

# Gig Workers with Disabilities in Canada:

EXPLORING THEIR EXPERIENCES AND IDENTIFYING INTERVENTIONS TO IMPROVE THEIR SAFETY AND WELL-BEING



Funding for this project was received from the Future Skills Centre. The opinions and interpretations in this publication are those of the authors and do not necessarily reflect those of the Future Skills Centre.





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### *Please cite this document as:*

Penner, S., Griffith, J., Karoli, K., Stockdale, C. (2023, August 31). The Canadian Gig Economy for Workers with Disabilities: Positive and Negative Factors and Future Directions. Work Wellness Institute.



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## Background

The umbrella term of “non-standard employment” encompasses under-the-table labor, business ownership and freelancing, among other arrangements. However, with the onset of globalization and the arrival of digital platform apps like Uber, TaskRabbit and Fiverr that are used to contract work, the term ‘gig economy’ has arisen to define a short, task-based means of generating income that is different from temporary contracting and business ownership. In the gig world, workers are paid out per task or hourly, and are involved in a variety of work ranging from transportation to graphic design. In the sphere of digital jobs, gig workers can be based anywhere in the world and often do serve international clients who list assignments on the aforementioned platforms.

Most recently, the COVID-19 pandemic has resulted in economic decline and job loss both in Canada and abroad. According to the United Nations Sustainable Development Goals report (1), global unemployment reached 33 million people in 2020 as a result of the pandemic. Meanwhile, gig work increased during this same time period. [Umar et. al](#) (2) used data from the Online Labour Index (OLI) in relation to gig platform apps and found a significant increase in the amount of traffic and work contracted during 2020. In Canada, workers subjected to layoffs from firm closures were found to be 50% more likely to go into gig work in the year following their job loss (3).

## Introduction

Gig workers represent roughly 10% of the current workforce (3) and provide a wide distribution of services that the country has become dependent upon. The onset of gig work has fueled much debate around the lack of legislation in place to cover these workers’ base compensation, benefits and rights. Although new and uncharted territory in the global economy, gig work does not appear to be disappearing any time soon. It is important that both research and policy remain at the forefront of establishing an understanding of it and how to best support these workers moving forward.

### Benefits and Drawbacks of Gig Work

#### *Employers*

Gig work attracts employers because hiring gig workers is much less strenuous and costly than having regular employees (4). Employers of gig workers often have fast and streamlined hiring processes that are managed through the platform where the work is contracted. In addition, neither gig platforms nor employers pay for benefits for workers, and neither is responsible for income tax when paying out for

task-based jobs. Hiring on a gig-basis also allows employers to customize the level of expertise required for technical work and prevents them from having to stick with one worker if they require a wealth of experience for their tasks or have a negative experience with a particular worker.

On the downside, employers cannot necessarily build loyalty with gig workers because of the transient nature of the industry and the lack of relationship between the two parties. In the gig world, it is common for employers to never meet or even engage with the workers performing their tasks. If they do, it is almost exclusively virtual, and conversations are transactional in nature. It can also be difficult to find workers to perform jobs, and even to fill tasks. For instance, on platform gig apps, individual assignments are posted, and the pool of available gig workers then have the choice to accept the work. This means that less desirable and/or underpaid tasks may struggle to be picked up and the work not completed on schedule. When jobs are picked up, employers will have little to no control over how the task is executed. Gig work, then, requires a greater degree of trust and relinquishing of control than what is expected in traditional employment settings.

### *Workers*

For workers, the gig industry offers maximal autonomy and flexibility. From schedule building to the number of hours worked per week to location, job tasks and work conditions, a lot of gig work can be fully customized and tailored to the worker's wants, needs and professional experience. On certain platforms, like Upwork (5), gig workers even have control over setting their own rates. This can serve as an opportunity to be paid an equitable and/or advantageous wage. For people with social responsibilities, like parents and primary caregivers, gig work can provide a source of income that is more conducive to the demands of their life than regular employment.

In some ways, however, gig work is just as undesirable as it is attractive for workers. Workers in the gig economy face challenges. They do not have benefits that many people rely on to afford extended social and health services. In addition, they are often thought of as self-employed or contract workers and are thus responsible for paying their own income tax, which requires a degree of financial literacy and responsibility that is managed by the employer in typical employment. With the recent influx of digital gig work and the gig economy 'boom', many countries have yet to implement protective legislation for gig workers, including health and safety standards, workplace discrimination policies and injury compensation (6). Finally, and perhaps most significantly, gig work is precarious in nature. Because it is short, task-based and often specialized, income stability is not guaranteed from week-to-week or even



hour-to-hour. Rather than being given regular and routine work from an employer, it is the gig worker's responsibility to constantly source and secure new jobs and complete them on tight deadlines.

Gig work is an increasingly attractive option for employers due to its streamlined hiring processes and reduced labor costs. As a result of the platform-mediated nature of gig work, employers can efficiently hire and contract gig workers without the burden of providing benefits or paying income tax. The flexibility of gig work also allows employers to tailor their workforce to the specific task-based jobs they require, affording them the ability to engage with workers possessing the level of expertise necessary for the task at hand.

