The Future of Work

Developing a place-based understanding of its impacts

Lamia Kamal-Chaoui, Director, Centre for Entrepreneurship, SMEs, Local Development and Tourism

Mark Pearson, Deputy Director, Directorate of Employment, Labour, and Social Affairs

This paper has been jointly developed by the OECD Centre for Entrepreneurship, SMEs, Local Development, and Tourism and the Directorate for Employment, Labour and Social Affairs. It is part of a programme of work within the OECD Local Employment and Economic Development (LEED) Programme focusing on the future of work at the local level. Leading authors also include Beatriz Jambrina Canseco, Jonathan Barr and Andrea Salvatori.
1. Introduction

Globalisation, technological advances and an ageing population are fundamentally altering labour markets across the globe. Striking reductions in transportation costs, the development of the field of robotics and the explosive growth of everything digital have contributed to raising concerns about outsourcing, automation, and the commodification of work and skills (OECD 2016d).

Many have pointed out that a significant proportion of jobs will be restructured or may disappear altogether. And it is not just the number of jobs available that is at stake, but also their quality and who gets to carry them out. Part of this is due to lower transportation costs, which has allowed for the offshoring of manufacturing employment to countries with lower wages. Automation has also started to do away with some of those jobs and has changed the nature of many others, reviving fears of ‘technological unemployment’ in the process (Keynes 1931). At the same time, labour flexibility is gradually gaining ground. The digital economy is transforming the way most people work as well as their job security, economic prospects and the skill sets they should invest in. These patterns raise questions not just about unemployment, but also about precarious working conditions and rising economic inequalities (OECD 2016e).

Yet there is a positive outlook on these issues. Those same drivers of change are bringing about plenty of opportunities. Digitalisation and automation have the potential to unlock new markets and will increasingly allow people to find new, more productive occupations. This suggests that efforts need to be made to design adequate labour market activation measures and social protection systems to help workers forge ahead through the challenges and benefit from the new opportunities that open up (OECD 2017a).

The Organisation for Economic Cooperation and Development (OECD) recognises the importance and difficulty of navigating these challenges. An intergovernmental organisation, the OECD constitutes a unique forum where its 35 member countries collaborate with each other, analyse the impact of different
policies and share experiences on what drives economic, social and environmental change. In recent years, the OECD has focused on developing multidisciplinary and cross-cutting initiatives to help policymakers make sense of the wave of technological advances and their implications for labour markets. These initiatives involve continued research on the topics of digitalisation and the future of work. The final aim is to build forward-thinking policy responses that will be compiled into an updated OECD Jobs Strategy and a new Digital Strategy (OECD 2017b, OECD 2017c).

Some pieces of the puzzle have already taken shape. For instance, OECD research indicates that automation is unlikely to lead to ‘technological unemployment’. On average, 9% of jobs across the OECD are at high risk of automation, although another 25% are likely to suffer a significant overhaul over the next ten to 15 years (Arntz, Gregory and Zierahn 2016). Consequently, the real test for labour policymakers will be to address the polarisation of skills in the labour market. Jobs being destroyed disproportionately involve routine – or repetitive – tasks. In contrast, demand has increased for individuals with transversal skills such as making sense of new unstructured information, negotiating and striking deals, or caring for others. What these tasks have in common is that they do not follow a precise set of rules, and are therefore more difficult to articulate and codify so that a computer can execute them. Because these tasks tend to be associated with either high-skilled or low-skilled occupations, automation is said to have brought about the so-called hollowing-out of middle-skilled jobs (Autor 2015, Brynjolfsson and McAfee 2014, OECD 2016d).

Selecting a policy approach in the face of an ever more polarised labour market will require a nuanced response. Not just due to the challenge of automation but particularly given increasing flexibility in labour markets. Rising demand for on-the-spot services through online platforms plays a role in this process, although the commodification of work and skills goes far beyond that. The fact that temporary contracts have been on the rise across the OECD over the past 20 years is a case in point. Because those jobs tend to pay less and dramatically increase the level of insecurity workers face, there is a worry that
they are becoming the norm. Indeed, this would create a dichotomy in the labour market between individuals with a stable career and those jumping from one temp job to the next (OECD 2014).

