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# On-demand Economy: A Snapshot Review

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## LIST OF DEFINITIONS

Several terms used in this report may be unfamiliar to some readers, so we provide a list below.

TABLE 1: DEFINITIONS OF CONSTRUCTS USED IN THIS REPORT

<b>Term</b>	<b>Definition</b>
<i>Collaborative economy</i>	"Business models where activities are facilitated by online platforms that create an open marketplace for the temporary use of goods or services often provided by private individuals." (Fabo, Karanovic, & Dukova, 2017, p. 164).
<i>Crowd work</i>	"Crowd work is a form of online work in which workers complete small jobs, called microtasks, in return for small payments. Anyone can sign up to do crowd work. For example, a crowd worker might perform a variety of tasks on the Internet, such as labeling images, transcribing audio, or testing features of a website. Typical tasks take a few minutes to complete, and the crowd worker earns a few cents or dollars for each task, depending on the task's length and complexity. Sites that match crowd workers to available tasks are called crowdsourcing sites." (Brewer, Morris, & Piper, 2016, p. 2248)
<i>Digital platform</i>	Definitions of the digital platform vary across disciplines. However, for the purposes of this report we define digital platform as a "type of digital portal [that] facilitate[s] online exchanges between users and those providing services in the gig economy. These platforms host the various business functions specifically related to gig economy activity" (Lepanjuuri, Wishart, & Cornick, 2018, p. 21). More specifically, we focus on labour based digital platforms that mediate work (e.g., Uber) rather than platforms solely based on the use of assets (e.g., AirBNB) (Bajwa, Knorr, Di Ruggiero, Gastaldo, & Zendel, 2018).
<i>Gig work</i>	Gig work, which is the basis of the digital platform, has evolved out of earlier industry practices which in the context of this report represents "short-term contracts mediated by digital platform businesses" (Bajwa, Knorr, et al., 2018, p. 1).
<i>Microwork</i>	Microwork consists of "specialist services where providers perform fragmented and standardised micro-tasks ... often repetitive and unqualified, they consist for example in identifying or naming objects on images, transcribing invoices, translating snippets of text, moderating content (such as videos), sorting or classifying search results, responding to online surveys" (Ludec, Tubaro, & Casilli, 2019, p. 1).
<i>On-demand economy</i>	The on-demand economy is also known as the gig economy and the collaborative economy. "The gig economy involves exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and [typically] payment by task basis" (Lepanjuuri et al., 2018, p. 12).

## 1 EXECUTIVE SUMMARY

### 1.1 Background and aims

Research on the gig economy and those who work within it is a rapidly growing field. There are competing views around gig work that suggest that, on the one hand, this way of working allows greater freedoms to workers who can take charge of their own working lives in a way that leads to greater opportunities, autonomy and control which could potentially be associated with positive health outcomes. On the other hand, it has been suggested that the gig economy may not only disempower workers but also may be a form of precarious work that compromises their safety, financial security and jettisons the benefits and protections commonly associated with traditional forms of work (Fabo et al., 2017; Fleming, 2017).

It has been reported that those in precarious work are more likely to experience physical injuries and greater exposure to risk (Quinlan, Mayhew, & Bohle, 2001). This, in turn, potentially leads to associated problems with mental health outcomes such as anxiety or stress (Ashford, Caza, & Reid, 2018). Due to the fragmented and time pressured nature of gig work, on-demand economy workers may not have the resources to properly manage their own health and safety.

The aims of this snapshot review were to:

- define the gig economy;
- examine the characteristics of gig economy workers and their working environments in Australia;
- compare the characteristics of gig workers and their working environment in Australia to the characteristics of gig workers and their working environments in similar liberal market economies;
- summarise the regulatory challenges created by the gig economy; and
- summarise the opportunity for policy developments with a comparison between Australia and similar liberal market economies.

### 1.2 Research method

The search for publications on the gig economy was conducted with searches of both academic databases and grey literature. Grey literature generally refers to publications that are produced outside of the traditional peer review practices (Adams, Smart, & Huff, 2017) and may be limited in their distribution (Conn, Valentine, Cooper, & Rantz, 2003). Grey literature includes a range of materials such as government, industry or other technical reports, dissertations, some conference papers, rejected or unsubmitted manuscripts and other documents that are not found in traditional library retrieval systems (Adams et al., 2017; Conn et al., 2003). The advantages of incorporating grey literature into this snapshot review is to broaden the scope of review findings, which is important in a field of research such as the gig economy where the development of the literature is dynamic and findings from academic scholarship are still emerging (Adams et al., 2017).

Specific inclusion and exclusion criteria were applied and are discussed in the Research Method section. This is a snapshot review rather than a systematic review, so limitations were applied to all aspects of the search including timeframe, database search and the countries included in the review.

### 1.3 Major findings

This review has demonstrated that those who work in the gig economy:

- are a heterogeneous group of people with some commonalities but with no specific profile of characteristics or motivations that could be said to represent all gig workers;
- tend to be younger (under 35 years), generally have some form of post-secondary education, and they tend to live in urban areas;
- show no consistent demographic characteristics across studies for gender, ethnicity nor household status; and
- do not differ across countries included in this review.

The motivations of workers who seek employment in the gig economy were diverse and did not necessarily feed into the narrative that gig workers were disenfranchised or unable to enter the traditional workforce. The main motivations are:

- to have flexible and autonomous work;
- to be their own boss;
- to do work they enjoy; and
- to earn extra money.

These motivations were broadly similar across countries. The characteristic that might drive differences in gig worker motivations to participate in the gig economy is whether or not their main income is derived from the gig economy or from non-gig economy work.

Gig workers do not necessarily enter gig work because they are:

- lacking skills;
- lacking in social connections;
- have health concerns; or
- have caring responsibilities that require them to work from home.

In the gig working environment, gig workers:

- work across multiple digital platforms;
- tend to work from home, although many work from a form of transport (e.g., car, bike);
- work in professional, creative or other skilled work including caring services and skilled trades as well as transport and food delivery.

There is a wide range of regulatory challenges that stem from the gig economy. These challenges “span the entire map of the legal world, including work, tax, safety and health, quality and consumer protection, intellectual property, zoning, and anti-discrimination.” (Lobel, 2016, p. 118). Challenges that most frequently arise in studies of the gig economy include the:

- global nature of the gig economy;
- uncertainty regarding who has the duty of care;
- misclassification of gig workers; and
- working conditions and worker entitlements.

#### **1.4 Limitations and directions for future research**

The main limitation of this report is that it is a snapshot review rather than a systematic review, and is therefore not a comprehensive examination of all the extant literature available on the gig economy. There is a substantial body of literature that addresses a wide range of issues; however, it was not possible to cover all of this research in this abbreviated form of literature review.

There are several opportunities for future research to clarify the issues and challenges inherent in the gig economy. These opportunities include investigating how to:

- develop a portable benefits platform so gig workers can accrue entitlements, such as sick pay or superannuation, or make claims for work-related injuries and illnesses;
- apply current or develop new employment law to protect gig workers and ensure the conditions they work under meet minimum requirements that are applied to other workers, particularly with respect to work-related injury and illness;
- balance the impact of regulation on digital platforms and gig workers and their capacity to enter the gig economy; and
- profile vulnerability in the gig economy by examining the subgroups of workers who are in the gig economy (e.g., on the basis of main source of income).

## 1.5 Conclusions

Research on the gig economy is a rapidly growing field and there is a plethora of literature available on the gig economy and those who work within it. The research in this snapshot review shows that gig workers in Australia and other countries are not a homogenous group and, while there are some commonalities among them, they are diverse in their personal characteristics, motivations for working in the gig economy and gig environment in which they work. This review indicates that there is still a number of regulatory challenges to be resolved and opportunities to capitalise on in order to ensure a safe and healthy working environment for those working in the gig economy.

