

► Young people and the gig economy

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►► It is safe to assume that gig work is here for the long run.

Historically, as countries grow richer, their economically active young people become more likely to be found in wage employment (ILO 2017). It is a tendency typically explained by rural-to-urban migration and the economic expansion of companies but also by the decreased labour supply arising from extended schooling. More recently, some of the most developed countries have achieved a close-to-zero rate of independent employment among young people; in 2005, for instance, a mere 0.3 per cent of German youth were self-employed, while it was 0.7 per cent in France and 0.6 per cent in Austria.³⁹ These trends are not as pronounced in southern European countries, in the United Kingdom or the Netherlands although the same pattern of increasing youth wage employment is associated with economic growth.

Since the global financial crisis of 2008–09, there has been a noticeable increase in youth self-employment rates in high income countries, with the formerly generalized trend towards salaried employment reversing in some of the more developed economies. Is this trend just an outburst of “entrepreneurial activity” among twenty-first century young Europeans, or is it the result of changing configurations in the world of work?

France and Germany boast rates of 3 per cent and 6 per cent, respectively, of young people in own-account work. The rates in countries that already have a greater tendency towards workers in this type of contractual arrangement also surged; for instance, the share of independent workers among young people reached 11.4 per cent in Italy, 5.7 per cent in Spain, 5.3 per cent in the Netherlands and 4.9 per cent in the United Kingdom in 2015 (figure 1). A year later, however, the European Foundation for

the Improvement of Living and Working Conditions (2016) raised concerns over the fraudulent use of self-employment and freelance work in 23 European Union member countries.

Such a substantial number of young self-employed persons, together with the reports of fraud in European Union Member States in this type of contractual relationship, should raise eyebrows. From an empirical point of view, it is uncommon to find independent workers at such a young age because entrepreneurs launching a business are typically in their 30s, when they have acquired enough know-how as well as the desire to work independently. An increase in own-account work is not a negative phenomenon per se – indeed, many governments encourage it, but there are growing doubts over the legitimacy of this type of relationship, especially regarding young self-employed workers. These doubts have emerged partly because of the so-called gig economy, which comprises extremely short-term jobs (gigs) in which workers are classified as independent contractors but have limited opportunities to determine the scope of their business.⁴⁰ The Global Commission on the Future of Work (2019) raised these and similar concerns regarding gig workers in a report that advocated expansion of social protection coverage as well as the extension of basic labour rights to all workers, including those engaged in the gig economy because many of them are excluded from the exercise of a majority of their rights.⁴¹

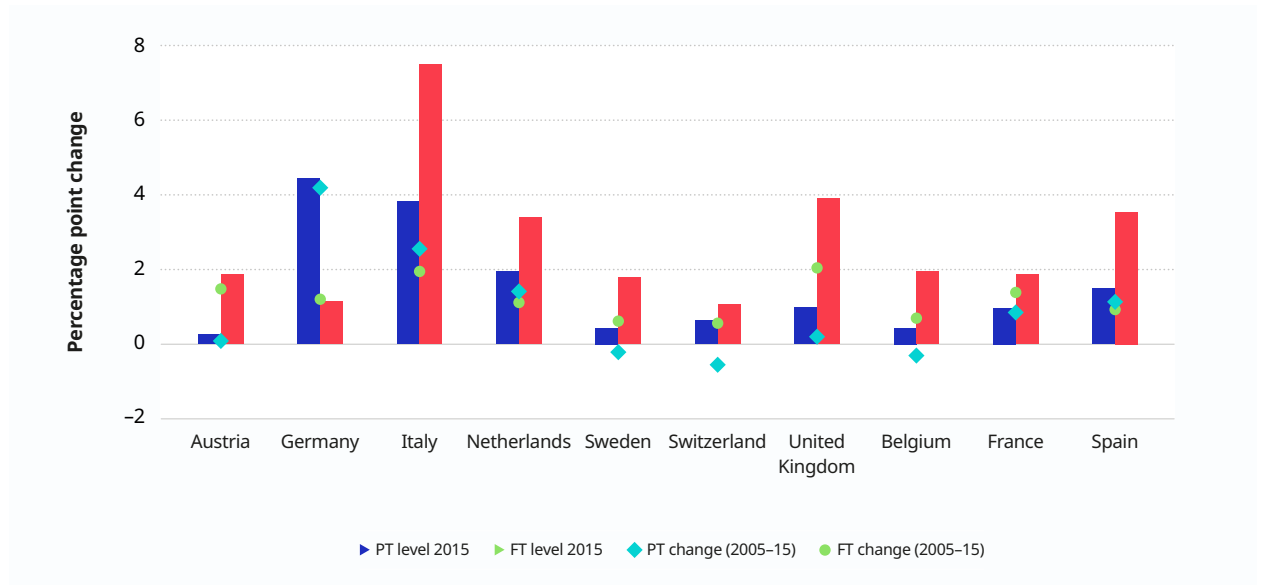
Although platform-based work has not changed the nature of the tasks being performed in most instances, it has radically altered the way people are hired, the conditions under which they work and, in some cases, where the work is performed. As Berg

39 Authors' calculations based on European Union Statistics on Income and Living Conditions.

40 In a ruling of the United Kingdom tribunal in the case of Uber v. Aslam, Farrar and others (case number A2/2017/3467) wrote in their judgment that it was “faintly ridiculous” that “Uber in London is a mosaic of 30,000 small businesses linked by a common ‘platform’...no driver is in a position to [grow their own business], unless growing his business simply means spending more hours at the wheel”.

41 See the report written by De Stefano and Countouris (2019) for an explanation of these limitations from a legal point of view.

▶ Figure 1. Share of part-time and full-time young own-account workers (aged 16–24), by country, 2005–15



Note: The graph shows the percentage point change (2005–15) and the level (2015) in the share of part-time (PT) and full-time (FT) own-account workers aged 16–24. Part-time work is defined as fewer than 35 hours a week.

Source: Authors’ calculations based on European Union Statistics on Income and Living Conditions and Socio-Economic Panel microdata for 2005 and 2015. See, <https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions> and www.diw.de/en/diw_02.c.222518.en/research_data_center_of_the_soep.html respectively for details and data access.

et al. (2018) explained, platforms offer businesses the potential to access a large group of workers – “the crowd” – to complete specific services, tasks or projects at any time in the day or night. They offer a means to outsource the work. And because workers are classified as independent contractors, there is no need to pay regular salaries, thus no need to compensate workers during down times or pay social security and other benefits.

