

Piasna, Agnieszka; Drahokoupil, Jan

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Digital labour in Central and Eastern Europe: Evidence from the ETUI internet and platform work survey

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Digital labour in central and eastern Europe: evidence from the ETUI Internet and Platform Work Survey

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Agnieszka Piasna and Jan Drahekoupil

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european trade union institute

Agnieszka Piasna and **Jan Drahokoupil** are senior researchers at the European Trade Union Institute (ETUI) in Brussels.
Contact: apiasna@etui.org; jdrahokoupil@etui.org

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Abstract

This working paper presents the results of the ETUI Internet and Platform Work Survey conducted in Bulgaria, Hungary, Latvia, Poland and Slovakia in 2018-2019. The objective is to map the extent of digital labour in central and eastern Europe (CEE). We analyse two types of online sources for generating income: internet work; and its subset, platform work.

We find that past experiences with generating income on the internet are relatively common among working age adults. However, the prevalence of regular internet and platform work remains very low in all five CEE countries; indeed, lower according to our estimates than in other comparative surveys. We attribute the differences to the inconsistent quality of non-representative samples of internet users that were deployed in other studies and, in particular, the use of paid, opt-in online surveys which themselves are examples of online gig work.

We do not find evidence that internet and platform work is creating a qualitatively new labour market that encroaches on traditional age and gender segmentation. Neither is it a market of 'student jobs'. Moreover, the labour market situation of internet and platform workers was somewhat more precarious than that for employed people generally, with a higher incidence of non-standard and fragmented employment. Finally, services requiring higher skills and creativity were among the least prevalent forms of internet work, suggesting little overlap with the knowledge-based economy.

Introduction

The emergence of platform and internet work has attracted considerable attention. Platform work, in particular, captures imaginations that inspire narratives on the future of work (e.g. JRC 2019). Labour platforms could facilitate a shift towards self-employment, undermining the existing institutions of worker protection (Drahokoupil and Fabo 2016; Prassl 2018; Daugareilh *et al.* 2019). The new forms of work also make collective action difficult, weakening the effectiveness of traditional ways of worker organising (cf. Vandaele *et al.* 2019). At the same time, internet and platform work can benefit workers by lowering barriers to employment, enabling wider labour market participation and potentially providing a stepping stone to the labour market (Mandl 2019). Early assessments emphasised the progressive potential of platform and internet work to contribute to gender equity (Kuek *et al.* 2015; Codagnone *et al.* 2016): it can overcome the cultural stereotypes that lead to gender segmentation and can also offer stay-at-home mothers an opportunity to work.¹ Platform work, it was argued, could also help to address the youth employment challenge and provide an opportunity for workers to develop skills and progress their careers (Kuek *et al.* 2015).

Despite the prominence of platform and internet work in current policy and academic debate, there is a lack of reliable data on the extent of the use of the internet to generate income and on the profiles of workers performing such activities. This type of work is difficult to measure and it has not been included in official labour market statistics. There are estimates of the extent of platform work based on survey data for single country studies (Bonin and Rinne 2017), but the comparative studies that inform much of the debate at European level (Huws *et al.* 2019; Pesole *et al.* 2018) rely on samples with limited reliability and produce very divergent results, as we demonstrate in the following section.

Our study addresses this gap by providing representative evidence on the extent of the use of the internet to generate income in five central and eastern European countries. Data were collected through the ETUI Internet and Platform Work Survey, using stratified random sampling and face-to-face interviews with adults in their homes. We separately measure internet work and its subset, platform work.

1. Evidence from the US and India indeed suggests that work on the internet allows women with caring obligations to work from home (Berg 2016; Dettling 2017).

Internet work is a broad category that covers all activities to generate income through the use of websites or mobile apps. This includes the digitally-mediated provision of services typically without an explicit or implicit contract for long-term employment. We also consider selling goods and renting assets, if mediated digitally, to be part of internet work.

Platform work is a narrower segment of internet work. Labour platforms match supply and demand and then mediate the provision of work (Drahokoupil and Piasna 2017). They provide a set of tools and services that enable the delivery of work in exchange for compensation (Choudary 2018). Labour platforms organise the mediation of services and do not include property rental (e.g. Airbnb) or the re-selling of goods (e.g. eBay).

We collected data on five central and eastern European countries (i.e. Bulgaria, Hungary, Latvia, Poland and Slovakia) as evidence on the extent of internet and platform work had been scarce in the region. Recent studies have covered some of these countries, but their results are somewhat contradictory (Huws *et al.* 2019; JRC 2019), as we explore in the overview below. Previous research has suggested that internet and platform work may be more prevalent in the lower income countries of central and eastern Europe. Our data do not support such a conclusion. While we find that past or sporadic experiences with generating income from the internet are relatively common, the prevalence of regular internet and platform work is, in fact, very low in the five analysed countries. However, as we explain in the next section, we attribute these differences to the inconsistent, or outright poor, quality of the non-representative samples and survey tools used in other studies.

1. Previous attempts to measure internet and platform work

Available evidence on the extent of internet and, in particular, platform work comes primarily from two comparative projects.² One was conducted by the University of Hertfordshire and commissioned jointly by the Foundation for European Progressive Studies and UNI Europa, the European services workers union (Huws *et al.* 2019). The other was the Collaborative Economy (COLLEEM) survey implemented by the Joint Research Centre of the European Commission (Pesole *et al.* 2018; JRC 2019). Both projects were based on large-scale online surveys. These, as we argue below, suffer from a number of design and execution issues, such as a reliance on opt-in (self-selected) samples of inconsistent quality, or the use of a data collection tool that constituted online gig work in itself (respondents being paid a small fee for filling in the questionnaire on their device connected to the internet).

1.1 Remarkable disparities in the results of previous surveys

The COLLEEM survey was conducted in two waves in 2017 and 2018 in 14 and 16 EU member states respectively. In total, 38,878 responses were collected from samples of internet users aged 16-74 years. The extent of regular platform work – understood here more broadly as workers earning money through platforms at least once a month – was found to vary between 4.1 per cent of the adult population in Finland and 9.9 per cent in the United Kingdom.

The survey by Huws *et al.* collected data in 11 European countries in 2016-2019, using samples that exceeded 2,000 respondents in most countries. The 2016 wave of data collection in five west European countries found the prevalence of regular platform work – that is, platform work conducted at least once a week – to vary between 4.7 per cent in the UK, 6.2 per cent in Germany and 9.5 per cent in Austria. The later waves, conducted in additional countries, found higher proportions of platform work. The highest percentage of platform workers was found in 2019 in Czechia, where a whopping 28.5 per

2. Non-representative estimates of the extent of internet and platform work and the working conditions within them can be also found in various national case studies (Meszmann 2018; Sedláková 2018; UGT 2019). A representative survey conducted in Germany can be found in Bonin and Rinne (2017).

cent of citizens between the ages of 18 and 55 were found to conduct platform work at least once a week.³

An overview of the results of both surveys is provided in Table 1, although these are not directly comparable between the studies as the methodologies differed (in terms of questions asked and the weighting of the sample). Moreover, in the Huws *et al.* study, cross-country comparisons are limited because of the different age brackets used to define the adult population. The results reported in the two waves of COLLEEM are not directly comparable either, since the targeting of the sample was changed in the second wave.

The COLLEEM survey measured platform work by asking respondents whether they gained income from different online sources. These included two sources corresponding to two types of labour platforms *‘Providing services via online platforms, where you and the client are matched digitally, payment is conducted digitally via the platform and the work is location-independent, web-based’* and *‘Providing services via online platforms, where you and the client are matched digitally, and the payment is conducted digitally via the platform, but work is performed on location’* (Pesole *et al.* 2018: 14).

However, such a measure assumes that respondents understand correctly the rather complicated definition of platform work. Evidence from a German survey conducted over the telephone (Computer Assisted Telephone Interviewing (CATI)) showed that respondents often misclassify various other online activities – including using job search websites, search engines and professional networks – as platform work (Bonin and Rinne 2017). The risk is arguably lower when the definition appears on the screen, but we still consider it substantial.

The survey by Huws *et al.* addressed the difficulty of explaining to respondents the difference between platform work and the use of other websites to find work by providing examples of platforms common in the given country when asking about each activity. It thus started with the question: *‘How often, if at all, do you do each of the following activities online? This may be done using any device connected to the internet, including a PC or laptop, smartphone, tablet computer or smart TV, etc.’* It then gave, in randomised order, individual activities with respondents asked to indicate how often they engaged in them. The activities included, for example, *‘Look for work you can carry out for different customers somewhere outside your home on a website such as Handy, Taskrabbit or Mybuilder’*.

3. The results in the Huws *et al.* study are not directly comparable between countries as they refer to different populations: the age ranges differed with the Czech sample representing the narrowest range (see Table 1).

Table 1 Overview of previous research: Extent of platform work in Huws *et al.* and COLLEEM surveys (per cent of adult population)

	Huws <i>et al.</i>			COLLEEM 2017 (1 st) and 2018 (2 nd) waves, 16-74 years					
	Ever	At least monthly	At least weekly	At least 50% of income	Ever (1 st wave)	Ever (2 nd wave)	Monthly or more (1 st wave)	20h+/week or 50% of income* (2 nd wave)	At least 50% income (1 st wave)
Austria (2016 in Huws, 18-65)	18.9	12.7	9.5	2.2					
Croatia					8.1	10.7	5.2	1.1	1.0
Czechia (2019 in Huws, 18-55)	44.2	33.9	28.5	8.2		5.9		0.9	
Estonia (2018 in Huws, 18-65)	19.5	10.2	8.1	3.1					
Finland (2018 in Huws, 18-65)	15.0	9.5	8.2	2.8	6.0	6.7	4.1	0.6	0.6
France (2019 in Huws, 16-75)	15.4	10.2	7.7	3.0	7.0	7.8	5.9	0.9	1.8
Germany (2016 in Huws, 16-70)	11.9	7.8	6.2	2.5	10.4	11.9	8.1	1.5	2.5
Hungary					6.7	6.5	5.0	1.4	1.3
Ireland						13.0		2.0	
Italy (2017 in Huws, 16-70)	21.7	15.4	12.4	4.9	8.9	8.8	7.1	0.9	1.8
Lithuania					9.1	11.8	5.9	1.2	1.6
Netherlands (2016 in Huws, 16-70)	9.0	6.3	4.9	1.5	9.7	14.0	8.7	2.7	2.9
Portugal					10.6	13.0	7.1	1.5	1.6
Romania					8.1	10.5	6.4	1.4	0.8
Slovakia					6.9	6.1	5.1	0.9	0.9
Slovenia (2019 in Huws, 18-55)	36.3	23.6	18.5	5.7					
Spain (2018 in Huws, 16-65)	27.5	20.5	17.0	6.3	11.6	18.1	9.4	2.6	2.0
Sweden (2016 in Huws, 16-65)	9.5	6.2	4.9	2.6	7.2	10.2	5.3	0.9	1.6
Switzerland (2017 in Huws, 16-70)	18.2	12.7	10.0	3.5					
United Kingdom (2016 in Huws, 16-75)	9.3	5.7	4.7	2.5	12.0	12.8	9.9	1.6	4.3
United Kingdom (2019 in Huws, 16-75)	15.3	11.8	9.6	3.5					

Notes: Definition of the adult population and weighting in the Huws *et al.* survey differed in individual countries. 1st and 2nd waves in COLLEEM are not directly comparable as different weighting applies. The authors also concluded that the share of platform workers in Europe increased by 9.5 per cent between 2017 and 2018 (JRC 2019: 58).

* 'Main platform workers': provide labour services via platforms at least monthly, and spend at least twenty hours a week working on platforms or get at least 50 per cent of income via platforms.

The individual activities also included looking for a job through job search websites as well as renting and selling through apps or websites, separately itemised. This allowed the filtering out of respondents who earned money on the internet through selling and renting – a subcategory of what we call internet work – rather than through platform work, a distinction that is often not understood and difficult to communicate on a questionnaire.

By giving specific examples of platforms, along with the separate inclusion of job search websites, the Huws *et al.* survey probably improved the ability to distinguish between platform work and the use of standard job search websites or any other forms of searching for labour market information online. However, it probably did not eliminate the misunderstandings completely. It is still conceivable that a respondent assumed, for example, that looking for work outside the home included not just using the platforms given in the examples but also job search websites or any other online information gathering.

In any case, the differences in measurement and the inconsistencies in comparative design do not explain, in our opinion, the large differences in the results reported in the two surveys. A striking example is that of Czechia, where 28.5 per cent of adults were found to conduct platform work on a weekly basis in the Huws *et al.* survey whereas the COLLEEM survey reported that only 5.9 per cent of adults in the country ever conducted platform work. Furthermore, 8.2 per cent of adults in Czechia were reported to earn at least half their income through platforms in the Huws *et al.* survey, in contrast to the just 0.9 per cent of adults that were found to earn at least half their income, or work for more than twenty hours, in the COLLEEM survey. The difference in Czechia is even more striking if we consider that, as discussed below, data collection was apparently conducted by the same company, using identical methods of recruiting respondents on the internet.

1.2 Reasons for divergent results and problems with online surveys

We believe that the inconsistencies can be attributed primarily to the method of collecting data over the internet and, more specifically, the poor and inconsistent quality of non-probability opt-in samples on which both studies rely. The reliability of the polling technique is questionable, particularly in the context of the high incidence of platform work reported in the more recent waves of the Huws *et al.* survey. The key concern is the extent to which an inference on the adult population can be based on pools of respondents recruited online, given that these may over-represent those parts of the population who are more likely to engage in platform work.

The cited studies address these concerns by using quota stratified sampling, to make the samples representative of the wider national population, and

then weighting them to match the populations more closely.⁴ The COLLEEM project also thereafter adjusted the results to the proportion of frequent internet users in a country, as reported in Eurostat's ICT surveys. Huws *et al.* compared the results of online surveys with the results of two offline surveys carried out in the UK (face-to-face) and Switzerland (telephone). These surveys 'broadly replicated' the findings from the online polls conducted in those countries (Huws *et al.* 2019: 50–51). This gave confidence in the reliability of the online surveys. No further adjustments for the extent of internet use were thus seen as necessary.

