FEPS in cooperation with UNI Europa and the University of Hertfordshire

WORK IN THE EUROPEAN GIG ECONOMY

RESEARCH RESULTS FROM THE UK, SWEDEN, GERMANY, AUSTRIA, THE NETHERLANDS, SWITZERLAND AND ITALY

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TABLE OF CONTENTS

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FOREWORD

The 'gig economy' is a new and still unknown phenomenon that is reflected in the exponential growth of online platforms. Online platforms are used as one of the tools for managing work in various sectors across Europe and beyond. To better understanding this new form of work and the opportunities and risks linked to it, the current report 'Work in the European Gig Economy – Research results from the UK, Sweden, Germany, Austria, the Netherlands, Switzerland and Italy' reviews the existing evidence on the characteristics and the extent of 'crowd work'. Since early 2016, several on- and offline omnibus surveys and in-depth interviews have been conducted in the aforementioned countries to gather respective data on crowd work and to draw a comparison across Europe. By combining quantitative and qualitative methods, the research approach attempts to measure the growing importance of the gig economy, which can be seen as a hidden labour market phenomenon.

The Foundation for European Progressive Studies (FEPS) has undertaken this research project together with UNI Europa, the European services workers union, the University of Hertfordshire and Ipsos MORI. The project also benefited from the financial support of the European Parliament. Several national funding partners also contributed to it, enriching the project with local knowledge and expertise, and ensuring a broad dissemination of its main findings. The report strives to paint a picture of the digitalised labour market, the diversity of new forms of labour and its associated labour conditions in Europe. It focuses, in particular, on the proportion of the population engaged in crowd work, the income gained through this activity and the crowd workers' employment status. In addition, the motivation behind crowd work and the risks linked to it, including physical and psychosocial health hazards as well as social and criminal risks, is analysed.

The report also serves as background information for our one-day conference 'Crowd Working in the European Gig Economy – Implications for Public Policy', organised by FEPS, UNI Europa and the University of Hertfordshire and taking place on 28 November 2017 in Brussels. We will welcome speakers and panellists from academia, policy makers, trade unionists and crowd workers on the ground, to encourage the discussion and exchange of ideas between different actors either shaping or participating in the gig economy. We will also discuss the results of the research, working conditions in the online economy and positive alternatives to shape our future world of work.

One of our key intentions in conducting this research was to provide public policy proposals to address asymmetries in labour conditions between ordinary and digital labour. 'Old' and 'new' forms of work increasingly overlap as labour markets rapidly evolve in the digital age. Since this has left many workers unprotected, the report clearly identifies the need for more stringent regulations in order to reap the benefits of digital technologies.

Acknowledgements

We would like to thank our colleagues Lisa Kastner and David Rinaldi at FEPS as well as Aileen Körfer at UNI Europa for their trust and huge commitment to this project; and to all national funding partners, whose financial contributions are greatly acknowledged. The crowd working surveys were co-funded by the Swedish trade union 'Unionen', the German trade unions 'IG Metall' and 'ver.di', the Austrian Chamber of Labour in Vienna, the independent research organisation 'TNO Netherlands', the Swiss trade union 'syndicom' and the Italian foundation 'EYU'. We also would like to extend our thanks to the entire team of the University of Hertfordshire for the great collaboration and the comprehensive ground breaking research results that this project produced.

Ernst Stetter
Secretary General, FEPS
and Oliver Röthig, Regional Secretary, UNI Europa

EXECUTIVE SUMMARY

Whether it's known as the 'sharing economy', 'gig economy', 'platform economy' or 'crowd work' there is no disputing the exponential growth of online platforms for managing work across Europe. But surprisingly little is known about the realities of 'gig work'. Is it a liberating new form of self-employment or a new form of exploitation? How many workers are doing it? Who are they? Is it their main source of income or a top-up to other kinds of work? What is the reality of their working lives? And what are the implications of these new realities for public policy in Europe?

This report presents the results of an innovative survey across seven European countries, revealing, for the first time, the extent and characteristics of crowd workers in Austria, Germany, Italy, the Netherlands, Sweden, Switzerland and the UK. The survey results are complemented by in-depth interviews with a range of crowd workers, shedding light on the realities of their working lives, including the stresses, fears and health hazards they face, as well as the satisfactions they experience.

Key findings

- Crowd work cannot be distinguished precisely from other forms of work but forms part of a continuum of casual, on-call, temporary or other forms of contingent work and is usually combined with at least one other form of income generation.

- Similarly, online platforms are part of a diverse online ecology and cannot be differentiated precisely from other sites which may put buyers and sellers of labour in touch with each other, such as bulletin boards, directories, agencies and classified advertising sites.

- Using a broad definition, a high proportion of the population (ranging from 9% in Germany and the UK to a high of 22% in Italy) reported having done some crowd work (working 'virtually' from their own homes via an online platform such as Upwork or Clickworker; providing driving services via a platform like Uber, or working in somebody else's home for a platform like Helpling, Myhammer or Taskrabbit). However in the majority of cases this was a very occasional supplement to other earnings.

- The numbers of people earning more than half their income from crowd work were considerably lower, ranging from 1.6% of the adult population in the Netherlands (equivalent to an estimated 200,000 people) to 5.1% in Italy (equivalent to 2,190,000 people). In Austria, the estimated number was 130,000 (2.3% of the population); in Germany, 1,450,000 (2.5%); in Sweden 170,000 (2.7%), in the UK 1,330,00 (2.7%) and in Switzerland 210,000 (3.5%).

- Crowd workers were more likely than non crowd workers to be searching for regular employment. They were also more likely to be deriving income from other sources (such as selling goods or renting out rooms online). Many crowd workers appeared to be using crowd work as part of a strategy to piece together an income from whatever sources are available rather than adopting it as a freely-chosen lifestyle choice.

- Crowd workers are relatively evenly balanced between men and women and are more likely to be in younger age-groups, although crowd work can be found in all life stages.

- When asked about their employment status, more than half of all crowd workers (except in Italy, where it was 41%) said that they were employed full-time. This proportion was even higher among those who earn more than half their income from crowd work, at 43%-63%, depending on country. Only 7%-13% regarded themselves as self-employed. In all countries crowd workers were more likely than the general population to say that they were full-time employees. Crowd workers were, however, much more likely than the average to say that they were on temporary contracts or had more than one job.

- While crowd workers typically valued the flexibility of crowd work, there were complaints about many aspects of work organisation and working conditions. Particular sources of stress and grievance included difficulty in communicating with platform personnel, arbitrary terminations, perceptions that platforms always take the side of clients against workers and frequent changes to payment and other systems.

- Interviews with crowd workers also revealed a range of physical and psycho-social health hazards. Some of these were linked to working long hours, including long and unpredictable waiting periods (for which they were not paid). Workers also reported exposure to risks resulting from a reluctance to refuse work that was known to be dangerous for fear of receiving a negative customer rating.

- Interviewed crowd workers also reported social and criminal risks including sexual harassment, assault and tasks that involved errands relating to drug dealing and handling stolen goods.

- The report concludes with a discussion of considerations for policy makers including the need for:

    1. Clarification and/or updating of definitions of self-employment and subordination;

    2. Clarification of the definition of private employment agencies and temporary work agencies;

3. Investigation of the applicability of minimum wage regulations (where these exist at a national level)

4. Consideration of ensuring statutory rights for platform workers in relation to suspension or termination of employment; the right to challenge customer ratings; direct means of communication including emergency hotlines; insurance coverage; data protection; and health and safety.

5. Investigation into reform of benefit systems to make them more responsive to the needs of just-in-time workforce.

1. INTRODUCTION

This study emerged from the concerns of policy makers about the impact of digitalisation on employment in Europe.

The Digital Single Market is seen as essential for economic development and growth in Europe, with a strong potential for job creation as well as social innovation. Nevertheless, some concerns have been expressed by government bodies, trade unions, consumer groups and other stakeholders that the rapid development of online platforms for sharing services and managing work might pose new policy challenges.

These policy questions are large and broad-ranging. We summarise some of them here without attempting to address them in detail:

Economic growth and competitiveness

- In what sectors and regions are jobs most likely to be created?
- What are the impacts on the competitiveness of existing service-providing sectors (e.g. in the hospitality industries, transport, cleaning and care services)?
- What are the impacts on information-based and content-providing industries, especially in relation to the possible relocation of work outside the EU?
- How can European-based companies in the new digital industries compete with companies based outside the EU?
- How can innovation be encouraged?

Regulation

- How many online platforms are there, in which sectors and countries do they operate, and how are they classified in terms of legal status?
- Which regulations should apply, according to which national jurisdictions?
- What rights do public authorities have to inspect and regulate online platforms and the working conditions of their workers?
- How are existing European Directives (e.g. on working hours, part-time working, equal treatment or agency working) applied in the case of new forms of work such as crowd work, umbrella contracts or zero-hour contracts?
- What rights do creative workers have in their intellectual property when this is digitalised and made available online, and how can these be enforced?
- How should existing regulations on insurance be applied?
- How should existing tax regulations be applied?
- How can consumers be protected against dangerous and shoddy work, failure to deliver or accidents?

Sustainability of new forms of employment

- Can the ‘gig economy’ provide the basis for stable new occupations and professions?
- How can the skills of crowd workers be certified and maintained?
- To what extent does crowd work provide the basis for long-term development, career breaks and changes and compatibility with work-life balance and family development?
- What pension rights are available for crowd workers and who should bear the cost of these pensions?
- What are the implications for social protection systems: given the fluidity of transitions between ‘tasks’ and ‘jobs’ in crowd work, is the binary distinction between being ‘employed’ and ‘unemployed’ (and therefore eligible for benefits) becoming obsolete?

Quality of working life

- To what extent does crowd work fulfil the promise of providing workers with autonomy and a bridge to entrepreneurship?
- How do wages and working conditions compare with those in more traditional types of work?
- How does the health, safety and wellbeing of crowd workers compare with that of other worker?
- What psycho-social risks are associated with crowd work?
- To what extent are working patterns in crowd work shaped by gender, ethnicity, disability of other social variables?

Conclusion

These questions are large and all-embracing. Before they can begin to be addressed, there is an urgent need by policy-makers for reliable information on the extent and characteristics of the 'gig economy'. Such information is indeed an essential precondition for any further research. This report is intended as a contribution to this effort.

The study

This joint research project, which is ongoing, was launched in January 2016. It is being carried out by the University of Hertfordshire in association with the Foundation for European Progressive Studies (FEPS) and UNI Europa, the European services workers union. Co-funding for national surveys was provided by the Trade Union Unionen in Sweden, the TNO Research Institute in the Netherlands, The Chamber of Labour (AK) in Austria, the Trade Unions Ver.di and IG Metall in Germany, the Trade Union syndicom in Switzerland and the Fondazione EYU in Italy. Fieldwork for the surveys in these seven countries was carried out by Ipsos MORI between January 2016 and April 2017. The report also draws on 15 in-depth qualitative interviews with crowd workers, which form part of an ongoing project. Thirteen of these were conducted in the UK and two in Estonia.

2. NAILING JELLY: THE CHALLENGE OF MEASURING UNDEFINED AND RAPIDLY CHANGING SOCIO-ECONOMIC PHENOMENA

The context

There is a general agreement in the literature that the use of online platforms for managing work has been growing exponentially in the decade following the 2007-8 financial crisis. However attempts to estimate the extent and scale of this growth have varied widely[1].

This is hardly surprising given that there is no agreed definition of 'crowd work' and that, furthermore, it is a phenomenon that is changing rapidly. The evolution of crowd work can in fact be seen as a convergence of a number of different overlapping trends (Huws, 2017). These include:

- The spread of digitisation, especially the use of smartphones and tablets and increasing dependence on them, especially by the young, for accessing information, price comparison, making purchases, booking services, job search and general communication.
- An extension of teleworking practices that make it increasingly normal for people to work outside the traditional boundaries of space and time set by the normative 9-5 working day in a formally-designated workplace.
- The growth of intermediaries in global value chains that make it possible to reduce transaction costs for small and medium enterprises wishing to take advantage of labour savings leading to a growth in telemediated global sourcing.
- A general growth in self-employment in service industries combined with a breakdown of traditional word-of-mouth methods for finding work, especially in the context of growing migration and urbanisation.
- A general growth of 'just-in-time' forms of work including temporary agency working, zero-hours contracts, umbrella contracts and various forms of bogus or ambiguous self-employment.
- A growth in unpaid labour on online platforms, such as Wikipedia, social media platforms, and online volunteering sites, blurring the boundaries between work and leisure.

Most of these trends are widespread, affecting many kinds of activity spanning both traditional forms of work and crowd work and thus making it extremely difficult, if not impossible, to delineate crowd work and isolate it from other kinds of economic activity.

In this context it is hardly surprising that most of the research that has been carried out to date on work in the gig economy has focussed on particular platforms for 'virtual work', such as Amazon Mechanical Turk (AMT), Crowdflower, Upwork (formed through a merger between eLance and Odesk), ride-share platforms such as Uber and Lyft or delivery platforms, such as Deliveroo or Foodora (see for example Berg, 2016; Irani, 2015; Hall & Kreuger, 2016; Wood et al, 2016; D'Cruz & Noronha, 2016; Gandini, Pais & Beraldo, 2016). These studies have provided us with valuable insights into a range of different aspects of crowd work including the demographic characteristics of crowd workers, their working conditions, how the work is organised, the relationship between earnings and users ratings, and the aspects of the work that workers welcome, or find problematic.

Nevertheless, it is known that there are large numbers of other, less well known, platforms, using a diverse range of different business models (see for example Mandl et al., 2015; Green et al. 2014), and, in the absence of more generalised research, it is impossible to know to what extent the lessons learned from these pioneering studies based

[1] See: http://www.feps-europe.eu/en/publications/details/463 for a summary of the literature on this

on particular platforms can be generalised. But, without a generally-agreed definition of 'crowd worker', how could those other crowd workers be identified?

The research challenge

The question of how to research novel phenomena on the labour market is by no means a new one, but something that re-emerges every time there is a significant change in the organisation of work, giving rise to new forms that do not (yet) appear in the official classification systems or nomenclatures. To take an earlier example, we could look at the growth of what is now known as 'teleworking' during the 1980s and 1990s.

When it became clear that the combination of information and communications technologies was making it possible for more and more people to work remotely, processing ditigalised information at a distance and transmitting it to their employers or clients over telecommunications networks, this became a focus of considerable policy interest. Not unlike today's crowd working, teleworking was referred to by a variety of different terms, including 'telecommuting', 'networking', 'eWork', 'flexiworking' and 'electronic homeworking', many of which were loosely, or differently defined. There was interest in finding the scale of this phenomenon but it would clearly not have been very useful to conduct a survey in which random members of the population were asked the question 'Are you a teleworker (or 'digital nomad', or 'telecommuter' or 'networker' or any of the other terms in vogue at the time)?' since the answers would have depended heavily on the way in which the question was understood (or not) by the respondent. If a more precise definition were to be constructed, for instance 'are you working at a distance from an employer or client using a telecommunications link to transmit digitised information?', even in the unlikely event that this was comprehensible to the public, this would still not have been enough to demarcate 'teleworkers' clearly from the rest of the workforce because of such differences as the proportion of working (or non-working) time that was devoted to these practices and variations in the regularity and frequency of the work, employment status and so on. In other words, the definition of a teleworker was not a simple either/or variable but rather a *constructed* variable in which a number of different features (the place of work, the nature of the technology used, the extent to which the work required this technological underpinning to be completed successfully, the proportion of time spent working in this way and so on) were cross-tabulated with each other to form specific definitions (Huws, 1996; Altieri, della Ratta & Oteri, 2005). It was only after the relevant questions enabling these dimensions to be identified were added to general labour force surveys that it become possible to develop typologies of teleworking (nomadic telework, fully home-based telework, partly home-based telework, occasional telework etc.) based on cross-tabulations between these variables thus making it possible for their growth to be tracked through the official statistics.

A similar approach has been adopted by Eurofound, using data from the European Working Conditions Survey to investigate the diverse nature of self-employment in Europe. For example Vermeylen et al. (2017) combined a variety of variables (such as whether an individual had the authority to hire or dismiss staff, more than one client, or the ability to make strategic business decisions) in order to construct a typology of the self-employed, who were broken down into five categories: stable own-account workers; employers; small traders and farmers; vulnerable self-employed and concealed self-employed.

Following such examples, it seemed likely that the best way to identify crowd workers would be to use a similar approach, collecting disaggregated information separately about a range of different variables that may help to differentiate these workers along various dimensions from other, more traditional workers. In the case of crowd work there are a number of such dimensions, with each aspect involving a large overlap with other kinds of work and, in some cases, other kinds of economic activity that are not normally regarded as 'work'.

First, crowd work *as a source of income* may overlap with (and needs to be distinguished from) other sources of income derived from online platforms, for instance through the sale of goods (whether new or second-hand) on platforms such as eBay or Etsy or the sale of services like bed-and-breakfast accommodation through platforms like Airbnb.

Second, *online search* for work via online platforms may overlap with other forms of online job-search, for example a search for permanent or temporary work with conventional companies offering traditional employment contracts. If somebody is desperately looking for work it may be difficult in practice to make a clear distinction between registering one's details on one of the many mainstream job search sites (such as Reed, Eurojobs.com or indeed.com) as opposed to websites that would commonly be regarded as online platforms for freelancers, such as twago.com or freelancer.com (which may be regarded as online crowd work) and those that are, in effect, online platforms providing cleaning, delivery, handyman or taxi services of the type often classified as 'offline' crowd work. Searching online is now a standard practice for job-seekers (or even people who are not looking for a new job but want to benchmark their existing jobs against others in the market) and crowd workers need to be distinguished from this larger group.

Third, there are also overlaps between crowd work and other forms of casual or just-in-time work, such as work on zero-hour contracts, temporary agency work and various forms of freelance work. Indeed, the smartphone apps used by employees who are on call (to report for duty, be informed of a new assignment or register the start and end times of work completed) may be almost indistinguishable from those used by workers on online platforms. Again, some means has to be found for distinguishing crowd work from broader categories of intermittent, casual, on-call or other non-standard work.

A fourth variable that is useful for identifying crowd workers relates to the *frequency* of the work. An activity that is only carried out occasionally cannot be regarded as playing a meaningful role in shaping work identity or working life, so there is a need to focus on activities that are carried out on a significant scale if we wish to shed light on what is distinctive about crowd work.

An alternative way of assessing the importance of crowd work is the *proportion of income* that it provides, which thus constitutes a fifth variable.

If some means can be found to make these distinctions, then composite definitions of crowd workers can begin to be constructed, enabling some first steps to be taken towards quantification.

In order to do so, however, if the aim is to find the prevalence of crowd work in the total population, it is necessary to have a source of data that describes that population. And if the existing data sets do not contain enough information on these dimensions, then it becomes necessary to carry out a new survey.

This was the reasoning that informed the design of the study reported here. By taking a random sample of the entire adult population as its starting point, it avoids the problem of observing crowd work through the lens of particular platforms, an approach which carries the twin dangers of, on the one hand, assuming that any given platform, or group of platforms, is typical of the entire population of platforms and over-generalising from this and, on the other, of viewing workers only in relation to their work for these platforms, without taking account of other aspects of their working lives, including other employment. We must emphasise, however, that in adopting this approach we were taking a step into the unknown.

3. RESEARCH DESIGN

The study reported here took as its starting point the need for some base-line data on the extent and characteristics of crowd working in the general population. In particular it aimed to help find answers to such questions as:

1. How can crowd workers be identified?
2. How many people are carrying out crowd work?
3. What are their demographic characteristics and how do they compare with the rest of the labour force?
4. To what extent does crowd work constitute a main source of income?
5. What kinds of work are they doing?

In pursuit of this aim, it was decided to carry out an experimental pilot survey, initially in just one country, the UK, in order to test whether it was possible to isolate crowd working from other forms of online income generation, other forms of job search and other forms of casual work in order to home in on the demographic characteristics of the people doing crowd work. From the outset the experimental nature of this approach was recognised. The analysis of any random sample of the population is always fraught with risk, especially when it is seeking to identify previously undescribed phenomena. Rather like taking a sample of pond water to examine the organisms in it, the population will include both stable organisms and those that are in the process of mutating from one form to another, both permanent residents and those just passing through, as well as organisms at different stages of development. Many of the features we were looking for might be occasional or unrecognised. In short, we did not know what we might find or even whether the features that we anticipated would be associated with crowd working would be present at all in significant quantities.

The survey method chosen (which is described in greater detail in Appendix 1 of this report) was the addition of extra questions to a standard online omnibus survey, carried out in the UK in January 2016. This produced much higher estimates of the extent of crowd working than had been anticipated, and was followed by similar surveys in Sweden, the Netherlands, Austria, Germany, Switzerland and Italy over the next 15 months. In order to test whether the results were shaped by the online survey method, we also asked some of the same questions in face-to-face interviews in the UK and in telephone interviews in Switzerland. Furthermore, we carried out in-depth qualitative interviews with a selection of crowd workers, including some of those who had taken part in the UK face-to-face survey, in order to probe more deeply into the realities underlying the, sometimes puzzling, findings of the online survey.

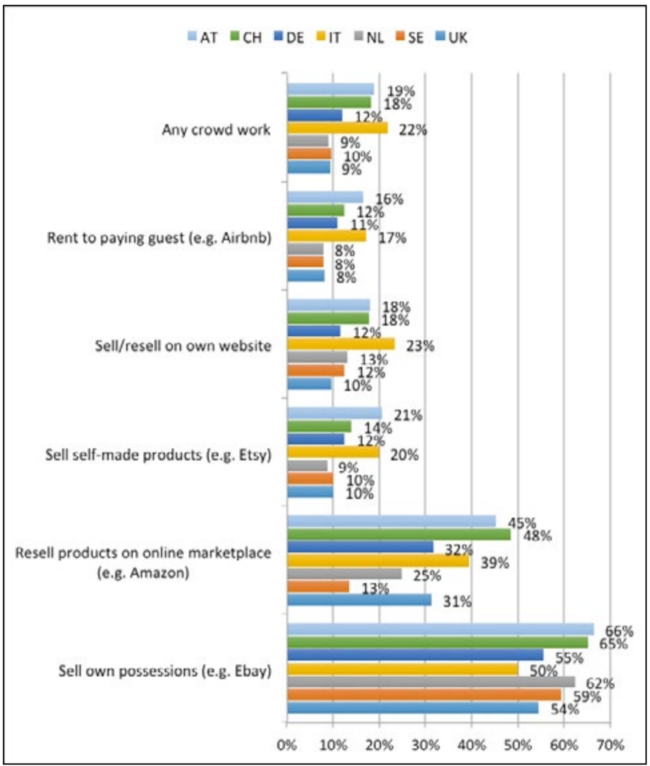
This report draws on insights from all these sources, with the aim of highlighting the key results, drawing attention to the requirements for further research and identifying issues that have implications for public policy.

4. PARTICIPATION IN THE ONLINE ECONOMY

The online economy as a source of income:

Our first task was to investigate the extent to which the Internet plays a role in generating an income for citizens in the second decade of the 21st century. Our second was to isolate the sale of one's own labour from these other online income-generating activities.

FIGURE 4.1.
Participation in the online economy as a source of income, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

As Figure 4.1 shows, participation in the online economy is substantial across all the seven countries studied. The sale of goods online, in particular, stands out as a widespread practice in all countries, taking many forms (for instance the resale of one's own possessions, of new or second-hand goods purchased for the sake of resale, or of self-made craft products) and is the most prevalent income-generating activity, considerably more so than crowd working, even using the broadest possible definition. This definition of crowd working includes any respondents who said that they had *ever* sold their labour via an online platform in any of the following three categories:

1. Carrying out work from your own home for a website such as Upwork, Freelancer, Timeetc, Clickworker or PeoplePerHour[2].

2. Carrying out work for different customers somewhere outside your home on a website such as Handy, Taskrabbit or Mybuilder.