## 2 BACKGROUND

Research on the gig economy and those who work within it is a rapidly growing field. There are competing views around gig work that suggest that, on the one hand, this way of working allows greater freedoms to workers who can now take charge of their own working lives in a way that leads to greater opportunities, autonomy and control which could potentially be associated with positive health outcomes. On the other hand, it has been suggested that the gig economy may not only disempower workers but also may be a form of precarious work that compromises their safety, financial security and jettisons the benefits and protections commonly associated with traditional forms of work (Fabo et al., 2017; Fleming, 2017).

It has been reported that those in precarious work are more likely to experience physical injuries and greater exposure to risk (Quinlan et al., 2001). This, in turn, potentially leads to associated problems with mental health outcomes such as anxiety or stress (Ashford et al., 2018). Due to the fragmented and time pressured nature of gig work, on-demand economy workers may not have the resources to properly manage their own health and safety.

These issues are compounded by the work classification of gig economy workers because they are generally considered to be independent contractors, and consequently do not have the same visibility and equivalent protections afforded to permanent employees (Howard, 2017; Quinlan et al., 2001; Stewart & Stanford, 2017). It is not clear how workers in the gig economy align with traditional organisational or regulatory structures for the purposes of minimum pay, sick leave, superannuation, occupational health and safety (OHS) and workers compensation (James, 2018; Stewart & Stanford, 2017). As independent contractors, the terms of their engagement in gig work creates difficulties for regulators; firstly, because there is no specific employment relationship for gig workers to govern issues such as OHS (Howard, 2017); but secondly, as a transient workforce, they may not work on-site or they may work irregular hours, which presents difficulties for OHS inspectors as they attempt to assess and mitigate risk in the workplace (Quinlan, Johnstone, & McNamara, 2009).

### 2.1 Aims of this report

The on-demand economy is a complex environment that is evolving rapidly alongside technological advances and has an apparent, strong focus on consumer convenience. How this new way of working impacts on the worker and the consequences of this impact for regulatory bodies, such as safety regulators, is often overlooked. As such, the aims of this snapshot review were to:

- define the gig economy;
- examine the characteristics of gig economy workers and their working environments in Australia;
- compare the characteristics of gig workers and their working environment in Australia to the characteristics of gig workers and their working environments in similar liberal market economies;
- summarise the regulatory challenges created by the gig economy; and
- summarise the opportunity for policy developments with a comparison between Australia and similar liberal market economies.

### 3 RESEARCH METHOD

The search for publications on the gig economy was conducted with searches of both academic databases and grey literature. Specific inclusion and exclusion criteria were applied and are discussed below. This is a snapshot review, rather than a systematic review. Snapshot reviews are conducted over a short period of time with the view to providing an overview of an issue at a given point in time (Papadopoulos & Pezzella, 2015). Snapshot reviews share similar attributes with systematic reviews (e.g., search of multiple databases, synthesising extant literature). While they do not meet the criteria for a systematic review, they are still useful in the policy setting when an overview of an emerging topic is required to inform thinking and decision making.

#### 3.1 Literature search

The search for publications focused on four academic databases. Constraints were applied to the database search procedure: 1) the timeline was restricted to 2015 to the present (2019); 2) only articles written in English were considered; and 3) publications included were peer reviewed academic papers and full conference papers, and non-peer reviewed publications such as reports and book chapters.

The databases that were searched for these publications included:

- Business Source Complete
- Google Scholar
- Science Direct
- Web of Science

An additional search for grey literature focused on government and safety websites from several countries: Australia, Canada, New Zealand, United Kingdom, and the United States of America. Websites searched included:

- Government agencies  
(e.g., Health and Safety Executive (UK), Canadian Centre for Occupational Health and Safety)
- Industry bodies  
(e.g., UNISON, UK)
- Not-for-profit organisations  
(e.g., British Safety Council)

Search terms for the review included:

- on-demand economy;
- gig economy;
- labour platform; and
- gig workers.

#### 3.2 Inclusion and exclusion criteria

Each publication was examined to determine whether it addressed the overall aims of the project. A publication was selected for inclusion if it addressed any of the following criteria:

- a definition or description of the gig economy, labour platforms or gig workers.

Studies were also included in this review if they addressed the:

- characteristics of gig workers;
- characteristics of the gig working environment;
- motivations for working in the gig economy;
- regulatory challenges of the gig economy; or
- opportunities for policy development.

All publications that included a definition of the gig economy were included. Where publications were focused on gig workers and their environment, regulatory challenges or policy development, only papers based in Australia or similar liberal market economies were included. Specifically:

- Australia;
- Canada;
- New Zealand;
- United Kingdom; and
- United States of America.

Publications were excluded from the review if they focused on platforms where people:

- rented or shared assets (e.g., Airbnb);
- sold their own products online (e.g., Etsy)
- resold products online (e.g., Amazon); or
- sold their own possessions online (e.g., eBay).

Publications such as editorials, letters to the editor, conference abstracts and book reviews were also excluded.

## 4 RESULTS

Our search of recent gig economy literature found 719 publications and, of these publications, 145 were included in the review. Within the publications selected for inclusion, 67 (46%) provided a definition of the gig economy, digital platforms or gig work although only 57 of these were original definitions. Publications were also included in the review if there was a focus on data from Australia, Canada, New Zealand, United Kingdom, and United States of America. Table 2 below summarises the publications that were included in the review.

TABLE 2: SUMMARY OF PAPERS INCLUDED IN SNAPSHOT REVIEW

	N	%
<i>Literature</i>		
Academic literature	104	72%
Grey literature	41	28%
<i>Region</i>		
Australia	16	11%
Canada	4	3%
New Zealand	0	0%
United Kingdom	28	19%
United States of America	74	51%
<i>Type of publications</i>		
Comment	16	11%
Conceptual	8	6%
Discussion	35	24%
Empirical	81	56%
Review	5	3%
Submissions	3	2%
<i>Type of data in empirical publications</i>		
Case study	3	4%
Experimental	1	1%
Interviews	18	22%
Secondary data	27	33%
Surveys	32	40%

Most publications included in the review were peer reviewed, with a smaller percentage of grey literature included. Most publications were focused on data from the United States of America. The next largest group of publications were focused on populations in the United Kingdom. Fewer studies were focused on populations in Australia and Canada, and none were from New Zealand.

More than half of the publications contained empirical data that was largely comprised of surveys, secondary data or interviews. Fewer publications were discussions, commentaries, conceptual, reviews or government submissions.

## 5 DEFINING THE GIG ECONOMY

The gig economy is referred to using multiple terms that also includes on-demand economy and platform economy (Kaine & Josserand, 2019), and there is no widely accepted definition of the gig economy. Very often, authors do not provide specific definitions in their reports and papers.

Definitions of the gig economy tend to focus specifically on the exchange of labour rather than the renting or sharing of assets that is the dominant feature of other related terms such as the collaborative or sharing economies (Broughton et al., 2018). There are also overlapping features that are consistent between descriptions and definitions.

### 5.1 Gig economy

While many papers and reports found in this review offered basic descriptions of the gig economy, very few provided a formal definition. The gig economy has been described as a collection of markets (Donovan, Bradley, & Shimabukuru, 2016) that cover a wide range of jobs across industries where workers are hired to perform specific jobs, rather than hold ongoing employment within a workplace (Friedman, 2014). However, definitions that are reported in the literature on the gig economy generally describe the gig economy as a business model (e.g., Taylor, Marsh, Nicol, & Broadbent, 2017), but largely focus on the technology (application-based, platform) that facilitates the labour market, and this idea of facilitation is the dominant element of the definitions of the gig economy. Lapanjuuri et al. (2018) provide a concise definition of the gig economy that encompasses the salient features of the definitions in current literature:

*“The gig economy involves exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and [typically] payment by task basis” (p. 10).*

The main purpose of this definition was to focus specifically on the salient elements of the gig economy while excluding formal systems such as employment agencies, platforms such as LinkedIn, Etsy or eBay, and the self-employed who advertise their own services. Figure 1 below summarises the key features of the definitions of the gig economy found in the current literature.