However, closer inspection of the data collection methods puts their reliability into question. It may be possible to design online polls with a good representativeness of internet users in the given country. Apparently, the panels used by Huws *et al.* in the UK and Switzerland met such criteria, but there are reasons to doubt the quality of the samples in other countries.

The two cited studies do not provide sufficient technical information in their reports on the procedural details of data collection, but this information can be retrieved for selected surveyed countries. The data for the Huws *et al.* survey were collected through online panels run by the marketing research company Ipsos MORI and its partners. In at least some countries, the Ipsos MORI pollster used the CINT Consumer Insights Network to collect data (see SSCU 2019).⁵ The CINT is a worldwide network of online panels used primarily for marketing research. In the Czech case, where the highest proportion of platform workers was reported by Huws *et al.*, the CINT network relies on the Triaba Panel, a platform that recruits people who are paid small amounts of money to respond to survey questions on their website.⁶ Other members of the CINT network use non-monetary rewards, such as coupons or a possibility to win something.⁷ In any case, the online tool used by CINT to collect the data can itself be considered an example of online gig work.

Incidentally, the CINT network was also used by the COLLEEM survey as the main source of data. The design and implementation of the COLLEEM survey was outsourced to the PPMI Group, a consultancy based in Vilnius, that obtained data through the CINT network (Pesole *et al.* 2018: 10).⁸ PPMI

4. In the Huws *et al.* study, the quota and weights somewhat differed in each country, typically including age, gender, region and working status (Huws *et al.*, 2019: 48-49). COLLEEM applied quota sampling by gender and age; weights by education, frequency of internet use and employment status were then added (Pesole *et al.*, 2018: 10). This was adjusted in the second wave.

5. <https://www.cint.com/consumer-insights-network/>

6. See <https://www.triaba.cz/#>. We consulted the reputation of Triaba with experts in Czechia. They confirmed that Triaba, largely unknown in the industry, is not considered a representative online panel.

7. We are grateful to Vaida Gineikytė of PPMI for providing information on the methodology employed by the CINT network and that of the COLLEEM survey.

8. <https://www.ppmi.lt/en/proj/online-panel-survey-on-dynamic-work-patterns-in-digital-labour-platforms-405.html>

informed us that they used 3-5 different local panels from the CINT network to receive the majority of responses, with Triaba being one of them.⁹ While we did not trace CINT members in all surveyed countries, we found that Triaba featured also as a provider of data on Slovakia in the CINT network.¹⁰

The JRC considered the reliance on online panels as a feature, not as a bug: ‘It would be absurd to sample non-internet users for a study of work on internet platforms’ (Pesole *et al.* 2018: 16). In contrast, we consider the strategy of measuring the extent of crowdwork by interviewing a pool of self-selected micro-crowdworkers as highly problematic.¹¹ In the CINT network, respondents were recruited as online crowdworkers. Information on individual online panels is not available, but our investigation found that a little-known marketing company administers the online surveys for CINT in several countries. In any case, all workers in these samples should thus have been reported as crowdworkers. The latter indeed represented the largest category of platform workers identified by Huws *et al.* in Czechia.¹²

Apart from the low quality of the sample, the large discrepancies in the results between the COLLEEM and Huws *et al.* surveys can be attributed to different approaches to cleaning the data. As reported by the PPMI, a large proportion of respondents in the COLLEEM survey was discarded based on the inspection of data such as time on page, speed and location. The consultancy also conducted logical checks, such as for contradictory answers. Information on data cleaning by Ipsos MORI is not available, but differences in the approach are likely to have led to different results.

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9. In some countries, more panels were used to get information on rarer user profiles (e.g., elder internet users or the very young ones). Panels outside of the CINT network were used in Ireland, where CINT network had very few respondents.
 10. The Slovak website used a design that was identical to the Czech one. The website is, in fact, available in 83 language versions. The Slovak expert we contacted reported that it gives an impression of relying on machine translation, raising further questions about the quality of the panel.
 11. The COLLEEM team, wary of such a bias, excluded filling in online surveys from the definition of platform work used in their survey. However, this does not solve the issue that all their respondents had performed (at least one type of) platform work.
 12. Some 19.6 per cent of the working age population in Czechia were reported to have carried out ‘short tasks or “click work” on own computer’. The second largest category, ten per cent of the working age population, were those engaged in ‘creative, IT or professional work on own computer’, a category that is also very similar to the expected profile of a respondent to a paid online poll. All other platform work categories were below ten per cent (SSCU 2019).

2. The ETUI Internet and Platform Work Survey

To address the challenges linked to the use of non-representative samples and paid online surveys, we have carried out the ETUI Internet and Platform Work Survey on the basis of face-to-face interviews and stratified random sampling of the entire adult population. The survey was designed to reach a group of respondents that are a good representation of adults (aged 18 and over) in each country. To achieve this, survey respondents were selected randomly based on such co-ordinates as physical home address or national identification number. This ensured that internet users and non-users both have equal chances of being included in the survey. A more detailed description of the selection of the sample can be found in the Appendix (p. 45). Interviews were carried out face-to-face, with interviewers asking each question to the respondent in person. We thus avoid the bias inherent in the self-selection of respondents into opt-in online surveys and in the use of self-completion questionnaires. The respondents were not remunerated for their participation in the survey which, additionally, ensures that the completion of the survey was not in itself perceived as paid offline gig work.

The objective of the ETUI Internet and Platform Work Survey was to map the extent to which the internet is used as a tool to generate income. We were interested in a broad range of paid activities that can be found or carried out online and that typically fall outside of a standard employment relationship. The aim is to record the prevalence of such activities in each surveyed country; that is, to determine what share of individuals have any experience with such activities and, where they do, how often they engage in them and what share of their income comes from this type of work. We then want to determine whether this group is any different from the rest of the working age population, in terms of their demographic characteristics, labour market status and employment trajectories. For the analysis presented in this paper, we use a sample of working age adults (aged 18-64); in total, 4,731 respondents.

We group online sources for generating income into two categories: internet work and platform work. We define work in a broad sense as an activity involving mental or physical effort with the aim to generate income.

Internet work. This is a broad category that covers all activities aimed at generating income through the use of websites or mobile apps. This includes digitally-mediated services as well as selling goods and renting assets online. These are typically conducted without an explicit or implicit contract for long-term employment (cf. Graham *et al.* 2017). Internet work is not necessarily mediated by online platforms.

The advantage of this broad approach is that it is easy to communicate to respondents. We believe that many workers wrongly categorise the internet tool they use as an online platform (either because of a lack of awareness or because the internet tool has a *de facto* different business model). In the survey, we asked respondents about ten types of online activity. We provided a detailed description of each activity in order to separate internet work from the use of job search websites to look for regular work.

Respondents were asked the following question:

Some people use websites or mobile apps to find work and generate income. How often, if at all, do you do each of the following:

1. *Find a paying guest for accommodation that you own*
2. *Offer a taxi service or other driving or delivery work done in person*
3. *Sell own possessions online*
4. *Sell self-made products online*
5. *Sell or re-sell other products online*
6. *Generate income through blogging or running social media accounts*
7. *Freelance work doing short tasks or 'click work', e.g. data entry, transcriptions, online surveys*
8. *Freelance creative or IT work, e.g. web design, graphic design, programming, translation, copywriting, content creation*
9. *Professional freelance work, e.g. consultancy, accounting, research*
10. *Other freelance services or tasks*

For each activity, respondents were asked to indicate if they have ever tried it and, if so, with what frequency. Those who have ever tried any of these activities are defined in this working paper as internet workers. However, as the sale of one's own belongings online is somewhat distinct from other activities, we usually separate this from other activities in the presentation of our results.

Platform work. This category only includes work done on online labour platforms and is a subset of internet work. It thus includes the provision of platform-mediated services and excludes the renting of accommodation and the sale of products online. Labour platforms match supply and demand, provide a set of tools and services that enable the delivery of work in exchange for compensation, and set rules of governance (Drahokoupil and Piasna 2017; Choudary 2018). By lowering costs and improving the efficiency of the matching process, labour platforms enable one-off transactions and self-employment. At the same time, there are examples of labour platforms employing their workers directly or with the use of an intermediary (e.g. Drahokoupil and Piasna 2019).

Platform work covers a variety of jobs and tasks and a key distinction is that between place-based platforms that mediate services needing to be delivered locally (these include Uber, Deliveroo or Listminut) and platforms that organise digitally-delivered services that can be, in principle, delivered from

anywhere in the world. Place-based platforms are, in principle, directly affected by local regulations, including licensing and labour legislation.

Our measure does not differentiate between various types of activities as it did in the case of internet work. We did not assume a level of knowledge about online labour platforms among the general population that would allow us to ask directly about platform work with any degree of reliability. Therefore, the survey question contained a detailed description of what platform work is, explaining that it involves internet websites or apps that connect workers with customers, arrange payment for tasks and usually charge a fee for transactions. The definition also provided examples of activities (IT work, data entry, delivery, driving, personal services, etc.) and examples of the most recognisable platforms, adapted to each country.

More specifically, we used the following wording: *'The next question is about work that you do using online platforms. Online platforms are internet websites or apps through which workers can find short jobs or tasks, such as IT work, data entry, delivery, driving, personal services, etc. Online platforms both connect workers with customers and arrange payment for the tasks. They usually charge a fee for each transaction. The most popular platforms include [examples adapted in each country]. Exclude renting accommodation and the sale of products online. How often, if at all, do you do any paid work using online platforms?'* The question was thus cognitively more demanding for respondents compared to the questions about internet work, which might have resulted in an under-estimation of the extent of platform work. However, the rate of refusals to provide any response and the use of 'Don't know' in both questions were comparable.

3. The extent of internet and platform work

Our results show that looking for work on the internet is widely present in the lives of people in the five central and eastern European countries, but it plays a limited role in their finances. An overview can be found in Table 2. We distinguish between internet work including and excluding the sale of one's own belongings in order to differentiate between professional resellers of goods and those who are simply disposing of their own possessions.

Table 2 The extent of internet and platform work (%) across five CEE countries, summary

Internet work							
	Ever tried		At least monthly		At least weekly		At least 50% of income <i>in the past 12 months</i>
	Any	Excluding selling belongings	Any	Excluding selling belongings	Any	Excluding selling belongings	
Bulgaria	19.2%	13.9%	2.8%	2.6%	1.3%	1.2%	2.9%
Hungary	20.0%	13.1%	4.4%	3.7%	2.1%	2.1%	2.5%
Latvia	17.6%	7.6%	3.9%	3.2%	2.0%	1.8%	1.7%
Poland	33.3%	20.2%	7.3%	4.7%	3.6%	3.0%	n.a.
Slovakia	32.1%	28.7%	5.4%	5.1%	2.3%	2.3%	0.9%
Platform work							
	Ever tried		At least monthly		At least weekly		At least 50% of income <i>the last time did this work</i>
Bulgaria	4.4%		1.5%		0.8%		1.1%
Hungary	7.8%		3.0%		1.9%		3.4%
Latvia	4.0%		0.8%		0.5%		0.7%
Poland	1.9%		0.4%		0.4%		0.1%
Slovakia	7.1%		1.1%		0.4%		1.0%

Note: Share among all respondents aged 18-64.
Source: ETUI Internet and Platform Work Survey

A large proportion of the adult population (aged 18-64), ranging from 17.6 per cent in Latvia to 33.3 per cent in Poland, has tried to earn money on the internet. The numbers are somewhat lower if the sale of own belongings is excluded: they vary from 7.6 per cent in Latvia to 28.7 per cent in Slovakia. The share of adults who use the internet to generate income regularly, i.e. at least monthly, is small but not insignificant. This ranges from 2.6 per cent in Bulgaria to 5.1 per cent in Slovakia, if the sale of own belongings is excluded.

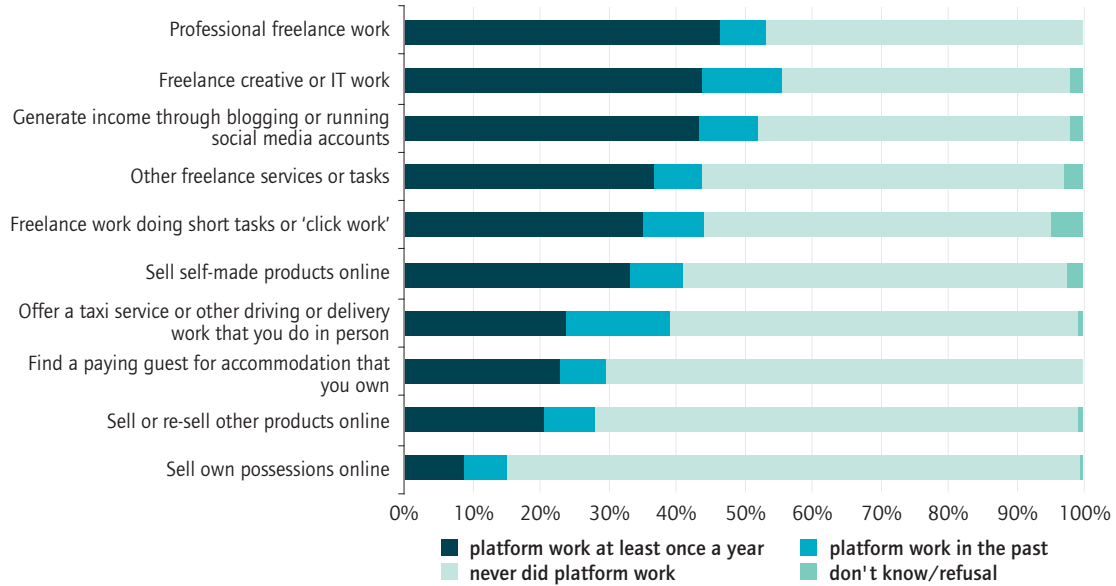
Within this group, a substantial proportion of people earn income on a weekly basis (the share of the adult population is between 1.2 per cent in Bulgaria and 3.0 per cent in Poland). The share of adults who earn a substantial proportion of their income from the internet corresponds to the share of internet workers who might be defined as 'active'. Between 0.9 per cent and 2.9 per cent of adults report earning at least 50 per cent of their income in this way in the past twelve months.

