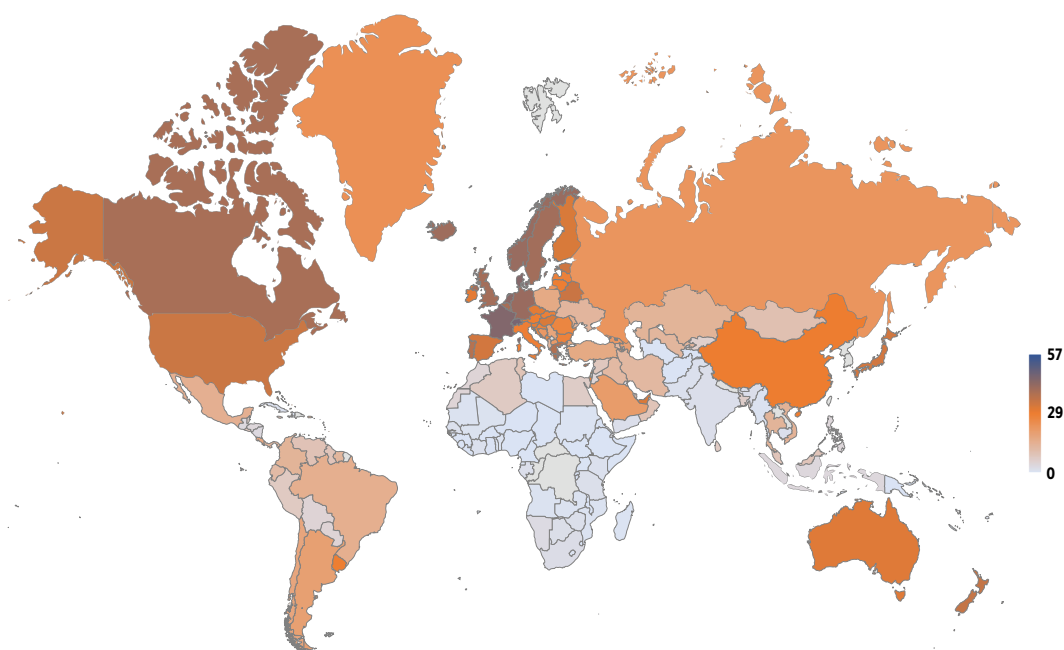
Source: [Measuring digital development: Facts and figures](#) (2019). ITU Publications.

BANDWIDTH FOR INTERNET USERS (KILOBYTES/SECOND)



Source: [Measuring digital development: Facts and figures](#) (2019). ITU Publications.

BROADBAND SUBSCRIPTIONS PER 100 INHABITANTS



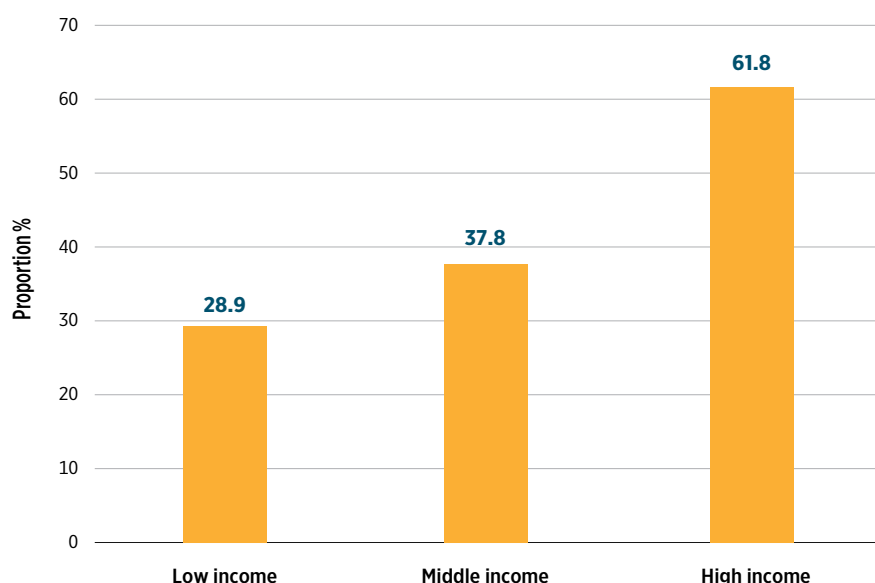
Source: [Measuring digital development: Facts and figures](#) (2019). ITU Publications.

