



## SEAD

Sustainable Employment in the Age of Digitalisation:  
challenges, obstacles, and opportunities

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**SEAD Working Paper 2023.1**

**Work Package 4: Sustainable work in new employment phenomena**

“Describing the socio-demographic, professional and economic profile of platform workers based on administrative platform data”.

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## Introduction

This report is part of work package 4 of the SEAD project, a research project funded by the Belgian Federal Science Policy that aims to investigate the employment-related opportunities and threats associated with digitalisation. The ever more rapid development and adoption of new technologies raises questions about the possible disruptive impact on the world of work and employment (Frey & Osborne, 2013). The general concern is that automation and changing skill requirements will threaten many individuals' jobs and might affect the task content of occupations or hamper job quality. The way employment is organised in companies or other types of organisations might as well be heavily affected by technological development. Increases in non-standard, flexible and project-based forms of employment are often seen as problematic for the quality of work (Shaari & Amirul, 2022). Of course, new technologies do not only pose threats, but also come with tremendous new opportunities such as job creation in growing and/or new sectors (Valenduc & Vendramin, 2017), novel business models (Neligan et al., 2022), innovative types of employment allowing for 'desirable flexibility' (Almeida et al., 2020) and jobs with higher levels of autonomy (Gerten et al., 2019).

Work package 4 of the SEAD project aims at a more detailed understanding of the Belgian platform economy and its impact on (the quality of) employment relations and conditions. Given its complexities and ambiguities, mapping the boundaries, characteristics and categories of the platform economy is a crucial first step. This descriptive report addresses the following objectives:

1. To improve our knowledge of the socio-demographic profiles of workers active on digital platforms, relative to gender, age, qualification level, migration background, and place of residence.
2. To characterise the professional and economic profile of these workers, e.g., employment status (self-employed, employee, student, ad hoc), working time, pluri-activity, and pricing/revenue.

In this report we will address these objectives by means of back-end administrative data on platform workers that was provided by the platforms themselves. Of course, the picture presented only refers to the platforms sharing data with us; and the level of detail of the data shared. Therefore, readers should refrain from any generalisation upon the results presented – nor in terms of specific platform activities, nor in terms of the platform economy in Belgium overall. Nevertheless, as the results will show, the analyses of these data do show an interesting picture on platform labour activities in Belgium which adds to the current state of knowledge on the sector.

First, we will describe the data on which this report is based, followed by an analysis of the socio-demographic, professional, and economic profile of Belgian platform workers.

## Data

To understand the socio-demographic, professional and economic profile of Belgian platform workers, we used back-end administrative data that were provided by nine different digital platforms active in Belgium. In table 1, we briefly explain the nature of the data we received from each platform.

To be able to meet the objectives of this report, we analysed the data from each digital platform separately and compared them to estimates of the general Belgian working population obtained from the Belgian Labour Force Survey (LFS). This report also contains an overarching analysis of these separate analyses.

## **The socio-demographic, professional and economic profile of Belgian platform workers**

### Case-by-case

Table 2 presents an overview of socio-demographic and professional characteristics of the users of several digital platforms active in Belgium. Here, the main results are described per platform with reference to type of platform activity.

Considering the tutoring platform, we notice a relatively equal gender distribution of the platform workers (slightly in favour of women). Most active workers on this platform are relatively young (75% is between 19 and 35 years old, while the average age is 33 years old). In terms of education of the tutors, we found that higher educated workers are overrepresented on the platform: the largest group of tutors (65%) has completed higher education of the long type (master's degree or PhD), and 31% has completed higher education of the short type (bachelor's degree or professional courses). Moreover, 74% of the tutors subscribed on the platform did not have valid information about their employment status. This means that the platform has not (yet) been able to assign a specific employment status to the tutor. When focusing on the sample of tutors for whom we do have information about their employment status, we found that almost all workers are either self-employed (14%) or make use of the specific tax status for the platform economy (De Croo regime) (85%). On average, tutors have given about 62 hours of tutoring lessons in the period between their registration to the platform and data extraction. In that same time span, they earned on average €1.202 through the platform, which comes down to a mean remuneration per hour of €19,5.