The share of respondents who report experience with platform work, shown also in Table 2, is much lower. The proportion of adults who report ever having tried platform work ranges from 1.9 per cent in Poland to 7.8 per cent in Hungary. The share of regular platform workers is much lower. The proportions of those who engage in platform work on a monthly basis, or more frequently, varies between 0.4 per cent in Poland and 3.0 per cent in Hungary. The share of weekly platform workers exceeds 1.0 per cent only in Hungary, with 1.9% per cent of adults belonging to this category.

In principle, platform work is a subset of internet work (see definitions in section 2) and thus we expect some overlap between these two categories in our sample. This overlap is shown in Figure 1; that is, the proportion of platform workers among those who engage in each type of internet work. As can be expected, the sale of goods online is the least correlated with platform work. Platform work is most prevalent among higher-skilled freelance internet workers. It is relatively low among taxi drivers but that should not be surprising as it is common for conventional taxi companies to use mobile apps to allocate work. The differences between the categories give us some confidence in the validity of our measure of platform work – the type of internet activities that could be expected to have a higher share of mediation through platforms do indeed also report higher shares of platform workers. At the same time, it is possible that our measure under-reports the extent of platform work given the difficulty of communicating the definition of online platforms to the respondent.

In any case, our survey indicates somewhat lower proportions of platform workers than the previous comparative studies conducted online. Huws *et al.* reported much higher proportions for all indicators of the extent of platform work. Our results are broadly consistent with the COLLEEM survey as far as the share of adults with some experience of platform work is concerned; while our survey reports lower proportions than the COLLEEM survey as far as measures of regular platform workers are concerned. In Slovakia and Hungary, COLLEEM reports that 5.1 per cent and 5.0 per cent of respondents, respectively, are platform workers who are active on a monthly or more frequent basis whereas our survey finds 1.1 per cent and 3.0 per cent, respectively, are regular platform workers in these two countries. Moreover, Hungary represents an outlier in our survey, with a higher prevalence of platform work, but it ranks below the average in the COLLEEM survey. The differences should not be attributed to any possible under-reporting in our survey as COLLEEM used arguably even more complex definitions in the respective question.

Figure 1 Platform workers as a subset of internet workers (per cent) (active at least once a year)



Note: Average across all countries (equal weights for each country).
 Source: ETUI Internet and Platform Work Survey

Our survey thus suggests that – while using the internet to earn money or find work is indeed a relatively common phenomenon – previous studies have somewhat exaggerated the extent of platform work. The latter, in fact, remains a marginal activity. The findings also question the claim that platform work is more prevalent in countries with lower earnings (Huws *et al.* 2019: 2): our cases represent a range of lower income, and lower wage, EU member states. Moreover, as far as we can say from the limited number of countries in our sample, the extent of platform work does not follow from the extent of internet work. Among our cases, internet work is most widespread in Poland and Slovakia, while platform work was most frequent in Hungary.

4. Who are internet and platform workers?

Workers in digital labour markets are typically assumed to be younger than the general population (Codagnone *et al.* 2016). In the COLLEEM survey, platform workers appeared to be, on average, ten years younger than offline workers (Pesole *et al.* 2018: 21) with an age distribution clearly skewed towards the young. The Huws *et al.* survey also found platform work more relevant among young people, but there was considerable variation between countries in the degree to which the young prevailed among platform workers (Huws *et al.* 2019).

The average age for both internet and platform workers in our sample was lower than for those who have never engaged in this type of work, but they can hardly be called young. Those generating income on the internet were, on average, in their mid-30s. The average age difference between regular internet workers ('at least once a year') and those who have never done this type of work was not that large, amounting to 6.2 years (i.e. the average difference across categories). As shown in Table 3, this did not vary significantly between individual types of activity. As far as platform workers are concerned, those active on platforms at least once a year were, on average, 4.3 years younger than others. The age difference was similar across the five analysed countries (Table 4).

Students, however, were over-represented among both internet and platform workers who were, respectively, 2.3 and 1.6 times more likely to be in education than other respondents (see Figure 16 and Figure 20). The pattern was similar across countries, as shown in Table 5. However, as discussed below, these activities cannot be considered 'student jobs' as most workers were, in fact, in full-time employment with only eleven per cent of platform workers and fourteen per cent of internet workers in education or training within the past year compared to around seven per cent among the rest of respondents.

As far as education level is concerned, those who have never engaged in internet work had, on average, a higher level of education than regular and occasional internet workers (see Figure 2). This can be accounted for, to some extent, by the higher proportion of students among internet workers (Figure 16). There were no major differences in education among regular platform workers ('at least once a year') and other categories (see Figure 3). The average educational attainment of those that have done some platform work in the past is somewhat lower, but the difference is not large.

Table 3 Average age of internet workers compared with other respondents, by type of activity

	At least once a year	In the past	Never
Find a paying guest for accommodation that you own	36.3	39.2	41.8
Offer a taxi service or other driving or delivery work	34.1	40.4	41.8
Sell own possessions online	36.3	38.2	42.6
Sell self-made products online	38.7	38.8	41.8
Sell or re-sell other products online	35.7	36.6	42.1
Generate income through blogging or social media accounts	34.5	35.3	41.8
Freelance work doing short tasks or 'click work'	35.7	35.6	41.9
Freelance creative or IT work	35.1	39.3	41.8
Professional freelance work	36.5	37.6	41.8
Other freelance services or tasks	34.6	37.8	41.7

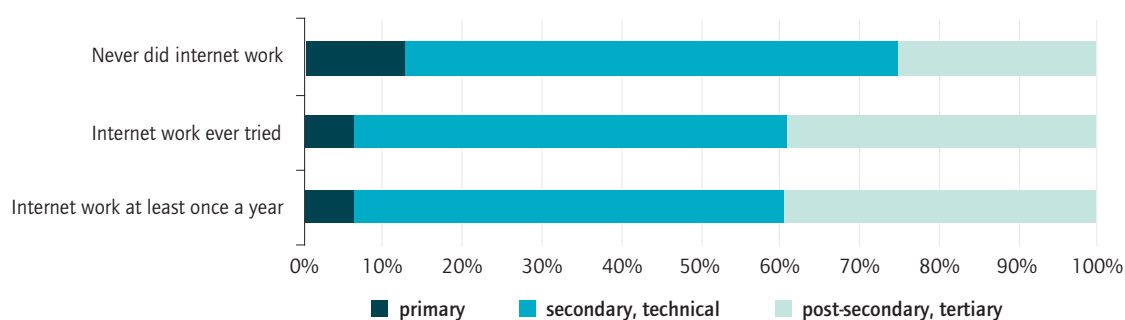
Source: ETUI Internet and Platform Work Survey

Table 4 Average age of platform workers compared with other respondents, by country

	At least once a year	In the past	Never
Bulgaria	36.5	34.8	41.2
Hungary	38.6	40.6	42.5
Latvia	36.7	37.0	41.8
Poland	39.4	33.2	42.1
Slovakia	36.4	39.1	41.6
Total	37.5	37.7	41.8

Source: ETUI Internet and Platform Work Survey

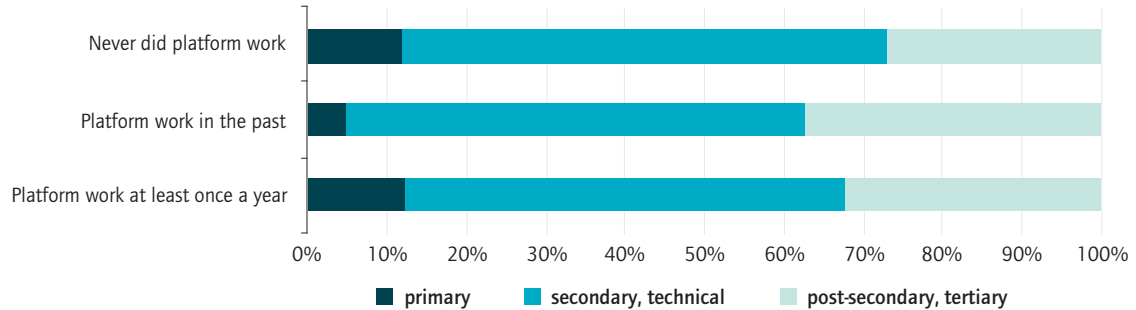
Figure 2 Internet workers (excluding the online selling of belongings) (per cent), by educational level



Note: Average across all countries.

Source: ETUI Internet and Platform Work Survey

Figure 3 Platform workers (per cent), by educational level

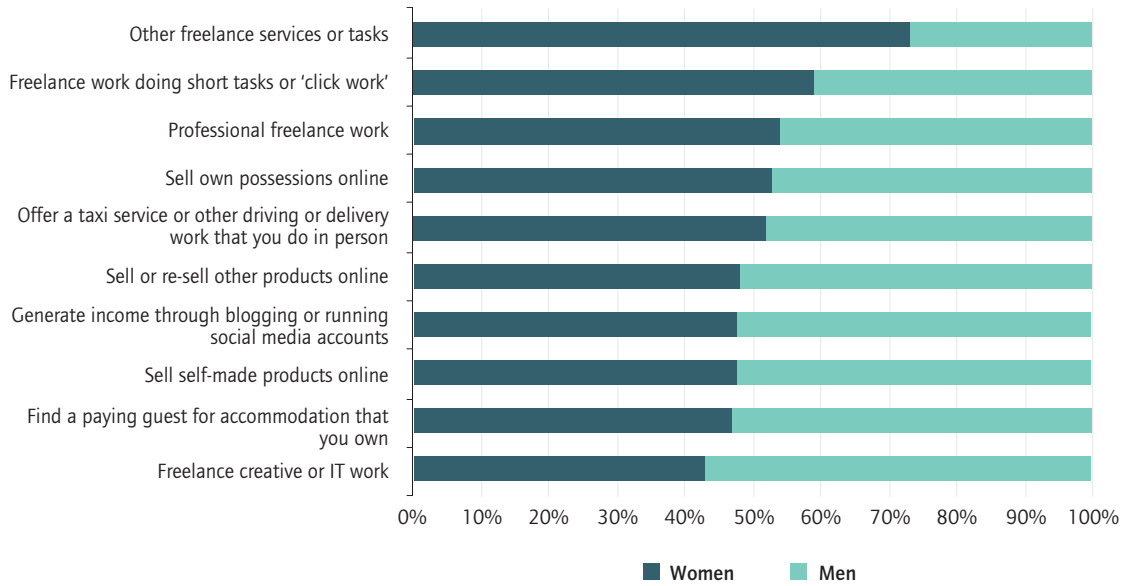


Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

There are some gender differences in involvement in internet work (see Figure 4). Women are over-represented in the category other freelance services and tasks (73 per cent female) and freelance work involving short tasks and ‘click work’ (59 per cent). The former category includes activities such as childcare and tutoring, which are traditionally female-dominated. Men are over-represented in creative and IT work (57 per cent male), a category associated with higher skills and better pay. Gender differences in other categories, including taxi and food delivery, are not large. We also find some gender imbalance among regular (‘at least once a year’) platform workers, with 58 per cent being men (see Figure 5).

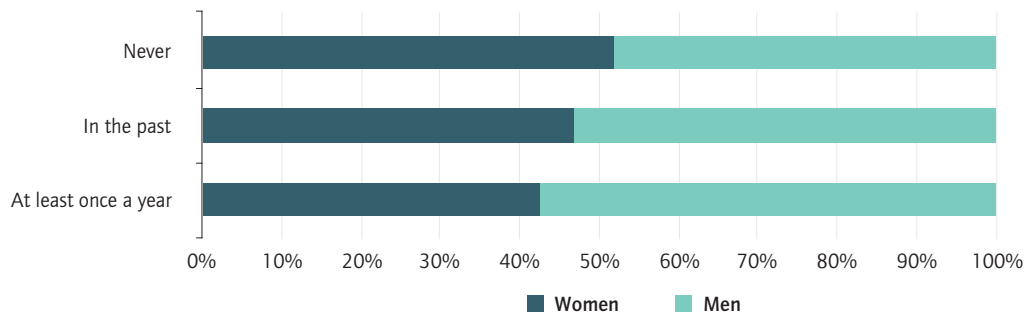
In sum, internet and platform workers differ from the rest of the population on some basic demographic characteristics, but these differences are not striking. They are younger and more often in education. Men are also more likely than women to conduct platform work. However, gender segmentation in internet work varies by type of activity and broadly corresponds to occupational gender segregation in the offline labour market (e.g. Piasna and Drahokoupil 2017). Overall, these relatively small differences allow us to compare platform and internet workers with the rest of the population without controlling for socio-demographic characteristics in a multivariate analysis. The latter would be difficult given the small numbers of internet and platform workers in the sample.

Figure 4 Internet workers (at least once a year) (per cent), by type of activity and gender



Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

Figure 5 Platform workers (per cent), by gender



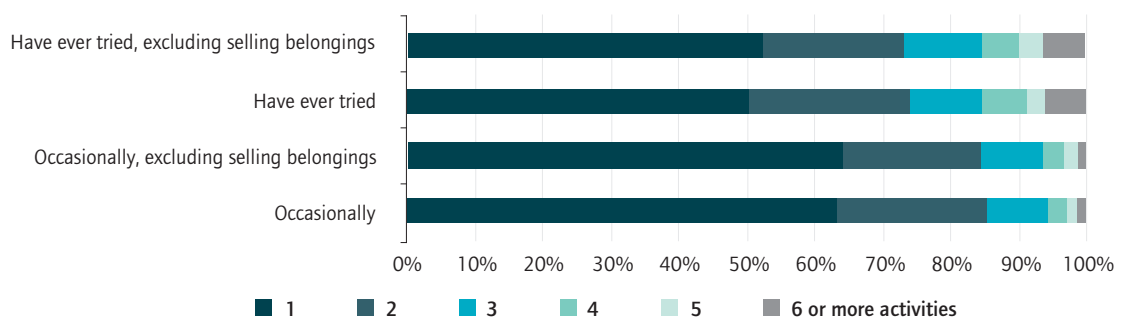
Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

5. Internet work: Frequency and income

Earning regular income on the internet remains a marginal activity in the five countries under investigation; nonetheless, large segments of the population have had at least some experience with it (Table 2). Most people have tried, or engage more regularly, in one or two activities. As shown in Figure 6, among those who have tried internet work, around one-half have tried two or more types of activity, with one-quarter engaging in three or more. Among those who earn income more regularly (i.e. at least occasionally), more than 60 per cent engage in only one activity, while around 15 per cent conduct more than two. The pattern does not change when we exclude the sale of own belongings.

