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### **Working Paper**

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The platform economy and transformations in the world of work: The case of delivery platform workers in Santiago, Chile

Authors / Antonia Asenjo Cruz, Alberto Coddou Mc Manus, Rishabh Kumar Dhir





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### **Abstract**

The growth of digital labour platforms has significantly changed the world of work in Santiago, Chile, especially in the taxi and delivery sectors. This has gained even further prominence since the outbreak of the coronavirus disease (COVID-19) pandemic. Delivery platforms, in particular, have gained prominence offering various services, such as delivery from restaurants, supermarkets and pharmacies, with a promise of higher efficiency. However, this growth has also brought attention to the challenges faced by the workers on these platforms. Debates are ongoing about how to provide fair working conditions for platform workers. Chile has recently taken legislative measures in this direction. This paper aims to contribute to this debate by focusing on the diverse experiences of mobile application-based delivery workers in the country, while also examining the business model of delivery platforms that rely on new technologies to mediate work, as well as the consequences for workers. This paper draws on the data from the in-person survey conducted in Santiago in 2019, involving 259 mobile application-based delivery workers and 50 traditional delivery workers, as well as a follow-up survey conducted during the COVID-19 pandemic in August 2020. The paper provides insights into how different delivery platforms have operated in Chile and their effects on workers in terms of earnings, working hours, occupational health and safety, and social protection. The paper also examines the algorithmic management practices of delivery platforms and their impact on worker flexibility and autonomy. It highlights the precarious and vulnerable situation of these workers, which had been exacerbated by the COVID-19 pandemic. The paper also shows, however, how platform workers have started to organize and demand better working conditions. Lastly, as Chile moves towards implementing a new law to regulate platform work, the paper identifies key challenges that need to be addressed to ensure that all platform workers have access to decent work.

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### ▶ Introduction¹

Digital labour platforms allow for coordination between supply and demand with regard to various services. They have also modified our understanding, from various perspectives, about the forms that work can take. This area of the economy – often referred to as the "gig economy", "platform economy" or "collaborative economy" – has been able to grow because of the technological developments seen in recent decades, supported by a greater capacity to collect and analyse data and an increase in the mass use of technological devices. Despite limitations in the availability of data, several studies show that the platform economy is growing and that digital labour platforms have penetrated multiple sectors of the economy. It is argued that the development of such platforms, which draw on data collected from multiple users, has led to improved efficiency and productivity of economic interactions (Yildirmaz, Goldar and Klein 2020). While the proportion of the labour force that works "on, with or through" digital labour platforms is not precisely known, platform workers are central to the future of work (ILO 2021; ILO 2020a).

Digital labour platforms allow for the provision of different types of services digitally or remotely, either through online web-based platforms or in person in a specific physical location through location-based platforms. With online web-based platforms, such as freelance or microtask platforms, tasks or work assignments – ranging from translation or software development to data annotation or content moderation –are outsourced to workers located in various countries who perform the tasks online or remotely. With location-based platforms, while the coordination between supply and demand for a certain service takes place digitally, tasks are performed by workers in person, which requires them to be physically present in a specific location (ILO 2021; Berg et al. 2018).

Location-based platforms have become well known throughout the world because of their visible impact on the world of work. Tasks performed via location-based platforms include transporting people in a vehicle, delivering goods from one place to another or providing domestic, care or home services (ILO 2021). Such platforms claim to promise radical improvements in the provision of services, especially by enabling individuals and businesses to quickly and efficiently gain access to services according to their desires or needs (referred to as "on demand"). The acceleration of technological development and the need for companies to seek innovative, low-cost arrangements in response to the pressures of globalization has led to new business models that increasingly rely on non-traditional forms of employment (Weil 2014). In addition, many sectors of the labour market are experiencing pressure to reduce labour costs owing to changing contexts and multiple uncertainties.

Some researchers have argued that these new forms of work have the potential to reduce poverty and foster development through the creation of flexible employment opportunities that provide workers with a considerable degree of autonomy (WEF 2020). However, a number of researchers writing in various academic publications and in reports by national and international organizations have argued that, on location-based platforms in particular, the tasks on offer are low-skilled in nature, and that these platforms pose challenges with regard to decent working conditions (ILO 2021; CESCR 2020; Eurofound 2019; ECLAC and ILO 2019; De Stefano 2016; Prassl 2018). Lastly, the global health crisis caused by the COVID-19 pandemic has resulted in unprecedented growth in the demand for workers on delivery platforms and has also exposed the vulnerabilities and precariousness faced by such workers, including the lack of personal protection, job insecurity and exposure to health risks at work (Fairwork 2020a; OECD 2020).

This technical note was prepared for the ILO by the consultants Antonia Asenjo and Alberto Coddou. It has been updated in English with contributions from Rishabh Kumar Dhir. The conclusions, interpretations and results expressed in this document do not necessarily reflect the views of the ILO or its Member States. The designations used and the presentation of the material throughout the work do not imply the expression of any opinion on the part of the ILO on the legal status of any country, territory, city or area, or its authorities.

Among location-based platforms, taxi and delivery platforms in particular have generated various controversies and posed regulatory challenges for public authorities. While taxi platforms have faced scrutiny for their impact on the often highly regulated taxi sector in large cities, delivery platforms have become known for the algorithmic coordination and management of the delivery or distribution of goods in a sector that is subject to scant regulation and is often associated with informality. Analyses of taxi platforms have largely been carried out from the perspective of competition law (for example, regarding the prohibition of unfair competition) and other regulatory frameworks specific to the sector (such as those regarding traffic rules or air quality). Analyses of delivery platforms, meanwhile, have mainly focused on the precarious labour conditions that these platforms create (Ottaviano, O'Farrell and Maito 2019). Despite these nuances, both types of platforms face similar challenges related to the protection and promotion of decent work. In particular, there is growing discussion about whether or not platform work constitutes a new form of work, or if such work is similar to old practices that are now relying on a new digital tool as an intermediary (ILO 2021).

In this context, understanding the labour practices and experiences of workers on these platforms is essential to guide the debate about how to regulate such "new forms" of work. Moreover, in Chile, where a landmark regulatory framework (Act No. 21.431) has recently been enacted with the aim of governing platform work, it is crucial to conduct a comprehensive analysis of the implementation phase of the new law and of its impact on workers on digital labour platforms to identify potential risks to workers' rights.

This paper will focus on location-based platforms, specifically delivery platforms, with the aim of providing a better understanding of how delivery platforms operate and what impact they have on workers in the city of Santiago, Chile. The analysis draws on a survey conducted between June and October 2019, involving in-person interviews of mobile application-based delivery workers and other workers who performed traditional delivery work.<sup>2</sup> The survey represented the first time that quantitative information on the topic had been collected in person in Chile.<sup>3</sup> In addition to the survey, several interviews were also conducted with owners of restaurants and shops that used delivery services, so as to provide a more comprehensive picture of the phenomenon. Lastly, to understand the impact of the COVID-19 pandemic on the working conditions of delivery workers, a follow-up survey was conducted with a random 10 per cent of the original sample during the month of August 2020.

The paper is structured as follows: section 1 provides a brief description of the labour market in Chile, the delivery platforms available and the existing regulatory framework; section 2 discusses the methodological approach used in the survey and analysis; and sections 3–10 present the characteristics of the workers, their experiences, their career trajectories, their working conditions, and the opportunities and challenges that they face. The first two sections are based on a review of academic literature and open press sources, in addition to interviews conducted with representatives of platform workers' associations in Santiago and Concepción. The subsequent sections draw on in-person interviews conducted with 259 mobile application-based delivery workers and 50 traditional delivery workers, in addition to the follow-up interviews conducted via telephone with 10 per cent of the original sample. The final section concludes with some policy recommendations.

This is part of a larger research project conducted by the ILO Research Department, wherein surveys of mobile application-based delivery workers and drivers were carried out in 11 countries in various regions of the world.

Other works have drawn on surveys carried out via social media networks (Fielbaum and Tirachini 2021) or via the devices provided by platforms (CNP 2019).

### ▶ 1 Context

### 1.1 Santiago as a case study

In recent years, Chile has become an emerging market for location-based platforms. The country has a total population of 18 million people, nearly 40 per cent of whom live in Santiago. It is one of the fastest growing economies in Latin America and the first country in the region to have joined the Organisation for Economic Co-operation and Development. It is currently categorized as a "high-income" country, which means that part of the population has high purchasing power and the capacity to pay for delivery and transportation services. Moreover, Internet use is quite widespread and has increased significantly since 2017. Some 70 per cent of the population now has Internet access, with six out of ten people using smartphones. The Chilean telecommunications market, which provides individuals with access to low-cost mobile phone plans, has played an important role in the expansion of mobile phone and Internet use. According to the Inclusive Internet Index, Chile is ranked 17th globally in the overall Index and 27th for Internet availability (Economist Impact 2022).

Despite the favourable economic outlook, a considerable proportion of the Chilean population remains economically vulnerable, and income inequality is high – among the highest both in the region and in the world, according to some indicators (UNDESA 2020). This inequality is reflected in the labour market. According to data published by the National Statistics Institute of Chile (INE) in 2022, the average monthly income was 681,039 Chilean pesos in 2021. However, half of all wage earners receive a monthly salary or income that is equal to or less than 457,690, pesos. According to the indicators established for the purpose of determining the income poverty line in Chile, a household of four members must have an income of at least 466,116 pesos. In other words, the income from one source of work performed by a single median wage-earner is not sufficient to keep a household of four above the poverty line. As is explained later in this paper, this could be one of the reasons why a significant proportion of the population is seeking income through delivery platforms.

Over the past decade, Chile has seen a considerable increase in the number of migrants who are living in the country, and it has developed a diversified population. According to data provided by various public institutions, Chile had 1,492,522 regular foreign residents in 2019, representing a relative increase of 19.4 per cent in respect to 2018. A large part of this increase is due to the migration of nationals from the Bolivarian Republic of Venezuela; by 2020, there were 455,494 migrants from the Bolivarian Republic of Venezuela in Chile, representing 30.5 per cent of the total foreign population (INE 2020). The number of both temporary visas (valid for 2 years) and permanent visas has increased significantly since 2005, by 400 per cent and 640 per cent respectively. Today, Chile is one of the main host countries of migrants as a percentage of its total population. Many migrant workers begin working on digital labour platforms as a main or supplementary source of income, either on a permanent basis or on a temporary basis while they look for another job.

Lastly, the social and economic effects of the COVID-19 pandemic have intensified two fundamental issues in the world of work. First, there was a significant increase in the demand for services offered by delivery platforms among both commercial establishments and consumers, owing to restrictions on movement. Second, a large proportion of workers lost their jobs or suffered a significant decline in income, which led to a considerable increase in the number of workers who are dependent on delivery platforms as a main or supplementary source of income (ILO 2020b). While there are several factors that need to be considered, the social and economic impacts of the pandemic have significantly modified the context within which delivery platforms operate in Chile and the world. Some of these impacts will be discussed in this paper.

### 1.2 Delivery platforms in Chile

In 2015, Cornershop began to operate in Chile. Delivery applications (or "apps") began to expand and gain popularity in 2017 and 2018 with the entry of Uber Eats, Glovo<sup>4</sup> and Rappi to the market. These latter platforms were a novelty for users, especially in "food for home delivery" sector. Delivery apps allow for centralized access to various restaurants, while providing discounts and offers to individuals, and they do not require telephone or in-person contact. In 2019, 25 per cent of all home food delivery orders in Chile were placed through apps (CNN Chile 2018). The executives of delivery platforms, as well as the representatives of employers' organizations, have publicly stated that they believe that this commercial segment will continue to grow (Flores 2019a). Since 2017, there has been an exponential growth in the number of downloads of delivery apps, which has been concentrated in the higher socio-economic segments (Flores 2019b). The COVID-19 crisis led to further significant growth in the demand for delivery services. For example, in the case of Rappi, the number of orders placed between March 2020 and June 2020 across categories such as pharmacies, restaurants and supermarkets was 250 per cent higher than in the same period in 2019 (Bohle 2020).

The scope of location-based platforms has now begun to expand, with platforms offering a broader range of services. Delivery platforms that originally offered the home delivery of "prepared food" have now expanded to offer delivery services from supermarkets, pharmacies and greengrocers, in addition to general courier services. Similarly, taxi platforms, which originally provided only taxi services, also expanded to offer delivery services during the pandemic. Uber's acquisition of Cornershop is an example of how such companies are seeking to enter multiple sectors and dominate the market, while claiming to be the so-called people's operating system (Tele13Radio 2020). Likewise, in April 2020, taxi platform Beat launched Beat Delivery, a parcel delivery and general courier service, in response to the growth in demand during the COVID-19 pandemic.<sup>5</sup> In addition, during the first months of 2022, DiDi launched DiDi Food in the region of Valparaíso, declaring themselves an ally to small and medium restaurants (Chócale 2022).

In 2022, the delivery platforms with the greatest presence in Santiago were Cornershop, PedidosYa, Rappi and Uber Eats.<sup>6</sup> Cornershop was established in Santiago in May 2015. It offers home deliveries from supermarkets<sup>7</sup> and shops, having established a partnership first with Walmart<sup>8</sup> and later with Cencosud,<sup>9</sup> thereby allowing its customers to benefit from low charges when purchasing products from these stores. In mid-2020, Cornershop and Uber merged, with the latter holding 51 per cent of the shares and controlling the board of directors (Arteaga 2020). Whereas PedidosYa,<sup>10</sup> Rappi<sup>11</sup> and Uber Eats<sup>12</sup> all began as food delivery services, in recent years they have expanded into other services and have consequently established partnerships with supermarkets, sandwich shops and pharmacies, similar to the strategy adopted by Cornershop.

The COVID-19 pandemic pushed platforms to come up with new strategies to speed up delivery times and expand their range of services. For example, PedidosYa decided to open its own supermarkets, or "dark stores", located in strategic sectors with the highest demand (Neumann

<sup>&</sup>lt;sup>4</sup> Glovo ceased its operations in Chile in 2019.

<sup>&</sup>lt;sup>5</sup> Announced by Beat before the Senate hearing on a draft bill setting out basic guarantees for people who provide services through digital platforms (Congress Library Gazette No. 13.496-13).

<sup>&</sup>lt;sup>6</sup> New delivery platforms have entered the Chilean market during the period between the implementation of the survey and the publication of this study. However, these new platforms will not be considered in this paper.

<sup>&</sup>lt;sup>7</sup> Between 90 and 100 per cent of Cornershop's sales in 2018 came from supermarkets.

Owner of one of the two largest supermarket chains in Chile (Lider).

<sup>&</sup>lt;sup>9</sup> The main retailer in Chile, and the owner of the brands Jumbo, Santa Isabel and Easy.

PedidosYa is a Uruguayan firm that has been operating in Chile since 2013. In 2019, it acquired some of the assets of Glovo. In mid-2019, more than 6,000 shops were affiliated with PedidosYa.

Rappi is a Colombian company that entered the Chilean market in July 2018 as the cheapest and fastest on-demand delivery option, promising delivery in less than 35 minutes. It also allowed payments in cash, an option that had not been available through other platforms until then.

<sup>&</sup>lt;sup>12</sup> Originating in the United States, Uber Eats launched in Chile in November 2017. It has more than 3,000 affiliated establishments.

2020). Similarly, some platforms have expanded their delivery services by partnering with non-traditional and informal shops, such as greengrocers or small stores (Ferias Libres de Chile 2020).

The business model of such platforms involves charging a commission fee to shops or restaurants – usually a percentage of the sale – and a delivery fee to customers. The commission charged to restaurants or shops tends to be approximately 25 per cent, but it may be lower where there is an exclusivity agreement between the platform and the restaurant or shop. The information gathered from the field survey shows a wide range of commission fees being charged, ranging from 15 to 30 per cent of the sale. Platforms can also have agreements with large companies, in which the commission fee or delivery charge might be decreased or eliminated.

The delivery fee charged to the customer is usually a fixed amount per order, which varies between 890 pesos (for items from Papa Johns, charged by PedidosYa) and 4,900 pesos (for items from supermarkets, charged by Cornershop). In the case of Rappi, there is also a "shopper fee" of approximately 400 pesos, which is charged to customers.

Platforms may offer discounts on the delivery charge for purchases that exceed a certain amount. For example, Cornershop charges 2,900 pesos instead of 3,900 pesos for purchases of more than 50,000 pesos from the chain El Volcan. Some platforms also offer paid memberships, which provide an exemption from the delivery charge.

### 1.3 Regulatory framework in Chile

In 2022, Chile emerged as a pioneer in the region with the enactment of Act No. 21.431 on the regulation of platform work, pursuant to which a new chapter was inserted into the Labour Code (Leyton García and Azócar 2022). Although the new law formally covers different kinds of location-based platform work, it is mostly applicable to delivery workers. Act No. 21.431 can be understood as a move towards the creation of basic guarantees, as it aims to address many of the challenges faced by workers on digital labour platforms and to protect their rights through the creation of a specific legal regime (Leyton et al. 2022a). However, at the time when the surveys for this study were conducted, Chile lacked any specific regulations governing platform work. It is therefore important to understand the regulatory gaps that the new law aims to address.

According to the terms-of-service agreements established by digital labour platforms – which workers must accept in order to join the platform and access work – app-based delivery workers have been considered to be self-employed or independent workers (see subsection 6.1). Consequently, they do not enjoy the rights guaranteed by Chilean labour law to employed workers. In addition, these terms-of-service agreements tend to be opaque and do not allow for negotiations between the parties (namely the worker and the platform). As an example, the terms-of-service agreement of one platforms stipulates the following:

"Rappi facilitates communication between persons [...] who request a service for the order and/or purchase [...] of various products that are shown on the Platform from other persons who accept, on their own behalf and at their own risk as self-employed RappiRepartidores and in their capacity as agents (the 'RappiRepartidor' or the 'RappiRepartidores'), to manage the Service requested by the User/Consumer by means of a mandate contract, in exchange for receiving an amount from the User/Consumer as consideration for said Service, all by means of access to and use of the Platform, Rappi being a non-intervening third party between the Users/Consumers and the RappiRepartidores." (translated from Spanish, emphasis added)

Recently, the Chilean Congress enacted the so-called "Uber Law", which regulates the provision of passenger transport services through digital platforms, creating a range of different obligations for platform companies. These obligations include the creation of a public registry, requirement for vehicles and drivers' licenses and, most importantly, obligations related to social security, health and safety protections for app-based drivers. See Senate of Chile (2023).