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**Table 1.** Description of data received from digital platforms in Belgium

<b>Type of platform</b>	<b>Unit of analysis</b>	<b>Period coverage</b>	<b>Variables</b>
<b>Education and tutoring</b>	Registered platform users (N = 8.767) - Anonymized, (back-end) data	January 2014 – October 2021	Each data entry included a unique ID of the worker, as well as their first name*, year of birth, postal code, education level, employment status, and total given tutoring hours, total remuneration, date of registration to the platform and date of last pay-out.
<b>Professional (freelance) services</b>	1/ Registered platform users (N = 38.526) - Public profile information - Anonymized (back-end) data 2/ Private messages through the platform (N = 14.014) 3/ Advertized jobs on the platform (N = 32.794)	June 2011 – October 2020	1/ Each data entry included a unique ID of the worker, as well as their first name*, postal code, gender, year of birth, education, advertised hourly rate, employment status, job category in which they work, language, seniority, preferred place of work, rank, paid membership, availability, last date online, count online, date of profile creation and words that described their ‘strong’ characteristics. 2/ Each data entry included a unique ID of the private message, as well as the unique ID of the worker(s) to which the message was sent. 3/ Each data entry included a unique ID of the advertised job, as well as the unique ID of the employer who has posted the job, the postal code and city, the data on which the job was posted, the job category, where the job would have to be completed (at the premise of the customer or worker), estimated effort, and number of clicks.
<b>Babysitting 1</b>	Active (i.e., completed at least one job) platform users (N = 13.649) - Anonymized (back-end) data	January 2015 – December 2020	Each data entry included a unique ID of the worker, as well as their gender, date of birth, postal code, date of registration to the platform, number of babysitting jobs completed, average hourly rate, and total earnings via the platform.
<b>Babysitting 2</b>	1/ Active (i.e., trained and approved by the platform) platform users (N = 579) - Public profile information 2/ Aggregated micro-level information across the platform. - Back-end data	1/ All registered users at time of data delivery (May 2021) 2/ June 2020 – April 2021	1/ Each data entry included a unique ID of the worker, as well as their age, gender, education, and social status, as well as their occupational status outside of platform work. 2/ The data included aggregated micro data on the number of babysitting requests made on the platform, by how many different parents, as well as the amount of newly registered babysitters. The data also included information on the total number of completed babysitting jobs, subdivided into jobs with one or multiple children, as well as the time period of these jobs (during the day or evening). Also, the average time spent babysitting per job was included.
<b>Babysitting 3</b>	1/ Registered platform users, approved by the platform itself (N = 50) - Public profile information 2/ Completed jobs on the platform (N = 147)	May 2019 – May 2021	1/ Each data entry included the first name (and first letter of the surname), as well as their postal code, and the languages they speak. Data also included the users’ introductory text from the platform, date of registration, and availabilities for work. 2/ Each data entry included the first name* (and first letter of the surname) of the babysitter, as well as the unique ID of the client. For each job, we also had information on the exact starting time and finishing time, the number of children, and the number of credits the babysitter has earned working the job. The second data set was transformed and linked to the first.