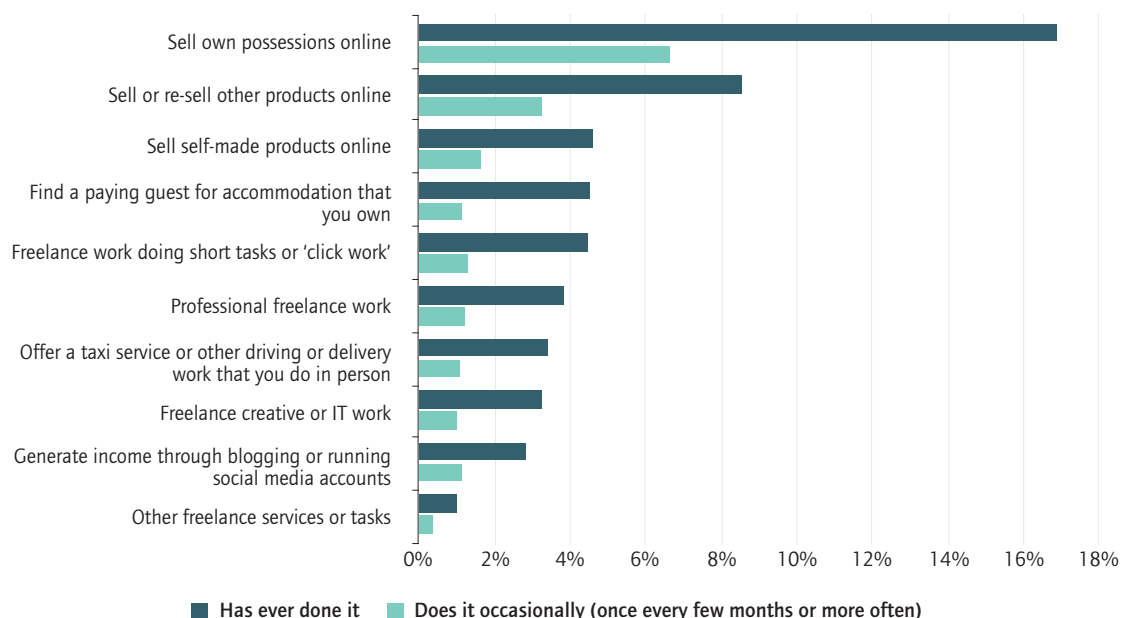
The extent of internet work varies by type of activity. As shown in Figure 7, most widespread online work activities are related to the selling and re-selling of goods. As can be expected, the largest number of respondents had experienced selling their own possessions or continue to do so on a regular basis. Selling and re-selling on a commercial basis is also relatively widespread. In contrast, professional and other skill-intensive activities are among the least common.

Figure 6 Number of activities per respondent (per cent), by frequency of internet work



Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

Figure 7 Internet work (per cent), by type of activity



Note: Average across all countries.
 Source: ETUI Internet and Platform Work Survey

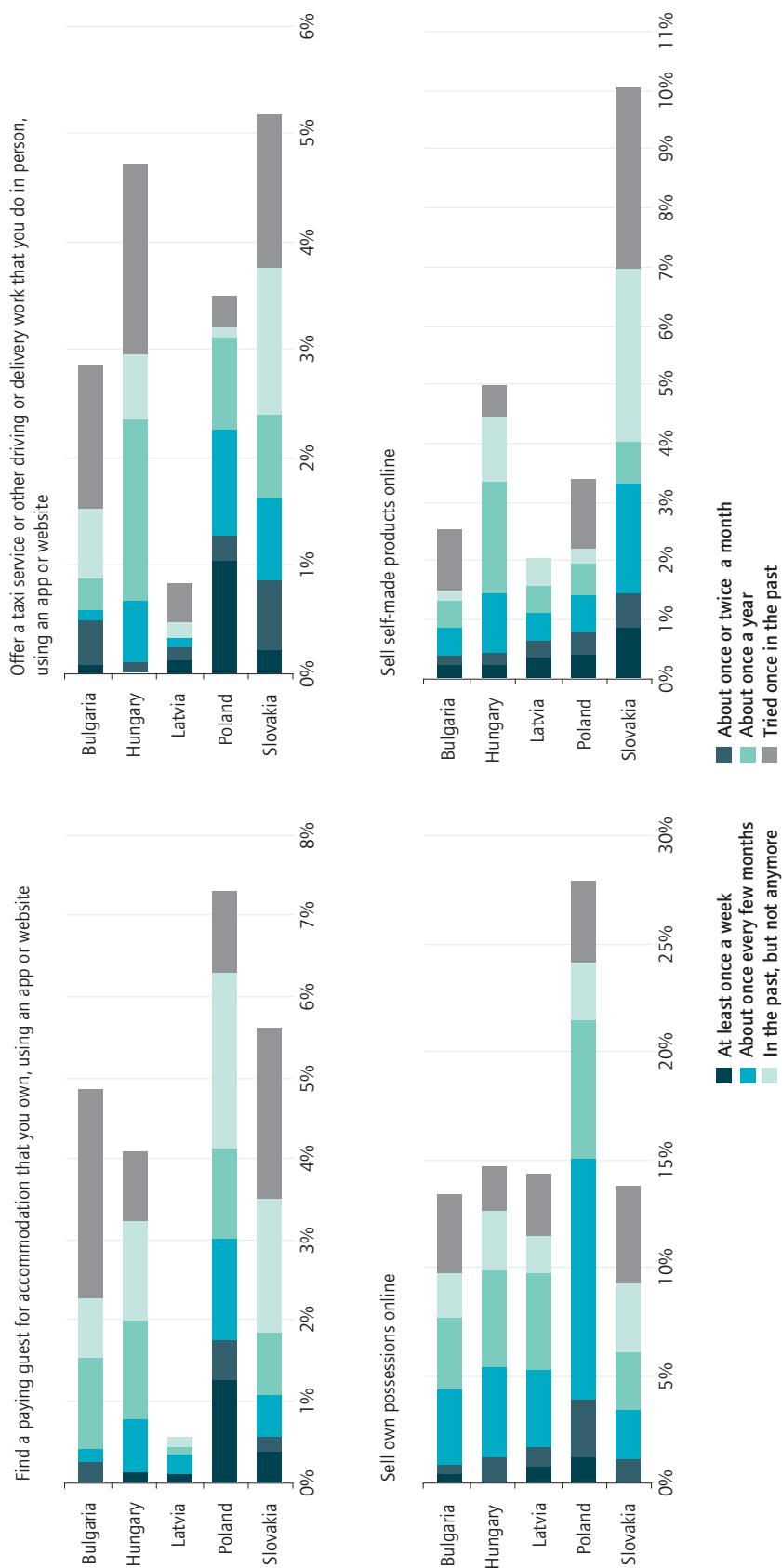
A more detailed breakdown of internet work by type and by country is provided in Figure 8. Finding a paying guest for accommodation is most widespread in Poland, where about three per cent of the working age population does so regularly (once every few months or more often). Experience with offering taxi services through the internet is most prevalent in Slovakia and Hungary, but the highest share of regular taxi drivers is actually found in Poland, where more than two per cent of working age adults earn money through taxi services once every few months or more often. Selling own possessions online is most popular in Poland, where about fifteen per cent of the adult population do it once every few months or more often. However, the online sale of self-made products is most frequent in Slovakia, where more than three per cent engage in this activity once every few months or more often. Selling or re-selling products is most frequent in Poland and Slovakia where, respectively, about five per cent and four per cent of adults do so once every few months or more often. Earning money through blogging or social media is most frequent in Slovakia and Hungary, in which just under two per cent of adults engage in this activity once every few months or more often. Freelance work doing short tasks or 'click work' is most widespread in Slovakia, although less than three per cent of adults earn money that way once every few months or more often. Slovakia also records the largest share of regular freelance creative or IT workers on the internet (over one per cent do so every few months or more often), but the differences between the countries are not large. Finally, other freelance services or tasks are most frequent in Poland, although the proportion of adults who do so every few months or more often is low even there, rising to about 0.7 per cent of our sample.

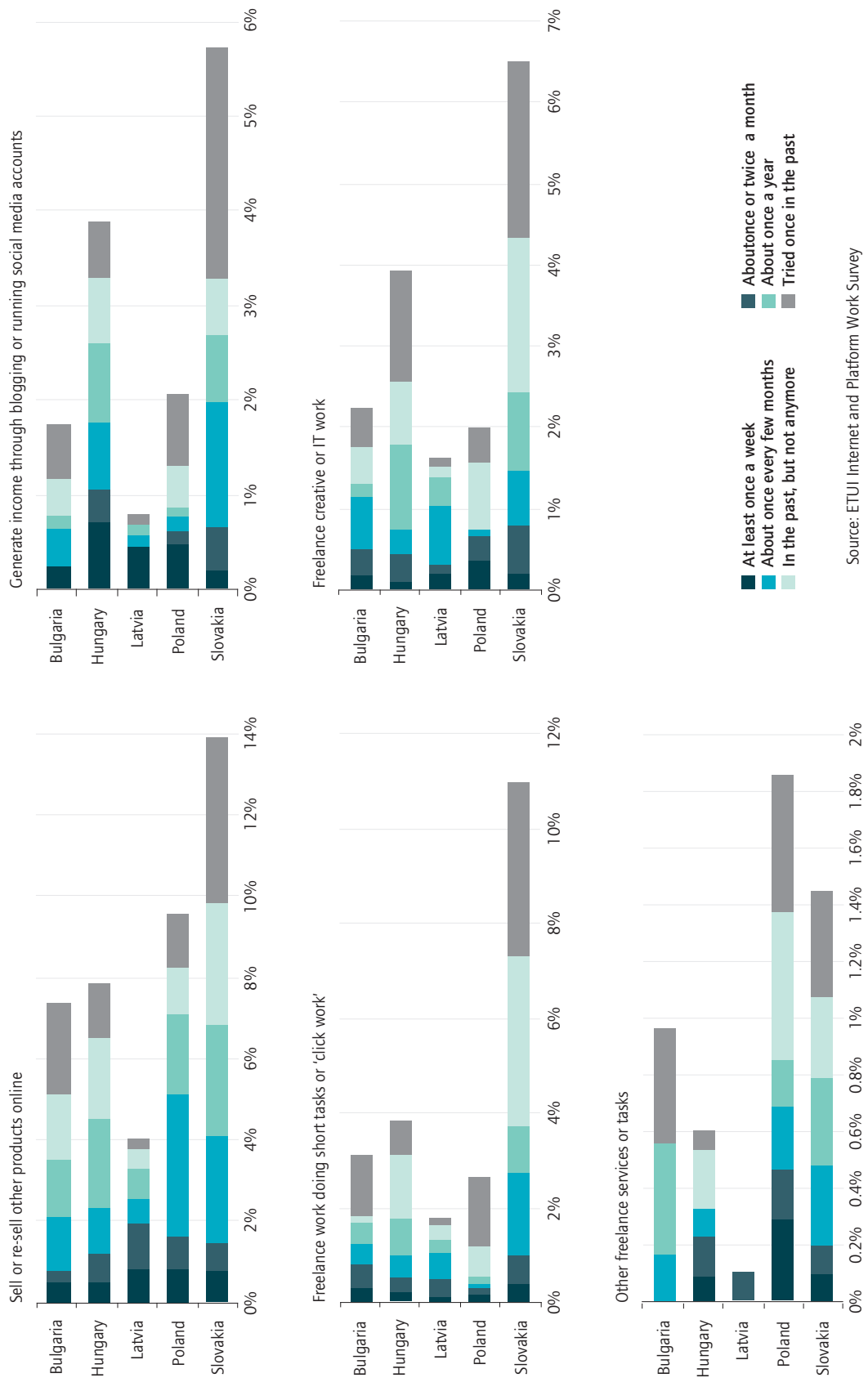
Income earned from internet work is very low in all our surveyed countries. Respondents who reported having ever tried any of the activities described as internet work were also asked about the overall income that all those activities had generated for them over the past twelve months. In each country, respondents could choose between six income bands presented in national currency and adjusted to minimum and average income levels, as well as a 'no income' response. The results are presented in Figure 9. The upper panel shows the earnings reported by all internet workers and the lower panel only by those who performed this type of work at least once every few months.

What is striking about both figures is the very high proportion of internet workers who claimed that they earned no income at all from internet work in the past year. For all internet workers, this ranges from 69.6 per cent in Slovakia and 61.1 per cent in Poland to 28.1 per cent in Bulgaria. This is followed by the lowest income band, with annual earnings below approximately €200 in four countries and €100 in Bulgaria, selected by as many as 34.1 per cent of internet workers in Latvia and 30.4 per cent in Bulgaria.

Reported income levels are somewhat higher for occasional internet workers who did any form of internet work once every few months or more often. Overall, only 6.6 per cent of occasional internet workers in Poland, 18.3 per cent in Latvia, 21.3 per cent in Slovakia and 29.3 per cent in Bulgaria reported annual earnings above €200 (€100 in Bulgaria). Nevertheless, the proportion of those who claimed they had earned no income in the past year is still striking, especially in Poland (54.9 per cent) and Slovakia (49.9 per cent), which raises doubts as to the reliability of these reports. It is conceivable that earnings from this type of activity go unreported for tax purposes and this renders respondents unwilling to admit to them in surveys.