Regional disparities further complicate the matter. Recent political events have highlighted that understanding globalisation, trade, technological change as well as the future of work means taking a closer look at what happens in different regions, cities and rural communities. An important challenge therefore lies in going beyond the national average and analysing what is taking place at a subnational level (OECD 2016a). OECD studies have found large local and regional differences in employment, well-being and educational outcomes within countries. While some places thrive thanks to globalisation and technological development, others are left behind (OECD 2016a, OECD 2016c). On the side of automation, the OECD Local Economic and Employment Development (LEED) Programme is currently working on providing estimates for how many jobs are likely to be automated locally. This information should allow policymakers to gauge the asymmetric impact across local areas and to adapt their policies accordingly. However, on the topics of gig work and the online platform economy, despite high rates of growth and potentially large effects on spatial inequality, no research has been undertaken at the subnational level.
A large variety of terms have been coined to name different kinds of alternative work arrangements. ‘On-demand economy’, ‘sharing economy’, ‘gig economy’ and many others are often used interchangeably; sometimes to refer to work found through online platforms, others to describe work arrangements that do not constitute a stable source of income, and often meaning anything in between.

For the sake of clarity, this paper uses the term ‘online platform economy’ to refer to employment found through online companies such as Uber, Taskrabbit and Upwork. ‘Gig work’ or ‘gig economy’ are utilised in a broader sense, to mean any kind of alternative work arrangement – be it freelancers, on-call workers, temp agency workers, or workers contracted out to other companies.

This paper aims to provide an initial framework to think about these issues, by scoping out how the online platform economy and gig work are affecting the organisation of work across local areas. To do so, the paper highlights the increasing prevalence of alternative work arrangements in today’s economies (section 2); teases out the potential advantages and obstacles associated with these types of jobs (section 3); and provides a local perspective on the topic, using the United States as an example to uncover substantial differences in the geography of gig work (section 4). Section 5 outlines the conclusions as well as some important considerations for policymakers and paths for future research.
2. Technology and the changing world of work: the multiple facets of the rise of gig work

Since it was founded in San Francisco in March 2009, Uber has revolutionised the way many city dwellers move. Using a mobile app that connects drivers to nearby would-be riders, Uber has been able to lure in both customers and investors. By June 2017, it had raised more than $11 billion in equity funding (Crunchbase 2017). The number of active drivers on its online platform also increased exponentially (see Figure 2.1). Precisely due to its success, Uber has become not just one of the best-known tech start-ups in the world, but also the face of the online platform economy.

Figure 2.1. Number of Uber drivers in the United States per month, 2013-2016

The online platform economy — also dubbed the ‘Uber-economy’— has received increasing interest in recent years, due both to its fast-paced growth and to its disruptive potential. As its workforce expands, two main conflicting camps with opposed views on the future of work have emerged. Some view the rise of online platforms as an incredible opportunity that will leave us with a more productive society filled

Source: Hall and Krueger (2016).
with empowered entrepreneurs who are able to choose when and whether to work. Others highlight widespread concerns about job quality, income volatility, a thinning social safety net and a race to the bottom in terms of wages, which together would exacerbate rising inequalities across most OECD countries.

A booming online platform economy and its associated socio-economic challenges are therefore a primary concern for policymakers. Regulators face increasing pressure to adapt labour and skills frameworks to an entirely new reality for which current regulatory frameworks are not yet prepared (Harris and Krueger 2015).1

In addition, the transformational impact of modern technologies on work is not limited to firms that operate entirely or predominantly through online platforms. Digital technologies provide incentives to change the organisation and even the boundaries of more “traditional” firms as well. As British economist Ronald Coase highlighted in 1937, firms emerge because there are a series of costs associated with obtaining intermediate goods or services through the market rather than producing them internally; these include costs associated with bargaining, obtaining information, controlling product quality, or maintaining production secrets. Advances in digital technologies have reduced information, bargaining and monitoring costs, tilting the balance in favour of wider task externalisation. More firms thus decide to rely on external suppliers rather than employees for specific intermediate inputs.