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<b>Interim jobs 1</b>	Active (i.e., completed at least one job in 2020) platform users (N = 9.262) - Anonymized (back-end) data	Year of 2020	Each data entry included a unique ID of the worker, their gender, date of birth, municipality, nationality, and spoken languages, as well as their employment status (for the platform), occupation, and gross earnings.
<b>Interim jobs 2</b>	1/ Registered platform users (N = 277.432) - Anonymized (back-end) data 2/ Contracts arranged by the platform (N = 1.026.712) - Anonymized (back-end) data	2017 – September 2021	1/ Each data entry included a unique ID of the worker, their gender, age, marital status, nationality, place of birth, postal code, education level, as well as information on their employment status (for the platform), work and residence permits, wage restraint, availability of a car, date of registration, and last seen online. 2/ For the contract, each data entry included the date of the contract, the unique ID of the worker (we used this variable to link both datasets), and the client, the age of the worker at the time of contract, the employment status, distance to work, function description, place of work, hours worked, and the workers' net wage.
<b>Elementary jobs (e.g., handymen, cleaning)</b>	1/ Registered platform users (N = 38.524) - Public profile information - Anonymized (back-end) data 2/ Job applications (N = 841.489) - Anonymized (back-end) data 3/ Job payments (N = 145.763) - Anonymized (back-end) data	August 2012 – October 2021	1/ Each data entry included a unique ID of the worker, their age, postal code, and surname*, as well as information on workers' professional status, and the date they registered for the platform. 2/ Each data entry included a unique ID of the job application and the date the application was created. For each application, also the unique ID of the applicant (the worker) and client, as well as the job (sub)category was included. 3/ Each data entry included a unique ID of the payment and the date of payment. For each payment, also the unique ID of the application was included. In addition, each data entry included the total service amount, subdivided in the amount paid to the worker, the expenses amount, the amount of commission for the platform, and the tax amount.  The datasets were linked as follows: first, job payments were linked to job applications based on the unique ID of the application. Second, this created dataset was linked with the registered platform users based on the unique ID of the worker.
<b>Taxi drivers</b>	Aggregated survey information about a selected sample of platform users (N = 219)	3 Sept. 2019 – 19 Sept. 2019	The aggregated micro data contained information on gender, age, place of residence, household situation, education level, prior employment, car type, reliance on platform income as well as information on workers' evaluation of the platform (i.e., satisfaction, work-life balance, future work, main advantages, and disadvantages) and the application (i.e., flexibility, recommendation, ability to determine driving hours, reasons for driving/ using the application).
<b>Food delivery</b>	1/ Aggregated survey information about a selected sample of platform users (N = 113) 2/ Aggregated micro-level information across the platform. (N = +- 12.000)	Year of 2020	1/ The aggregated micro data contained information on gender, age, country of birth, language, marital status, household composition, student status, prior employment, main motivation for app access, and satisfaction. 2/ Aggregated data on average usage hours of the application, average length of use of the application, whether their income reaches above or below 2.500, and whether workers fall under the De Croo regime.
* The first name of the respondent was included in the databases to estimate the gender of respondents when the variable 'gender' was unavailable.			

On the platform for **professional freelance services**, the gender distribution is slightly more in favour of men. We do not have information on age or education level of these workers. The occupations carried out through the platform are often found in the ISCO-categories: professionals (e.g., designers, sales, marketing and public relations professionals, and software and applications developers and analysts), technicians and associate professionals (e.g., financial, and mathematical associate professionals, artistic and cultural professionals, and telecommunications and broadcasting technicians), and clerical support work (e.g., general office clerks). Nearly all workers on the platform have a VAT-number and are thus self-employed. 35% of the registered users are available for work five days per week, and finally, their mean, advertized remuneration per hour is around €15,7. When looking at the data from the platforms for **babysitters**, it immediately becomes clear that the majority of workers is female (>90%) and relatively young (average age around 23 and 25 years old). Most babysitters on these platforms are still in the process of getting their degrees. Compared to other types of platform activity, the average hourly wage is lower (around €7 for the regular babysitting platforms, and €12 for the babysitting platform that also offers language services). On average, babysitters have done about 10 babysitting jobs between the moment of registration on the platform and the moment of data extraction, with an average of 4 working hours per job.

The gender distribution of workers active on **interim** platforms is different for the two platforms included in this report. Whereas for one, male workers are in the majority (60%), for the other, female workers make up the majority of the sample (60%). This might be attributable to the type of occupations carried out through the platform: jobs offered on the first platform (where male workers are in the majority) are mainly in elementary occupations, in addition to service and sales work, and clerical support work, whereas for the second platform (where female workers are in the majority) most jobs are in service and sales work. In terms of age, the statistics are quite similar with an average age of around 30 years old. The education level of the workers on these platforms seems slightly lower when compared to other types of platforms, but this might be attributable to the fact that many workers are still students (around 70%) and thus still in the process of pursuing a higher level of education. On average, the platform workers worked about 116 hours via the interim platform(s) (in the time between registration on the platform and data extraction), for which they received a mean remuneration of around €12 per hour.