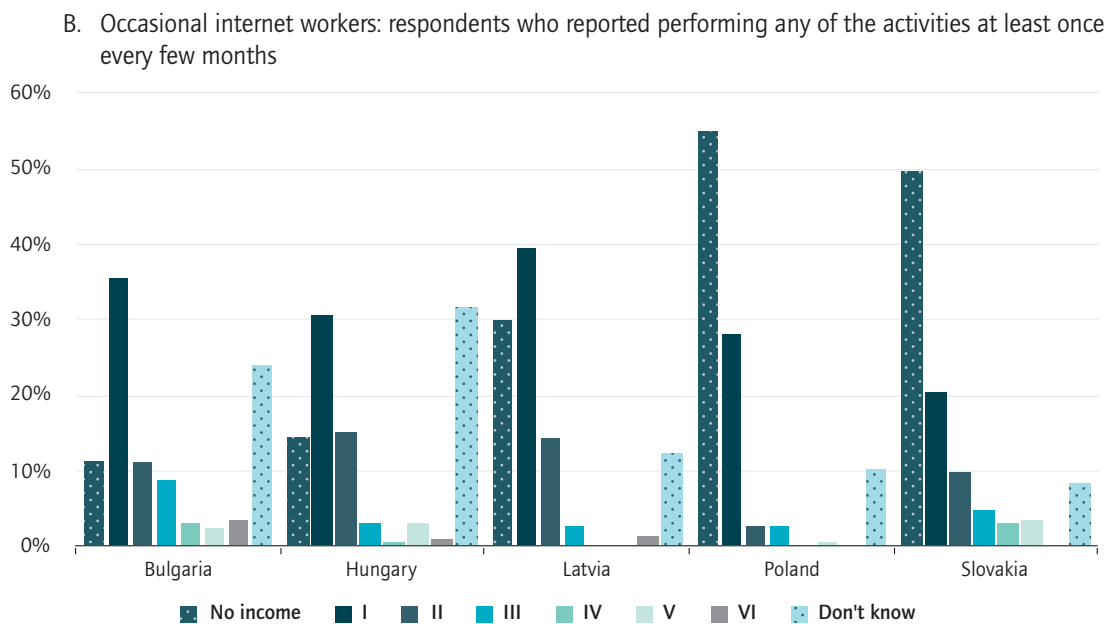
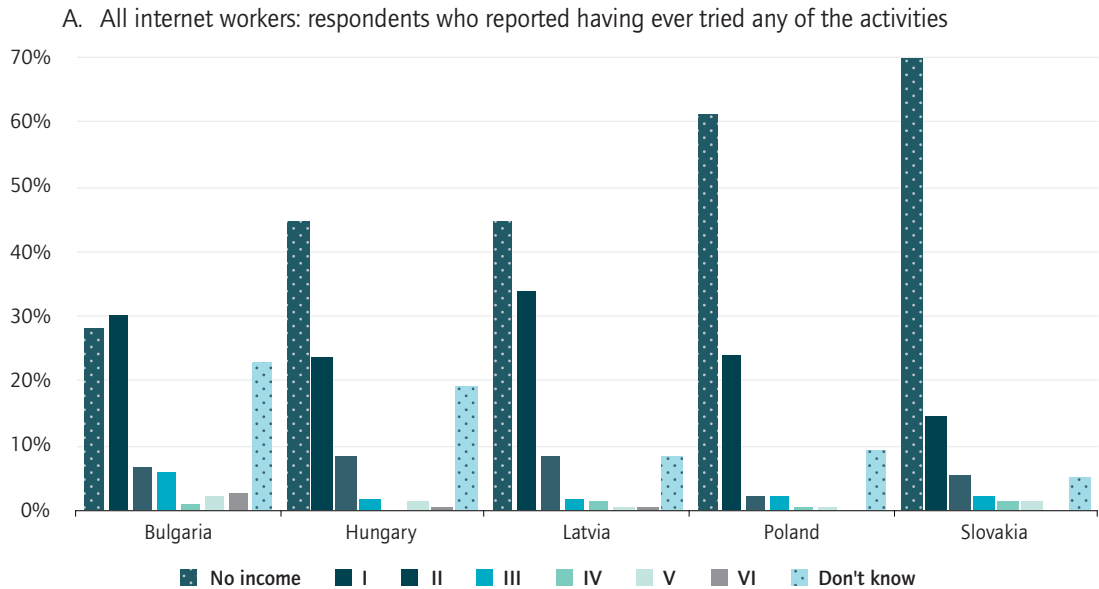
Figure 8 Internet work by type of activity and country (per cent)





Source: ETUI Internet and Platform Work Survey

Figure 9 Income earned performing internet work over the past 12 months (before tax) (per cent)

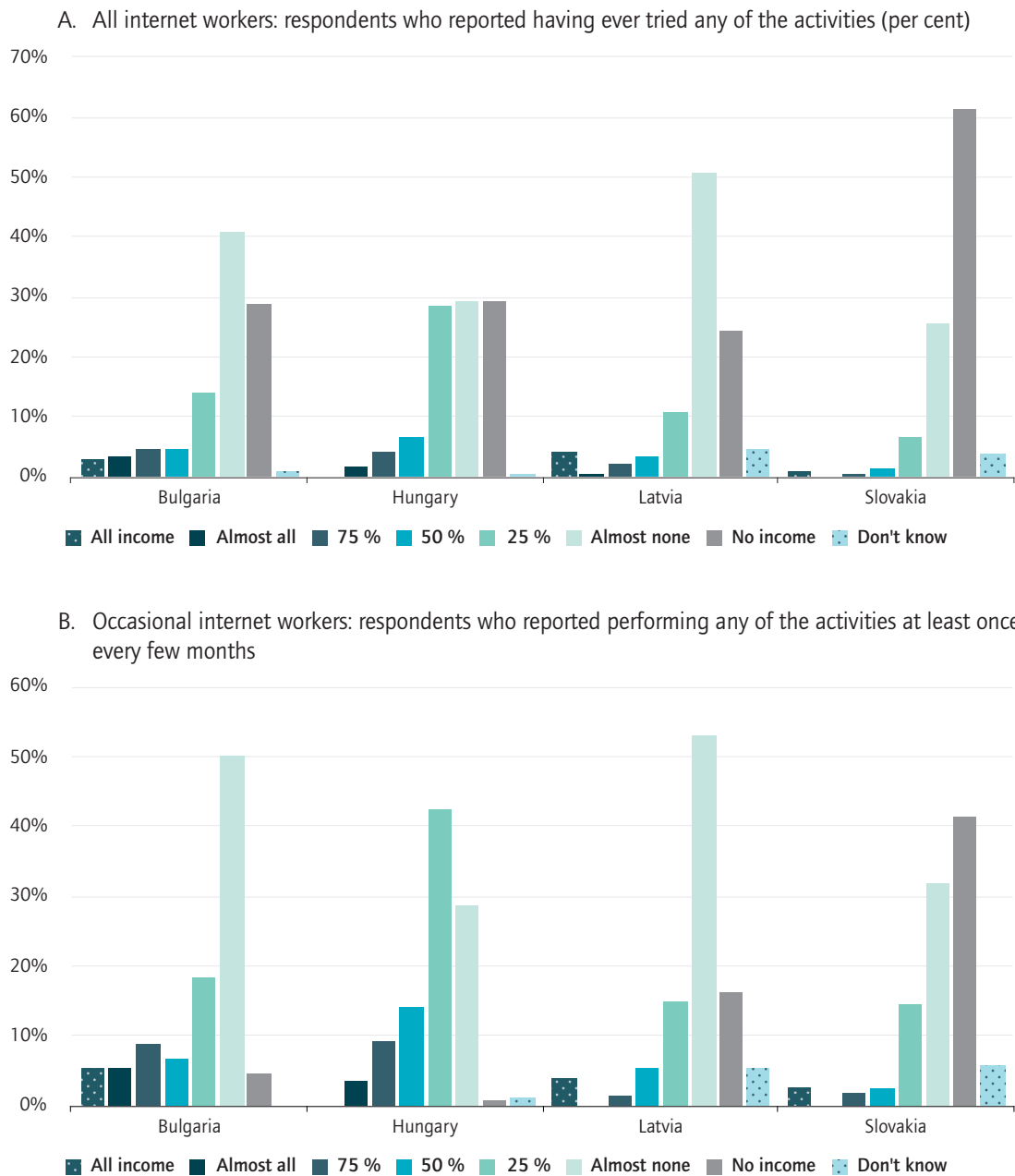


Note: Income bands adjusted in relation to country minimum and average income; rounded values in national currency. Slovakia and Latvia: I ≤€200; II €201-1,000; III €1,001-2,000; IV €2,001-5,000; V €5,001-12,000; VI >€12,000. Hungary: I ≤€186; II €186-930; III €931-1860; IV €1,861-4,650; V €4,651-11,160; VI >€11,160. Poland: I ≤€230; II €231-1,150; III €1,151-2,760; IV €2,761-5,520; V €5,521-13,800; VI >€13,800. Bulgaria: I ≤€102; II €103-510; III €511-1,020; IV €1,021-2,550; V €2,551-6,120; VI >€6,120. Source: ETUI Internet and Platform Work Survey

Another, less direct, way of assessing income levels from internet work was used in the item asking about the contribution of this type of work to overall personal income in the past twelve months (see Figure 10). Among occasional internet workers (the bottom panel of the figure), reports of no income were

less common than in the question about monetary values, ranging from 41.3 per cent in Slovakia to 0.9 per cent in Hungary. On the other hand, internet work contributed at least one-half of overall income for 26.9 per cent of occasional internet workers in Bulgaria and Hungary, 10.7 per cent in Latvia and 6.7 per cent in Slovakia (this question was not asked in Poland).

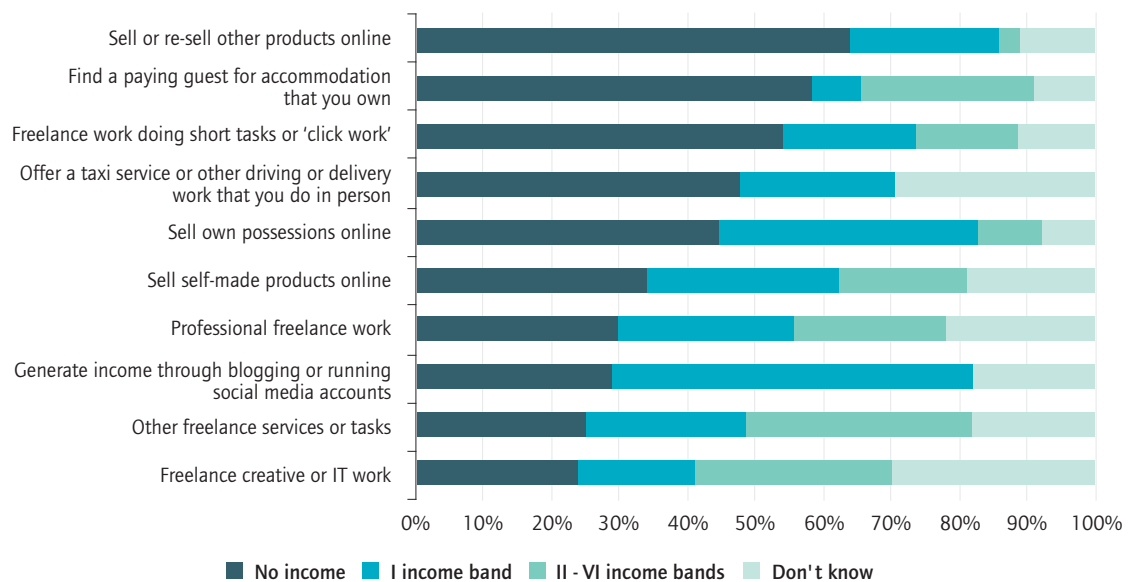
Figure 10 Income from internet work as a share of total personal income in the past twelve months



Note: This question was not asked in Poland.
Source: ETUI Internet and Platform Work Survey

Looking at each type of activity separately, it appears that activities requiring higher skills or personal interaction were associated with relatively higher income (Figure 11). Creative and IT work, as well as other services and tasks (mainly including tutoring and childminding) were the most profitable for those workers performing them. These two groups of activities had the lowest share of reports of no income and the highest share of annual incomes falling into bands II-VI, i.e. about €200 (€100 in Bulgaria) or more. On the other hand, selling products online and taxi and delivery work were the least profitable, with a high share of workers reporting no income from these activities.

Figure 11 Income from internet work in the past twelve months (per cent), by type of activity

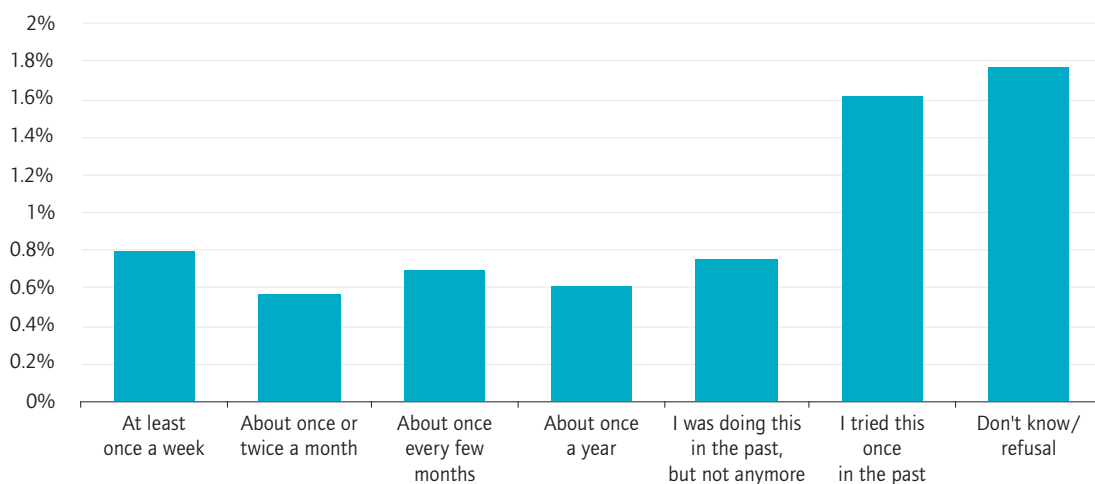


Note: Only those respondents who reported that they performed only one activity with a frequency of once a year or more often are included. For income bands: see notes to Figure 9. Average across all countries.
 Source: ETUI Internet and Platform Work Survey

6. Platform work: Frequency and income

Platform work is a subset of other forms of earning money with the help of the internet and includes only work done on online labour platforms. Therefore, the group of respondents who reported platform work was expected to be much smaller compared to the group of internet workers. Nevertheless, as much as 5.1 per cent of working age individuals reported that they had done some sort of platform work at least once in their life. Figure 12 shows the prevalence of platform work disaggregated by its frequency, on average, in the five countries surveyed. Overall, 0.8 per cent of respondents engage in platform work on a weekly basis, with a further 0.6 per cent working on platforms on a monthly basis, 0.7 per cent once every few months and 0.6 per cent about once a year. This amounts to 2.7 per cent of the working age population performing this type of work once a year or more often. Moreover, 2.4 per cent had tried platform work in the past. A very low share of ‘Don’t know’ responses and refusals – just 1.8 per cent – is perhaps surprising given the complexity of the question, although respondents in Latvia found it relatively more difficult, with five per cent not knowing how to answer or refusing to do so.

