



Gender and the gig economy

Critical steps for evidence-based policy

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Key messages

- Despite the rapid expansion of the gig economy globally, there has been little research to date on its impacts in low- and middle-income countries or on the gendered experiences of gig work. This lack of knowledge critically limits the ability of policy-makers to understand women's experiences of the gig economy and, therefore, to develop evidence-based policy responses focused on economic empowerment.
- We summarise workers' experiences of the 'on-demand' gig economy, which typically provides less-skilled and lower-remunerated jobs than other forms of gig work, and highlight its impact upon women, who face disadvantages related to poverty and intersecting inequalities.
- Understanding the effects of gig work requires situating the available evidence within a broader discussion of technological, economic and labour market trends. We describe the spread of digital technology, the flexibilisation of labour markets and the individualisation of labour (and associated shift of risk onto workers).
- While the gig economy exhibits some new features, on the whole it represents the continuation (and in some cases deepening) of long-standing structural, and gendered, inequalities. This means that, as the gig economy grows, focused action to leave no one behind becomes increasingly critical. At the same time, gig work is likely to be experienced differently in economies characterised by high levels of informality. Here, platform technologies have the potential to contribute to incremental improvements in labour conditions.
- Critical knowledge gaps must be filled if there is to be apt policy and regulation in the gig economy era. This requires an improved understanding of: the realities of flexible work arrangements, particularly for workers managing unpaid work; the experiences of diverse groups of workers, particularly those most at risk of being left behind; and the importance of incorporating workers' perspectives from diverse labour landscapes.

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1 Introduction

The gig economy – also known as the platform, sharing or collaborative economy – is expanding quickly, as digital platforms that bring together workers and the purchasers of their services continue to emerge and grow globally.¹ Yet, while there is growing evidence on developments in the gig economy and workers’ experiences within it, little of the research conducted to date has focused on countries outside the United States (US) and Europe or on gendered experiences of gig work. The resulting lack of knowledge is a critical hindrance to policy-makers’ ability to understand women’s experiences of the gig economy and, therefore, to develop evidence-based policy responses.

The future of work is currently receiving attention at the highest policy levels,² as is the need to ensure that no one is left behind in the digital age. This paper demonstrates the case for a strong gender lens in these debates and, in so doing, makes a clear call for women’s economic empowerment to be at the front and centre of efforts to ensure the gig economy evolves to the benefit of all. Our primary interest is in the impact of gig work on women who face disadvantages related to poverty and intersecting inequalities; that is, aspects of who they are or where they live.³

This working paper focuses on ‘on-demand’ labour, which typically provides less-skilled and lower-remunerated jobs than other forms of

gig work (Box 1). We set out what is presently known about this branch of the gig economy and the labour exchanges it facilitates, highlighting the significant data gaps that relate to gender. We then situate this evidence within the broader discussion of how the gig economy relates to wider technological, economic and labour market trends, arguing that gig work is likely to be experienced differently in economies characterised by high levels of informality and precarious working – with some potential for platform technologies to contribute to incremental improvements in labour conditions in these contexts. Finally, we set out why the gendered dynamics of the gig economy are of concern to international and domestic policy-makers, and outline the critical knowledge gaps that must be filled if policy-makers are to be provided with the evidence they need to ensure policy and regulation are fit for purpose in the gig economy era. Here, we highlight the need to better understand flexibility, and how it is experienced by workers, particularly those who are also managing unpaid care and domestic work; the experiences of diverse groups of workers within the gig economy, particularly those most at risk of being left behind; and the importance of taking into account workers’ perspectives, given the very different labour landscapes in different parts of the world.⁴

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- 1 In this paper, we use the term ‘gig economy’ rather than ‘sharing’ (or ‘collaborative’ or ‘platform’) economy because our focus is on monetised transactions and the commodification of labour rather than assets.
 - 2 At the global level, this includes: the World Bank’s flagship new Human Capital Project, strongly informed by analysis within its 2019 *World Development Report* on how technology is changing jobs; the International Labour Organization’s (ILO) Global Commission on the Future of Work; and the Pathways for Prosperity Commission on Technology and Inclusive Development.
 - 3 ODI has been at the forefront of research focused on women’s experiences of the gig economy in middle-income countries: see Hunt et al. (2017) and Hunt and Machingura (2016).
 - 4 This working paper builds on our previous sector-level and country-specific analysis to set out the (global) evidence base. The paper also underpins our ongoing work on gendered experiences of the gig economy in Kenya and South Africa. Our findings from this research will feature in a forthcoming ODI report, due to be published in the first half of 2019.

Box 1 What is the gig economy?

The gig economy refers to labour market activities that are coordinated via digital platforms. Companies operating these platforms act as intermediaries, enabling purchasers to order a timed and monetised task from an available worker, usually taking a fee or commission when the service is paid for or completed. Workers take on particular ‘gigs’ without any guarantee of further employment, and they are invariably classified by gig economy companies as independent contractors, rather than employees.⁵ The operating models of gig economy platforms can be divided into ‘crowdwork’ and ‘on-demand’ work:

- **Crowdwork** refers to tasks that are commissioned and carried out virtually, via the internet. Service purchasers advertise specific tasks on platforms, which can then be matched to suitably skilled crowdworkers located anywhere in the world. In this model, the crowdsourcer and the crowdworker rarely (if ever) experience face-to-face interaction.
- **On-demand work** refers to tasks that are carried out locally, with the purchaser and the provider in physical proximity. These tasks are generally organised via mobile platforms, by companies that set the terms of service (including fees and minimum service quality standards) and have some role in worker selection and management (De Stefano, 2016). In some contexts, notably in poorer countries, workers also engage with work platforms using lower-tech methods, such as text messages or phone calls instead of via a smartphone app.

Source: Hunt et al. (2017)

5 Although, Farrell et al. (2018a: 8) argue that in the US, the platform economy is evolving in a way that ‘some platforms facilitate relationships which may involve expectations of continued service over time’ and, indeed, we have observed in our work in Kenya and South Africa that online platforms mediate both task-specific and longer-term employment relationships.

2 What is known – and not known – about gender and the gig economy

In this section, we consider what is known about the gig economy – in terms of its value and the work it provides. Our emphasis is on on-demand work, for several reasons. First, this branch of the gig economy is relatively understudied.⁶ Second, workers engaged in on-demand work are likely to be relatively more disadvantaged than those involved in crowdwork. The preponderance of lower-skilled physical tasks, fewer barriers to entry and lower requirements for digital access and capacity make it more suitable for less-skilled workers. Third, given that in many countries the gender pay gap is larger among

relatively unskilled workers (Olivetti and Petrongolo, 2014), a gendered focus on on-demand work appears to be merited. Although significant data challenges mean it is difficult to measure the size of the on-demand gig economy (see Box 2), there is evidence to suggest there will be exponential growth in the sectors in which women are most likely to be concentrated. These growth rates notwithstanding, there currently appear to be relatively fewer female than male gig workers, and – as we discuss below – they may be relatively disadvantaged in their terms of engagement and earnings.

Box 2 Challenges to measuring the value of the gig economy and the work it facilitates

It is surprisingly difficult to ascertain the value of the gig economy, or the number and characteristics of participating workers. Its measurement is complicated, not least given that gig work is often a supplementary or secondary income source⁷ and is not consistently reported to tax authorities.⁸ Although national statistical offices are starting to develop methodologies to identify gig workers in labour force surveys (see BLS, 2018a; ONS, 2017), official statistics have only recently started to become available, and even these are beset by measurement issues.

6 Crowdwork so far has attracted much more research (see, for example, Berg et al., 2018; Graham et al., 2017; Berg, 2016, Kässi and Lehdonvirta, 2016, among many others), although relatively little has taken a gendered approach – notable exceptions being Adams and Berg (2017); Dubey et al. (2017); Beerepoot and Lambregts (2015).

7 Robles and McGee (2016:3) state that perhaps the most compelling finding in their survey of informal activity in the US is the ‘multiple work and non-work identities’ that their respondents adopted; they argue that multiple income streams are likely to become more common with the growth of digital infrastructure in a number of sectors.

8 This is especially true in low- and middle-income countries, given ‘general tax under-reporting and the dominance of the informal economy’ (Bajwa et al., 2018: 10).

Box 2 Challenges to measuring the value of the gig economy and the work it facilitates continued

Notably, gig work might not meet standard labour force survey definitions of employment, such as respondents having worked at a ‘sole or main job’ (Farrell et al., 2018b) or for a certain amount of time over a given reference period (Bajwa et al., 2018).⁹

In the absence of official estimates, we rely on a number of other sources, including: inferences drawn from other government data (e.g. Holtz Eakin et al. (2017) and Hathaway and Muro (2016) analyse US census bureau data on ‘non-employer firms’ in ride- and room-sharing); small-scale surveys; and companies’ administrative data. However, these non-official sources raise other issues. First, definitions vary – the ‘sharing’ economy can encompass many types of activity, including platforms focused on labour (which may include crowdwork and/or on-demand work), those facilitating the monetisation through sale or hire of an individual’s underutilised assets (e.g. Airbnb, which allows users to advertise and rent accommodation), and even activities such as the downloading of music and other media. The various estimates we found in the literature encompass activities that are inherently different in nature, rendering them difficult to compare.

Second, survey methodologies differ. Some surveys are administered online, which may result in gig work being over-represented (as workers with less digital access are excluded) (Balaram et al., 2017), while others are based on the random selection of respondents. Different surveys typically invoke different time periods; for example, they may ask whether a worker has ever engaged on a gig platform, or whether they have done so in the past year or the past week. And because sample sizes are typically small, estimates may lack precision, and it is difficult to look below national averages at specific groups of workers.

Some studies rely on companies’ administrative data; for example, Berger et al. (2018), Cook et al. (2018) and Hall and Krueger (2015) use Uber proprietary data. Such approaches have been criticised: Berg and Johnston (2018) argue that Hall and Krueger’s study displays sample bias, uses leading questions, overestimates drivers’ earnings, makes unsubstantiated claims and reports findings selectively, which risks skewing policy-makers’ opinions. But because companies typically guard their own data closely (Gupta et al., 2017; Kässi and Lehdonvirta, 2016), more often researchers must make inferences using complementary information. For example, Harris and Krueger (2015) have estimated the size of the US gig economy by drawing on the relative frequency of Google searches for gig platforms, while Watanabe et al. (2016) have identified trends in Uber trips in the US by using data on business travellers’ expense reports, taxi medallion prices, the number of traditional taxi trips and taxi meter revenues.

Owing to the use of such diverse methods, the available evidence is patchy and contradictory. Our focus is on labour platforms that offer on-demand work, but because there have not yet been any quantitative studies on this branch of the gig economy alone (beyond studies that focus on a single company, such as Uber), we necessarily report on those which include this branch even though they also cover other areas. However, we exclude those which are specific to other areas of the gig economy, such as crowdwork, unless explicitly stated.