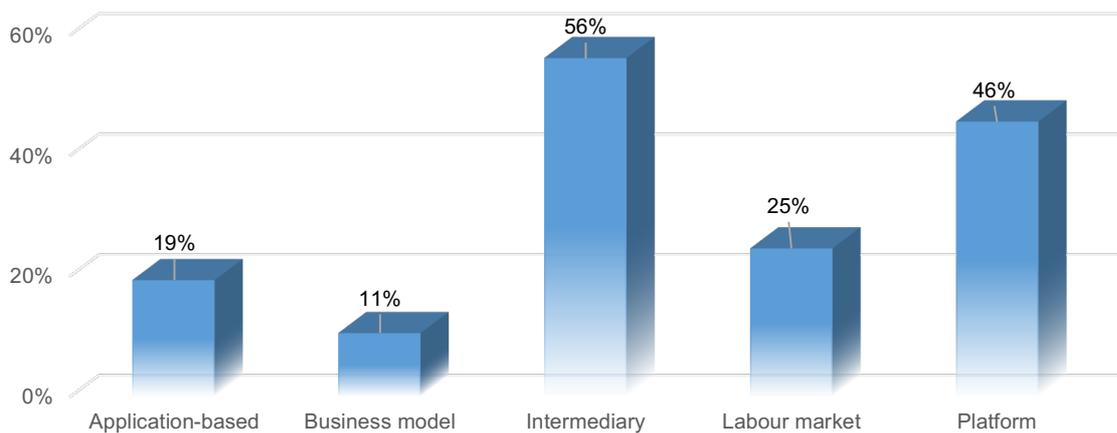


FIGURE 1: KEY FEATURES OF GIG ECONOMY DEFINITIONS

## 5.2 Digital platforms

Definitions of the digital platform vary across disciplines and depend on the focus of the article, but from a user perspective, the digital platform is a “type of digital portal [that] facilitate[s] online exchanges between users and those providing services in the gig economy. These platforms host the various business functions specifically related to gig economy activity.”(Lepanjuuri et al., 2018) (p. 21). More specifically, there are labour-based digital platforms that mediate work (e.g., Uber) and asset-based platforms that facilitate the rent or sale of assets (e.g., AirBNB) (Bajwa, Knorr, et al., 2018; Stewart & Stanford, 2017).

## 5.3 Gig work

Gig work has evolved out of earlier industry practices and, while the existence of short-term work that is flexible for both worker and workplace is not new, the evolution of the digital platform acting as an intermediary between the worker and consumer to facilitate this work is a growing phenomenon (de Ruyter, Brown, & Burgess, 2018; Lepanjuuri et al., 2018; Stewart & Stanford, 2017; Taylor et al., 2017). Definitions and descriptions of gig work vary across publications, but an examination of these definitions reveals consistencies among the key words and phrases used by authors which indicate that gig workers are generally viewed as independent contractors, and that gig work is flexible, on-demand work that is fragmented in nature (i.e., microwork) and consists of short-term assignments. As with definitions of the gig economy, an over-riding feature in these definitions of gig work was that the work was mediated through a digital or online platform.

However, Stewart and Stanford (2017) extend these ideas and offer a more cohesive definition of gig work, where they state that it is characterised by five key features:

1. a fragmented work schedule;
2. the worker provides most or all of their equipment (e.g., computer, bike);
3. the worker provides the place of work (e.g., home, car);
4. compensation is by task rather than time; and
5. the work is mediated by a digital platform.

They also note the more fine-grained distinction reported by De Stefano (2015) who further divides gig work into ‘crowdwork’ and work-on-demand. De Stefano defined crowdwork as jobs that are completed online and therefore global in nature, while work-on-demand was more akin to traditional work practices such as driving, cleaning and other odd jobs and are local in nature. Figure 2 below summarises the key features of the definitions of the gig economy found in the current literature.

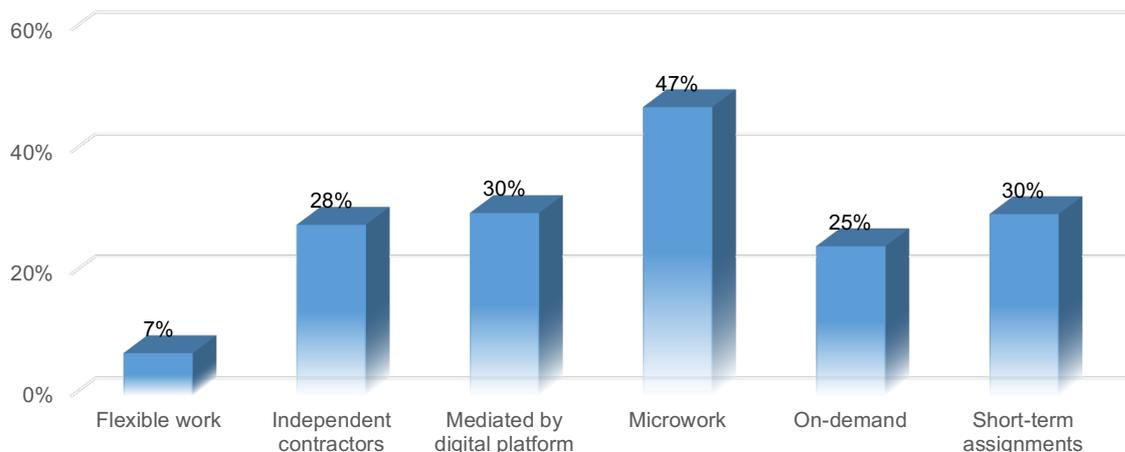


FIGURE 2: KEY FEATURES OF GIG WORK DEFINITIONS

## 6 CHARACTERISTICS OF THE GIG ECONOMY

Studies that examine the characteristics of gig workers are an emerging topic and many of these studies are found in grey literature rather than academic literature. In Australia, it has been reported that approximately seven percent of workers have worked in the gig economy in the past 12 months (McDonald, 2012), which is roughly similar to Canada at nine percent (Block & Hennessy, 2017), and to the United Kingdom which has been reported to range from four percent (Lepanjuuri et al., 2018; Taylor et al., 2017) to 11 percent (Huws & Joyce, 2016). The size of the gig economy in the United States has been reported to be smaller at less than one percent (Berg, 2016; Farrell & Greig, 2016; Katz & Krueger, 2019). Although, in a different study, the percentage of workers who have worked in the gig economy in the previous year has been reported to be as high as 29 percent in the United States (Staffing Industry Analysts, 2016) which indicates the difficulties in measuring the size of the gig economy.

These discrepancies in size of the gig economy may be the result of how the gig economy is defined and because the gig economy is not comprised of a stable group of workers (Mills & Jan, 2018). This lack of stability in the size of the gig economy most likely arises from how workers use gig work (e.g., in between jobs, adjunct to other non-gig work) (Mills & Jan, 2018) and whether gig workers see their gig economy activities as work or hobbies (Donovan et al., 2016). Estimating the number of people who work in the gig economy is difficult, partly because gig workers can be registered on multiple platforms and it is not possible to determine which accounts are active or inactive (Aloisi, 2015). Finally, how data is collected will also impact estimations of the size of the gig economy. For example Berg (2016) conducted a survey of Amazon M-Turk workers, (Farrell & Greig, 2016) focused on data from a random sample of banking customers, (Katz & Krueger, 2019) used secondary data from a survey of contingent workers and (Staffing Industry Analysts, 2016) conducted a survey on a random sample of the United States population. Each research group sought to draw conclusions on the size of the gig economy but in each case the type of data and the samples were different making comparisons between studies difficult. It also indicates that estimating the size of the gig economy is a complex task and that there are numerous methods that can be used to achieve this but they are not comparable and estimates are approximate.