Figure 12 Work on online platforms (per cent), by detailed frequency

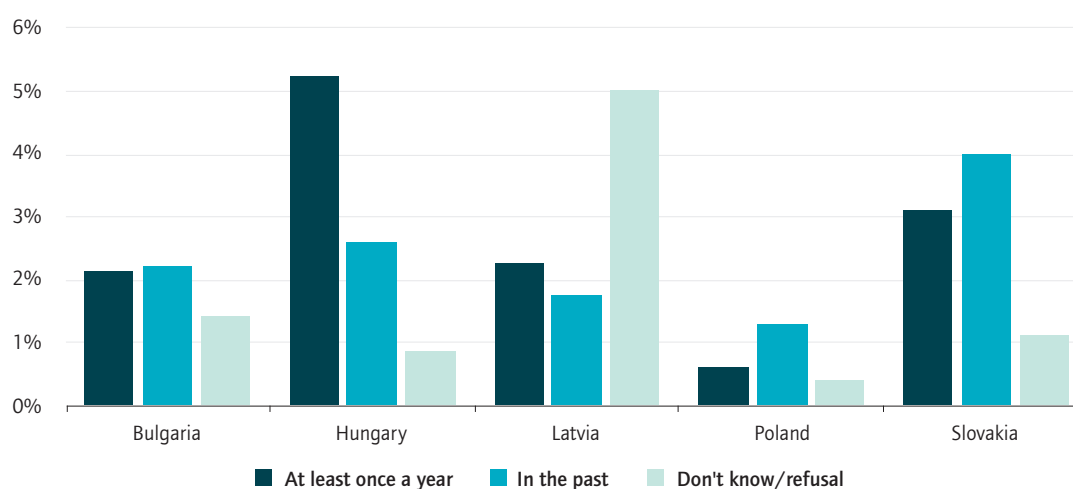


Note: Average across all countries.

Source: ETUI Internet and Platform Work Survey

The share of platform workers differed across the five surveyed countries (Figure 13). Occasional platform work (performed at least once a year) was most common in Hungary (5.2 per cent), followed by Slovakia (3.1 per cent), Latvia (2.3 per cent) and Bulgaria (2.1 per cent), while it was least common in Poland (0.6 per cent). Past experience with platform work was most prevalent in Slovakia (4.0 per cent) and Hungary (2.6 per cent), while it was least common in Poland (1.3 per cent).

Figure 13 Work on online platforms (per cent), by broad frequency and country



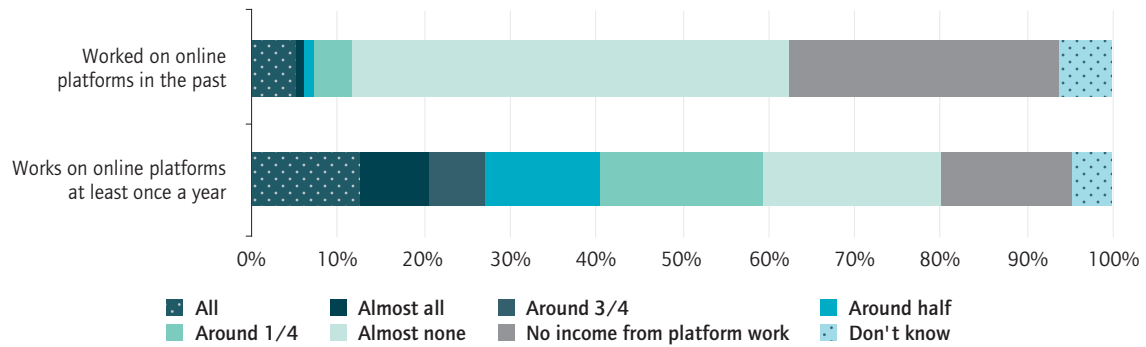
Source: ETUI Internet and Platform Work Survey

Platform work thus appears a rather sporadic engagement, with a sizeable proportion of platform workers trying it out in the past but without continuing. One reason could be the rather low incomes and high turnover. To assess the importance of income from platform work, we asked respondents what share of their overall monthly personal income it represented the last time they did this work (Figure 14). Among those respondents who had done platform work in the past, either once or for any substantial amount of time, the overwhelming majority said it contributed nothing at all (31.5 per cent) or almost nothing (50.6 per cent) to their overall income; only for 6.0 per cent did it represent all, or almost all, of their income. Among those respondents who were still performing platform work at the time of the survey, with a frequency of at least once a year, it represented a more substantial contribution to their income. Among this group, for 12.6 per cent all, and for 8.0 per cent almost all, their income came from platform work; for 38.6 per cent it represented between one- and three-quarters of their overall income; and for 35.9 per cent platform work contributed nothing, or almost nothing, to their earnings.

The contribution of platform work to overall personal income differed by country but, due to small sample sizes, we only look here at the broader group of those who had ever engaged in platform work (Figure 15). The role of

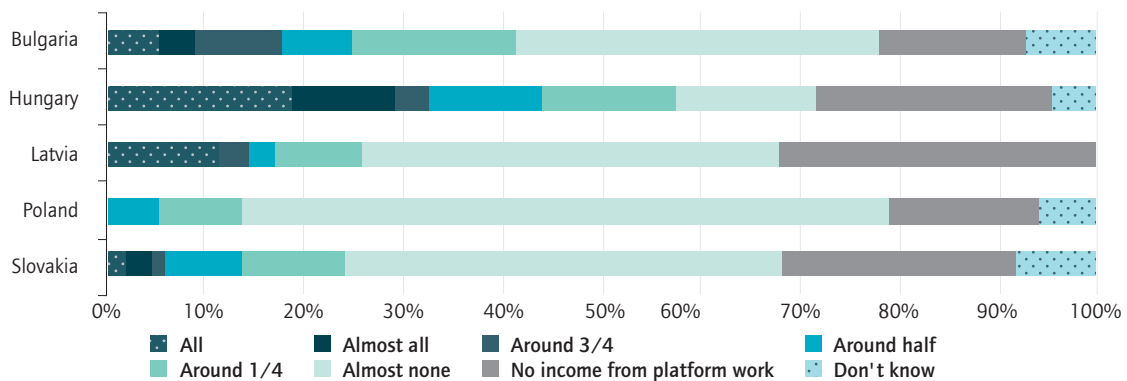
earnings from platform work was most important in Hungary, where they represented the only source of income for 18.9 per cent of platform workers, while overall for 44 per cent at least one-half of their income was from platform work. In Poland, reported earnings from platform work are by far the lowest, with as many as 80.3 per cent of platform workers stating that they earned nothing, or almost nothing, the last time they did this work. In comparison, in Latvia this share is 74.3 per cent; in Slovakia, 67.5 per cent; and in Bulgaria, 51.5 per cent. This might indeed reflect the low income potential of the activities performed on online labour platforms, but partly this might also be due to an unwillingness among respondents to admit to income that might have been undeclared for tax purposes.

Figure 14 Contribution of platform work to monthly personal income (per cent)



Note: Average across all countries. The question put was: 'Thinking about the last time you did this work, what share of your monthly personal income has been from jobs or tasks that you found through online platforms?'
 Source: ETUI Internet and Platform Work Survey

Figure 15 Contribution of platform work to monthly personal income by country, among respondents who had ever tried platform work (per cent)



Source: ETUI Internet and Platform Work Survey

7. Labour market situation of internet and platform workers

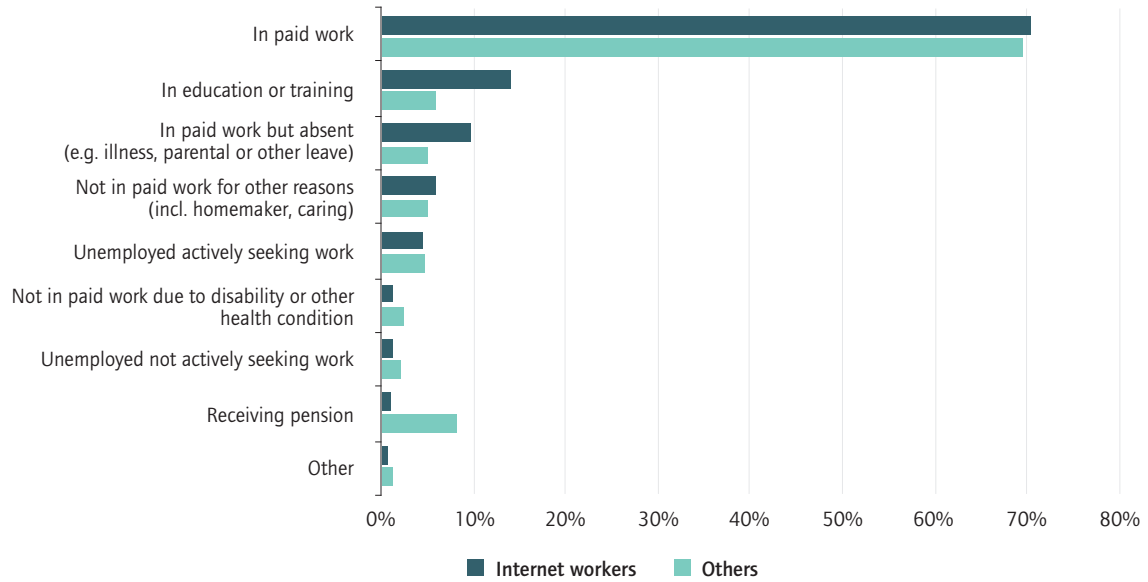
To understand better how using the internet to generate income fits into the broader landscape of employment, the survey also included more general questions about working life. We were interested both in the current situation (work within the past week), as well as within a longer time horizon (the past year, or five years in the case of unemployment). This allows us to compare work status, employment patterns and the labour market attachment of internet and platform workers with other respondents.

To begin with, when looking at the week preceding the interview, the employment rate of internet workers (once a year or more often, excluding the sale of belongings) did not differ markedly from other respondents – 70.3 per cent and 69.5 per cent, respectively (Figure 16). The difference is more pronounced, however, when we compare work status in the past twelve months (respondents were able to report all applicable situations). As shown in Figure 17, internet workers were more likely to be in paid employment (78.5 per cent) than other respondents (73.1 per cent). The discrepancy between the reported work situation in the past week and the past year suggests that internet workers have more intermittent employment patterns.

There was not much difference in other work situations between the past week and past year. Overall, internet workers were more likely than other respondents to be in education and training, or temporarily absent from paid work due to illness or leave; and were also less likely to be in receipt of a pension. Inactive and unemployed workers reached similar proportions among internet workers and others. We do not, therefore, find evidence in support of a labour market integrative function, or ‘stepping stone’, for internet work as regards economically inactive or unemployed people in the countries analysed here.

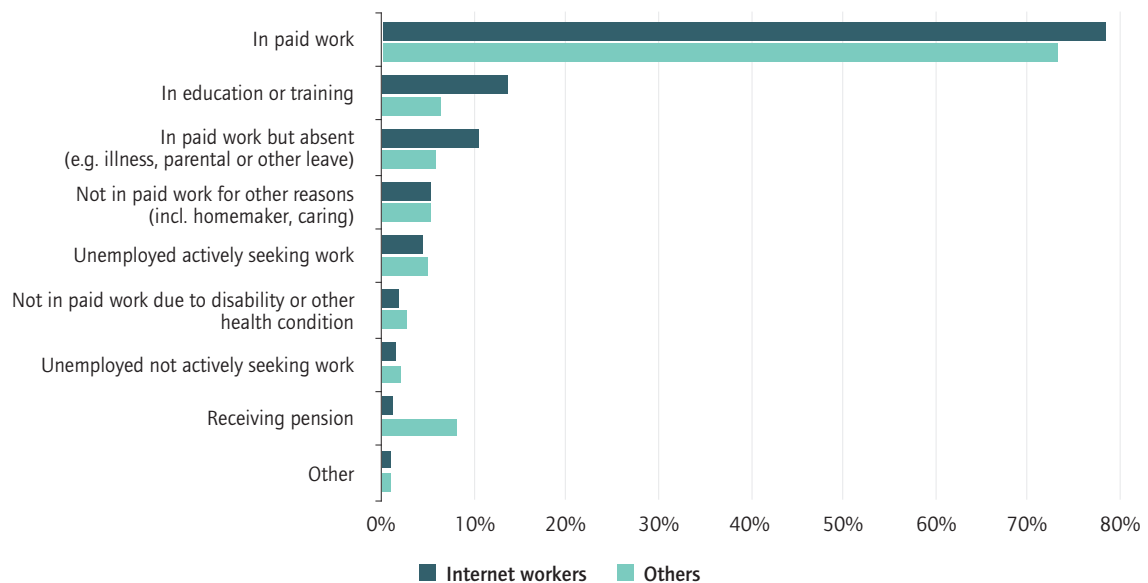
Internet workers are more likely to be non-standard workers in the offline labour market compared to other employed people. In the twelve months preceding the interview, 65.2 per cent of internet workers, but 77.7 per cent of other employed workers, had a full-time open-ended contract (Figure 18). The remaining one-third of internet workers worked as freelancers (13.2 per cent), were on various forms of temporary contract (21.1 per cent) or part-time open-ended contract (4.0 per cent), or were employed through a temporary work agency (2.1 per cent).