⁹ In its June 2018 release of data from the May 2017 Contingent Worker Supplement, the Bureau of Labor Statistics (BLS) noted that ‘new questions on electronically-mediated employment did not work as intended’, having produced a large number of false positives requiring a manual recoding of other data collected in the survey (BLS, 2018b). Other critiques suggest that the BLS’s focus on ‘a main occupation within the last week’ overlooks the fact that ‘the vast majority of platform earners rely on platforms as a secondary source of income’ (Farrell et al., 2018b; see also Kaufman, 2018; Samaschool, 2018).

2.1 Size, value and high-growth sectors

Available analyses on the value of the gig economy suggest it has high revenues and strong growth prospects (see Annex 1).¹⁰ For example, analysis by PwC of five sectors of the gig economy (comprising crowdfunding, asset sharing, transport, on-demand household services and on-demand professional services) in the European Union forecasts:

- €3.6 billion in revenue in 2015
- revenue expansion of roughly 35% yearly between 2015 and 2025, around 10 times faster than the broader economy
- revenues in excess of €80 billion by 2025, with many areas rivalling the size of traditional counterparts, and that
- on-demand household services will be the fastest growing sector, with revenues projected to expand at roughly 50% yearly through 2025 (Vaughn and Davario, 2016; Hawksworth and Vaughn, 2014).¹¹

In the US, BIA/Kelsey estimates of the ‘local on-demand economy’, in which it includes products and services sold via mobile apps to households (not businesses),¹² point to:

- revenues of around \$11.4 billion in 2017
- an ‘addressable’ US market opportunity of \$785 billion in 2017 – a figure that takes into account future expansion scenarios and is derived principally by pricing the unpaid care work of women for which home-based on-demand services could substitute, and that

- addressing this market could generate transactions worth \$3.1 trillion by 2030 (Ratcliffe, 2017; BIA/Kelsey, 2015).

Despite there being scant analysis overall on the on-demand economy outside the US and Europe,¹³ the available evidence points to a truly global phenomenon. While a small number of multinational gig economy companies are dominant globally, home-grown domestic firms are also emerging in low-, middle- and high-income countries alike, with some regional emphases. In Asia, crowdwork makes up a significant proportion of online work, and in Latin America, data inputting, data mining and online survey work are predominant, whereas in sub-Saharan Africa ‘the piecemeal work allocated is overwhelming manual/physical labour – laundry, driving’ as opposed to crowdwork (Onkokame et al., 2018: iii–iv).

The proliferation of gig work has been attributed to companies adopting business models that enable them to operate at a much lower cost by not having to pay traditional employee benefits, compensation and insurance. In the US, for example, this can lead to savings of up to 30% on labour costs in comparison with traditionally recruited workers (Cherry, 2015, and Rogers, 2015). These models have, in turn, been described as enabled by – and an extreme manifestation of – globalisation, through the widespread deregulation of labour markets (van Doorn, 2017; Martin, 2016).

This historical and projected global growth signals the increasing importance of gig platforms in the lives of workers and consumers alike, and on societies more widely. The particularly rapid

10 The three annexes provide detailed information on the studies cited in this review.

11 PwC estimates that the gig economy could generate revenues of \$335 billion globally by 2025 (Hawksworth and Vaughn, 2014), although the coverage in this case includes crowd finance, asset and asset sharing and music/video streaming.

12 We suggest this omission of services to businesses may be untenable, given that several domestic services platforms provide services to both households and businesses, and indeed Farrell et al. (2018a: 8) comment that businesses are increasingly on the demand side of the ‘online platform economy’ – e.g. restaurants and online retailers are using transport platforms to source independent drivers to deliver goods.

13 A recent review of 38 studies on the gig economy (grey literature and peer reviewed articles) found that 27 (around 70%) focused on the US and all but two focused on high-income countries (Bajwa et al., 2018).

growth of on-demand household services, such as cooking, cleaning and care work, is likely to have significant implications for women's labour force participation. These outsourced tasks substitute for unpaid care and domestic work, which women are more likely to carry out than men, thereby supporting women's increased labour market activity. In addition, paid care and domestic work are traditionally female-dominated sectors with poor working conditions. This raises questions about whether and how the gig economy will change who it is that takes up this type of work and their experiences of it.

2.2 Size and composition of the gig workforce

The highest estimate of worker involvement in the gig economy is 1.5% of the global workforce, based on estimates of workers on major global on-demand and crowdwork platforms between 2014 and 2016.¹⁴ Other estimates vary markedly within and across countries (see Annex 2). In the US, for example, the most rigorous analysis we have identified – based on the bank account deposits of 1 million Chase customers over a three-year period – found that around 1.6% of Chase account holders had received income from a labour platform company in the month of March 2018, while 2017 BLS data suggest that 1.0% of the US workforce were involved in 'electronically-mediated work' (BLS, 2018a). In Europe, recent research suggests that between 9% (Germany, United Kingdom (UK)) and 22% (Italy) of adults has ever earned money from an online platform (Huws et al., 2017), although the online surveys that produced these figures may over-represent gig workers. The most recent online survey we identified for the UK, sampled through the face-to-face British Social Attitudes Survey, suggests that 4.4% of adults may have undertaken gig work within the previous 12 months (Lepanjuuri et al., 2018). In Canada, the only empirical study we are aware of suggests that 9% of adults in the Greater Toronto area have ever provided services

through a labour or asset platform (Block and Hennessy, 2017). For low- and middle-income countries, we have found very few figures. Heeks (2017) suggests a figure of 60 million crowdworkers, while Miriri (2017) estimates 40,000 online workers in Kenya (0.02% of that country's workforce). More recently, Onkokame et al. (2018) report that across seven countries in sub-Saharan Africa (Rwanda, Tanzania, Kenya, Mozambique, Ghana, Nigeria and South Africa), on average 2% of the population are involved in crowdwork. We have not identified any estimates for the on-demand branch of the gig economy, which tends to be populated by a few large, often multinational, companies which operate alongside a constellation of smaller start-up outfits.

Figures on the gender composition of the gig workforce vary widely, and the small sample sizes in the survey-based studies make these estimates less precise still (as the confidence intervals around the estimates in Figure 1, Panel B attest). For the UK, for example, estimates of female participation derive from small samples of gig workers (between around 200 and 400) – and range between 31% and 52%. With a 95% confidence interval, the actual value may be anywhere between 25% (lower bound estimate: Balaram et al., 2017) and 59% (upper bound estimate: Huws et al., 2017). In other words, we cannot currently say with any precision what share of UK gig economy workers are female. Furthermore, the gender breakdown varies greatly by platform sector. Farrell et al. (2018a) find that in the US, men are more likely to work through online platforms than women, although this is entirely accounted for by their disproportionate activity in the transportation sector, whereas in non-transport labour and asset-based platform activity, women are more likely to participate. They suggest that the sectors being covered may explain partially the different results emerging across US-based studies about the gender composition of the gig economy.

Nonetheless, a few stylised characteristics emerge, derived entirely from high-income countries:

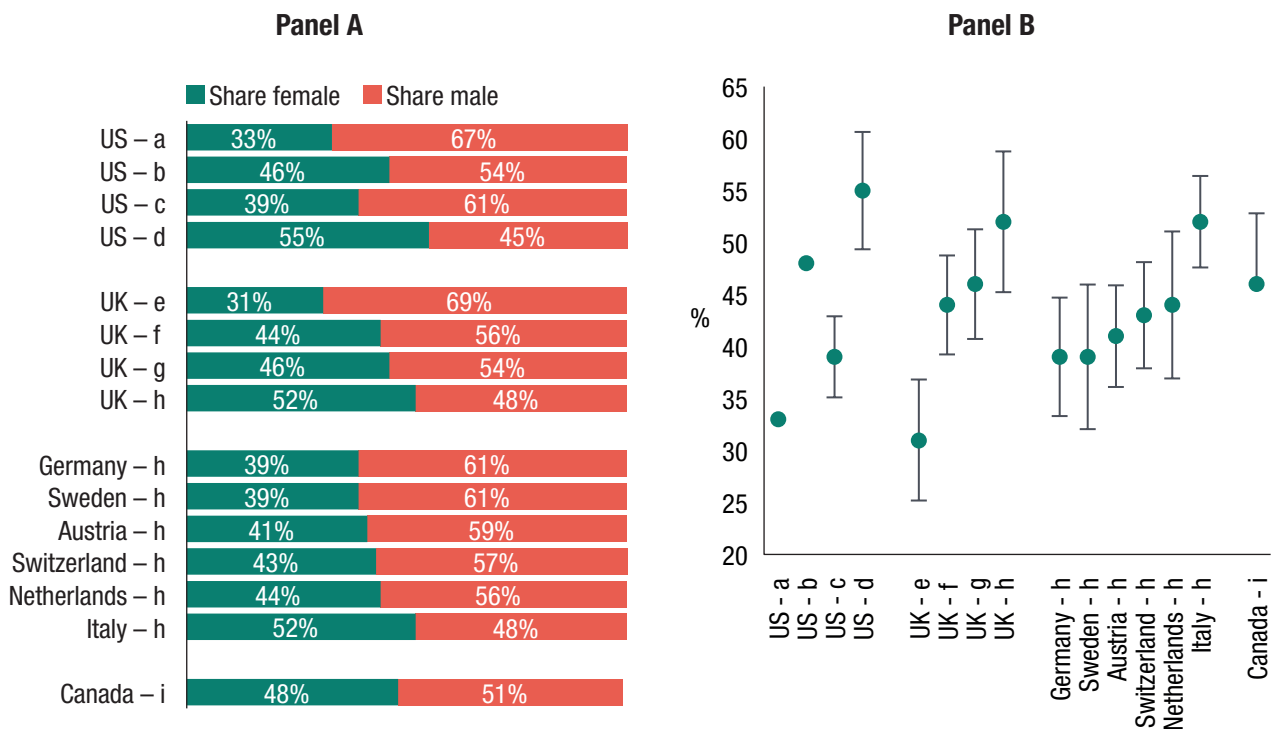
14 Author computations of (1) ILO data on the global workforce for 2015, and (2) estimates of the number of workers across 39 platforms between 2014 and 2016 from Codagnone et al. (2016).

- A smaller share of women than men are involved in gig work, particularly in work via labour platforms (as opposed to asset platforms) (see Figure 1, Panel A); although in some cases this echoes the gender divide in the workforce (see BLS, 2018a; MBO Partners, 2018).
- Women are much less likely than men to work regularly in the gig economy. In the UK, they constituted 16% of weekly gig workers (Balaram et al., 2017), and in the US, they constituted 26% of so-called ‘motivated’ (in other words, ‘more dependent’) workers (Burston-Marsteller et al., 2016).
- Relatedly, women are more likely to exit the gig economy. In the UK, 38% of women who had worked in the gig economy had

exited this work, compared with 25% of men (Balaram et al., 2017). In the US, 62% of women had left labour platforms within a year, compared with 54% of men (Farrell and Greig, 2016).