3. Carrying out work involving driving someone to a location for a fee using an app or website such as Uber or Blablacar

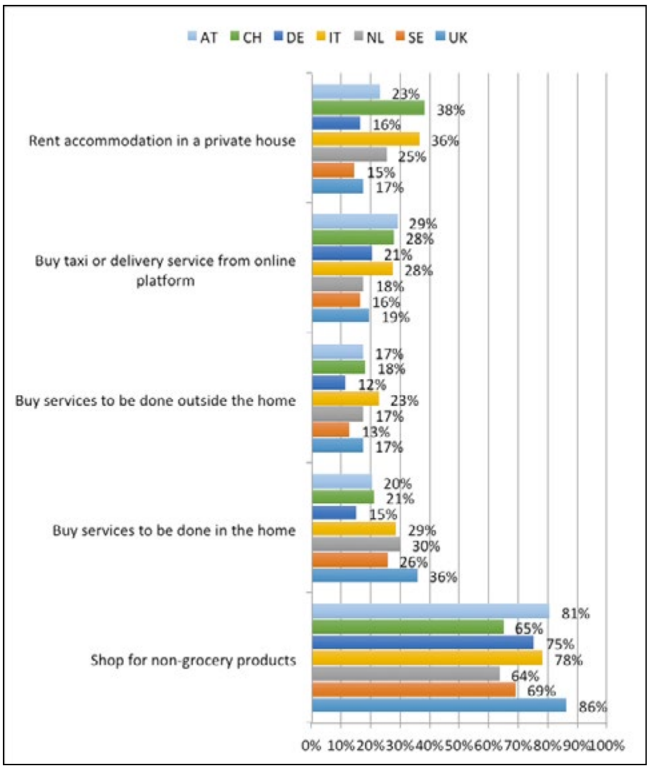
Crowd work, thus defined as paid work via an online platform, has generated some income for 9% of the UK and Dutch samples, 10% in Sweden, 12% in Germany, 18% in Switzerland, 19% in Austria and 22% in Italy. Crowd work is erefore less prevalent than all other forms of online income generation except renting out rooms and selling self-made products and, in some cases, selling on a personally owned website. Nonetheless, it is clearly a source of income for a significant minority of the population.

Online purchasing

Figure 4.2 shows the demand side of the story: the extent to which respondents participated in the online economy as customers. Here, unsurprisingly, online shopping for non-grocery items is by far the most common practice (grocery shopping was excluded from the survey because of its very high prevalence). However there are also significant numbers o buying services from online platforms which correspond with what, seen from the point of view of the worker, could be regarded as forms of crowd work. Here, the largest category is services provided in the home (such as cleaning or household maintenance tasks), used by 36% of the sample in the UK, 30% in the Netherlands, 29% in Italy, 26% in Sweden, 21% in Switzerland, 20% in Austria and 15% in Germany. This is followed by the use of platforms for driving or delivery services used by 29% of respondents in Austria and 28% in Switzerland and Italy, falling to 21% in Germany, 19% in the UK, 18% in the Netherlands and 16% in Sweden. Between 12% of the sample (in Germany) and 23% (in Italy), with 17% in Austria, the Netherlands and the UK and 13% in Sweden, are purchasing services to be carried out outside the customers' homes.

[2] Note these examples are taken from the UK questionnaire. The names of platforms were varied in each country depending on which sites were considered to be best known locally.

FIGURE 4.2.
Participation in the online economy as a customer, by country



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Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Use of the Internet to find work

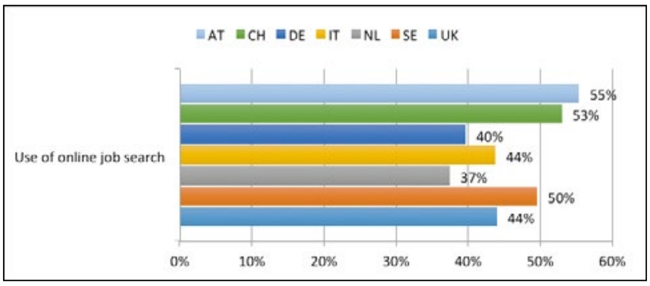
In a context in which the Internet plays an increasingly important role in all aspects of life, it was important to locate the search for crowd work in the broader setting of online job search.

A key objective of the research was therefore to isolate the search for crowd work from other kinds of job search carried out via online platforms. Job seekers are encouraged to search for work by any means possible, but there are important differences between using an online job recruitment site to find a position (whether permanent or temporary, part-time or full-time) with a regular employer, for which a formal appointment will be made, with an ongoing contractual employment relationship, and seeking casual work paid by the task.

Accordingly, all respondents were asked whether they had 'Look[ed] for a job on a job search website such as *Jobsite*, *Manpower*, *Universal Jobmatch*, *JobCentreGuide* or *Reed*'[3] as well as more detailed questions about searching for crowd work.

As Figure 4.3 shows, extensive use is made of such platforms in all countries, ranging from 37% of the sample in the Netherlands to 55% in Austria, with Germany (at 40%(, Italy and the UK (at 44%), Sweden (at 50%) and Switzerland (at 53%) in between.

FIGURE 4.3.
Online job-search, by country (%)



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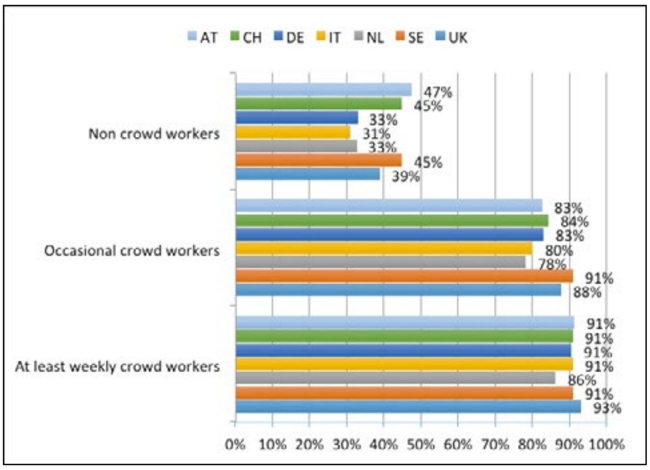
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

We were interested to find out to what extent participants searching for crowd work were also searching for regular jobs. To address this question a detailed analysis was carried out comparing frequent crowd workers, occasional crowd workers and non-crowd workers in all seven countries. The results are shown in Figure 4.4. This shows that, while non-crowd workers are still likely to be using job search sites, ranging from 31% in Italy, 33% in Germany and the Netherlands to 47% in Austria, with the UK at 39% and Switzerland at 45%, they are much less likely to do so than crowd workers, whether frequent (at least weekly) or occasional. Crowd workers are, indeed more than twice as likely as non-crowd workers to be using such sites. Apart from the Netherlands, where it is nevertheless high, at 86%, the proportion of frequent crowd workers using such sites is over 90% in each country, while the use by occasional crowd workers is not much lower (at 78% in the Netherlands, 80% in Italy, 83% in Austria and Germany, 84% in Switzerland, 88% in the UK and 91% in Sweden).

This suggests that crowd workers are searching for any form of work they can find, and may be accepting crowd work only because they cannot find a more regular or permanent position. Our interviews with crowd workers provided evidence that this is indeed the case for some, though not all, crowd workers.

[3] The questions quoted here are taken from the English-language version of the questionnaire used in the UK. In some other countries, the names of different platforms were substituted, depending on their presence in local markets, their local popularity and brand recognition.

FIGURE 4.4.
Use of job search platforms by frequent crowd workers, occasional crowd workers and non-crowd workers, by country (%)

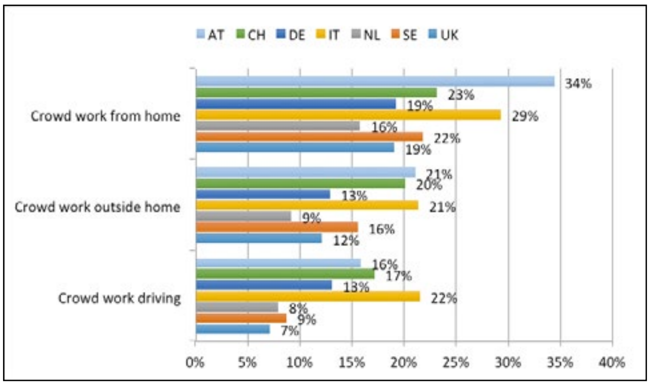


Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Not all of those who search for crowd work actually find it. Figure 4.5 shows the proportions in each country searching for crowd work in each of the three broad categories. It should be noted that because many people said that they were looking for work in more than one category there is some double counting here.

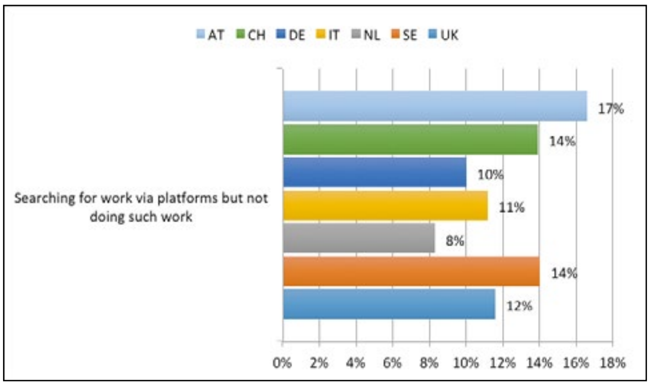
As can be seen, national differences in these patterns were rather small, with the partial exception of Austria and Italy, which scored higher on each of these three types of crowd work search than the other countries. Explanations for this difference must remain speculative in the absence of follow-on qualitative research but they may indicate a higher inclination to experiment with crowd work. As we shall see later, this higher propensity to seek online crowd work does not necessarily correspond with a higher proportion of people treating crowd work as their main source of income.

FIGURE 4.5.
Search for crowd work, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weighted).

FIGURE 4.6.
Searching for crowd work but not doing any, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Figure 4.6 shows those who said that they were searching for crowd work but failing to find it. Here, Austria, the country with the highest numbers searching for crowd work, also emerges as the country with the highest proportion of people who have registered on online platforms but failed to find work through them, with 17% of the population in this category. This is followed by Switzerland and Sweden, each with 14% of the population who have searched for crowd work but failed to find it, with the Netherlands (at 8%) having the lowest proportion and Germany, Italy and the UK (at 10%, 11% and 12% respectively), in between. On the basis of these figures alone we cannot, of course, determine to what extent these people were seriously seeking crowd work and to what extent they were motivated by curiosity or a passing whim.

Blurred boundaries: when is a website a platform?

In many cases, it is difficult to make clear distinctions between job search sites, crowd work platforms, general online classified advertising websites such as Gumtree or Craigslist and community websites such as Nextdoor. Indeed, crowd work platforms can be seen as part of a larger online ecology of websites covering a spectrum between simple job advertisements, employment agencies advertising temporary or freelance work, online directories, bulletin boards or 'job boards', online directories (such as the UK-based Trustatrader and Checkatrade websites) and online rating systems, as well as other online services, including traditional service providers that have moved online. Not only do these overlap with each other in terms of function, but many crowd workers use them interchangeably.

One UK respondent, Maya[4], a multi-skilled tasker (now working for a US-based platform as well as a UK-based one), described her progression from general sites to these online platforms in the following terms:

> *I started working for a platform because, like I said, I was desperately looking for work, I, you know, it's, I need money to pay bills and stuff. So, I looked on Gumtree. Gumtree usually, Gumtree, I mean people usually advertise jobs through recruitment agencies now, very rarely do people use Gumtree because of the scamming issues and the problems that you have with dubious people but, from time to time, you will get some people who post genuine jobs and the likelihood of getting a job on Gumtree is higher because the jobs that they advertise aren't – their criteria is not that strict. … it's good for mass recruitment. So, you will get a job and it's usually for jobs that have a high turnover of staff, that's what I'm trying to say. If it's a high turnover of staff or a job that's quick and easy to do, Gumtree's a good place to find, and also a lot of foreigners use Gumtree. Most people who come to this country, more or less, the first website that they hear of that they can have a chance of getting work is Gumtree. Everyone uses Gumtree, really, more or less. (Maya, 42, UK)*

This respondent had also worked for agencies but, when pressed on the differences between a 'platform' and an 'agency' found it difficult to put into words:

> *Platform work is different from an agency, because they don't have the overheads. Well, but in this case [the US-based platform], I suppose they do, because they have an office and they've got staff, but I've heard that … their staff don't get paid that much, they get paid quite poorly, their salary is very poor. (Maya, 42, UK)*

A tasker who specialised in assembling flat-pack furniture, described how he had done the same type of work simultaneously for a platform and another company which, though online, he did not regard as a platform:

> *I was working for a while through another company that specialised in flat pack furniture and for around a year I was having jobs from both, from this platform and from them, and they were, you know, it was actually similar because they were – they didn't hire anyone, everyone was a contractor for them. So, it was a similar system like with the [name of platform]… The same system, the same system of work, because they don't hire people, you don't work on contract, they don't, how do you say that, they – you never know how many hours you will get. … It's on demand. Like if someone is calling them, that you need someone, the job, and then they call you. So, in that sense it's similar, but it's not a platform, it's just a website. (Janek, 38, UK)*

Another respondent (David, 69, UK) who had formerly been employed as an IT project manager in the financial sector started to search for work online after he had been made redundant from his permanent job. He found work through IT job boards (of which he named four) which gathered together offers of assignments from a variety of different clients and job agencies. About half of his income came from such assignments, which typically lasted for 6-12 months and sometimes involved relocating abroad to work on the client's premises. In periods when there was no work, he survived by living off his savings. While most definitely a means of putting workers in touch with employers online, these job boards might fall outside many common definitions of online platforms.

In another ambiguous case, a specialist engineer (John, 69, UK), had paid a fee to use the Google rating system to boost his business, but this, he estimated, contributed only about 10% of his work, most of which came through networks and personal contacts.

We also found a crowd worker who had considered using an online trade directory to find work as a painter and decorator (but was put off by the high cost of registration), as well as drivers who worked not only for well-known rideshare companies but also more traditional taxi and courier companies such as the London-based Addison Lee.

In each of these cases not only is the borderline between what is 'crowd work' and what is not extremely blurred, but so too is the definition of what constitutes an 'online platform'.

Crowd work in the context of general online economic behaviour

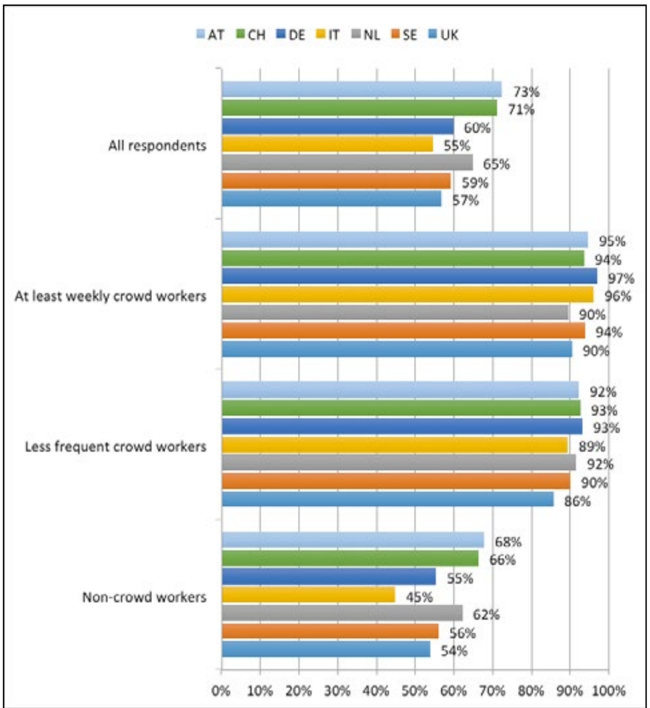
It is clear from these results that the Internet now plays a large part in the economic life of European citizens, for whom

[4] This is a nickname. The real names of all respondents have been changed to preserve anonymity throughout this report.

crowd work forms part of a range of different activities which contribute to their income, but is crowd work a substitute for these other activities or a complement to them?

Figure 4.7 shows the proportion of the population who engage in online activity such as using a website to sell their possessions, resell products, sell products they have personally made or find a paying guest for accommodation in their home. Also shown are the same proportions for frequent (at least weekly) and less frequent crowd workers and for non-crowd workers.

FIGURE 4.7.
EEngagement in online activity, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

As this figure shows, there is a general correlation between a high propensity to crowd work and engaging in other forms of online economic activity in all countries. In each case well over half the population (ranging from 55% in Italy to 73% in Austria) engaged in some form of income-generating activity online, whether this involved selling new or second-hand goods or letting out accommodation. However those who engaged in crowd working were consistently more like to do so.

Among non crowd workers in all countries except Italy (where it was 45%), over half the population, and, in Austria and Switzerland, over two thirds, wast economically active online in selling products or renting out accommodation. But this proportion rose to around 90% and above among those who said that they did crowd work at least weekly and in most countries also those who did so less frequently (the exceptions here being Italy and the UK where it was nevertheless high, at 89% and 86% respectively). In other words, the more likely people are to crowd work, the more likely they are to engage in these other activities too.

It might be argued that the high levels of participation in the online economy found in this survey reflect the fact that it was carried out online. To test this, companion offline surveys were conducted in the UK via face-to-face interviews and in Switzerland via telephone-based interviews. Naturally, changes to the survey mode make comparisons complicated (it is widely acknowledged that recall bias and interviewer effects are likely to be greater in interview situations compared to self-completion questionnaires (Tourangeau et al., 2000)) and the results discussed in Appendix 1 suggest that these survey mode effects may be severe in the Swiss telephone-based survey. Nevertheless, some comparisons are possible and results for the UK online and offline surveys are discussed below (see Appendix 1 for greater detail).

Overall, the UK online survey reports greater levels of online selling/renting activity (with 56.9% of respondents reporting that they had ever been active in the online survey compared with 39.5% in the offline survey) but in situations where bias recall is less likely to be a problem (those involved in at least weekly selling/renting activity), the difference is much smaller (7.5% online compared with 5.5% offline with 95% confidence intervals overlapping – (6.4%, 8.6%) online and (4.5%, 6.6%) offline). If the online sample were to be biased towards heavy Internet users to any meaningful extent, one might expect to see this revealed in a greater bias amongst those active on a very regular basis but, as can be seen from the figures above, this is not the case. This pattern extends to reports of undertaking crowd working. The online survey in the UK reports 9.3% undertaking any crowd work with 95% confidence interval (8.15%, 10.60%) with the offline figure being somewhat lower at 7.38% (5.68%, 7.93%). However, figures for at least weekly and at least monthly crowd working are almost identical (4.66% (3.83%, 5.63%) online and 4.90% (3.62%, 5.49%) offline for at least weekly and 5.74% (4.81%, 6.79%) online and 5.67% (4.25%, 6.25%) offline for at least monthly). Although we do not have similar comparisons available for other countries, these findings encourage us to present in this report figures from the online surveys without adjustment for survey mode.

We can therefore conclude with some confidence that crowd working has a significant place in this online behaviour, representing an extreme example of a broader spectrum of economic activity that relies on online communication to link the supply and demand for goods and services – including labour.

In the next chapter we explore in greater detail the importance of this online-enabled and online-mediated labour in the working lives of the populations of the seven European countries in this study.

5. THE IMPORTANCE OF CROWD WORK

As we saw in the last chapter, crowd work, broadly defined, takes place alongside many other income-generating and job-search activities carried out in online environments. However it may play a relatively minor role in many cases, both in terms of what it contributes to personal income and in terms of the time it takes up in people's lives. In this chapter we explore the importance of crowd work in working life, turning first to its importance as a source of income.

Income from crowd work as a proportion of all income

Figure 5.1 shows the proportion of personal income derived from crowd work in the seven countries surveyed.

Respondents in the survey who reported that they had carried out crowd work were asked to estimate what proportion of their income was derived from this activity. As is common in surveys investigating personal financial information, a relatively high proportion declined to answer this question, either stating that they preferred not to say (5%-10%, depending on the country) or that they did not know, (ranging from 19% in the UK to 38% in the Netherlands). Figure 5.1 presents the overall responses to this question with these unknown data excluded.

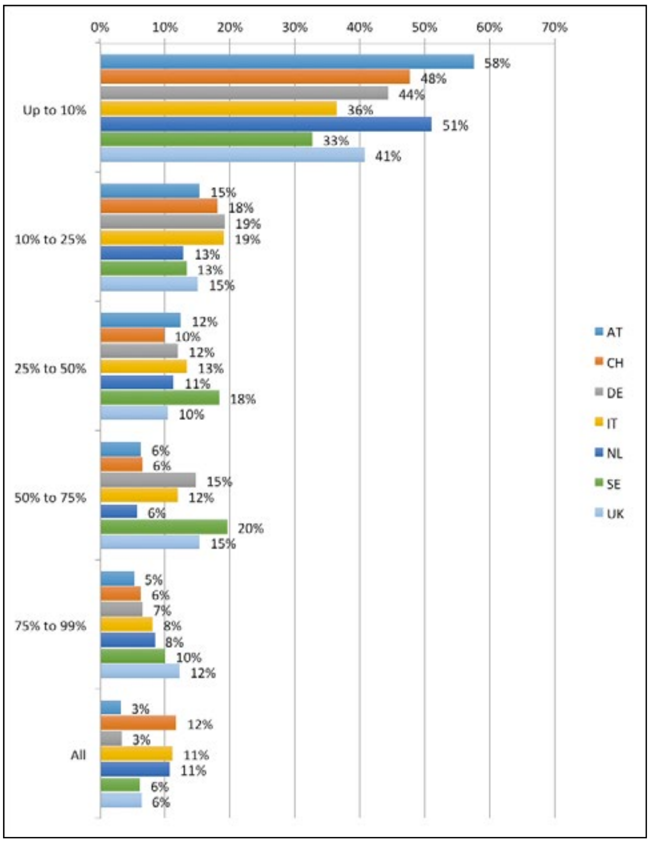
As this shows, for the great majority, crowd work represents a small supplement to their main income: with the largest group (ranging from 33% in Sweden to 58% in Austria) estimating that it represents less than 10% of their total income. Nevertheless, there is a small minority (ranging from 3% in Austria and Germany to 12% in Switzerland) for whom crowd work provides the only source of income. More significantly, crowd work constitutes more than half the income of around a third of crowd workers in Italy, Sweden and the UK (31%, 36% and 34% respectively), 24% in Switzerland, Germany and the Netherlands and 15% in Austria. The relatively low degree of dependence on crowd work in Austria, and to a lesser extent in Germany, may reflect the fact that Austria has the highest and Germany the second highest overall level of participation in crowd work, suggesting that these are countries with above-average levels of experimentation or 'dabbling' in crowd work, although serious dependence on it as a main source of income is more or less in line with other countries.

Crowd work thus constitutes more than half of all personal income for 2.3% of the total sample in Austria, 3.5% in Switzerland, 2.5% in Germany, 5.1% in Italy, 1.6% in the Netherlands and 2.7% each in Sweden and the UK – forming the main source of income for an average of 2.9% of the samples across all seven countries.

It should be pointed out that the questions we asked referred to *personal* income. It is possible that some participants were resident in households where another adult was the main earner, and that their personal incomes were therefore only a small proportion of total household income.

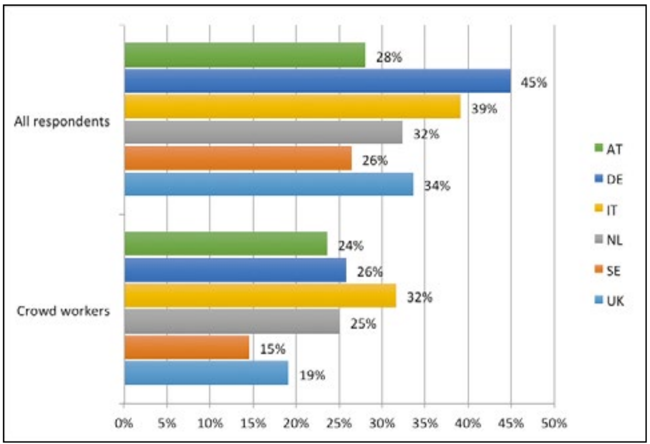
We investigated this further by looking at the proportion of crowd workers who said that they were not main earners. We have this information for six of our seven countries and it is shown in Figure 5.2. As can be seen, the relatively high proportion of people saying that crowd work is their sole source of income in Italy correlates with an above-average propensity for crowd workers to be secondary household earners in that country.