Table 2 also shows that workers on the platform for **elementary jobs** (handymen, cleaning services,...) are mainly male (68%). As was also suggested in the previous paragraph, the gender distribution for workers on this type of platform might depend on the specific type of services offered on the platform. The average elementary worker on the platform is 38 years old, which is significantly higher than the average age of workers for previously discussed platform types. No information on the educational level of the workers is available. We do know that workers have completed an average of 24 jobs since registration, with an average remuneration of €46 per job. However, a significant gender pay gap is present, disadvantaging women in comparison to men with similar characteristics. Of the active elementary platform workers, 15% is self-employed.

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Almost all **taxi drivers** working through this digital platform are men (98%). They also have a relatively high mean age, since 38% of the taxi drivers is between 30 and 39 years old. A remarkable finding is that 43% of the taxi drivers selected for the survey (see table 1 – a survey carried out by the platform itself, on a selection of users) has a degree in higher education. No information was collected regarding the number of hours worked and the employment status of the taxi drivers. However, we do know that 64% of the drivers uses their platform work as their sole source of income.

The **food delivery** platform is also male dominated, since 94% of the delivery workers are men. When it comes to the age of these workers, we see that 36% of food delivery workers is between 21 and 30 years old and 25% is between 31 and 40 years old. In 2020, 82% of the workers made more than €2.500 working through the platform. Considering working hours, we found that 35% works less than 10 hours per week and 31% works between 10 and 20 hours per week. While 3% of the food delivery platform workers is self-employed, a vast majority (97%) works under a sharing economy statute.

In sum, it is remarkable how much the characteristics of platform workers differ between platforms and certainly according to type of platform activity. In other words, there appears to be no such thing as '*the platform worker*' in Belgium. The characteristics in the table show very clearly that the heterogeneity within the group of platform workers is strongly linked to the type of services/activities that are performed via the platforms under consideration. Moreover, these figures seem to show that most users only use the platform sporadically. However, our data does not allow us to take into account 1) users who are active on multiple platforms, and 2) activities of workers for clients who were initially matched through the platform but that continued to take place outside of the platform (e.g. freelancers might use a digital labour platforms as a way to initiate new client relations, but continue working for some of the clients without using the platform as an interface).

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**Table 2.** Socio-demographic and professional characteristics of active users on Belgian platforms

	<b>Tutoring</b>	<b>Professional services</b>	<b>Babysitting 1</b>	<b>Babysitting 2</b>	<b>Babysitting 3</b>	<b>Interim 1</b>	<b>Interim 2</b>	<b>Elementary services</b>	<b>Taxi driving</b>	<b>Food delivery</b>
<b>Registered</b>	8.767 1.633 (19%)	38.526 17.446 (45%)	+ - 125.000 13.649 (10%)	1.266 579 (45%)	50 50	<i>No information</i> 9.262 (in 2020)	277.430 45.393 (20%)	38.534 12.064 (31%)	<i>No information</i> 219	<i>No information</i> + - 12.000
<b>Active (%)</b>	At least 1 paid job	1-year, >12 log-ins	At least 1 paid job	Trained by platform	Approved by platform	Hired by platform	At least 1 paid job	At least 1 paid job	Survey selection	At least 1 paid job
<b>Socio-demographic characteristics of active users</b>										
<b>Gender</b>	Male: 46% Female: 54%	Male: 55% Female: 45%	Male: 8% Female: 92%	Male: 6% Female: 94%	Male: 8% Female: 92%	Male: 60% Female: 40%	Male: 40% Female: 60%	Male: 68% Female: 32%	Male: 98% Female: 2%	Male: 94% Female: 4%
<b>Av. age</b>	33 years old	<i>No information</i>	23 years old	25 years old	<i>No information</i>	30 years old	29 years old	38 years old	30-39 years old: 38%	21-30 year: 36% 31-40 year: 25%
<b>Education level</b>	Master or higher: 65%	<i>No information</i>	<i>No information</i>	Still student: 79%	Still student: 74%	Still student: 44%	Master: 6%	<i>No information</i>	Higher education: 43%	<i>No information</i>
<b>Professional characteristics of active users</b>										
<b>Top 3 occupation</b>	Teaching professionals	Professionals; Technicians; Clerical support workers	Service workers (babysitting)	Service workers (babysitting)	Service workers (babysitting)	Elementary occupations; Service and sales workers; Clerical support workers	Service and sales workers	Elementary occupations (e.g., DIY, odd jobs, household help, care tasks, gardening)	Car and taxi drivers	Food delivery couriers
<b>Status</b>	Sharing economy: 85% Self-employed: 14%	All self-employed	<i>No information</i>	<i>No information</i>	<i>No information</i>	Mostly blue collar	Student: 68% Flexi: 22% Employee: 9%	Self-employed: 15% other: 85%	<i>No information</i>	Sharing economy: 97% Self-employed: 3%
<b>Av. earnings</b>	Per hour: €19,5 (earned)	Per hour: €15,7 (advertised)	Per hour: €6,85 (earned)	Per hour: €7 (earned)	Per hour: €12 (earned)	Per hour: €12,42 (earned)	Per hour: €11,71 (earned)	Per <b>job</b> : €46 (earned)	Sole source of income: 64%	>2.500€ (in 2020): 82%
<b>Work quantity</b>	Average hours worked since registration: 62 hours	Available for work, for 5 days a week: 35%	Average amount of jobs worked since registration: 10	Av. Hours/ job: 4 hours, 10 minutes	Average hours and jobs worked since registration: 18 hours and 9 jobs	<i>No information</i>	Average hours worked since registration: 116 hours	Average amount of jobs worked since registration: 24	<i>No information</i>	Hours/ week: <10 hrs: 35% 10-20 hrs: 31% 20-30 hrs: 18% >30 hrs: 17%