In Latin America and the Caribbean, the app download trends from teleworking, distance training, and labor platforms show a promising outlook, but their scope is still limited. Although the COVID-19 situation has allowed the potential of teleworking to materialize, according to an analysis of household surveys of 23 countries in Latin America and the Caribbean, the proportion of employed persons who can telework varies between 7% and 16%, with the lowest rates in Guatemala and Honduras and highest in Costa Rica and Bahamas. Additionally, the likelihood of working from home is positively correlated with specialized skill occupations⁵⁰. Another IDB [study](#) shows that while 62% of high-income workers in the region can telework, only 29% of low-income workers can do so⁵¹. Similarly, on-demand work platforms have expanded their reach considerably, although they still represent a small proportion of total work in Latin America and the Carib-

bean. In Argentina, users and service providers on platforms that have generated income in the last year represent only 1% of the total employed population. Furthermore, the apps with the most growth are those intensive in low-skilled labor (“manual tasks”). This implies a potential growth for apps that are more intensive in human capital (“semi-professional or professional” platforms).

Even with internet access, a second challenge is that few workers are prepared to take advantage of digital technology’s opportunities. In the region, the digital skills gap is staggering. 43.6% of adults in Peru have no experience using computers or failed a basic test on the use of information technology, higher than in Mexico (39.3%), Ecuador (32.9%), and Chile (25.2%). In all these countries, the proportion of adults with low skills is higher than the Organization for Economic Development and Cooperation (OECD) average of 16.3%⁵².

FIGURE 11. WORKERS WHO TELEWORKED DURING QUARANTINE BY INCOME LEVEL

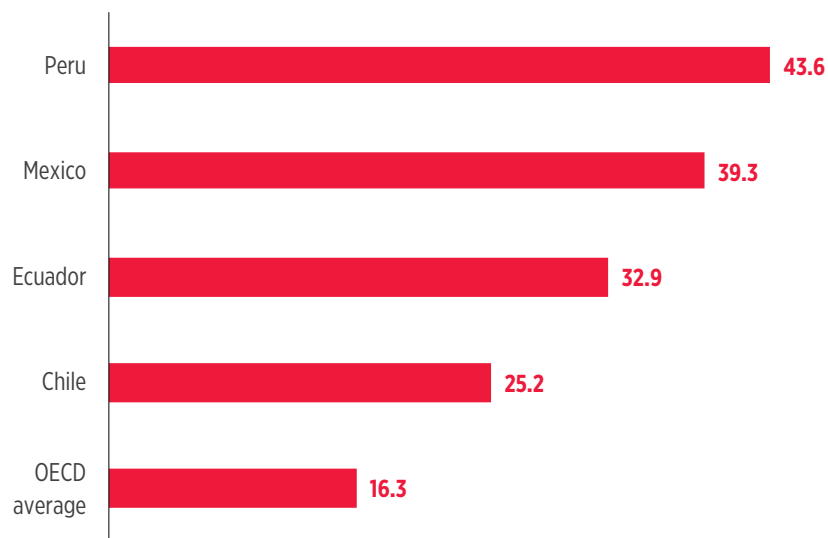


Source: Bottan, N., Hoffmann, B., Vera-Cossio, D. 2020. “The Unequal Burden of the Coronavirus Pandemic: Evidence from Latin America and the Caribbean”. Mimeo.

FIGURE 12. POPULATION'S ICT SKILLS

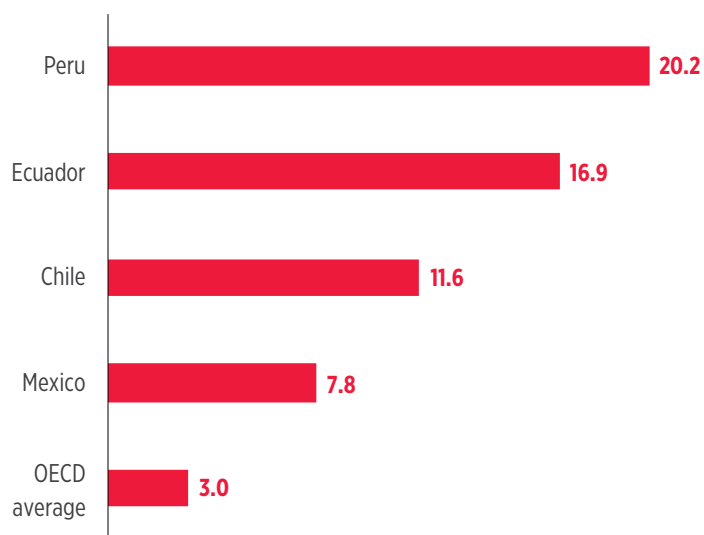
ITC SKILLS

LOW ICT SKILLS: NO EXPERIENCE USING A COMPUTER OR FAILED A BASIC ICT TEST
Working age population (%)



SKILLS FOR PROCESS INFORMATION

LOW INFORMATION PROCESSING SKILLS: FAILED BASIC TEST
Working age population (%)



Source: [Programme for the International Assessment of Adult Competencies](#) (2018). OECD.