FIGURE 5.1.
Earnings from crowd work as a proportion of all personal income, all crowd workers, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016- 2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

FIGURE 5.2.
Proportion of crowd workers who are not main earners, by country (no data for Switzerland)



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Some insights into the way that income from crowd work supplements other sources of income or complements other activities can be gleaned from our qualitative interviews. Here, our respondents fall into several categories. At one extreme are those who are using crowd work income to subsidise an activity that they enjoy carrying out but does not bring in enough income to live on. At the other are those who are piecing together incomes from whatever sources they can find using forms of work that they would not have chosen otherwise. In between are a diverse range of combinations whereby crowd work supplements regular paid employment, other forms of casual employment or non-work activities.

At the first end of the spectrum is a respondent (Barbara, 58. UK) whose preferred activity was writing historical novels. Although these were successfully published, they provided only about 20% of her income, with the rest coming from academic proofreading work (which she called her 'hidden work') which she obtained via an online platform.

Another respondent was combining work for a platform with doing a part-time master's degree and working for an art organisation doing 'communications and web stuff'. In her own words

> *So, I needed, yeah, just some extra money to, yeah, to be able to… because I'm studying these two years I'm kind of … and I just try to break even, more or less, every month on how much I earn. I'm not trying to save money or anything, particularly, I'm just trying to make enough to pay the rent and my living costs, and I already paid the university fees before I started, so I don't have to pay for those. Last year I wasn't doing [name of platform], and it was okay but it was quite tight. So the main motivation was, yeah, just to get something, like a little job, that I would not have to go through a long application for just to, I don't know, yeah, search for, for a long time, to find a job that, yeah, that kind of … that I could just get like a casual job, something like bar work or something, and for me, [name of food delivery platform] was, yeah, the best… I do one and a half days a week for the art organisation and I do six hours a week for [name of platform]. (Hilary, 27, UK)*

Another student interviewed in Estonia (Maria, 20, Estonia) also used a cycle delivery platform as a source of income to subsidise her studies.

In some cases, however, part-time crowd work was needed because the earnings from a full-time job were insufficient.

One participant had a full-time job working for the UK National Health Service, but his shifts were concentrated over four days a week, leaving him time for crowd work on the free days. He had previously worked more or less full time for a delivery platform and had remained with this platform but reduced his hours. Before that he had worked in a series of part-time jobs.

> *I've had lots and lots of different jobs … I've had one part-time job that lasted for two years; aside from that, none of them lasted more than six months. … I've worked as a bar tender, I've worked as waiter, I've worked as a gardener, I've worked as a driver … I worked in a call centre, I've worked as a card dealer in a casino… I work freelance sometimes as an editor. I've done lots of different stuff, but always short-term and nearly always with little to no employment rights. (Mark, 25, UK)*

He described his pleasure at obtaining the NHS job.

> *Because I had been working shitty jobs basically my whole life, and the NHS job gives me certain things which I've now got an appetite for, such as holiday pay, sick pay, and I don't know, on the other hand, it's sort of a change of scene, which I quite like. I've never worked in the medical arena at all and sort of found that quite appealing, to see what that's like. So, that's why I changed. (Mark, 25, UK)*

However he continued to work with the platform 'Because I need to have a little bit of extra money than I'm earning with the NHS' despite the difficulty of managing the shift patterns.

> *I'll try and do one weekend night, because it's busier. I've tried to do days, but days are quite difficult, because even though they suit me better, there's often no deliveries, or not very many. I get paid per delivery, and so I've just I went out too many times when I was getting… I'd be there for two, two and a half hours and I wouldn't get a delivery, I'd go home. And in winter that's pretty miserable, basically, and a waste of time. So I now I just try and do the weekend, nights, if I can. (Mark, 25, UK)*

This respondent's previous pattern of patching together a variety of different kinds of casual work was also evident in the narrative of another respondent, Maya, who was working for several tasking platforms, primarily as a cleaner, at the time of our interview:

> *I used to work for a property developer as a PA. I was an executive assistant. I used to work for him and manage his portfolio and his businesses. I used to do all that. Then I lost my job with him and then I started working for a coffee shop and then I was working and I got a job as cleaning, a regular cleaning job at the same time. So, I had like three jobs, and I used to do [name of cleaning platform] on the side. So, I had three jobs at one time, but they were on different days so they didn't clash. They were all part-time so I could fit it in. (Maya, 42, UK)*

Some respondents saw platform work as a route to other kinds of work that were not directly mediated via platforms. This was certainly the case with Maya, quoted above, who lived in hope that one of her platform clients would want a more permanent arrangement and start to employ her directly. However it was also the case for a respondent doing much more skilled work on online platforms. This interviewee (Henry, 36, Estonia) was a graphic designer who had worked on five different online platforms but also did other work as a photographer and wood-worker. He was frustrated by the amount of time it took to pitch for new work on online platform (which he estimated as taking up 50% of his online working hours) and suffered from back problems from long hours sitting at his desk and wanted to reduce his dependence on this type of work. He had initially chosen to work in this way because he had a small child who didn't settle into nursery and an elderly mother who needed help and was looking for a type of work that gave him enough flexibility to manage these caring roles while earning an income.

Our interviewees included one (Martin, 38, UK) who had started out combining work for online platforms with other forms of online income generation (renting out rooms via Airbnb) but had managed to move up the value chain, becoming an employer himself. He had found a 'big' client through his online crowd work who encouraged him to found an agency, which now had three directors as well as a few freelancers working for it. They had found some of these freelancers through the online platform. They also used the platform for finding new clients who then, once they had established a relationship with them, paid the agency directly. However Martin still regarded himself as a freelancer and said that a majority of his income came via the platform.

Another respondent (Fahir, 43, UK) combined driving for a rideshare platform with online currency trading (including trading in digital currencies) and real estate crowd funding. He had reduced the proportion of his time spent on driving work as his other online activities expanded and reckoned that the driving now made up less than 20% of his income.

For other interviewees working for rideshare platforms, the progression had often been in the opposite direction, with the need to cover the cost of the car pushing out other sources of income, as this quote illustrates.

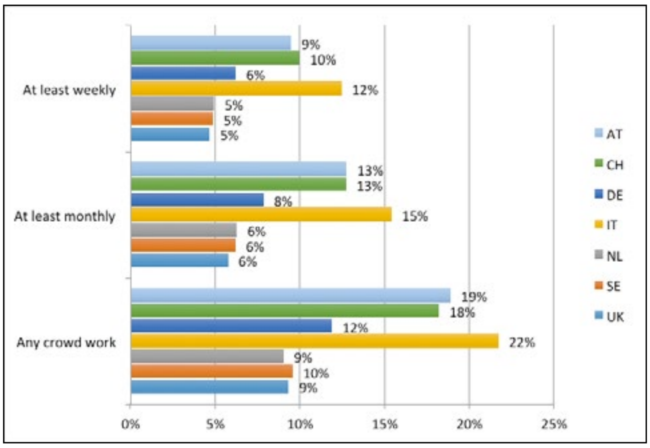
> *Well, you see I do this thing called handy man. I do a bit of repairing here and I'm painting. I thought to myself to earn an extra cash I can do [name of rideshare platform], because it's the hours you choose to work instead of having fixed hours to work, and as a night person. You know, I thought, yes, I'll get [name of rideshare platform]. But that's not the way it goes. I started with it and now I don't have time to go and spend time with my daughter, to be honest. ... . It costs me not to work, basically. It's any time I have free if there's no painting or repairing bits and pieces, I actually have to work with [rideshare platform], because the loan, it's the car loan itself is £600 a month. For me, to make that £600 I have to actually work for £800, because £200 will go to the petrol to make £600. £800 a month, which is basically take up all my free time. I don't even sleep properly, simply because of [rideshare platform]. I don't earn enough. (Serkan, 48, UK)*

It is clear that crowd work is combined in diverse ways with a varied range of other activities, playing a minor role for the majority, as we saw in Figure 5.1.

Frequency of crowd work

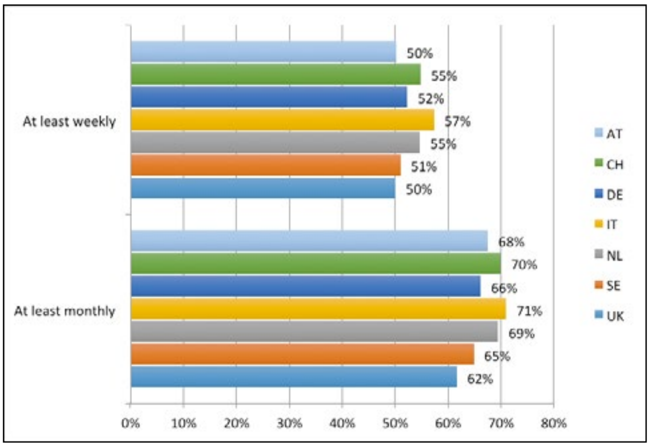
An alternative way to investigate the importance of crowd work in workers' lives is to look at its frequency. Figure 5.3 gives a summary of the results for all seven countries as a percentage of total population, while Figure 5.4 shows the how many of those actually doing crowd work are doing so frequently (at least weekly and at least monthly).

FIGURE 5.3.
People doing crowd work, by country and frequency



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

FIGURE 5.4.
Frequency of crowd work amongst crowd workers, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Like the analysis of income share, this analysis supports a picture in which crowd work is likely to be a very frequent activity for just over half of all crowd workers, with two thirds doing so monthly.

For people who do frequent crowd work the numbers are smaller and differences are not always statistically significant. We carried out an analysis on the results to investigate the hypothesis that people who crowd work at least weekly are more likely to say that crowd work contributes more than half their personal income. The results (shown in Table 5.1) show that for Austria, Germany, the Netherlands and the UK there is sufficient evidence to accept this hypothesis. However, for Switzerland, Italy and Sweden this is not the case, with a comparatively large (19%, 25% and 36% of crowd workers respectively) proportion who work less frequently than weekly saying that more than half their income is from this source. This justifies a focus on weekly crowd workers as those most likely to be doing so as their main income-generating activity. However the two categories (weekly crowd working and using crowd work as a main source of income) are by no means synonymous. Not only do many weekly crowd workers have other major sources of income, but there are also many more occasional crowd workers for whom it is more than a supplement, especially in Sweden.

Table 5.1 shows the relation between being a frequent (at least weekly) crowd worker with a reliance on crowd work for more than half of one's income.

TABLE 5.1.
Is crowd work more likely to be a main source of income for weekly crowd workers than other crowd workers?

CROWD WORK CONTRIBUTES MORE THAN HALF OF INCOME
(figures in parentheses are 95% confidence intervals)

	AT	CH	DE	IT	NL	SE	UK
Infrequent crowd workers	7 out of 124 6% (1.6%, 9.7%)	22 out of 113 19% (12.2%, 26.8%)	8 out of 87 9% (3.1%, 15.3%)	27 out of 109 25% (16.7%, 32.9%)	4 out of 45 9% (0.6%, 17.2%)	23 out of 64 36% (24.2%, 47.7%)	15 out of 75 20% (10.9%, 29.1%)
Crowd working at least weekly	36 out of 155 23% (16.6%, 29.9%)	47 out of 152 31% (23.6%, 38.3%)	44 out of 121 36% (27.8%, 44.9%)	80 out of 223 36% (29.6%, 42.2%)	27 out of 73 37% (25.9%, 48.1%)	31 out of 82 38% (27.3%, 48.3%)	40 out of 92 43% (33.3%, 53.6%)
p-value for one-sided hypothesis test	<0.001	0.015	<0.001	0.017	<0.001	0.408	<0.001

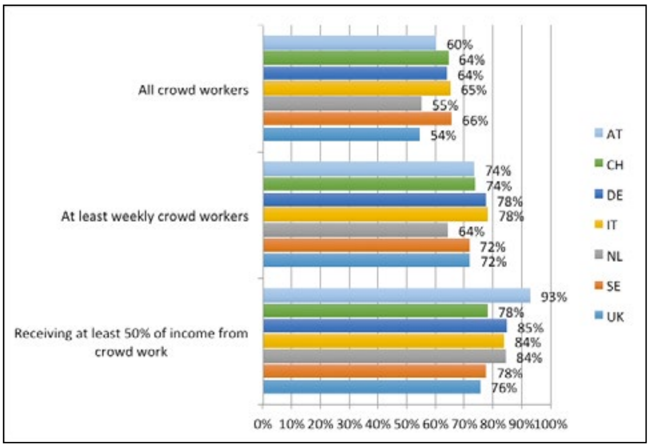
Source: Hertfordshire Business School Crowd Work Survey, 2016-2017

Use of an app to notify when work is available

In a further attempt to differentiate 'serious' crowd workers from those who dabble only occasionally in this activity or engage in borderline activities, we applied a third test: the use of specialist 'apps' to notify when work is available – a feature of the work organisation of many (though not all) of the better-known crowd work platforms. The survey design made it possible to isolate those workers who reported using such an app on their smartphone, tablet or computer to notify them when work is available.

Narrowing our definition of 'crowd workers' only to those using such an app risks excluding some crowd workers, for instance those working on high-skill online platforms such as Upwork, who may rely on this kind of work for their income but may not use such an app. However it is a useful way of focusing on those crowd workers whose work organisation is digitally enabled via applications developed by the platforms.

FIGURE 5.5.
Proportion of crowd workers using an app to be notified when work is available, by country



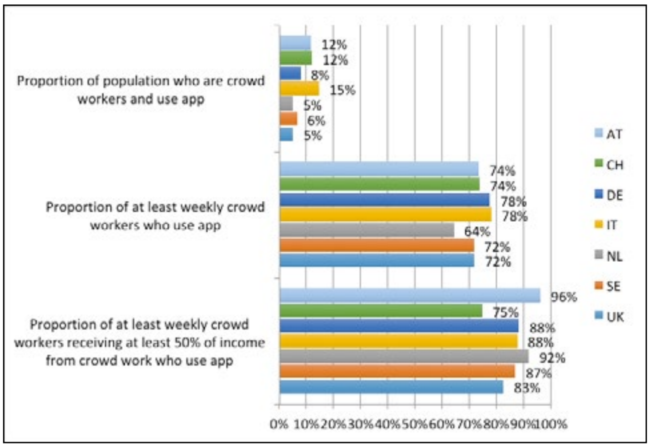
Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

As can be seen, although the majority (between 54% and 64%) of crowd workers in all countries use such apps, their use is by no means universal. However it is interesting to note that the more intensive the crowd work is, the greater the propensity to use them. Among those who say that they crowd work at least weekly, the proportion rises to between 64% and 78%, with an even higher proportion doing so among those who say that they receive at least half of their income from crowd work (between 76% and 93%).

This suggests that, although we cannot with absolute precision construct an exclusive definition of a crowd worker that makes possible an absolute distinction from other forms of work, as it is nevertheless possible to identify what we might regard 'core' crowd workers by combining these three features: a high proportion of income from crowd work, high frequency of crowd work and use of 'apps'.

Figure 5.6 shows how this narrower definition applies across the total population of the seven countries surveyed.

FIGURE 5.6.
Proportions of total population crowd working and using an app to be notified when work is available, by country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Summary: the extent of crowd work

In this section we apply these definitions in order to estimate the numbers of crowd workers in each of the seven countries in each of these categories.

First, we look at the income variable. As Table 5.2 shows, we can conclude that between 1.6% and 5.1% of the population in the seven countries studied are deriving more than half their income from crowd work. The table also shows how these percentages translate into actual numbers of people in each of the seven countries.

TABLE 5.2.
People earning at least 50% of personal income from crowd work

COUNTRY	ESTIMATED PROPORTION OF WORKING POPULATION GETTING AT LEAST 50% OF INCOME FROM CROWD WORK	EQUIVALENT NUMBER OF PEOPLE
Austria	2.3%	130,000
Switzerland	3.5%	210,000
Germany	2.5%	1,450,000
Italy	5.1%	2,190,000
Netherlands	1.6%	200,000
Sweden	2.7%	170,000
UK	2.7%	1,330,000

Table 5.3 shows the proportion crowd working at least weekly, which ranges from 4.7% in the UK (equivalent to 2,260,000 people) to 12.4% in Italy (equivalent to 5,310,000 people).

TABLE 5.3.
People undertaking crowd work at least weekly

COUNTRY	ESTIMATED PROPORTION OF WORKING POPULATION UNDER-TAKING CROWD WORK	EQUIVALENT NUMBER OF PEOPLE
Austria	9.5%	540,000
Switzerland	10.0%	600,000
Germany	6.2%	3,560,000
Italy	12.4%	5,310,000
Netherlands	4.9%	600,000
Sweden	4.9%	310,000
UK	4.7%	2,260,000

Third, we show the proportion crowd working and using an app, estimated as ranging from 5.1% (in the UK) to 14.6% (in Italy) as shown in Table 5.4.

TABLE 5.4
People crowd working using an app

COUNTRY	ESTIMATED PROPORTION OF WORKING POPULATION CROWD WORKING USING AN APP	EQUIVALENT NUMBER OF PEOPLE
Austria	11.5%	650,000
Switzerland	12.0%	720,000
Germany	7.8%	4,490,000
Italy	14.6%	6,210,000
Netherlands	5.0%	610,000
Sweden	6.5%	410,000
UK	5.1%	2,480,000

If we take the narrowest possible definition based on these data and look only at those who derive more than half their income from crowd work *and* are crowd working at least weekly *and* are doing so using a specialist app, we can estimate this group at 1.2-3.3% of the general population. As Table 5.5 shows, this reduces the numbers of crowd workers quite considerably, revealing a 'core' group of crowd workers that exceeds 1 million only in Germany and Italy. We must point out, however, that this narrow definition almost certainly excludes a considerable number of workers doing 'virtual' work from their homes for online platforms.

TABLE 5.5.
People with at least 50% of income from crowd working at least weekly and using an app

COUNTRY	ESTIMATED PROPORTION OF WORKING POPULATION CROWD WORKING USING AN APP	EQUIVALENT NUMBER OF PEOPLE
Austria	1.9%	110,000
Switzerland	1.8%	110,000
Germany	1.9%	1,070,000
Italy	3.3%	1,420,000
Netherlands	1.2%	140,000
Sweden	1.3%	80,000
UK	1.5%	720,000

Table 5.5 Estimated proportion of working population crowd working using an app and getting at least 50% of income from crowd work

Regional distribution of crowd work

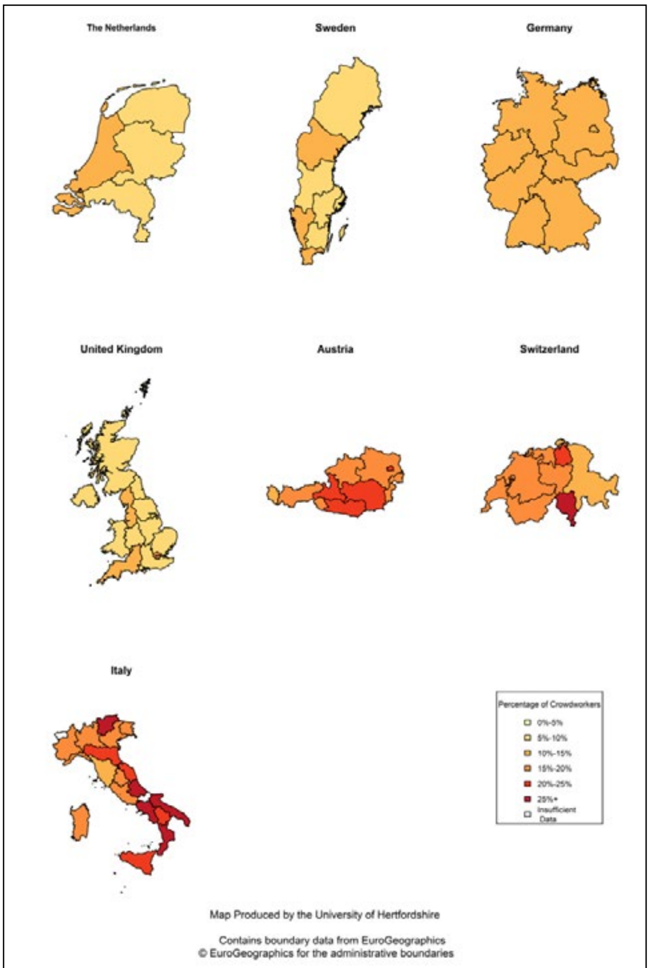
The survey also made it possible to see the regional distribution of crowd work in the seven countries. This is summarised in Figure 5.7. As the figure shows, Germany emergs as the country with the most even distribution, with the proportion of the population crowd working standing at between 5% and 10% across all of the different Nielsen Areas (the standard regional categorisation used by market research companies in Germany). In the Netherlands, there is a slight difference, with a higher concentration in the Western region (at 5-10%) than the rest of the country, where it is below 5% on average. It is notable that the Western region is home to the largest urban centres in the Netherlands, and this is in line with a trend observable in some (but not all) other countries whereby there is a concentration of crowd working around the capital city or other large conurbations. This is the case in Austria, where there is a concentration around Vienna, the UK, where there is a concentration around London and Italy, where there is a high density in the region around Rome. In Switzerland, Zurich has a level which is above average for the country as a whole but is not the region with the highest density of crowd work. This is in Italian-speaking Trentino, close to regions of Northern Italy which also have a very high concentration of crowd work. Sweden is something of an exception to this rule: there is no similar high density of

Click here for
TABLE OF CONTENTS

crowd work around Stockholm, as might be expected. Italy has perhaps the greatest regional variation.

Further research will be required to establish what factors underlie these regional differences and whether they are related to regional industrial structure or to other factors.

FIGURE 5.7.
Regional distribution of crowd work: percentage of population reporting ever having carried out crowd work by region

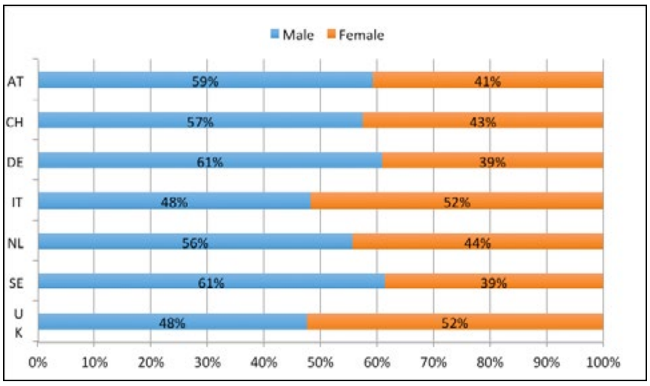


6. WHO ARE THE CROWD WORKERS?

Gender of crowd workers

The crowd workforce identified by our surveys is surprisingly evenly divided by gender, albeit with some national variations. Looking at those who have ever gained an income from crowd work (shown in Figure 6.1), women form a majority in Italy and the UK (at 52%), with men forming the majority in other countries (at 56% in the Netherlands, rising to 57% in Switzerland, 59% in Austria and 61% in Germany and Sweden).

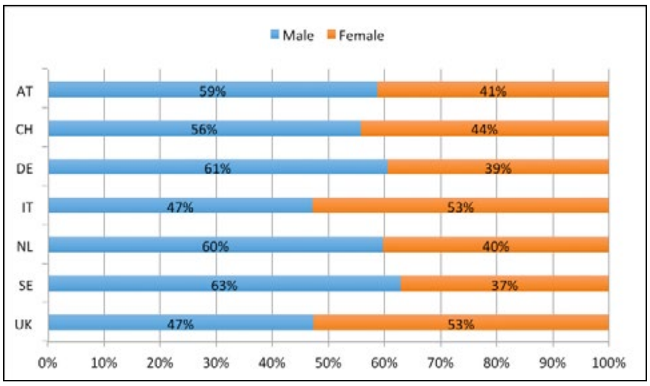
FIGURE 6.1.
Any crowd work, by gender (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Focussing in on those who crowd work at least weekly (Figure 6.2) produces a similar profile, with a 47%/53% split between men and women in Italy and the UK, while men form the majority, at 56% of the frequent crowd workforce in Switzerland, rising to 59% in Austria, 60% in the Netherlands, 61% in Germany and 63% in Sweden. The similarities between countries are too great to suggest that gender participation in crowd work might be related to structural patterns linked to different institutional contexts.