Some labour economists⁴² and lawyers question the legitimacy of this type of contract. First, they argue, the employment relationship may be misclassified. But they also point out that self-employment contracts leave workers vulnerable due to the uncertainty of available work in the future and their limited ability to contest platforms’ decisions. There are additional concerns about the fees charged to workers and the role of the platform as an intermediary that assesses these fees. And there has been an increase in judicial processes, which so far have

produced varying outcomes. Some recent court rulings, for example, accepted and some dismissed⁴³ the claims of an employment relationship.

On statistical grounds, the gig economy creates challenges to national statistical offices and researchers. The lack of a separate definition for “dependent self-employment” means that analysis (like what was used to generate the data in figure 1) will never be satisfactory. The nineteenth International Conference of Labour Statisticians took a step forward and revised the International Classification of Status in Employment, or ICSE-93, to account for non-standard forms of work (ILO 2013). This resulted in ICSE-18-A,⁴⁴ which separates own-account workers into independent workers without employees and dependent contractors. It will take time, however, for the ICSE-18-A changes to be integrated into the questionnaires of statistical offices around the world.

42 See, for instance, Williams and Lapeyre 2017 or De Stefano 2016.

43 For example, the nine court rulings accepting and the same number of rulings rejecting the self-employed status of such workers in the case of Glovo (a competitor of Deliveroo with a similar business model) in Spain underscores how contentious this issue is from a legal standpoint. On 27 November 2019, the Madrid High Court of Justice ruled that riders for the firm are employees and are thus not self-employed; see www.lexology.com/library/detail.aspx?g=0df5ef0c-882f-4ee8-b575-26a9714bd670. On February 19, the UK’s Supreme Court ruled UBER drivers to be workers not self-employed, <https://www.bbc.com/news/business-56123668>.

44 The new classification separates workers according to (i) type of authority and (ii) type of economic risk. In the discussion here, we focus on the former because it emphasizes the divide between dependent and independent workers. See <https://ilostat.blog/resources/methods/icse/> for more information.

Due to the relatively recent introduction of gig jobs and crowdwork, research on these dynamics are only beginning. The remainder of this discussion features analysis of the findings from, first, a nationally representative survey with European gig workers and then a global survey with crowdworkers.

The gig economy in Europe: No longer a market niche

The European gig economy survey was a joint effort of the Foundation for European Progressive Studies, UNI Europa, the European Services Workers Union, the University of Hertfordshire and Ipsos MORI.

Ipsos MORI conducted online surveys in seven countries (Austria, Germany, Italy, the Netherlands, Sweden, Switzerland and the United Kingdom) between April 2017 and June 2018 to gather information and build knowledge on the gig economy. The surveys were designed to be nationally representative, with stratification⁴⁵ that includes (among other variables that vary from country to country) age, sex, region and working status.

Defining gig work

The survey contained a socio-economic module with the usual questions on age, sex, educational attainment and economic status as well as questions regarding online activities of respondents. Three questions asked whether respondents worked in (or searched for) online platforms through which they provide services from their home (such as Upwork and Clickworker), online platforms providing local services (such as TaskRabbit and MyHammer) or online platforms connecting people who need transport with a car and driver (such as Uber and Cabify). The choice of answer was ordinal, ranging from “at least once a year” to “every day”, to determine the intensity at which the activity in these platforms was exercised. To define a gig worker for this analysis, the standard International Labour Organization (ILO) definition of an employed person as someone who spent at least an hour in an economic activity during the reference week had to be adapted. The survey’s terminology that more closely matched the ILO definition was “working at

least once a week” and thus it became the criteria for defining a gig worker.

In some cases, the definition for a gig worker contradicted a respondent’s perception of their economic status, with some gig workers characterizing themselves as unemployed or even as economically inactive. This problem became more acute in the tails of the age distribution, where 50.7 per cent and 41.1 per cent of persons aged 16–25 and 55 or older, respectively, classified themselves as not working. In contrast, as many as 81.2 per cent of persons aged 25–34 classified themselves as workers. Even if surprising, this is a common situation; the ILO definition of employment sometimes clashes with the perceptions of full-time students or housekeepers, who often do not self-identify as workers.

De Stefano (2016) has suggested that the practice of online platforms referring to their workers with catchy names like “rabbits” (TaskRabbit) or “Turkers” (AMT) is done to convince them that they are not “working” but instead providing a “favour” or doing a “task”. These companies rarely speak about working; instead, they use “turking”, “tasking” or “collaborating”. The belittling effect of such a practice might affect the perceived economic status reported in the survey and perhaps explain why the proportion of wrong statuses (those reporting not working when doing gig work at least once a week) does not change with the gig work intensity, even though that would be the expected outcome if the status was selected based on purely rational criteria, like the number of hours worked.

Sticking to the ILO criteria for defining who is employed does not mean ignoring the different circumstances of people who are gig workers. Students looking for petty cash, stay-at-home mothers wanting home-based work and full-time workers looking to supplement their income are only some of the groups who exemplify the wide heterogeneity found within the supply of workers in online platforms. To cater for the different motives behind gig work in the analysis, gig workers were divided between full-time (the ones who report doing gig work every day) and part-time (those who do not do gigs every day). Using this classification, only 31 per cent of the (young) gig workers (34) in the seven European countries surveyed did gig related jobs full-time.

⁴⁵ See Huws et al. 2017, appendix table 1, 53 for more details and comments on the sampling design and implementation of the surveys. The survey micro-data are available at ahra.herts.ac.uk.

A cross-country characterization of gig workers

The prevalence of gig workers (using the adapted ILO definition of employment) among the working population in the seven surveyed countries ranged from 8.1 per cent in the Netherlands to 27.9 per cent in Italy. When considering only persons who worked full-time, the portion sharply decreased to 1.4 per cent and 10.5 per cent, respectively (figure 2). The prevalence increased dramatically among the youngest population group (aged 16–24⁴⁶) analysed, with a rate of gig work penetration into their working arrangements of 29.1 per cent. Put differently, 13.3 per cent of the overall youth population engaged in the gig economy. Even after these numbers were corrected downwards because the survey was carried out online, the extent of the phenomenon remained strong.