According to the former Chilean law, agents were considered parties to a contract – governed by private law – established between persons who are on equal terms and who express their willingness to enter into the contract, whereby one of the parties undertakes to provide a service (delivery of a product) in exchange for a price. As a general rule, independent workers, when providing a service, have the power to set their own work schedules and service charges and have the freedom of contract. On digital labour platforms, the reality is very different, however, as the experiences had by delivery workers are shaped by the platforms' use of algorithms for managing and disciplining workers, which will be discussed in the following sections. Moreover, it is important to note that, for a considerable proportion of delivery workers, their work on delivery platforms is their main source of income. Calls have therefore been made to reflect on and redefine the concept of dependency and subordination on digital labour platforms, so as to accurately classify workers on such platforms (Morris Keller 2021).

In Chile, as well as in some other countries, there has been a growing number of court cases involving disputes between platform workers and digital labour platforms regarding the legal status of the relationship between the two parties: namely, whether it is one of an employment relationship, in which workers are considered employees, or a civil relationship, in which workers are considered independent workers. In this regard, courts have often engaged with the issue of subordination to determine whether an employment relationship exists between the worker and the platform, although the rulings have sometimes been contradictory. For instance, in 2015, a Chilean court ruled that Uber was an unsubordinated community of drivers with no employment relationship to the platform, whereas in 2020 another court ruled that a worker on PedidosYa was in a relationship of subordination and dependence, given that the company set the worker's shifts, determined who needed to wear a uniform and who could be sanctioned for not wearing one, and exercised control through ratings, among other factors. In this second case, the court determined the existence of an employment relationship (see Pablo Pérez 2022).

Such legal uncertainty has also led to intense debate about the standards applicable to workers in the platform economy, especially those working on location-based platforms, which usually involve low-skilled tasks (De Stefano and Aloisi 2019). According to the ILO, when addressing such disputes, it is important to consider the pertinent international labour standards, especially the provisions set forth in Employment Relationship Recommendation, 2006 (No. 198), which stipulates that, when determining the existence of an employment relationship, the principle of the primacy of facts should be applied and various indicators should be considered (ILO 2020a).

Platform workers were initially not covered by employment regulations in Chile, which only protected employees. While there are many specific regimes for different types of work, such as temporary farm workers or domestic workers, previous legislative attempts to protect platform workers had not been successful. However, in recent years, several legislative initiatives attempting to regulate this type of work were put forth, in addition to lawsuits initiated by workers to seek recognition of the employment relationship.<sup>14</sup> The legislative debates distinguished between three main areas for regulating the status and working conditions of platform workers.

The first approach was proposed by the Government, headed by the former President Sebastián Piñera, through the so-called "Uber Law", which focused on taxi platforms and drew on a proposal to reform existing labour legislation (known as the labour modernization plan). Proponents of this approach maintained that platform workers are "independent workers" who should be legally obliged to contribute to a social security scheme by issuing invoices for professional services, which would grant them some minimum provisions for health and safety.

As mentation above, Chilean courts have issued some definitive judgements in this regard. One court agreed with the digital labour platforms regarding the status of platform workers as self-employed persons (Second Labour Court of Santiago, Case No. O-1388-2015, 14 July 2015), while another court recognized the employment status of this type of relationship (Concepción Labour Court, Case No. M-724-2020).

In the second approach to the issue, it was posited that platform workers should be classified as employees through the creation of a special regime within the framework of labour legislation. Proponents of this approach argued that, for platform workers, labour legislation should recognize that the concept of subordination and the indicators thereof and must be updated to take into account new forms of work, in which authority and hierarchy have mutated as a consequence of technological transformation. Even though this bill was not approved, the issue of subordination was incorporated into the new law, as workers themselves have argued that it is important to recognize that their boss is in an app.

Finally, the third approach was grounded on the idea that the relationship between digital labour platforms and their workers presents characteristics of both dependent and independent work. In the first variation of this approach, proponents argued for a category of "independent workers" with a minimum provision for collective bargaining in order to offset the asymmetries of bargaining powers (Radio Pauta 2019). The second variation posited that the regulatory framework should create a third category of "workers", such as in the United Kingdom, Spain and Italy, all of which provide for the category of "economically dependent self-employed workers" (Muñoz García 2018). Another draft of the bill was later proposed which attempted to establish basic guarantees for platform workers, regardless of their employment status, such as a mechanism for receiving payment according to the number of hours worked, in addition to provisions for medical leave and accident insurance. This draft did not consider the right to freedom of association or to collective bargaining, however.<sup>16</sup>

To reach consensus among the various approaches, the Ministry of Labour and Social Security held tripartite technical meetings and gathered expert opinions. The issue of legal classification of platform workers remained a point of contention during the discussions (Arab Verdugo and Frontaura Marzolo 2022; Morris Keller 2021). The bill (Bulletin No. 13.496-13) was eventually modified following an agreement with the Government, ultimately becoming Act No. 21.431. While initially it had focused only on providing basic protections and had not engaged with the issue of the status of platform workers, the adopted Act established a specific regulatory regime that distinguishes between "dependent digital platform workers" and "independent digital platform workers" (Leyton García and Azócar 2022; Leyton et al. 2022b; also see subsection 6.1). The Act also defines the term "digital service platforms" and limits the scope of its application to location-based platforms, to the exclusion of online web-based platforms (Arab Verdugo and Frontaura Marzolo 2022).

Some platform companies have, however, noted that their relationship with workers requires further clarification under the new law (Espinosa 2022). Furthermore, scholars have also critiqued the Act with regard to its classification of workers into two categories (see subsection 6.1) and its provisions on collective bargaining. While platform workers can organize and bargain collectively under the new law, their negotiations fall under the category of "unregulated collective bargaining", meaning that their bargaining and strike actions are not protected or regulated under Chilean labour law, which risks undermining the workers' ability to articulate their concerns effectively (Leyton et al. 2022a and 2022b).

In October 2022, the Department of Labour issued an opinion on the scope of Act No. 21.431, in which it suggested that the Department has the power to qualify and classify the relationship of platforms and their workers, instead of relying on courts for this purpose (Lexology 2022). This opinion also expressly recognized the right of platform workers to create unions and confirmed that such unions are entitled to access the company's information, perform collective bargaining and hold strikes, among other things. Given that Act No. 21.431 is a recent development, its

<sup>&</sup>lt;sup>5</sup> The bill was published in Congress Library Gazette No. 12475-13.

This draft of the bill was published in Congress Library Gazette No. 13496-13.

For the text of Act. 21.431, see: https://www.bcn.cl/leychile/navegar?idNorma=1173544.

This opinion is currently being challenged before the appellate courts. See La leguleya (Alejandra) (2022).

implications for workers and platform companies are yet to be fully understood, and the manner in which it will be implemented is yet to be determined.

### 2 Sampling and implementation of the survey

# 2.1 The number of delivery workers in Chile and their characteristics

One of the most important methodological considerations is related to the need to estimate the number of app-based delivery workers in Chile. There are currently no official figures or records on the number of app-based delivery workers in Chile, an issue that has been at the centre of regulatory debates on the subject. It is extremely important that the authorities know the total number of persons who work on delivery platforms in Chile, in addition to their socio-economic characteristics and working conditions, in order to understand the magnitude of employment and the situation of the workers in this economic sector, especially given that such information can play a key role during the process of designing regulations. When debating the various draft bills put forth, the Chilean parliament acknowledged that there was no information on the number of delivery workers who had downloaded the various delivery apps, the number of such workers who were working in Santiago or the other cities of Chile, or the amount of time that workers spent doing platform work.<sup>19</sup>

The lack of accurate information about the number of app-based delivery workers and their basic characteristics is not only due to the pace at which this form of work is growing but also due to a strategy pursued by the digital labour platforms, wherein they do not disclose the number of delivery workers who are registered and actively operating on their platforms, citing competition issues. This was explained by the manager of operations for Rappi in Chile, who stated that the number of delivery workers registered with each company is "confidential information. Nobody knows [how many delivery workers] the other company has; that's the point. It's a matter of competition" (Palma 2019). Nevertheless, during the development of the various legislative initiatives, platform companies in Chile were obliged to explain their positions and to be transparent with information about their delivery workers.

Consequently, the first step when conducting a study on app-based delivery workers was to estimate the number of workers and their basic characteristics. To that end, this paper draws on various sources, including information from the press and data provided by the authorities and by delivery platforms during presentations before committees of the legislative chambers or at working groups convened by the Under-Secretary of Labour.

According to information provided by platform companies, during the first half of 2020, approximately 600,000 workers earned income through location-based platforms (drivers and delivery workers) in Chile.<sup>20</sup> According to data presented by the Ministry of Labour and Social Security, however, the total figure is estimated to be closer to 300,000.<sup>21</sup> Again according to the delivery platforms, at the beginning of the COVID-19 pandemic, there was a total of 15,000 active delivery workers, not including those working for Uber Eats (Ríos and Cifuentes 2020), which had 34,000 active delivery workers per month – a number that was expected to increase by 40 per cent in the second half of 2020.<sup>22</sup> As the crisis caused by the COVID-19 pandemic continued to evolve, the number of delivery workers surpassed the number of drivers; there was a 40 per cent

See, for example, the discussions that have taken place in Congress regarding the aforementioned draft bills.

As stated by the communications manager of Uber at a meeting of the Labour and Social Welfare Committee of the Senate of Chile on 13 May 2020 (see Congress Library Gazette No. 13.496-13).

Presentation by the Ministry of Labour and Social Security at a meeting of the Labour and Social Welfare Committee of the Senate of Chile on 13 May 2020 (see Congress Library Gazette No. 13.496-13).

Presentation by the communications manager of Uber at a meeting of the Labour and Social Welfare Committee of the Senate on 13 May 2020 (see Congress Library Gazette No. 13.496-13).

increase in demand for the delivery of goods and an 80 per cent decline in the demand for personal transport (Bohle 2020). During COVID-19-related lockdowns in Chile, app-based delivery workers were classified as "frontline workers" and were given special permission to move about in areas under lockdown.<sup>23</sup> This was not the case for app-based taxi drivers, however, who were not allowed to transport passengers during the lockdown. The figure of 15,000 app-based delivery workers does not, therefore, seem to reflect the real number of platform workers at that time. In addition, determining the real number of app-based delivery workers is further complicated by the fact that, during the COVID-19 pandemic, taxi platforms expanded their services, and drivers were used to provide delivery services.

Table 1 presents the number of delivery workers and their basic characteristics. The data are based on various sources, primarily the information provided by platform companies.

### ► Table 1: Number of app-based delivery workers

Company	Number of workers	Basic characteristics
Rappi	40,000 are registered (+15,000 during the COVID-19 pandemic)	80 per cent are between 18 and 35 years of age
	4,000 are constantly connected (+3,000 during the COVID-19 pandemic)	10 per cent are women
		70 per cent are migrants
Uber Eats	34,000 active delivery workers per month	Primarily young people, between 20 and 30
	Projected 40 per cent increase in newly registered de-	years of age
	livery workers in the second half of 2020	40 per cent are migrants
PedidosYa	7,000 active delivery workers per month	Average age of 29 years
Cornershop	50 "shoppers" who are salaried, plus 13,000–15,000	
	shoppers working on a commission basis	

Source: Information from the press and from presentations made by delivery platforms before the National Congress of Chile.

According to these estimates, as of December 2020, the total number of app-based delivery workers in Chile ranged between 30,000 and 50,000. While it is difficult to provide data on the basic characteristics of such workers, a large proportion are known to be migrants, ranging between 40 and 70 per cent in some companies. Most workers are young, with an average age of 29 years at some companies, and some 90 per cent are male.

### 2.2 Design and implementation of the survey

The lack of official statistics on these forms of work makes it difficult to survey a representative sample of the entire population. As described in an earlier section, owing to a lack of information on the size of this group, and as workers are constantly moving in and out of platform work, it is difficult to define the target population. In many cases, platform workers are also in situations of vulnerability or informality, which makes it even more difficult to identify them. It is therefore challenging to survey a random and representative sample of the total population of platform workers.

To solve the problem of identifying such "hard-to-reach populations", different approaches are proposed in the literature (Shaghaghi, Bhopal and Sheikh 2011). This paper uses a "time-location"

For health reasons, a curfew from 10 p.m. to 5 a.m. was imposed in Chile from 22 March 2020. On the same date, a dynamic lock-down was also established in certain municipalities of Chile where there was a higher number of infections. On 15 May 2020, a complete lockdown was declared for all municipalities in the Santiago Metropolitan Region, which was gradually relaxed until 3 October, by which point all municipalities in the region were no longer under lockdown.

sampling approach, which is based on identifying the relevant population at expected points (location) and at specific hours (times) in different municipalities of Santiago.<sup>24</sup> In other words, it uses intentional, stratified non-probability sampling. A more detailed description of the strategy and of the sample design is provided in the methodology annex.

Migrant workers constituted 71 per cent of the sample, which is similar to the proportion reported by platforms such as Rappi (see table 1). Most app-based delivery workers in the sample were male (85 per cent), which is similar to the figure provided in the press. The sample was uniformly distributed between the various platforms, with a slight preponderance of delivery workers engaged with Rappi, representing approximately 30 per cent of the sample. To compare and contrast the situation of app-based workers and traditional workers, 50 delivery workers who worked for local pizza, sushi and fast-food shops and supermarkets were also selected (see table 6).

The survey was conducted with a total of 259 app-based delivery workers and 50 traditional delivery workers who delivered items from food shops and supermarkets in Santiago between 11 June and 2 October 2019.<sup>25</sup> The survey included 12 modules of quantitative and open-ended questions, with a duration of approximately 60 minutes. The surveys were conducted in person, mainly during weekdays at different times of low demand (from 11 a.m. to 1 p.m. and from 3 p.m. to 5 p.m. for the majority of app-based delivery workers, and during lunch time for Cornershop workers). The surveys of app-based delivery workers were conducted between 11 June and 11 August 2019 and the surveys of delivery workers working for restaurants and shops ("traditional delivery workers") were conducted between 19 August and 2 October 2019.

Owing to the considerations mentioned above, the sampling strategy does not allow the results to be extrapolated or generalized to the entire population of app-based delivery workers in the Santiago Metropolitan Region. The surveys were conducted mainly during working hours and at locations where workers would take a break, primarily in municipalities in the east of the city. The majority of the app-based delivery workers surveyed did not have another job as an employee, meaning that platform work was their main source of income. This group of app-based delivery workers are therefore considered "active" workers, unlike the "passive" workers who are in the total pool of workers who offer delivery services but who work sporadically and are likely to have another job or other sources of income. Therefore, while the sample design does not represent the totality of app-based delivery workers in the Santiago Metropolitan Region, it does allow specific characteristics of this labour phenomenon to be identified and patterns to be established with regard to the experiences and working conditions of "active" app-based delivery workers.

Considering the significant events that occurred both in Chile and globally since the survey was conducted, an additional effort was made to compile information regarding the impact of the COVID-19 pandemic on the working conditions of delivery workers in the period after March 2020. A follow-up survey was conducted of a random selection of workers, corresponding to 10 per cent of the sample of delivery workers from the first survey. The interviews for the follow-up survey were conducted by telephone in August 2020. A total of 80 delivery workers were contacted, resulting in 37 interviews with app-based delivery workers and six interviews with traditional delivery workers. This allowed us to explore how the COVID-19 crisis had affected delivery workers' work and incomes, as well as their occupational health and safety.

<sup>&</sup>lt;sup>24</sup> This strategy is similar to the one used in a study conducted in Argentina (see Madariaga et al. 2019 and ILO 2021).

The survey was designed by the ILO Research Department in Geneva for the purpose of characterizing platform workers and identifying the main opportunities and challenges related to this form of work. It was implemented in 11 countries across various regions, during which a total of 3,498 surveys were conducted. In Chile, a survey of app-based taxi drivers and traditional taxi drivers was also carried out.

### 3 Basic characteristics of the delivery workers surveyed

### 3.1 Age, gender and migration status

The survey findings show that the majority of delivery workers are male – not only those who access work through delivery platforms (85 per cent) but also those who do so through traditional mechanisms (82 per cent) (see table 6). There is a higher concentration of women among the workers on Cornershop, however, with women representing nearly half (48 per cent) of the sample.

The majority of app-based delivery workers surveyed were relatively young (24–34 years), accounting for 52 per cent of the sample, which is consistent with the information provided by the platform companies (see table 1). The average age of women workers (38 years) was higher than that of men (31 years). The average age of workers on Cornershop (40 years) was also higher than for workers on the other platforms (32 years).

The increased use of digital labour platforms in Santiago coincided with a significant increase in the arrival of migrants from the Bolivarian Republic of Venezuela. As migrant workers face barriers to accessing jobs in the local labour market, owing to difficulties in validating their degrees or a lack of social contacts, these platforms offer easy access to an income. This is reflected in the information provided by Rappi, which shows that 70 per cent of its workers are migrants (see table 1). Most app-based delivery workers surveyed were migrants (71 per cent), compared with 42 per cent of workers engaged in the traditional delivery sector. Among app-based migrant workers, 87 per cent were from the Bolivarian Republic of Venezuela, with the majority having arrived in Chile in the preceding two years (2018 and 2019). The survey data are in line with the official data produced by the National Statistics Institute, according to which nearly 1.5 million foreign nationals were residing in the country at the end of 2019, with a significant increase in the number of migrants from the Bolivarian Republic of Venezuela compared with 2018 (INE 2020).