FIGURE 6.2.
Weekly crowd work, by gender (%)

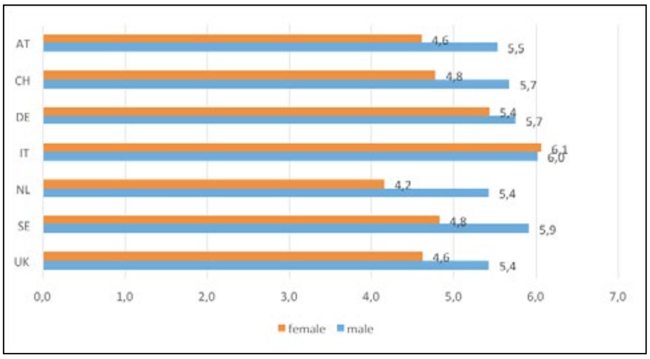


Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 193 respondents in Austria, 196 respondents in Switzerland, 151 respondents in Germany, 288 respondents in Italy, 103 respondents in the Netherlands, 95 respondents in Sweden and 104 respondents in the UK stating that they carried out crowd work at least weekly (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

It might be expected that, as with many labour market participation indicators, an apparent similarity between men and women might conceal a degree of gender segregation in terms of the types of work actually done. Such segregation patterns were surprisingly difficult to detect because of the high propensity of crowd workers to code multiple categories of work when asked what kind of work they do. While perhaps indicating a certain desperation among crowd workers, many of whom seem prepared to offer their services to do almost anything, this makes it hard to establish a 'core' activity for any given worker.

There were some gender differences in the patterns of multi-coding. Given a list of eight possible types of crowd work, respondents who had already indicated that they had gained an income from crowd work were asked to state which types they had done. As Figure 6.3 demonstrates, men, on average, named more types of work than women, naming 5.4 to 6.0 types depending on the country, with women naming 4.2 to 5.6 types everywhere except Italy which had women naming 6.1 types, compared with 6.0 types for men.

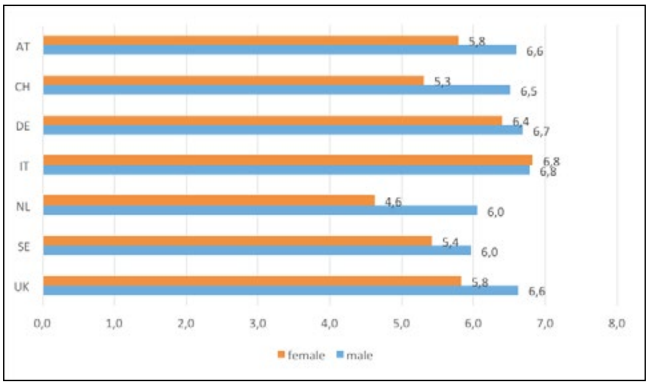
FIGURE 6.3.
Average number of types of work done (from a possible 8): any crowd work, by gender and country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; means rounded to one decimal place).

A similar pattern emerged when respondents carrying out crowd work at least weekly were investigated, as can be seen from Figure 6.4. There was a general tendency for weekly crowd workers to cite even more types than the occasional crowd workers. This may indicate that those seeking to make a living from crowd work must be prepared to offer as many services as possible and may, indeed, be an indicator of desperation to find work.

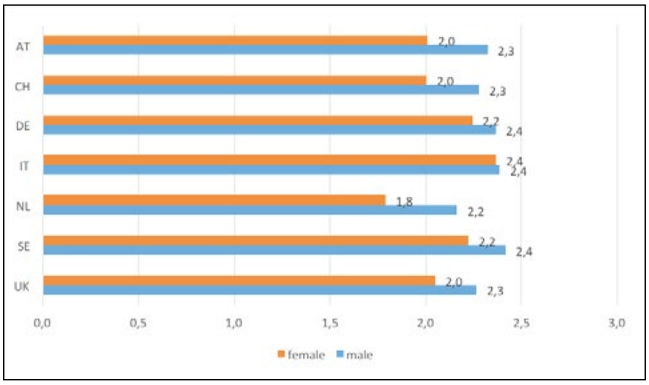
FIGURE 6.4.
Average number of types of work done (from a possible 8): weekly crowd workers, by gender and country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017. Base: 193 respondents in Austria, 196 respondents in Switzerland, 151 respondents in Germany, 288 respondents in Italy, 103 respondents in the Netherlands, 95 respondents in Sweden and 104 respondents in the UK stating that they carried out crowd work at least weekly (weights used; missing and don't knows excluded; means rounded to one decimal place).

Another indicator of gender difference can be derived from the information about the types of work sought online (a category that includes those who had looked for crowd work without finding any). Here, respondents were given three broad categories of work to check: work that could be carried out from their own homes; work that was carried out outside the home; and driving work. Once again, there was a strong tendency to cite more than one type of work, with men showing somewhat higher levels than women, as can be seen from Figure 6.5.

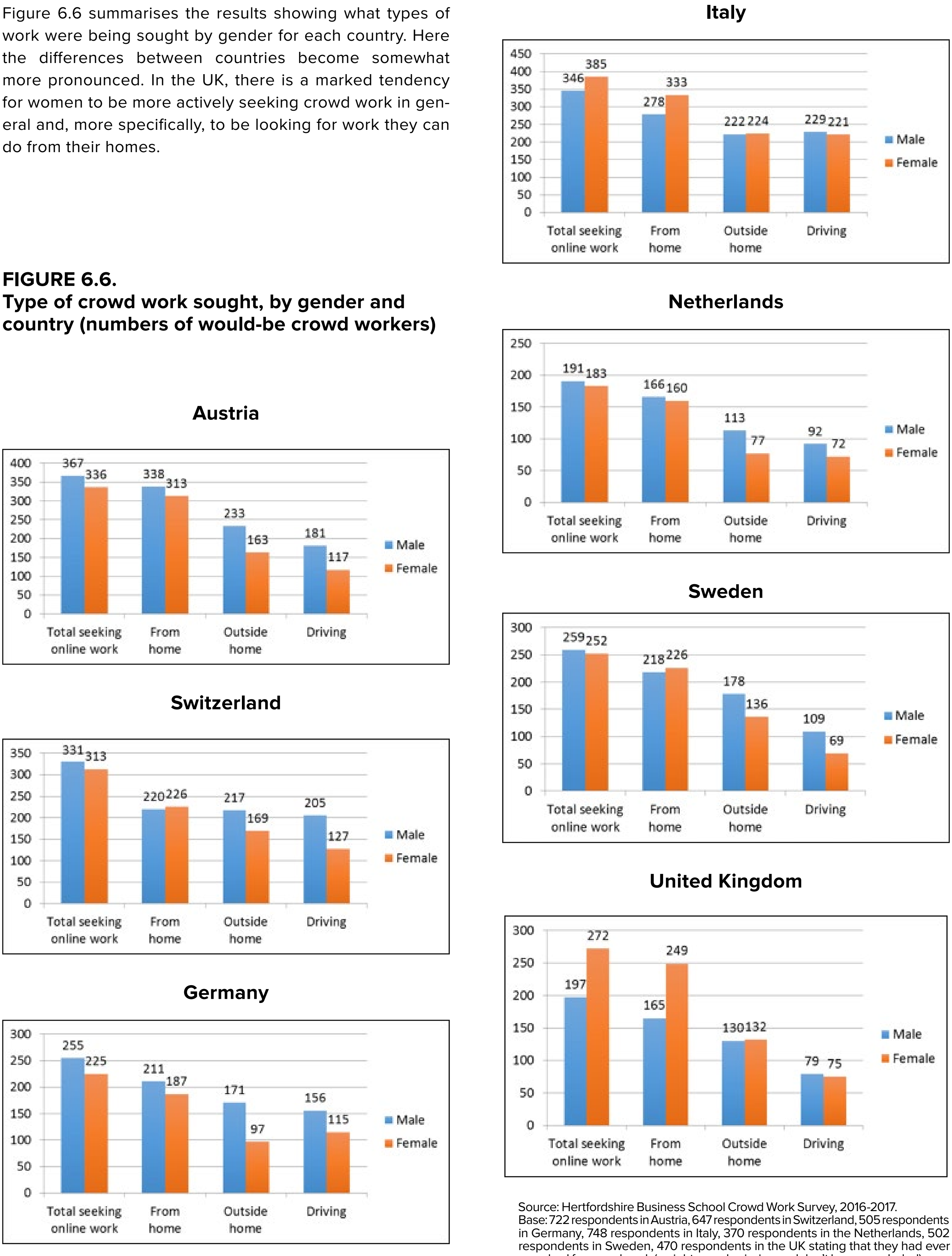
FIGURE 6.5.
Average number of types of work sought (from a possible 3): any seeking crowd work, by gender and country



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; means rounded to one decimal place).

Figure 6.6 summarises the results showing what types of work were being sought by gender for each country. Here the differences between countries become somewhat more pronounced. In the UK, there is a marked tendency for women to be more actively seeking crowd work in general and, more specifically, to be looking for work they can do from their homes.

FIGURE 6.6.
Type of crowd work sought, by gender and country (numbers of would-be crowd workers)



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017.
Base: 722 respondents in Austria, 647 respondents in Switzerland, 505 respondents in Germany, 748 respondents in Italy, 370 respondents in the Netherlands, 502 respondents in Sweden, 470 respondents in the UK stating that they had ever searched for crowd work (weights used; missing and don't knows excluded).

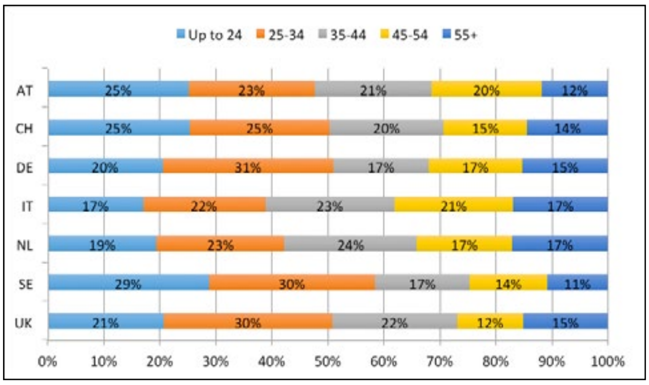
What is perhaps the most remarkable feature of these results is not the gender differences but the relative lack of these compared with other evidence on labour market segmentation by gender. In the UK, for example, driving work is strongly male-dominated. In 2016, out of 351,000 transport drivers, only 47,000 were women, of whom 10,000 (out of a total of 232,000) were taxi drivers, of whom 6,000 (out of a total of 184,000) were self-employed. In other words, in the general UK labour force, women form only 13% of all drivers, 4% of taxi drivers and 3% of self-employed taxi drivers.[5] Yet they form 49% of the self-defined would-be drivers in the UK crowd workforce identified in our survey.

There are several possible explanations for this disparity. It could be that crowd work offers an opportunity for women to enter occupations from which they have traditionally been excluded, perhaps along with other historically excluded groups. Or it could be evidence not so much of achievement as of aspiration. We have already seen the high propensity both of potential crowd workers and actual crowd workers to name several alternative types of work. Could it be that this is a measure of their willingness to earn any kind of an income at all, with offering a wide range of services being seen as a means of optimising their earning potential: a way of saying, so to speak, 'Please give me work. I'll do anything'? This interpretation is supported by some of the qualitative evidence from the UK, as is discussed below.

Age of crowd workers

As expected, young people were more likely than their older counterparts to participate in crowd work. Figure 6.7 shows the breakdown of respondents saying that they had done any crowd work by age, with Figure 6.8 showing the age breakdown of the total sample for comparison. As can be seen, people under the age of 24 have a higher propensity to say they have done some crowd work in all countries, with a difference ranging from 4.9 percentage points in the UK to 11.7 in Austria (it should be noted that in Austria this category covered only 18-24-year-olds, but 16-24-year-olds in all other countries). There is a similar pattern in the 25-34 age range, although here, the lowest difference is in Austria, at 2.4 percentage points, with a high of 13.6 percentage points in Germany. In the 35-44 age range, the likelihood of being a crowd worker is close to the average in each country, with a fall in the older age ranges (here it should be noted that the upper age limit in the sample varied between 65 and 75 depending on the country). What is perhaps surprising here is the extent to which older age groups are actively participating in a form of work that has only appeared on a significant scale in the last decade, overturning stereotypes that crowd work is a phenomenon only affecting the young.

FIGURE 6.7.
Age of crowd workers, by country (%)



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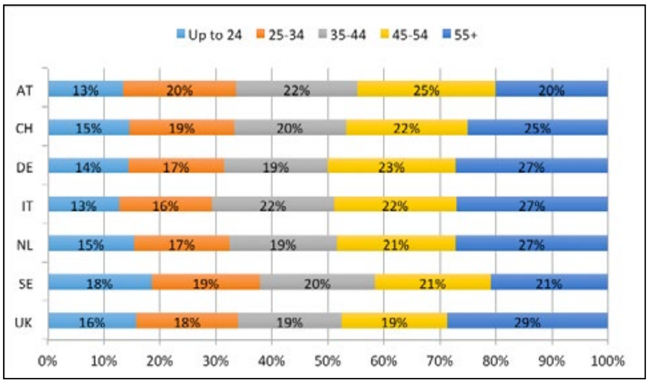
Note: The under-24 age category includes people aged 16-24 in Switzerland, Germany, Italy, the Netherlands, Sweden and the UK and 18-24 in Austria. The 55+ age category includes people aged 55-65 in Austria and Sweden, 55-70 in Switzerland, Germany, Italy and the Netherlands and 55-75 in the UK.

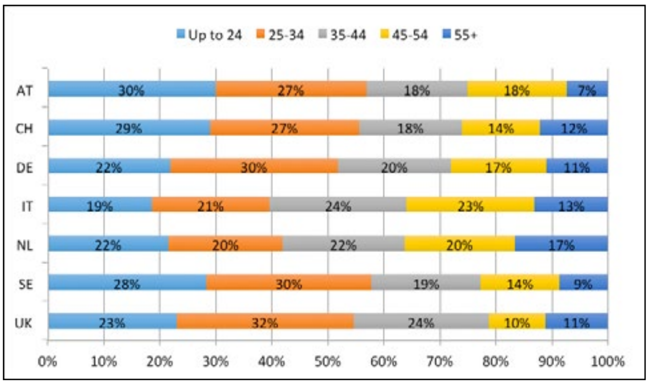
FIGURE 6.8.
Age of total adult population sampled, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017. Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).
Note: The under-24 age category includes people aged 16-24 in Switzerland, Germany, Italy, the Netherlands, Sweden and the UK and 18-24 in Austria. The 55+ age category includes people aged 55-65 in Austria and Sweden, 55-70 in Switzerland, Germany, Italy and the Netherlands and 55-75 in the UK.

[5] UK Labour Force Survey Data, April-June, 2016. Accessed on September 30, 2016 from: http://www.ons.gov.uk/employmentandlabourmarket/

FIGURE 6.9.
Age of weekly crowd workers, by country (%)



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A closer focus on those who do crowd work more intensively (respondents who reported doing so at least weekly) shows a stronger bias towards the young, as can be seen from Figure 6.9, which shows that in all the countries surveyed apart from Italy, at 39.6%, and the Netherlands, at 42.0%, people under the age of 35 made up half or more than half the crowd workforce, ranging from 51.8% in Germany to 57.8% in Sweden. Nevertheless, the older generation is by no means absent altogether. In Italy and the Netherlands, over a third (35.9%/36.3%) of crowd workers were aged 45 or over (compared with 28.0% in Germany, 26.1% in Switzerland, 25.1% in Austria, 22.7% in Sweden and 21.2% in the UK).

The evidence from our qualitative interviews suggested several reasons why older people take up crowd working. In some cases (illustrated by 69-year-old IT specialist David and 42-year-old tasker Maya) it was because they had been made redundant from previous regular employment. In the case of 69-year-old engineer John, it was more a question of adapting his existing independent consultant role to the realities of the Internet Age. The 58-year-old historical novelist, Barbara, also had a primary identity as a self-employed person, but here the motivation was not to use crowd work to earn an income in this capacity but rather to subsidise her creative work by engaging in other kinds of work. In doing so, she was not doing anything fundamentally different from younger crowd workers who use crowd work to provide an income that can support other creative, learning or caring activities.

Crowd work as a last resort?

Motivations for taking up crowd work are complex and diverse. There are undoubtedly many for whom it is a positive choice. However for some of our respondents it was a last resort, chosen as the only available means of making ends meet. We discuss some of these cases here.

One of our respondents, Maya, provided a clear example of someone who was prepared to try anything that could generate some income. She had experienced a lot of different kinds of work, as a direct employee, through agencies and using online platforms. Most of her work with online platforms involved cleaning or other household tasks but she had also attempted to register with rideshare platforms and platforms offering more skilled household services and exhibited considerable knowledge of the range of platforms available. Nevertheless, she still had trouble finding enough work – even being accepted on platforms.

> *They [referring to a US-based 'handyman' platform] are very big in the UK, they work in major cities in England, and they refused me. I'm not sure why, but it's an automatic system. ... And I know it's maybe that those platforms are already full, because my friend was applying to [name of another international platform] and he said that he didn't get any message for around a month now. So, it's possible that all those platforms are full, I don't know...Well it's – platform work, for me, is unsustainable. It's not a sustainable form of financial work, it's not. For me, I cannot survive on it, because there's no work, the platform has changed, they've become greedier. It's like with [name of rideshare platform] ... They are now putting their prices up from 20% to 30% commission, it's going up. (Maya, 42, UK)*

Tasker Janek was less pessimistic but more cynical, regarding crowd work as one of a range of low-paid jobs with little to choose between them. When asked if he had considered giving it up for some other kind of work he replied:

> *To replace this with something else? ... No, I haven't really considered getting something else, because leaving and then trying to find another job is a lot of effort that I don't want to right now. And I think ... and all of these kinds of jobs that are low paid, you end up with quite similar problems. Maybe a little bit different, but you always end up in these situations where you're quite low paid and they try to get as much out of you for as little as possible. I don't think I'm going to find something that is financially better off ... yeah. (Janek, 38, UK)*

Nevertheless, he found the low status of the work socially embarrassing.

peopleinwork/employmentandemployeetypes/datasets/employmentbyoccupationemp04.

> *I say that I am a handyman. No, I mean, you know, people – first of all, people don't react, you know, because I am educated and like people I tend to try to make contact with are educated as well. So, for them, what I do is like below their social class they are in. So, it creates an awkward situation because they don't know how to behave, that's one thing, and then at the same time I don't feel like you know this is something I want to do forever. So, I feel like, you know, it serves, to a certain extent, my needs but it served my needs in the situation I was. When I started to live in London I had no money and I had to kind of try to build my life from nothing but at the same time you know it's not something I feel like will get me anywhere. (Janek, 38, UK)*

Student, Hilary (27, UK) also saw crowd work as an alternative to other kinds of casual work, such as bar work:

> *Last year I wasn't doing [crowd work], and it was okay but it was quite tight. So the main motivation was, yeah, just to get something, like a little job, that I would not have to go through a long application for just to, I don't know, yeah, search for, for a long time, to find a job that, yeah, that kind of … that I could just get like a casual job, something like bar work or something, and for me, [name of platform] was, yeah, the best. (Hilary, 27, UK)*

Another interviewee, Serkan, expressed a view that was even more pessimistic than Maya's. He had become a driver for a rideshare platform after the failure of a Turkish restaurant he used to run.

> *I haven't seen a positive yet. And just struggling. I ask people to lend me money sometimes if I'm back, because I need to keep up with the mortgage payments, and just hoping the things will get better. But I'm working as hard as I can to keep up with the payments and pay the people who lends me money. But I'm struggling. It's not that easy … I'm struggling. (Serkan, 48, UK)*

Another driver, Mustafa, was similarly desperate.

> *Well, at the moment, I mean, I am so stuck in debt that I don't have no time or flexibility to be able to do anything else. I was making good money, but now they reduced their prices, they reduced the, the prices for the client and then you start to make less money. You still have got the same outgoings but you start to make a lot more less money…*
>
> *I am a responsible father and husband. So, I have to go out of my way to come up with different sorts of income, you know, I have to create that so that I don't have to go out and apply for, you know, I hate being in the benefits. I don't want to take any benefits. I don't want to, you know, back in my country in Turkey, I have never taken any benefits. I have lived in America, in Miami, I've never taken any benefits, and I surely don't want to take any benefits while I'm here in England, you know. But this job give you so much pressure, you know, and your kids are asking you, if your kids are asking, daddy, I want to go to a park, I want to go swim, I want to go take tennis lessons, I want to go take, you know that your kids are, your kids are capable, you know and then automatically I'm thinking like, how am I going to be able to pay for all this?*
>
> *for example, last weekend, this week, the schools are closed for my kids and my wife and my wife has been literally sitting and in front of the computer and she's literally doing all her assignments so that she can turn in, into the university that she's studying, you know, and does she needed to go through this? She didn't, but at first, at first, we had to because we had no other income. We had to create an income for ourselves actually, and if you don't want to get any benefits from left and right, you know, you have to look after yourself. That's why we're trying our very best so that we can literally come up with different sort of, you know, sort of income. (Mustafa, 32, UK)*

A third driver, Ahmed, even suggested that he had been coerced into platform work against his wishes, being directed to it by the authorities although he had explicitly stated that he wanted to be an employee, not self-employed.

> *The only reason I'm surviving because I'm getting benefits. I'm depending on the state benefit. That's why I'm surviving it. And the majority of the people, yes, they are surviving it. And one more point I just want to discuss with you. Recently, I mean, I've been assaulted, not at work, but I was at the place where I used to live and the guy who was there, he assaulted me, so I was unable to work. So, I was getting the ESA, Employment Support Allowance, that was I'm talking about the last two years. Then, after two months or three months, they told me, my doctor told me you are fit to work. But I really didn't want to go on that time and join [name of rideshare platform], so I went to the Jobseeker Allowance. I told them that I really don't want to do this work, because I don't consider myself self-employed. This is just exploitation of workers, I don't want to do this type or part of this exploitation of work. So, I went to the Jobseeker Allowance… I went there, I told the lady and she said 'okay, no problem, that's fine.' She said, 'what you used to do before?' … I told her that I'm self-employed. I used to work at, she said 'what you used to do?' I said 'I'm a privatised driver, used to work with [name of platform].' She said, 'go back to them.' She said, 'go back to them. You are back out.' She basically says to me that she force me to go back and work with [name of platform], because these are the companies that even the government support them now, DWP, Jobcentres, Department of Work and Pension – they are telling, [name of platform] is lobbying those departments and going to the department and telling them, we are creating that many jobs. Go talk to me, there are no jobs. This is not a job. Where you going to either just leave it. This is not a job, this is modern day slavery, that's what it is, I call it. (Ahmed, 39, UK)*

Such negative accounts must be balanced against more positive experiences, some of which will be discussed in a later chapter of this report.

7. EMPLOYMENT STATUS

In the policy debates about crowd work there is perhaps no question more vexed than that of their employment status. Many platforms insist that their workers are 'independent contractors', with the role of the platform simply being to mediate between them and their clients. However legal experts frequently argue that the relationship of workers to the platforms is often a dependent one, and that the status of the workers should reflect this subordination (de Stefano, 2016). A number of recent legal judgements in the UK have supported this opinion, awarding 'worker' status to the crowd workers but falling short of regarding them as 'employees'. Meanwhile, there have been proposals to create a new kind of legal status for crowd workers as 'independent workers' (Harris & Kreuger, 2015) or 'dependent contractors' (Taylor, 2017). These debates raise issues that extend beyond the immediate topic of crowd work, raising larger questions about how self-employment and employment should be defined in the rapidly-changing and diverse labour markets of the 21st century.