Although the prevalence of gig workers among young people stands out, the age group-specific share of gig workers does not decrease smoothly with age. On the contrary, there is a marked jump between persons aged 16–24 and the others (fig-

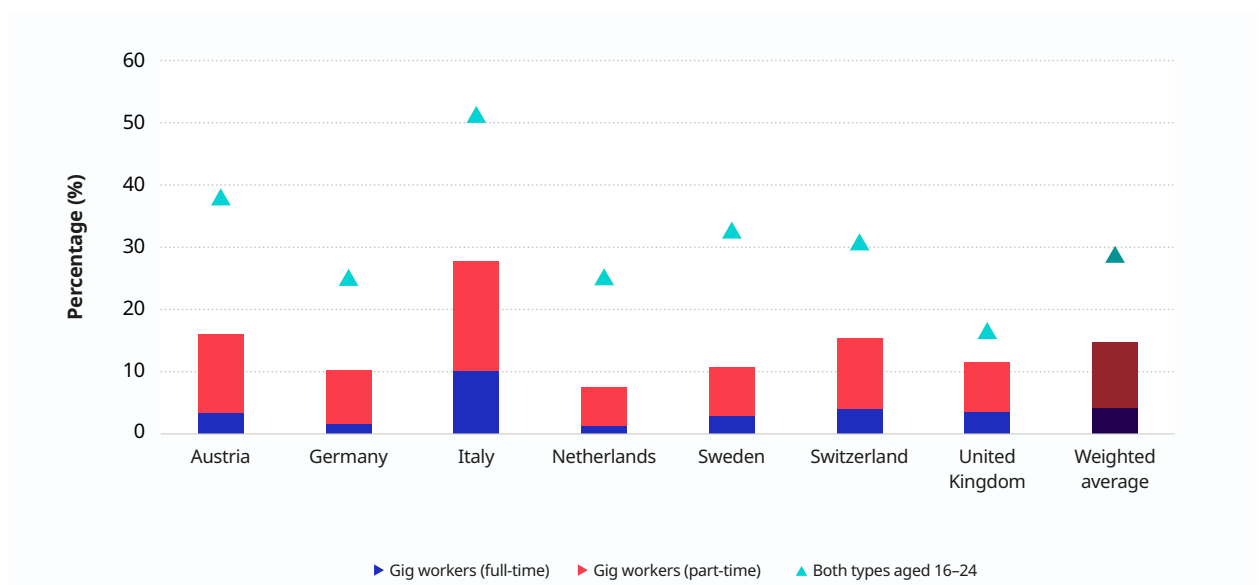
ure 3). The drop becomes more disproportionate among full-time gig workers, who accounted for 38.7 per cent of gig workers aged 16–24 and 28.8 per cent of the adjacent group, aged 25–34.

One of the main issues that arises when analysing a subpopulation like young people, who are transitioning from education to the labour market, are the strong composition effects. The percentages here give the impression that gig work is primarily the preserve of youth; yet, the total number of gig workers by age group shows that this perception is misleading. Actually, the total number increases in older cohorts, and it is only among persons aged 45 and older that the absolute number is lower than of the 16–24 age cohort.

In terms of policymaking, these figures indicate that young people are not the only ones affected by the gig economy working conditions and that gigs are not something temporary that only young people do while studying. The danger of widespread labour precariousness exists for all population strata.

It is tempting to associate gig workers with unskilled workers who have trouble finding employment,

▶ Figure 2. Prevalence of gig workers among the employed population, by country surveyed, 2016–17 (%)

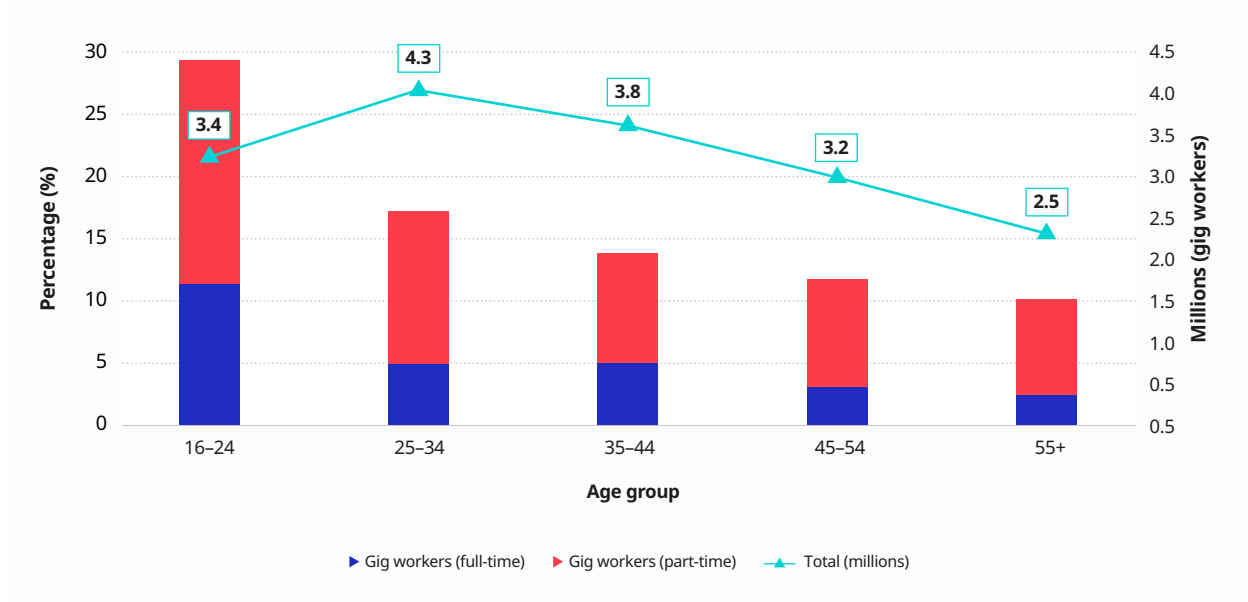


Note: The figure shows the country-specific share of workers who (i) performed gigs every day (full-time gig workers) and (ii) performed gigs weekly but not every day (part-time gig workers). In addition, the figure reports the share of gig workers (any type) among the population aged 16–24.

Source: Authors’ calculations based on the European gig economy survey data.

⁴⁶ In six of the countries the survey was administered to persons aged 16 and older; in Austria, it was administered to persons aged 18 years or older.

► **Figure 3. Prevalence of gig workers among the employed population in the seven European countries, by age group, 2016–17 (%)**



Note: The figure shows (in bars) the age group-specific share of workers who (i) perform gigs every day (full-time gig workers) and (ii) perform gigs weekly but not every day (part-time gig workers). It also shows (line) the age group-specific number of gig workers in the seven countries where the survey was carried out.

Source: Authors’ calculations based on the European gig economy survey data.