With respect to the distribution of migrants by platform, about 92 per cent of foreign nationals surveyed worked on Rappi, while only 20 per cent of Cornershop's delivery workers were foreign nationals. This reflects the different barriers to entry associated with each platform. For example, in the case of Rappi, workers are not required to have a valid national identity number (*Rol Único Tributario*, or RUT) as having a valid passport is sufficient to join the platform. This allows individuals whose migrant status is not regularized in Chile to earn income through the platform. Cornershop has the toughest barriers to entry, as workers are required to have a Chilean driver's licence, in addition to an identity card, which makes it difficult for migrants to access work through this platform.

### 3.2 Education level

The survey findings show that there is no notable difference between the education level of migrant and non-migrant delivery workers. However, a significant difference is observed between traditional and app-based delivery workers, with a higher proportion of workers among the latter group having completed technical or university studies (47 per cent), as compared with 26 per cent of traditional delivery workers. Furthermore, nearly half of app-based delivery workers who have completed higher education studies hold university degrees in areas such as administration, accounting and engineering.

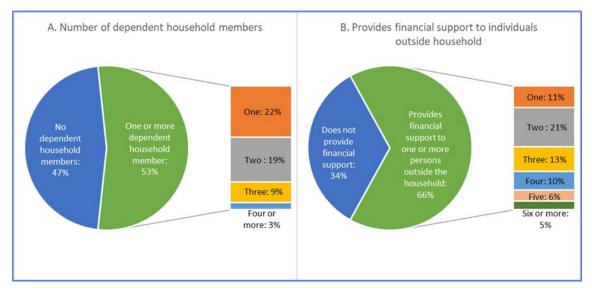
If we look at the total number of delivery workers who are students, a major difference is observed depending on the worker's migration status. While less than 1 per cent of migrant workers in the sample (both app-based and traditional delivery workers) were students, 18 per cent of workers of Chilean origin were concurrently pursuing higher education or pre-university studies.

### 3.3 Household composition and economic dependence

The majority of app-based delivery workers are single (60 per cent), while 34 per cent are married or living as a couple. The majority of the workers surveyed belonged to a relatively large household, however; the average household size is 3.7 members for app-based delivery workers and 3.8 members for traditional delivery workers.

If we take into consideration households that have more than one member, 46 per cent of app-based delivery workers live with children under 18 years of age, and 58 per cent of these children are under the age of 6. For some 53 per cent of app-based delivery workers whose households are composed of more than one person, one or more members of that household are dependent on the worker (see figure 1). More than 65 per cent of the workers provide financial support (such as sending money) to household members (meaning relatives, including parents and children) who live outside of their household. The proportion of migrant delivery workers who financially support individuals outside of their household (84 per cent) is significantly higher than for workers of Chilean nationality (22 per cent), which reflects the economic reality and obligations of migrant workers.

### ► Figure 1: Distribution of workers by number of economic dependents in the household and by level of financial support provided to persons outside the household



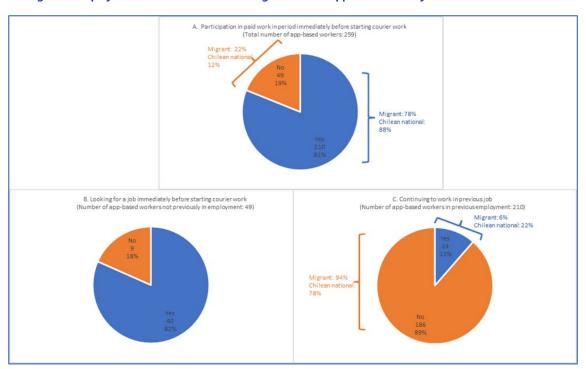
Source: Survey of app-based delivery workers in Santiago, Chile (App-based delivery workers with household size larger than 1: N = 236) (App-based delivery workers: N = 259)

### 4 Work history and motivation for engaging in platform work

### 4.1 Work history

To develop a better understanding of why app-based delivery workers decide to engage in platform work, information was collected regarding the employment situation of workers before joining a delivery platform. The findings showed that 81 per cent of workers had been employed in the period immediately before engaging in app-based delivery work (see figure 2). Migrant workers had a slightly lower rate of previous employment (78 per cent) compared with Chilean workers (88 per cent) (see figure 2). Among those who had not been employed before starting platform work, 82 per cent had been actively seeking work. Furthermore, among those who had been employed when they joined a delivery platform, nearly 90 per cent were no longer working in their previous job.

### ▶ Figure 2: Employment situation before starting work as an app-based delivery worker



Source: Survey of app-based delivery workers in Santiago, Chile.

The above findings show that one of the main motivations for workers to engage in app-based delivery work is the loss of a previous salaried job. For instance, among Chilean app-based delivery workers, dismissal from a previous job is the prevailing motivating factor (38 per cent) (see figure 3). Nevertheless, the survey findings also show that a considerable proportion of workers decided to leave their previous job in order to perform app-based delivery work. This proportion is higher among migrant workers (28 per cent) than among Chilean workers (13 per cent) (see

figure 3). The qualitative responses by the workers shed some light on this difference between Chilean and migrant workers.

"I worked in Chile as a designer (profession), but they were paying very little and ripped me off." (Male respondent, national of the Bolivarian Republic of Venezuela)

"Bad pay, lots of hours, xenophobic manager." (Male respondent, national of the Bolivarian Republic of Venezuela)

"I quit because they kept giving me more and more work but didn't increase my salary" (Female respondent, national of the Bolivarian Republic of Venezuela)

"I quit because they were discriminating against and exploiting Venezuelans" (Male respondent, national of the Bolivarian Republic of Venezuela)

Migrant workers face greater difficulties in gaining access to decent work, and their first job in Chile tends to be a precarious one in which they are subject to various kinds of abuse, including non-payment for hours worked and false promises of employment contracts. In such a situation, app-based delivery work presents a possibility for income generation where, according to the migrant workers themselves, they "know what they're getting into", and where they are certain about receiving payment for the hours that they decide to work. Furthermore, labour flexibility, which in this case is understood as the ability to work more than 45 hours per week, allows migrant workers to earn a higher income. This enables them to cover the high cost of living in Santiago and also to send money to individuals outside their household.

# I moved house / I travelled to Chile I resigned for economic reasons / I was not paid enough The business closed I retired / Other I resigned to pursue work as a courier I resigned to pursue education or training I resigned for health reasons I resigned for family or personal reasons It was a temporary job that came to an end I was dismissed or made redundant 0 10 20 30 40 50 60 Migrant Chilean national

Figure 3: Reasons for not continuing to work in a previous job

Source: App-based delivery workers who are no longer working at their previous job (N = 210). Survey of app-based delivery workers in Santiago, Chile.

### 4.2 Motivation for working on delivery platforms

Two different patterns can be observed regarding the motivations of workers for engaging in app-based delivery work, depending on whether the worker is a migrant. Among Chilean workers, the possibility of setting their own schedule and not having a boss is the primary motivating factor (43 per cent) (see figure 4, panel A). However, among migrant workers, the key motivating factor is the need to generate an income. For 40 per cent of the migrant workers surveyed, delivery platform work was the only work opportunity available to them. One in five migrant workers

reported that, owing to their migrant status, app-based delivery work is the only form of work that they can access.<sup>26</sup> Nevertheless, there is a considerable proportion of migrant workers (30 per cent) whose main reason for undertaking app-based delivery work is that it provides better pay than other available jobs. As discussed in subsection 4.1, such a perception is common among migrant delivery workers, who are of the view that work on delivery platforms allows them to access better conditions and earn a higher income in comparison with other available jobs.

There are also some notable differences in the motivating factors for engaging in app-based delivery work depending on gender. In the case of women, 38 per cent of respondents reported that their primary motivating factor was flexibility, and 28 per cent reported a lack of alternative employment opportunities (see figure 4, panel B). Although only a small proportion of app-based delivery workers are women (15 per cent of the sample), these findings reflect the continued barriers faced by women in the labour market, especially those related to care responsibilities and the flexibility required to undertake care work alongside another job.

### A. Main reason by migration status B. Main reason by gender Could not find other employment Could not find other employment Pay is better than in other available Pay is better than in other available jobs iobs To complement pay from other jobs To complement pay from other jobs Because of the flexibility offered or Because of the flexibility offered or the ability to set my own schedule the ability to set my own schedule As a form of leisure / I enjoy it As a form of leisure / I enjoy it Other 3 ■ Migrant ■ National ■ Male ■ Female

Figure 4: Main reasons for working on delivery platforms, by migration status and gender

Source: Survey of app-based delivery workers in Santiago, Chile (App-based delivery workers: N = 259).

# 4.3 Engaging in app-based delivery work to supplement income, and the use of multiple platforms

A common perception regarding digital labour platforms is that platform workers are unable to work full-time, have another job or are studying, and that they engage in platform work in order to generate a supplemental income. In addition, there is a widely held belief that such workers use several platforms simultaneously and select work opportunities that best suit their needs. According to a study by the National Productivity Commission of Chile, which was cited by Uber Eats in its presentation before the Senate of Chile, 67 per cent of delivery workers use two or more platforms to access work, and 65 per cent undertake app-based delivery work to complement their income from another source (CNP 2019).

However, the findings from the ILO survey show that the desire to complement one's pay was a motivating factor for only a small proportion of the app-based delivery workers surveyed, with a higher proportion among Chilean workers (12 per cent) than migrant workers (6 per cent). This finding is consistent with the difference observed between the proportion of Chilean workers (39 per cent) and migrant workers (19 per cent) who have another job. Moreover, app-based delivery work is the main source of income for an average of 88 per cent of respondents, rising to

Most app-based delivery workers without a regularized migration status seek work on Rappi, given that it has fewer barriers to entry, Rappi only requires a passport to join, unlike other platforms, which require workers to have an RUT. In other cases, workers use platforms such as Uber Eats or PedidosYa by renting accounts from other persons.

93 per cent among the subset of migrant workers. Given that the sample design of the survey prioritized delivery workers who were available during typical working hours (between 9 a.m. and 7 p.m.), workers who were working full time or were considered "active" were over-represented, which may explain the differences between the findings observed in this paper and the data provided by the platform companies.

In addition, the findings from the ILO survey show that only 7 per cent of app-based delivery workers use two or more platforms to access work; the use of multiple platforms by workers is therefore an exception rather than the rule. The qualitative information collected during the field survey revealed that workers are unable to use multiple platforms owing to the need to use specific equipment, such as backpacks, which tend to be unique to each platform because they include the platform's logo or branding. While the use of such equipment is not mandatory, it can assist workers in transporting products with a degree of efficiency, and the branding on the equipment serves to instil greater trust in the customer – both factors that are important in shaping how a worker is rated by the customer.

### 5 Experience and modality of work

### 5.1 Joining a platform

The process of joining a delivery platform varies across the different platform companies in terms of the requirements and level of difficulty. Generally, workers must register on an online database, enter their personal data, provide some supporting documents, participate in training or an orientation, purchase or receive the required equipment (such as a bicycle, a backpack, t-shirts or bags) and agree to an online contract or a terms-of-service agreement, after which they are able to log in to the platform and receive orders. In some cases, such as on Cornershop, workers need to apply for work slots at specific times. At other companies, such as Rappi, workers can apply to work at any time. Some 90 per cent of app-based delivery workers reported that they had received some degree of training from the platform company, while about 68 per cent of traditional delivery workers had received some degree of training. There are some variations among platform companies: all respondents engaged on Cornershop (60 individuals) reported receiving some degree of training, while 71 per cent of respondents engaged on Uber Eats said that they had participated in training.

Platform-based delivery workers reported that the training provided by platform companies usually focused on providing information about how to use the app and ensure better customer service. It also covered aspects related to the modalities of work, with an emphasis on ways to earn bonuses and explanations about possible causes for deactivation. Traditional delivery workers reported that their training largely comprised on-the-job safety, handling and care of transported goods, and general topics related to the company.

Delivery workers need to have their own equipment and means of transport for performing the work; a car, motorcycle or bicycle is therefore essential. The survey findings show that 37 per cent of app-based delivery workers use a bicycle, 39 per cent use a motorcycle and 23 per cent use a car. The latter group refers exclusively to delivery workers engaged with Cornershop, given that, at the time of the surveys, it was the only delivery platform that required workers to have a car in order to join the platform. Almost all the app-based delivery workers surveyed (91 per cent) owned the means of transport that they were using for work, and a significant proportion (70 per cent) reported that they had purchased the vehicle specifically for their delivery work. On average, workers spent 130,000 pesos for a bicycle, 885,000 pesos for a motorcycle and 4,800,000 pesos for a car, and 43 per cent of delivery workers had taken a loan to make such a purchase. This shows that app-based delivery workers need to make a significant initial investment to be able to participate in this form of work, which exposes them to risks if they are unable to earn the expected income and receive a sufficient number of orders.

Some delivery platforms require workers to wear t-shirts or jackets and carry bags or backpacks bearing the platform's logo or branding when making deliveries. While for other platforms this is not mandatory, it is nevertheless encouraged. Only 26 per cent of the app-based delivery workers surveyed reported having received the required equipment free of charge from the platform company for which they were working; these workers tended to be engaged with Cornershop, which provides its delivery workers with t-shirts and bags. The remaining 74 per cent of the workers had been obliged to pay for such equipment using their own funds; they spent an average of 55,000 pesos on backpacks, uniforms and other items. The findings from the qualitative responses further show that, in some case, the platform companies give the backpacks and uniforms to their delivery workers and then deduct their cost from the workers' earnings. In addition, even though the use of a helmet or a lock is not required by the platforms, delivery workers usually also purchased such items in order to perform their work.

Before being able to log in to an app, delivery workers must agree to a terms-of-service agreement set forth by the platform. Workers generally need to agree to this agreement online, and quickly, meaning that they usually do not have a clear understanding of the terms and conditions to which they are agreeing. In this regard, 60 per cent of the app-based delivery workers surveyed stated that they had not read the terms-of-service agreement. Among the workers who reported having read the agreement, 74 per cent (or 30 per cent of the total sample) indicated that they had understood the content. The situation is very different among traditional delivery workers, nearly all of whom reported having read their contract (96 per cent); of those, 92 per cent (or 88 per cent of the total sample) indicated that they had understood the content of the contract. This difference is prevalent even though a high proportion of both app-based and traditional delivery workers (87 and 94 per cent respectively) believe that it is "very important" to understand the terms and conditions to which they are agreeing. Moreover, one in three app-based delivery workers were unaware that the "contract" that they had signed enabled the platform to collect personal and work-related data from workers.

While these findings are worrisome, they are not surprising given that the terms-of-service agreements used by platform companies are considered "contracts of adhesion" and are unilaterally determined by the platform companies with the support of expert legal advice (Berg et al. 2018). Such agreements seek to exempt the platform companies from any labour or civil liability with regard to the activities carried out by workers in the delivery of food or goods.

### 5.2 Modalities of work

The process for placing orders and undertaking deliveries is similar across all the delivery platforms surveyed. A delivery worker needs to be logged in to the app to be able to receive an order notification, which the worker can accept or reject, although this decision has consequences for the worker's rating or ranking.<sup>27</sup> While the type of information available to delivery workers about an order before the order is accepted varies by platform, the information regarding where to pick up an order is provided by all platforms.<sup>28</sup> Once an order is accepted, the delivery worker needs to pick up the order or, in the case of Cornershop, to go to the shop or supermarket to first purchase the items ordered and then deliver the order to the customer. The delivery workers engaged with Cornershop pay for the items ordered using a special credit card provided by the platform.

Other platforms use multiple payment mechanisms to facilitate the purchase of orders by delivery workers; these mechanisms vary according to several factors, such as the payment method selected by the customer or the existence of an agreement between the platform and the shop, restaurant or business. In some cases, the entire payment process takes place online, thereby avoiding potential problems associated with calculating any outstanding amounts owed to the platform, the consumer or the delivery worker.

In other cases, the delivery worker needs to pay for the items ordered in cash up front and then later receives the payment from the customer once the order has been delivered. This model exposes the workers to an additional risk of financial loss in the event of any issues at the

Exceptionally, Cornershop has a low proportion of delivery workers who are employees with full-time or part-time contracts, and they cannot reject orders while on duty. These employees represent the remainder of the original labour force hired by the company when it began its operations. According to the president of the Cornershop Union, there are approximately ten delivery workers who are employees, compared with the more than 3,000 "shoppers" who are classified as independent workers.

In some cases, delivery workers receive the complete information about the order, such as the location where they would need to pick up the order, the cost and the form of payment (if it is paid online or if the payment would be made in cash), in addition to the address where the order would need to be delivered. In other cases, the workers are only provided with the information about where to pick up an order. In the case of PedidosYa, the provision of such information has changed over time with every update of the app. Delivery workers engaged with Uber East have asked the company to provide more information about orders before they are prompted to accept or reject an order so that they have the option to avoid dangerous locations or strenuous runs. The demand for such information intensified during the COVID-19 pandemic, when the company expanded its areas of operations within the Santiago Metropolitan Region.

customer's end, such as a last-minute cancellation or the non-availability of the customer at the time of delivery.

Where agreements exist between the platform and the restaurant (for example, between PedidosYa and McDonald's), the delivery worker picks up the order (without paying for it) and the customer pays the worker in cash at the time of delivery. Under this model, a debt is created for the delivery worker that needs to be paid back to the platform. The worker is therefore obligated to transfer the cash received from the customer to the platform company by depositing it either in a bank account or through another mechanism.<sup>29</sup> This model also exposes delivery workers to financial risks, given that they must assume the debt and could face an additional loss in earnings in the event an order cannot be delivered, even in a scenario when the reasons for the failed delivery are not attributable to the worker. Furthermore, if a delivery worker exceeds the platform's debt limit (or "petty cash" limit) for certain reasons, such as being unable to access or find an open bank branch, the platform automatically deactivates the worker from the app. In order to be re-activated, the delivery worker is required to go physically to the platform company's office, which results in work interruptions that have an impact on the worker's income.