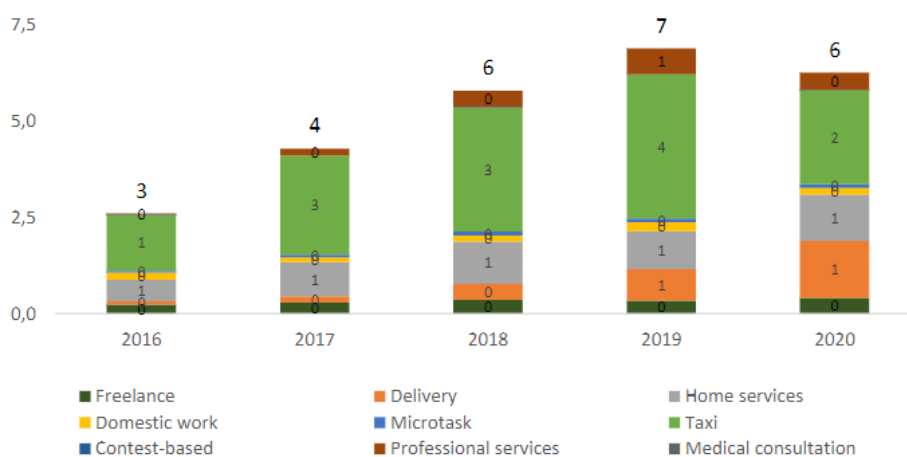


## Overarching analysis

As was already shown in the previous section, the characteristics of Belgian platform workers differ between platforms and according to the type of services offered on the platforms. This, in addition to the fact that different types of platform work account for a larger or smaller share of the overall platform economy, makes it difficult to form an adequate description of ‘the Belgian platform worker’. In this part of the report, we will however attempt to make an overview of some of the sociodemographic and professional characteristics of active platform workers across the different Belgian platforms.

In a CEPS (2021) study on digital labour platforms in the EU, an overview was provided of the estimated earnings of people working for a platform (in EUR billions). By means of Figure 1, we can estimate the importance of the different types of activity situated within the platform economy. To do this, we make the crude/bold assumption that the Belgian distribution between platform types is similar to the distribution in the EU27. In 2020, the dominant platform services in the EU27 were on-location personal transportation (42% of the estimated earnings of platform workers) and delivery services (36% of the estimated earnings of platform workers) (CEPS, 2021). This means that in our data, these types of platform work are underrepresented.