### 6.1 Characteristics of gig workers

The characteristics of gig workers vary across studies but not necessarily countries. In Australia, a large scale study of workers in the gig economy conducted by McDonald, Williams, Stewart, Oliver, and Mayes (2019) reported that gig workers were predominantly male and tended to be younger (aged between 18 and 34 years). This is supported by other studies in Australia (Shea et al., 2020), Canada (Block & Hennessy, 2017), the United Kingdom (Balaram, Warden, & Wallace-Stephens, 2017; Berger, Frey, Levin, & Danda, 2018; Huws & Joyce, 2016) and the United States (Hall & Krueger, 2018; Katz & Krueger, 2019; Keith, Harms, & Tay, 2019; Popescu, Petrescu, & Sabie, 2018) who all reported that gig workers are more likely to be younger. However, only some studies reported a greater preponderance of men working in the gig economy (Balaram et al., 2017; Berger et al., 2018; Hall & Krueger, 2018). Other studies reported that the distribution of gender differed with women reported to be more likely (Huws & Joyce, 2016; Shea et al., 2020) or equally as likely (Block & Hennessy, 2017; Keith et al., 2019) as men to work in the gig economy. However, differences in gender distribution across studies might be impacted by the composition of the sample. For example, if the sample is dominated by transport workers, then the gender distribution is likely to favour male workers (De Groen & Maselli, 2016).

In Australia, gig workers tend to have a high level of education with many gig workers having a Bachelor degree or above (McDonald et al., 2019; Shea et al., 2020). This is consistent with other liberal market economies including Canada (Block & Hennessy, 2017), the United Kingdom (Balaram et al., 2017; Berger et al., 2018; Lepanjuuri et al., 2018), and the United States (Berg, 2016; Hall & Krueger, 2018; Katz & Krueger, 2019; Keith et al., 2019; Roulin, 2015) where gig workers were likely to have some form of post-secondary education.

There is no clear pattern across studies and countries pertaining to the ethnic background of gig workers. This is partly due to the different approaches to measuring ethnicity. Studies conducted in Australia varied such that McDonald and colleagues reported that most of the gig workers in their sample spoke a language other than English at home (McDonald et al., 2019), while Shea et al. (2020) reported that most gig workers spoke English at home. Where survey respondents were asked about

their country of birth, consistencies were observed between Australia (Shea et al., 2020) and Canada (Block & Hennessy, 2017) with only 25% of respondents born elsewhere and the dominant group of foreign born gig workers being born in Asia. Citizenship status was not always measured in studies of gig workers, but this also varied across studies with conflicting evidence from the Australian studies where gig workers were more likely to be temporary residents in one study (McDonald et al., 2019) and Australian citizens or permanent residents being more likely to work in the gig economy in another (Shea et al., 2020). However, while this may have resulted from selection bias, differences can arise when studies are focused on specific groups of gig workers. For example, a study of London Uber drivers by Berger et al. (2018) reported that most gig workers in their study were immigrants, which was substantially higher than London workers in general. Other approaches to measuring ethnicity indicated that, in the United Kingdom (Broughton et al., 2018) and the United States (Hall & Krueger, 2018; Huws & Joyce, 2016; Katz & Krueger, 2019), gig workers were predominantly white rather than black, Hispanic or Asian although, consistent with other aspects of gig economy research, the opposite trend has been reported elsewhere (Taylor et al., 2017).

In the Australian studies, at least half the gig workers reported being partnered or married (McDonald et al., 2019; Shea et al., 2020), which is consistent with studies from the United States (Berger et al., 2018; Hall & Krueger, 2018). Whether gig workers have dependent children at home varies across studies with some studies reporting that approximately half (Hall & Krueger, 2018) or more than half (Berger et al., 2018; Block & Hennessy, 2017; Shea et al., 2020) of the gig workers in their sample have dependent children at home.

In Australia, gig workers were more likely to be located in major cities and inner regional areas rather than outer regional or remote areas (McDonald et al., 2019; Shea et al., 2020). While this is consistent with studies in the United Kingdom (Balaram et al., 2017; Broughton et al., 2018; Lepanjuuri et al., 2018), direct comparisons to other countries are not currently possible.

## 6.2 Motivations to work in the gig economy

The motivations of gig workers to work in the gig economy are as diverse as the workers themselves, and this diversity is demonstrated across studies irrespective of the country the study was conducted in. There is no consistent reason for working in the gig economy so much as a range of reasons for why workers seek employment in the gig economy.

In Australia, the reasons why workers chose to work in the gig economy was largely consistent across studies. McDonald and colleagues reported that the main reasons for working in the gig economy were to: earn extra money, choose own hours, do enjoyable work, choose own tasks and projects, work in a place I choose and be my own boss (McDonald et al., 2019). This was largely consistent with Shea and colleagues who reported that the top reasons for choosing to work in the gig economy were to: choose own hours, do enjoyable work, work at own pace, choose own tasks and projects, complement pay from other work and to work from home (Shea et al., 2020). This idea of flexibility, being their own boss, doing work they enjoy and earning extra money is also reported by gig workers in the United Kingdom (Balaram et al., 2017; Broughton et al., 2018; Durlauf, 2019; Nickell, Klietnikova, & Kovacova, 2019) and the United States (Doucette & Bradford, 2019; Keith et al., 2019).

Interestingly, not being able to secure other work was not necessarily a dominant motivation for seeking work in the gig economy (Balaram et al., 2017; Keith et al., 2019; Lepanjuuri et al., 2018; Shea et al., 2020). However, this reason does become more salient for those workers whose main income is derived from the gig economy compared to those whose main income is non-gig work (Keith et al., 2019; Shea et al., 2020).

## 6.3 Gig working environment

There is a large number of digital platforms covering a wide range of industries available through which gig workers may seek employment. In Australia, the dominant industries vary slightly by study with McDonald and colleagues reporting that the main industries for the gig economy are transport and food delivery, professional services and odd jobs and maintenance work (McDonald et al., 2019), while Shea and colleagues reported that caring services, transport and food delivery, creative and multimedia and clerical and administrative services were the dominant industries within the gig economy (Shea et al., 2020). This difference may be reflective of the gender distribution in the two studies where, compared to McDonald et al. (2019), there was a greater percentage of women in the study by Shea et al. (2020), who were more likely to be involved in caring services. There are some consistencies between Australia and other countries, particularly the United Kingdom (Balaram et al., 2017; Broughton et al.,

2018; Huws & Joyce, 2016) and, to some degree, Canada, where transport is also a dominant industry (Block & Hennessy, 2017).

The platforms where gig workers were most likely to seek work in Australia were Airtasker, Uber and Uber Eats (McDonald et al., 2019; Shea et al., 2020). This is partially consistent with the United Kingdom where Uber, PeoplePerHour and Deliveroo were the most common platforms used by gig workers (Lepanjuuri et al., 2018). However, gig workers may work across multiple platforms and this has varied slightly by study, with McDonald et al. (2019) reporting just over a third of their sample working through more than one platform, while Shea et al. (2020) reported that nearly half of their sample worked through multiple platforms.

Studies of the gig working environment in Australia showed that approximately half of all gig workers work from home, while working from some form of transport was the next likely place to work from (McDonald et al., 2019; Shea et al., 2020). Working at the home or business of a client were also places gig workers may work from, however, coworking spaces or other public places (e.g., libraries) were less likely to be 'workplace' locations for gig workers in Australia (McDonald et al., 2019; Shea et al., 2020).

The hours worked by gig workers are not always reported in a consistent manner. The number of hours worked may be reported on the basis of the main platform a gig worker works through (e.g., McDonald et al., 2019) or gig work from all platforms (Christie & Ward, 2019; Shea et al., 2020). There is a great diversity of hours reported for gig workers with some studies reporting that gig workers tend to work less than 16 hours per week (e.g., Balaram et al., 2017), while other studies reported gig workers working more than 16 hours per week (e.g., Christie & Ward, 2019; Shea et al., 2020).