Figure 16 Labour market status in the past week, internet workers (excluding the sale of belongings) (once a year or more often) and others (per cent)



Note: Average across all countries. Multiple responses possible.
Source: ETUI Internet and Platform Work Survey

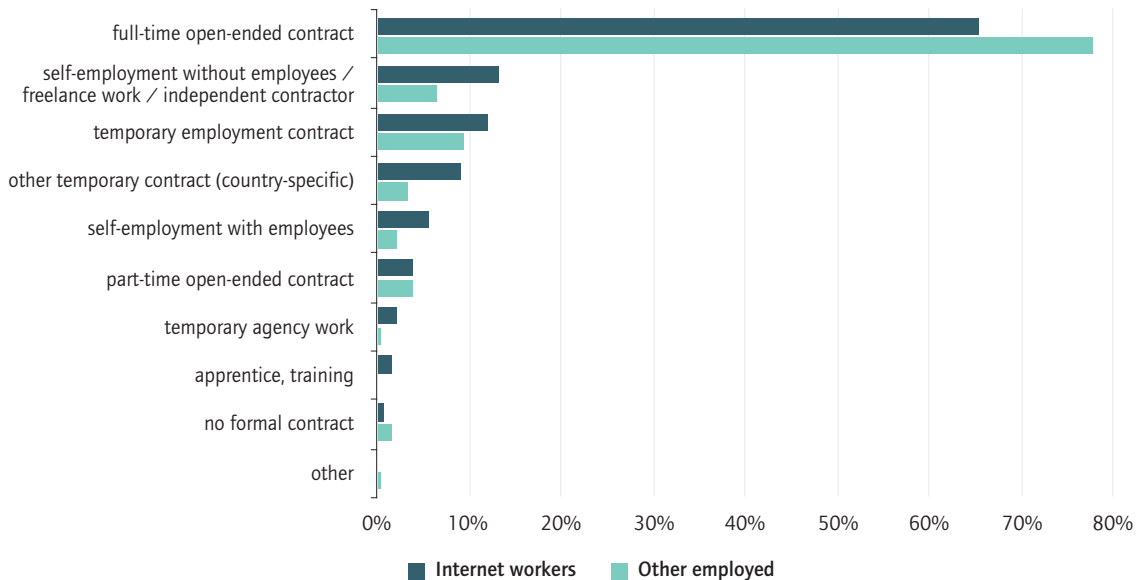
Figure 17 Labour market status in the past twelve months, internet workers (excluding the sale of belongings) (once a year or more often) and others (per cent)



Note: Average across all countries. Multiple responses possible.
Source: ETUI Internet and Platform Work Survey

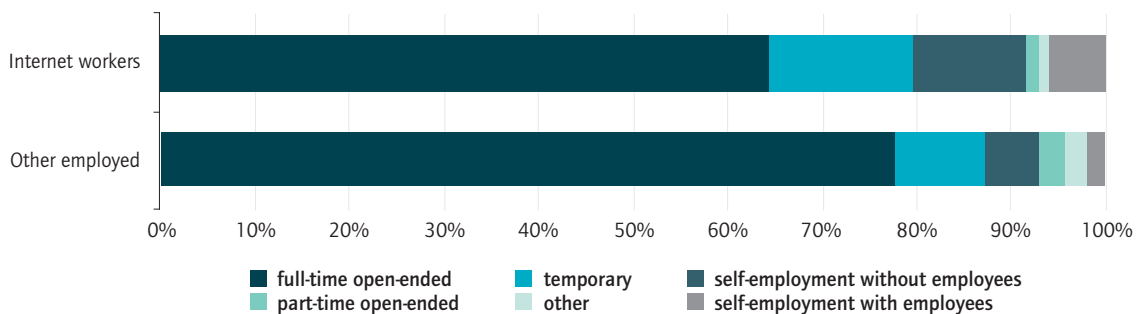
A higher reliance on non-standard work among internet workers is also visible in the breakdown of the main sources of their income by contract type (Figure 19). For instance, temporary employment was the main source of income for 15.2 per cent of internet workers and 9.4 per cent of other employed workers; as was freelance work for 11.9 per cent of internet workers and 5.8 per cent of other workers. Nevertheless, full-time open-ended employment was the main source of income for the majority of internet workers (64.3 per cent) as well as other employed people (77.7 per cent).

Figure 18 Forms of employment in the past twelve months, employed internet workers (excluding the sale of belongings) (once a year or more often) and other employed (per cent)



Note: Average across all countries. Multiple responses possible.
Source: ETUI Internet and Platform Work Survey

Figure 19 Main sources of income by type of employment contract in the past twelve months; employed internet workers (excluding the sale of belongings) (once a year or more often) and other employed workers (per cent)



Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

Table 5 A comparison of internet workers (excluding the sale of belongings) (once a year or more often) and others (per cent), by country

Internet worker ->	Bulgaria		Hungary		Latvia		Poland		Slovakia	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Women	50.4%	64.0%	52.4%	45.5%	51.8%	53.7%	54.3%	45.2%	49.3%	51.7%
Age (mean)	41.4	35.6	42.7	37.8	41.9	37.9	42.9	35.7	42.0	37.2
Work status in the past 12 months:										
In paid work	70.9%	73.1%	80.8%	81.6%	69.4%	75.1%	65.9%	77.1%	78.7%	82.1%
In paid work but absent (e.g. illness, leave)	2.9%	9.0%	0.9%	6.3%	11.3%	14.5%	3.7%	5.0%	9.8%	17.3%
In education or training	6.8%	18.3%	4.7%	2.8%	7.5%	10.0%	6.9%	19.2%	6.0%	13.8%
Receiving pension	6.7%	2.1%	7.1%	2.0%	6.0%	0.0%	11.3%	0.7%	9.3%	1.3%
Unemployed and actively seeking work	9.2%	3.3%	0.8%	0.0%	7.7%	3.8%	4.0%	3.8%	3.0%	8.3%
Unemployed but not actively seeking work	2.4%	0.0%	0.9%	1.2%	3.2%	7.0%	1.8%	0.8%	1.7%	0.7%
Not in paid work due to disability or other health condition	1.4%	0.0%	1.5%	0.0%	4.7%	3.7%	4.7%	4.9%	1.4%	0.0%
Not in paid work for other reasons (incl. homemaker, caring)	1.7%	3.2%	3.8%	4.0%	6.3%	7.4%	9.6%	7.9%	4.4%	4.1%
Form of work among those in paid work:										
Full-time open-ended contract	79.7%	77.6%	83.7%	67.8%	79.4%	64.7%	62.2%	58.5%	80.5%	64.1%
Part-time open-ended contract	2.5%	1.4%	2.3%	3.4%	5.8%	11.1%	5.8%	4.7%	2.9%	1.6%
Temporary employment contract	6.3%	2.9%	7.0%	5.0%	11.8%	17.3%	14.0%	13.4%	8.1%	17.6%
Other temporary contract (country-specific)	2.1%	5.6%	0.2%	1.4%	0.0%	0.0%	5.9%	14.7%	3.1%	6.3%
Temporary agency work	0.3%	2.7%	0.1%	0.0%	0.6%	0.0%	0.0%	1.3%	0.8%	4.7%
Self-employment without employees / freelance work / independent contractor	6.4%	9.9%	4.2%	14.5%	4.9%	19.5%	12.3%	11.4%	5.3%	12.8%
Self-employment with employees	2.2%	2.9%	1.9%	7.9%	1.8%	6.4%	2.3%	7.0%	2.4%	4.1%
Apprentice, training	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.3%	1.0%	0.1%	4.1%
No formal contract	1.4%	0.0%	0.6%	0.0%	5.2%	4.4%	0.5%	0.9%	0.2%	0.0%

Source: ETUI Internet and Platform Work Survey

The platform workers (doing platform work once a year or more often) in our sample did not differ markedly from our other respondents in terms of their labour market participation (Figure 20). As much as 80.6 per cent of platform workers had been in paid employment over the twelve months preceding the interview compared to 76.5 per cent of others. However, platform workers were more likely to be temporarily absent from work (13.4 per cent compared to 6.0 per cent among others) for reasons such as illness or parental leave. Platform workers were also more likely to be in education or training (11.3 per cent and 7.0 per cent, respectively), and were less likely to be pensioners (2.3 per cent and 7.5 per cent).

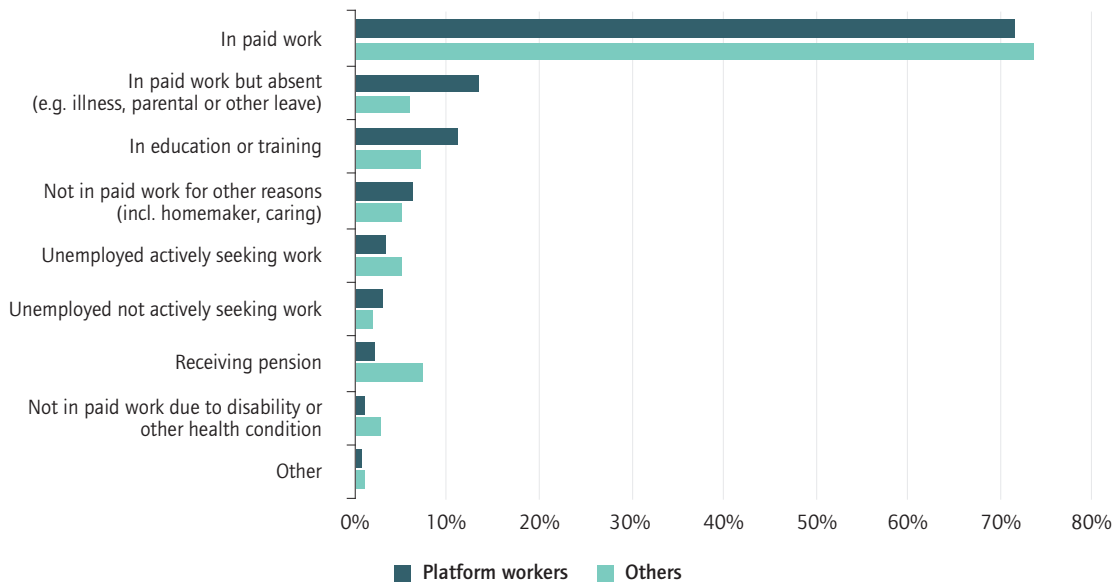
Participation rates in paid work were high among platform workers, but they were more likely than offline workers to be in non-standard forms of work. As shown in Figure 21, 62.7 per cent of platform workers, compared to 76.7 per cent of other employed workers, had a full-time open-ended contract in the previous twelve months. Platform workers were much more likely to work as

freelancers (self-employed without employees), self-employed with employees or without any formal contract.

The form of work reported by platform workers might refer to their work on a platform but also to their offline parallel employment. In view of the low overall contribution of platform work to personal income (see Figure 14 and Figure 15), and given that the majority of platform workers (94.3 per cent of those in paid work) indicated only one form of employment over the previous twelve months, we can assume that reports about forms of work mainly pertain to their offline main paid activity.

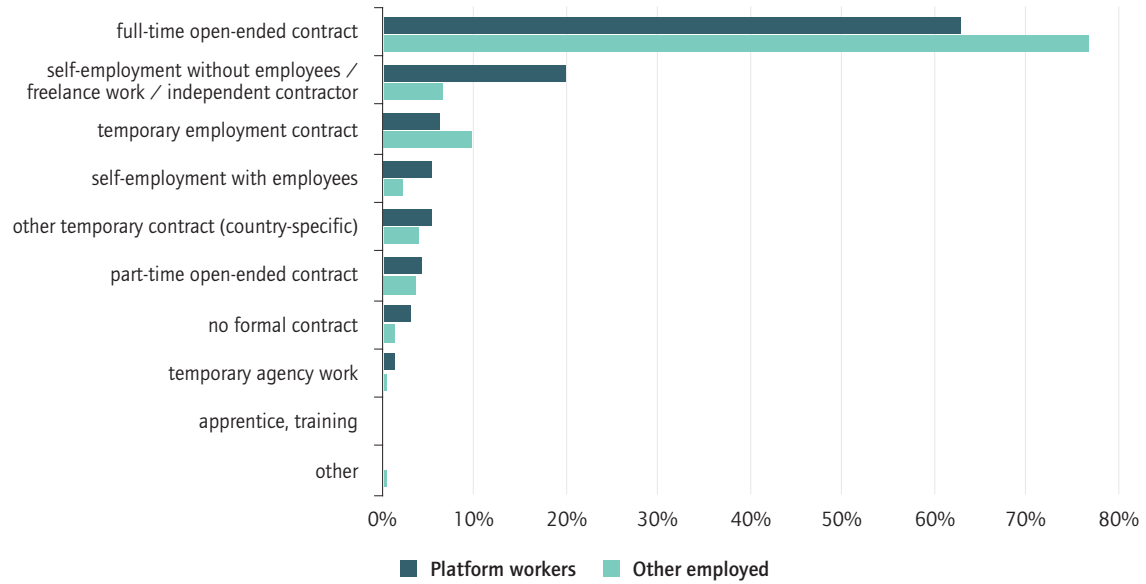
The relatively more precarious situation of platform workers in the labour market compared to other employed workers is also illustrated by their main sources of income (Figure 22). Among platform workers in paid employment in the past twelve months, a full-time open-ended contract was the main source of income for 61.5 per cent, compared to 76.7 per cent of other employed workers. Freelance work was the main source of income for 18.3 per cent of platform workers and for 6.1 per cent of those otherwise employed.