**Figure 1: Estimated Earnings of People Working through Platforms in the EU27 by Type (EUR billion)**



Source: CEPS, 2021

### *Socio-demographic characteristics*

Looking at the **gender distribution** of platform workers, we suspect differences between sectors and types of activity to play a major role in the uneven distribution of men and women over the different platforms. On the platform for professional services, the gender distribution of workers is relatively equal. Platforms dominantly used by female workers are associated with tutoring jobs, babysitting and service and sales work. Platforms with a majority of male workers are situated in sectors of elementary services, taxi driving and food delivery. The gender distribution within the Belgian platform economy therefore depends on the

relative importance of each type of platform activity within the platform economy as a whole. To make this estimation, we refer to the CEPS report (2021), which indicated that the taxi services and delivery platforms were the most important platform types in 2020. Since, in Belgium, the taxi driving platform and the delivery platform are dominated by male workers, we assume the majority of Belgian platform workers to be male.

For all platforms included in this report, the **average age** of workers is between 23 years and 40 years old, thus representing a great age-variation between different platforms. In general, younger workers are overrepresented on most platforms when compared with the overall Belgian working population. Car and taxi drivers, workers doing elementary or handy tasks, and food delivery couriers stand out, with (somewhat) higher average ages. The older profile of workers in the two most important types of platform work also means that the overrepresentation of younger workers in certain types of platform work may be absent (or at least reduced) within the overall Belgian platform worker population.

The **place of residence** of platform workers also depends on the platform. 4 of the Belgian platforms we've studied indicated to have workers not residing in Belgium, with percentages varying from 2,4% up to 37% (some platforms are also active outside of Belgium, thus explaining the high share). Most platforms included in this research mainly operate in Flanders, but other platforms have workers from all over the country or operate solely in a certain region (i.e., only in Brussels and Wallonia, a certain province,...). Some platforms only offer their services in certain languages, which evidently causes a clear focus on a particular region (Dutch- or French-speaking).

The **qualification levels** of Belgian platform workers differ greatly. This qualification level is linked to the different platforms and types of activities, but there is also variation in educational levels within each platform. Overall, therefore, we see variation ranging from platform workers with a primary school diploma as their highest degree to platform workers with a degree in higher education. The educational level of platform workers above all depends on the nature of the work they perform for the platform: with the highest concentration in tertiary educated in tutoring. A striking observation is that 43% of the drivers from the taxi driving platform have a degree in higher education. However, the biggest share of taxi drivers (46%) has obtained a degree in secondary education. Possibly the platform taxi-driving sample is very atypical for the platform taxi-driving population in Belgium. No information is available concerning the educational level of the delivery workers. An important general remark is that some platform workers are still in school and might thus currently have a lower degree, while pursuing a higher degree.

### ***Professional characteristics***

The **employment status** of platform workers in Belgium also differs greatly between and within platforms. We do see that student workers are present on a lot of platforms and especially on babysitting platforms, where students are highly overrepresented compared to the Belgian working population. But also on the platforms for elementary services, interim jobs and food delivery, students make up a big part of the workers (if not the biggest part). Looking at the employment status of workers, when they work for the platform,

we find that the self-employment status is prevalent on every platform, but not numerous (respectively 14,3% on the tutoring platform; 13,5% on the platform for elementary services and 3% of the food delivery workers). One of the interim platforms also mentions flexi-workers (in Belgium, a flexi-job is a form of employment in which an employee takes an additional job on favorable terms such as not having to pay employee contributions (Federele Overheidsdienst Sociale Zekerheid, 2022))(22% of their workers). A specific law regarding the Belgian platform economy was the De Croo regime (which was later suspended by the Council of State and replaced by a new favourable tax regime from 1<sup>st</sup> January 2021 onwards), which covered the majority of tutors and 97% of the workers from the food delivery platform. Under this regime, platform workers who meet certain criteria and whose income remains under a certain threshold, can get a deducted tax rate (Eurofound, 2021).