## 7 REGULATORY CHALLENGES IN THE GIG ECONOMY

### 7.1 Regulatory challenges

There is a wide range of regulatory challenges that stem from the gig economy. These challenges “span the entire map of the legal world, including work, tax, safety and health, quality and consumer protection, intellectual property, zoning, and anti-discrimination.” (Lobel, 2016, p. 118). Challenges that most frequently arise in studies of the gig economy include the: global nature of the gig economy, where the duty of care resides, misclassification of gig workers, working conditions and worker entitlements. While employment law might vary across countries, the challenges that arise from the gig economy do not.

A search of the academic literature has revealed that employment law has been written for the traditional working environment where workers are clearly employed by organisations as employees. Exploring legislation in liberal market economies, however, normally uncovers who employment law apply to (by defining the actors in working engagements) as well as where duty of care lies. However, there are no regulations for specifically those who are employed through digital platforms. In the UK there was a court ruling that recommended a category called “dependant contractor.” In their examination of modern work practice in the United Kingdom, Taylor and colleagues (2017) endorsed the use of this category of worker but this does not appear to have become law. There is no specific classification of worker called “gig worker” although this is an evolving situation due to the challenges and counter-challenges launched by gig workers and their digital platforms. Taylor and colleagues (2017) also questioned whether current regulation was suitable for people who do not work within the traditional employment model or if specific regulation was required for gig workers. Stewart and Stanford (2017) argued that, in Australia, there are current regulations in place that could apply to gig workers, but given that they have not been designed specifically for gig workers, their application in this context is not clear and that regulatory innovation is required. This means that the applicability of current regulation is largely a question for future research (Kaine & Josserand, 2019; Stewart & Stanford, 2017).

In traditional working arrangements between the employer and employee, the issue of where duty of care resides is clear. However, in the case of the gig economy, this is less clear because of the global nature of the gig economy whereby workers seek employment through digital platforms that are often based in a different country. This is problematic because it exacerbates the difficulties in determining who has a duty of care for workers engaged in the gig economy as well as who is responsible for regulating working conditions in the gig economy (Fabo et al., 2017).

Health and safety laws of developed economies have varying rules around the level of responsibility employing organisations have for duty of care, and whether workers (as employees or contractors) are given the same treatment under those laws. For example, in Australia,

*“A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of: (a) workers engaged, or caused to be engaged by the person; and (b) workers whose activities in carrying out work are influenced or directed by the person; while the workers are at work in the business or undertaking.” (Australian Government, 2011, s.19).*

where a worker is described as a person “[carrying] out work in any capacity for a [...] business”, and includes employees, contractors, subcontractors, labour hires, and others (Australian Government, 2011, s.7). In the United Kingdom, employers are responsible of protecting “workers and others from risk to their health and safety” (Health and Safety Executive, 2019). However, this does not extend to contractors. Rather, contractors themselves become responsible for duty of care, as the Health and Safety at Work etc. Act 1974, The National Archives (2019) states:

*“It shall be the duty of every self-employed person [who conducts an undertaking of a prescribed description] to conduct [the undertaking] in such a way as to ensure, so far as is reasonably practicable, that he and other persons (not being his employees) who may be affected thereby are not thereby exposed to risks to their health or safety” (s. 3).*

Canadian health and safety legislation is applied to varying degrees (mandatory, discretionary, or “as directed by the Minister”) across different jurisdictions (Canadian Centre for Occupational Health and Safety, 2020). For example, in Ontario, the Employment Standards Act applies to most employees (with

some exceptions), but not at all to independent contractors or workers from temporary work agencies (Government of Ontario, 2020).

Therefore, another important challenge with respect to regulation in the gig economy is to understand the legal status of gig workers and whether gig workers should be classified as employees or independent contractors, which is still an ongoing issue and an important concern in Australia because the Fair Work Act (Australian Government, 2009) applies to employees. This is because digital labour platforms have been clear in that they do not consider themselves to be employers (Degryse, 2016). While this classification has not gone unchallenged (Stewart & Stanford, 2017; Todolí-Signes, 2017), classifying workers within the gig economy as independent contractors has resulted in a shift of risks and responsibilities from the employer to the worker (Block & Hennessy, 2017; Smith & Kubala, 2018). This means that gig workers do not have the same employment standards and protections afforded to conventional employees, so there is no set minimum wage, paid leave or superannuation, and there are no protections to regulate their working conditions or to ensure local occupational health and safety regulations are followed (Degryse, 2016; Fabo et al., 2017).

There is a substantial body of literature that further highlights this shift of business risk and possible instability away from platform operators and hiring businesses (i.e., customers of gig transactions) and onto the workers and, to some extent, their families (e.g., Bellesia, Mattarelli, Bertolotti, & Sobrero, 2019; Christie & Ward, 2019; Fabo et al., 2017; Fieseler, Bucher, & Hoffmann, 2019; Fleming, 2017; Goldkind & McNutt, 2019; Graham, Hjorth, & Lehdonvirta, 2017; Malin & Chandler, 2017; Tassinari & Maccarrone, 2020). This arguably demonstrates that this shift of risk is a focal issue in matters concerning the gig economy in general. This apparent imbalance of risk between the actors in gig work engagements and the platform operators presents a major challenge for regulatory bodies.

Finally, it should be noted that regulatory challenges are likely to be complicated by differences in regulations across each Australian state/territory. Future research could examine whether it is possible to develop regulations that are aligned across each state/territory. For example, it is possible to take a blanket Australia-wide approach or do regulations need to be developed to fit each jurisdiction's unique circumstances?

## 7.2 Occupational health and safety challenges

Bajwa, Gastaldo, Di Ruggiero, and Knorr (2018) outline specific challenges to gig worker health and safety that they suggest arise from three types of vulnerability: occupational-, precarity- and platform-based vulnerabilities. Occupational vulnerabilities relate to the type of work undertaken (e.g., driving) and are consistent with OHS risk in the same job performed by those conducting non-gig work (e.g., traffic accidents, abuse, discrimination). However, given the short-term, parcelled nature of many gigs, it is the precariousness of the work that in itself can be detrimental to worker health and safety, which is then compounded by the lack of protections for gig workers (e.g., sick pay, lack of safety training). Finally, there are platform-based vulnerabilities that are associated with platform operations such as gig workers being designated as independent contractors rather than employees leading to a loss of benefits and protection, as well as the control platforms have over workflow, pricing and surveillance of gig workers.

OHS challenges in the gig economy may also arise because gig workers can face workload and time pressures that lead to high risk situations (Christie & Ward, 2019), and this may arise in part because of the lack of protections, particularly minimum wage and the lack of sick pay. The lack of entitlements associated with injury and illness have important implications for OHS, particularly if gig workers need to work longer hours or work when sick to ensure an adequate and stable income. Block and Hennessy (2017) have reported that 78 percent of the Canadian gig workers in their study highlighted the need for higher levels of regulation for health and safety. However, the classification of gig workers as independent contractors means that, in the absence of a clearly identified employer, there is no obligation for nor clear path to safety training (Australian Council of Trade Unions, 2019).

In their study of transport workers in the gig economy, Christie and Ward (2019) recommend greater government intervention with digital platforms to ensure they are focused on the health and safety issues of gig workers. Specific concerns raised in this study were gig worker fatigue, distractions that arise from using the mobile app to manage incoming jobs, as well as ensuring the provision of safety-related clothing (e.g., high-visibility jackets). Interviews with gig workers indicated that health and safety were important issues, although safety training was tokenistic (Christie & Ward, 2019) and that there was a lack of support for gig workers in case of an accident (Broughton et al., 2018). Although, more recently, Uber has released a safety report (Uber, 2019) which reports safety incidents and safety

practices, particularly with respect to sexual assault. In the context of Uber, safety issues are reported as rare events. However, while this is an extensive and transparent report, it is based on incidents that are reported to Uber. Earlier research has clearly demonstrated that most safety incidents do not get reported to relevant management (De Cieri, Shea, Cooper, Donohue, & Sheehan, 2015; De Cieri, Shea, Sheehan, Donohue, & Cooper, 2015), which in the context of the gig economy would be the platform operator.