- Women earn less than men overall through gig work. In the UK, Balaram et al. (2017) found that 75% of female gig workers earned less than £11,500 per annum, compared with 61% of all workers; while Lapanjuuri et al. (2018) found that 49% of female gig workers had earned less than £250 in the previous year, compared with 35% of men. In the US, gig work constituted a lower share of total earnings for women than for men (16%, versus 23% for men) (Farrell and Greig, 2016).

Figure 1 Share of women reported to work in the gig economy (Panel A) and estimates of precision around these shares (95% confidence interval) (Panel B)



Sources:

- a. Farrell and Greig (2016) on receipt of income from a labour platform over a three-year period (confidence intervals are negligible)
- b. BLS (2018a)
- c. Burston-Marsteller et al. (2016) on ‘ever involvement’ on an asset or labour platform
- d. Smith (2016) on use of an asset or labour platform in the previous year
- e. Balaram et al. (2017) on ‘current gig workers’ who carry out gig work on an asset or labour platform at least once a year
- f. CIPD (2017) on use of an asset or labour platform within the previous year
- g. Lapanjuuri et al. (2018) on work on a labour platform within the previous year
- h. Huws et al. (2017) on ‘ever involvement’ on an asset or labour platform
- i. Block and Hennessy (2017)

- There is evidence that gender earnings gaps exist among workers ostensibly carrying out the same work via platforms.¹⁵ For example, a recent study analysing data from more than a million drivers on the Uber platform in the US found a 7% earnings gap between men and women drivers. This was attributable to gender differentials in length of experience of using the platform, preferences over where/when to work, and driving speed (whereby men have greater propensity to drive faster, despite the associated risks of collision or receiving a speeding ticket) (Cook et al., 2018).

The only data available for low- and middle-income countries – from Onkokame et al. (2018) for seven SSA countries – points to a higher share of women than men in crowdwork in Ghana, Kenya, Nigeria and Tanzania, although men are more likely to access the internet in these countries.

The evidence suggests there is a high degree of occupational segregation on gig platforms. For example, in the UK, on the Hassle platform, which provides cleaning services, 86.5% of workers are women, while on food delivery platform Deliveroo and private transport platform Uber, 94% and 95%, respectively, are men (Balaram et al., 2017). But in many ways, this seems to replicate the gender imbalances prevalent in these sectors more widely. For example, data from the 2017 UK labour force survey (ONS, 2018) suggests that 86% of part-time employees who are ‘cleaners and domestics’ are female, the same share as on the Hassle platform. Comparable figures cannot be calculated for female taxi drivers from the labour force survey data owing to very small sample sizes, but other UK government figures suggest that 98% of London’s taxi drivers are men (Government of UK, 2017, cited in IFC, 2018: 24), close to the share of UK Uber drivers. Nonetheless, a recent study covering five emerging economies and the UK suggests that, such segregation notwithstanding, gig companies may increase women’s entry into traditionally male sectors, such as private hire care driving,

thereby boosting their incomes and increasing their mobility and independence. However, the extent of any positive outcomes remains constrained by social norms and, in some cases, discrimination (IFC, 2018). These constraints may serve to amplify the broader exclusions in terms of social protections and labour rights typically associated with the gig economy and the ‘self-employment’ it purports to offer (De Stefano and Aloisi, 2018).

One consequence of the small sample sizes in existing surveys is that it is difficult to undertake intersectional analyses to assess the impact of engagement on different groups of women. This particularly applies for women who are likely to be poor or subject to economic and/or social marginalisation, for example on the basis of race/ethnicity, age, disability, religion or other identity-based characteristics. A partial exception, from a survey-based perspective, is the work of Smith (2016), who finds that workers who are more financially reliant on gig work tend to engage in ‘physical’ on-demand tasks (cleaning, ride-hailing, laundry) and are typically from low-income households, relatively less educated and more likely to be from ethnic or racial minorities. In a similar vein, taking an ethnographic approach, van Doorn (2017) highlights the way in which gender, racial and class inequalities coalesce to entrench the position of low-wage gig workers in the US. Similarly, our previous research on the rise of on-demand domestic work in India, Kenya, Mexico and South Africa found that the unequal power relations and resulting exploitation and discrimination against workers which are endemic in ‘traditional’ domestic work are reinforced in the on-demand economy – although they can be experienced in new, technology-enabled ways, for example through platform ratings and review systems (Hunt and Machingura, 2016). A recent US-based study on similar care work platforms echoed these findings (Ticona and Mateescu, 2018).

In summary, the gig economy is growing rapidly globally. Yet the limited evidence available, which remains particularly scarce for

15 Relatedly, a recent study of crowdwork in the US found a gender pay gap of about 20%, which the authors attribute to female tendencies to bid later and for jobs with lower budgets, and to have a greater aversion to jobs involving monitoring (Liang et al., 2018).

low- and middle-income countries, points to there being significant gender divides in worker participation, earnings and retention, as well as sectoral segregation. As a result, marginalised groups – for example, those experiencing intersecting inequalities based on gender, race or class – are concentrated in the lowest paying forms of gig work. This suggests that far from being an entirely new phenomenon, as many of its enthusiastic proponents believe,¹⁶ the gig

economy – even in its infancy – displays similar characteristics to ‘traditional’ labour markets and may be reinforcing the ‘casualisation’ of labour markets in high-income contexts.

Moving past individual experiences, consideration of the macro-level context can shed further light on the links between the gig economy and wider structural trends, and in turn the implications for workers from a gendered standpoint – to which we now turn.

¹⁶ See Martin (2016) for further discussion of common discourses around the gig economy, including those which herald it as an innovative and positively disruptive business model.

3 Situating the gig economy and its implications

Having outlined what is known about the gendered experiences of gig workers, we now consider the wider context in which the gig economy operates. To do this, we first situate the gig economy within three principal current trends, namely: the spread of digital technology, the flexibilisation of labour markets, and the individualisation of labour (and associated shift of risk onto workers). For each area, we highlight the contours of current discourse around the gig economy, showing that the emergence of the gig economy is firmly rooted in structural labour market shifts. At the same time, we emphasise that the implications of the gig economy for workers vary according to context and the pre-existing configuration of the labour market, which differs significantly between low- and middle-income countries and high-income countries. Overall, we find that – as with worker experiences at individual or group level – while the gig economy exhibits some new features, on the whole it represents the continuation (and in some cases, deepening) of long-standing structural, and gendered, inequalities.

3.1 Digital technology spread

Recent developments in information and digital technologies, higher quality and lower costs of information technology (IT) infrastructure, and the development of international finance and information flows have created an enabling environment for new jobs and forms of work globally. Digital technology has supported users to seek work, and has enabled employers to overcome skills shortages and meet fluctuating

labour demands promptly (e.g. through online recruitment websites) (Green and Mamic, 2015). The gig economy signals further evolution of digitally-mediated human resource management; purchasers in the on-demand economy are not only businesses and other traditional employers, but also individual consumers, who are keen to benefit from relatively affordable services delivered to them at the touch of a button. In middle-income countries, this trend has been driven by sharp growth in the number of tech-savvy, middle-class consumers (Hunt and Machingura, 2016).

Critically, there remain deep, persistent and gendered digital divides in many low- and middle-income countries – where, on average, women are 10% less likely to own a mobile phone than men are, and 26% less likely to use the mobile internet (Rowntree, 2018). This unequal access to digital platforms has the potential to exclude left-behind groups from the economic opportunities those platforms facilitate, reproducing and exacerbating existing inequalities in the labour market. Technology is inescapably socially embedded and cannot alone provide routes out of poverty or into higher-quality parts of the labour market. A broad and proactive policy ecosystem – one that includes ‘skills training, soft and hard infrastructure, and deliberate efforts to lower barriers to entry’ – is required, but labour market outcomes often remain stubbornly shaped by social and cultural factors (Dewan and Randolph, 2016: 9). Some gig companies have taken steps to overcome practical barriers caused by digital illiteracy or lack of access to handsets by communicating with workers through more low-tech means, including text messages

or phone calls, as with Syrian women refugees living in Jordan (Hunt et al., 2017). However, gendered social norms can be harder to overcome, for example where male relatives in some families restrict women relatives' use of digital technologies, such as mobile phones (Hunt et al., 2017; Hunt and Machingura, 2016).

The gig economy allows purchasers to manage labour demand on a short-term, on-call basis by contracting workers to carry out defined tasks, in an arrangement that has been identified as reminiscent of traditional piecework (Lehdonvirta, 2018; Alkhatib et al., 2017; Reed, 2017). Much analysis of 'gig work as piecework' has to date focused on crowdwork, which is often carried out via the internet in workers' homes – although some emerging forms of on-demand work are also home-based, such as the preparation of meals and other catering services in the Middle East and North Africa region (Lewis, 2018; Hunt et al., 2017).¹⁷ For women, this may be something of a double-edged sword. On the one hand, digitally mediated home-based work may enable women with adequate IT infrastructure and access to overcome barriers to paid work. These barriers may include the disproportionate amount of time women spend on unpaid care and domestic work compared with male family members, poor transport links, or social norms that limit women's mobility and heighten their risk of gender-based harassment or violence, such as when travelling to and from external workplaces. On the other hand, the isolated nature of home-based gig work risks exacerbating the long-documented problems experienced by women homeworkers in 'traditional' sectors, including isolation, poor working conditions, difficulties in organising with other workers, and being 'hidden' and therefore invisible to policy-makers – thereby prolonging these challenges (Lewis, 2018; Chen, 2014).

As things stand, gig economy company business models play a critical role in determining worker experiences and conditions. Companies have

the ability to develop business models and make platform design choices that can (in the best case scenario) lead to worker empowerment, or which could (inadvertently or not) result in poor working conditions and/or worker exploitation (Choudary, 2018). Critically, many platform developers stress their position as technology-based companies, whose primary function is to link service purchasers to independent, third-party contractors. As such, many aim to operate outside established regulatory frameworks, notably labour regulation. It has been argued that this 'permissionless innovation' is critical to support experimentation with new technologies, and such innovation should be permitted to continue unabated 'unless a compelling case can be made that a new invention will bring serious harm to society' (Thierer, 2014). This draws into sharp relief the need for policy-makers to consider the opportunities, benefits and harms created by the gig economy, and to develop statutory responses aimed at ensuring optimal outcomes for all involved.