App-based delivery workers tend to wait at specific locations in the city where there is usually a high demand for their services. This allows them to save some time as they can reach a restaurant or shop more quickly to pick up an order (this leg of the delivery run is not paid for by the platform companies). During the field survey for this study (carried out between June and October 2019), delivery workers most frequently worked in the eastern or high-income municipalities of Santiago, specifically Vitacura, Providencia, Ñuñoa, Las Condes and central Santiago.<sup>30</sup> They mainly delivered food such as sushi, pizza and fast food.

On most platforms, delivery workers can immediately and without notice choose the place and time at which they log on to the app to start work. PedidosYa, however, is distinct in this regard and has a system of shifts, wherein a delivery worker needs to select the location and a time slot in advance.<sup>31</sup> Shifts are offered on the basis of a delivery worker's ranking: those with higher scores can access a greater diversity of shifts, which tend to include schedules and locations that promise higher earnings.

Generally, across platforms, once delivery workers are logged on to the app, they receive order requests as determined by an algorithm that factors in their ratings, along with other metrics that are sometimes unknown to the workers (such as delivery times, efficiency, and their ability to find all the products included in an order). In this regard, the means of transport used by a delivery worker is also factored in. For workers who use a bicycle, there tends to be a limit on the distance for which they can receive the order requests.<sup>32</sup>

App-based delivery workers are paid for each delivery, and the amount is determined by several factors that vary across platforms and can change over time.<sup>33</sup> In the ILO survey, 26 per cent of app-based delivery workers reported that the way in which their pay is determined has changed

For example, PedidosYa uses a system called PAGO46, in which an individual can register through an app to become an "Agente46", which allows them to receive cash from delivery workers. The delivery workers need to register on the app and search for an agent close to them to whom they deliver the money owed to the platform company. Otherwise, this amount is deducted from the delivery worker's earnings by the platform company.

According to studies that draw on surveys of platform users, the average consumer is young, is from a high-income municipality and has a high purchasing power (La Tercera 2019). However, this finding needs to be considered with caution, as surveys have been conducted more frequently in high-income municipalities. The data could therefore be biased by the sample selection. In addition, there has also been an increase in the number of platform users in other parts of Santiago since the start of social protests in October 2019 and since the outbreak of the COVID-19 pandemic in March 2020.

<sup>31</sup> Employees of Cornershop, meanwhile, are instructed by the platform as to where and when they need to be logged on to the app.

<sup>&</sup>lt;sup>32</sup> On some platforms, 4 kilometres is the maximum eligible distance for delivery workers on bicycles. However, this limit often does not take into account factors that could make deliveries by bicycle difficult or, in some cases, impossible (for example, where there are highways, motorways or steep slopes).

Generally across platforms, changes to payment systems are made automatically. While workers are notified about these changes, the platform does not consult them in advance.

since they began working for a delivery platform. On all the platforms, workers receive a fixed base rate per delivery; for example, during the field survey in June 2019, 1,200 pesos was the rate offered by Uber Eats and 1,680 pesos by PedidosYa.<sup>34</sup> Delivery workers engaged with Rappi also received a fixed base rate. In the case of Rappi, however, the payment model changed during the field survey: the base rate per delivery dropped to 1,080 pesos, but a payment for the distance travelled (between collection of the order and delivery to the customer) was added. On Cornershop, the payment model is a different, as the weight and number of distinct products ordered are considered in order to calculate the amount paid to the worker.<sup>35</sup>

Lastly, on PedidosYa, delivery workers also initially received a guaranteed payment per hour if no order was received during that time; however, this model also changed during the field survey, with the guaranteed hourly payment being restricted to only those delivery workers who had a higher score (namely those who were in either "group one" or "group two"). In addition, under the new model, the amount paid to workers is determined by the day of the week and the time of work (for example, workers are paid 2,380 pesos per order when working on Thursday and Friday afternoons and on weekends).

Such payment models illustrate that app-based delivery workers are generally subject to unpaid hours, given that they are paid only for the deliveries that they complete, while the waiting times between orders are not considered. Furthermore, the payment structure, which appears to be under constant modification, also encourages long working days as workers can earn more only by completing a greater number of deliveries.

An app-based delivery worker's pay is also determined by bonuses and incentives offered by the platforms. These are provided on an exceptional basis and in response to changes in the demand for delivery services. Such changes can often be predicted by the delivery platforms – which own the user data that they can analyse in real time – but are unpredictable for the delivery workers. Most the app-based delivery workers surveyed (94 per cent) reported that the platform company offered them bonuses and incentives. For the majority of these workers, such bonuses or incentives formed a "very important" or "somewhat important" part of their total income.37 Incentives are generally offered for working at times when demand is higher, such as weekends, nights and holidays, and during hours that are inconvenient for delivery workers or when the weather conditions are adverse. Bonuses are also given to delivery workers who reach or exceed a certain volume of deliveries within a specific timeframe, such as by completing five orders in one or two hours. Through such forms of "gamification" (techniques drawing on behavioural psychology that are applied to the management of people), the incentive structure seeks to motivate workers to perform high-intensity work (Rani and Singh 2019). Furthermore, the incentives offered are often tailored to the profile of each delivery worker. This is managed algorithmically by factoring in various data associated with the worker's account, which has the effect of increasing productivity with high levels of accuracy (ILO 2021). However, many of the workers surveyed highlighted

Cornershop uses another model, which includes a base rate of 800 pesos per pick up, 100 pesos per product and 200 pesos for the first 10 kilograms, after which it applies a base rate of 800 pesos per delivery, 250 pesos per kilometre travelled and 400 pesos for every additional 10 kilograms in the delivery.

The Cornershop payment model considers the total number of distinct products, not the total number of products. For example, two cans of Coca Cola are considered just one product. The fact that there is more than one item of the same product would be considered when calculating the weight of the order, however.

<sup>&</sup>lt;sup>36</sup> As mentioned above, the guaranteed hourly payment by PedidosYa is the only exception. In practice, however, this, too, is similar to being paid per order, given that the delivery workers engaged with the platform cannot reject orders during their time slots without suffering negative consequences for their profile.

<sup>&</sup>lt;sup>37</sup> In the case of Uber Eats, incentives and bonuses are a part of what is called "dynamic pricing". This refers to "additional" rates that work as a multiplier of the base pay. It seeks to increase the supply of delivery workers by offering such an incentive in specific locations and at specific times.

that, when they try to meet the target to earn a bonus or incentive, the platform often does not "drop" the final order that would enable them to meet the target.

"Regarding incentives, they might tell you to do five orders in a certain period of time, and you'll do four, but you never get the fifth. So you increase your productivity, but you never get the bonus." (Male respondent, national of the Bolivarian Republic of Venezuela)

"They generally don't pay the incentives." (Male respondent, national of the Bolivarian Republic of Venezuela)

In addition, on some platforms, customers can give a tip to the delivery workers, which can also play a role in determining their pay. In the case of Rappi, Uber Eats and PedidosYa, 95 per cent of the delivery workers engaged with these platforms reported that they received tips from customers.<sup>38</sup> Such tips represented 15 per cent of the total income of workers on Rappi, 10 per cent for workers on Uber Eats and 8 per cent for workers on PedidosYa.

As is the case with the base pay model or the fixed-rate-per-delivery model, bonuses and incentives are also subject to constant change at the hands of the delivery platforms. While app-based delivery workers hold various opinions or beliefs regarding the changes that have taken place, they are unable to identify any general patterns with regard to any specific platform or any other relevant characteristics. Nevertheless, a majority of app-based delivery workers (63 per cent) believed that, as a result of the changes introduced by the platforms, it had become harder to qualify for bonuses or incentives. Among workers engaged with Uber Eats and Cornershop, a particularly high proportion believed this to be the case (74 and 88 per cent, respectively). In addition to the opacity surrounding the algorithmic management of work, the situation further reflects the opacity with which the platforms operate, which leaves app-based delivery workers to struggle with a lack of clarity and consistency regarding how their pay is determined.

The work and incomes of app-based delivery workers are also impacted by the cancellation of orders. On average, app-based delivery workers reported receiving 3.4 order cancellations each week, representing 5 per cent of their total weekly orders. The proportion of delivery workers reporting cancellations varied across platforms, with 8 per cent among workers on PedidosYa, 6 per cent among workers on Rappi, and 2 per cent among workers on both Cornershop and Uber Eats. Such cancellations can result in a reduction in workers' incomes, especially as workers tend to be independently contracted and are paid on a per-order basis. Order cancellations often occur as a result of factors beyond the control of the delivery worker, such as cancellation by the customer (40 per cent) or the platform (14 per cent), or it could be because the ordered product is out of stock at the shop or supermarket in question or because the delivery address supplied is incorrect.

The impact of a cancelled order for app-based delivery workers also depends on when the cancellation occurs. If an order is cancelled before the product is picked up, nearly 80 per cent of the delivery workers reported that they would receive no compensation for the order (even if they had begun the journey to the pick-up location). If an order is cancelled after a product has been picked up, the implications for the delivery worker differ across platforms. In the case of Uber Eats, the majority of delivery workers reported that they would be paid the same as if the order had been successfully delivered, while in the case of Cornershop, the workers reported that they would receive a lower level of compensation than what they would have received for a completed delivery. There is no clear trend regarding Rappi and PedidosYa. Furthermore, on some platforms, the delivery worker is obligated to return the product to the store or restaurant, or to the platform company's office, which can sometimes result in the worker having to travel long distances in order to return the product. In certain cases, such as Uber Eats, a significant proportion of the delivery workers reported that they were able to keep the cancelled order free of charge.

During the field survey, Cornershop did not allow customers to give tips to workers through the app. Workers have requested such an option to be included in the app, as is the case for other platform companies, so that they are not limited to receiving tips only in cash.

### 5.3 Experience of work, and safety and well-being while working

For many workers, app-based delivery work seems to be a short-term option for generating income, with some 50 per cent of respondents reporting having been engaged in app-based delivery work for five months or less. This finding is similar to the information provided by Uber Eats to the Labour and Social Welfare Committee of the Senate of Chile, according to which the average worker tenure on Uber Eats was 6.5 months. In the traditional delivery sector, many workers performed this type of work for a significantly longer period, with a mean of 26.5 months.

This difference in work experience between app-based and traditional delivery workers might, in part, be due to the relatively recent entry of delivery platforms into the Chilean market. In addition, the information gathered in the field survey suggests that work on delivery platforms is sometimes seen by the workers as a temporary and short-term opportunity. This perspective is especially common among migrant workers from the Bolivarian Republic of Venezuela, who see both app-based delivery work and their stay in Chile as a temporary phenomenon. They hope to stop performing app-based delivery work once the situation returns to normal in the Bolivarian Republic of Venezuela or if new opportunities become available. However, even in the case of traditional delivery workers, 66 per cent of those working for shops or restaurants reported that they intended to stop working as a delivery worker in the near future. Despite this intention, the fact that the average traditional delivery worker does delivery work for a long period reflects the lack of alternative employment opportunities in the local labour market.

The survey findings also allow for an exploration of some of the factors that can influence how long workers continue to be engaged in delivery work. In the context of physical and personal safety at work, a notable difference can be observed, with a higher proportion of app-based delivery workers reporting that they feel unsafe at work. On a scale from 0 to 10, where 0 is completely unsafe and 10 is completely safe, app-based delivery workers reported 4.3 on average, which is significantly lower than the figure reported by traditional delivery workers (5.3) (see figure 5, panel A). This indicates that app-based delivery workers tend to face a higher degree of physical and personal insecurity at work.

In addition, app-based delivery workers indicated that they had multiple concerns related to their physical and personal safety at work, not only with regard to road safety (which was the most prevalent concern among traditional delivery workers), but also with regard to robberies and physical assault, which were rarely reported by traditional delivery workers. Even though these concerns vary among app-based and traditional delivery workers, 15 per cent of all the workers surveyed reported that they had been the victim of a crime, such as physical aggression or the theft of their means of transport or of orders. There was no significant difference observed between the two groups in that regard. However, 86 per cent of app-based delivery workers reported that the company for which they were working did not take any measures to prevent workplace risks, while only a small proportion of traditional delivery workers (24 per cent) reported this to be the case (see figure 5, panel C).

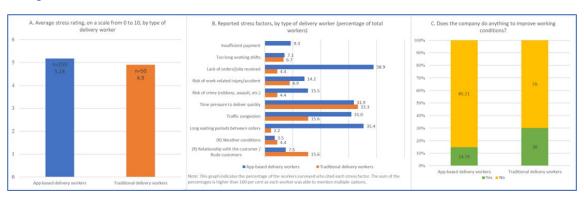
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### ► Figure 5: Perceived sense of safety and risks at work

Source: Survey of app-based and traditional delivery workers in Santiago, Chile (app-based delivery workers: N = 259; traditional delivery workers: N = 50).

The survey findings show that both app-based and traditional delivery workers are subject to similar levels of work-related stress (see figure 6, panel A). However, a higher proportion of app-based delivery workers (85 per cent) believe that the company has not been active in improving their working conditions, compared with 70 per cent of traditional delivery workers (see figure 6, panel C). While some of the factors that cause work-related stress differ for app-based and traditional delivery workers, - app-based delivery workers primarily cite insufficient numbers of orders, inadequate pay and long waiting periods - the pressure to deliver orders quickly and the excessive length of shifts were reported as stress factors for both groups. These findings suggest that app-based delivery workers are in a particularly complex situation, as they face not only the same difficulties as traditional delivery workers, but also additional challenges associated with platform work. This situation further highlights the need to address such risks and challenges and ensure that workers are adequately protected.

### ► Figure 6: Stress factors and sense of stress at work



Source: Survey of app-based and traditional delivery workers in Santiago, Chile (app-based delivery workers: N = 259; traditional delivery workers: N = 50).

### 6 Working conditions

### 6.1 Classification as independent workers

As mentioned in subsection 1.3 on the regulatory framework in Chile, the new Act No. 21.431 distinguishes between "dependent digital platform workers" and "independent digital platform workers". It is still to be seen, however, how platform companies will classify workers under this legal regime. Until now, app-based delivery workers have been classified as independent workers by platform companies, and these companies have evaded any liability for delivery workers or for damages caused to third parties through their use of opaque terms-of-service agreements.

The new law, however, assigns general protections that are applicable to both dependent and independent worker categories, as well as specific rights that are distinct for each category (Leyton et al. 2022a and 2022b). For independent workers specifically, it guarantees transparency in terms-of-service agreements and prohibits their unilateral modification by platforms, with the intention of addressing the power imbalances between workers and platforms (Arab Verdugo and Frontaura Marzolo 2022). The law also emphasizes that the platform cannot exert management and disciplinary power over workers and that the platform's role is limited to coordinating contact between the company and the user, without prejudice to establishing the general terms and conditions that allow them to operate through their computer or other technological systems (Leyton et al. 2022a and 2022b; Arab Verdugo and Frontaura Marzolo 2022).

Act No. 21.431 relies on the principles set out in articles 7 and 8 of the Labour Code regarding the existence of subordinate, dependent and employed work in order to distinguish between the two categories of workers. Dependent workers are governed by the general rules of the Labour Code, as well as the specific rules of Act No. 21.431. Furthermore, the opinion released by the Labour Department in October 2022 provides that dependent workers must comply with all the following elements: "(i) execution of personal services; (ii) the services must be performed on behalf of others, alluding to the concept that has been developed by the Labour Department regarding this matter, since it is key to differentiating a dependent worker; (iii) the services are requested by users of a technological application administered or managed by the digital service platform company; and (iv) the existence of subordination and dependence" (Lexology 2022).

Nevertheless, a number of provisions in Act No. 21.431 are applicable to both types of worker categories, which include: the obligation of the company to provide details of the services to be provided (such as place of work, user identity and means of payment); transparency and right to information (including data access and explanation of algorithmic decision-making); prohibition of discrimination by automated decision-making mechanisms; training and personal protection; the basis for calculating legal indemnities; collective rights; and monitoring and evaluation by the Supreme Labour Council (Leyton García and Azócar 2022). In addition, Act No. 21.431 also provides for some minimum standards regarding working hours and remunerations, which are analogous to the general regulations of the Labour Code, and it reinforces access to social protection as guaranteed under Act No. 21.133 (Leyton et al. 2022a; Arab Verdugo and Frontaura Marzolo 2022). While the new law provides guarantees for dependent and independent categories of workers, it is important to note that such categorizations operate within an imbalanced power dynamic between workers and platform companies (Azócar Simonet and Leyton García 2022; Leyton et al. 2022a and 2022b).

To understand the underpinnings and potentialities of this new regulatory framework, it is useful to describe and analyse the findings of the survey, which was carried out before Act No. 21.431 was enacted. The survey findings showed that 83 per cent of app-based delivery workers agree with being classified as a "independent workers". This serves to highlight that workers are aware

of this classification and are in agreement with, or have grown accustomed to, this description of their work. Workers are also acutely aware of the power imbalances between them and the platforms, however, and they have therefore been demanding better protection and more benefits, while also highlighting how the platform shapes their working conditions, as illustrated in the other findings of the survey. In this regard, a general observation can be derived: app-based delivery workers value the flexibility and efficiency offered by platform work, but they are nevertheless aware of the costs and impact on their working conditions and personal well-being. Fielbaum and Tirachini (2021) similarly found that that, while app-based taxi drivers valued the flexibility of deciding the hours that they worked, they also believed that greater regulation was necessary. This situation raises important concerns with regard to the different worker categories under Act No. 21.431.