These concerns raise the questions of who is responsible for training gig workers in occupational health and safety, how these workers should be targeted and how to track and measure the uptake of safety training among gig workers. This is particularly difficult given that gig workers are registered but not necessarily active across multiple platforms.

### 7.3 Opportunities for policy development

A central issue in the literature with respect to gig workers is their employment classification with digital platforms classifying these workers as independent contractors. However, there is yet to be a consensus on whether those working in the gig economy are employees or independent contractors. Digital platforms have varying levels of control over the workers who register with them and how they do their work (Balam et al., 2017) which represents a definitional challenge with respect to the status of these workers (Steinberger, 2017). This issue of control over work contributes to the lack of clarity on the status of gig workers. It has been used as a key issue by Uber to assert that because they do not control all aspects of how their drivers do their work (e.g., hours worked, no direct supervision, no Uber uniforms or signage) that they are in fact independent contractors (Steinberger, 2017). However, in the case of Uber, other aspects of the driver-platform relationship suggest that Uber does have substantial control over drivers particularly given that Uber instructs its drivers on issues such as personal behaviour, hygiene and clothing. Further, if a drivers ratings do not meet expected standard then Uber can deactivate a drivers account and this matter of control over work has been disputed in several court cases with no consistent outcome between cases (Steinberger, 2017).

Irrespective of their legal employment status, it is clear that gig workers lack the benefits and protections that those in traditional forms of employment receive such as sick leave, minimum pay, superannuation, and the capacity to claim for work-related injuries (Australian Council of Trade Unions, 2019). Balam and colleagues (2017) state that there is an urgent need for the (UK) government to clarify the law on workers to ensure gig workers were not misclassified as self-employed which results in them missing out on these benefits and protections. One approach to resolving this problem would be to broaden the definition of 'employee' to include those working through digital platforms, while another approach would be to extend current regulatory measures to offer protection to gig workers in addition to workers employed in traditional forms of employment (Garben, 2019).

In their examination of modern working practices, Taylor et al. (2017) stated that there needs to be government recognition and support for the diversity of working practices with a view to offering greater protection of workers. In particular, they recommend that a balance of rights and responsibilities must be reached so all workers, including gig workers, have a basic level of protection. One suggestion put forward by Taylor and colleagues was the idea of a portable benefits platform where workers can accrue benefits or protections that allow them to claim if they experience a work-related injury. The unique element of this proposal is that the benefits are accrued by the worker and not an organisation, such that benefits are accrued across digital platforms rather than through individual digital platforms. Taylor and colleagues suggest that, for gig workers, portable benefits platforms could be used to offer a wide range of workplace benefits including sick leave, illness or injury claims, superannuation and training. They cite the example of a New York based benefits platform for drivers, Black Car Fund, where drivers who enrol in this scheme add a surcharge to passenger fares that allows them to claim for work-related injuries. This is an important step because, while the need for specific regulations has been advocated for gig workers (Todoli-Signes, 2017), this is yet to be designed.

TABLE 3: SUMMARY OF KEY CHALLENGES AND OPPORTUNITIES

<b>Challenges and opportunities</b>	
<i>Regulatory challenges</i>	<p>Global nature of the gig economy.</p> <p>Uncertainty regarding who has the duty of care.</p> <p>Misclassification of gig workers.</p> <p>Working conditions and worker entitlements.</p>
<i>OHS challenges</i>	<p>Workload and time pressures associated with gig work.</p> <p>Lack of entitlements or protections (e.g., sick pay, compensation).</p> <p>Lack of safety training.</p>
<i>Opportunities for policy development</i>	<p>Develop a portable benefits platform so gig workers can accrue entitlements, such as sick pay or superannuation, or make claims for work-related injuries and illnesses.</p> <p>Apply current or develop new employment law to protect gig workers and ensure the conditions they work under meet minimum requirements that are applied to other workers, particularly with respect to work-related injury and illness.</p> <p>Balance the impact of regulation on digital platforms and gig workers and their capacity to enter the gig economy.<sup>1</sup></p>

<sup>1</sup> We did not collate information on barriers to entry to the gig economy as this was not a focus of the review. However, some detail on this can be found in the report by Broughton and colleagues (Broughton et al., 2018).

## 8 SUMMARY AND CONCLUSIONS

The aim of this report was to conduct a snapshot review of recent research on the gig economy with a view to define the gig economy, describe the characteristics of gig workers and their working environment and discuss regulatory challenges and opportunities for policy development. Research in this area has increased substantially over the past five years, so to limit the scope of the review, we have focused on a five-year time frame and specifically on gig work in Australia and similar liberal market economies.

There is no commonly accepted definition of the gig economy but there are consistencies among the definitions that have been reported in the literature. The dominant elements of gig economy definitions include that the gig economy is:

- a business model;
- focused on technology (application-based, platform); and
- a facilitator or mediator in the labour market.

The characteristics of gig workers and their working environments have been measured across many studies. These studies indicate that:

- gig workers are a heterogeneous group of people;
- there are some commonalities between gig workers (i.e., they tend to be younger with some form of post-secondary education); but
- there is no specific profile of characteristics that could be said to represent all gig workers;

The gig working environment is a diverse working environment where:

- gig workers can be registered on and work across multiple digital platforms;
- work may be completed within the gig worker's own community (e.g., transport and food delivery, odd jobs, pet care) or completed entirely online (e.g., photo tagging);
- jobs vary in complexity with some jobs taking only minutes to complete (e.g., microwork) to more complex jobs in information technology and multimedia;
- many gig workers are engaged in professional, creative or other skilled work including caring services and skilled trades rather than just transport and food delivery; and
- gig workers usually worked from home or from a form of transport (e.g., car, bike).

The motivations of workers who seek employment in the gig economy did not necessarily feed into the narrative that gig workers were disenfranchised or unable to enter the traditional workforce. Motivations to work in the gig economy were broadly similar across countries and included:

- having flexibility and autonomy at work;
- being their own boss;
- doing work they enjoy; and
- earning extra money.

Gig workers do not necessarily enter gig work because they:

- are lacking skills or social connections;
- have health concerns; or
- have caring responsibilities that require them to work from home.

Differences in motivations of gig workers to participate in the gig economy is whether their main income is derived from the gig economy or from non-gig economy work. In both Australia and the United Kingdom gig workers whose main form of income was from gig work were more likely to participate in the gig economy due to poorer health and lack of opportunity compared to those whose main income was non-gig work (Keith et al., 2019; Shea et al., 2020).

There is a wide range of regulatory challenges that stem from the gig economy and the challenges that most frequently arise in studies of the gig economy include the:

- global nature of the gig economy;
- uncertainty regarding who has the duty of care;
- misclassification of gig workers; and
- working conditions and worker entitlements.

Challenges with respect to OHS may arise due to:

- workload and time pressures associated with gig work;
- lack of entitlements or protections (e.g., sick pay, compensation); and
- lack of safety training.

## 8.1 Limitations and directions for future research

The main limitation of this report is that it is a snapshot review rather than a systematic review, and is therefore not a comprehensive examination of all the extant literature available on the gig economy. There is a substantial body of literature that addresses a wide range of issues and it was not possible to cover all of this research in this abbreviated form of literature review.

There are challenges in summarising the literature on gig workers that should be noted:

- there have been few large scale studies of gig workers;
- a number of studies use secondary data (e.g. Bureau of Labor Statistics, US Census Bureau) which is problematic because the data from these surveys report on contingent workers in general rather than gig workers in particular so insights on gig workers are inferred rather than directly measured; and
- there is variation across studies in the type of gig worker characteristics that have been measured and they have not always been measured in the same way making comparisons across studies difficult.