3.2 Flexibilisation of labour markets

Labour market flexibility is a multifaceted notion spanning several dimensions, which differ across national contexts and sectors. Since the 1980s, many countries have deliberately opted to pursue labour market flexibilisation, ostensibly to boost competitiveness and efficiency in an increasingly globalised economy. This has been accompanied by the institutionalisation or further entrenchment (depending on the starting point) of different forms of 'employer-driven flexibility'. This flexibility means that firms ensure an increasingly high degree of 'numerical flexibility' in terms of the number of employees working for them and increased use of short-term work assignments, as opposed to 'standard employment' based on full-time, salaried labour. This permits employers to respond to fluctuations in demand for products or services without

¹⁷ Crowdwork can also be carried out by workers from public access venues, such as internet cafes, co-working spaces or centralised outsourcing centres, all of which are likely to present barriers to access to women (e.g. see Terry and Gomez, 2011, who cite factors including the lack of women support staff and trainers, discomfort in using such venues in the presence of men, the potential for and/or experience of harassment, the prevalence of pornography at some internet cafes, and the physical location of public access venues – especially where norms may circumscribe female mobility).

incurring high transaction costs. However, it often comes at the expense of workers' economic security and the full realisation of labour rights and worker protections (ILO, 2016a).¹⁸

The on-demand economy is one of the newest, and fastest growing, forms of labour market flexibilisation. As a recent report by the International Organisation of Employers – which represents private sector interests in global labour and social policy discussions – posits, the gig economy enhances labour market efficiency by creating both opportunities for work and competition among workers, enabling companies and consumers to locate appropriate, short-term services to meet the demands of specific projects conveniently and at a relatively low price (IOE, 2017).

A second major type of labour market flexibility relates to 'employee-driven flexibility'. This is often described in the literature – which predominately focuses on the experiences of workers in developed countries – as a desirable and empowering tool for workers, enabling them to have agency over their workplace or schedule, and supporting 'work-life balance'.¹⁹ In the gig economy, a key characteristic of company narratives is the claim that the flexible

working arrangements offered on their platforms afford greater choice – and are therefore more desirable – to workers than other forms of labour market participation.²⁰ In particular, this flexibility is often claimed to support female labour force participation, given that women shoulder over three times as much unpaid work as men do (as a global average) (Figure 2), and given the many ways in which the need to care for children can constrain engagement in labour markets in countries where unpaid care workloads are high and unequally distributed, and broader accessible public childcare services are lacking (Alfers, 2016; Samman et al., 2016; Ferrant et al., 2014). Because women can engage in paid activities via platforms at their preferred time, the argument holds, they are better able to balance remunerated activity with other activities, notably unpaid care and domestic work (IOE, 2017; Manyika et al., 2016; Hall and Krueger 2015; Harris and Krueger, 2015) – a notion that has already been reflected in policy statements, most recently by the European Parliament.²¹

In practice, though, the literature suggests that where employer-driven flexibility is high, greater working-time autonomy may lead to an intensification of work and overtime, especially for

Figure 2 The ratio of unpaid work undertaken by women relative to men, across 66 countries



Source: Samman et al. (2016)

18 Further dimensions of employer-driven flexibility include wage flexibility, an increased scope for adjustment (notably downwards) in response to change in demand; employment flexibility, an increased ease of employers to change the number of employees and the conditions under which they are contracted; job flexibility, an increased ability to move employees within a firm and to change job structures with minimum cost; and skill flexibility, an increased ease in adjusting worker skills or bringing in new workers with requisite skills for the life of a specific project (Standing, 2011).

19 We are grateful to Sara Stevano and Aida Roumer for drawing our attention to the separate bodies of literature related to 'employer-driven' and 'employee-driven' flexibility.

20 For example, see: www.uber.com/blog/180-days-of-change-more-flexibility-and-choice/.

21 The European Parliament's 2017 *European Agenda for the collaborative economy* report (2017/2003(INI)), found at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2017-0195+0+DOC+XML+V0//EN> states: 'collaborative economy models can help to boost the participation of women in the labour market and the economy, by providing opportunities for flexible forms of entrepreneurship and employment' (Clause H).

men (Lott, 2015). Moreover, the flexibility offered by platforms is subject to trade-offs between earnings and choice over working times, not least because of platforms' design traits. One example is 'surge pricing', which provides incentives for workers to make themselves available at times dictated by the platform, with higher earnings as a reward (Rosenblat and Stark, 2016). However, there has to date been no in-depth research on the strategies used by gig workers to manage paid labour alongside unpaid care and domestic work, or on how flexibility may feature in this balancing act. Such research would substantiate (or refute) the dominant discourse relating to women's involvement in gig work and provide a basis for more evidence-based policy-making.²²

Critically, the extent to which flexibility is desirable and leads to positive outcomes for workers is likely to depend on a range of factors, including whether it is: (i) voluntary or not; (ii) associated with more or less autonomy at work; and (iii) paired with more or less job security (OECD, 2017). A recent study by Gallup (2018) suggests that 'independent' gig workers (freelancers and online workers) reported much higher autonomy and flexibility than both 'traditional' workers and so-called 'contingent' workers (on-call, contract and temporary workers). On the one hand, the ILO (2016a) suggests that, while highly skilled professionals may actively seek out an autonomous and 'boundaryless' career, lower-skilled workers rarely desire such tenuous attachments, seeing them instead as a source of insecurity. On the other hand, Berger et al. (2018: 3-4) find that Uber drivers in London – who are overwhelmingly male immigrants 'often drawn from Black, Bangladeshi and Pakistani ethnic groups' and earning relatively low remuneration – report higher life satisfaction than other workers, which they hypothesise is linked to the flexibility and autonomy they find on the platform. This perspective is not uncontested, with Berg and Johnston (2018: 15) arguing instead that 'workers' schedules are highly dictated by the

availability of work and their financial dependence on income from Uber', and that 'Uber's practices to ensure a ready supply of drivers limit driver choice and control'.²³

Whether flexibility is desirable and of benefit – and the extent to which it supports the reconciliation of work with family and personal life – is likely to depend on workers' specific situations, as well as the broader policy context. A 'worker-centric' approach, which ensures that flexibility meets workers' needs and goals, would be a valuable starting point for both analysis and policy-making focused on the gig economy (Lehdonvirta, 2018). Such an approach must necessarily foreground workers' voices, preferences and experiences.

3.3 Individualisation of labour and 'shifting risk' onto workers

For many, steps to make labour markets more flexible have gone hand in hand with a move away from the 'standard employment' model, under which workers effectively sell some level of control over their labour to their employer in return for an open-ended (permanent), salaried wage and therefore economic security (ILO, 2016a; Standing, 2016). This trend towards 'non-standard employment' is manifest in different forms – of which one of the newest and fastest growing is in the gig economy.

A great deal of discussion – and controversy – on the gig economy has focused on the shifting of risks and responsibilities to individual workers. Individualisation in the gig economy has been identified as a modern reality to be navigated by workers, manifested in a detached culture in which individuals increasingly oversee their own development and training, and therefore employability (IOE, 2017). Gig economy companies routinely invoke 'independent contractor' models in their terms of engagement, aiming to conceptualise gig

22 Our ongoing research on gendered experiences of gig work in Kenya and South Africa is seeking to redress this gap.

23 As noted in Box 2, this forms part of a broader critique of an earlier study, also affiliated with Uber, which Berg and Johnston assert reinforces Uber's corporate claims in making inflated estimates of flexibility. Independent, worker-focused evidence is necessary to interrogate the extent to which workers truly view various types of on-demand work as offering flexibility that is in line with their preferences.

work as a commercial contract between service provider (worker) and client (service purchaser), as opposed to contracting within an employment relationship. Performance monitoring metrics built into platforms, such as ratings and review systems, further invoke a ‘highly individualised’ responsibility for economic stability among gig workers (Neff, 2012), while equally rendering it difficult for workers to move their services to competing platforms (Fabo et al., 2017). This is further reinforced in the narrative of ‘empowering entrepreneurship’ that surrounds much public discourse around the gig economy (Choudary, 2018: 8). For example, gig economy companies use language invoking entrepreneurialism and self-employment,²⁴ alongside language carefully crafted to avoid referring to work/workers/employees (De Stefano, 2016). The aim is to reinforce the notion of workers as independent entities.

This model can be seen as carefully constructed to deny workers the employment conditions and benefits that are typically associated with ‘decent work’, such as access to labour and social protection – including compliance with minimum wage laws, employer social security contributions, anti-discrimination regulation, and sick pay and holiday entitlements – and the ability to associate freely and bargain collectively (De Stefano and Aloisi, 2018; De Stefano 2016; Rogers 2016). Yet, we would argue that the extent to which the gig economy signals a move away from decent work into precariousness depends on the starting point in a given country for different groups of workers. Where the gig economy has emerged in countries or sectors characterised by a strong regulatory framework, it can trigger a shift in established working arrangements and, importantly, a regression in workers’ access to associated labour protections. This has been the case, for example, as the on-demand economy has made tracks into the domestic work sector in South Africa, and into taxi/private car hire services in many high-income countries (Collier et al., 2017; Hunt and Machingura, 2016).

In many high-income countries, social transfers designed to provide income stability have declined. At the same time, forms of precarious employment, such as gig work, have become further entrenched in labour markets. As a result, those workers not in wage and salaried employment are disproportionately at risk of being in poverty (ILO, 2016b). Yet, across all countries, some groups of workers have been historically excluded from secure jobs, union membership and even wider safety nets – including through systemic discrimination. For many of these groups, contingent work has always been a reality (Ticona and Mateescu 2018; Ticona, 2016).

Furthermore, in many low- and middle-income country contexts, highly individualised and informal own-account (self-employed) work is the mainstay of the economy (Figure 3). The own-account activities performed by women, often survivalist and characterised by high levels of precariousness, are a far cry from the growth-oriented, independent enterprises often idealised in women’s entrepreneurship discourse (Kabeer, 2012).²⁵ Therefore, gig economy models may not necessarily signal a regression in the *de facto* protections workers receive.

The role of intermediaries, in this case platforms – which have the potential to formalise work and provide decent work, or conversely to provoke a deterioration in working conditions – appears to be crucial, an argument that Fudge and Hobden (2018) make in the case of domestic work. More broadly, the experience of gig work will be mediated by the strength of existing labour market institutions, norms and standards, and the availability of social protection within a given context.

Indeed, the extent of existing precariousness means that some aspects of the gig economy may even provide opportunities to improve workers’ everyday experiences, even if they do not necessarily support a deeper transformation towards decent work. Examples of this have been identified in India, where on-demand taxi drivers could be confident of regular payment immediately

24 For example, see: <https://deliveroo.co.uk/apply>.

25 Similarly, as noted above, notions of ‘entrepreneurship’ invoked by gig companies also often focus on the ideal of gig workers as independent entrepreneurs. Further discussion of this parallel is outside the remit of this paper, but could be of interest to those interested in the realities of, and constraints to, women’s entrepreneurship.

on task completion (Surie, 2017), or Indonesia, where surveyed motorcycle taxi drivers perceived the on-demand economy as an opportunity to earn a better income, and working via a gig platform as better than their previous job (Fanggidae et al., 2016).²⁶ Platform technology may also offer promise in facilitating tax collection and incorporating vast numbers of informal workers in employment-linked public social protection schemes across low- and middle-income countries (Bastagli et al., forthcoming; Randolph and Dewan, 2018; Aslam and Shah, 2017).