► **Table 1. Educational attainment and occupation distribution of gig workers and other workers, in the seven European countries surveyed, 2016–17 (%)**

Education level	Type of worker		Occupation (ISCO-08)	Type of worker	
	Gig workers	Other		Gig workers	Other
Primary	0.8	0.8	Managers and professionals	21.8	30.2
Lower-secondary	17.0	21.0	Technicians	17.1	10.1
Upper-secondary	47.6	47.0	Clerical support, sales	41.5	31.5
Tertiary	34.7	31.2	Craftsmen and related trades	19.6	28.2

Note: The table reports the share of gig and non-gig workers across educational attainment level and occupation. Occupational classification is by ISCO-08 codes. Managers and professionals correspond to ISCO codes 1 and 2. Technicians to group 3, clerical support and sales to groups 4 and 5 and craftsmen and related trades to groups 7, 8 and 9.

Source: Authors’ calculations based on European gig economy survey data.

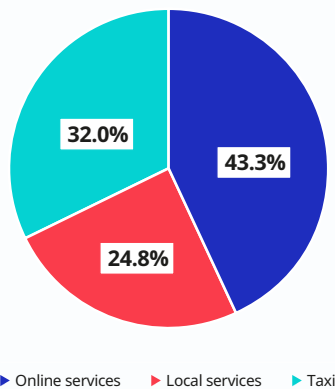
thus arguing that the gig economy provides opportunities they would not have had otherwise. But this description is not accurate. In the survey findings, the gig workers had, on average, a higher level of educational attainment than other workers; more gig workers have upper-secondary and tertiary degrees than did workers not engaged in the gig economy (table 1).

The scenario changes when looking at the occupations of gig workers. As opposed to educational attainment, which is affected by institutional and personal factors, occupations provide a more accurate reflection of what the current economic structure demands. Interestingly, the data reflect that gig workers tend to cluster themselves in highly skilled and semi-skilled professions (technicians,

clerical support) more often than the general population of workers. This suggests that the demand for precarious labour is greater in professions where there has been less job growth – a finding in accordance with Goos, Manning and Salomons (2009) in their work on job polarization in Europe.

In this context, the increasing precariousness of employment might be a signal of increased competition for various types of work, particularly for work that can be delivered online. In the survey findings, 43.3 per cent of European gig workers were in geographically dispersed online platforms (figure 4). They ranged from freelancing experts (in IT and web design) to clerical labour and workers doing menial tasks (survey filling, reading of labels), which are often grouped under the umbrella of crowdwork. The most interesting part of these online platforms, in which employers post small tasks in exchange for a fixed fee, is that they constitute a global market, with a consequent downward pressure on earnings that is independent of where the worker is based.

▶ **Figure 4. Type of gig work performed in the seven European countries surveyed, 2016–17 (%)**



Note: The distribution of gig work across the three general types: (i) online services; (ii) local services; and, (iii) taxi services. The categories were made mutually exclusive for simplicity; ties were resolved randomly.

Source: Authors’ calculations based on the European gig economy survey data.

Earnings in the gig economy

Messages posted on online platforms searching for gig workers encourage potential candidates to join the company with arguments that speak of freedom, flexibility, ownership of one’s own time and the ability to make decisions for oneself. Even though gig workers arguably enjoy the possibility of working part-time hours, a non-negligible number of them, and especially the young, used this type of job as full-time employment and as the main source of earnings (figures 2 and 3). Among the full-time gig workers in particular (though it applied to all gig workers), significant time was spent on “unpaid activities” resulting in lower overall hourly earnings. For example, time spent travelling between jobs, which would be counted as paid work and thus remunerated if a person were under an employment contract, was not taken into account when setting local gig workers’ fees (nannies, handymen, etc.). This might convert what beforehand seemed an interesting deal into an hourly rate lower than the minimum wage.

Gig workers looking for a suitable task in a platform experience a similar problem. The time spent looking can dramatically lower their hourly rate if the supply of tasks is limited and a person needs the work. Media reports in the United States⁴⁷ and the United Kingdom⁴⁸ have pondered how gig workers can cope with their monthly expenses with such low pay. In the findings of the European survey on gig workers, full-time gig workers made, on average, 35.2 per cent⁴⁹ of the median monthly earnings in their respective country (figure 5). There was some variation at the country level, with the ratio of gig work pay to median earnings ranging from 18 per cent in Italy to 45 per cent in Sweden. The average full-time earnings of gig workers did not reach the minimum wage in any of these countries.⁵⁰

From the point of view of gig workers, low pay might be one of their most pressing problems. But the gig economy phenomenon may also have indirect consequences economy-wide. Some of these consequences may include tax evasion and lower social security contributions, both of which weaken the welfare state of any country, similar to other

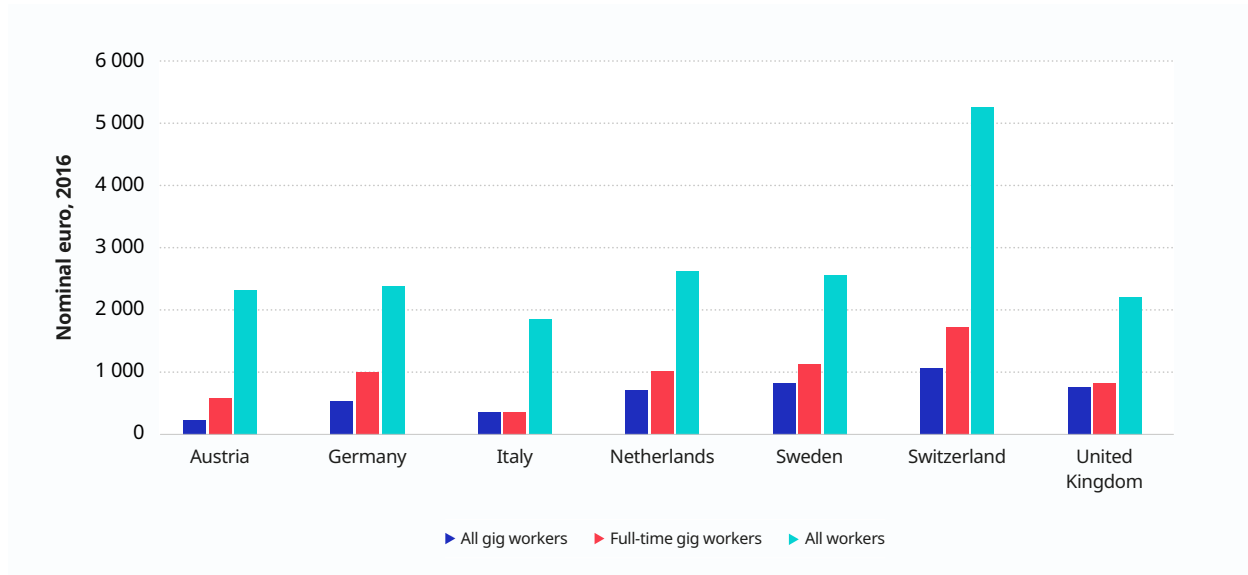
47 See, for example, a relatively recent article at <https://lithub.com/the-gig-economy-lower-wages-more-injuries-horrible-benefits/> about gig workers in the United States.