Even though Act No. 21.431 attempts to address the concerns of workers, it has been argued that the initiative suffers from structural problems (Leyton et al. 2022a and 2022b). While dependent workers are fully protected under the Labour Code, the level of protection offered for independent workers is lower, and the different degrees of protection are distinguished on the basis of the intensity and continuity of service provision. Act No. 21,431 envisages a special contract for dependent workers and offers premium protection compared with the protections provided for independent workers. For example, while the special procedure for protecting fundamental rights in the workplace is applicable to independent workers, it is limited to those who have worked for an average of 30 hours per week in the preceding three months (Azócar Simonet and Leyton García 2022). It has also been noted that the category of "independent digital platform workers" creates a hybrid between dependent workers and independent workers (Arab Verdugo and Frontaura Marzolo 2022). The key rationale for creating these categories was to allow for flexible working arrangements and to factor in the heterogeneity in the provision of services. However, such an understanding of flexibility has been argued by some to be incompatible with the employment relationship, while the purported freedom given to workers to choose between the two regimes could potentially be undermined by companies, given the power imbalances (Leyton et al. 2022a and 2022b).

At the same time, Pablo Pérez (2022) has criticized Act No. 21.431 for limiting the capacities of some platform companies, like Uber, to hire independent contractors owing to the specific provisions applicable to such workers, as these companies are not exclusively coordinating the contact between workers and users but are also evaluating workers and defining routes, among other aspects. Pablo Pérez thus calls for Act No. 21.431 to be repealed and further argues that, while in many areas dependent and independent workers receive equal protections, platforms may serve as an agent or broker for independent workers, who therefore may not be in need of protection. Such arguments underline the fact that, despite the adoption of this law, there remains a limited understanding of the power imbalances between workers and platforms and of the impact that such imbalances have on classification and on the rights of workers. In this context, it is important to highlight the degree of control exerted by platforms over the workers, thereby undermining their freedom and autonomy and increasing power asymmetries, which also poses challenges for the implementation of Act No. 21.431.

Several workers expressed a clear awareness of the control exerted by the platforms. An analysis of the reasons given by the remaining 17 per cent of app-based delivery workers who disagreed with their classification as independent workers shows that a grey area exists in this relationship. Notably, these workers are of the view that they are working for a company, which imposes certain restrictions and obligations that they need to comply with when providing the service:

"Because it's really not independent work. You have to do what they tell you. They make the rules, and they have the power to deactivate our accounts, to rate us, etc." (Male respondent, national of the Bolivarian Republic of Venezuela)

"Because they still disassociate themselves from you as a worker, but in reality, you work for them. There should be more benefits." (Male respondent, national of Chile)

"Because PedidosYa tells you 'be your own boss', but actually you have to sign up for a shift, and if you don't stick with it, they take you off the list. That doesn't happen in other apps." (Male respondent, national of Chile)

"Because they force you to work on days that you want to take off, and if you don't work, then they punish you." (Male respondent, national of the Bolivarian Republic of Venezuela)

In other cases, workers refer to the risks that they are exposed to at work, and the need for protection:

"It's true that we provide a service, but we actually represent the company, and the company doesn't give us anything (repairs, treatment, insurance, they take advantage of us because they know we're not regularized)." (Male respondent, national of the Bolivarian Republic of Venezuela)

"You're adrift." (Male respondent, national of Chile)

"There is no responsibility on the part of the company, when there should be. There should be a commitment by both parties." (Male respondent, national of Chile)

"Because you work for a company that makes a profit off of you [...] Supposedly we have insurance, but really it doesn't cover anything." (Male respondent, national of the Bolivarian Republic of Venezuela)

The prevalence of such experiences underlines the need for a detailed analysis of the modality of work on such platforms and the way in which delivery workers relate to the platform, in the light of national and international standards. Moreover, app-based delivery workers are afflicted by a notable sense of insecurity, which challenges the notion that such platforms operate merely as an "intermediary" that coordinates the supply and demand for delivery services. It is yet to be seen how this issue will be addressed during the implementation of Act No. 21.431, which clearly limits the classification of "independent" workers to those for whom the platform only coordinates contact between the company and the user and does not engage in any management or disciplinary functions (Arab Verdugo and Frontaura Marzolo 2022).

While the findings presented in this subsection should be considered with caution, they have the potential to further inform the implementation of Act No. 21.431. It is important to take account of the nuanced and varied experiences of app-based delivery workers, many of whom, at a first instance, may appear to not question the very legal classification that allows platform companies to deny them employment or social protection benefits. However, as will be discussed in this paper in the following sections, these workers want to know more about the algorithmic management of their work, such as how orders are allocated and ratings decided, why accounts can be deactivated permanently or for intermittent period when a worker cancel works, why workers might not receive work on a regular basis, or how can they raise complaints against arbitrary deactivations and be heard by a human instead of an app that gives automated responses. At the same time, many of these app-based delivery workers also value the flexibility offered by platform work for reasons mentioned earlier. Such a situation may appear to present a dilemma, as it shows a disparity in power between the workers and the platform, wherein, by purporting to offer flexibility and the opportunity to earn an income, platforms are able to set the rules and exert control over workers. It is important to emphasize that the existence of an employment relationship does not prevent flexible arrangements from being reached, as shown by several analyses of labour regulations in Chile and around the world.

Lastly, while the accurate classification of workers under the two new categories will remain a vital issue in the implementation of Act No. 21.431, its practical implications for the well-being of platform workers will be paramount. It is to be seen how the new classification categories will shape workers' incomes, working conditions, autonomy and control at work, and ability to bargain collectively, as well as the broader power dynamics between the workers and the platform. Many of these aspects, as discussed in this paper, are critical to determining the experiences of workers on platforms, and many workers themselves have been seeking ways to improve their situation.

#### 6.2 Working hours

The ability to work flexible hours is often considered one of the most attractive features of platform work, and a common narrative has emerged that platform work allows workers to balance work with other responsibilities. However, the survey findings show that the majority of app-based delivery workers tend to work long days, with 80 per cent working more than 45 hours per week, resulting in an average of 62 hours per week. These long shifts have significant implications for their work-life balance. Furthermore, these findings contrast with those of traditional delivery workers, who reported working an average of 44 hours per week, with less than half of them working more than 45 hours per week.

The survey findings differ significantly from the information shared by the delivery platforms during the discussions on various draft bills, however. For example, according to Uber Eats, workers were logged on to the app for an average of 15 hours per week, or 3–3.5 hours per day.<sup>39</sup> This difference can be attributed to the sample design used for this study, as it focuses mainly on "active" app-based delivery workers who work during business hours and who do delivery work full time, meaning that they might be over-represented in this sample. Meanwhile, the information provided by Uber Eats may include workers who are registered on the app but have worked no or few hours; this would significantly decrease the average number of hours for which workers are logged on to the app.

There are also variations in working hours depending on the gender and migration status of app-based delivery workers (see table 2). Women workers who were surveyed tended to work an average of 8.7 hours per day, and one in four women surveyed worked seven days per week. In comparison, 60 per cent of the men surveyed worked seven days per week. App-based delivery workers who were migrants worked an average of two hours more per day than their Chilean counterparts. In addition, nearly seven out of ten migrant workers worked seven days a week. App-based delivery workers reported that, on average, on four days a week their daily shifts exceeded more than ten hours. Even though these figures are lower for Chilean app-based delivery workers, they also reported working quite long and frequent shifts: one third of Chilean workers worked seven days per week, and workers reported that, on average, their daily shifts exceeded ten working hours on more than two days a week. App-based delivery workers who work seven days per week also tend to have the most strenuous working days, working an average of ten hours per day, which can result in physical and mental exhaustion.

Presentation to the Senate. Biblioteca del Congreso Nacional (Chile), "Historia de la ley 21.431", presentation of Nicolás Sánchez, Executive for Public Affairs UBER, p. 14. https://www.bcn.cl/historiadelaley/nc/historia-de-la-ley/7981

▶ Table 2: Number of hours and days worked by app-based delivery workers, by worker characteristics

	Number of workers	Average dai- ly shift length (in hours)	Average num- ber of hours worked per week	Proportion of in- dividuals who work seven days a week	Average number of days per week worked on which the individu- al worked more than ten hours			
			Gender					
Male	219	9.8	63.2	0.63	3.9			
Female	40	8.7	53.7	0.25	2.4			
	Mig	ration status (We	ere you born in di	fferent country?)				
Yes	183	10.2	68.0	0.67	4.3			
No	76	8.0	47.0	0.34	2.0			
Courier work as primary source of income								
Yes	229	9.9	64.9	0.6	3.9			
No	30	6.9	37.7	0.33	1.4			
			Main app used	1				
Rappi	82	10.3	68.9	0.72	4.3			
Uber Eats	58	8.9	54.5	0.5	2.7			
Cornershop	60	8.6	53.1	0.35	2.6			
PedidosYa	59	10.3	68.0	0.66	4.6			
		•	Vehicle used		,			
Bicycle	98	9.7	62.6	0.6	3.5			
Car	60	8.6	53.2	0.4	2.6			
Motorcycle	101	10.1	66.2	0.7	4.4			
		Days	worked per weel	k	,			
All seven days	148	10.2	70.9	1	4.4			
Six days, ex- cept Saturday or Sunday	41	9	54.2	0	2.9			
Six days, ex- cept one week day	35	9.6	56.7	0	3.3			
Fewer than six days	35	7.7	36.3	0	1.3			
Average	-	9.6	61.8	0.6	3.6			

Source: Survey of app-based delivery workers in Santiago, Chile (app-based delivery workers: N = 259).

App-based workers delivered an average of ten orders per day, while traditional delivery workers delivered an average of nine orders per day. There were variations across platforms: on Cornershop, workers reported delivering an average of five orders per day, while on PedidosYa, the average was 13 orders per day. A clear correlation can be established between the number of orders delivered per day and the number of working hours, with app-based delivery workers delivering an average of nearly 12 orders during their longest working days. There is no clear

pattern regarding waiting times between orders, which varied between 34 and 37 minutes (average of 36 minutes), depending on the working day (see figure 7). When compared with traditional delivery work, it is a common preconception that, by accumulating delivery requests from various restaurants and shops, platforms can increase efficiency in the use of resources and thus shorten waiting times between orders. While the survey findings reveal that the average waiting time for traditional delivery workers is 32 minutes, – slightly lower than that for app-based delivery workers, – this finding does not challenge the notion that there may be a decrease in waiting times for customers of delivery platforms.

#### 38 37.48 11.69 12 37 10 17 Number of daily orders 10 35.88 36 8 19 8 35 34.14 34 4 33 2 0 32 8 hours or less Between 8 and 10 hours More than 10 hours Average daily orders Average waiting time

► Figure 7: Average number of daily orders and average waiting time, by length of shift worked on delivery platforms

Source: Survey of app-based delivery workers in Santiago, Chile (app-based delivery workers: N = 259).

#### 6.3 Earnings and economic security

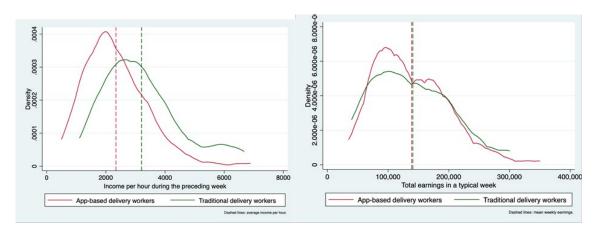
The survey collected information on the incomes of delivery workers for different time periods, which improved the accuracy of the data gathered. This paper presents two income figures: the total earnings during a typical week (see table 3, column A) and the hourly earnings in the week before the survey (see table 3, column B).<sup>40</sup> Delivery workers reported that they earned an average of 140,000 pesos in a typical week (table 3, column A). The distribution is slightly skewed to the left, with the majority of delivery workers earning below the average in both app-based and traditional settings (52 per cent in both cases) (figure 8). However, it is important to note that the earnings of app-based delivery workers are presented as the gross amount and that these workers have to bear the expenses that are inherent to app-based delivery work, such as fuel and vehicle maintenance costs. Such costs are incurred by the company in the case of traditional delivery workers; the earnings for app-based and traditional delivery workers are therefore not directly comparable.

In addition, app-based delivery workers need to work long hours (62 hours per week on average) for their earnings, whereas the traditional delivery workers who are employees work for an average of 45 hours per week. This translates into a significant difference in hourly earnings – nearly 900 pesos – between traditional and app-based delivery workers (figure 8). Furthermore,

<sup>&</sup>lt;sup>40</sup> In both cases, observations below the 1st percentile and above the 99th percentile were removed.

the presence of an employment relationship gives traditional delivery workers access to medical leave, paid leave (e.g. vacations) and other benefits, which are denied to app-based delivery workers. Therefore, when considering the differences in hourly earnings between app-based and traditional delivery workers, it is important to also take into account the labour rights and protections guaranteed to the latter group.

#### ▶ Figure 8: Distribution of earnings, by category of worker, in Chilean pesos



Source: Survey of app-based and traditional delivery workers in Santiago, Chile.

Among app-based delivery workers, significant differences in earnings can be observed across the various delivery platforms. The average weekly earnings of workers engaged with Uber Eats, Rappi and PedidosYa are 110,000, 120,000 and 190,000 pesos, respectively (see figure 9). On all platforms (with the exception of PedidosYa), the distribution is skewed to the left, with 61 per cent, 64 per cent and 54 per cent of the workers engaged with Rappi, Uber Eats and Cornershop earning less than the average, respectively. In the case of PedidosYa, 53 per cent of workers in a typical week earned above the average. This may be due to the payment structure of PedidosYa, which includes a higher payment per order as well as a guaranteed income. However, this platform changed its payment policy after the surveys were conducted, as a result of which the differences in earnings may have decreased. Nevertheless, workers on PedidosYa performed long working hours (see table 2), working for an average of more than ten hours per day (and with two out of three workers reporting that they worked seven days per week). This is exceeded only by workers on Rappi.

# Pashed line: mean weekly earnings.

#### ▶ Figure 9: Distribution of earnings in a typical week, by platform

 $\label{thm:controls} \mbox{Source: Survey of app-based delivery workers in Santiago, Chile.}$ 

Furthermore, there are significant gender-based differences in the earnings of app-based delivery workers. Despite the low number of observations for women, table 3 shows the presence of a gender pay gap, with women on average earning nearly 30,000 pesos less than their male counterparts per week. This pay gap may be related to a difference in the number of hours worked, as on average women work ten hours less than men per week. However, this also translates into relatively (although not significantly) higher hourly earnings for women (see table 3, column B).

Differences in the earnings of app-based delivery workers can also be observed according to migrant status and other characteristics. For app-based delivery workers who are migrants (71 per cent of the total sample of app-based delivery workers) and those who consider app-based delivery work to be their main source of income (88 per cent), the average earnings are slightly above the mean (table 3, column A). The findings on hourly earnings show that these differences are not due to greater productivity, but instead due to such workers spending significantly more hours at work (table 3, column B). Furthermore, there are notable differences in earnings according to the days of the week worked, with app-based delivery workers who work seven days per week earning the highest amount (148,206 pesos). Among workers who work six days per week, those who do not work on either Saturday or Sunday earn less (132,462 pesos) than those who do not work for one day between Monday and Friday (140,000 pesos).

#### ▶ Table 3: Earnings of app-based delivery workers, by worker characteristics

	A: Earnings during a typical working week			B: Earnings per hour					
	Number of	Mean	Median	Standard devia-	Number of work-	Mean	Median	Standard devia-	
	workers1	(in pesos)	(in pesos)	tion (in pesos)	ers2	(in pesos)	(in pesos)	tion (in pesos)	
Gender									
Male	216	143,224	140,000	63,830	210	2,317	2,180	1,072	
Female	39	113,551	100,000	40,809	39	2,462	2,360	1,141	
Migration status (Were you born in another country?)									
Yes	181	145,118	140,000	62,956	177	2,136	2,000	958	
No	74	122,953	100,000	56,023	72	2,842	2,629	1,207	
				Age range					
18-24	49	105,816	100,000	51,035	46	2,016	1,748	901	
25-34	131	148,725	150,000	64,839	128	2,351	2,196	1,062	
35 years or more	75	142,624	130,000	55,689	75	2,520	2,267	1,181	
			App-based deli	very work as main so	ource of income				
Yes	227	143,611	140,000	61,279	219	2,253	2,222	929	
No	28	98,750	85,000	50,747	30	2,972	2,817	1,749	
				Main platform used					
Rappi	82	120,382	100,000	53,267	79	1,733	1,667	779	
Uber Eats	56	112,232	100,000	52,083	54	2,282	2,039	1,103	
Cornershop	59	142,178	130,000	57,676	59	2,939	2,786	1,173	
PedidosYa	58	186,552	195,000	58,656	57	2,615	2,500	887	
				Vehicle used					
Bicycle	96	108,045	100,000	45,006	93	1,786	1,667	780	
Car	59	142,178	130,000	57,676	59	2,939	2,786	1,173	
Motorcycle or scooter	100	166,040	170,000	64,924	97	2,506	2,333	1,031	
secota.	Number of days worked per week								
7 days per week	147	148,206	150,000	63,570	141	2,173	2,115	966	
6 days, except for Saturdays or Sundays	40	132,462	130,000	58,154	39	2,375	2,289	1,071	
6 days, except one weekday	35	140,000	130,000	60,779	35	2,450	2,271	1,089	
Less than 6 days per week	33	102,424	100,000	44,196	34	2,881	2,817	1,365	
Length of daily shift									
8 hours or less	92	108,505	100,000	50,184	91	2,703	2,525	1,291	
Between 8 and 10 hours	72	140,069	130,000	52,638	68	2,126	1,957	875	
Between 10 and 12 hours	66	170,985	170,000	63,021	66	2,208	2,231	875	
More than 12 hours	25	160,492	150,000	70,592	24	1,933	1,823	908	
Average	-	138,685	130,000	61,744	-	2,340	2,236	1,082	

Source: Survey of app-based delivery workers in Santiago, Chile.