Furthermore, an increase in platform share in labour markets may provide further incentives for the increased financial inclusion of marginalised groups. For example, it may lead to increased access to and use of formal bank accounts and mobile money by marginalised workers, given the potential of such services to increase the effectiveness and reliability of financial transfers made through platforms, which, in many low- and middle-income countries, currently operate through cash exchanges (Hunt et al., 2017). Moreover, as with own-account workers, many of whom engage in multiple activities, some gig workers work entirely in the platform economy, but most appear to do so on a secondary basis, alongside other informal or formal work. There is therefore a need to understand better how gig work fits into broader livelihood portfolios. The implications are likely to vary depending on whether it is a primary source of income or an additional source, designed to minimise risks and top up income.

To be clear, we are not suggesting that the quality of work in the gig economy is good enough to meet decent work standards, or that slight improvements to existing conditions or a ‘do no harm’ approach are good enough. Rather, we highlight that context must be considered when analysing the implications of the gig economy for individual workers, which means that conditions

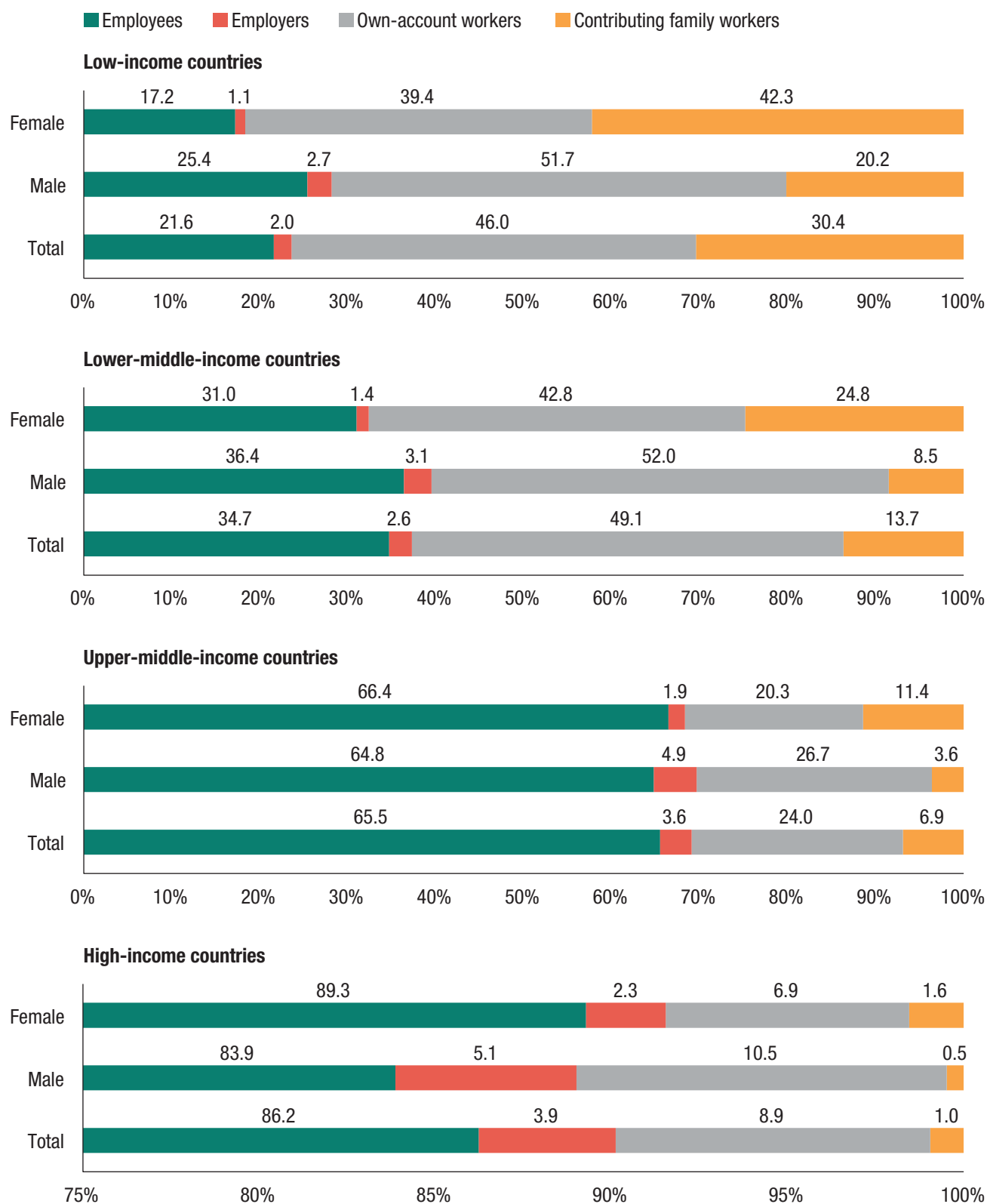
offered by the gig economy should be assessed relative to comparable opportunities provided by local labour markets. In some cases, these improvements could be construed as steps towards incremental formalisation – and therefore a valid sign of progress (Stuart et al., 2018; ILO, 2015).

Importantly, the elements of the decent work agenda that workers themselves identify as priorities have historically differed between countries and over time. In reform strategies aimed at addressing problems related to precariousness, a familiar tactic used in high-income countries has been to invoke the ideal of the standard employment relationship (Adams and Deakin, 2014). This is reflected in the numerous cases of litigation against gig companies by workers laying claim to the existence of an employment relationship, as a means to ensure access to protections and benefits such as a minimum wage, paid holidays and employer social security contributions. The literature points to several examples from the UK and US, as well as a few from other parts of the world, such as South Africa and India.²⁷ However, litigation might not be the only avenue pursued by gig workers globally as the sector grows. This may particularly be the case in low- and middle-income countries, where informal workers have, to date, focused on improving conditions through various means that appear to be relevant to workers in the modern gig economy. Examples include advocacy for universal social protection (notably by delinking entitlements from employment status) (see Alfors and Lund 2012), fair piecework rates and improved workplace infrastructure, health and safety in the case of home-based workers (see WIEGO, 2016). Clearly, there is no one-size-fits-all approach; supporting workers to articulate their own realities and develop the strategies for change most relevant to their own context will be critical to improving outcomes as the gig economy becomes ever larger globally.

26 However, in a US survey, 29% of gig workers reported doing work for which they were not paid (Smith, 2016).

27 Recent examples of such litigation include *IWGB Union v. Rooffoods Limited t/a Deliveroo* (November 2016/November 2017) and *Berwick v. Uber* (June 2015) in the US, *Uber South Africa Technology Services (Pty) Ltd v. National Union of Public Service and Allied Workers (NUPSAW) and Others* (C449/17) [2018] ZALCCT 1; [2018] 4 BLLR 399 (LC); (2018) 39 ILJ 903 (LC) (January 2018) in South Africa, and *Delhi Commercial Driver Union v. Union of India & ORS* (May 2017) in India.

Figure 3 Dominant forms of employment by employment status in country income groupings (%), 2018



Source: ILOSTAT (www.ilo.org/ilostat, Updated 17 December 2018)

4 Evidence for policy and practice: where next?

Our review has sought to identify what is known about gendered experiences of work within the gig economy. We first focused on what is known about the growth of the gig economy, both to date and future expectations, and on the size and composition of the gig workforce. We then delved into the long-standing structural constraints underpinning this new form of digitally mediated work, and its key implications for policy, looking through a gender lens.

It is clear that the gig economy requires increased policy attention at national and local levels, including to sustain progress in meeting international commitments relating to decent work and gender justice. At an international level, it will be important to the implementation of ILO decent work Conventions and associated instruments,²⁸ recently reconfirmed through the commitment of all United Nations member states to deliver full and productive employment, with decent work for all, by 2030, in their signing of the Sustainable Development Goals (SDGs) (UN, 2015). Ensuring there is a robust, gender-responsive policy framework around the gig economy will also further gender and economic justice, a pursuit most recently boosted by the agreement of SDG 5 (to achieve gender equality and women's empowerment) and through the UN Secretary General's convening of a High-Level Panel on Women's Economic Empowerment in 2015. As recognised throughout these frameworks, positive economic and social change requires action by

multiple stakeholders; the gig economy is no exception. Deep commitment by policy-makers, the private sector, including tech investors and infrastructure developers, among others, is critical if no one is to be left behind as the gig economy continues to grow.

The need for policy intervention to create an enabling environment for decent work in the gig economy is clear; the scant evidence available to date suggests that the gig economy – at its best – can support access to paid work, in some cases helping workers to overcome barriers to labour market access and contribute towards incremental improvements in working conditions. Yet, at the same time, the existing evidence base also suggests that inequalities and other asymmetries in power and access to digitally mediated work may be particularly acute for some groups of women. Therefore, measures to ensure greater labour market equity and support economic empowerment, notably through women's increased choice and agency over economic decisions and resources, are urgently required.²⁹

Nonetheless, the evidence base remains insufficiently developed to allow policy-makers to fully understand different women's experiences of the gig economy, and therefore to develop comprehensive, tailored and evidence-based policy responses to ensure the gig economy evolves to the benefit of all. Therefore, to conclude, we outline three key areas where policy-makers seeking to advance

28 Such as those aimed at supporting transitions into formal employment (ILO, 2015a).

29 To further reinforce the case for increased policy attention, we draw attention to the framework encompassing the ethical, social, legal and economic rationale for policy intervention in the crowdwork branch of the gig economy elaborated by Heeks (2017), which we believe to also be salient to on-demand work.

gender-responsive policy should focus their efforts, highlighting where further knowledge is needed. These concern: the realities of flexible work arrangements, particularly for women and men who are also managing unpaid care and domestic work; the experiences of diverse groups of workers within the gig economy, particularly those most at risk of being left behind; and the importance of taking into account workers' perspectives in diverse contexts, given the very different labour landscapes in different parts of the world. We focus on each in turn.

4.1 Understand the types of flexible work the gig economy offers, and whether and how this helps in negotiating unpaid care and domestic work

We have seen that the gig economy reflects, in part, flexibilisation processes within the broader economy. This has been characterised by the emergence of new forms of non-standard (and often informal) employment and claims that gig economy work may be well suited to the needs of women (and men) who are also managing unpaid care and domestic work.

Our review suggests there needs to be greater interrogation of the types of work arrangements that gig platforms are offering, and how this increased flexibility is experienced by workers in practice. This is equally the case in high-income countries, where flexibility has yet to be comprehensively investigated in relation to on-demand work,³⁰ and in low- and middle-income countries, where women's disproportionate unpaid care workloads are likely to be more acute³¹ and quality jobs in scarcer supply, and where established notions of employee-led flexibility have been argued to be less salient. For example, many workplace measures relate to flexi-time and

part-time work arrangements, which have less relevance in low- and middle-income countries given the predominance of the informal economy and high rates of underemployment, which see many workers already working part-time due to a lack of other options (Alfers, 2015).