48 See www.theguardian.com/business/2018/oct/20/deliveroo-uber-workers-pay-gig-economy.

49 Unweighted average of the ratio of full-time gig workers’ monthly earnings to median earnings in the country.

50 Minimum wages may refer to (i) legally binding minimum wages, as in Germany, the Netherlands and the United Kingdom; (ii) proposed minimum wages but not binding, as in Austria, Italy and Switzerland; and (iii) other sector-based minimum wages, as in Sweden.

► **Figure 5. Median monthly labour earnings, by worker type in the seven European countries surveyed, 2016–17**



Note: The graph covers median earnings for all gig workers (those working in or searching for a gig at least once a week) and for full-time gig workers (those working in or searching for a gig every day), using data from the European gig survey findings. It also shows the median earnings of all workers from the European Union Statistics on Income and Living Conditions. Currencies were harmonized to the nominal euro value of 2016.

Source: Authors' calculations based on the European gig economy survey data.

forms of informal employment. Thus, finding ways to formalize these activities is critical.

The demand side of the gig economy

Most of the surveyed gig workers (at 56.7 per cent) were involved in the provision of local services (figure 6). Some of this provision was due to demand for these services, although in many instances the demand was inflated due to subsidies provided by the platform companies to users to build market share (Horan 2017). As for the demand side of gig work, 24.2 per cent of the population aged 16 or older in the seven surveyed countries used a gig economy-related service at least once during the previous year. That was a broad demand of more than 43 million people. The narrow demand (those who used gig services at least once a week) reached 9.2 million, or 5.2 per cent of the relevant subpopulation. Young people were the main requesters of these services, which engaged workers of all ages equally (figure 4).

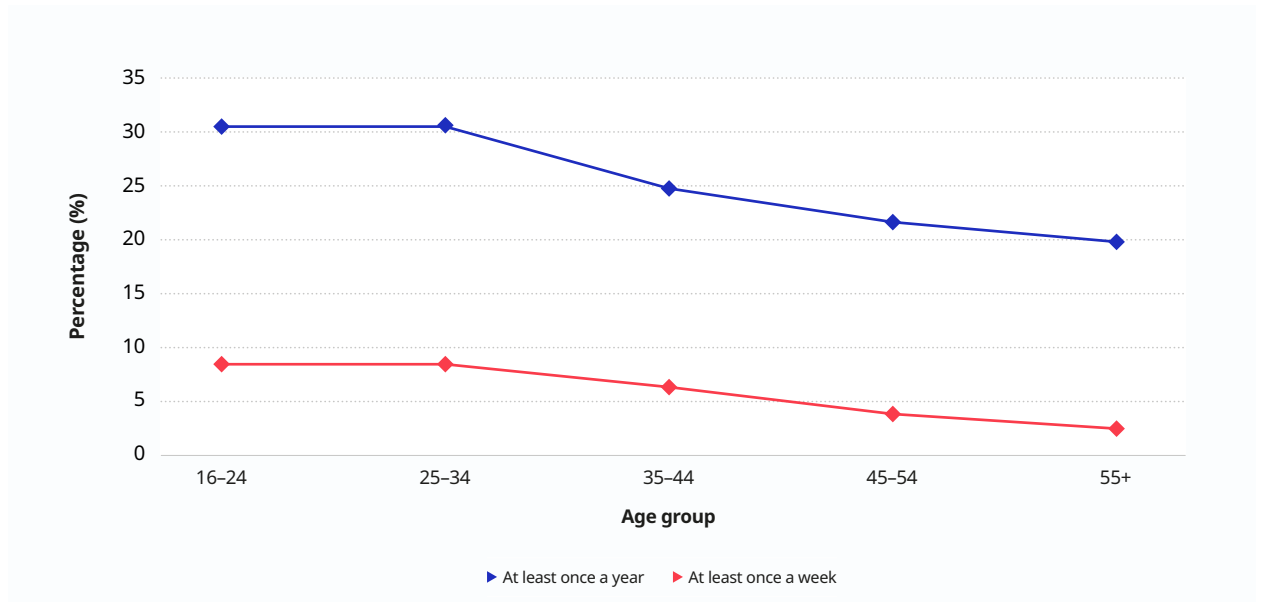
The demand had a significant urban bias among young people, which partly reflects the greater

availability of these services in urban areas (this is particularly true of food delivery). The survey findings reflect the regional or provincial breakdown for where the respondents typically resided. The regions featuring capitals or densely populated cities (as is the case for Geneva and Zurich in Switzerland) were singled out to see the penetration of the gig economy among young people. The broad demand for gig services in Vienna, Stockholm, Zurich, Geneva and London reached up to 60 per cent (figure 7).

These results confirm that the gig economy involves most strata of the population, with a bias towards persons living in highly urbanized areas. Even though the contact of the society with the gig economy was sporadic in most cases, a sizeable percentage of the population used gig services on a weekly basis, and many people performed this type of work.

There is enormous potential for work to be outsourced to geographically dispersed online platforms covering a range of occupations and industries, from clerical work to creative work and software development for a range of industries, including health services. It is safe to assume that gig work is here for the long run.

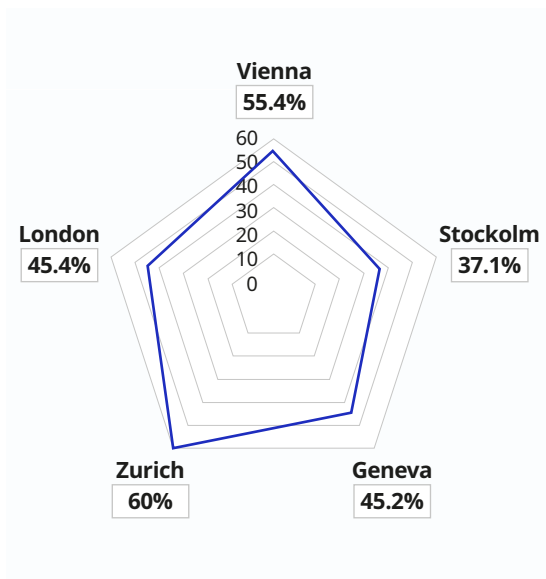
▶ **Figure 6. Demand for gig work in the seven European countries surveyed, by age group and intensity, 2016–17**



Note: The figure covers five age group-specific percentages of the population that purchased gig economy-related services at least once a year and at least once a week.