The average **remuneration** of Belgian platform workers varies from €6,85/hour to €12/hour on babysitting platforms and from €11,71/hour to €19,5/hour on the other platforms included. Unfortunately, information about the average hourly wage was not available for all platforms in the analysis. On the platform for elementary services, an average remuneration of €46/job is earned. A remarkable finding is the presence of a gender pay gap to the disadvantage of women on platforms where both men and women take up a significant share of the workers. This may be partly due to an existing pay gap between different sectors, but data from the platform for professional services shows that female freelancers with a similar profile as a male counterpart tend to charge less for their services. Since we don't have the necessary information for taxi drivers and delivery workers, we will not formulate speculations about the average (hourly) remuneration of Belgian platform workers in general.

Whether or not workers have a second income (next to their platform work remuneration) also varies strongly between platforms. For 64% of the taxi drivers on the examined platform, their platform work is their **sole source of income**. Of the food delivery workers, 26% combines this type of work with a full-time job, while another 7% works for another employer on a part-time basis. All workers on the platform for professional services are self-employed, which means that it is possible for them to have other clients outside of the platform and to use the platform to build a stable client base. The same goes for the 15% of self-employed workers offering services on the elementary services platform. These workers also apply for less jobs, which could suggest that their platform work may not be their main source of income. A similar conclusion can be drawn for the babysitter platforms, where a majority of the workers combines their platform work with being a daytime student. The same goes for other platforms where students are employed. While the worker population of the interim platforms mainly consists of students, one of the platforms also employs 22% of its workers as flexi-workers. These flexi-workers already have another job or are retired (Federele Overheidsdienst Sociale Zekerheid, 2022). The general conclusion is that the extent of reliance on platform work remuneration differs greatly between different types of platform work. Since we don't have specific information regarding the additional sources of income of food delivery workers, it remains difficult to make speculations.

A lot of heterogeneity is found in the **working hours** of the platform workers, depending on whether or not their platform work is their sole source of income, the type of activity, the employment status of the worker,... For most platforms included in the analysis, we notice that the workers use this platform rather sporadically. On the babysitting platforms, an average of 10 jobs was completed since registration, while the elementary service workers completed an average of 24 jobs. Platform tutors worked, on average, 62 hours for the platform while the interim workers performed 116 hours. Of the delivery workers, 17% works more than 30 hours per week and 18% works 20 to 30 hours per week. For the taxi drivers we don't have this information available, but we do know that 64% uses their platform work as a sole source of income, suggesting that the taxi driving platform may be used less sporadically than the other platforms.

## Conclusion

In this report, we evaluated the socio-demographic and professional characteristics of the Belgian platform workers. The main conclusion is that a remarkable heterogeneity stands out, within but most pronounced between different types of platform work. To formulate our estimations for the Belgian platform economy as a whole, we used the 2021 CEPS report for an indication of the relative importance of the different types of platform work in Belgium. On the EU27 level, taxi platforms and delivery services account for the biggest share of platform work. We thus suspect the majority of Belgian platform workers to be male, with an average age between 21 and 40 years old. While students make up a significant share of the platform workers, we suspect the biggest share of platform workers to have a degree of secondary or higher education. Since the reduced tax regime (see *supra*) is prevalent among food delivery workers, this law may cover a large share of platform workers in Belgium. While the financial dependence on platform work greatly differs between platforms, we assume that the majority of taxi drivers uses their platform work as sole source of income while other workers use the platforms mainly sporadically. This in turn influences the number of working hours performed by platform workers.

However, these characteristics are anything but fixed, since the relative importance of the different platform types might change over time. This happened in 2020, for example, when in the time span of 1 year the share of taxi driving platforms diminished while the delivery platforms more than doubled their share in the EU27 platform economy (CEPS, 2021). Shifts in the relative importance of platform types might also change the characteristics of the average platform worker, since the socio-demographic and professional characteristics of platform workers differ between the different types of platform work.

There thus is a distinct variation in the socio-demographic and professional profiles of platform workers, according to the type of activity. However, we have no reason to suspect this variation to be different from the variation existing in the non-digital labour market. This means that, although certain digital platforms might claim the opposite, the same thresholds could be at play in the online and offline labour markets, guiding similar profiles to certain jobs or sectors.