Note:  $^{\scriptsize 1}$  Out of a total of 255 respondents;  $^{\scriptsize 2}$  Out of a total of 249 respondents.

The workers in the survey were asked about their perception of fairness regarding earnings. Nearly half of the app-based delivery workers reported that they were paid fairly (49 per cent).

This could be because app-based delivery work is perceived as being not very complicated, where earnings are based on the time spent and effort made at work.

"Because it's not that difficult. More than anything, it's about pedalling. You decide on what orders to take, and if you don't think one is fair, you don't take it." (Male respondent, national of Chile)

"The pay is for the work you do, and it's better than a job as a labourer." (Male respondent, national of the Bolivarian Republic of Venezuela).

"Because you earn according to how much you work." (Male respondent, national of Chile)

"Because it's up to you. It pays better if the indicators are better." (Male respondent, national of Chile)

"Because I work a lot, which is reflected in my income." (Male respondent, national of the Bolivarian Republic of Venezuela)

Among the app-based delivery workers who believed that they were paid unfairly (51 per cent), many were of the view that the pay offered did not compensate for the high risks that they faced while at work and that, especially where they needed to cover large distances in order to deliver an order, they should be paid more. Another reason also mentioned by some workers was the unpaid time spent during the pick-up and delivery of orders.

"Because they take advantage of your migration status, and they don't offer the same amount." (Male respondent, national of the Bolivarian Republic of Venezuela)

"I think that the service we provide is worth more than what they pay. It's abuse. Plus, we also lose time and money when returning orders. The work isn't always just picking up and delivering, you often do more than that. There's also no place to use the toilet." (Male respondent, national of the Bolivarian Republic of Venezuela)

"Because it is very little for everything involved. They pay you for the time between picking up and delivering an order, but they don't pay you for the time it takes to pick-up, and this company sends you far." (Male respondent, national of Chile)

"Because there are a lot of risks: robbery, being run over, etc. And they pay very little per delivery, compared to all the millions that Uber earns." (Male respondent, national of the Bolivarian Republic of Venezuela)

"Because there are often big orders, and you get too tired for such little pay." (Male respondent, national of Chile)

#### ▶ 7 Social protection and risks at work

Act No. 21.133, promulgated in February 2019, mandates the inclusion of independent workers in social protection schemes. In particular, workers who meet a minimum income requirement are obliged to contribute towards pensions, health insurance, insurance for work-related accidents and occupational disease, and child care insurance.<sup>41</sup> Specifically, whenever a worker issues an invoice for the services provided, a percentage of their gross income is withheld (10 per cent in 2019, with a progressive increase up to 17 per cent in 2028), which enables the worker to access a certain level of coverage upon meeting the minimum income requirements. However, access to social protection is neither automatic nor complete in the case of app-based delivery workers, given that it is contingent on the issuance of an invoice for the services provided. The new Act No. 21.431 begins to address this issue by reinforcing Act No. 21.133; pursuant to the new legislation, independent workers are obligated to make social security contributions in exchange for guaranteed access to the entire social security system, for which platforms are required to serve as a guarantor and must ensure that the worker issues the corresponding tax documentation, such as invoices (Arab Verdugo and Frontaura Marzolo 2022).

The declared taxable income earned by app-based delivery workers is determined by the main platform for which they work. At the time of the survey (mid-2019), nearly all the delivery workers engaged with Rappi and Uber Eats reported that they were not issued invoices for payments, while those engaged with Cornershop and PedidosYa reported that they were issued such invoices (figure 10). Such differences across platform companies have significant consequences for a worker's ability to access social protection. As Act No. 21.431 obliges platform companies to ensure that workers receive the relevant documentation, it could be an important step towards increasing the social protection coverage of app-based delivery workers.

Men and women over the age of 55 and 50 years, respectively, who are affiliated with pension systems other than the private pension funds known as *Administradoras de Fondos de Pensiones* (Pension Fund Administrators, or AFPs) and those who have an annual taxable income of less than four monthly minimum wage payments are exempt from this obligation. The coverage depends on the total income received according to the invoices issued for services, among other factors. If a delivery worker issues invoices amounting to more than five minimum monthly wage payments per year, then they will receive healthcare coverage through FONASA (the State social security organization) from July of the year in which they file their income tax statement until June of the following year.

#### 100% 90% 80% 70% 60% 96.55 96.34 50% 95.00 94.92 40% 30% 20% 10% 0% Rappi **Uber Eats** Cornershop PedidosYa Receives invoices Does not receive invoices

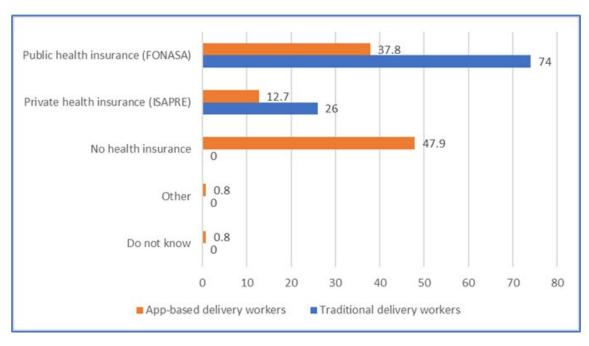
#### Figure 10: Proportion of workers who receive invoices for income generated, by platform

Source: Survey of app-based delivery workers in Santiago, Chile (app-based delivery workers: N = 259).

Nevertheless, as figure 11 shows, app-based delivery workers continue to have limited access to social protection, with many workers being unaware about the social protection entitlements available. These findings correspond to the situation of platform workers observed in different parts of the world (Behrendt, Nguyen and Rani 2019). Furthermore, the COVID-19 pandemic has exposed the severe consequences of limited social protection coverage for app-based delivery workers, both in Chile (see subsection 10.2) and globally (ILO 2021).

Figure 11 shows the different social or health insurance systems under which app-based and traditional delivery workers are enrolled. It is notable that nearly half of app-based delivery workers do not have access to any form of health insurance (48 per cent). While 80 per cent of traditional delivery workers have access to health insurance through their work, this is the case for less than 8 per cent of app-based delivery workers. Among app-based delivery workers, the largest proportion (23 per cent) reported that their voluntary contributions to FONASA (the public health insurance system) or ISAPRE (any private health insurance provider) gave them access to health insurance coverage. When disaggregated by platform, the findings reveal that the highest proportion of workers without health insurance coverage are those engaged with Rappi and Uber Eats, at 80 per cent and 53 per cent respectively. This could be because many of these workers are migrants, which may also mean that they have limited knowledge of the health insurance system. Some 62 per cent of app-based delivery workers who were migrants reported that they did not have access to health insurance, while only 15 per cent of Chilean workers reported this to be the case. Furthermore, a significant proportion of app-based delivery workers also reported that, in the event of a serious health problem or an emergency, they would not be able to access medical care (7 per cent) or did not know if they would have access (13 per cent). At the same time, 29 per cent of the workers stated that, while they would have access to medical care, they would have to pay the full cost of such care, which highlights their lack of access to health insurance that would cover such expenses.

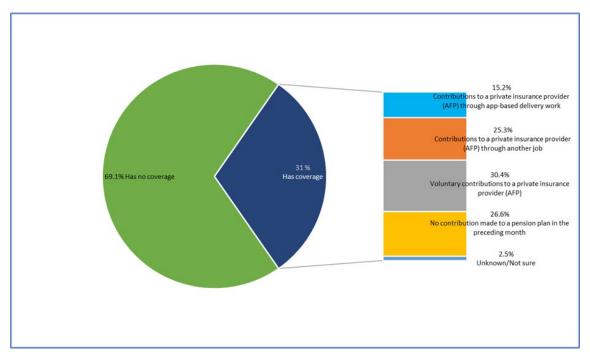
#### ► Figure 11: Proportion of workers with access to health insurance, by type of insurance and by category of worker



Source: Survey of app-based and traditional delivery workers in Santiago, Chile (app-based delivery workers: N = 259; traditional delivery workers: N = 50).

A similar pattern can be observed regarding access to a pension, wherein nearly all the traditional delivery workers surveyed (98 per cent) were covered by a pension system, to which they contributed through their job. In the case of app-based delivery workers, however, only 31 per cent were covered by a pension system and, among these, only 15 per cent contributed to their pension through their work as an app-based delivery worker (figure 12). Across the different platforms, workers engaged with Cornershop and PedidosYa reported the highest proportion of coverage (50 per cent and 41 per cent respectively), while only 10 per cent of workers engaged with Rappi stated that they had access to a pension system.





Source: Survey of app-based delivery workers in Santiago, Chile.

There is a notable lack of clarity among app-based delivery workers as to whether they are covered by a work-related accident insurance. Only 19 per cent of workers reported that they were covered by such insurance in the event of a work-related accident or illness, whereas 92 per cent of traditional delivery workers reported this to be the case. While a clear pattern cannot observed across the different platforms regarding access to accident insurance, the qualitative responses by the workers suggest that Uber Eats, Rappi and PedidosYa most likely operate a private insurance scheme (in the case of Uber Eats for example, the platform has a partnership with insurance company SURA).42 In addition, delivery workers who use a car or motorcycle are covered by the provisions of Act No. 18.490 on mandatory personal accident insurance, which provides a minimum level of coverage. However, for the 19 per cent of workers who reported being covered by this insurance, the conditions and amount of coverage was unclear. For example, some of the respondents complained that the insurance did not cover the journey between the location where a delivery worker was waiting and the order pick-up point, only the journey from the order pick-up point to the final delivery location. For many delivery workers, little information is available on the topic, and there is a lack of clarity about both the private insurance schemes offered by platform companies and the mandatory insurance required by law. The following quote illustrates this situation:

"No [there is no work-related accident insurance]. They say there is. I once saw an interview with a PedidosYa representative, and he said that there was, but that's a lie. I know people who have dislocated their hip, whose motorcycle was stolen, who have had bad things happen to them while they were working for the platform, but you never see anything about it." (Male respondent, national of the Bolivarian Republic of Venezuela)

This situation has major implications for app-based delivery workers, given the constant risks that they face while at work. The nature of their work requires workers to often be on the road, while

Before the end of 2018, the then director of Cornershop acknowledged that there was no accident insurance available in the event that "shoppers" were involved in an accident. The current status regarding the provision of such insurance by the platform company is unknown (El Desconcierto 2018).

constantly being on the move at different times of the day and at maximum possible speeds. The survey findings show that nearly 30 per cent of app-based delivery workers have had an accident while making deliveries, and this proportion is higher for traditional delivery workers (nearly 60 per cent). This difference could be due to the fact that that traditional delivery workers have been engaged in delivery work for a longer period of time than app-based delivery workers.<sup>43</sup> Nevertheless, the high proportion of app-based delivery workers who have had an accident illustrates the occupational risks to which workers in this sector are exposed. The accidents often entail collisions, being run over, or falling from a motorcycle or bicycle. Of the 74 app-based delivery workers who reported having had an accident, 49 of them (or 66 per cent) had seen their ability to work affected, and 56 (76 per cent) had incurred personal expenses for medicine, hospital care or vehicle repairs. It is notable that only five app-based delivery workers (7 per cent) reported having received any type of support from the platform company. These findings illustrate the vulnerabilities faced by app-based delivery workers: they not only have to personally pay for the costs related to an accident at work but they also experience a loss of income as a result of not being able to work.

In addition to the provisions included in Act No. 21.431 with the aim of addressing social protection gaps for platform workers, there has also been an important private initiative, specially from companies in charge of workplace insurance schemes, known as *mutuales*. During 2021, in the light of the extended legislative proceedings in place to provide protection for platform workers during the pandemic, Mutual Chilena de Seguridad launched a private insurance scheme to provide protection for app-based delivery workers in relation to work-related accidents and professional illnesses, general health coverage, medical leave and monetary compensation.<sup>44</sup> It also offers training and specialized preventive advice for delivery workers. Platform workers can join this scheme by contributing 11.5 per cent of their declared taxable income. The insurance coverage is dependent on the level of income earned in a year, and the level of contributions to the scheme is also dependent on the worker's income. While an important initiative, its reach among app-based delivery workers and its implications for extending social protection coverage for such workers are yet to be seen.

<sup>&</sup>lt;sup>43</sup> More than 50 per cent of the sample of traditional delivery workers had been engaged in delivery work for more than two years. In the case of app-based delivery workers, 50 per cent of respondents had been engaged in delivery work for five months or less (see subsection 5.3).

For more information, see the website of Mutual Chilena Seguridad: https://www.mutual.cl/portal/publico/mutual/inicio/home/trabajador-plataforma-digital/!ut/p/z1/jZBND4IwDIZ\_DVfayYfT22J0ikacSsBdDBocJMAMoPx9jXoxUbS3Ns\_TNy1IiECW8TVTcZPpMs7v\_U66e48xtzfjuKBOn6DwRsIabVdoOw6ED4Awgtyy0ffpdIyCDqw1X2x7PCAg\_HxSzH8z-8AZPf6EOR7BLeXiGIsyNrfzHAyxxfQdeKvEA-kyvXh-U9WHiyqQFbJKamSyrxU93HaNOd6aKCBbduaSmuVJ-ZRFwZ-UlJdNxC9k3AugiDCbFWEtL4BU0tddA!!/dz/d5/L2dBISEvZ0FBIS9nQSEh/

#### 8 Algorithmic management of workers

#### 8.1 Autonomy at work and penalty mechanisms

Worker autonomy regarding work schedules or the time and place of work is often considered a key benefit of app-based delivery work. By using a system of ratings and incentive structures, however, platforms are able to shape the preferences, choices and behaviour of app-based delivery workers. As discussed earlier, bonuses and incentives are utilized by platforms to increase the supply of workers during specific times or in areas of high demand. The incentive structure, which serves as a form of "gamification", pushes delivery workers to deliver a greater number of orders within a specified period of time, thereby maximizing their productivity (see subsection 5.2).

Moreover, platforms use a ratings or rankings system, which allows them to monitor and evaluate the performance of delivery workers and, consequently, rank them against each other. Platforms then distribute order requests among the workers on the basis of their rankings. The ratings or rankings are algorithmically determined. Delivery workers are closely monitored under this system of algorithmic management, and their performance is measured on the basis of various indicators (such as acceptance rate, delivery time, or the time taken to find a product in a store by the worker, which is measured in seconds), while also taking into account the evaluations provided by customers (ILO 2021).

While the platform measures the performance of the workers through precise indicators, many app-based delivery workers do not have a clear understanding of the indicators on which they are assessed, nor do they know how their rating might affect their work. As such, 65 per cent of app-based delivery workers believe that their rating has an impact on the amount of work that they receive, and 41 per cent believe that it determines the type of work that they receive (for example, a short delivery run with high pay rates).

The type or amount of work allocated to the workers based on their rating or ranking varies across platforms. For example, app-based delivery workers with high ratings receive orders for a larger number of products on Cornershop, orders with shorter distances on Uber Eats and orders with payments in cash on Rappi. In the case of PedidosYa, workers with the highest rankings (known as groups one and two) can access shifts with a guaranteed hourly pay even if they do not receive any order requests, and they can also access the shifts that tend to have a high number of order requests and orders with shorter distances. These examples illustrate the significance of ratings or rankings in determining the working conditions of workers and fostering strenuous workdays. This calls into question the notion that delivery platforms offer workers the flexibility to choose their own work schedules or orders.

"I can't get into a higher group (for example, the groups that are paid per hour for being connected), because I take Sundays off, so I don't work every day of the week." (Female respondent, national of the Bolivarian Republic of Venezuela)

Nevertheless, a majority of app-based delivery workers (77 per cent) consider their rating to be an accurate reflection of their performance at work, and some have highlighted that it reflects the effort that they put into work, the number of days that they work, and the customer service that they offer. However, according to some delivery workers, the ratings system also has problems, which include a lack of transparency about how ratings are calculated and the fact that customers often punish workers by giving them a low rating in response to issues that are beyond the workers' control (for example, a certain product being out of stock or a restaurant being late in preparing an order).

The case of Cornershop illustrates how the ratings system operates and how orders are allocated through the algorithmic management system on delivery platforms. The rating or ranking of Cornershop "shoppers" is based on four indicators: a) the order acceptance rate; b) the time it takes to pick up each product, measured in seconds; c) the fulfilment rate;<sup>45</sup> and d) customer evaluation.

Although there is relative clarity about the indicators used by the platform to determine the final rating of a delivery worker, the weighting allocated to each indicator is in constant flux and is adapted by the company to its needs; workers, meanwhile, are not given any information about the changes. For example, during high-demand periods, the indicator related to speed (indicator b) is prioritized, and the delivery workers who take the least amount of time are favoured when new orders are assigned. During other periods, the fulfilment indicator (indicator c) may be prioritized, with the objective of fulfilling the customers' requests as best as possible. This algorithmic allocation of orders generates a high level of competition. Order allocation is sometimes determined by tiny differences – less than ten thousandths of an indicator – thereby creating overwhelming pressure on delivery workers to ensure high values for the indicators over which they have a more direct influence (i.e. indicators related to order acceptance and product pick-up times). The ability to precisely capture such indicators and use them for algorithmic management enables platforms to undertake personalized monitoring and allocate work that is tailored to the profile of each worker (ILO 2021).

Depending on the conditions set out in the terms-of-service agreement, delivery platforms can penalize workers by temporarily or permanently deactivating their accounts from the app. A considerable proportion of app-based delivery workers (22 per cent) reported that their account had been deactivated at some point (figure 13). Among these, deactivation was permanent for some (18 per cent), while for the majority (82 per cent) deactivation lasted for an average of 5.5 days. Generally, deactivation is automatic, with no dispute resolution mechanism available to the workers. When the account is deactivated, app-based delivery workers cannot access work through the platform and are consequently subject to the economic impacts of being blocked from their source of income. Often, delivery workers need to physically go to the offices of the platform company to resolve the conflict and reverse the deactivation, although sometimes this is not possible.