Very few companies in the region were prepared to benefit from ICTs, although the emergency has forced many to adopt them. The [National Survey of Skills for Work in Peru \(ENHAT\)](#) reveals that the use of new technologies (advanced services in networks and artificial intelligence) is not very widespread in Peruvian companies⁵³. Only 27% of companies have adopted at least one new technology. Advanced network services, such as cloud technology, are key to remote work, allow-

ing workers to store, access, and share information from anywhere. Although it is the technology most adopted by companies, only 23.6% currently use it in Peru. In part, this is because small and medium-sized enterprises (SMEs) have fewer resources and lower capacity for transformation necessary to incorporate teleworking. In the region, 60% of employment is in SMEs. Guaranteeing inclusive access to telework requires progress in the digital transformation of SMEs.

Challenges in offering workers insurance against health and old age risks

The labor reality of workers in the region is diverse and often far removed from a salaried worker arrangement, for which the existing social security systems were designed. In addition to failing to provide adequate coverage to workers in the region in the past, looking towards the future, a significant share of newly created jobs will not be salaried positions. This would imply that the problem of insufficient social protection coverage would be exacerbated following the crisis. Moreover, many digital platform workers are already in informal or precarious job situations, highlighting [the importance of new technologies that halt the perpetuation of this old problem](#)⁵⁴. Seeking out modifications to social security systems in order to adapt them to the population needs is essential to ensure that technologies help generate new sources of income for workers.

This labor market reality renders the need to de-link employment from social insurance clear. Labor market malfunctioning is reflected in the observed level of informality and has a multitude of causes. One of the main causes is the design

of social security linked to people's employment status. In practice, this has segmented the workforce and increased productivity gaps. There are various proposals to achieve universal protection against health and old age risks. The common denominator of the proposals is to [de-link social security systems from a labor relationship](#)⁵⁵.

Redesigning the region's social security systems is essential to guarantee worker protection and for economic growth. Informality is a [brake on productivity](#)⁵⁶. In a context in which the priority is to reactivate the economy and generate quality jobs, labor informality that results from a social security scheme based on the employer-employee relationship is like wanting to move forward with the handbrake on.



5 | What next?

COVID-19 is accelerating the transformation of the world of work through a more intensive use of digital technology. However, we face the structural problems described in the previous section. What can we do to accelerate the technological transformation in the region for employment re-

covery in this context? How can we consolidate the type of work technology facilitates to maximize its benefits and minimize its risks? What is the scope of this transformation for a post-COVID-19 world? Here are some suggestions.

The future of work in a post-COVID-19 world

Teleworking will remain an ally in combating the spread of the virus. Until the pandemic is controlled, this modality will be critical to continue producing and consuming, minimizing human contact, and curbing the virus's spread. It is vital to review regulatory frameworks and adjust them to employers' and workers' teleworking needs in each country. Some questions have already arisen in the region and have no answer in current legislation: Is it the company's responsibility to provide its workers with adequate connectivity and the equipment to carry out telework? Can telework be carried out from anywhere? Does it have to be performed in the same city where the company is based? What measures should be taken to guarantee a work-life balance? Future labor regulations will have to answer these questions.

Distance training improves employability and facilitates the job search for those who are unemployed. Accelerated learning programs enable workers to be equipped with better skills and boost their labor market return in less time. These programs include short, simple modules on basic caregiving, digital, and social-emotional skills. One way to expand the reach at the level of individuals and companies would be to disseminate

this content through mass communication channels. In contexts with [connectivity gaps](#), delivery in analog formats (via cell phone, in-person social networks, radio, or television) can be promoted⁵⁷.

Given the lack of unemployment insurance in the region, on-demand work platforms offer accessible sources of income. The low entry barriers that characterize on-demand work platforms can provide income for millions of people who have lost their jobs or seen their income from work reduced. The scheduling flexibility they offer also makes them an alternative for people with the responsibility of caring for children.

COVID-19 is accelerating global transformation through a more intensive use of technology

Beyond the health and jobs crisis

Promoting inclusive access to teleworking and distance training opportunities requires improved access to ICTs and digital literacy. Reducing these gaps requires making investments to achieve effective access to new technologies, lowering connectivity costs. Developing tools that promote real digital literacy among the working-age population and youth is also important. However, the post-COVID-19 world will face more fiscal constraints, so public resources availability may be limited. Given this scenario, it will be essential to consolidate synergies with the private sector to confront the digital divide in productivity.

Social security systems require changes to adapt to new forms of work. Workers highly value the flexibility offered by on-demand work platforms, but they need to include coverage for

health, disease, and old age risks. The greatest challenge will likely be adapting social security institutions to the region's labor markets' reality after the COVID-19 crisis. Technological tools can help this transition. The pandemic has shown the structural flaws in insurance, healthcare, and unemployment risks of Latin American and Caribbean populations. [COVID-19 has made the need to move towards a universal social security system clear, eliminating segmentation between the formal sector and the informal sector](#)⁵⁸. It is very possible that many new jobs that are generated are not salaried jobs, which will only worsen the [lack of protection for workers in the region](#)⁵⁹. De-linking social security systems from the labor market is not only desirable but possible. The future is now, and we must change our institutions to confront this new reality.



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