Source: Authors’ calculations on the European gig economy survey data.

▶ **Figure 7. Demand for gig services in selected capitals and densely populated areas among youth aged 16–24 in the seven European countries surveyed, 2016–17 (%)**



Note: The figure covers five region-specific percentages of young people (aged 16–24) who purchased gig economy-related services at least once a year.

Source: Authors’ calculations based on the European gig economy survey data.

Given this and despite the positive side of the gig economy in terms of flexibility, there are risks to not regularizing this type of work. At the individual level, it shifts the uncertainty that historically characterized business ownership to persons who have the least capacity to manage it – the worker. At the macroeconomic level, the low pay and lack of transparency from the platforms as to who is performing this type of work make the collection of taxes and social security contributions difficult, which, again, potentially damages the welfare state at the expense of the companies benefiting from this type of activity.

Crowdworking: An online opportunity for young people?

The internet has changed the way many people live: allowing for instant calls from anywhere in the world, home-based learning and matchmaking on online platforms, among a multitude of other services. It has transformed the world of work and the jobs we do. One of these transformations has expanded the choice of employers and employees in terms of whom to hire and whom to work for, from a few thousand local candidates to millions

► Table 2. ILO global survey of crowdworkers, by average of selected variables, 2017

Variable	Young people (aged 18–29)	Adults (aged 30–65)	Variable	Young people (aged 18–29)	Adults (aged 30–65)
Hourly wage	4.24	4.24	Weekly hours	23.0	24.8
Student	0.36	0.07	Platform		
English native	0.58	0.62	AMT	0.34	0.41
Underqualified	0.05	0.03	F8	0.18	0.19
Overqualified	0.79	0.82	Clickworker	0.12	0.15
Tenure			Prolific	0.15	0.15
<6 months	0.33	0.23	Microworkers	0.21	0.11
6–12 months	0.18	0.16	Satisfaction		
More than 1 year	0.49	0.60	Neutral or dissatisfied	0.22	0.28
Education			Satisfied	0.51	0.53
Less than secondary	0.02	0.02	Very satisfied	0.26	0.19
Secondary	0.36	0.27	Health		
Associate's degree	0.10	0.12	No problem	0.83	0.80
Bachelor's degree	0.38	0.36	Yes, not affecting work	0.08	0.08
Master's degree	0.13	0.22	Yes, affects work	0.09	0.11

Note: Hourly wages were measured in nominal 2017 US dollars. Age is in years, and the rest of the variables, with the exception of the hours worked, reflect age group proportions (%). Neutral satisfaction includes unsatisfied and very unsatisfied.

Source: Authors' calculations based on the ILO survey of crowdworkers 2017 data. See ILO 2018 for details of the survey.

of candidates based worldwide. Berg et al. (2018)⁵¹ distinguished two types of digital labour market: web-based and location-based. The analysis here centres on web-based platforms, which encompass freelance markets as well as microtasking.

Even though crowdwork does not employ the majority of Europeans, it is likely the branch of the gig economy with the highest potential in terms of market expansion, given the potential for a multitude of business services to shift to online, from data processing, website development and graphic design to legal and health services. And, given that it spans borders, it has the potential to create a true “planetary labour market” (Graham and Anwar 2019). One of the advantages of crowdworking is the capacity to mitigate discrimination. On some online labour platforms, particularly microtask platforms, employers advertise tasks without know-

ing who will accept them. Workers who might be discriminated against in their labour market will benefit from these platforms.⁵² In addition, crowdworking platforms can be accessed remotely, allowing certain groups with physical or family-related constraints to engage in paid work.

Crowdwork also possesses many of the negative characteristics found in gig work. Uncertainty, low earnings, informality and a lack of grievance mechanisms are some of the most problematic concerns. In this analysis of crowdworkers and the opportunities and challenges of gig work, young people are singled out because they are more likely to be affected by or exposed to this transformation in the world of work.

The data used in this analysis come from the global ILO survey of crowdworkers in 2017. In total,

51 Using the Schmidt (2017) categorization of digital labour platforms.

52 Some of the microtask platforms allow requesters to select or exclude workers from particular countries. This practice might be needed for some culturally specific tasks, but it can also lead to country-based discrimination and is a concern of workers from the Global South (see Berg et al. 2018).

▶ **Table 3. Median hourly earnings (2017 US\$) for young people in the ILO global survey on crowdwork, selected variables**

Variable	Income group		Variable	Income group	
	High	Low/middle		High	Low/middle
Women	3.33	1.33	Satisfaction		
Men	4.35	1.25	Neutral	4.00	0.87
Education			Satisfied	3.95	1.25
Less than secondary	2.00	1.74	Very satisfied	4.29	1.54
Secondary	3.75	1.09	Health		
Associate's degree	5.00	1.17	No problem	4.17	1.25
Bachelor's degree	4.35	1.35	Not affecting work	3.57	1.05
Master's degree	2.57	1.33	Affects work	2.47	1.42
Tenure			Weekly hours		
<6 months	2.63	0.86	<=15	3.67	2.14
6–12 months	4.17	0.84	16–30	4.17	1.00
More than 1 year	5.00	1.75	>30 hours	4.55	0.79

Note: The table shows age-specific median wages for young crowdworkers in middle- and low-income countries combined and high-income countries. Income classification comes from the World Bank.

Source: Authors' calculations based on the ILO survey of crowdworkers 2017 data. See ILO 2018 for details of the survey.

3,159 crowdworkers from 75 countries responded to the online questionnaire, which was posted as a task in one of five crowdworking platforms: Amazon Mechanical Turk, Crowdfunder,⁵³ Clickworker, Prolific Academic and Microworkers. The worker respondents could be also enrolled in other online platforms at the same time. The analysis covered basic demographic information (age, native language, country of residence, highest education level achieved) and economic status, such as the reason for doing crowdwork, the number of hours worked, how much pay was received, how long had respondents been doing crowdwork and their perceptions of their own skills and the skill required for the job.

Earnings and hours worked were of particular importance for this analysis. Earnings were measured in nominal US dollars for 2017 and were reported in a weekly format. Two measures of hours worked were constructed based on the crowdworkers' responses: The first one considered in exclusivity the number of hours spent completing the tasks, while the second one also considered the

time used to (i) search for suitable tasks; (ii) take unpaid qualification tests to qualify for the work; and (iii) write reviews of their employers. The more comprehensive measure of paid and unpaid work was used to calculate earnings because these unpaid activities are inherent to the organization of platform work. As a result, hourly earnings were weekly earnings divided by the broad definition of hours worked.