American labour economists Lawrence Katz and Alan Krueger (2016) provide empirical evidence of the rise in alternative work arrangements in the U.S. over the past decade. They divide alternative work arrangements in four categories: independent contractors – including independent consultants and freelancers –, on-call workers as well as help agency and contract company workers.
According to their analysis, the share of employment in all of these categories increased in the period between 2005 and 2015 (see Figure 2.2). Even more striking is that all net employment growth in the U.S. in the same period appears to have taken place through non-standard contracts. This corresponds to 9.1 million jobs — or a 6.5% growth rate over that period. Most of this increase stems from contract firms and independent contractors, who made up 3.1% and 8.4% of the workforce in 2015, respectively. Overall, workers with non-standard contracts tend to be older and more educated than workers with traditional job contracts. In fact, college graduates contributed to most of the growth in non-standard contracts in the U.S.; Hispanics and women were also among the groups with the largest increases (Katz and Krueger 2016).

In contrast, the size of the online platform economy – understood exclusively as the identification of customers through an online intermediary such as Uber – added up to only 0.5% of U.S. workers – or about 750,000 individuals (Katz and Krueger 2016). Similarly, Harris and Krueger (2015) found that 0.4% of the U.S. workforce find work through online intermediaries. A J.P. Morgan report that analysed bank deposits from online intermediaries reached the same conclusion (Farrell and Greig 2016a). These
figures are also similar to estimates from McKinsey, which show that less than 1% of the U.S. working-age population are engaged in contingent work that takes place through a digital marketplace (Manyika, et al. 2015).

While many alternative work opportunities are found offline and the current size of the online platform economy is fairly small in terms of overall employment, its importance should not be downplayed. Even accounting for its recent slowdown, online platforms are growing faster than any other sector in the economy. Their year-on-year growth in terms of participants surpassed 60% for all months between October 2013 and September 2015. The same value exceeded 300% in ‘labour platforms’ such as Uber or Taskrabbit (Farrell and Greig 2016b).²

Katz and Krueger’s analysis highlights one more fundamental factor about non-standard employment: workers in different alternative work arrangements have very different skills and income profiles. For example, individuals doing on-call work or being placed through a temp agency have a higher likelihood of belonging to a lower income group. The opposite is true of workers being contracted out to other firms (Katz and Krueger 2016). These patterns suggest that non-standard contracts are not equally convenient or harmful for all individuals. Any policy response should therefore focus on understanding the details of gig work – who is taking part in it, what kind of work they are doing and how often they switch into traditional employment (Abraham, et al. 2015).

2.1. Alternative work arrangements across OECD countries

International comparisons regarding gig work should be made with caution. This is mainly due to differences in the definitions of what constitutes an alternative work arrangement across countries. Most studies focusing on the European Union look at self-employment rates, given that it is a fundamental part of non-traditional employment. By this measure, patterns across the OECD largely mimic those found in the United States. In 2015, self-employment accounted for approximately 15% of workers in the European Union (OECD and EU 2015). OECD countries, such as France, the United Kingdom and the
Netherlands have seen their self-employment rates soar since the financial crisis. In other countries, such as Austria, Germany, the Czech Republic or Slovakia, the increase in self-employment equalled all net employment growth over the last years (OECD and EU forthcoming 2017).

The rise in alternative forms of work is largely due to freelancers, workers employed through contract agencies – usually hired to do high-skilled jobs – and the online platform economy (Eurofound 2015). In spite of large drops in employment between 2007 and 2013 caused by the financial crisis, alternative contracts – measured as temporary jobs and own-account self-employment – were less likely to have disappeared (see Figure 2.3). Across the OECD, while standard work decreased by 2.8% during that period, alternative work arrangements barely budged, experiencing a mere 0.3% decline. In certain countries, alternative work arrangements substituted standard employment – see the Czech Republic, Slovakia or the Netherlands in Figure 2.3.

Figure 2.3. Employment growth by type of employment in selected OECD countries, 2007-2013

Note: Working-age (15-64) workers, excluding employers as well as students working part-time. Alternative work arrangements include workers with temporary contracts (both full-time and part-time) and own-account self-employed.
Source: Based on OECD (2015); http://dx.doi.org/10.1787/888933208089
3. The future of gig work and the online platform economy: Challenges and opportunities