There are several opportunities for future research to clarify the issues and challenges inherent in the gig economy. These opportunities include investigating how to:

- develop a portable benefits platform so gig workers can accrue entitlements, such as sick pay or superannuation, or make claims for work-related injuries and illnesses;
- apply current or develop new employment law to protect gig workers and ensure the conditions they work under meet minimum requirements that are applied to other workers, particularly with respect to work-related injury and illness;
- balance the impact of regulation on digital platforms and gig workers and their capacity to enter the gig economy; and
- profile vulnerability in the gig economy by examining the subgroups of workers who are in the gig economy (e.g., on the basis of main source of income).

## 8.2 Conclusions

Research on the gig economy is a rapidly growing field and there is a plethora of literature available on the gig economy and those who work within it. The research in this snapshot review shows that gig workers in Australia and other countries are not a homogenous group and, while there are some commonalities among them, they are diverse in their personal characteristics, motivations for working in the gig economy and gig environment in which they work. This review indicates that there is still a number of regulatory challenges to be resolved and opportunities to capitalise on in order to ensure a safe and healthy working environment for those working in the gig economy.

## 9 REFERENCES

- Adams, R. J., Smart, P., & Huff, A. S. (2017). Shades of grey: Guidelines for working with the grey literature in systematic reviews for management and organizational studies. *International Journal of Management Reviews*, 19(4), 432-454. doi:10.1111/ijmr.12102
- Aloisi, A. (2015). Commoditized workers: Case study research on labor law issues arising from a set of on-demand/gig economy platforms. *Comparative Labor Law and Policy Journal*, 37, 653-690.
- Ashford, S. J., Caza, B. B., & Reid, E. M. (2018). From surviving to thriving in the gig economy: A research agenda for individuals in the new world of work. *Research in Organizational Behavior*, 38, 23-41.
- Australian Council of Trade Unions. (2019). *Fixing the on-demand economy and other insecure work. Submission to the inquiry into the Victorian on-demand workforce*. ACTU: Melbourne, Australia. Retrieved from <https://www.actu.org.au/our-work/submissions/2019/fixing-the-on-demand-economy-and-other-insecure-work>
- Australian Government. (2009). Fair Work Act 2009, No. 28. Retrieved from <https://www.legislation.gov.au/Series/C2009A00028>
- Australian Government. (2011). Work Health and Safety Act 2011, No. 137. Retrieved from <https://www.legislation.gov.au/Details/C2018C00293>
- Bajwa, U., Gastaldo, D., Di Ruggiero, E., & Knorr, L. (2018). The health of workers in the global gig economy. *Globalization and health*, 14(1), 1-4.
- Bajwa, U., Knorr, L., Di Ruggiero, E., Gastaldo, D., & Zendel, A. (2018). *Towards an understanding of workers' experiences in the global gig economy*. Retrieved from <https://www.giomhi.org/gigsreporhighlights.html>
- Balaram, B., Warden, J., & Wallace-Stephens, F. (2017). *Good Gigs: A fairer future for the UK's gig economy*. Retrieved from [https://www.thersa.org/globalassets/pdfs/reports/rsa\\_good-gigs-fairer-gig-economy-report.pdf](https://www.thersa.org/globalassets/pdfs/reports/rsa_good-gigs-fairer-gig-economy-report.pdf)
- Bellesia, F., Mattarelli, E., Bertolotti, F., & Sobrero, M. (2019). Platforms as entrepreneurial incubators? How online labor markets shape work identity. *Journal of Managerial Psychology*, 34(4), 246-268.
- Berg, J. (2016). Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers. *Comparative Labor Law and Policy Journal*, 37, 543-576.
- Berger, T., Frey, C. B., Levin, G., & Danda, S. R. (2018). *Uber happy? Work and well-being in the "gig economy"*. Paper presented at the 68th Economic Policy Panel Meeting, Vienna, Austria.
- Block, S., & Hennessy, T. (2017). "Sharing economy" or on-demand service economy? A survey of workers and consumers in the Greater Toronto Area. Retrieved from <https://metcalfoundation.com/publication/sharing-economy-or-on-demand-service-economy/>
- Brewer, R., Morris, M. R., & Piper, A. M. (2016). *Why would anybody do this?: Understanding older adults' motivations and challenges in crowd work*. Paper presented at the Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems.
- Broughton, A., Gloster, R., Marvell, R., Green, M., Langley, J., & Martin, A. (2018). *The experiences of individuals in the gig economy*. Department of Business, Energy and Industrial Strategy: Brighton, UK. Retrieved from <https://www.gov.uk/government/publications/gig-economy-research>
- Canadian Centre for Occupational Health and Safety. (2020). OH&S Legislation in Canada - Basic Responsibilities. Retrieved from <https://www.ccohs.ca/oshanswers/legisl/responsi.html>
- Christie, N., & Ward, H. (2019). The health and safety risks for people who drive for work in the gig economy. *Journal of Transport & Health*, 13, 115-127.
- Conn, S. V., Valentine, C. J., Cooper, M. H., & Rantz, J. M. (2003). Grey Literature in Meta-Analyses. *Nursing research*, 52(4), 256-261. doi:10.1097/00006199-200307000-00008
- De Cieri, H., Shea, T., Cooper, B., Donohue, R., & Sheehan, C. (2015). *Early indicators of workplace injuries and accidents: An analysis of leading indicators as predictors of WSV data for Victorian workplaces*. Caulfield East, Victoria, Australia. Retrieved from <https://workhealthandsafetyresearch.org/the-research/>
- De Cieri, H., Shea, T., Sheehan, C., Donohue, R., & Cooper, B. (2015). *A report on a survey of Australian Nursing and Midwifery Federation (Victorian Branch) members*. Caulfield East, Victoria, Australia. Retrieved from <https://workhealthandsafetyresearch.org/the-research/>
- De Groen, W., & Maselli, I. (2016). *The impact of the collaborative economy on the labour market*. Publications Office of the EU: Luxembourg. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/b2d6fbd2-b47b-11e7-837e-01aa75ed71a1>
- de Ruyter, A., Brown, M., & Burgess, J. (2018). Gig work and the fourth industrial revolution. *Journal of International Affairs*, 72(1), 37-50.
- De Stefano, V. (2015). The rise of the just-in-time workforce: On-demand work, crowdwork, and labor protection in the gig-economy. *Comparative Labor Law and Policy Journal*, 37, 471.
- Degryse, C. (2016). *Digitalisation of the economy and its impact on labour markets*. European Trade Union Institute: Brussels. Retrieved from <https://www.etui.org/Publications2/Working-Papers/Digitalisation-of-the-economy-and-its-impact-on-labour-markets>