However, focusing exclusively on flexible schedules as a preferential means for tackling women's disproportionate care loads would still not go far enough; this approach would do little to tackle the underlying social norms that assign women this unpaid work in the first place. It would also circumvent a more comprehensive approach to alleviating women's responsibilities, involving the reduction and redistribution of unpaid care and domestic work via familial redistribution or improved access to childcare and other support services, among other measures (Balakrishnan et al., 2016). Therefore, there is an urgent need for policy-making to be focused on gender and the gig economy, so that policy-makers can learn lessons from the long-established feminist discussion around unpaid care, and move away from the narrow view of 'flexible working' as a panacea to one of the most deeply entrenched manifestations of gender inequality globally.

A richer understanding of preferences for flexibility and how these are experienced within gig work will be useful in implementing ILO decent work commitments, as well as shaping policies and programmes aimed at increasing female labour force participation (in line with SDG 8, focused on full and productive employment and decent work, and SDG Target 5.5, to ensure women's full economic participation) and addressing unpaid care workloads (in line with SDG 5, notably Target 5.4, which seeks to recognise and value unpaid care and domestic work). It can also speak to broader policy dialogues around the promotion of women's economic empowerment.

30 An exception is Berger et al. (2018), but their focus is on the 'overwhelmingly male' subset of Uber drivers in London. It should be noted that Lehtonvirta (2018) explores flexibility in the context of crowdwork, arguing that it is shaped by the availability of work, workers' dependence on it, as well as constraints like procrastination and 'presenteeism'. However, this analysis does not incorporate a specific gender lens, or extensive focus on flexibility and unpaid care and domestic work.

31 Across 66 countries with data, the 16 with the smallest gaps between female and male unpaid care workloads were high-income countries. The 13 countries with the largest gaps are low- and middle-income countries (Samman et al., 2016: 18, Figure 4).

4.2 Focus first on workers who have been left behind, who are most adversely affected by precarious forms of work

Relatedly, much more attention needs to be paid to the diverse experiences of gig workers, both across countries and within specific contexts (including within specific geographic areas as well as in different branches of the gig economy). We argue that a greater focus on the experiences of female workers is needed than has been the case to date, given the expectation of exponential growth in areas of the gig economy where women are disproportionately concentrated (notably household services, such as paid care and domestic work); given the entrenched gender inequalities in ‘traditional’ labour markets globally (including gender pay gaps and widespread gender-based violence and sexual harassment), with early evidence suggesting these experiences are becoming manifested in the gig economy in new, digitally enabled ways; and given the persistent gendered digital divides, which can highly constrain women’s inclusion in the gig economy – a significant limitation given the projected huge expansion in digitally mediated work in the years to come.

The scarce evidence which is available highlights the adverse terms of incorporation for female gig workers in North America and in Europe, where participation rates and, in some cases, earnings are generally lower than those of men, but it is currently difficult to know to what extent this is generalisable, particularly in low- and middle-income settings. Furthermore, there is a pressing need to understand how gender differences intersect with other systems of structural inequality, thereby compounding disadvantage and discrimination – such as class, race/ethnicity, geographic location, age, disability and migratory status, among others – to shape experiences of gig work. The preponderance of women from marginalised groups in occupational sectors where gig work is fast taking hold suggests these intersections are likely to be important. Finally, the large shares of women (and men) in own-account work calls for

greater attention to how gig work may fit into a broader portfolio of livelihood activities.

Such a focus aligns well with the SDGs’ commitment to ‘leave no one behind’; that is, to prioritise and fast-track actions for the poorest and most marginalised people (Stuart and Samman, 2017). This globally agreed call to action adds imperative to focus first and foremost on workers in the most precarious situations; this requires a concerted effort by policy-makers to tackle, as a priority, the nefarious effects of labour market flexibilisation on the most marginalised and insecure gig economy workers. In practice, leaving no one behind means collecting and acting on data on what marginalised populations themselves say they want, and will require fully costed and resourced policies and – critically – political will (Bhatkal et al., 2016).

4.3 Recognise and act on worker perspectives across diverse contexts

The existing evidence suggests that platform-mediated gig work may be experienced very differently in high-income versus low- and middle-income country settings, owing to the fundamentally different employment landscapes. In the former, it has been described as reflecting the increasing encroachment of non-standard forms of employment, furthering the erosion of workers’ access to labour and social protections (Carré, 2017; Standing, 2016). This may be particularly harmful for women workers, given that they tend to be more reliant on flexible and less protected forms of work. However, in low- and middle-income contexts, gig economy offerings are likely to be on par with other casual and informal jobs, which constitute most employment, and have been perceived by some workers as offering advantages in comparison to other economic opportunities available to them. Evidence-based policy requires a nuanced understanding of these contextual differences and of which platform features (designed by gig companies from across diverse settings) workers perceive more and less favourably. Within low- and middle-income countries too, it will be important to differentiate the labour market context and the availability of social protection.

In this vein – and critically – policy development, implementation and evaluation processes must privilege workers’ views, preferences and experiences, particularly those of traditionally marginalised, hidden and excluded groups – many of whom look set to join the most insecure parts of the gig economy. In this regard, lessons can be learned from the experiences of informal workers. Domestic workers, for example, have a long history of successfully organising for policy and workplace change, despite being dispersed and isolated, as well as lacking resources (including finance and social/political capital) to support their collective action. Indeed, on-demand domestic workers have already led the way in developing some of the first joint action

agreements within the gig economy, providing an example for workers, companies and policy-makers alike to follow.³² The recognition of gig workers as workers is critical, as is fostering their meaningful participation in dialogue for policy and practice by ensuring decision-making is accessible, open and responsive to their input – from the highest levels of global policy discussion, to the involvement of workers in the design of start-up platforms.

The message is clear: labour markets are changing. If the future of work is to be bright for *all* workers, including the many women currently at significant risk of being left behind as the gig economy expands globally, then now is the time to act.

32 A pioneering collective agreement between Hilfr.dk, a Danish platform for cleaning in private homes, and 3F, a Danish trade union, came into force in August 2018 (see: <https://blog.hilfr.dk/en/historic-agreement-first-ever-collective-agreement-platform-economy-signed-denmark/>). In the US, the National Domestic Workers Alliance developed the Good Work Code, a set of eight principles of good work in the digital economy, signed by several major gig economy platforms (see: www.goodworkcode.org/).

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Annex 1 Value of on-demand work

Study	Vaughan and Davario (2016)
Focus/definition	Collaborative economy with 5 sectors: peer-to-peer accommodation, peer-to-peer transportation, on-demand household services, on-demand professional services, collaborative finance
Value	Revenues of Euro 3.6 bn, transactions worth Euro 28.1 bn; revenues nearly doubled 2014/15
Geographic focus	European Union
Time frame	2015
Method	Review of market, sectoral and company data at national, regional, global levels
Projections	
Other info	In 9 member states (France, Belgium, Germany, UK, Poland, Spain, Italy, Sweden, Netherlands), at least 275 collaborative economy platforms to date. The fastest growing sector was on-demand household services, particularly driven by the growing popularity of freelancer platforms and crowdsourced networks offering services such as ready-made food delivery or DIY tasks.
Study	PwC (2014), The Sharing Economy
Focus/definition	Collaborative economy w 5 sectors: peer-to-peer accommodation, peer-to-peer transportation, on-demand household services, on-demand professional services, collaborative finance
Value	
Geographic focus	Global
Time frame	2013-2025
Method	
Projections	5 sectors could generate global revenues of \$335bn by 2025
Other info	
Study	BIA/Kelsey (2015), Ratcliffe (2015)
Focus/definition	Local on-demand economy, defined as 'services that are summoned on-demand through mobile apps, then promptly fulfilled offline'
Value	Estimate revenues of \$4.4 bn (2015), \$6.8 bn (2016) and \$11.4 bn (2017)
Geographic focus	US
Time frame	2015-2017
Method	
Projections	
Other info	Estimate size of total 'addressable' market in household services of \$785 bn in 2017 (7.3% of which was fulfilled).

Annex 2 Workers in the on-demand economy

Study	Farrell et al. (2018)
Type of gig worker	Earners of income from online platform economy (asset and labour-based platforms)
Geographic focus	US
Time frame	Oct 2012–Mar 2018
Estimate of number/ share of gig workers	<p>1.6% of ‘families’ (account holders) earned income from the online platform economy (OPE) in a given month (March 2018), while 4.5% participated at some point over the previous year.</p> <p>Of the 4.5%, 2.6% engaged on labour platforms and 2% on capital platforms.</p> <p>Of the 1.6%, 1.1% were on labour platforms – 1.0% in transport, 0.1% in non-transport – while 0.6% were on capital platforms – 0.4% in selling and 0.2% in leasing.</p>
Method	39 million de-identified families with a checking account and payments directed through 128 million online platforms to 2.3 mn families (account holders) who participated in the online platform economy between October 2012 and March 2018.
% female	
Gendered aspects	<p>1.63% of male account holders and 1.32% of female account holders generated income from OPEs in Sept 2017.</p> <p>Men are more likely to participate in the OPE (or share a bank account with someone who does) – but the difference is restricted to the transportation sector. In the other three sectors, women are more likely to participate.</p>
Other details	<p>The transport sector generates as much revenue as the other three sectors combined – 58% of total transaction volume and 63% of OPE participants. Non-transport workers account for less than 5% of participants and volume.</p> <p>Most participants in the OPE are active just a few months in a year.</p> <p>Sectors are diverging in important ways.</p> <p>Among active participants, average monthly earnings fell 53% in transportation sector (even among highest earning and most engaged drivers), and grew 69% in leasing sector, from 2014 peak. Lessors have highest average earnings of all sectors. Earnings in non-transport sector have been relatively flat.</p> <p>Earnings among sellers are highly concentrated and have become even more so over time, with growth in earnings especially among top earners.</p> <p>OPEs are not replacing traditional income sources – they represent around 54% of take-home income among active participants but 20% of the incomes of those who participated at any point in the previous year.</p> <p>The non-employed and men are more likely than women to participate in the transport sector, and the young are more likely to participate in all sectors.</p>

Study	MBO Partners (2018)
Type of gig worker	Independent workers (including those using digital platforms to find work)
Geographic focus	US
Time frame	2018
Estimate of number/ share of gig workers	31% of the 'private US workforce', of whom 40% are 'full-time independents' meaning that they worked a minimum of 15 hours weekly, and over 35 hours on average. About 20% of 'full-time independents' had used an online platform in the previous year (up from 3% in 2012) and 16% of part-time independents.
Method	Online survey with 3,584 US residents aged 21 and over.
% female	
Gendered aspects	Men account for 53% of independent workers (roughly mirroring gender profile of US workforce). But while men are more likely to be motivated by being their own boss, earning their own money and feeling more secure, for women flexibility and control are greater motivators (76% of women and 58% of men are motivated by flexibility, 71% of women and 64% of men by wanting to control their own schedules).
Other details	

Study	Gallup (2018)
Type of gig worker	Online platform workers (alongside others involved in 'traditional' and 'alternative' worker arrangements)
Geographic focus	US
Time frame	Oct 2017
Estimate of number/ share of gig workers	7.3% of workers (9.5% of part-time workers and 6.8% of full-time workers) participated in online platform economy in previous week as their primary job.
Method	Gallup Panel web survey completed by 5,025 adults age 18 and older.
% female	
Gendered aspects	
Other details	60% of online platform workers report that they are doing 'their preferred type of work', compared with 71% of 'traditional' workers. 36% of online platform workers report engagement in their work compared with 27% of traditional workers.