Some of the drivers behind the expansion of the gig economy are far from new. Mega-trends, such as an ageing workforce, new technologies and globalisation are changing the nature of work (OECD 2016d). Computing power in particular is increasing at breakneck speed, along with access to the Internet. Big Data is already a major player in business environments. All these factors have opened a world of opportunity for Uber, Lyft, Amazon and the like; but possibilities go well beyond that. Complex tasks, such as drafting legal documents or analysing product marketing opportunities, can now be split into parts and subcontracted to experts anywhere in the world. This creates a high-skill versus low-skills dichotomy in the types of tasks that are completed by individuals in alternative work arrangements. Research undertaken by the OECD suggests that most non-standard work is being created for the purpose of completing either abstract tasks – which usually require high skills – or non-routine manual tasks – e.g. Uber drivers (see Figure 3.1). These patterns are certainly contributing to job polarisation and have important implications in terms of already rising inequalities (OECD 2016a).
The increasing prevalence of alternative work arrangements can be linked to more occupational specialisation at the firm or workplace level (Cortes and Salvatori 2016, Handwerker and Spletzer 2015). The effects on the quantity and quality of jobs of such an increase in specialisation are ambiguous. The impact on quantity is perhaps best illustrated through an example. A single company providing cleaning services to multiple firms will be able to exploit economies of scale and specialisation. As a result, it will need to employ fewer cleaners than if the service were divided among multiple firms. However, this negative effect on employment should be at least partially offset by a positive one if the higher efficiency of the specialised cleaning firm leads to an overall increase in the demand for the services they provide. In addition, client firms that outsource the cleaning might also increase employment — in the occupations in which they specialise — as a result of the higher efficiency they achieve with their new work organisation.

Regarding the quality of jobs, an increase in the use of alternative work arrangements rather than standard employee contracts does generate opportunities for workers, namely in terms of higher

---

*Note:* Abstract occupations (ISCO88: 12-34); Routine (ISCO88: 41-42, 52, 71-74, 81-82 and 93); Non-routine manual (ISCO88: 51 83 and 91). The overall sample restricted to workers aged 15-64, excluding employers as well as students working part-time.

flexibility and variety of work. Furthermore, non-standard work advocates argue that gig work and the online platform economy allow to tap into otherwise idle resources. People should no longer face the trade-off between working full-time or not working at all; an in-between status is also available to them.

Yet non-standard contracts also raise challenges in the form of income uncertainty and job insecurity. In this regard, even the outsourcing of tasks to external firms — rather than to independent workers — can be linked to significant changes in working conditions. For instance, research suggests that when workers in relatively low-skill occupations such as cleaning and catering are outsourced to external contractors, working conditions tend to worsen (Dube and Kaplan 2010, Goldschmidt and Schmieder 2015, Weil 2014). In spite of this, the outsourcing of low-skill occupations is a long-established practice. What is new is the rising outsourcing of services typically provided by middle-skill workers (i.e. payroll, training, computing services, etc.), presumably as a result of the diffusion of ICT and the Internet (Cortes and Salvatori 2016).

The success of firms and their subsequent expansion should exclusively depend on their increased efficiency and better service, not on their ability to shirk their responsibilities vis-à-vis their workers (Harris and Krueger 2015). The main issue here is that technological progress has rendered the traditional definition of employee obsolete. This is particularly the case in countries – such as the U.S. – where the legal system creates a dichotomy between employees and independent contractors – or the self-employed. The former usually enjoy advantages that are designed to compensate employees for relinquishing control over many aspects of their work life — when, where and how often to work, for example. The self-employed, in contrast, are equalled to a business in the sense that they are understood to hold greater bargaining power than subordinate workers (Harris and Krueger 2015). As a result, in many countries fewer benefits are available to them (see Table 3.1).
Table 3.1. Right of the self-employed to social benefits, selected OECD countries, 2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Unemployment benefits</th>
<th>Sickness benefits</th>
<th>Pensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Belgium</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Estonia</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Finland</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Germany</td>
<td>Voluntary</td>
<td>Yes (some categories only)</td>
<td>Yes</td>
</tr>
<tr>
<td>Greece</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Ireland</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Italy</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Malta</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Netherlands</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Poland</td>
<td>Yes</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Spain</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>No</td>
<td>Yes</td>
<td>Yes (contributory basic retirement pension only)</td>
</tr>
</tbody>
</table>

Source: OECD (2017, forthcoming)

A further source of inequality is linked to the fact that labour and employment laws tend not to be harmonised or even applied consistently (Harris and Krueger 2015). This could lead to a different treatment of workers depending on the geographical jurisdiction under which a potential legal case is settled or even on the statute at hand — labour matters, such as access to the minimum wage, are evaluated separately from taxation issues, for instance.