The main reasons for account deactivation identified by some app-based delivery workers included the rejection of orders, problems with customers, and not having the required documents (for example, a valid identity card or RUT). In some cases, delivery workers did not know the reason for the deactivation of their account. Among the workers who had experienced account deactivation, the majority (68 per cent) considered it to have been unjustified, and a substantial proportion (84 per cent) had appealed against it (figure 13). Nearly 70 per cent of those who had appealed had been dissatisfied with the outcome, which indicates that there are many app-based delivery workers who are unable to carry on working owing to reasons that they consider to be arbitrary.

The fulfilment rate is an indicator that refers to the percentage of products purchased in relation to those initially requested in an order. For example, in an order that lists ten products, if one of the products cannot be found at the supermarket, the delivery worker must call the customer and ask if he or she would like to replace the product with another one. If the customer says no, then the fulfilment rate decreases, given that the worker did not fulfil the delivery of all the products ordered in the original list. This, in turn, influences the delivery worker's access to future orders, even though this variable is often beyond the worker's control. The way that this indicator works was explained by several of the "shoppers" surveyed.

Online interview with the President of the Cornershop trade union on July 14th, 2020.

## Has your account ever been deactivated? Did you feel that this was justified? Did you appeal your deactivation? Yes 22% No 16% Yes 84% No 78% No 68% No 68% No 68% No 68%

#### ▶ Figure 13: Deactivation of accounts, appeals and outcomes

Source: Survey of app-based delivery workers in Santiago, Chile (app-based delivery workers: N = 259).

#### 8.2 Communication between workers and companies

Given that app-based delivery workers need to be on the road and to engage with multiple actors to perform their work, they are subject to various contingencies, such as problems on the route, technical problems with the app, customer complaints, and incorrect orders or customer information. These contingencies generally require a rapid response from the worker, meaning that workers need to be in constant and fluid communication with the platform. In this regard, 91 per cent of app-based delivery workers reported that there was a formal process through which they could file a complaint or request assistance while at work. Every platform has an online system of in-app chat, which serves as a communication channel and aims to solve problems that may arise during the delivery process. Some platforms have offices that allow workers to meet in person with an administrator or with the technical support staff in order to resolve more complex problems.

During the survey, 65 per cent of app-based delivery workers reported that they frequently used the support and complaints system available to them. These workers identified several reasons for filing complaints. Some of the most common reasons included problems with pay, disputes with customers and technical problems with the app. In practice, however, workers' experiences of this system vary considerably. While many workers stated that, in some cases, the platforms did provide a timely response to their requests, nearly 40 per cent of workers who had requested assistance reported that the platform's response had been poor, slow or insufficient, which had implications for their morale, income and time.

The qualitative responses provided by many app-based delivery workers reveal that workers tend to feel discouraged about the platform's support system. Workers reported that the platforms lack empathy, do not understand their work and the realities of the field, and consider the workers to be the least of their priorities. Moreover, several workers stated that, whenever the platform provides a response that is slow or unsatisfactory, they are the ones who must bear the costs – in terms of both time and money – of resolving the problem. For example, workers may need to pause accepting new orders or completing pending orders until a dispute has been definitively resolved, or they may have to cover the costs (such as making payments for a product) where there are issues with an order, even though they may not personally be responsible for the problem, so as to prevent their accounts from being deactivated.

"[Assistance through the support system was] bad, like you were getting an answer from a robot [...] They have pre-defined responses, and there are always errors. You include the mileage, and they never pay the right amount. Trying to fight for it is a pain. Getting them to reimburse you for parking is tough. You have to keep fighting for it. In the end, it wears you down completely, because it's so hard to get someone who's not a robot to respond to your messages." (Female respondent, national of Chile)

"Because you don't get any relevant or coordinated response in Colombia. Your time is wasted or they don't respond." (Male respondent, national of the Bolivarian Republic of Venezuela)

"They're concerned a lot about the order, but not about you." (Male respondent, national of Chile)

"Because once a woman said that I didn't pay her, and I had to pay for the product again. If not, they would have blocked my account." (Male respondent, national of the Bolivarian Republic of Venezuela)

Finally, the nature of delivery work means that workers must interact with various actors throughout their workday, including restaurant or shop workers and customers, as well as passengers or pedestrians on the streets. This exposes delivery workers to multiple types of situations. One out of three delivery workers reported having been a victim of discrimination or harassment while at work. A higher proportion of migrant workers (37 per cent) reported having been subject to discrimination or harassment than their Chilean counterparts (24 per cent). Among those who had suffered discrimination or harassment, the majority (56 per cent) reported facing discrimination by customers, and 41 per cent reported facing discrimination when picking up food or products at restaurants or shops.<sup>47</sup>

The sum of the percentages is greater than 100 per cent because each respondent could select more than one option.

#### ▶ 9 Opportunities for organizing and collective action

The nature of work on digital labour platforms presents major challenges for workers with regard to organizing and taking collective action: notably, there is no common workspace, there is a high worker turnover and there is strong competition among workers. Overcoming these challenges requires innovative ways of building solidarity that do not necessarily conform to how collective action has traditionally been undertaken. While nearly all the app-based delivery workers surveyed reported that they were unaware of any associations, trade unions or cooperatives that represented their concerns, many of these workers were nevertheless organizing and engaging in a form of collective action, facilitated through the use of social networking platforms, including Facebook and WhatsApp. Nearly half of app-based delivery workers (45 per cent) reported that they were members of a social media group related to their work. Among these, 90 per cent of respondents stated that interactions with other workers through such groups occurred multiple times throughout the day, while 74 per cent reported interacting several times or at least once per day.

These findings illustrate the high use intensity of social networking platforms by workers, and the potential of such platforms to provide the space and conditions needed to build solidarity and eventually undertake collective action (Woodcock and Graham 2020). Furthermore, among app-based delivery workers who were members of social media groups, 45 per cent stated that they had joined the groups with the intention of improving their working conditions, with 37 per cent reporting that their participation had resulted in such an outcome. The subjects frequently discussed in these groups included information about routes and areas under inspection, support in case of emergencies, information about high-demand areas, and advice for getting more and better orders. Moreover, these groups - rather than the apps - tended to provide a more informative and useful introduction for workers regarding the different nuances of app-based delivery work, as experienced workers were able to answer questions and provide support to newer workers. As noted by one app-based delivery worker, these groups serve to "compliment the bad training provided by the app".

App-based delivery workers have also been organizing to form associations, some of which have acquired greater visibility since the social protests of October 2019 and the COVID-19 pandemic. Before the outbreak of the pandemic, the only prominent entities were the Agrupación de Repartidores Penguistas (an association of app-based delivery workers in the city of Concepción), and Riders Unidos Ya (an association of workers engaged with PedidosYa). Since the outbreak of the COVID-19 pandemic, and owing to the exacerbation of various problems faced by workers, other organizations have emerged, such as Rapi08, which brings together the workers engaged with Rappi in the city of Santiago, and Shoppers Unidos, which brings together "shoppers" or delivery workers engaged with Cornershop. Recently, the Agrupación de Repartidores Penguistas, Riders Unidos Ya and Rappi08 created the Mancomunal de Repartidores por App (MAREA), an organization established to take collective actions to ensure that individual and collective labour rights are recognized. Given the absence of regulations to protect app-based delivery workers, MAREA brings together numerous organizations (regardless of their form, level or organizational activity) to ensure higher incomes, better occupational health and safety at work, and to guarantee the realization of labour and union rights in the legal system of the State of Chile (Repartidores Penquistas 2020). It is important to note that these associations do not have trade union status; rather, they are de facto organizations that have been established in order to act collectively to protect the interests of workers. There are no known trade unions or associations with which traditional delivery workers may be associated, although they can join trade unions or groups that exist at the companies for which they work.

It can be assumed that app-based delivery workers' associations will continue to be active and to grow in Chile in the coming years. The increasing politicization of labour issues, as a result of

the so-called "social outburst" of October 2019 that allowed for greater expression of feelings of injustice, is an aspect that needs to be considered when addressing these issues. Currently, the existing associations of app-based delivery workers are active in public on social media and participate in working groups run by the Ministry of Labour and Social Security. They are also engaging with various established trade unions; for instance, Riders Unidos Ya initiated strategic litigation to seek the recognition of an employment relationship with the sponsorship of the Fundación Instituto Estudios Laborales (Labour Studies Institute Foundation), created by the executive board of the Central Unitaria de Trabajadores (an established trade union).

#### ▶ 10 Impact of the COVID-19 pandemic on app-based delivery workers

To assess the impact of the COVID-19 pandemic on app-based delivery workers, a follow-up rapid-assessment survey was conducted in August 2020 with workers identified through a process of random selection, constituting 10 per cent of the sample of those surveyed in 2019. The interviews were conducted by telephone, and 80 workers were contacted. Of these workers, 37 app-based delivery workers and 6 traditional delivery workers were interviewed (table 4). Among those surveyed, 30 per cent (12 respondents) had permanently stopped working as a delivery worker, owing to either low pay or a lack of available work as a result of the social unrest (7 respondents), or because they found another job with better working conditions (5 respondents). Of the 12 workers who had permanently stopped working in the delivery sector, eight were working as salaried workers with an employment contract at the time of the survey. The following subsections present the main findings with regard to labour income, access to social protection, and occupational health and safety for the 31 workers who were still working or planned to return to work in the delivery sector.

#### ► Table 4: Sample selection and other considerations

6	Delivery	T-4-1				
Survey status	App-based	Traditional	Total			
Survey conducted						
Currently working	25	4	29			
Not currently working but intends to return to work	1	1	2			
Permanently stopped working	11	1	12			
Subtotal	37	6	43			
Survey not conducted						
Incorrect telephone number	25	1	26			
Did not pick up	8	0	8			
Not willing to participate	3	0	3			
Subtotal	36	1	37			
Total	73	7	80			

Source: COVID-19 follow-up rapid-assessment survey with app-based and traditional delivery workers in Santiago, Chile.

Among the 31 workers who were still working or planned to return to work in the delivery sector, 45 per cent (14 respondents) had taken a break from working between the beginning of the pandemic in Chile (March 2020) and the survey period (August 2020). The main reason cited for stop working was fear of getting infected (8 respondents), while two respondents reported that they had been unable to work because they had contracted COVID-19. Among the workers who continued to work throughout the pandemic (55 per cent, or 17 respondents), the majority (13 respondents) had continued to work despite the potential health risks because they had needed to earn an income to meet their basic needs. This finding is not surprising, given that 61 per cent (19 of the 31 respondents) of workers had stated that they were the sole or main breadwinner in their household.

### 10.1 Impact of the COVID-19 pandemic on access to work and income

Table 5 shows that the incomes of app-based delivery workers were initially impacted by the social protests that began on 18 October 2019, following which 64 per cent of the app-based delivery workers surveyed (16 out of 25 respondents) experienced a decrease in income. The average earnings of workers decreased by nearly 20 per cent, from 159,038 pesos before the "social outburst" to 128,153 pesos after the protests began. Labour incomes continued to experience a downward trend during the first months of the pandemic and decreased even further when the Santiago Metropolitan Region instituted a complete lockdown. Consequently, incomes fell to an average of 107,038 pesos between the months of May and August 2020.

The decrease in the earnings of app-based delivery workers could be due to several reasons, including changes in the demand for delivery services or a reduction in the number of hours worked. In the period following the "social outburst" of 18 October 2019, there was a decrease in the number of hours worked and the respondents reported working on average less than ten hours per week. Average working hours decreased even further in the period following the outbreak of the COVID-19 pandemic in Chile, during which workers reported working an average of 37 hours per week (compared with an average of 56 hours per week before the "social outburst"). These findings are similar to those observed by Fielbaum et al. (2021). Workers reported various reasons for this decline in working hours: COVID-19-related restrictions and lockdowns, which forced many delivery workers to stop working; the lack of security on the streets; and the reduction in the number of daily order requests, which decreased from an average of 13.19 orders per day prior to the "social outburst" to 9.88 orders per day after COVID-19-related lockdowns were introduced. A clear trend cannot be observed in the number of order requests per hour, however; it is therefore difficult to determine whether the decrease in the total number of orders reported by workers was due to a drop in the demand for delivery services (because of fewer order requests from customers, for example), an increase in the number of delivery workers or a reduction in the number of hours worked.

▶ Table 5: Earnings, working hours and order requests during different periods\*

	Before 18 October 2019 (when the so- cial protests took place)	Between November 2019 and the outbreak of the COVID-19 pandemic in March 2020	Between March and May 2020 (during lock- downs)	Between May and August 2020 (during the to- tal lockdown of the Santiago Metropolitan Region)
Number of hours worked per week	56.19	46.15	37.23	37.38
Number of days worked per week	5.69	5.34	4.5	4.61
Number of orders received per day	13.19	10.11	9.23	9.88
Total weekly earnings (in pesos)	159,038	128,153	111,576	107,038

Source: COVID-19 follow-up rapid-assessment survey with app-based delivery workers in Santiago, Chile.

For the majority of app-based delivery workers (58 per cent, or 15 respondents), the pandemic had an impact on their financial situation and household income. Among these respondents,

<sup>\*</sup>The table presents the average values reported by 25 app-based delivery workers who had continued to work during the various periods when the surveys were conducted.

most (14 respondents) reported that their household income had decreased significantly, mainly because other household members had lost their jobs or had seen their working hours reduced.

During the pandemic, some households had received different kinds of support or aid to cover basic household needs. Half of the respondents (52 per cent) reported that their household had received a food box provided by the Government. Some 16 per cent of respondents reported that their household had received monetary benefits from the Government,<sup>48</sup> and 10 per cent reported having received monetary or food support from relatives, friends or acquaintances.

One of the first measures implemented by the Government to offset the decrease in incomes due to the COVID-19 pandemic and associated lockdowns was the provision of a solidarity loan to independent workers who issued invoices for their services. All the delivery workers engaged with PedidosYa and Cornershop who were part of the study sample reported issuing invoices for income earned by providing delivery services, while those engaged with Uber Eats and Rappi reported that they did not issue invoices and were therefore not eligible for the loan in August 2020. Among those app-based delivery workers who were eligible (14 respondents), nearly half (6 respondents) had applied for this benefit and had received a three-month loan of between 170,000 and 400,000 pesos, depending on their previous income level.

Furthermore, 50 per cent of the app-based delivery workers surveyed (13 respondents) had applied to withdraw 10 per cent of their social insurance savings from their personal AFP accounts. Respondents identified two reasons for doing so: the need to cover basic expenses and services (8 respondents); and a lack of trust in the AFP system (5 respondents). Conversely, of the 13 respondents that did not apply for a withdrawal, 70 per cent (9 respondents) stated that they did not have a personal AFP account, while the remaining 30 per cent (4 respondents) reported having very little money in their account.

#### 10.2 COVID-19 and access to social protection

Access to paid medical leave or unemployment insurance for app-based delivery workers is extremely limited (see section 7). The COVID-19 pandemic further exposed the gaps in social protection coverage for these workers, as well as the implications of such gaps not only for these workers but also the rest of society (ILO 2020b).

Of the 31 app-based and traditional delivery workers who were still working or planned to return to work at the time of the follow-up survey, three workers had contracted COVID-19 (two app-based delivery workers and one traditional delivery worker), while one app-based delivery worker had symptoms but had not been tested. Significant differences can be observed between the experiences of the two app-based delivery workers who had contracted COVID-19 with regard to access to social protection and health benefits: one worker had received monetary support from the platform company (Rappi, which had provided 50,000 pesos) and had been asked to stop working, while the other worker had stopped working but had not received financial support and had not notified the platform company. These differences reflect the ambiguity that app-based delivery workers often face when emergency situations arise. In comparison, 14 days of paid leave were provided to the traditional delivery worker who had contracted COVID-19 after having been in close contact with someone who was COVID-19 positive. This worker had also been able to access health benefits through the employer's mutual insurance company at no additional cost. In the case of the app-based delivery workers, timely access to healthcare was hindered by the associated costs and by the lack of information about the availability of health insurance.

Depending on how their household was classified, workers could receive monetary benefits from the Government in the form of a "COVID-19 voucher", "emergency family income" or a "middle class voucher".

A majority (61 per cent) of app-based delivery workers who did not contract COVID-19 (14 out of 23 respondents) reported that either they would not be able to access financial compensation (8 respondents) or that they did not know if they would be able to access financial compensation (6 respondents) in the event that they were to test positive for COVID-19 or were in a close contact with a person who had tested positive for COVID-19. The remaining workers stated that they would have access financial compensation if they were to contract COVID-19. In such situations, these workers noted that they would be required to submit their COVID-19 test results to the insurance provider, which would allow them to access financial compensation corresponding to a percentage of their previous income.

Major gaps in access to paid medical leave can also be observed with regard to two other scenarios: if the worker were to develop COVID-19 symptoms (but to not get tested) or if the worker were to be exposed to a person who had been diagnosed with COVID-19. These gaps exacerbate the risks not only for delivery workers, but also for other members of the public. Of all the app-based delivery workers who had not contracted COVID-19, a majority reported that, if they were to be faced with either of the two aforementioned scenarios, they would not receive financial compensation for the days they did not work (20 out of 23 respondents). A small number of respondents reported that they did not know if they could receive financial compensation in such situations (3 respondents). In comparison, the situation of traditional delivery workers is significantly different: nearly all the traditional delivery workers reported that they would receive financial compensation for the days they did not work in the event that they were to test positive for COVID-19, were to develop symptoms or were to be in a close contact with someone who had tested positive for COVID-19.

The findings discussed above illustrate that, during the COVID-19 pandemic, workers faced significant gaps in social protection. Some delivery platforms in Chile implemented specific measures with the intention of reducing not only the health risks but also the economic risks related to the loss of income (Ríos and Cifuentes 2020). However, limited information was shared by platforms, and workers often lacked adequate knowledge about such measures. This situation was prevalent not only in Chile, but also in other jurisdictions (Fairwork 2020b).