A description of crowdworkers

Based on the survey data, young people (aged 18–29) earned more than adults per hour, were more likely to use crowdwork as their main source of income and were more satisfied with crowdwork than adults (table 3). Other statistics were as expected ex ante; for instance, 29 per cent of the workers aged 18–29 were still students, and most of them used crowdwork as a part-time job. They were less educated than older cohorts but that would likely change once the students finished

53 The company changed its name to Figure Eight in 2018, but Crowdfunder is used here instead because it is where the task was originally posted.

their current studies. Given that this was a global survey, the relatively high educational attainment of crowdworkers is noteworthy, with half of them having achieved a university degree.

The data indicate extraordinary educational attainment of crowdworkers from middle-income countries: Around 79 per cent of the crowdworkers from lower-middle-income countries had tertiary studies, compared with only 54.3 per cent of those from upper-middle-income countries and 56.1 per cent in the high-income countries. This phenomenon might be explained by societies in lower-middle-income countries in which computer skills and even computer ownership tend to be the domain of relatively wealthier, more educated families. It also signals the existence of poverty as an entry barrier to crowdwork. This is evident in the type of occupations demanded by the gig economy (table 1), where there is a tendency towards high-skill or semi-skill occupations.

More education does not seem to pay off in the crowdworking platforms. Crowdworkers with high levels of education did not earn more than less-educated workers. Crowdwork may require some minimum technological savviness, but beyond that minimum, any extra training did not raise the wage rate. No wonder that around 80 per cent of crowdworkers thought they had skills for more complex tasks than those required for the crowdworking tasks.

Young crowdworking women in high-income countries earned, on average, 23.4 per cent less than young men (table 3), which is somewhat surprising, given the nature of the hiring process in online platforms. In addition, young people's hourly earnings in developed economies increased with the number of hours spent in the platform. This is paradoxical, given that young people in emerging and developing economies showed the opposite tendency, although it could be attributed to restricted access to certain high-paid tasks for workers from low- and middle-income countries. Young people also earned more per hour than older adults in almost all of the categories (table 3). An unexpected relationship emerged between health and earnings, however: Even though health was negatively correlated with hourly earnings in the high-income countries, no such relationship emerged in the less-developed economies.

Determinants of pay in crowdworking platforms

Pay in crowdwork is likely to be affected by several factors simultaneously and, even if informative, raw statistics might not be accurate in their predictions. To factor in all available information, the analysis relied on a simple econometric model that used (log)⁵⁴ hourly pay in crowdworking platforms as a dependent variable. Of course, hourly pay required a broad definition of hours worked in the calculation: not just hours actually paid but also hours spent searching for tasks and other work-related duties.

The basic specification used as potential determinants job-related as well as individual characteristics. Among the individual characteristics included in the analysis were sex, age group of youth (aged 20–29) and older adults (aged 30–65) and the highest education level achieved. For the job-related variables, three tenure (experience in crowdwork) interval indicators (less than 6 months, 6–12 months and more than 12 months) were used to test for the existence of learning in online platforms. Binary indicators were then added, taking the value 1 for each of the platforms where the survey questionnaire was filled in, with the intention of controlling for differences due to the type of tasks performed. Then the calculation was controlled for the health status of persons, with two binary indicators: health problems that (subjectively) did not affect the work performed on the platform and problems that, in the opinion of the respondent, had a negative impact on their performance.

In addition to the base econometric specification, a second was included with a twofold aim: first, testing the existence of different returns to crowdwork experience for young people and older adults. This was achieved by adding interaction terms for two of the tenure intervals with the variable “young” as follows, $young \times tenure_{6-12}$, $young \times tenure_{+12}$, where the subscripts in the variable tenure refer to the number of months already spent doing crowdwork. Second, testing for the existence of different returns to hours worked to see whether the findings (increasing hourly earnings in high-income countries and decreasing in less-developed countries) held when other factors were equal.

The results from the estimation of both specifications are consistent with the differences emerging

54 The use of the logarithm of hourly wage was extended due to the (negative) skew shown by the distribution and because it facilitated the interpretation of the results as semi-elasticities, such as percentage increase.

from the descriptive analysis (tables 2 and 3). One of the most striking results was the reduction in wage rate of crowdworkers as the number of hours worked increased. People working fewer than 15 hours a week tended to be paid around US\$5.70 or US\$4.40 an hour in, respectively, high-income and low and middle-income countries. However, in the light of the results of the first specification, full-time crowdworkers did not maintain such rates for longer working hours, greatly reducing the potential of crowdwork as a sustainable source of income. The second specification (table 4) further clarified this issue, showing that the reduction in the wage rate due to an increase in the number of hours worked had greater impact on workers based in low- and middle-income countries. This could be the result of a shortage of high-paying tasks due to geographical discrimination in some of the platforms and might warrant further research to better understand the potential of this type of work in developing countries.

The sex and age-group differences were also confirmed (and both were significantly different from zero), with young people (specification 1) earning 11.4 per cent more per hour than the older adults, and women earning 18.4 per cent less than men, holding the other determinants constant. With the second specification, positive coefficients emerged in the interaction terms of young people with the different crowdwork experience levels. In practice, the returns accrued by young people with 6–12 months of experience were 18.8 percentage points higher than those of older adults. The difference was smaller among those with one or more years of experience but still remained significant, at 16 per cent higher for workers with more than one year of experience. This can be interpreted as young people learning more and faster than older adults (figure 8) or, in other words, as experience accumulates, young people obtain higher returns and also obtain them in less time. The explanation for this phenomenon may lie in young people’s technological savviness, perhaps due to their having used computers since early childhood.

The opportunities that crowdworking offers to young people, aside from having higher returns than adults, are amplified in the least developed countries. To exemplify the extent to which workers in developing countries see crowdworking differently, two questions were selected from the survey: (i) whether the respondent does crowdwork because the earnings are higher than what is available locally and (ii) whether the respondent pays taxes on the earnings obtained in crowdwork.