Most labour market statistics are based on the assumption that clear and simple distinctions can be drawn between workers. In any given labour market, it is presumed that anybody who is economically active is either unemployed, or employed, with the employed divided between employees and the self-employed. Employment is further broken down into full-time and part-time employment, and permanent and temporary employment. Self-employment is also sometimes subdivided into categories, with distinctions being made, for example, between own-account workers and those with employees. Seasonal workers in industries like agriculture and tourism are also sometimes categorised separately. Some labour market surveys also recognise the possibility that people may do more than one job.

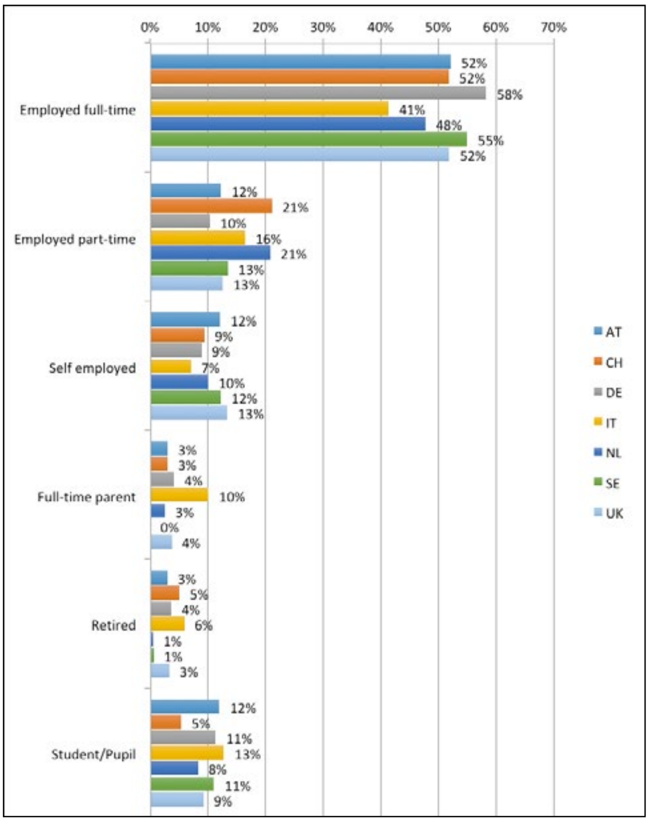
Unsurprisingly, such categorisations have developed in parallel with the relevant regulations in a complex process of mutual adaptation. There are situations when regulations have shaped changes labour market practices as well as reflecting them, for example when working hours are defined in order to include, or exclude, certain workers within the scope of specific regulations pertaining to part-time work, or contracts designed in such a way as to comply with, or avoid, restrictions on temporary or fixed-term working.

The Ipsos MORI omnibus polls to which our survey was added collect information on participants using the standard categories, asking them to select whether they are employed full-time, employed part-time, self-employed, unemployed but looking for a job, unemployed and not looking for a job/long-term sick or disabled, a full-time parent or homemaker, retired, or a student/pupil. Respondents are only allowed to select *one* of these categories. In recognition that crowd workers might not fit into these mutually-exclusive categories, we added some extra questions to our survey which, instead of this either/or logic, allowed respondents to code multiple categories in the knowledge that some of these might overlap, including the addition of an additional category 'more than one job'. In the later surveys (the online surveys in Italy and Switzerland and the offline ones in the UK and Switzerland) we also added the category 'independent contractor', since by then this term was appearing with some frequency in media discussions of the 'gig economy'. It must be emphasised, of course, that in asking respondents to select these categories what we were exploring was their own perceptions of their employment status (which might be very different from how this statuswould be designated in a legal judgement).

In addition to collecting information on these different employment statuses, we also explored sources of income from sources other than the sale of labour, asking respondents whether they received an income from a pension or state benefits or from rent or other investments.

How do crowd workers view their employment status?

FIGURE 7.1.
Employment status of crowd workers, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016- 2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Figure 7.1 shows the self-declared main employment status of crowd workers, as expressed in the standard, mutually-exclusive questions.

As can be seen, crowd workers were most likely to describe themselves as employed full-time, a status that was claimed by 41% (in Italy) and 58% (in Germany) with intervening ranges between 48% and 55% of crowd workers in other countries. On the basis of this evidence alone, we cannot be sure how many of these crowd workers described themselves in this way because they had a full-time regular job and how many did so because they regarded themselves as full-time employees of the platforms from which they obtained their work. The proportion describing themselves as self-employed was rather low, ranging from 7% (in Italy) to 13% (in the UK). With the exception of the UK (where it equalled self-employed status, at 13%) this was exceeded by those describing themselves as part-time employees, where there was a range from 10% in Germany to 21% in Switzerland and the Netherlands.

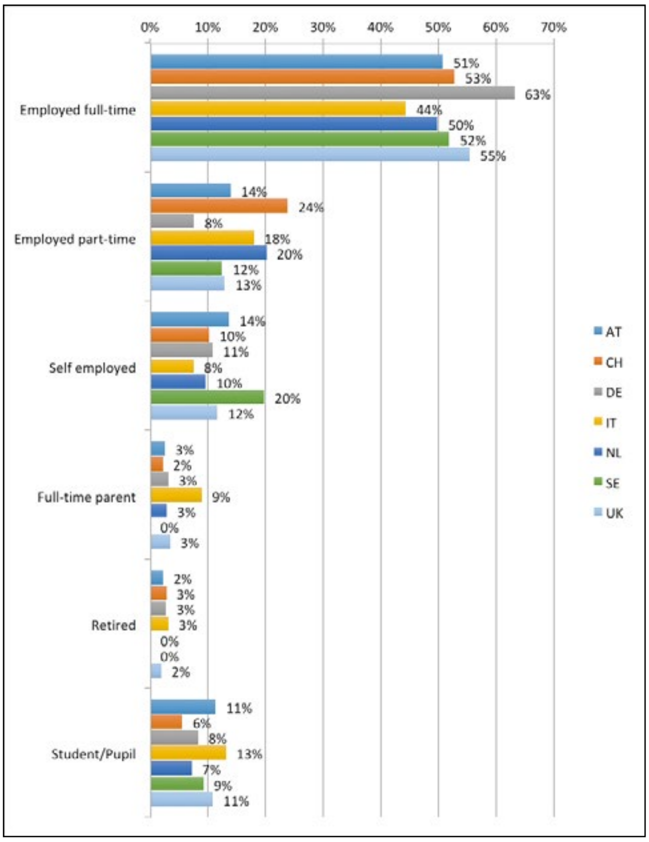
It might be expected that among frequent crowd workers there would be an increase in declared full-time employment status, but, as Figure 7.2 shows, this was not necessarily the case. It was slightly lower than the overall average in Austria (at 51% compared with 52%) and in Sweden (at 52% compared with 55%) for people who carried out crowd work at least weekly, but in all other countries it was actually higher, suggesting that some crowd workers, at least, may regard themselves as full-time employees of the platforms they work for.

However apart from the UK (where it was slightly lower, at 12% than the average 13% for all crowdworkers) the proportion claiming to be self-employed was higher among frequent crowd workers. This difference was not dramatic, though, exceeding two percentage points only in Sweden, where it was 20% for frequent crowd workers compared with 12% for all crowd workers.

The differences in other categories were minor, never exceeding three percentage points.

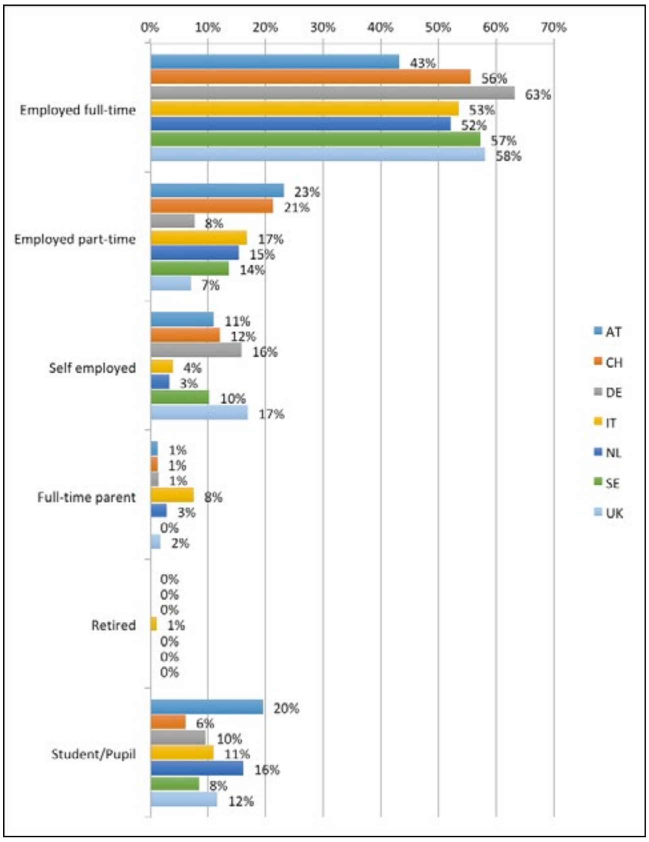
Although the numbers declaring their income were smaller, we also carried out a comparison between all crowd workers and those earning more than half their income from crowd work, shown in Figure 7.3. These figures should be treated with some caution, being based on very small numbers in some categories. Nevertheless, they demonstrate a similar picture, with between 43% (in Austria) and 63% (in Germany) describing themselves as full-time and between 7% (in the UK) and 23% (in Austria) as part-time employees. The numbers in the other categories are too small to render analysis meaningful and are presented here only for the sake of completeness.

FIGURE 7.2.
Employment status of at least weekly crowd workers, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016- 2017. Base: 193 respondents in Austria, 196 respondents in Switzerland, 151 respondents in Germany, 288 respondents in Italy, 103 respondents in the Netherlands, 95 respondents in Sweden and 104 respondents in the UK stating that they carried out crowd work at least weekly (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

FIGURE 7.3.
Employment status of crowd workers earning at least 50% of personal income from this work, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016- 2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Comparison of crowd workers with general population

In order to compare the employment profile of crowd workers with that of the overall population, we carried out a comparison with the results of the 2015 European Union Labour Force Survey (EU LFS), shown in Table 7.1. It should be noted that the EU LFS does not have an equivalent category to that of 'full-time parent' used in the omnibus survey. The nearest equivalent is that of 'fulfilling domestic tasks' which has been used here as a proxy.

TABLE 7.1.
Comparison of employment status of crowd workers with Labour Force Survey

AUSTRIA	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	52%	12%	12%	3%	3%	12%
Amongst at least weekly crowd workers	51%	14%	14%	3%	2%	11%
Amongst those earning 50% + of income from crowd work	43%	23%	11%	1%	0%	20%
In working population from 2015 Labour Force Survey	35%	14%	6%	4%	24%	6%
SWITZERLAND	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	52%	21%	9%	3%	5%	5%
Amongst at least weekly crowd workers	53%	24%	10%	2%	3%	6%
Amongst those earning 50% + of income from crowd work	56%	21%	12%	1%	0%	6%
In working population from 2015 Labour Force Survey	39%	26%	9%	11%	19%	7%
GERMANY	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	58%	10%	9%	4%	4%	11%
Amongst at least weekly crowd workers	63%	8%	11%	3%	3%	8%
Amongst those earning 50% + of income from crowd work	63%	8%	16%	1%	0%	10%
In working population from 2015 Labour Force Survey	35%	14%	5%	n/a	n/a	n/a
ITALY	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	41%	16%	7%	10%	6%	13%
Amongst at least weekly crowd workers	44%	18%	8%	9%	3%	13%
Amongst those earning 50% + of income from crowd work	53%	17%	4%	8%	1%	11%
In working population from 2015 Labour Force Survey	28%	6%	8%	14%	22%	7%
NETHERLANDS	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	48%	21%	10%	3%	1%	8%
Amongst at least weekly crowd workers	50%	20%	10%	3%	0%	7%
Amongst those earning 50% + of income from crowd work	52%	15%	3%	3%	0%	16%
In working population from 2015 Labour Force Survey	27%	30%	8%	5%	6%	11%
SWEDEN	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	55%	13%	12%	0%	1%	11%
Amongst at least weekly crowd workers	52%	12%	20%	0%	0%	9%
Amongst those earning 50% + of income from crowd work	57%	14%	10%	0%	0%	8%
In working population from 2015 Labour Force Survey	53%	19%	7%	1%	9%	12%
UK	Employed full-time	Employed part-time	Self employed	Full-time parent	Retired	Student/ Pupil
Amongst crowd workers	52%	13%	13%	4%	3%	9%
Amongst at least weekly crowd workers	55%	13%	12%	3%	2%	11%
Amongst those earning 50% + of income from crowd work	58%	7%	17%	2%	0%	12%
In working population from 2015 Labour Force Survey	33%	12%	7%	n/a	n/a	n/a

Sources: European Union Labour Force Survey, 2015;
Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

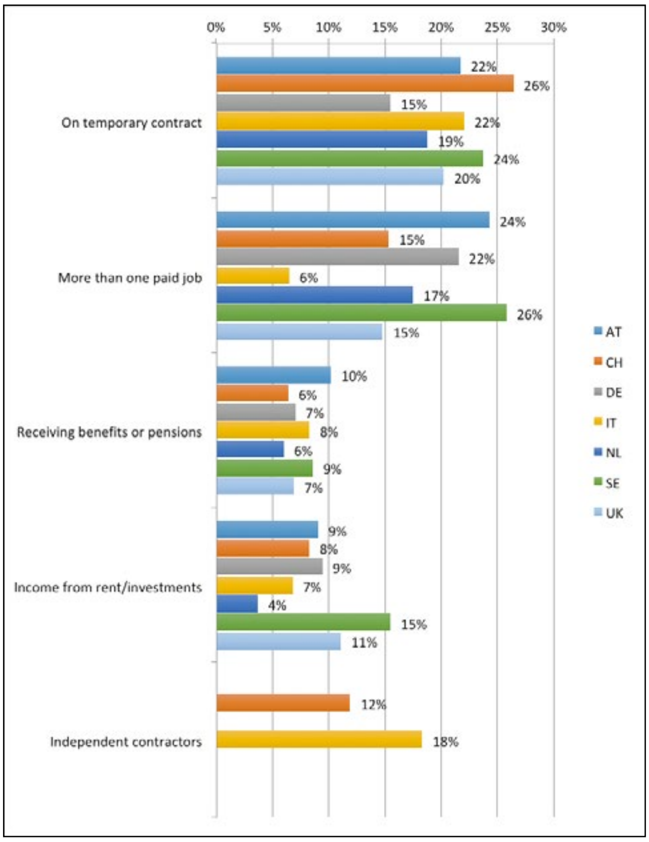
As can be seen, in all countries except Sweden, crowd workers are much more likely than the general population to describe themselves as being in full-time employment. In Sweden, however, the difference is small. While the proportion of crowd workers who say they are employed full time, at 55%, is slightly higher than the proportion in the general population, at 53%, this falls to 52% among those who crowd work at least weekly. The pattern for self-employment is more mixed. In Switzerland, the proportion of crowd workers who say they are self-employed (at 9%) matches the national picture exactly. In most of the remaining countries, it is, as might be expected, higher among crowd workers than in the general population. In Italy, however, the proportion of crowd workers saying that they are self-employed is actually slightly *lower*, at 7%, than in the general population, where it is 8%.

It is popularly believed that students are more likely than the general population to be crowd workers. In fact this is only true in Austria and Italy. In Switzerland, the Netherlands and Sweden they are less likely to do this kind of work. In general, it can be concluded that the representation of students in the crowd workforce is broadly in line with their general distribution in the labour force.

Complexity of labour market status of crowd workers

As already noted, in addition to the mutually exclusive standard questions on labour market status asked in the omnibus survey, we added some additional questions to this survey in which respondents were allowed to tick more than one option. Because of this possibility to self-select more than one category, there is some overlap between the responses in Figure 7.4 below, which shows the results of this exercise. As the table shows, quite a high proportion of crowd workers, ranging from a low of 15% in Germany to a high of 26% in Switzerland, said that they were temporary workers. As in the questions about employment status discussed above, we cannot, of course, assume from this that they necessarily regarded their crowd work as temporary work; it is possible that they had other employment on a temporary contract. In relation to the question whether they had more than one job, there was greater variation between countries. In Sweden, more than a quarter of crowd workers (26%) said they had more than one job (interestingly, more than twice as many as the 12% who said that they were employed part-time, shown in Figure 7.1). In Italy, this was much lower, at 6%, with levels between 15% and 24% in the remaining countries. The option of claiming independent contractor status was only offered in the last two surveys, in Italy and Switzerland. This was clearly a status with which a number of crowd workers identified, at 12% in Switzerland and 18% in Italy. Nevertheless, this falls far short of the majority of crowd workers that some industry analysts would expect

FIGURE 7.4. Labour market status of crowd workers, by country (%)



Source: Hertfordshire Business School Crowd Work Survey, 2016- 2017. Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).
Note: Only those in Switzerland and Italy were asked if they considered themselves to be independent contractors.

In order to gain an impression of whether these levels of temporary work and double-jobbing were unusually high, we also compared these results with the results of the 2015 European Labour Force Survey, shown in Table 7.2., which provides data on both of these variables.

TABLE 7.2.
Comparison of labour market status of crowd workers with Labour Force Survey

AUSTRIA	On temporary contract	More than one paid job
Amongst crowd workers	22%	24%
In working population from 2015 Labour Force Survey	4%	2%
SWITZERLAND	On temporary contract	More than one paid job
Amongst crowd workers	26%	15%
In working population from 2015 Labour Force Survey	7%	5%
GERMANY	On temporary contract	More than one paid job
Amongst crowd workers	15%	22%
In working population from 2015 Labour Force Survey	6%	3%
ITALY	On temporary contract	More than one paid job
Amongst crowd workers	22%	7%
In working population from 2015 Labour Force Survey	4%	1%
NETHERLANDS	On temporary contract	More than one paid job
Amongst crowd workers	19%	17%
In working population from 2015 Labour Force Survey	10%	5%
SWEDEN	On temporary contract	More than one paid job
Amongst crowd workers	24%	26%
In working population from 2015 Labour Force Survey	11%	7%
UK	On temporary contract	More than one paid job
Amongst crowd workers	20%	15%
In working population from 2015 Labour Force Survey	2%	2%

Sources: European Union Labour Force Survey, 2015;
Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 388 respondents in Austria, 361 respondents in Switzerland, 281 respondents in Germany, 494 respondents in Italy, 189 respondents in the Netherlands, 189 respondents in Sweden and 209 respondents in the UK stating that they had ever carried out crowd work (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

It is possible that the ability to select more than one category in this question in our survey elevated the levels of response, so the results of the two surveys are not strictly comparable. Nevertheless, they do suggest that crowd workers are much more likely than the general population both to describe themselves as temporary workers and to say that they do more than one job. In the Netherlands, where the difference was smallest in percentage terms, crowd workers were nearly twice as likely to say that they were on temporary contracts (at 19% compared with 10% of the general population). In Sweden, they were more than twice as likely to do so (at 24% compared with 11% in the general population). In other countries, the likelihood was several orders of magnitude greater: ten times higher in the UK (20% compared with 2%); more than five times higher in Austria and in Italy (22% compared with 4%); and around three times higher in Germany and Switzerland (15% compared with 6% and 26% compared with 7% respectively).

The differences are if anything even more dramatic in relation to those claiming to do more than one job. Across the population as a whole, the proportion who say that they do so ranges from 1% in Italy to 7% in Sweden. However among crowd workers the range is from a low of 7% in Italy to a high of 26% in Sweden. These results are of course not unexpected, given the high proportion of respondents who say that crowd work is not their main, or only, source of income. Taking this into account, the levels could even be thought to be low among crowd workers, with less than a quarter describing themselves as doing more than one job in all countries except Sweden, where it was 26%. Perhaps the explanation for this lies in a perception that crowd work is not a 'job'.

Whatever the precise explanation, these results add to the picture of crowd work as a shifting and contingent form of employment that takes place alongside other forms of income generation.

We wanted to explore the extent to which these other forms of income might derive from sources other than employment. This was explored in relation to two questions, the first referring to income from benefits or pensions and the second to income from rent or investments. These results are also shown in Figure 7.4 but we do not have comparable data from the EU LFS with which to compare them. As can be seen, these other sources of income do play a significant role for a minority of crowd workers. Between 6% and 10% are in receipt of some benefits or pensions, with rather little difference between countries. In relation to income from rent or investments, the picture is more varied, with only 4% of crowd workers reporting such income in the Netherlands, but 15% doing so in Sweden and 11% doing so in the UK. In the other countries, the range is between 7% and 9%.

This further confirms the impression that crowd workers are patching together incomes from multiple sources.

The experiences, perceptions and opinions of crowd workers

We also asked interviewees for their views of their employment status in our qualitative research. In general, those who were doing remote online work for platforms (David, the IT consultant, Barbara, the historical novelist, John, the skilled engineer and Martin and Henry, who also made most of their income working online for platforms) regarded themselves as freelancers and appeared comfortable with this status.

However most of the participants doing offline work for online platforms were more critical.

Delivery worker Hilary, the delivery work, had this to say:

> *I have some issues with the company, how it works, how it operates, how it treats its riders… I say I work for [name of platform], okay, I guess that's true, but I'm not actually a worker or employee of [name of platform]. I'm an independent contractor for [name of platform]. So, I'm self-employed. [name of platform] is technically my customer, not my employer. I think this is a bullshit thing they've done to try and save money and transfer risk … and you are kind of aware of that*

> *Yeah, I would like, for me, it would be better if they paid you … if I was employed by them or I worked for them, if I had like the normal kind of relationship you would have with the employer. It would be better if they paid the London living wage, or something around that amount, and that if you got some kind of insurance, sick pay, holiday pay, things like this. I think that would change my perception of the employer, you know what I mean, and my perception towards the job at the moment. So, you really feel like they're trying to get as much out of you for as little as possible, which I understand is the situation in many jobs, but not the best feeling. …There's always this fear they'll take you off the application. Like, I'm not employed by them so they don't have to fire me. (Hilary, 27, UK)*

These views were echoed by another delivery worker, Ben, who linked the question of employment status to the issue of which party pays for the overhead costs of the work:

> *They've classified us as totally independent self-employed people, who, if you read the contract, we supposedly run our own business. It means that we shoulder all of the operational costs of the company. That means my fuel, if you will, the amount of the food that I have to eat to do the job, which is quite immense, you eat a potentially shocking amount of food when you're working, especially when I was working 30 hours a week. There's a massive difference that includes bike maintenance, when you're riding a lot, it costs a lot as well, and then potential costs, such as if you have an injury or you damage someone else's property, which when you riding around at night. (Ben, 25, UK)*

He also discussed employment status in relation to lack of benefits such as sick pay but acknowledged that this was a general problem with casual work, not an exclusive characteristic of online platforms, but nevertheless more pronounced in platform work, which he attributed to lack of voice for workers.

> *In some regard, working the jobs that I'd been working before, they also hadn't been secure. In those jobs, I also wouldn't have been paid if I had an injury or gone off sick or whatever. My patience for that is wearing thin, I suppose, and then with [name of platform] I think it's, there's more of it, in my head it's more of a, because there's no one, there's no single person, I can't reason with someone to defend my position or whatever. There's no dialogue there, whereas in other jobs I've had, if I've fallen ill or have gone off sick or whatever, at least there's someone I can speak to, I can say that this is the situation, you know, what can we work out? (Ben, 25, UK)*

Tasker, Janek, felt strongly that he was not genuinely self-employed because he had no control of the rates that could be charged for his work. He contrasted his own situation with that of an independent trader who is able to charge call-out charges. His argument was linked not so much to employment status *per se* but to minimum earnings.