Perhaps most importantly, there is the worry that individuals in independent work arrangements may not be able to secure the benefits that standard workers obtain directly from their employers. As the online platform economy and gig work gain popularity, such a pattern could increase income and educational inequalities, which have already been rising in many countries and must be added to worries of job polarisation (OECD 2016f). Indeed, we are entering an era in which people will need to master multiple skills as well as adapt to shifting production requirements. Both employees and independent contractors have the responsibility to keep abreast of the developments in their fields of interest. However,
employees possess a clear advantage in that they share part of the burden with their employers. More and more, firms are realising that it pays off to let their workers take time to learn new skills, and are putting money in to allow them to do so. Indeed, while tertiary education and apprenticeships can help individuals gain practical skills early on in their lives, lifelong learning will arguably become a must for all workers (OECD 2015). Policy makers should pay particular attention to training opportunities for workers in the online platform economy, given that they do not have the opportunity to rely on their employers to build up their skills.

4. Regional patterns of gig work

The so-called ‘geography of discontent’ has been gaining prominence, fuelled by evident local disparities in economic development, educational attainment and well-being (OECD 2016a). The importance of paying attention to regional and local divergences has thus become abundantly clear. However, in spite of their likely relevance for regional productivity and inclusiveness, very little information is available on the regional trends associated with gig work and the online platform economy.

4.1. The online platform economy

Let’s first take the specific case of the online platform economy. Conventional knowledge says that labour competition from people in distant locations is becoming the norm. The Internet has opened the door for individuals based anywhere in the world to provide services that only a few years ago were considered the turf of private firms. Yet, labour resources tend to concentrate around certain places, driving a wedge between urban and rural areas. The online platform economy is no exception: Uber, for instance, operates in 664 cities across the world, and nowhere else (Uber 2017).

This urban concentration, which can be found all throughout online labour platforms, is largely the result of the availability of a thick market. Because many of the services online labour platforms provide require a close relationship between producers and consumers, these activities cannot be exported out of the local...
area where they are based. In addition, agglomeration helps these firms become more productive through the interplay between backward and forward linkages. Firms in urban areas can take advantage of already existing networks of suppliers; they also benefit from access to a large market as well as from the existence of valuable human capital in the area (P. Krugman 1991). In the concrete case of Uber, this amounts to the possibility of accessing a large and flexible potential group of drivers along with their productive assets – cars and other fixed costs associated to driving them – to serve a location where the density of consumers is high. Once such an online platform has reached a given critical size in a city, its own network effect creates a barrier to entry for other competitors, securing market dominance (OECD 2016e).

Other online platforms that focus on outsourcing high-skilled tasks – such as Upwork –, obtain an extra benefit from locating their business around cities. A particularly important implication for knowledge and innovation-intensive networks is that knowledge and absorptive capacity are ‘sticky’. That is to say that spatial proximity fosters interaction and knowledge spillovers, which are essential for the innovative activities that give rise to productivity growth (Rodríguez-Pose, et al. 2008).

However, urban centres are usually also characterised by high levels of income inequality (OECD 2016b). In this regard, the online platform economy could represent a work opportunity for individuals who would otherwise remain unemployed. But it could also exacerbate the divide between workers with security and a high income due to a stable job, and the poorer ‘permanently half-employed’. While not enough data is currently available to tackle this question, further research is needed to provide critical advice to policymakers.

4.2. Wider trends in gig work

When trying to analyse gig work more generally, similar patterns to the ones outlined above are likely to be at play. However, urban prevalence may be dampened depending on which sectors dominate any
given local economy. Regardless of any rural-urban division, it is clear that there is substantial geographic heterogeneity in where and how gig work develops.

As a first attempt to engage with the topic, this paper provides an illustration of where gig work employers are located in the United States. Using data from the U.S. Census 2014 Annual Survey of Entrepreneurs, maps are plotted pinpointing the places with a high density of employers who report utilising gig work type of contracts. Specifically, we look at firms employing independent contractors, temp agency workers and contract company workers. We are interested in understanding the geography of these different kinds of contracts given their potential effects on wages and on inequalities between workers in different regions – we know, for instance, that temp agency workers tend to belong to lower income groups (Katz and Krueger 2016). What we find is that there is a very asymmetric incidence of the gig economy across U.S. States and that this asymmetry plays out in different ways for independent contractors, temp agency and contract company work (see Figure 4.1 - Figure 4.3).