#### 10.3 The impact of COVID-19 on occupational health and safety

The majority of app-based delivery workers surveyed (88 per cent) reported being concerned about contracting COVID-19 at work. Crowded supermarkets, the presence of many delivery workers waiting outside food shops, and deliveries to customers who could be positive for COVID-19 were identified by workers as the most common risk factors. However, only 12 out of 25 app-based delivery workers (48 per cent) stated that the platform had introduced new measures to reduce the risk of infection since the pandemic had begun. Such measures included: "provision of masks and sanitizer" (Rappi; male respondent, national of the Bolivarian Republic of Venezuela); "a solidarity fund for workers" (PedidosYa; male respondent, national of the Bolivarian Republic of Venezuela); "recommendations about social distancing" (Rappi; male respondent, national of Colombia); and "not making contact with customers or leaving orders with the porter" (PedidosYa; male respondent, national of the Bolivarian Republic of Venezuela). In addition, nearly 65 per cent of app-based delivery workers (16 respondents) reported that the platform had shared information or provided training on health and safety through videos, notifications or emails. Among these, the majority (13 out of 16 respondents) considered the information or training provided to have been useful and pertinent.

The majority of app-based delivery workers (19 out of 25 respondents) also reported that the platform company had provided them with personal protective equipment (PPE), such as masks, gloves and sanitizer. However, of these workers, many reported that the quantity of the PPE provided was insufficient (14 out of 19 respondents) or that the quality was inadequate (8 out of 19 respondents). All the app-based delivery workers surveyed who had continued to work during the pandemic had taken additional measures to reduce their personal, work-related risk of

becoming infected with COVID-19, and nearly all of them had incurred out-of-pocket expenses to purchase PPE. Therefore, many app-based delivery workers were either somewhat dissatisfied (11 out of 25 respondents) or very dissatisfied (9 out of 25 respondents) with the measures taken by the platforms to protect them from contracting COVID-19.

#### Concluding remarks

The COVID-19 pandemic has had particular implications for app-based delivery workers. Owing to restrictions on movement imposed in cities, app-based delivery workers became essential for marketing and distributing different types of products. Delivery platforms were rapid and effective at adapting their business models to the evolving situation and diversifying their offerings based on the supply and demand for a wide range of goods and products. Furthermore, app-based delivery work represented one of the few work opportunities for unemployed individuals and for those not covered by social protection during the pandemic, at the time when physical movement was restricted.

Despite such dynamics and the changes introduced by delivery platforms, workers faced several challenges and risks. The experiences cited by workers serve to highlight these challenges, while revealing that their labour is fundamental to the work performed, despite the use of new technologies by platform companies. It is therefore important to underline that the voices of these workers are paramount to discussions of platform work. It is also important to emphasize that "digital work" – a key focus of discussions on the future of work – often also involves human beings who perform material activities in the offline world, especially via location-based platforms. While the algorithmic management of human labour may have the promise of increasing worker productivity and optimizing capital assets, its implications for workers and their working conditions cannot be overlooked.

This paper has presented the experiences, realities, expectations and motivations of app-based delivery workers in Chile with the aim of contributing to ongoing discussions about the role of digital labour platforms in transforming the world of work. Despite the lack of data on the actual number of workers whose labour is mediated by digital platforms, regulatory authorities in the region are gradually gaining a better understanding of the situation of platform workers, which they are using to guide the development of regulations. Chile has taken an important step forward through the adoption of Act No. 21.431, designed to serve as a legal framework to govern platform work, in March 2022. A number of challenges remain to be addressed during the implementation of the new law, however. Some of the findings of this paper provide important insights about the working conditions of platform workers which might be helpful to regulatory authorities in Chile as they implement the Act.

A key finding of this paper is that the experiences, realities, expectations and motivations of app-based delivery workers are diverse. While these workers share some common socio-demographic characteristics, their motivations for undertaking app-based delivery work and their associated expectations are determined by their personal experiences and situations. There is therefore a need for nuanced engagement with the topic when trying to understand why workers choose to perform platform work. Moreover, the experiences of workers differ across the multiple delivery platforms that are operating in Chile and are shaped by factors such as the worker's age, gender, nationality, migration status and socio-economic situation. Furthermore, delivery platforms were found to have different entry requirements for workers, which results in segmented access to work and different working conditions depending on the platform.

A second important finding relates to the differences in the information shared by platform companies and the information reported by survey respondents, especially regarding working hours. A significant majority of the app-based delivery workers surveyed considered platform work to be their main source of income. They often worked long hours and sometimes also over the weekend to earn a decent income, and they regularly faced work-related stress that affected their health and safety. These differences are nonetheless in line with what was expected given the sample design, in which "active" app-based delivery workers are over-represented. Furthermore, delivery platforms have repeatedly questioned the need for labour regulations by claiming that delivery workers tend to be part-time and that they tend to use multiple platforms simultaneously. However, the survey findings in this paper show that app-based delivery workers mainly use one

app to access work, which they consider to be their main source of income. These findings are very important for worker classification, especially as Act No. 21.431 classifies workers as either dependent or independent workers on the basis of the worker's level of economic dependency. It will be vital to ensure that workers are not misclassified under the new regulatory framework.

Third, the findings of this paper reveal that some app-based delivery workers believe that traits such as hard work and personal development can help them to improve their earnings. They therefore tend to find a degree of satisfaction with their work. This data should be viewed within the wider context of the Chilean labour market, where migrant workers face particular challenges in accessing job opportunities. This is despite the fact that a considerable proportion of migrant workers have a high level of education, having completed technical or university studies. This finding calls into question the capacity of the Chilean labour market to utilize and foster the various – and, currently, underutilized – skills and abilities of such workers. It is also important to note that formal employment in Chile does not guarantee a route out of poverty or access to an adequate income (Bennett Ramos 2017). In this scenario, migrant workers might see platform work as a viable alternative to formal labour markets. Moreover, migrant workers can access work through only a few platforms, which suggests a segmentation of the delivery platform market depending on the entry requirements imposed, such as possession of a Chilean identity card or a driver's licence issued in Chile.

Fourth, while some app-based delivery workers value flexibility – which allows them to perform other activities, including other remunerated activities and care work – and agree with being classified as independent workers, they are, at the same time, conscious of how app-based delivery work impacts and shapes their well-being and working conditions. For instance, many app-based delivery workers worry for their personal safety and experience high levels of work-related stress, while a significant proportion of workers have been victims of assaults, aggressions and accidents and have faced discrimination or harassment at work. Furthermore, app-based delivery workers would like to improve their working conditions, to reduce their vulnerability to occupational health and safety risks and to be consulted on matters related to their work, given that they are the ones who are performing the work. Their desire to improve their situation has led them to share their experiences with each other both at places where they tend to take a break or rest and through social networking platforms, where interactions among workers are frequent.

Fifth, app-based delivery workers have started to organize and have developed solidarity actions, especially in order to assist each other during emergencies. They have also begun to share work-related information and guidance among themselves in response to the limited training and support provided by platform companies. It can therefore be seen that, despite competing against each other, believing in the deep-rooted notion of individual merit and working in a dispersed public space that makes it difficult to form collective bonds, app-based delivery workers have been undertaking collective actions aimed at changing and improving their working conditions. App-based delivery workers have also started to form associations and unions, including a nascent organization operating at national level. It is crucial that steps are taken to strengthen such organizations and ensure that collective bargaining rights are respected and that workers are able to meaningfully engage in negotiations and voice their concerns. While Act No. 21.431 contains some important provisions in this regard, it is yet to be seen how collective bargaining will operate in practice under this new regulatory framework. There are some concerns in that regard, given that the negotiations undertaken by such workers must take place in the form of "unregulated collective bargaining" without the traditional procedural protections provided by the Labour Code, such as protection against dismissal and the right to strike (Leyton García and Azócar 2022).

Lastly, it is important to highlight the lack of awareness and knowledge among app-based delivery workers regarding the availability of private or public accident insurance, public health insurance and old-age social protection or the possibility of obtaining financial compensation in the event of contracting COVID-19 or being in close contact with someone who is infected. Given that app-based delivery workers lack access to continuous skills development or training

opportunities and tend to have weak ties with the platform, it is difficult to assess the potential impact that such social protection systems could have for workers. Addressing such information gaps will be particularly important to ensure the effective implementation of Act No. 21.431, which reinforces access to social protection for all such workers.

Furthermore, workers lack knowledge about how platforms utilize algorithmic management practices to allocate orders and calculate incomes, which has implications for their working conditions. In their qualitative responses, workers questioned how orders were allocated and how incomes, bonuses and incentives were calculated based on indicators that were beyond their control. Similarly, they reported that lower ratings resulted in account deactivation and a loss of work opportunities, without the possibility to appeal. The opacity of these algorithms (which function in a "black box" model) is a key challenge. It will be vital to develop a better understanding of how algorithmic management practices operate, in particular to ensure that, during the implementation of Act No. 21.431, the category of "independent worker" is not used by platforms to undermine workers' rights through their continued use of algorithmic management practices to exert control over workers, all while continuing to deny the subordination of such workers.

In conclusion, two issues can be raised for future discussion on ways to promote decent work for platform workers. The first issue relates to the possibility of decoupling the enjoyment and exercise of fundamental labour rights from the existence of a formal employment relationship, which has been discussed in various forums of the ILO (ILO 2020a and 2021; Rodríguez Fernández 2020; Countouris 2019). Despite the challenges faced, Act No. 21.431 makes important strides in this regard by extending certain protections and guaranteeing rights for both dependent and independent workers. Second, there remains an urgent need to promote and improve the conditions for social dialogue between the various parties involved in the so-called "platform economy". To this end, legislators must take into account the multiple players involved in the marketing and distribution chains of goods and services, which are increasingly being managed through digital labour platforms (Mexi 2020). Act No. 21.431 may be a small and humble step in the right direction, as it recognizes that both dependent and independent workers have the right to organize and bargain collectively. Indeed, there is no doubt that the adoption of Act No. 21.431 presents a landmark opportunity to address the multiple challenges faced by workers on location-based platforms in Chile, which could also potentially inspire the regulatory responses of other countries in the region. However, it will be vital to observe how the Act is implemented to understand its real-world implications and ensure that it genuinely contributes towards improving the well-being of platform workers and guaranteeing decent work for all.

#### Methodological annex

The selection of a representative sample of the entire population of platform workers was hindered by the lack of official statistics on workers engaged in platform work more broadly, and app-based delivery work more specifically. The target population of this study is characterized by the fact that the size and characteristics of this group of workers are unknown and that workers are constantly moving in and out of platform work, which makes it impossible to obtain a random and representative sample of the entire population. To solve the problem of identifying such "hard-to-reach populations", various approaches are proposed in the literature (Shaghaghi, Bhopal and Sheikh 2011). This work uses a "time-location" sampling approach, which is based on identifying the relevant population at expected points (location) and at specific hours (times) in different municipalities of Santiago. In other words, it uses intentional, stratified non-probability sampling.

For app-based delivery workers, a sampling strategy was implemented in three stages. The first stage consisted of identifying waiting points in the different municipalities of Santiago and the hours when the greatest number of app-based delivery workers would be present at each location. This enabled the creation of a comprehensive list of 45 waiting points across various municipalities of Santiago (the location criterion) and the identification of the blocks of hours with the highest concentration of delivery workers (the time criterion). The blocks of time and locations selected were 11 a.m. to 2 p.m. and 3 p.m. to 6 p.m. in squares and public spaces in high-income municipalities in the case of workers of foreign nationality engaged with Rappi, PedidosYa and Uber Eats; 6 p.m. to 9 p.m. on weekdays or weekends at malls in middle-income municipalities in the case of workers of Chilean nationality engaged with Rappi, PedidosYa and Uber Eats; and 1 p.m. to 3 p.m. on weekdays outside of or in the break areas of supermarkets for workers engaged with Cornershop, regardless of nationality.

The second stage consisted of randomly assigning interviewers to specific places and times with the task of conducting the surveys in a consistent manner. During this stage, the specific characteristics of the workers to be selected were also defined: the platform (Rappi, PedidosYa, Uber Eats and Cornershop), the means of transport (car, motorcycle or bicycle), the worker's gender and the worker's nationality. This intentional selection sought to reconcile the sample with the information available about the entire target population (presented in table 1), therefore establishing uniform quotas by platform<sup>49</sup> and means of transport and differentiated quotas by gender and nationality. A significant effort was consequently made to identify female app-based delivery workers and workers of Chilean nationality.<sup>50</sup>

The third and final stage consisted of randomly selecting app-based delivery workers at the previously determined waiting points who met the specified characteristics. The surveys were conducted on the street while workers waited for their next order. No prior arrangements were made with any of the respondents. If more than one worker met the previously determined characteristics at a given location, a maximum of two respondents from the same group of workers were surveyed, with a maximum of four respondents at a given place and time. In order to be selected, the respondent must have been working as an app-based delivery worker for more than three months. Lastly, every worker who was surveyed was provided with 5,000 pesos after concluding the survey in consideration for their participation and time.

During the period when preparations were being made to conduct field-based surveys (May 2019), the information available in the media suggested that there were approximately 3,000 app-base delivery workers per platform.

For example, information collected during the field work suggested that a large number of app-based delivery workers of Chilean nationality could be observed on weekends and after the working day on weekdays, as they used the platforms to supplement their income from their main job. In order to increase the number of app-based delivery workers of Chilean nationality in the sample and include a greater diversity of experiences in the selection of cases, surveys were conducted at Mall Arauco Maipú, Mallplaza Oeste and Mallplaza Vespucio, in addition to other locations in middle-income municipalities in Santiago. Surveys were also conducted at different times (i.e. after the working day or on weekends).

Consequently, 71 per cent of the sample is composed of migrant workers, which corresponds to the proportion reported by platforms such as Rappi (table 1). There is a preponderance of male app-based delivery workers (85 per cent), which corresponds to the information on the total population of app-based workers as published in the press. The distribution is relatively uniform between the different platforms, with a slight preponderance of workers engaged with Rappi, representing approximately 30 per cent of the total sample. Table 6 presents the characteristics of the selected sample and reflects the attempt to obtain a sample that was composed of app-based delivery workers who were representative of the total population.

When selecting the sample of traditional delivery workers, a different strategy was used. A small sample of 50 workers was sought in order to compare their situation with that of the app-based delivery workers. First, the different types of shops that use traditional delivery services were identified in order to develop an understanding about the heterogeneity of this type of work: pizza shops, sushi shops, fast-food outlets and supermarkets. In the second stage, contact was established with the workers of these shops. The survey was then conducted at a time and place previously agreed on between the interviewer and the respondent. In this case, 5,000 pesos were also provided to each respondent at the conclusion of the survey in consideration for their participation and time.

The survey was conducted with 259 app-based delivery workers and 50 traditional delivery workers of food shops and supermarkets in Santiago, Chile, between 11 June and 2 October 2019. The survey was designed by the ILO Research Department in Geneva. The survey included 12 modules of quantitative and open-ended questions, with a duration of approximately 60 minutes. The surveys were conducted in person, mainly on weekdays (Monday to Friday) at different times of low demand (from 11 a.m. to 1 p.m. and from 3 p.m. to 5 p.m. for the majority of app-based delivery workers, and during lunch time for Cornershop workers), between the dates of 11 June and 11 August 2019 for app-based delivery workers and 19 August and 2 October 2019 for traditional delivery workers.

#### ► Table 6: Characteristics of the selected sample

App-base	App-based delivery workers			Traditional delivery workers			
	Number	Percentage		Number	Percentage		
Main	Main platform used			Main source of deliveries			
Rappi	82	31.66	Delivery company	1	2.00		
Uber Eats	58	22.39	Restaurant	42	84.00		
Cornershop	60	23.17	Supermarket	7	14.00		
PedidosYa	59	22.78	Total	50	100.00		
Total	259	100.00					
	Vehicle			Vehicle			
Bicycle	98	37.84	Bicycle	1	2.00		
Car	60	23.17	Car	2	4.00		
Motorcycle	101	39.00	Motorcycle	40	80.00		
or scooter			or scooter				
Total	259	100.00	None	7	14.00		
			Total	50	100.00		

App-based delivery workers			Traditional delivery workers			
Country of birth			Country of birth			
Argentina	1	0.39	Argentina	2	4.00	
Brazil	2	0.77	Chile	29	58.00	
Chile	76	29.34	Colombia	2	4.00	
Colombia	15	5.79	Dominican Republic	1	2.00	
Dominican Republic	1	0.39	Peru	4	8.00	
Ecuador	1	0.39	Uruguay	1	2.00	
Peru	3	1.16	Bolivarian Republic of Venezuela	11	22.00	
Uruguay	1	0.39	Total	50	100.00	
Bolivarian Republic of Venezuela	159	61.39				
Total	259	100.00				
	Gender		Gender			
Male	219	84.56	Male	41	82.00	
Female	40	15.44	Female	9	18.00	
Total	259	100.00	Total	50	100.00	
	Municipality (area) where the interview was conducted			Municipality (area) where the interview was conducted		
Central Santiago	57	22.01	Central Santiago	8	16.00	
Cerrillos	2	0.77	La Reina	5	10.00	
La Florida	4	1.54	Las Condes	8	16.00	
La Reina	19	7.34	Macul	8	16.00	
Las Condes	60	23.17	Maipú	3	6.00	
Lo Bernechea	12	4.63	Ñuñoa	13	26.00	
Macul	9	3.47	Providencia	5	10.00	
Maipú	3	1.16	Total	50	100.00	
Ñuñoa	40	15.44				
Peñalolén	1	0.39				
Providencia	38	14.67				
Vitacura	14	5.41				
Total	259	100.00				

Source: Survey of app-based and traditional delivery workers in Chile.

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