> *I don't think that it is a right thing to do, to force people to work for less than on the market. There should be a call out charge and people, whatever they do, they should be able to say what is the minimum amount of money I can get. I have to be paid for a job, because if someone has no money himself and he is on minimum wage and he wants someone else to come and do something for him and he will pay me eventually less than minimum wage, this is not fair, you know, and they make money on it, which is ridiculous. I think that the one thing, they should give ability to people to say what is the minimum amount of money someone has to pay for my service, that the one - that's the main thing. (Janek, 38, UK)*

The drivers we interviewed recognised that they were regarded as self-employed but thought that this was inappropriate and unfair. This was sometimes linked by them, as with the taskers, to the issue of control, as expressed here by Ahmed:

> *Now they accept the national insurance payment when you submit your return as a self-employed, which I don't consider myself, myself self-employed, because I don't have access to the customers, I don't have any customers, I don't negotiate the fare with the customers, I cannot refuse, I cannot refuse a job without the fear of deactivation, even for 10 minutes. If I don't accept the job three times, the [name of platform] deactivate me for 10 minutes. If you are consistent, if you are consistent, they will deactivate you permanently. (Ahmed, 39, UK)*

However, again like the taskers, it was also associated with an inability to be able to set prices.

> *It's not even a minimum. Now, even if it's a minimum wage, even if I come to £6.40 calculation, still it's not a minimum wage, because [name of platform] is not giving any holiday pay, [name of platform] is not giving me a fixed rate, [name of platform] is not giving me my 20 for 20 rate pay, [name of platform] is not giving me any national insurance. [name of platform] is not paying my pension. I have no pension, I'm 40, nearly 40 years old now, I have no pension. (Ahmed, 39, UK)*

Like several other interviewees, despite being concerned about not being in a pension scheme he confessed ignorance about how the UK pension system actually worked. Even online trader cum driver Fahir, who also had experience of running his own business said:

> *I don't know anything about pensions or National Insurance numbers. When I had my restaurant before and my accountant, I know, I am sure I used to pay all these MIE [meaning unclear] numbers and all the pension, but since I lost my restaurant my company doesn't make no money. I don't know what's going on with the pension business. I don't know how it works. All I know once I come to 67 years old the State will give me some pension, but I don't even know how much it is and what to do with it. I don't know anything about pension. (Fahir, 43, UK)*

These quotations, and others like them, illustrate not only a general dissatisfaction with their current employment status on the part of some crowd workers but also considerable lack of knowledge of their rights and the workings of the existing systems. This indicates that there may not only be a need for a clarification of existing regulations but also for adaptations that make them fit for purpose in relation to the protection of vulnerable crowd workers.

8. WORKING CONDITIONS

As has been shown, crowd workers cover a wide variety of different occupations and types of activity. This chapter does not attempt to give an exhaustive overview of their diverse working conditions. Rather, it focuses on some aspects of work organisation that are specific to crowd work, and presents crowd workers' attitudes to these, drawing on our qualitative interviews.

Flexibility and variety

On the positive side, almost all our interviewees said that they valued the flexibility of crowd work, a feature that was often linked to the varied nature of the work and the opportunity to interact with a wide range of clients (and, in the case of the delivery workers, with fellow workers, with whom they hung out while waiting for work).

Graphic designer Henry (36, Estonia) had been motivated to give up his previous job precisely because crowd work allowed him to combine work with child care and taking care of his mother. Students Hilary (27, UK) and Maria (20, Estonia) had also chosen crowd work to enable them to fit work flexibly round their studies.

Online trader Fahir had also initially chosen crowd work to give him more time with his family:

> *Well, four years ago, I want to work more from home so that I could spend more time with my kids, and I literally quit my restaurant manager position after … years in the restaurant business, and I started to work as a, you know, a taxi driver and where I get to my initial idea to spend more time, you know, with my kids, be more flexible and also making more money. (Fahir, 42, UK)*

He had now reached a stage in the development of his currency trading career when he could choose to do crowd work only when it happened to fit in with his working patterns.

> *So, now I use [name of platform] for my advantages. For example, I'm going to a meeting right now, I have an appointment. So, where I'm going, I'm going to see a client of mine and I'm going to talk about how, you know, how to invest in start-up companies. So, and on the way, as I'm talking to you right now, I'm driving, and I've got my [name of platform] app open and the destination I put on the platform is where my meeting is, going to be. So, in case it says any job comes while I'm driving, any job comes in to my telephone, I will take that customer and I will drive towards, you know, towards wherever my meeting is. (Fahir, 42, UK)*

Tasker, Maya expressed the advantage of flexibility in these words:

> *Platform work is great for flexibility. If you are studying and you are working it's really good. It's a life saver; I tell you, it's a life saver. For people who are studying,*

who have kids and all that, it's just amazing, it's very, very good … and you meet lots of different people who you would not probably meet normally in life.

Janek, another tasker, also expressed a common view:

I am flexible, that I have no – that there is no one above me who tells me what to do. So, in that sense I have less stress, as I don't have to be manipulated by my boss or something. In that sense, it's better, and that I can still sometimes make a lot of good money, you know, I can sometimes make good money for this kind of job. You know, I can make £100 a day, and I will tell you, if I will make £100 a day I am happy. (Janek, 38, UK)

Other respondents expressed some cynicism when discussing the flexibility of the work, while nevertheless recognising its attractions, like this delivery worker.

The guys that I work with, they were great and we hung out in what they call the zone sensor … It was nice, you know, you smoke a cigarette, you chat, and then you cycle, and it's, I like being active and all that business. So in that respect, yeah, there are positive aspects to the job. In another respect, you know, lots of people are attracted by the kind of flexible nature of the thing, which I don't need to tell you, that's the only line, pretty much the only line that the company has to defend its bad employment practise, which is that people like flexibility. So I'm not here to tell them, but that's why some people sign up. (Ben, 25, UK)

Serkan, who combined driving with handyman work was similarly ambivalent. He also welcomed the flexibility of the work:

I work hours I want, that's the good part of all this. Whenever I am not doing anything with handy man, you click your mobile on, you start working. That is the good side of it… Plus there's the timing, so like you can start anytime, you can finish anytime. (Serkan, 48, UK)

However he immediately went on to point out the limitations of this flexibility:

So, I have to work on certain times, so when [name of platform] claims like you can start anytime, finish anytime, yes, you can start the app any time and finish the app, close the app at any time but it doesn't mean you are going to make any money. Do you understand? So if you are a driver, a real driver, and you want to make money, you have to work on the busiest hour, and every single company, where you call them and it's 6 o'clock in the morning, to any company in London, we will be busy on that time.

Communication with platforms – the role of technology

A key feature of crowd work is its strong reliance on technology which does not just serve as the main means of communication with workers and clients, notification of new tasks and recording of work and movements, but is also used as an instrument for processing payments.

A large number of the problematic issues that arose in interviews with crowd workers related to aspects of communication.

Some workers appreciated the relative anonymity of technologically-mediated communication. Others, however, complained about the difficulty of communicating directly with platform staff when things went wrong.

For example Hilary experienced a number of obstacles when trying to communicate with the delivery platform she worked for:

The company itself is a strange one to work for, in the sense that … you can only communicate with them via email. I've never met anyone officially from [name of platform] since the first day when I was interviewed, or it's not even an interview, it's a … I can't remember what they call it. … I think [it was] online… There's a phone number you can ring during the shift if you have a problem with the delivery or if you have a problem with the app, but you're not allowed to ring that number to discuss anything like shifts or other problems. Like sometimes they mis-paid me. You have to email, and it's quite a slow process and it can be quite frustrating. Like, if they've mis-paid you, they take three or four days to reply, and they won't pay you until… even if it's their fault, they don't pay until the next payslip, and then they make another mistake and, all of this, you have to go through emails, explaining again, to a different person each time, what the situation is. (Hilary, 27, UK)

Martin, who had done remote online work via several different platforms, described some of the difficulties he experienced with one particular platform.

Yeah, I mean, if you try to, if you email them with a problem, they'll just generally send you a generic answer and they'll never answer your question completely. There used to be a live chat available for premium members, we're a premium member, so actually we pay another 20 dollars a month to be a premium member, to get access to some information that others don't have. There's no live chat, there's no way of like, you know, oh, I've got a problem, can you help me, etc. There's none of that. It's like we're a big platform, we're a big company, we are here to stay, you can like it or not.

For example, recently I forgot to ask a client to fund *the milestone ... then I finished the contract and then I found out I couldn't get my money out of it. Yeah, it's actually more tricky to get paid through [name of platform] and get the clients – the thing is, right, when the clients pay through [name of platform] they have to do a lot of work, they have to fund it, it takes money from them, it takes money from us, yeah, it takes a week for us to get the money, it goes to PayPal, we get charged for that, you get charged for exchange rates and everything like that as well, right. You have to fund a milestone, they have to approve it, you know, if they don't do it on the right dates it all messes up. It's a nightmare. (Martin, 38, UK)*

Tasker Maya, described similar experiences:

> *In the old days they used to have an answering machine and you would be able to talk to someone .... Now ... you can't leave a message, you can't talk to anyone. If you have a problem you have to talk through the app, and the app is monitored or run by somebody, the team in America. (Maya, 42, UK)*

Delivery rider Ben thought that the lack of direct human contact with platform staff legitimated forms of behaviour that were not acceptable when there was face-to-face contact with managers.

> *[Name of platform] have the ability to flick a kill switch and take your job away, because there's no face-to-face relationship, no face-to-face contact, none of that stuff, not the kind of normal social etiquette that goes along with taking someone's income away, which is much more difficult to do. Like, when I work in a bar. It's very, you know, even if I'm horrible and I do the job badly, it's difficult for someone to turn to someone else and say, 'you know what, you've got to go now, that's it.' And there's a security in forming social bonds, even if they're with people you don't like, I mean, and [name of platform] doesn't have that. So even the most basic, even though, even compared to other jobs where you don't actually have an ability, where you can't really defend yourself from being fired or whatever, there's even that sort of more threatening aspect as ... digital platform work or whatever you want to call it, where your boss doesn't know you, you don't know your boss.*

The only exception to this negative view of platform staff was Maria, who worked for the Estonian branch of a European delivery platform whose staff she found extremely helpful: 'Typically they solve lots of problems for us...They cannot solve everything but at least they try.' (Maria, 20, Estonia)

A major cause of frustration was the frequency with which changes were made to the online procedures as well as to payment and reward systems.

Tasker, Janek, described this in relation to the platform he worked on:

> *The way the platform works is changing from update to update. So sometimes after one month with the next update they change something and the way you can get the work is changing. So it's very hard to kind of define, because how it happens, to be actually aware of what happens you would have to talk to the people who designed this and talk to them, what is their aim. What are they aiming at and how they want to use the platform to achieve this aim, because it's like an ongoing experiment and they are just keep changing it and making sure that this experiment somehow meets their aim. I don't know, and no one knows actually, what they want to achieve, because it's new, it's a new technology. So, they kind of – they don't know themselves what they want, you know? Like, they don't know what customers want. It's like really kind of an experiment. (Janek, 38, UK)*

He recounted the feeling of alienation and voicelessness this induced in him:

> *I feel like I am alienated, in a way, because at the same time, like if you go somewhere and you have to work with people then you're still with someone, and here I end up being on my own. But it's like I feel like nothing I say or do has any impact on the company which I rely on. So I feel like this is supposed to be a platform, but the rules of the platform, I am not – I have nothing to say about the rules of the platform and my impact is zero.*

Driver Ahmed voiced similar views about the rideshare platform he worked with:

> *Yes. If I count it up, I counted up, I mean one day I was just writing down on a piece of paper like how many times they have changed the way I worked with [name of platform] initially and now, and I came up with around 50 different things they have already changed in my business model, without even getting any consultation, even a one word consultation from us, from me. They have changed 70, 50 times but I believe it's around 70 times they have changed it, 70 different changes they have made in their business model, the day they started first initially and then now. Every single month, almost every single week they change something new, they bring something new for the drivers. (Ahmed, 39, UK)*

Arbitrary decisions by platforms

One aspect of the poor communication between platforms and crowd workers that was felt particularly keenly concerned unilateral arbitrary deactivations, whereby crowd workers suddenly found themselves unable to register for work, often with no explanation or warning.

Here, is driver Ahmed again:

And there is nothing you can do, there is literally nothing you, there is no number where you can contact straightaway, there is no way and there is just the [gives details of the platform's email address] when you send an email, you wait for days, it depends on them whether they're going to reply you or they don't going to reply you. It's only depends on them. So, they're not legally obliged to reply you. So, it doesn't matter - if you book a holiday or if you are in debt, you need to pay the bills, and you're working with..., companies like [name of platform] and you don't know, you have no security, basically, so you went home, you'd done your day, you said okay, I'm tired, tomorrow I'm going to be fresh and tomorrow I'm going to start work again, so I can pay my stuff. I got so many things, I go my kid's birthday is coming tomorrow and then you turn up your app, and you are deactivated. (Ahmed, 39, UK)

He described how a colleague of his, who had invested in a very expensive (£80,000) car in order to work on a 'luxury' platform had been deactivated.

So, he bought that car, he was working with [name of platform] for like a few months and then suddenly they deactivate him. They deactivate him without giving him any warning, any grievance procedure, anything. When he woke up and he looked at his app and the app was saying, oh you're not allowed to activate. So, every single day when I go to bed, I pray, I pray to my god, like probably tomorrow is the customers going to complain.

Similarly, other drivers complained that the platforms they worked for were biased towards the customers. As Serkan put it 'Always. If the customer complains, [name of platform] does not even ask us what's happened. They automatically send us some text message, "we don't want even the customer making a similar complaint, we will close your app"' (Serkan , 48, UK).

Ben, who worked for a delivery platform described his own experience and that of a colleague of being arbitrarily suspended:

For apparently no reason, well, at least with no explanation. Just woken up, gone to sign in, found out that my shifts had been taken away and I was unable to sign in. The bosses, I mean, I've never met them, but they're an email's distance away. The only way you can speak to someone regarding payment and rostering is by emailing them, but if you email you just have to wait for a response, right, and maybe it takes a week, maybe it takes two weeks, and one time, in one instance, it took two weeks to get my shifts back....

They didn't offer me any explanation for what happened, but that was when it was my main source of income, that's two weeks gone, and you know, there's literally nothing I can do. There's no place I can go to say, 'give me my job back.' ...

And then it's happened to other people where ... for example ... there'll be a dispute between driver and restaurant, in that the restaurant doesn't like the driver, emails [name of platform], says 'this driver is causing trouble', and [name of platform] fires the driver. Even in one instance that I'm thinking of, after the driver, the driver was literally one of the first people to start working for [name of platform], and he woke up to an email from [name of platform] saying yeah, you've been deactivated. But he was not offered, he was not party to the discussion of the termination of his contract, he was not given time to explain what happened, from his point of view, even though in this case it was the restaurant that was in the wrong. (Ben, 25, UK)

The perception that platforms are biased towards the interests of the client against those of the worker was not limited to the types of crowd work that involved delivering services directly to customers. Martin, who worked 'virtually' from his home doing skilled work for an online platform, also expressed this view:

So, a lot of the time with these platforms, right, they are, they are very much on the side of the client, not of the agency [he is referring here to his own agency, and the freelancers, including himself, who work for it]. Everything that I've went to do is skewed towards the client, and then they make ... a lot more money from the agency or the freelancer, yeah. (Martin, 38, UK)

Unpaid time spent waiting or bidding for work

Another group of complaints concerned the large proportion of their time that crowd workers put in, unpaid, waiting for work or putting together bids for work that might not materialise.

Henry (36, Estonia) had been working for a range of online platforms for over a decade and estimated that during that time he had bid for around 10,000 projects and worked in almost 1,000 projects. He estimated his success rate for bidding at a rather low 5-10%, although he regarded himself as an 'old and experienced cat who knows how to grab a project'. He admitted to taking some pleasure from the excitement of competing with others, which he described as 'a bit like gambling' but was not happy with the amount of time he had to invest in this, which he found exhausting. He reckoned that he spent only 50% of his time actually working on projects and the other 50% of the time bidding and doing the associated administrative work.

Delivery workers, drivers and taskers recalled spending long periods waiting for work. Ben for example described having to wait out of doors in poor weather:

Yeah, then, well obviously, over winter it becomes a much more difficult job, and I had a rough period where, every time I went to work, I wasn't getting deliv-

eries, and it was freezing, and any sort of joy that the job had sort of died then. (Ben, 25, UK)

Maya described a UK-based platform she had worked for in the past which required workers to log on in a particular geographical area to await work.

> *So sometimes I'd go to an area, like, for example, the busiest area is West London, South Kensington, Holland Park, that area, a lot of people want cleaning there. So, I would - I would go and sit there. I'd go and find, first of all, you've got to find somewhere to sit and wait. ...You had to find somewhere to sit, and there aren't very many benches. So sometimes I'd go to McDonalds but you know, you sit in the McDonalds where I'd buy the cheapest thing that you can buy, and I'm sitting there, waiting, and … they wouldn't assign me any work. … I'd ring up and I'd say listen, I'm in the area, how come I'm not getting any work? I'm just sitting here waiting, and they'd tell me, well, if we find something we'll send it to you. If I didn't get anything within the hour, I would just log off and go home. So that happened about two three times, I just got really fed up. (Maya, 42, UK)*

By contrast when times were busy the process of bidding for work was fast and furious, which also caused stress and unpaid effort. She described her experience with another platform.

> *People would put out jobs and literally in seconds they would be gone. So, I think, well how can that, how can the job be gone in a second if I just, I received the notification and literally you're telling me one second later the job is gone. How is that possible? One second, it must be the app is slow or either I have a delay on my account or I don't know, something, but it's not possible for me to lose a job in one or two or three seconds, you have to give me at least, it takes at least one or one and a half seconds to read the description, you know. So, often I don't even, when I was working before, often I wouldn't even have time to read the full description, often I'd just see it, it says cleaning, quickly here to see which area it was and I'd be able probably to do that in half a second and I would just click on it to store it to get that job, but often I would find that the job had gone, and it would be ridiculous, it'll be like come on, I have barely just read the title and it's already gone. (Maya, 42, UK)*

Customer complaints and user ratings

The use of user ratings as a disciplinary tool was also a widespread source of resentment. Metrics based on these ratings were seen as a substitute for human management. As tasker Maya put it:

> *These platforms also work on metrics, they don't know you as an individual, they know you as a metric. So, your metrics also determine how much work you get as well, even though they say it doesn't, but it does. And also people work by metrics nowadays, people don't – people are not personal anymore, they don't relate to people personally anymore. People relate to people nowadays through apps and these platform things and they tend to judge people through statistics, they don't judge people personally…. and the way the metrics work is if they give you a thumbs up you have 1% up. You go up by 1%, … but if you get a negative review you go down by 5%…. (Maya, 42, UK)*

Some interviewees expressed the view that customers were aware of the power they could exercise over crowd workers through the approval rating and used it to their advantage. This was often illustrated by anecdotes, most of which were too long and convoluted to quote here. Here is how driver, Mustafa, described it:

> *This has always been a public service job so you're dealing with public and you get all kinds of public, but with, what you get with [name of platform] is a different kind of entitlement amongst passengers, because [name of platform], to them, says to them you can request things from us drivers that we don't have to really be doing… it tells them you can ask for your music … and also offer them drinks, offer them mints, to go the extra mile for better ratings, and the rating system is what really gets a lot of drivers… I mean I've had customers trying to get it on in the back of the car. Literally not caring, not giving a shit, because they think that, you know, they paid for the ride, they can do what they want. So, they have that control now because most drivers won't say anything because drivers are more concerned with ratings, even though they're being fairly unpleasant. (Mustafa, 32, UK)*

Fahir, another driver, contrasted the way that the platform dealt with complaints from drivers with their reaction to customers' complaints and described the negative psychological impact:

> *If customers complained, what happened, can you explain, you know. When I'm telling you that customer throw up in the car, you're asking me like show much evidence, you need to find out every single detail, but when I, when customer complain, you straightaway take the money from me. You know, it's like making me feel like I'm worthless, I am completely worthless, it's just like, I'm, you know, untrustworthy, you know, you get to do, you can't do it whatever you want and all these kind of things. It's one of the few, you know, few things that makes me hate [name of platform]. (Fahir, 43, UK)*

In a similar vein, driver Serkan said:

> *And the more your rating goes down, you cannot actually work for them, but they switch your mobile off,*

> *the application off. ..I had many horrible customers in the car and I had to be nice to them, because in case if they give me a bad star rating then I cannot meet the criteria what [name of platform] ask me to get, because they told me I have to do 1,000 trips and have a star rating above 4.85 after 1,000 trips is finished. You actually have to lick the customer's backside, it doesn't matter how horrible they are. For you to go one level up, you have to be slave. (Serkan, 48, UK)*

Janek described a similar situation in the tasking environment:

> *You rely on your ratings. So how people rate you. So, … when I started I did a lot of the cleaning jobs, but because I am not good at it, and it's very subjective, how people rate you about cleaning, like they – it's very random, to me. Like I remember I did a job for someone where I didn't put stuff back in the same order, and she gave me a negative rating because she said that I didn't put everything in the same order, you know? So, I got some negative ratings at the beginning. (Janek, 38, UK)*

However he also drew attention to another feature of the customer-worker relationship in crowd work involving offline work: the awkwardness involved in direct communication which might lead to customers giving a poor rating without having indicated any displeasure in their direct dealings with the worker:

> *In general most of the time people are okay, generally, because you work at home very often people are nicer for you than if you would be working in a customer service job, because then people get very angry very easily when you work, you know, I don't know, in a coffee shop or you sell something, and if people are not happy they will just be very aggressive. But because you go to someone's house it somehow creates a different level of behaviour and people are less willing to become openly aggressive in their own home. So that's one thing. And then the other thing is I would say, I don't know, like I was – I had a customer recently where I did – I think I did really good job [assembling flat-pack furniture] and I did everything I could to finish the job properly, but there was one chair not finished and I said it's because of the company – of the Ikea fault, and she gave me a negative rating, and I was just completely shocked by that because I thought, you know, I did a lot and I used my experience to make sure that she gets a good service and then she was still not happy. So, I don't know. (Janek, 38, UK)*

Maya, also a tasker, gave a colourful account of an experience with a customer complaint that had upset her so much she had ended her relationship with the particular platform through which she had obtained this task.

> *The last and final, the one that made me leave [name of platform] was I went to a house … and the guy …. worked for an MEP in Brussels and his girlfriend was, I don't know what the girlfriend did, but anyway, the girlfriend wasn't at home and she had booked me to come and do the cleaning, and the boyfriend was there. So, I was a bit like, I'm expecting the girl, why's the guy here, but anyway, it was okay. It wasn't too, it was all right, but it wasn't going to kill me or anything. It was fine, but he, he expected me to clean the place. The place was the worst place I've ever seen in my life. …It was the most disgusting place. I swear to God, the dirt in the place was un-fucking-believable. I thought these people were moving in and students had been there and they'd just left. No, no, no, no. These people live like this. This is the way they lived. This was their – this was their life. It was just disgusting. I cleaned, the toilet had shit around the back, there was like used sanitary pads, and it was just gross, and then the bathroom, all the sinks were blocked, apart from the bath tub. The kitchen floor was just full of food on the floor. I mean, not just a little bit, full of food. There was every single pot, pan, plate was in the sink ready to be washed. But like I said to you, all the sinks were blocked. So, I went to wash the dishes and the sink started overflowing. I was like, what the hell am I supposed to do now? So, I had to scoop the water out and go to the bathtub and empty in the bathtub. But I had cleaned the bathtub, so that meant I had to go clean it again. And this guy had no – the Hoover didn't work, he had two Hoovers, both were broken. He had no dustpan and brush, nothing. I asked him, could you go out and get one please, and he tried to get one. He didn't like it, me asking him, but he tried to get one, couldn't find one. I was like, oh my God, what am I going to do? So, I just had to improvise. But it was disgusting, a really disgusting place. I made it look really nice. I really tidied up. I made it look beautiful and then I, as I left, when I left, I got a phone call immediately from the office saying to me that they had made a complaint. The lady had made a complaint. I said, 'well I can't understand why the lady made a complaint, because she wasn't there', and I said 'what's the complaint about?'. She said, 'oh, you didn't clean everything. You didn't clean the bedroom'. I said 'but he didn't ask me to clean the bedroom. He said, "clean everything. I'm going to be in the bedroom playing on computer games and just let me know when you're finished"'. So, I explained that to her and they didn't – they didn't accept my explanation or whatever, they went with the customer, the client. (Maya, 42, UK)*

It is noteworthy that in many of these cases, it was not the fact that the customer had complained that, in itself, was the main source of grievance to the workers. What really bothered them was the sense of unfairness – the perception that the platform listened to the customer's point of view but not that of the worker.