**Figure 4.1. Percentage of firms employing independent contractors, U.S. states, 2014**

![Map of U.S. states showing percentage of firms employing independent contractors in 2014.](image)

Besides District of Columbia, the States with the largest concentrations of firms employing independent contractors are Alaska, Massachusetts and Ohio. The distribution of these companies in the map matches sectoral occupations that independent contractors usually take part in. These are ‘other services’, agriculture and mining, construction, financial activities, and professional and business activities (see Table 4.1). Thus, professional and business activities most likely drive the demand for independent contractors in Washington D.C., while the oil sector is likely to play a role in Alaska – divided between the statistical categories of ‘other services’ and mining. Interestingly, sectors with a high concentration of independent contractors – except construction – by and large drive the productivity of those regions.

Table 4.1. Estimated percentage of gig economy workers per industry, 2014

<table>
<thead>
<tr>
<th>Industry</th>
<th>Independent contractors</th>
<th>Temp agency and on-call workers</th>
<th>Contract company workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and mining</td>
<td>33.9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>35.2</td>
<td>9.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4.5</td>
<td>5.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>8.5</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>19.9</td>
<td>3.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Information</td>
<td>15.1</td>
<td>0</td>
<td>5.2</td>
</tr>
<tr>
<td>Financial activities</td>
<td>22</td>
<td>5.8</td>
<td>0</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>22</td>
<td>2.2</td>
<td>2.5</td>
</tr>
<tr>
<td>Education and health services</td>
<td>7.2</td>
<td>1.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>6.5</td>
<td>5.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Other services</td>
<td>39</td>
<td>7.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Public administration</td>
<td>1.5</td>
<td>0</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Note: Data from NORC at the University of Chicago, General Social Survey, http://gss.norc.org/get-the-data
Note the divergence in the estimates of the prevalence of the gig economy in the U.S. between this table and Katz and Krueger (2016). According to this study, from 35.2% to 56.2% of all employed people took part in the gig economy in 2014.
Source: Adapted from Holtz-Eakin, Gitis and Rinehart, 2017.

Firms providing work to temporary staff and on-call workers are concentrated in entirely different areas of the U.S. Parts of the Midwest as well as Tennessee, and North and South Carolina all have a high percentage of these companies (see Figure 4.2). In the case of firms hiring workers from leasing service companies, they also appear to play a big role in the Midwest, albeit in entirely different states (see Figure 4.3). These differences in the geography of alternative work arrangements could be due to a diversity of factors – e.g. divergences in employment regulations, different sectoral compositions or
educational attainments. All of those dimensions should be explored with views to improving policymakers’ understanding of this issue. Nonetheless, the focus of this paper is simply on the geographical distribution of these types of contracts.

Figure 4.2. Percentage of firms employing temporary staff from a temporary help service, 2014

Using metropolitan data from the same source, we compare the percentage of metro area employers who report hiring gig workers relative to the average of the state where they are located.\(^3\) Findings indicate that, on average, city employers outpace the state average, highlighting the importance of agglomeration for the development of the gig economy. This suggests that the challenges associated with all sorts of gig work will be felt more strongly in cities than in other places, and that this is probably where policy should concentrate its efforts.

Nonetheless, not all types of gig employment appear to work the same way. The differences between metro areas and their state in the percentage of companies that report hiring gig workers varied depending on the type of gig work. On average, the gap between cities and their state was of 2.2 percentage points for independent contractor work and 0.9 percentage points for leased employees. These reported differences in means are significant at the 5% level.
In contrast, the difference between companies hiring temp agency workers in metro areas and in their corresponding states was of just 0.7 percentage points; this difference was not statistically significant. Work undertaken by temp agency workers may therefore not necessarily need large urban agglomerations. This is interesting, particularly since Katz and Krueger (2016) find that this specific type of worker tends to belong to lower income strata. This finding highlights that, given the differences in the profiles of the individuals in each gig economy category, challenges for policymakers are likely to be very different in each location.