- Donovan, S. A., Bradley, D. H., & Shimabukuru, J. O. (2016). What does the gig economy mean for workers? Retrieved from [http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=2512&context=key\\_workplace](http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=2512&context=key_workplace)
- Doucette, M. H., & Bradford, W. D. (2019). Dual job holding and the Gig economy: Allocation of effort across primary and Gig jobs. *Southern Economic Journal*, 85(4), 1217-1242.
- Durlauf, M. (2019). The Commodification of Digital Labor in the Gig Economy: Online Outsourcing, Insecure Employment, and Platform-based Rating and Ranking Systems. *Psychosociological Issues in Human Resource Management*, 7(1), 54-59.
- Fabo, B., Karanovic, J., & Dukova, K. (2017). In search of an adequate European policy response to the platform economy. *Transfer: European Review of Labour and Research*, 23(2), 163-175.
- Farrell, D., & Greig, F. (2016). *The online platform economy: Has growth peaked?* : Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2911194](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911194)
- Fieseler, C., Bucher, E., & Hoffmann, C. P. (2019). Unfairness by design? The perceived fairness of digital labor on crowdworking platforms. *Journal of Business Ethics*, 156(4), 987-1005.
- Fleming, P. (2017). The human capital hoax: Work, debt and insecurity in the era of Uberization. *Organization Studies*, 38(5), 691-709.
- Friedman, G. (2014). Workers without employers: shadow corporations and the rise of the gig economy. *Review of Keynesian Economics*, 2(2), 171-188.
- Garben, S. (2019). The regulatory challenge of occupational safety and health in the online platform economy. *International Social Security Review*, 72(3), 95-112.
- Goldkind, L., & McNutt, J. G. (2019). Vampires in the Technological Mist: The Sharing Economy, Employment and the Quest for Economic Justice and Fairness in a Digital Future. *Ethics and Social Welfare*, 13(1), 51-63.
- Government of Ontario. (2020). Employee status. Retrieved from Retrieved from <https://www.ontario.ca/document/your-guide-employment-standards-act-0/employee-status>
- Graham, M., Hjorth, I., & Lehtonvirta, V. (2017). Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods. *Transfer: European Review of Labour and Research*, 23(2), 135-162.
- Hall, J. V., & Krueger, A. B. (2018). An analysis of the labor market for Uber's driver-partners in the United States. *ILR Review*, 71(3), 705-732.
- Health and Safety Executive. (2019). Health and safety at work: Criminal and civil law. Retrieved from <https://www.hse.gov.uk/simple-health-safety/law/health-safety-law.htm>
- Howard, J. (2017). Nonstandard work arrangements and worker health and safety. *American Journal of Industrial Medicine*, 60(1), 1-10.
- Huws, U., & Joyce, S. (2016). *Size of the UK's 'Gig Economy' revealed for the first time*. Retrieved from [https://www.feps-europe.eu/Assets/Publications/PostFiles/457\\_2.pdf](https://www.feps-europe.eu/Assets/Publications/PostFiles/457_2.pdf)
- James, N. (2018). The Gig Economy: Navigating new ways to work. Retrieved from <https://www.fairwork.gov.au/about-us/news-and-media-releases/2018-media-releases/june-2018/20180620-gig-economy-op-ed>
- Kaine, S., & Jossierand, E. (2019). The organisation and experience of work in the gig economy. *Journal of Industrial Relations*, 61(4), 479-501.
- Katz, L. F., & Krueger, A. B. (2019). The rise and nature of alternative work arrangements in the United States, 1995–2015. *ILR Review*, 72(2), 382-416.
- Keith, M. G., Harms, P., & Tay, L. (2019). Mechanical Turk and the gig economy: exploring differences between gig workers. *Journal of Managerial Psychology*, 34(4), 286-306.
- Lepanjuuri, K., Wishart, R., & Cornick, P. (2018). *The characteristics of those in the gig economy*. Department for Business, Energy and Industrial Strategy: Brighton, UK. Retrieved from <https://www.gov.uk/government/publications/gig-economy-research>
- Lobel, O. (2016). The law of the platform. *Minnesota Law Review*, 101, 87-166.
- Ludec, C. L., Tubaro, P., & Casilli, A. A. (2019). *How many people microwork in France? Estimating the size of a new labor force*. Retrieved from <https://arxiv.org/abs/1901.03889>
- Malin, B. J., & Chandler, C. (2017). Free to work anxiously: Splintering precarity among drivers for Uber and Lyft. *Communication, Culture & Critique*, 10(2), 382-400.
- McDonald, P. (2012). Workplace Sexual Harassment 30 Years on: A Review of the Literature. *International Journal of Management Reviews*, 14(1), 1-17. doi:10.1111/j.1468-2370.2011.00300.x
- McDonald, P., Williams, P., Stewart, A., Oliver, D., & Mayes, R. (2019). Digital Platform Work in Australia: Preliminary findings from a national survey. Retrieved from [https://research.qut.edu.au/work-industry-futures-research-program/wp-content/uploads/sites/35/2019/06/Report-of-Survey-Findings\\_18-June-2019\\_PUBLISHED.pdf](https://research.qut.edu.au/work-industry-futures-research-program/wp-content/uploads/sites/35/2019/06/Report-of-Survey-Findings_18-June-2019_PUBLISHED.pdf)
- Mills, J., & Jan, C. S. (2018). The Gig Economy Structures Measures & Opportunities. Retrieved from <https://www.apscoau.org/resources/gig-economy-structures-measures-opportunitiesdiscussion-paperapsco112017>

- Nickell, D., Klietikova, J., & Kovacova, M. (2019). The Increasing Casualization of the Gig Economy: Insecure Forms of Work, Precarious Employment Relationships, and the Algorithmic Management of Labor. *Psychosociological Issues in Human Resource Management*, 7(1), 60-65.
- Papadopoulos, I., & Pezzella, A. (2015). A snapshot review of culturally competent compassion as addressed in selected mental health textbooks for undergraduate nursing students. *Journal of Compassionate Health Care*, 2(1). Retrieved from doi:<https://doi.org/10.1186/s40639-015-0012-5>
- Popescu, G. H., Petrescu, I. E., & Sabie, O. M. (2018). Algorithmic labor in the platform economy: Digital infrastructures, job quality, and workplace surveillance. *Economics, Management & Financial Markets*, 13(3), 74-79. doi:10.22381/EMFM13320184
- Quinlan, M., Johnstone, R., & McNamara, M. (2009). Australian health and safety inspectors' perceptions and actions in relation to changed work arrangements. *Journal of Industrial Relations*, 51(4), 557-573. doi:10.1177/0022185609339519
- Quinlan, M., Mayhew, C., & Bohle, P. (2001). The global expansion of precarious employment, work disorganization, and consequences for occupational health: a review of recent research. *International journal of health services*, 31(2), 335-414.
- Roulin, N. (2015). Don't throw the baby out with the bathwater: Comparing data quality of crowdsourcing, online panels, and student samples. *Industrial and Organizational Psychology*, 8(2), 190-196.
- Shea, T., Brodsky, D. N., Cooper, B., Sheehan, C., Donohue, R., & De Cieri, H. (2020). *On-demand Economy in Victoria: A Survey Report*. Monash Business School, Monash University: Caulfield East, VIC, Australia.
- Smith, S., & Kubala, P. (2018). Social justice in the workplace: Are on-demand companies exploiting current regulatory ambiguities and workforce precarity? *Psychosociological Issues in Human Resource Management*, 6(1), 166-171.
- Staffing Industry Analysts. (2016). *Measuring the gig economy: Inside the new paradigm of contingent work*. Retrieved from <https://www2.staffingindustry.com/eng/About/Media-Center/Press-Releases/Press-Release-Archives/2016/Total-Spending-on-US-Gig-Work-Close-to-800-Billion>
- Steinberger, B. Z. (2017). Redefining employee in the gig economy: Shielding workers from the Uber model. *Fordham Journal of Corporate and Financial Law*, 23, 577.
- Stewart, A., & Stanford, J. (2017). Regulating work in the gig economy: What are the options? *The Economic and Labour Relations Review*, 28(3), 420-437.
- Tassinari, A., & Maccarrone, V. (2020). Riders on the storm: Workplace solidarity among gig economy couriers in Italy and the UK. *Work, Employment and Society*, 34(1), 35-54.
- Taylor, M., Marsh, G., Nicol, D., & Broadbent, P. (2017). *Good work: The Taylor review of modern working practices*. Department for Business, Energy & Industrial Strategy: London, Great Britain. Retrieved from <https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-working-practices>
- The National Archives. (2019). Health and Safety at Work etc. Act 1974. Retrieved from <http://www.legislation.gov.uk/ukpga/1974/37/data.pdf>
- Todoli-Signes, A. (2017). The 'gig economy': employee, self-employed or the need for a special employment regulation? *Transfer: European Review of Labour and Research*, 23(2), 193-205.
- Uber. (2019). US Safety Report. Retrieved from <https://www.uber.com/us/en/about/reports/us-safety-report/>



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