Health and safety

One of the issues addressed in our qualitative interviews was the health, wellbeing and safety of crowd workers.

Among the crowd workers working from their homes via online platforms, the main hazards were those that are common among workers spending long hours at the screen. Both Barbara, the novelist-proofreader (58, UK) and Henry, the graphic designer (36, Estonia) suffered from eye-strain. Barbara said that she was worried about her eyes and had frequent eye checks. She also said that prolonged sitting sometimes gave her back problems. Henry also blamed his chronic back problems on spending too long sitting at his desk.

Among the offline crowd workers, a wide range of health hazards were reported.

The delivery workers, both in the UK and in Estonia, reported a variety of physical problems. One of these concerned exposure to extremes of weather, with some kinds of crowd work involving a great deal of waiting around in the open air, getting wet and cold in winter. This was not just the case for delivery workers but also for taskers, as illustrated by quotations from Maya (42, UK) above.

Delivery workers also risked accidents, as Ben reported:

> *You know, people have accidents, I know of a guy who broke a hip, he fell off his [scooter], he's had an [accident], when he was driving he got hit off his scooter by a car, he broke his hip, and he was back on his bike a week later. He still has hip trouble, obviously, because he never gave his hip time to heal. He had no other source of income, so he kept working. And, you know, these are all massive costs that are shouldered by the workforce, and they enable companies like [name of platform] to grow rapidly at minimum cost, and in some instances to grow at a detriment to the operational efficiency of the business, but because that cost is shouldered by the workforce it really doesn't affect them whatsoever, you know. (Ben, 25, UK)*

When asked about accident insurance, neither the UK nor the Estonian delivery workers said that they had any. Hilary (27, UK) and Maria (20, Estonia) also commented on how physically strenuous the work was, saying that you had to be very fit to do it. When questioned about physical hazards, Hilary also raised concerns about the risk of personal attack, especially when delivering to large apartment blocks.

Tasker Maya also reported other physical hazards, including being burned by an iron that she did not know how to use (but dared not ask the client for fear of a bad rating). In one of her many anecdotes she described how:

> *I had one job where the man asked me to clean – he was – it was a guy and he was just abrupt and all the rest of it. He wasn't very nice. But he – which is fine. It's not really a big deal, you don't really look at the client that much. But the client wanted me to take the rubbish down. He wanted me to take down six bags of rubbish, and he was on the six flights of stairs, and the rubbish bags were heavy, but what I objected to or didn't like was the fact that the rubbish bags had cut glass in them. So, I would have been walking down the stairs with these heavy bags and they would be bouncing. They'd be bouncing against my leg. I really didn't want to do that. So, I said that to him. I said they've got glass in them there, and ideally, or normally, I wouldn't – I wouldn't have done it. I would have said… I would have refused or said, I'm sorry, I'm not taking that, but because I know that they rate you and that affects my ability to get work in the future, I did it. (Maya, 42, UK)*

Among the drivers, many of the health hazards were linked to the long hours they had to spend at the wheel, but where there were pre-existing medical conditions these were exacerbated, as described by Ahmed :

> *I'm a kidney, long-term kidney and bladder patient, so my health is literally deteriorating, I mean my health is going down day by day, year by year. Now I go, I feel like it, I got some problem with my stomach and with my hip pain. I've been to my GP, I told him like I drive for living and I'm getting a pain in my hip. So, these are all things that the side effects are coming. And I'm not the only one. There are so many other drivers who are working 70 or 80 hours, because we are tied up. … The day when I'm working, then sleep in the car, I see, I go, I drive all over London, I see the drivers are so tired, they even sleep in their cars. They do – most of them they do every single thing in their car. They eat, they sleep, then they wake up, then they come back again, they start days.. (Ahmed, 39, UK)*

Mustafa also described the negative effects of spending long hours in the car:

> *Well, sometimes I feel like, I get this thing with my knee and my hips, sitting down that much amount of time is not healthy. So, think about it, from when you get up and get in your car, all go. I mean, you can get out, you can, you can, you can get out in-between jobs or you can log off for a moment and you go for a stretch, it's not going to, it's not going to do the same thing as what resting, a proper rest, proper pattern would help you do it, you know what I mean. I mean, I would go as far as saying I reckon about 70% of [name of platform] drivers are probably constipated. [laughs] But they won't admit it. (Mustafa, 32, UK).*

Even more widespread than physical hazards in the narratives of drivers were psychological ones. Stress and depression were common themes.

Serkan described not only his own depression but that of colleagues he had observed:

> *Well I don't think I'm as happy as I used to be, because I have no free time. Anytime I am free, I actually have to work for [name of platform]. It doesn't feel nice. It just feels more, I would say I'm more depressed. But what can you do? That's the way it goes. More stressed, I would say.*

> *I know the guys, they was crying, literally, and I'm talking about a grownup people, the people who got a kids with a families. They've got bills to pay. They wake up in one morning, try to turn it on their app and the message comes up, you have been deactivated, and there's no way you could do anything, and you have the bills to pay. (Serkan, 48, UK)*

He then recounted his own emotional reaction to being deactivated.

> *Just to mention, on one day it told me, I was literally, I had the tears in my eyes, because I got a kid. It told me… I had no money for my daughter's birthday and I was thinking I'm going to go out and I going to work and by the time my daughter's birthday is going to come or let's suppose on Thursday, I'm going to have some money, and I started working on Monday and when I tried to turn it on, the app, the app said you have been deactivated. I was out of work until Thursday. (Serkan, 48, UK)*

Fahir reflected on how the stress created in his work ended up being taken out on his family:

> *I mean, to be honest with you, I was more angry towards my kids, because I was literally getting every stress. I was trying take it towards my family, because you're driving on the road and you're by yourself. (Fahir, 43, UK)*

Other sources of stress for crowd workers, in addition to the long hours and the impact of deactivation, included the unpredictability of the tasks and the need to respond quickly when they arrive. Hilary describes this in relation to delivery orders.

> *[in busy times] often it's only like a minute between finishing one delivery and the next delivery coming up on screen….So, it's almost like back to back. Once I work, I don't really stop. That's because I'm working at the peak times … and yeah, I mean, there's been sometimes, like, for example, when I used to work the lunch time shift, that was really slow, like I think sometimes I didn't do a single delivery in two hours, or maybe ever do one or two across two hours, very little, but the weekend evening shifts, so yeah, you have no control over….And then you don't know how far it is from that restaurant to the customer, you don't get told that until you've collected the food, so you have to wait at the restaurant to get the food, sometimes it's ready straight away, sometimes you wait 20 minutes for the food. So, you don't have any control over, in my opinion, how many orders you can do. You can try and cycle fast between where you are and the restaurant and cycle fast between there and the customer, but then you can wait 20 minutes at the restaurant and sometimes you can wait 20 minutes for the customer to answer the door. (Hilary, 27, UK)*

Janek, describes a similar kind of unpredictability in task work:

> *[Long tasks] tdon't happen as often as I wish. Obviously, I would be very happy if I could have a long job every day. For example, if I could have an eight-hour job every day that will be perfect, because then I will have no problems. I would have enough money, I wouldn't have to worry, I would start work, I would finish and I could have even a private life during the week, but that doesn't often happen. I will tell you, based on this week I had. I was almost not booked at all. I only had - I was only booked for one job on Friday and then today I was booked for two jobs, and two of them are big jobs on Monday and Tuesday. … and I don't know what is going to happen on Wednesday/Thursday. I am still waiting… it's kind of like zero hours contract where you never know if you will get the job or not.*

Social/criminal risks

Our qualitative interviews also evoked a number of anecdotes relating to criminal incidents that had been experienced or witnessed by offline crowd workers in the course of their work, as well as social and physical aggression that perhaps fell short out of the outright criminal. We do not quote these in detail here, partly because the narratives are generally lengthy but mainly because the detailed explanations might inadvertently lead to the identification of our informants. We do not, of course, have any independent means of verifying any of these anecdotes but the frequency with which they arose suggest that crowd workers, travelling alone in public spaces and being summoned to the homes of strangers as many are, may be particularly vulnerable to such risks.

These reported incidents included assaults, including serious sexual assaults on passengers by other passengers witnessed by drivers, as well as assaults on the drivers themselves, both by passengers and by conventional taxi drivers. They also include 'tasks' which involved being sent to collect or deliver illegal drugs, handle stolen goods, purchase alcohol and run errands for criminal gangs, as well as being sexually propositioned by clients.

9. COMMONALITIES BETWEEN CROWD WORKERS AND OTHER WORKERS: A GENERAL 'PLATFORMISATION' OF WORK?

In early sections of this report we have commented on the difficulty of drawing clear distinctions between crowd work and other forms of casual or just-in-time work. We have also noted overlaps between these different types of on-call work, and between crowd work and other forms of income generation. Crowd work seems to represent one end of a spectrum that extends broadly into other areas of the labour market. It is, moreover, a form of work that appears to be in a process of dynamic change. This change is evidenced by the emergence of new platforms, the rapid growth of existing platforms and the seemingly perpetual reorganisation of these platforms, with frequent changes in work management practices, software upgrades and new applications. It is possible that a focus on crowd work as a 'new' form of work might obscure the reality that there are also dynamic changes taking place across other industries and sectors, affecting other types of work. Might there be a general 'platformisation' of work taking place elsewhere in the economy, perhaps driven by the need to compete with online platforms or a copycat mentality in a rapidly changing digital environment?

It is beyond the scope of this report to speculate on such broader questions about the dynamics of employment change in the context of digitalisation. However our survey did provide us with some evidence on commonalities between crowd workers and other workers in relation to digital practices in work organisation.

We present these briefly below.

Sending or receiving work-related electronic communications from home

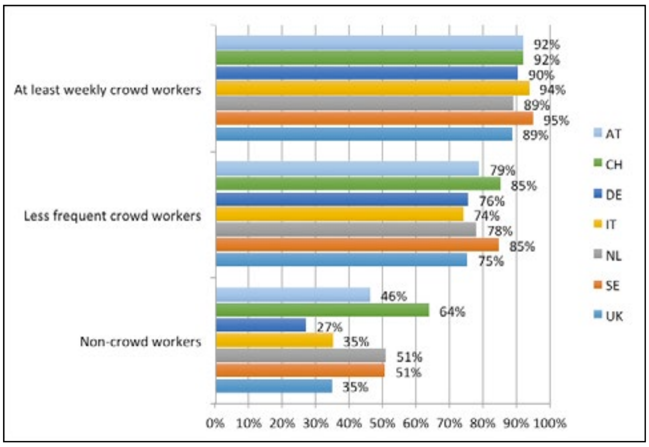
The practice of sending or receiving work-related emails from home is not, of course, unique to crowd work. Teleworking, whether during or outside working hours, has been widely documented since the 1980s. For crowd workers, who have no other place of work, it is of course a necessity and this was one of the many aspects of crowd work that we included in our questionnaire when seeking to delineate the dimensions of crowd work. However we thought it interesting to compare crowd workers (both frequent and occasional) with non crowd workers to gain an impression of the extent to which this was a distinguishing feature of crowd workers. The results are shown in Figure 9.1.

As this reveals, on the evidence of this survey, carrying out work-related email correspondence from home is a widespread practice in the general population, ranging from a low of 27% of non crowd workers in Germany to a high of 64% in Switzerland. Among crowd workers this proportion is much higher, though not universal. Among less frequent crowd workers it ranges from 74% in Italy to 85% in Switzerland and Sweden. Among frequent crowd workers it is still higher: 89% in the Netherlands and the UK and over 90% in all other countries, with Sweden, at 95%, showing the highest level.

We hypothesised that some crowd workers doing manual types of work might not use email but rely on SMS messages or in-app forms of communication with platforms and clients, so we also asked a similar question about sending or receiving texts or instant messages from employer or client, the responses to which are summarised in Figure 9.2.

The pattern here was broadly similar to that for emails. Among non crowd workers, between 21% and 55% used messaging from their homes for work-related communication. Once again, the lowest prevalence was in Germany and the highest in Switzerland and Sweden. As with email communication, there was also a higher incidence (ranging from 69% to 84%) among less frequent crowd workers and a very high incidence among those who crowd work at least weekly, with a range from 88% in the Netherlands to 95% in highly-connected Sweden.

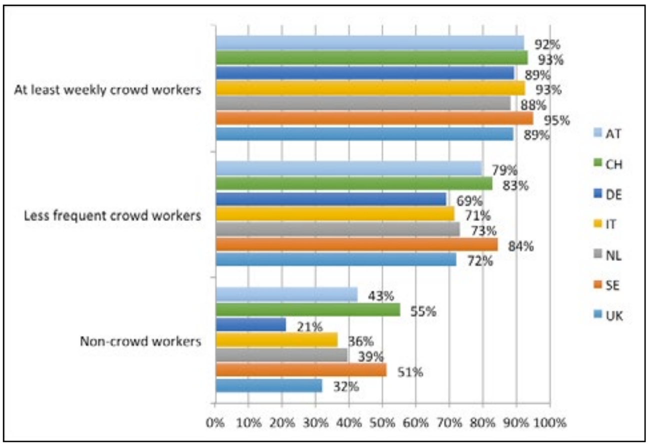
FIGURE 9.1.
People sending or receiving emails from employer or client whilst at home, by country and frequency of crowd work



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

For both of these practices we can therefore conclude that crowd workers are particularly intensive users of forms of communication that are also widespread among non crowd workers, with the intensity rising along with the frequency of crowd work.

FIGURE 9.2.
People sending or receiving texts or instant messages from employer or client whilst at home, by country and frequency of crowd work



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

Use of digital apps for workflow management and reporting

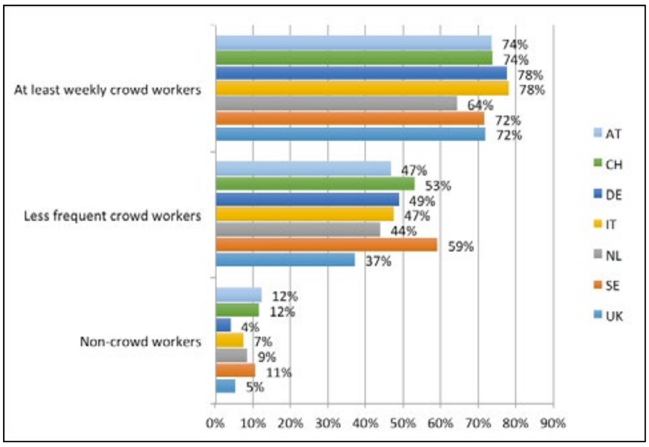
Another distinguishing feature of crowd work, already discussed in Chapter 5, is the use of a range of apps that facilitate the management and organisation of work. With digitalisation affecting so many aspects of work-related communication and organisation, and the growing importance of capturing data on performance, customer satisfaction and other variables, there is a very wide range of such apps. We did not attempt to collect information on all of these, which would, in any case, not be possible in a general omnibus survey where a large number of respondents would not be familiar with the specialist terminology. Rather we identified two of the most common types of app and asked all respondents whether they used them.

The first of these, already discussed in Chapter 5, concerned apps that notify workers when new tasks are waiting for them (shown in Figure 9.3). The second concerned apps or websites used for logging completed work (shown in Figure 9.4).

As expected, both of these types of app were more likely to be used by crowd workers than non crowd workers, with their use rising with the frequency of crowd working. As we saw in Figure 5.5, the use of such apps was common among crowd workers in all countries. Between 64% and 78% of frequent crowd workers use them, as do 37%-59% of less frequent crowd workers. However they are also used by significant numbers of non-crowd workers, ranging from 4% in Germany to 12% in Austria and Switzerland.

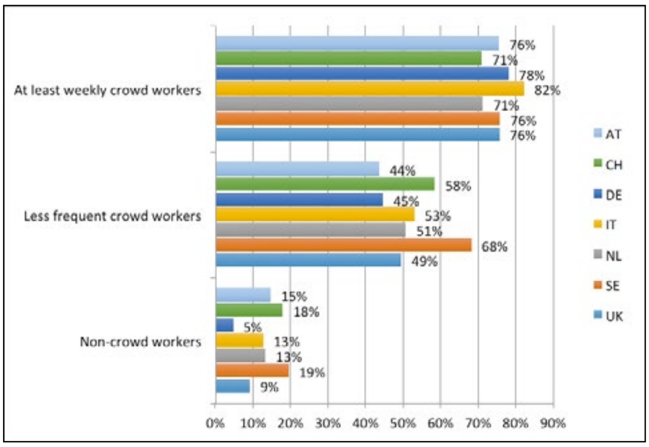
The pattern of use of specialised apps or websites for logging work (Figure 9.4) is remarkably similar, but even somewhat higher. These are used by 71%-82% of frequent crow workers, 44%-68% of less frequent crowd workers and 5%-19% of non crowd workers. In other words, depending on the country, between one in twenty and nearly one in five workers who are *not* crowd workers are engaged in forms of work that are digitally managed, in a phenomenon that has been termed 'logged labour' (Huws, 2016)

FIGURE 9.3.
People using an 'app' to be notified when work is available, by country and frequency of crowd work



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 1969 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

FIGURE 9.4.
People using a specialised app or website to log their work, by country and frequency of crowd work



Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 2001 respondents in Austria, 2001 respondents in Switzerland, 2180 Respondents in Germany, 2199 respondents in Italy, 2126 respondents in the Netherlands, 2146 respondents in Sweden and 2238 respondents in the UK (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

10. CONCLUSIONS AND IMPLICATIONS FOR POLICY

Conclusions

What can we conclude from this research?

First, it is clear that crowd work cannot be regarded as a clearly-defined and distinctive form of work. Rather, it forms part of a spectrum of rapidly-changing and overlapping forms of just-in-time work that draw to varying degrees on digital media for their management.

The elisions and overlaps with other forms of work are manifold. If we focus on the platforms themselves, there is a fuzzy line between those websites that have developed specific applications for managing the interface between workers and clients (including the transfer of funds), platforms that advertise freelance postings, online directories and commercial listings sites. The demarcation between temporary work agencies and platforms is also blurred in several respects.

Further blurring occurs between the kinds of technological applications that are used to manage employees who are expected to report for work at short notice on a just-in-time basis, for instance emergency support staff or service workers on zero-hours contracts, and those that are used by formally-designated platforms.

As we saw in the last chapter, there is even some evidence that some of the characteristic practices of online platforms are spreading across the labour market more generally, and becoming pervasive features of work in the 21st century in many sectors.

A focus on workers reveals a similar intermingling of ‘old’ and ‘new’ forms of work. While there are undoubtedly some workers who derive their income exclusively from platforms, the majority of crowd workers mix this with other forms of income, not only from other forms of employment but also from other sources, such as the proceeds of rent, which do not necessarily involve the direct sale of their labour.

It is, in short, well-nigh impossible to isolate ‘crowd workers’ as a special category of worker. Rather, their existence draws attention to the inadequacy of the existing categorisations of work in the fluid and rapidly-evolving labour markets of the digital age. This mismatch has introduced inconsistencies and ambiguities into the coverage of the accompanying regulations and these inconsistencies and gaps in coverage, while creating new opportunities for some workers, have also left many workers unprotected and at risk.

One solution that is sometimes proposed is to develop new typologies: of companies, business models, patterns of work organisation, employment contract and labour; and new regulations to fit these typologies. However, given the diversity of models and the speed of change, this opens up several risks. First there is a risk of creating rigidities that halt innovation in its tracks and give a permanent character to what may be transient forms of work organisation. Second there is a risk that new regulations may be difficult to interpret, causing confusion and uncertainty for both employers and workers and generating bureaucratic obstacles, as well as deterring workers from claiming their rights. Third, and perhaps even more importantly, there is a risk that the creation of new enterprise categories, employment categories or thresholds will have unintended consequences. The specification of thresholds may, for example encourage the development of contracts that skirt the boundaries of the definitions (for instance by specifying numbers of working hours that are just below the qualifying thresholds). And if new employment categories are created, they may be used not just to provide some protection for workers who are currently unprotected but also to substitute for better existing provisions for regular employees.

For these reasons, we prefer a broader approach, which goes back to the underlying principles of the current regulations and legal frameworks in order to establish a clear basis for determining on the one hand how genuine self-employment should be defined (and what should be the rights and obligations of these genuinely self-employed own-account workers) and, on the other, what protections should be available for workers when a relationship of subordination is present (and what should be the rights and obligations of these workers and those who exercise control over their labour). This may imply creating new legal definitions of self-employment, on the one hand, and of subordinate worker status on the other. Any such exercise should recognise that when work involves the delivery of services in public spaces, the rights and responsibilities of consumers and the general public, as well as the public authorities, must also be considered and specified, along with those of workers.

In the next section we discuss some ideas for consideration by policy makers drawing on the results of the research. These are not intended as prescriptive proposals but as starting points for further discussion, and further research.

Considerations for policy makers

Clarification of the definition of self-employment

There is a need for clear guidelines on the definition of self-employment for tax and National Insurance/Social Protection purposes, as well as for determining employment status. This should take into account such features as:

- Whether the worker has the right to determine the price of the goods or services produced;
- Whether the worker has the right to specify how the work will be done;
- Whether the worker has the right to employ others to do the work;

- Whether the worker retains intellectual property rights in his/her work outputs;
- Whether the worker is free to work for multiple clients and/or normally does so.

Clarification of the definition of subordinate employment

In cases where a worker does not meet the above criteria, he or she should be deemed to be a subordinate worker as the default position. The onus of proof that this is not the case should rest with the employer rather than the worker.

Subordinate workers should be entitled to the same rights as other comparable temporary and/or part-time employees including sick leave, parental leave, paid holidays, payment of national insurance and pension contributions etc. Where subordinate workers have another main job, the same rules should be applied as in any other secondary employment according to national regulations.

Clarification of the definition of private employment agencies and temporary work agencies

It seems likely that some, if not all, online platforms that match subordinate workers with clients may fall within existing definitions of temporary work agencies and/or private employment agencies.

These definitions should be examined to determine whether they need adaptation to ensure an appropriate fit. Online platforms should be deemed to fall within the scope of existing regulations that apply to these agencies, with the onus of proof on the platform to demonstrate that this is not the case.

Minimum wages

In countries with a statutory minimum wage, this should be deemed to apply to all workers, regardless of employment status. Where workers are paid by results (e.g. piece-rates) equitable means should be established to ensure equivalence with hourly rates. Rates for casually-employed workers should include a reasonable allowance for travel time, waiting time, preparation time and time spent bidding for new work.

Workers' rights in the case of suspension or termination

Where these are not already covered by existing statutes covering employees, including agency workers, a right should be introduced for all workers to be informed in advance of any termination of employment, with reasons for this termination being provided and a right for the worker to explain his or her side of the story.

Workers' rights in relation to customer ratings

Similarly, a right should be introduced for all workers (regardless of whether or not they are regular employees) to be informed of, and to be able to challenge, negative customer ratings and, if necessary, a right of appeal.

Communications

Employers should set up hotlines to enable workers to communicate quickly in case of emergency and in relation to payment issues, suspensions, terminations or disputes.

Insurance and legal liability

A dialogue should be opened up with insurance providers and other stakeholders to establish guidelines for insurance and legal liability, relating to workers, customers and third parties, based on current good practice by crowd work platforms.