In conclusion, we find that there is no such thing as ‘the Belgian platform worker’. Platform workers in Belgium are a heterogeneous group, with varying characteristics within and between platforms. This is primarily the result of differences in the type of service/activities offered by the platforms (as is shown in Table 2). Using the CEPS (2021) study, we have tried to take the relative importance of different types of platform work into account, but we must stay cautious with the conclusions drawn from this starting point, since we don’t know for sure that the relative importance of platform types in Belgium is similar to the distribution on the EU27 level.

## Strengths and limitations

In the following section, a few of the strengths and limitations of our report will be summarized.

A first limitation concerns the reliability of our data. For some platforms, the only available data was data provided by the platform itself. Since it is not possible to check this information, there is a possibility that this data is biased in order to provide a more positive image of the platform. Moreover, not every platform provided data for the same set of characteristics or characteristics were measured in a different way, making comparisons between platforms complicated. However, the use of back-end administrative data combined with (anonymised) public information can also be considered a strength of our research. Other approaches, such as the use of web-scraping techniques would not allow us to collect information about variables such as the number of jobs completed, etcetera. The access to back-end data from the platforms thus made it possible to perform deeper analyses and to take more variables into account. So far, very few researchers have been granted access to administrative data from the platforms themselves (Kilhoffer, 2021).

A second limitation is that our data does not allow to map whether platform workers are active on multiple platforms at the same time. This could lead to biases in the quantities and numbers presented. Another phenomenon that cannot be considered is that clients and workers might meet through platforms and then continue their interactions without further using the platform as an intermediary. It is possible that workers perform more than one job for a client, but that after meeting for a first time through the platform, the work relationship continues to exist outside of the platform. However, the same working conditions and rules may be retained.

A clear strength of our research is the different types of platforms we have been able to include in our analysis. As is shown in Figure 1, platforms can be categorised into different types. By exploring multiple types of platforms, we were able to make a better estimation of the reality of the platform economy in Belgium. Of course, it must be noted that only 10 platforms have been included in this research. However, we did manage to include platforms of the most important types found in the EU27 (i.e., the types for which the total earnings are estimated to be the highest because they employ the most workers).

## Policy/ research

Occupations which are traditionally associated with self-employment (managers, professionals, service and sales workers,...) are not necessarily the same occupations offered through online freelancing platforms. We see that occupations associated with waged employment, and mainly those who were able to (partly) make the shift to telework, are overrepresented in the Belgian platform economy. We might thus suspect the number of occupations present on digital platforms to grow, since the Covid-19 crisis forced Belgian employers to transfer all possible work duties to the online sphere. In doing that, it may have opened the door for employees to also offer their services more directly to clients via platform work. This is however a hypothesis that must be examined through further research.

The expansion of platforms isn't the only possible effect that the Covid-19 crisis could have on the platform economy. The health crisis and associated safety measures caused a lot of temporary unemployment (Chini, 2020). Sometimes, these unemployed individuals find their way to the platform economy. The food delivery platform and the taxi driving platform both revealed that 19% of their employees were unemployed prior to offering their services on the platform. Another hypothesis to be tested by further research could be whether the platform economy benefitted from these unemployment trends.

The numbers and conclusions presented in this report are partly based on assumptions derived from EU27 data. For future research, an overview of the most important sectors of the Belgian platform economy could contribute to a more correct and detailed report on the characteristics of Belgian platform workers.

While the platform economy certainly has its benefits with regard to flexibility and the low threshold for establishing labour relations, policies to enforce it should be treated with caution. Under the current legislation, workers are at risk of having inadequate insurance, little to no social protection, an unclear employment status and a lack of attention for the working conditions (Eurofound, 2021). More regulation and protection are thus called for. This could happen in many ways, such as ensuring that platforms take responsibility for the safety of their employees, allowing platform workers to participate in decision-making processes or by implementing measures of social protection for the aspects of work that might threaten the well-being of platform workers. Measures like these are necessary to make the platform economy a sustainable form of employment, certainly for those workers who rely on their platform work as a sole or main source of income.

In order to assess the sustainability of platform work, a final suggestion for future research would be to study whether platform workers use this type of work as a way to access more stable and permanent forms of employment. If not, they might keep their platform jobs for a long time.

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