Study	Bureau of Labor Statistics (2018)
Type of gig worker	Electronically mediated workers (online and in-person)
Geographic focus	US
Time frame	2017
Estimate of number/ share of gig workers	1.6 million gig workers in the US, 1.0% of total employment.
Method	May 2017 Contingent Worker Supplement to the Current Population Survey (CPS) covering 56,000 households. The CPS is a monthly sample survey that provides data on employment and unemployment.
% female	46%
Gendered aspects	Gig workers slightly more likely to be male (54% vs 46%) reflecting skew in overall employment.
Other details	Gig workers more likely to be in 25-54 age bracket, less likely to be 55+. More likely to work part-time. More likely to be black and less likely to be white (17% of gig workers but 12% of workforce are black, 79% of workforce and 75% of gig workers are white). Gig workers more likely to have a bachelor's degree or higher, this is driven by people doing 'crowdwork' rather than 'on-demand' gig work. Gig work most pronounced in transport and utility sectors.

Study	Lepanjuuri et al. (2018)
Type of gig worker	Gig economy participants (defined as providing services through websites or apps)
Geographic focus	Great Britain
Time frame	June–Aug 2017
Estimate of number/ share of gig workers	2.8 million people had sold services in gig economy in previous 12 months – some 4.4% of adults 18+.
Method	Probability-based online survey (NatCen panel) of 2,184 individuals in Britain sampled randomly (to obtain estimate of prevalence of gig work); plus non-probability online sample of 11,354 people (YouGov Omnibus) to understand characteristics of gig workers and working practices.
% female	46%
Gendered aspects	54% of gig workers were male, 46% female, compared to 49% and 51% split in general population. Women in gig economy were much more likely than men to have earned less than £250 in previous 12 months (49% of women, 35% of men).
Other details	<p>Gig workers typically younger than general population (56% were aged 18 to 34, compared to 27% of whole sample). Educational attainment similar to general population. Gig workers more likely to live in London (24% of gig workers vs 13% of general population). Providing courier services most common, followed by an ‘other’ category (with tasks ranging from removal services to web development), followed by transport and food delivery.</p> <p>Most gig workers had become involved fairly recently (38% within previous six months). For over half (55%), gig work was relatively frequent occurrence (at least monthly). For 9%, it took place daily, while for 14% it was ‘one off’.</p> <p>25% of sample earned below national minimum wage of £7.50 hourly – annual earnings were relatively low (median of £375), suggesting that gig earnings were a small share of most workers’ total earnings.</p> <p>11% of workers earned a large majority of their incomes (>90%) in the gig economy.</p> <p>42% of workers viewed their gig earnings as important, 45% as unimportant.</p> <p>More than half of gig workers (53%) were satisfied with their experiences of gig work, especially the independence and flexibility it offered. They were less satisfied with workplace benefits and levels of income.</p> <p>Those who deemed their income from gigs to be important to standard of living were more likely to be more satisfied with all aspects of their work (74% vs 48%).</p> <p>41% planned to continue their gig work in next 12 months, 39% would not.</p> <p>In last 12 months 41% of gig workers had earned less than £250 in previous 12 months.</p> <p>Asked which one aspect they would improve, most common response was more predictability and regularity of work.</p>

Study	Balaram et al. (RSA) (2017)
Type of gig worker	Gig economy participants
Geographic focus	UK
Time frame	2016/17
Estimate of number/ share of gig workers	1.1 million people in gig economy on labour platforms (2.17% of adults aged 15 and over). 3.17% of adults have ever done so. 62% of gig workers (66% of women) are using platforms to supplement their incomes.
Method	Face-to-face survey conducted with 7,656 adults aged 15+, of whom 243 had ever carried out some form of gig work. Gig economy here includes (but distinguishes) labour-based and asset-based platforms.
% female	31%
Gendered aspects	69% of gig economy workers are male. Split is more even for asset-based than labour-based platforms.
Other details	Gig workers more likely to be younger, and to be highly skilled – as many as 44% have university degrees.

Study	Block and Hennessy (2017)
Type of gig worker	Gig economy participants (asset and labour platforms)
Geographic focus	Greater Toronto Authority (GTA)
Time frame	Oct 5–20 2016
Estimate of number/ share of gig workers	9% of residents have worked in the on-demand service economy – with transport and cleaning being most popular.
Method	Bi-annual online omnibus survey of 2304 GTA residents.
% female	48% (and 1% are trans-gendered)
Gendered aspects	
Other details	54% racialised, more than 70% under age 45, 51% have children under 18, 90% have a post-secondary education, 62% of current workers have been working in the gig economy for more than a year. 68% of 'ever' gig workers think they'll be working in (or return to) 'sharing economy' within a year. 63% work full-time but just 16% make more than 90% of their income from it, while for 60%, it accounts for 50% or more.

Study	CIPD (2017)
Type of gig worker	Gig economy participants
Geographic focus	UK
Time frame	2–15 December 2016
Estimate of number/ share of gig workers	3.5% of adults (1.3 million people) age 18-70 had participated in gig economy in previous year, for 25% of these workers (or 1% of all respondents) it was their main job.
Method	Online survey with 5,019 adults aged 18-70, of whom 417 were gig economy workers (an oversample). Gig workers defined as individuals who used an online platform at least once in previous year to provide transport using own vehicle, rent their own vehicle, deliver food or goods, and perform services or any other type of work organised through online platforms.
% female	44%
Gendered aspects	47% of non gig workers are female.
Other details	

Study	Huws et al. (2017)
Type of gig worker	Crowdworkers' defined as workers using digital platforms for work (any respondent who reported ever selling their labour via an online platform in any of the three categories: carrying out work from home, outside home or providing transport.
Geographic focus	UK, Sweden, Netherlands, Austria, Germany, Switzerland, Italy
Time frame	Jan 2016–April 2017
Estimate of number/ share of gig workers	Crowdwork 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. 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, income source for a 'significant minority' but very small percentages of people involved regularly. Numbers of people earning more than half their income from crowd work ranged from 1.6% of the adult population in the Netherlands (an est. 200,000 people) to 5.1% in Italy (est. 2,190,000 people). In Austria, est. number was 130,000 (2.3% of the pop.); 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%).
Method	Online survey administered to between around 1200 and 2200 adults in each country (appended to standard omnibus survey) and supplemented by face-to-face interviews in UK and telephone interviews in Switzerland
% female	
Gendered aspects	Crowd workers relatively evenly balanced between men and women and more likely to be in younger age-groups, although crowd work can be found in all life stages.
Other details	

Study	Hyperwallet (2017)
Type of gig worker	Gig economy participants
Geographic focus	US
Time frame	Q1 2017
Estimate of number/ share of gig workers	43% of female gig workers involved in professional freelance activity, 32% in direct sales, 30% on service platforms (online and physical), 22% in ride-sharing, 8% in home sharing, 7% in food delivery services.
Method	Survey of 2,000 female gig workers in US. No details provided of sampling/method of conducting survey.
% female	
Gendered aspects	n/a
Other details	Majority of female gig workers are also between the ages of 18-35 (58%), with 30% ages 35-50 and 12% ages 51-70. 22% of respondents rely on gig work as primary income source, 43% are also in full-time employment, 23% are in part-time employment.

Study	MBO Partners (2017)
Type of gig worker	Independent workers (incl. those using digital platforms to find work)
Geographic focus	US
Time frame	2017
Estimate of number/ share of gig workers	31% of the 'private US workforce', of whom 40% are 'full-time independents' meaning that worked minimum of 15 hours weekly, over 35 hours on average. About 20% of 'full-independents' had used an online platform in the previous year (up from 3% in 2012) and 16% of part-time independents.
Method	Online survey with 3,008 US residents aged 21 and over.
% female	
Gendered aspects	Men account for 53% of independent workers (roughly mirroring gender profile of US workforce).
Other details	

Study	Farrell and Greig (2016a)
Type of gig worker	Earners of income from online platform economy (asset and labour-based platforms)
Geographic focus	US
Time frame	Oct 2012 – Sept 2015
Estimate of number/ share of gig workers	0.6% of adults earned income from the online platform economy in a given month (approx 0.4% of the workforce), more than 4% participated over three-year period. Over 60% more people participated in asset-based platforms than labour-based platforms. Cumulatively, 4.3 percent of adults earned income from the platform economy over this timeframe – 1.5 percent from labour platforms and 2.8% from capital platforms.
Method	Analysis of high-frequency data from a randomised, anonymised sample of 1 million Chase customers between October 2012 and September 2015. Analysis identified 260,000 customers receiving bank deposits at least once in 36-month period from one of 30 platforms.
% female	33%
Gendered aspects	67% of participants in online labour platforms were male, compared with 51% of participants in online capital platforms.
Other details	Online platform economy was secondary income source, participants did not increase their reliance on platform earnings over time. Labour platform participants were active 56% of time. While active, platform earnings equated to 33% of total income. Earnings from labour platforms offset dips in non-platform income, but earnings from capital platforms supplemented non-platform income.