Data protection

Given the large amount of personal data that is held on workers by online platform, good practice guidelines should be established for ensuring that this is held securely in accordance with EU data protection regulations to prevent misuse that could be detrimental to workers or breach their rights to privacy and confidentiality.

Health and safety

The implications of platform forms of work organisation need to be examined for the health and safety not just of workers but also of their clients and the general public. Clear guidelines should be developed as to which bodies (occupational health and safety, consumer protection, environmental protection etc.) should be responsible for regulation, compliance, inspection and, where necessary, certification of service providers and their staff, with hotlines or other clearly-indicated means for reporting hazards, accidents or breaches of the regulations.

Reform of the benefit system

The intermittent nature of crowd work, and the complex ways in which workers combine it with other forms of work suggest that the simple binary categorisation of job-seekers into those 'in work' and those 'seeking work' no longer fits the reality of flexible labour markets. Research should be carried out on the strengths, weaknesses and feasibility of alternative welfare models.

APPENDIX 1. METHODOLOGY

1. NATIONAL ONLINE SURVEYS

Choice of survey method

Crowd work is a new topic in social research so there is, by definition, no existing baseline data on its prevalence nor any established means of collecting it. As already noted, any attempt to measure it is therefore something of a step into the unknown. However there are precedents for attempting to measure hidden labour market phenomena, among which the closest parallel is the so-called 'shadow economy' (sometimes referred to as the 'grey economy', the 'hidden economy' or, more broadly, the 'informal economy'). Here, we were fortunate in being able to draw on the work of Williams and Schneider (2016) who carried out a comprehensive overview of the research methods used to measure the shadow economy, which, following the OECD and European Commission, they define as 'paid activities that are lawful as regards their nature but not declared to the public authorities' (Williams & Schneider, 2016:5-6). While this definition does not precisely match existing definitions of crowd work, the phenomena it describes are sufficiently similar, in our judgement, to suggest that the research methods used to measure them will have similar strengths and weaknesses.

As these authors point out, there is no perfect research method for measuring the shadow economy, or indeed for measuring any other social or economic phenomenon, with each method having its particular strengths and weaknesses.

Citing a number of studies which have shown that people are surprisingly open about describing their undeclared economic activities to researchers and willing to participate in surveys, they conclude that direct surveys are increasingly regarded as a better means of investigating the shadow economy than the indirect methods more commonly used in the past (*ibid:* 39-40). They further point out an important benefit of omnibus surveys

> *whose key advantage is that participants are recruited on the basis of a general mixed-topic interview, and therefore the survey subject does not need to be flagged up to respondents, and will simply follow a previous section in the questionnaire with an appropriate lead-in (ibid: 47)*

This minimises the risk that is sometimes entailed in official surveys, that respondents might conceal some activities for fear that they will be reported to the authorities. Omnibus surveys also collect a range of demographic data as standard, avoiding the need to repeat such questions and enabling stratification and weighting to match the overall population.

Nevertheless, even if a decision is taken to include questions in an omnibus survey, there is still a need to decide whether that survey should be carried out by telephone, online or using face-to-face interviews.

Williams and Schneider (*ibid:* 42-3) enumerate a number of disadvantages of telephone surveys. First, in these days of widespread use of mobile telephones, the identification of a random sample is much more difficult than it was during times when most of the population had a fixed-line telephone, listed in a directory along with a postcode. Survey companies have found various ways to resolve this, using known panels of respondents and weighting the results to make them reflective of the general profile of the population. Apart from sampling problems, telephone interviews also have other disadvantages:

> *While it is possible to ask sensitive questions in telephone surveys, the fact that the interviewer must read out both questions and answers is likely to increase the risk that participants will give socially desirable answers... Indeed, Pedersen (2003) found that a pilot telephone survey in Germany yielded an unrealistically low incidence of shadow economy activities and that, when the pilot was rerun using a face-to-face approach, respondents were more likely to divulge shadow economy activities. (ibid: 43)*

It should be noted here that this is a problem that is specific to telephone surveys where standard questions are asked. In qualitative research, where interviews are unstructured or semi-structured, telephone interviews can in some circumstances lead to more open and intimate conversations than in face-to-face situations.

Williams and Schneider also point to some disadvantages of online surveys: they are limited to the population that is actively online and may under-represent both the oldest and the youngest age-groups; and they may be unrepresentative of the population even if they have the same demographic profile (*ibid*: 44).

Face-to-face surveys are much more expensive to carry out and slower than other methods. Although this is not mentioned by Williams and Schneider there is also a risk that, if surveys are carried out door-to-door, groups that are more likely to spend time at home (for example those who are economically inactive or without full-time employment, the elderly and the disabled) will be represented disproportionately.

Relatively few studies have been carried out comparing the incidence of 'shadow' activity disclosed by different survey methods. One exception was a thorough study carried out in the Netherlands (Kazemeier, 2014) comparing different methods. This survey found that face-to-face interviews produced a higher incidence of shadow work than online surveys, and that those interviewed face-to-face were also likely to declare higher earnings from this shadow work than those who took part in online surveys. However these differences varied according to the types of activity under discussion. The findings on work involving cleaning and household maintenance were 'almost the same' in both surveys and were 'matched by the research conducted by others' (*Williams & Schneider:* 55). These activities also correspond most closely to the types of activity involved in crowd work, suggesting that there may well be little difference between online and face-to-face surveys in this regard.

Drawing on this literature, and bearing in mind our budgetary limitations, we decided to carry out our pilot survey online, as an addition to an existing omnibus survey known to be representative of the general population.

The survey was carried by Ipsos-MORI as part of its regular I-Omnibus online survey, initially in the UK and subsequently in Sweden, Germany, Austria, the Netherlands, Italy and Switzerland. There were several reasons for this choice of survey method. First, budgetary considerations prohibited the use of large-scale offline surveys. Second, the omnibus survey made it possible, without additional cost, to collect information on a large range of demographic variables. Third, the Ipsos-MORI I-Omnibus survey makes it possible to construct a stratified sample which is representative of the wider national population in a number of demographic dimensions – principally age, gender, region and working status – and, where necessary, weight the findings to represent the total population. In practice, stratification varied slightly according to the market research practices in each country (Appendix Table 1 provides details). In particular, the age ranges of the samples varied from country to country (see Appendix Table 1). Nevertheless, despite these small variations, each survey sample was representative of its national population in important respects. We can thus state with some confidence that the samples of crowd workers produced by the survey in each country are representative of the broader populations of crowd workers there.

It should be noted that most of the figures in this report have been given without confidence intervals because to include them on every occasion would make the report unwieldy to read. For those percentages based on the whole sample within a country, all confidence intervals would be within approximately +/- 2.2% of the figures quoted. For percentages based on crowd workers alone, confidence intervals would be within +/- 5.0% to 7.1% depending on the country (larger numbers of crowd workers giving narrower intervals). For percentages based on at least weekly crowd workers alone, confidence intervals would be within +/- 5.8% to 10.0% depending on the country.

Nevertheless, because only an online population was sampled, we could not state with complete confidence that the percentages found engaging in particular types of online activity could be extrapolated to the entire population of these countries.

We therefore decided to complement these online surveys with two offline surveys, carried out by the same survey company as part of its regular omnibus surveys in the relevant countries. These were a computer-assisted face-to-face (CAPI) survey carried out in the UK between 24th March and 4th April 2017 and a computer-assisted telephone (CATI) survey in Switzerland carried out between 27th March and 7th April 2017. The purpose of these offline surveys was to investigate the representativeness of the online surveys in order to enable us to extrapolate to the general population with greater confidence.

The offline surveys did not include the full range of questions asked in the online surveys but focussed in particular on those questions that enabled us to establish the prevalence of crowd work. There were of course some differences in the way these questions were asked, because of the different media used. In the face to face survey, lists of options could be shown on a screen so that respondents could see them. This was done to mimic the online methodology as closely as is possible. In the telephone interviews, these options had to be read out to the respondent.

APPENDIX TABLE 1.
Samples and stratification

COUNTRY	SAMPLE SIZE	SURVEY DATES	AGE RANGE	STRATIFICATION
UK (online)	2,238	22-26 Jan 2016	16-75	Age, gender, region, social grade, working status
Sweden (online)	2,146	26 Feb-7 Mar 2016	16-65	Age, gender, region and working status
Germany (online)	2,180	1-4 April 2016	16-70	Age, gender, region, population density of respondent settlement, chief income earner of household, household size, working status
Austria (online)	1,969	1-4 April 2016	18-65	Age, gender, region, and working status
Netherlands (online)	2,126	22-27 April 2016	16-70	Age, gender, economic activity, region, working status
UK (offline - face-to-face)	1,794	24 March - 4 April 2017	16-75	Age, region, working status and social grade within gender, as well as household tenure and respondent ethnicity using 'rim' weighting procedures
Switzerland (offline - telephone)	1,205	27 March - 7 April 2017	15-79	Age, gender, region and working status
Italy (online)	2,199	31 March - 5 April 2017	16-70	Age, gender and region, with data weighted to these same variables, plus working status and economic activity to correct for any sample imbalances.
Switzerland (online)	2,001	3-14 April 2017	16-70	Age, gender, region and working status

Note: In the UK offline survey, questions were asked on CAPIbus, Ipsos MORI's face to face omnibus survey, with questions asked to 1,794 adults 15+ in Great Britain, in their own homes, using Computer Aided Personal Interviewing (CAPI) methodology. The sample was stratified using a random locale method across 180 sample points to ensure nationally representative sampling.
In the Swiss offline survey, Questions were asked as part of a telephone omnibus, using Computer Aided Telephone Interviewing (CATI) methodology. Interviews were sourced using Random Digit Dialling with quotas set on age, gender and region to achieve a nationally representative sample.

Comparison of online and offline results

In order to assess how representative the online surveys are of their associated populations, offline surveys were conducted in the UK and in Switzerland. The UK offline survey was conducted by Computer-Assisted Personal Interviewing (CAPI) and the Swiss offline survey by Computer-Assisted Telephone Interviewing (CATI).

Clearly, any comparison of the online and offline results has to take into account that none of the approaches will be without inherent biases and thus none can claim to be a definitive benchmark of representativeness. However, when investigating an online-related phenomenon such as crowd working via digital platforms, one must be aware that using a similarly online survey could run the risk of introducing important biases. It is thus of interest to compare the results of the online and offline surveys with this in mind. The object of the comparisons below is to assess whether or not the online survey may be overpopulated by respondents who are especially active online and are thus more likely to be undertaking crowd work.

Appendix Table 2 shows the results of examining responses to questions about levels of online activity in terms of selling possessions/products via websites and/or finding paying guests via websites. The frequency of such activity was recorded so we are able to obtain estimates of the proportion of the population engaged in this activity on a weekly basis or having ever engaged in such activity.

APPENDIX TABLE 2. Comparison of online activity rates in UK/Swiss online and offline surveys with 95% confidence intervals

	ANY ONLINE ACTIVITY	WEEKLY ONLINE ACTIVITY
UK online survey	56.9% (54.8%, 58.9%)	7.5% (6.4%, 8.6%)
UK offline survey	39.5% (37.2%, 41.7%)	5.5% (4.5%, 6.6%)
Swiss online survey	71.2% (69.1%, 73.1%)	14.3% (12.8%, 15.8%)
Swiss offline survey	41.0% (38.2%, 43.7%)	4.6% (3.5%, 5.9%)

Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 2238 respondents in UK online survey, 1794 in UK offline survey, 2001 in Swiss online survey, 1205 in Swiss offline survey (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

When comparing figures in Appendix Table 2, we must consider the survey mode effects that may be at work. It is known that offline surveys are more likely to be subject to recall bias and interviewer effects than online surveys and amongst offline surveys, those which are telephone-based may suffer to a greater degree than face-to-face surveys (characteristics observed by, amongst others, Tourangeau et al, 2000). We are thus not surprised to see that activity levels are reported as being higher in the online surveys than the corresponding offline surveys. We are also not surprised to see that the difference between online and offline is larger for the Swiss surveys (where the offline survey was conducted via telephone) than for the UK surveys (where the offline survey was conducted face-to-face).

If it were the case that the sample in the online survey was biased towards those who have high levels of online engagement, then we would expect this to be expressed to a notable degree when examining frequent (i.e. weekly) online activity. However, this is not the case. In Appendix Table 2 we do not observe the largest discrepancies in the more frequent categories but rather in the category which involves respondents reporting any past activity. In fact, for levels of online selling/renting on a weekly basis we see the two UK surveys producing similar estimates with overlapping 95% confidence intervals. With the telephone-based Swiss offline survey suffering to a greater extent because of survey mode effects than the UK face-to-face offline survey, we are not surprised to see that the Swiss confidence intervals do not overlap.

Looking at reported levels of crowd working on the online and offline surveys, we obtain the estimates and 95% confidence limits shown in Appendix Table 3.

APPENDIX TABLE 3. Comparison of crowd working rates in UK/Swiss online and offline surveys with 95% confidence intervals

	ANY CROWD WORK	AT LEAST MONTHLY CROWD WORK	AT LEAST WEEKLY CROWD WORK
UK online survey	9.3% (8.1%, 10.6%)	5.7% (4.8%, 6.7%)	4.7% (3.8%, 5.5%)
UK offline survey	7.3% (6.1%, 8.5%)	5.7% (4.7%, 6.8%)	4.9% (3.9%, 6.0%)
Swiss online survey	18.2% (16.5%, 19.9%)	12.7% (11.3%, 14.2%)	10.0% (8.7%, 11.3%)
Swiss offline survey	6.8% (5.4%, 8.2%)	5.3% (4.1%, 6.6%)	4.4% (3.2%, 5.6%)

Source: Hertfordshire Business School Crowd Work Survey, 2016-2017
Base: 2238 respondents in UK online survey, 1794 in UK offline survey, 2001 in Swiss online survey, 1205 in Swiss offline survey (weights used; missing and don't knows excluded; percentages rounded to nearest whole number).

We again see that when questions ask for longer term recall (for estimating rates of any crowd work), the offline surveys produce lower estimates than the online surveys. However, when recall is less of an issue (at least monthly and at least weekly crowd working), we see that for the UK the rates estimated by the online and offline surveys are almost identical. For the Swiss online and telephone surveys (the latter of which we would expect to be affected by survey mode to a greater extent than the UK face-to-face survey), we see differences between the offline and online reported rates but the proportionate differences between the estimates are in the direction expected with rates for 'at least weekly' being closer than rates for 'at least monthly' which are closer than rates for 'any crowd work'.

Based on the tables above, we conclude that where survey mode effects are most similar (online and face-to-face: the UK surveys), estimates of online activity and crowd working are similar when frequent activity (weekly or monthly) is considered. When considering activity over a longer time period, it appears that the offline survey may be underestimating activity due to known survey mode effects. We doubt that the online survey is overestimating rates to any great degree because if it were doing so for long term activity we would also expect it to be doing so for shorter term activity too and this does not appear to be the case.

Although we do not have a face-to-face survey from Switzerland to compare with its online survey, we can conclude that the responses we are getting from the telephone-based offline survey differ from the corresponding online survey in a way that we would expect. A reason for the suspected severity of the survey mode effects is probably that the questions asked are relatively complex in nature (as is necessary for a complex issue) and were written with an online survey in mind rather than one conducted via the telephone. However, although it may be possible to design questions for a telephone-based survey into this issue which suffer less from survey mode effects than the questions used in the online surveys here, we anticipate that it would not be possible to eliminate the telephone-based survey mode effects whilst still obtaining the same richness of data.

Clearly the above analysis cannot be considered to be definitive as it only considers two countries. However, it does encourage us to believe that the online survey used across the seven countries is fit for purpose and we are able to present in this report figures from the online surveys without adjustment for survey mode.

2. QUALITATIVE RESEARCH

In order to supplement the survey results, in-depth interviews were carried out with some crowd workers, starting in the UK but also including two interviews in Estonia. This is part of an ongoing project in which it is aimed to carry out larger numbers of interviews throughout Europe. This report draws on 15 interviews, of which 13 were carried out in the UK and two in Estonia.

Sampling

In a situation where little or nothing is known about the total population of crowd workers, identifying a sample is particularly fraught. The most common method used in other studies has been to recruit via specific platforms. While this has several advantages it also entails some risks.

Some of these risks relate to the practice of paying for the respondents' time in taking part in these interviews. The practice of paying interviewees for their time is not in itself unjustified. Indeed, when very low-paid workers are being asked to give up their time to take part in scientific research it could be argued that it could be unethical *not* to reward them for their time. However there is a difficult balance to be struck in relation to the payment of respondents which has both ethical and scientific dimensions (Dench, Iphofen & Huws, 2004). A payment that is set at the same level as, or higher than, normal earnings may well be treated by the respondent simply as another piece of work. This carries several risks.

One of these concerns the kind of labour-saving practices that workers use in their normal work. On many online platforms used for 'click work', taking part in surveys is a type of task that is carried out frequently and may be part of normal daily activity. Crowd workers who are used to filling in forms may have developed 'tricks' that speed up their completion of these forms. For example where a range of options is offered on a five- or seven-point scale (for instance a scale that ranges from 'agree strongly' at one extreme to 'disagree strongly' at the other) the quickest method of completion may involve simply ticking the box in the centre (perhaps labelled 'neither agree nor disagree' or 'neutral') allowing a series of questions to be completed rapidly without even bothering to check which are positive and which negative, a practice known as 'straight-lining'. Where questions concern the employment through which the research is being carried out there is also a risk that the participant, rightly or wrongly, believes that the employer may have access to what is being said, which might lead to withholding some information or critical opinions.

Another risk, if the interviewer-interviewee relationship is embedded in a commercial relationship in which one party is paying the other, is the risk that the participant says what he or she thinks the client wants to hear. In general, any direct power relationship between the researcher and the research subject is problematic in social research and this includes any employer-employee relationship, however temporary.

Such considerations influenced our decisions about recruitment and sampling. A decision was taken *not* to recruit by posting interviews as 'tasks' on online platforms. Also ruled out was the idea of recruitment via another task, for instance by ordering a rideshare car or a home delivery or booking a task to be carried out in the home and then interviewing the worker, on the grounds that this would place insufficient distance between the interviewer in his or her capacity as someone paying for a service and the interviewee in his or her capacity as a paid worker expected to accede to the demands of the client.

Another factor that shaped our recruitment was social proximity. One member of the research team happens to live opposite a site where delivery workers congregate waiting for work. It was decided *not* to approach any of these workers for interviews because of their informal daily contact with the researcher. When a member of the research team attended a union meeting of crowd workers and spoke briefly at it to explain the research, attendees at the meeting were asked to volunteer their details for a subsequent telephone interview, but these interviews were then carried out by a different member of the research team who had not attended the meeting, with the aim of maximising social distance between interviewer and interviewees.

Such considerations did not make it easy to identify a range of respondents and a number of different methods were used to find the interviewees who are quoted in this report. Since part of our purpose was to achieve a sample that seemed broadly representative of the wider population of crowd workers as revealed in our survey we did not interview exhaustively all possible respondents. Our original aim was to find approximately equal numbers of crowd workers primarily working in each of three broadly defined types of work: driving and delivery work; task work in other peoples' households and remote crowd work carried out online from workers' own homes. In the latter category we were hoping to include workers doing both high-skilled and low-skilled work and we were further aiming to interview both men and women in each category. Once we had achieved a quota in any given category (for example male ride-share drivers) we stopped interviewing others in that category and moved on in search of other types of crowd worker.

We must emphasise that the sample presented in this report is incomplete; the research is still ongoing. Nevertheless, we believe that it is of interest not least because part of the sample was obtained randomly. When carrying out the offline face-to-face survey in the UK we included a question asking respondents whether they would agree to participate in a follow-up telephone interview and four of our respondents were recruited by these means. Three other UK respondents were recruited via two Facebook groups (one set up by workers for a general tasking platform, and the other for business start-ups) in response to postings on these sites placed by our researcher asking for volunteers to be interviewed. Four UK respondents were recruited via a union meeting of ride share drivers attended by a member of the research team (who did not personally carry out the interviews) and the final two UK respondents were recruited via an approach to a trade union that represents delivery workers. In addition to these 13 UK respondents it was decided, for reasons of comparison, that it would be interesting to carry out some interviews in Estonia (which, in many ways, provides a strongly contrasting setting) and where one member of our research team happened to be based for part of the research period, using opportunistic sampling. Here, there were two respondents: one online worker who was identified through personal contacts and one delivery worker who was approached on the street.

We recognise that this sample is not fully balanced. It is presented here as part of a work in progress.

By using different sampling methods from some other researchers into crowd work we do not wish to criticise these alternative methods. Rather we offer our results for comparison. To the extent that our findings replicate those of other studies, these add strength to those findings.

All the UK interviews were carried out by phone or skype. Because of the unpredictable working patterns of crowd workers it was extremely difficult to book times in advance for carrying out the interviews and using telephone or skype allowed these to be arranged quickly by text or email, with no need for travel. Interviews were often cancelled at short notice or had to be repeatedly rescheduled, sometimes being carried out late at night or during intervals between tasks. Two of the drivers were interviewed from their cars. It was felt by the researcher that this kind of communication, especially when taking place late at night when respondents were relaxed and in their home environments, allowed them to speak more freely than if the interviews had been carried out somewhere public and face-to-face. It was certainly remarkable how many were prepared to share intimate personal details and expose their vulnerability. The two Estonian interviews were carried out face-to-face.

All respondents were fully informed about the purpose of the research, asked for their consent and informed of their right to withdraw at any point. Fourteen of the fifteen interviews were recorded on tape, with the permission of the respondent. All tapes of the UK interviews, which were conducted in English, were transcribed to enable full analysis. The Estonian interviews were analysed directly from the recordings by the researcher, who is a native Estonian speaker.

The interview length varied from 40 minutes to 2 hours and 24 minutes.

Characteristics of the sample

Appendix Table 2 provides a summary of the sample giving their gender, age, education, country of residence and country of origin.

APPENDIX TABLE 4.
Demographic characteristics of respondents in qualitative interviews.

NICKNAME	GENDER	AGE	EDUCATION	COUNTRY OF RESIDENCE	COUNTRY OF ORIGIN
Hilary	female	27	University degree (BA and studying for MA)	UK (London)	UK
Ben	male	25	University degree (BA)	UK (London)	Australia
Martin	male	38	University degree (BA)	UK (Sussex)	UK
Janek	male	38	University degrees (MA and BA; unfinished PhD)	UK (London)	Poland
Maya	female	42	University degree (BSc)	UK (London)	UK
Serkan	male	48	Unfinished undergraduate degree	UK (London)	Turkey
Ahmed	male	39	Undergraduate degree (from Pakistan)	UK (London)	Pakistan
Mustafa	male	32	Completed High School	UK (London)	UK
Fahir	male	43	Completed High School and 4-year apprenticeship	UK (Essex)	Turkey
Richard	male	59	Not disclosed	UK (Scotland)	UK
David	male	69	University degree (unspecified)	UK (London)	UK
John	male	69	Completed High School (grammar school)	UK (Suffolk)	UK
Barbara	female	58	University degree (BA)	UK (Wales)	UK
Maria	female	20	Studying for Bachelor's degree	Estonia (Tallinn)	Estonia
Henry	male	36	University degree (BA)	Estonia (Tallinn)	Estonia

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Whether it's known as the 'sharing economy', 'gig economy', 'platform economy' or 'crowd work' there is no disputing the exponential growth of online platforms for managing work across Europe. But surprisingly little is known about the realities of 'gig work'. Is it a liberating new form of self-employment or a new form of exploitation? How many workers are doing it? Who are they? Is it their main source of income or a top-up to other kinds of work? What is the reality of their working lives? And what are the implications of these new realities for public policy in Europe?

This report presents the results of an innovative survey across seven European countries, revealing, for the first time, the extent and characteristics of crowd workers in Austria, Germany, Italy, the Netherlands, Sweden, Switzerland and the UK. The survey results are complemented by in-depth interviews with a range of crowd workers, shedding light on the realities of their working lives, including the stresses, fears and health hazards they face, as well as the satisfactions they experience.

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