Figure 20 Labour market status in the past twelve months, platform workers (once a year or more often) and others (per cent)



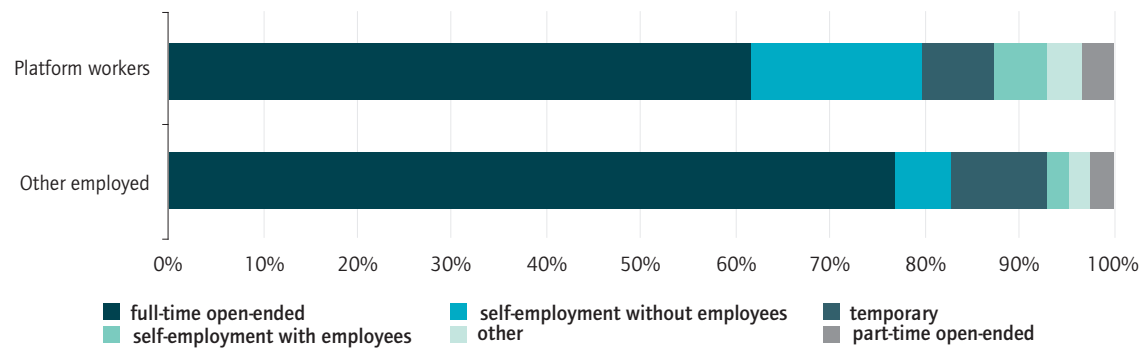
Note: Average across all countries. Multiple responses possible.
Source: ETUI Internet and Platform Work Survey

Figure 21 Forms of employment in the past twelve months, employed platform workers (once a year or more often) and other employed workers (per cent)



Note: Average across all countries. Multiple responses possible.
Source: ETUI Internet and Platform Work Survey

Figure 22 Main sources of income by type of employment contract in the past twelve months, employed platform workers (once a year or more often) and other employed workers (per cent)



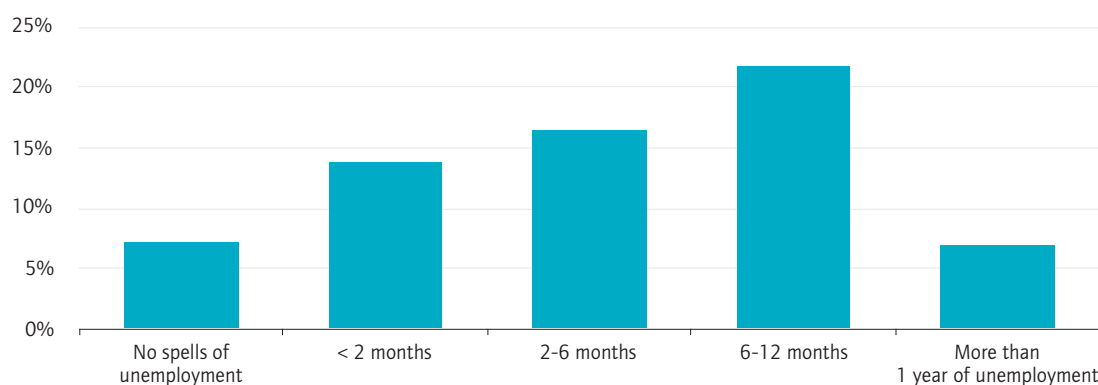
Note: Average across all countries.
Source: ETUI Internet and Platform Work Survey

7.1 Experience of unemployment

We did not observe any marked differences between internet or platform workers and other respondents in terms of the experience of unemployment in the twelve months preceding the interview (Figure 17 and Figure 20). However, when viewed over a longer time horizon, we find that generating income through the internet was more common among those who had experienced longer spells of unemployment in the past five years. This might suggest that vulnerability and the amount of income insecurity inherent in unemployment renders individuals more likely to consider working through the internet as a viable option.

The share of internet workers among those who had not experienced unemployment in the past five years was 7.2 per cent, rising to up to 21.6 per cent of those who reported a duration of unemployment between six and twelve months (Figure 23). A similar pattern emerges for platform work (Figure 24). This was least common among those who had not been unemployed (2.6 per cent) or whose period of unemployment had lasted less than two months over the past five years (2.3 per cent); and most common among respondents who had been unemployed for a period of between six and twelve months (7.8 per cent). For both internet and platform work, the incidence was relatively low among the long-term unemployed (i.e. for over one year), perhaps the group which is most discouraged and most likely to be detached from the labour market.

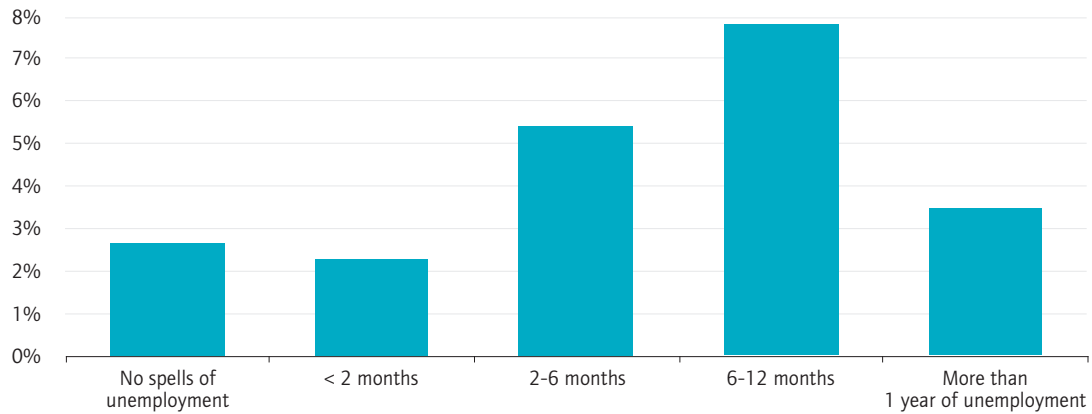
Figure 23 Share of internet workers (once a year or more often) (excluding the sale of belongings) among respondents with different unemployment spells in the past five years (per cent)



Note: All countries except Poland.

Source: ETUI Internet and Platform Work Survey

Figure 24 Share of online platform workers (once a year or more often) among respondents with different unemployment spells in the past five years (per cent)

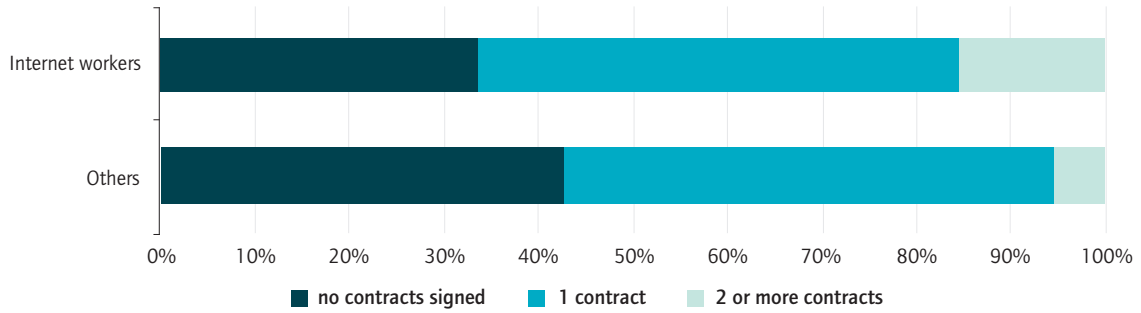


Note: All countries except Poland.
Source: ETUI Internet and Platform Work Survey

7.2 Fragmented employment

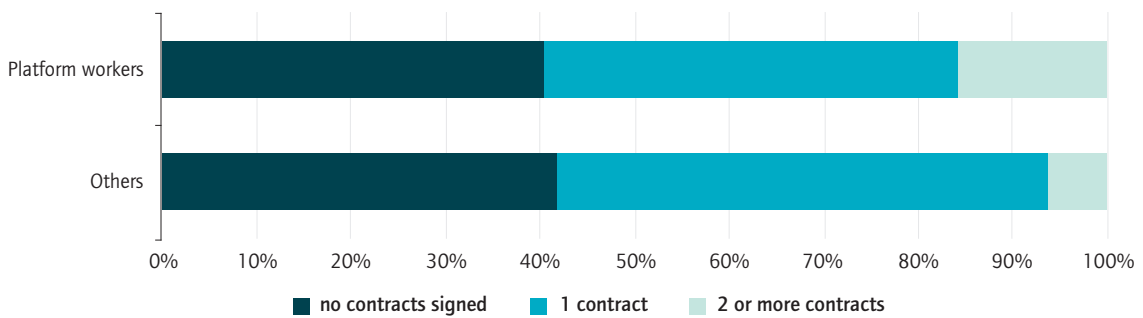
Internet and platform workers are over-represented in the segment of the non-standard workforce as measured by types of contract in the past twelve months and the main sources of income. Generating income through the internet is also linked to more fragmented employment trajectories. We asked respondents how many work contracts of any type, including with the same employer, they had signed in the past twelve months. Signing a new contract would generally indicate a change of job, finding a new one or otherwise a succession of temporary contracts. Thus, for those who signed two or more contracts in one year, the employment trajectory is assumed to be volatile and fragmented. As shown in Figure 25 and Figure 26, this was much more common among internet and platform workers compared to the rest of our respondents.

Figure 25 Number of work contracts signed over the past twelve months, internet workers (once a year or more often) (excluding the sale of belongings) and others (per cent)



Note: All countries except Poland. Includes any type of work contract and contracts signed with the same employer.
Source: ETUI Internet and Platform Work Survey

Figure 26 Number of work contracts signed over the past twelve months, platform workers (once a year or more often) and others (per cent)



Note: All countries except Poland. Includes any type of work contract and contracts signed with the same employer.
Source: ETUI Internet and Platform Work Survey

Conclusions

This working paper presents evidence from the ETUI Internet and Platform Work Survey conducted in 2018-2019 in five central and eastern European countries – Bulgaria, Hungary, Latvia, Poland and Slovakia. This is a novel survey, using face-to-face interviews and a multistage stratified random sample of the working age population. It overcomes many of the methodological shortcomings of the existing comparative studies of platform work in Europe (notably the COLLEEM survey implemented by the Joint Research Centre of the European Commission and one conducted by the University of Hertfordshire). Most importantly, it does not rely on paid online surveys based on non-probability or non-random opt-in samples of internet users (i.e. crowdworkers).

The empirical evidence presented in this paper maps the extent to which the internet is used as a tool to generate income. We explored a broad range of paid activities that can be found or carried out online and that usually fall outside of a standard employment relationship. The aim was to record the prevalence of such activities in each country by determining what share of individuals have any experience of them and, where they do, how often they do them and what share of their income comes from these types of work. We also investigated the socio-demographic characteristics of internet and platform workers as well as their employment patterns. In doing so we adopted a long-term perspective, asking about work status and employment relationships in the past week and past year as well as experiences of unemployment over the past five years. Three main conclusions can be made.

The first general conclusion is that experience with work in the online economy is relatively common but only a small group persists in carrying it out on a regular basis. Our findings point to very low income as one possible reason for this level of attrition. We found that one in four working age adults had tried some form of internet work and that one in six had tried something other than the online sale of belongings. The group doing so at least on a monthly basis (again excluding the sale of belongings online) was much smaller, albeit still relevant, ranging from 5.1 per cent of working age adults in Slovakia, 4.7 per cent in Poland, 3.7 per cent in Hungary, 3.2 per cent in Latvia and 2.6 per cent in Bulgaria. Online platform work is a subset of internet work (we also exclude the rental of accommodation and e-commerce activity from the measurement of platform work); its share in the analysed countries was accordingly much smaller, ranging from 7.8 per cent of adults in Hungary and 7.1 per cent in Slovakia to 1.9 per cent in Poland. The group that carried out platform work on at least a monthly basis represented 3.0 per

cent of working age adults in Hungary, 1.5 per cent in Bulgaria, 1.1 per cent in Slovakia, 0.8 per cent in Latvia and 0.4 per cent in Poland.

The second observation is that the age and gender composition of internet and platform workers was not radically different from other working age adults. Those who used the internet to generate income were, on average, in their mid-30s while the rest of respondents were in their early 40s – both within the prime working age bracket. Most of the activities within internet work were gender mixed, with any imbalances largely overlapping those in the offline economy. This suggests that internet and platform work does not represent an entirely new labour market that crosses traditional segmentation and former divides. Neither is it a market of ‘student jobs’, with only eleven per cent of platform workers and fourteen per cent of internet workers in education or training in the past year compared to seven per cent among the rest of respondents.

The third summary point is that the labour market situation of internet and platform workers was somewhat more precarious, with a higher incidence of non-standard employment and employment trajectories that were more fragmented. Overall, internet and platform workers were less likely to have a full-time open-ended contract than other working age adults and were more likely to work on temporary contracts, as freelancers or without any formal contract. Nevertheless, the majority of those who used online sources to generate income had a standard job in the offline economy and we found no evidence of internet or platform work being accessed more often by economically inactive people or those who were unemployed. This type of work was also not an exemplar of the knowledge-based economy promoting the use and development of skills: the provision of services requiring higher skills and creativity were among the least prevalent forms of internet work.

Development of the digital platform economy has sparked a considerable policy debate on how its impact can be harnessed and what regulatory responses are needed. However, the policy debate suffers from the lack of suitable empirical evidence, including on the scale of the platform economy and on the characteristics of workers who engage in it. This paper and the results from the ETUI Internet and Platform Work Survey at least partly fill this gap for the central and eastern region of the EU.

Appendix: survey methodology

The ETUI Internet and Platform Work Survey was carried out through face-to-face individual interviews in five European countries. A pilot survey was carried out in Poland in February 2018. After evaluation of the survey tool and sampling frame, the questionnaire was slightly expanded by adding three new items but without any changes to the core pilot questions. The longer version of the questionnaire was then used in fieldwork in four additional countries – Slovakia, Latvia, Hungary and Bulgaria – carried out between December 2018 and April 2019. The survey was conducted as part of the Omnibus fieldwork by professional research institutes based in each surveyed country and working independently with their own network of interviewers: Alpha Research in Bulgaria; TÁRKI in Hungary; SKDS in Latvia; CBOS in Poland; and Focus in Slovakia. Questionnaires were administered in national languages (in Latvia both Russian and Latvian versions were used).

In each country, respondents were selected using multistage stratified random sampling. The survey used the CAPI (Computer Assisted Personal Interviewing) method (Pen and Paper Personal Interview (PAPI) in Latvia). The final sample included at least 1,000 individuals aged 18 and older per country, representative of the country's adult population. For the analysis presented in this working paper, we selected respondents aged 18-64 in each country. The final (unweighted) sample for the analysis contains: 809 respondents in Poland; 1,032 in Slovakia; 857 in Latvia; 1,000 in Bulgaria; and 1,033 in Hungary – in total, 4,731 individuals.

For the analysis, the data are weighted by basic socio-demographic characteristics. For the analysis of the pooled sample from all five countries, additional weights are applied that ensure an equal contribution of each country to the results. Thus, we ensure that neither the small differences in the size of samples by country, nor the substantial differences in population sizes between them, are able to affect the results.

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**European
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Bd du Roi Albert II, 5
1210 Brussels
Belgium

+32 (0)2 224 04 70
etui@etui.org
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