5. Conclusions and future considerations for policymakers

The use of online platforms is increasing at a fast rate: its growth was above 60% between 2013 and 2015, and significantly higher than that for labour online platforms such as Uber or Upwork. As a result, important discussions are taking place in policy circles regarding the optimal balance between flexibility, security and workers’ rights. Part of the issue is linked to the fact that legal systems that are not yet in line with technological developments. The dichotomy between the ‘employed’ and the ‘self-employed’ is becoming ever more obsolete, with important potential long-term consequences for already rising inequalities in terms of income, well-being and skills development across different countries and regions. However, these issues go beyond the online platform economy. Non-standard work has been on the rise across OECD countries over the past 10 years. For instance, net employment growth in the U.S. between 2005 and 2015 appears to have taken place through non-standard contracts.

Their interaction between these patterns and other challenges brought about by the forces of globalisation, aging populations and a wide-ranging diversity of local challenges makes them key policy issues that will require close attention from policymakers. It is therefore useful to outline what are some of the considerations that they should take into account when tackling the challenges ahead:
1. With flexibility gaining ground in labour relations, it is fundamental to recognise that the image of the full-time employee may not be the standard anymore. Self-employment of different kinds — from independent consultants to Lyft drivers — is gaining ground. At the same time, consumers are developing an appetite for services that succeed in adapting to their individual needs. The online platform economy is particularly good at this game. As a result, it is likely that more people will utilise it to make a living or as a way to complement their incomes from other jobs.

Because there is currently a legal vacuum that affects the protections and benefits of workers in alternative work arrangements, a debate around the creation of something along the lines of an ‘independent worker’ category — as suggested by Harris and Krueger (2015) — will likely need to take place. This discussion could encompass the potential design of ‘transferable’ social rights aimed at offsetting the drop in labour security associated with recurrent changes in labour status. However, in order to make informed decisions on these topics, more research will be needed. There is currently a limited understanding of what it means to be a gig worker, and there are many different types of alternative work arrangements, each with very different profiles and levels of work quality. Local and regional effects further complicate the issue.

2. Because not all cities and regions display the same patterns in terms of alternative work arrangements, challenges associated with the future of work will diverge by place according to the occupational profile of a local economy. In the U.S., for instance, there is an important level of heterogeneity in terms of where workers are located. While many employers who hire contract companies and temp help agency workers are clustered around the Midwest; that appears to be less the case for companies employing independent contractors. In any case, information about these patterns is currently limited. This is in spite of the fact that regional data will be crucial to answer fundamental questions about quality of work, benefits and wider employment trends.
3. Cities are essential for the functioning of the online platform economy, which is able to tap into the benefits of agglomeration. Initial findings outlined in this paper also suggest that urban areas are likely to be important for gig work more generally. Given concerns about rural-urban divides and rising inequalities in cities and elsewhere, it is important to improve our understanding of the online platform economy and gig work from a local economic development perspective. Such an approach will allow policymakers to tailor policies to tackle inclusive growth challenges in each area.

References


Brynjolfsson, Erik, and Andrew McAfee. The second machine age: Work, progress, and prosperity in a time of brilliant technologies. MIT, Boston, 2014.


—. *The Online Platform Economy: What is the growth trajectory?* JP Morgan Chase, 2016b.


---

1 Due to the large gray area between the legal status of the employed and the self-employed, regulating the defining characteristics and benefits of alternative work arrangements will likely become a recurrent matter over the next years. Uber is already at the center of the fray. On June 3rd 2015, the California Labor Commissioner sided with a former Uber driver, proclaiming that the company owes her more than $4 000 in expenses for gas, tolls and insurance (The Economist 2015). Similar lawsuits are underway against Amazon in the UK due to its ‘employment’ of independent drivers to deliver parcels (Vandevelde 2016).

2 Farrell and Greig (2016) distinguish between labour and capital platforms. Labour platforms are defined as online marketplaces where individuals find contingent work based on the completion of personal tasks – e.g. delivering food or driving someone from point A to point B. In contrast, capital platforms such as Airbnb cater to individuals looking to sell goods or lease assets to their peers.

3 Several metro areas, such as Charlotte, Kansas City, Providence, St. Louis and Washington, D.C., overflow into different states. Calculations here only include the differences between these metro areas and the state that hosts the city’s largest geographical surface.