▶ **Table 4. Log hourly wage regressions for crowdwork in global survey, 2017**

Variable	Coefficient (specification 1)	Coefficient (specification 2)
Weekly hours	-0.023***	-0.029***
Weekly hours*high income		0.010***
Weekly hours ²	0.00005*	0.0001***
Weekly hours ² high income		-0.0001*
Education (high school or less=0)		
Secondary	0.00	-0.01
Associate's degree	-0.06	-0.06
Bachelor's degree	-0.05	-0.04
Master's degree or higher	-0.12	-0.11
Female	-0.18***	-0.19***
Young	0.11***	0.01
Tenure (<6 months=0)		
6–12 months	0.10*	0.01
6–12 months* young		0.19*
1+ years	0.28***	0.21***
1+ years* young		0.16**
English	0.17***	0.14***
Platform (AMT=0)		
Crowdflower	-0.23***	-0.26***
Clickworker	0.04	-0.05
Prolific Academic	0.00	-0.05
Microworkers	-0.60***	-0.62***
AMT*US	1.04***	0.92***
Health (healthy=0)		
Problems, not affecting work	-0.03	-0.03
Problems affecting work	-0.13**	-0.14**
Constant	0.89***	0.99***
Adjusted R2	0.3504	0.3555

Note: The table shows regression coefficients that can be interpreted as the percentage increase in wages due to the activation (for instance, being female instead of male) or a small increase (an extra hour worked) in the variable. Significance: *** at 99%, ** at 95%, * at 90%.

Source: Authors’ calculations based on the ILO survey of crowdworkers 2017 data. See ILO 2018 for details of the survey.

► Figure 8. Returns to experience for young people and older adults in the ILO global survey of crowdwork, 2017



Note: The figures are based on econometric estimates of the determinants of hourly wage rates, including interaction terms for age and crowdwork experience.

Source: Authors' calculations based on the ILO survey of crowdworkers 2017 data. See ILO 2018 for details of the survey.

► Table 5. Young people and two pay-related indicators (agreement) in global survey of crowdworkers, 2017 (%)

Income level	Pay is better		Payment of taxes	
	Young people	Adults	Young people	Adults
High	7.23	3.49	46.15	58.66
Low and middle	25.40	23.12	39.65	42.45

Note: The table shows age-group and income level-specific percentages of agreement with (i) I do crowdwork because it pays better than other available jobs and (ii) I pay taxes on my crowdwork earnings.

Source: ILO survey of crowdworkers 2017 data and authors' calculations.

The crowdworkers' survey responses were tabulated by the income level of their country of residence: high income, and low and middle income combined (table 5). Around 25.4 per cent of the young people in the low- and middle-income countries chose crowdwork because the pay rate was higher than in other available options; somewhat lower than the percentage of adults and almost four times higher than the level of agreement found among young people in high-income countries, where a mere 7.2 per cent said they would not obtain better pay elsewhere. This can be explained in terms of older adults, and of course young people in high income countries, having better outside options than young crowdworkers.

The formality rate among young people in the less-developed economies was not far from the rate in the high-income countries. These rates were quite low for high-income and even upper-middle-income countries (for example, 75.1 per cent of non-agricultural employees were registered in Brazil and 91.6 per cent in the Russian Federation), yet they competed with the rate in Nigeria (at 43.2 per cent among non-agricultural employees and 58.8 per cent among crowdworkers) and India (at 35.3 per cent and 51.9 per cent, respectively).⁵⁵

⁵⁵ Data on formality for non-agricultural employees obtained from nationally representative household surveys.

Career prospects for crowdworkers

Young people were attracted to crowdwork because it represented an easy and quick way to enter paid work from the convenience of their home. For young workers still in school or just finishing their education, crowdwork allowed them to avoid the difficulties encountered by many young people as they transitioned from school to work. Yet, the ease of entry into online crowdwork has a potentially risky downside to young workers' careers. In many crowdworking platforms, such as the microtask platforms analysed earlier, the worker is not identifiable by name and merely accepts and completes tasks. The person can acquire a rating and the website shows how many tasks the worker has completed, but the worker remains anonymous. This means that if and when a young person decides to look for work in the offline labour market, they have no way of proving to potential employers that they have been working. They also are unable to provide any references to potential employers. A similar problem also exists with respect to the public administration when requesting subsidies or benefits if the person has not registered as an own-account worker. While many people have completed thousands of hours of work for large and important technology companies, often the companies post these tasks under pseudonyms. Thus, workers do not know for whom they are working and cannot prove that they were the ones who did that work.

In freelancing platforms, crowdworkers have more visibility because they must post their photo and a short work biography. Thus, the ratings and amount of work can be proven, but here too, workers may not be in a position to ask their former clients for a reference, especially for tasks or projects of a highly short-term nature. These potentially career-hampering obstacles are often not considered by young people eager to secure remunerated work. While this is something that young people should give more thought to, there is also a need to establish with the platforms some sort of mechanism that allows workers to prove that they have done the work and to demonstrate the evaluations that they have received. Such a mechanism would ease labour market transitions between online and offline labour markets.

Policy action is needed

Over the past decade in the seven European countries surveyed, (the gig economy has evolved from a marginal form of work, unknown to the wider

public, into a full-time reality for 4.9 per cent of workers. The impact of gig work is deeper though, with 14.9 per cent of the workers doing weekly gig work with varying intensity and 24.2 per cent of the population aged 16–70 having used this type of service at least once during the year prior to the survey. Young people are at the forefront of this trend in terms of labour supply (29.1 per cent of workers aged 16–24 engaged in gig work in 2017) but also in terms of their use of this type of service. The gig economy offers them flexibility (particularly demanded by students) and ease of access when compared with offline labour markets.

The analysis of crowdwork (a type of gig work that is delivered online) indicates that young people are more adept than older adults at this type of task, being able to learn faster and more efficiently and translating this aptitude into higher earnings. Partly due to the higher earnings received, young people also reflected a higher degree of satisfaction with crowdwork and tended to agree more often than prime-age adults that the pay received is fair.

In spite of the positive employment-related features brought into the lives of many workers (especially young workers), the gig economy has also brought other not-so-positive aspects. First of all, low earnings are the norm even among full-time gig workers; average monthly earnings are not just below median earnings, they are also below minimum wages (prevailing or proposed) in their respective European countries. To make matters worse, the analysis of the crowdworking labour market revealed a strong penalty on the hourly pay of full-time workers; the longer they worked the less efficiently they were able to do so, perhaps because of the lack of available tasks. There are also important questions as to whether crowdwork can help young workers secure employment in the offline labour market, if and when they choose to do so, given the difficulty in demonstrating that they have done this work and the competencies thus acquired.

The characteristics of this type of work – low profile, hard to detect, short duration and involving small amounts of money – may also encourage tax evasion while lowering social security contributions.

The negative aspects of the gig economy, paired with its global dimension, require responses that, as pointed out by the Global Commission on the Future of Work (2019), should include an extension of social protection to all workers as well as an international governance system that requires online platforms establish a set of minimum working conditions.

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