Study	JPMorgan Chase Institute (2016a)
Type of gig worker	Earners of income from online platform economy (asset and labour-based platforms)
Geographic focus	US
Time frame	Oct 2012 – Sept 2015
Estimate of number/ share of gig workers	<p>Over the three years, monthly participation in the online platform economy grew 10-fold, from 0.1% to 1.0% of adults in sample and the cumulative participation grew from 0.1% of adults to 4.2%, a 47-fold growth.</p> <p>The year-over-year growth in the percent of adults earning income from the online platform economy exceeded 60% in every month between October 2013 and September 2015.</p> <p>Participation of earners in labour platforms grew fastest: year-over-year growth rates in monthly participation ranged from 300% to 440% in 2013 and 2014 (compared to from 50% to 250%).</p> <p>Despite high growth, marked slowdown occurring: year-over-year growth rates in monthly participation peaked at roughly 440% for labour platforms in August of 2014 and 250% for capital platforms in September of 2014. They then fell almost continuously to roughly 170% for labour platforms and 30% for capital platforms in September 2015. Nevertheless, if the year-over-year growth rates in participation observed in September 2015 were to continue going forward, the percent of participants in labour platforms would more than double every year, (percent of participants in capital platforms would double roughly every three years).</p> <p>Reliance on platform earnings stable or falling: percent of active participants who relied on platform earnings for > 75% of income remained relatively steady over the three years – representing 25% of participants on labour platforms and 17% on capital platforms.</p>
Method	Analysis of high-frequency data from a randomized, anonymized sample of 1 million Chase customers between October 2012 and September 2015. Analysis identified 260,000 customers receiving bank deposits at least once in 36 month period from one of 30 platforms.
% female	
Gendered aspects	
Other details	

Study	Farrell and Greig (2016b)
Type of gig worker	Participants in online platform economy (labour and capital)
Geographic focus	US
Time frame	Oct 2012 – June 2016
Estimate of number/ share of gig workers	<p>Cumulatively, 4.3% of adults earned income from the platform economy over period – 1.5% from labour platforms and 2.8% from capital platforms.</p> <p>As of June 2016, 18% of participants earned income from multiple labour platforms, 3% of participants earned income from multiple capital platforms, and 1% of participants earned income from both types of platforms.</p> <p>As of June 2016, participation in labour platforms doubled year-over-year.</p> <p>But monthly earnings from labour platforms have fallen by 6% since June 2014, a trend that coincides with wage cuts by some platforms.</p> <p>Turnover in the online platform economy is high. One in six participants in any given month is new (on labour and capital platforms), and 52% of labour platform participants exit within 12 months.</p> <p>Participants with higher incomes, more stable employment, and younger cohorts are more likely to exit the online platform economy within a year.</p> <p>The traditional labour market has strengthened, narrowing the pool of likely platform participants. Non-employed individuals are more likely than employed to participate in labour platforms and to continue participating after 12 months.</p> <p>As of June 2016, 49% of labour platform participants were not employed. This is consistent with the observation that labour platform participants tend to use platform income to smooth over dips in non-platform income.</p> <p>Lower-income participants more likely to participate on labour platforms: As of June 2016, 0.6% of individuals in lowest income quintile earned income from labour platforms compared to 0.5% for whole sample. Also more likely to persist on platforms.</p> <p>“The online platform economy, therefore, represents a relatively accessible and flexible source of additional income for those who might need it most”</p>

Method	Analysis of high-frequency data from a randomized, anonymised sample of over 240,000 individuals who have received platform income between October 2012 and June 2016 from one or more of 42 different platforms (out of 5.6 million Chase account holders).
% female	
Gendered aspects	Women far more likely to exit labour platforms within a year (62% compared to 54% for men). Even higher exit rate than youth. Gender split (0.6 male/0.3 female), percent of total earnings (16% for women, 23% for men).
Other details	
Study	JPMorgan & Chase Co. (2016b)
Type of gig worker	Participants in online platform economy (labour and capital)
Geographic focus	US
Time frame	Oct 2012 – June 2016
Estimate of number/ share of gig workers	Participation on labour platforms slightly higher for lower-income individuals (0.8% Q1, 0.9% Q2, 0.8% Q3 and Q4, and 0.6% Q5) – lower-income people are more reliant (25% of earnings among Q1 to Q3, 20% of Q4 and Q5).
Method	
% female	
Gendered aspects	
Other details	
Study	Burston-Marsteller, The Aspen Institute and TIME (2016) (see also Steinmetz 2016)
Type of gig worker	Gig workers
Geographic focus	US
Time frame	Nov-15
Estimate of number/ share of gig workers	45.3 million people (22% of US adults with internet access) have offered an on-demand service. The vast majority have additional sources of income (between 40% and 58% of workers, depending on the activity, earn less than 20% of their income from on-demand work, very few earn 100% of income from them). 10% of 'offerers' have offered ride-sharing, 9% accommodation-sharing, 11% a service, 6% car rental and 7%, food and goods delivery.
Method	Online survey with 3,000 adult Americans weighted to be representative of population. On-demand economy services include ride-sharing, accommodation-sharing, task services, short-term car rental or food and goods delivery.
% female	39%
Gendered aspects	61% of on-demand workers are male – 54% of 'casual' workers and 74% of so-called 'motivated' (or more regular) workers.
Other details	Workers are more likely to be male (61%), younger (51% are millennials), racial minorities (55%), to live on the East or West coast of the US (63%) and to earn relatively more (53% have \$50+ personal income).
Study	Katz and Krueger (2016)
Type of gig worker	Workers in 'alternative work arrangements' (including those finding work through 'online intermediaries')
Geographic focus	US
Time frame	late 2015
Estimate of number/ share of gig workers	15.8% of workers involved in 'alternative work arrangements' in 2015 (up from 10.7% in 2005), with sharp increase in the share of workers being hired through contract firms. Workers 'who provide services through online intermediaries' accounted for 0.5% of all workers in 2015.
Method	Conducted a version of the (BLS) Contingent Worker Survey as part of the RAND American Life Panel. The survey was conducted online and had 3,850 respondents. It asked only about an individual's 'main' job (as does BLS CWS).
% female	
Gendered aspects	Share of women involved in alternative work arrangements went up from 8.9% (2005) to 17% (2015), while share of men rose from 12.3% to 14.7%. Women have a higher likelihood of being an independent contractor than men (share of women independent contractors rose from 5.2% to 8.8% while share of men dropped from 8.5% to 8.0%).
Other details	

Study	Manyika et al. (2016)
Type of gig worker	Independent workers (incl. those using digital platforms to find work)
Geographic focus	US and EU-15
Time frame	2016
Estimate of number/ share of gig workers	Up to 162 million independent workers (20-30% of the working-age population), 15% of whom had used a digital platform to find work, which equates to up to 24.3 million gig workers (3-4.5% of the working-age population).
Method	Survey with 8,000 workers in US and 5 EU countries, extrapolated to EU-15. Define independent work in terms of three characteristics – worker autonomy, payment by task and short-term working relationship.
% female	
Gendered aspects	There is gender parity in independent work, but men are more likely to be free agents and women are more likely to be supplemental earners. No separate data for online platforms.
Other details	
Study	Smith (2016)
Type of gig worker	Gig workers using digital platforms (labour platforms, capital platforms, home sharing)
Geographic focus	US
Time frame	July–Aug 2016
Estimate of number/ share of gig workers	24% of American reported earning money from a digital platform in the previous year – 8% by offering a service (including 5% who did online tasks, 2% who did ride-hailing, 1% each shopping/delivery and cleaning/laundry); 18% by selling online; 1% by renting property on a home-sharing site.
Method	Online survey (or where respondents do not use the internet or decline to provide an email address, by mail), with sample size of 4,579.
% female	55%
Gendered aspects	Women make up 55% of gig workers and 44% of online sellers (they are 52% of the US adult population).
Other details	Those participating in labour platforms have different characteristics from capital platforms – more likely to be black/Latino, to have relatively low incomes, and be younger participants. Online sellers in contrast are more likely to be white, relatively well-off and well educated and cover broad range of age groups. Some 60% of labour platform workers say their earnings from these sites are ‘important’ or ‘essential’ to their overall financial situations whereas 20% of online sellers describe their earnings similarly. Workers describing their incomes in these terms more likely to come from low-income households, to be non-white and not to have attended college. They are less likely to engage in online tasks and more likely to participate in physical tasks such as ride-hailing, cleaning, laundry.
Study	Harris and Krueger (2015)
Type of gig worker	Gig workers
Geographic focus	US
Time frame	Fall 2015
Estimate of number/ share of gig workers	Between 0.4% and 1.3% of total employment.
Method	On the basis of various assumptions about the number of workers providing their services through an online platform relative to number of google searches for 26 prominent gig platforms.
% female	
Gendered aspects	No gender disaggregated estimates.
Other details	

Study	Manyika et al. (McKinsey Global Institute) (2015)
Type of gig worker	Gig workers
Geographic focus	
Time frame	As of June 2015
Estimate of number/ share of gig workers	Less than 1% of the working-age population (15-64) or less than 0.8% of adults.
Method	Computed by Farrell and Greig (2016) from number of workers registered on 10 platforms between 2013 and 2015 (active number unknown)
% female	
Gendered aspects	No relevant gender disaggregated estimates.
Other details	Come from low-income households, be from ethnic or racial minorities and have relatively less education.

Annex 3 Consumers of on-demand services

Study	Huws et al. (2017)
Geographic focus	UK, Sweden, Netherlands, Austria, Germany, Switzerland, Italy
Time frame	2016/ 17
Estimate	Significant numbers of service purchasers. Largest category is services provided in home (e.g., cleaning/ household maintenance), 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. 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 purchasing services to be carried out outside the customers' homes.
Method	Online survey administered to between around 1,200 and 2,200 adults in each country (appended to standard omnibus survey) and supplemented by face-to-face interviews in UK and telephone interviews in Switzerland.
Gender composition	
Other details	
Study	Smith (2016)
Geographic focus	US
Time frame	Nov–Dec 2015
Estimate	72% of Americans have used at least one of 11 shared or on-demand services online: 50% purchased used goods, 41% used programs offering expedited delivery, and so on. 15% have used a ride-hailing app, 11% used a home-sharing service 22% of adults used a crowd-funding site.
Method	Survey of 4,787 American adults administered online (or where respondents do not use the internet or decline to provide an email address, by mail).
Gender composition	Men and women equally likely to use most shared and on-demand platforms, but women twice as likely as men to buy handmade or artisanal goods online (figures are 29% and 15%, respectively).
Other details	Service users are more likely to be college graduates, have higher incomes, be under age 45 and live in urban areas.
Study	Burston-Marsteller, The Aspen Institute and TIME (2016)
Geographic focus	US
Time frame	Nov-15
Estimate	42% of the adult population with internet access have used at least one on-demand service. 22% have used ride-sharing, 19% accommodation-sharing, 17% a service platform, 14% car rental, 11% food and goods delivery. The largest share (58%) had used one such service to date. 76% had a positive experience with 'sharing companies'.
Method	Survey with 3,000 adult Americans weighted to be representative of population. On-demand economy services include ride-sharing, accommodation-sharing, task services, short-term car rental or food and goods delivery.
Gender composition	54% of service purchasers are male.
Other details	Service purchasers/users are more likely to be male (54%), younger (43% are millennials), white (54%), from coastal US states (60%) and relatively richer (60% have \$50K+ personal income).

Study	Evans & Schmalensee (2016)
Geographic focus	US
Time frame	Oct-15
Estimate	The on-demand economy is attracting more than 22.4 million consumers annually and \$57.6 billion in spending. On-demand includes online marketplaces like Ebay/Etsy (62% of total), transportation (10%), food/grocery delivery (8%), and other services/categories including home services, freelancing and health and beauty services.
Method	National Technology Readiness Survey (NTRS) of 933 US adults (with internet in the home) sampled at random from a consumer research panel.
Gender composition	45% of consumers are female.
Other details	Almost half (49%) of on-demand consumers are millennials (age 18-34), 63% are white, 46% have \$50k or more annual income, geographic spread is diverse.



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