However, there are downsides to employing gig workers. The transient nature of the gig industry and the lack of meaningful relationships between employers and workers can create difficulties in building loyalty and trust. Employers may struggle to find skilled or qualified workers to perform jobs, and even to fill tasks, as the pool of available gig workers on platform gig apps have the choice to take or not take the work. This may leave less desirable or underpaid tasks without a worker to complete them.

Additionally, gig work requires employers to cede control over how the task is executed, which can be challenging for employers who are accustomed to greater control in traditional employment settings.

For workers, the gig industry offers unparalleled autonomy and flexibility in terms of schedule building, location, job tasks, and work conditions. Workers can fully customize and tailor their work to their preferences and professional experience, which can provide an opportunity to be paid an equitable and advantageous wage. For people with social responsibilities, such as parents and primary caregivers, gig work can provide a source of income that is more conducive to the demands of their life than traditional employment.

However, gig work also presents significant challenges for workers. Gig workers often do not have access to the benefits that traditional employees rely on to afford extended social and health services. Furthermore, gig workers are typically considered self-employed or contract workers and are therefore responsible for paying their own income tax, which requires some degree of financial literacy and responsibility that is typically managed by employers in traditional employment. Many countries have yet to implement protective legislation for gig workers, including health and safety standards, workplace discrimination policies, and injury compensation. Finally, the precarious nature of gig work means that income stability is not guaranteed from week to week or even hour to hour, as gig workers must constantly source and secure new jobs and complete them on tight deadlines.

To gain a better understanding of the gig economy for people living with disabilities (PLWD), the Work Wellness Institute conducted a study that occurred in two phases. The first was a scoping review, which reviewed all available literature on the topic of the gig economy and people living with disabilities. The second phase involved interviews (i.e., a qualitative study) with PLWD who work in the gig economy in the Canadian context. The following sections of this report outline these two phases.

## Aims of the Study

### *Scoping Review*

The scoping review was carried out to examine the landscape of gig work arrangements and outcomes for a specific subset of workers – PLWD. As the gig economy becomes more prevalent around the world, some economists and social scientists have theorized that individuals with disabilities may start to make up a large percentage of the gig work population (7,8). The most recent data appears to support this claim, with the U.S. Bureau of Labor Statistics reporting that significantly more PLWD are involved in self-employment related work and opportunities than healthy individuals (9). A small body of research exists looking at the reasons that PLWD are seeking more self-employment, gig-related work, but these studies have yet to be summarized and put in conversation with each other to identify themes and patterns across their results. Specifically, we sought to address the following questions:

- Are PLWD pushed into gig work or are they attracted to go into gig work?
- Do push vs. pull influences differ by type of disability?

### *Qualitative Study*

Consequent to the scoping review, the qualitative study was developed to expand upon what is currently understood about PLWD as gig workers. Among other questions, we sought to understand the benefits and drawbacks of working gig, as well as if there are different sectors of gig work that are more disability-friendly than others.

### *Operationalization*

In keeping with Accessibility for Ontarians with Disabilities Act (AODA) standards (10), our definition of disability encompasses a variety of conditions, including physical, mental and invisible illnesses and limitations, developmental and learning disabilities, addictions and acute injuries.

We then chose to operationalize gig work for both the scoping review and qualitative study based on the following criteria.

**Table 1. Inclusion and Exclusion Criteria**

Inclusion	Exclusion
No benefits	Temporary workers
No overtime	Business owners (other than sole proprietors)
No paid sick time	Side hustles (i.e., not the primary source of income)
No employer-provided extended healthcare	Criminal/illegal work
No bargaining rights	Passive income (e.g., stock investments, real estate)
No EI (not paying into EI or receiving EI)	
No primary source of income	
Under the table work	
Sole proprietors	
Zero-hour contract workers	

## Scoping Review

### Methods

Historically, scoping reviews have been used to map existing literature to specific questions and overarching themes. In order to address the categorization of push vs. pull influence in our population of gig workers, we elected to use traditional scoping review methods as outlined by (11). In addition, scoping reviews are often useful for identifying gaps in the current body of research and for providing recommendations for future work, both of which were important to address in our review and formed the foundation for additional projects that we have since carried out on the gig economy for PLWD.



## *Search Strategy*

The search strategy was developed in collaboration with an information specialist. The foundation for our search strategy, including development of key search terms, was accomplished through combining two concepts – population and environment. Our population concept includes search terms related to illnesses, diseases, and disabilities. Our environmental concept includes search terms related to gig work and the gig economy.

Synonyms for each concept were identified, including keywords, phrases, and database specific subject-headings (e.g., MESH terms, and APA thesaurus index). To identify additional, or redundant, terms, all search terms were tested; if they did not bring back relevant results, they were removed from the strategy. A detailed example of our final subject headings and keywords can be found in Appendix A.

In an effort to capture all existing peer-reviewed and grey-literature, and the emerging nature of this topic area, no date or language parameters were applied to the search. The search strategy above was performed on six academic databases (Medline, Cochrane, Web of Science, Social Sciences Full Text, PSYCInfo and Business Source Complete) covering a wide range of disability and occupational research, as well as a selection of grey literature sources, to pull titles and abstracts for initial review.

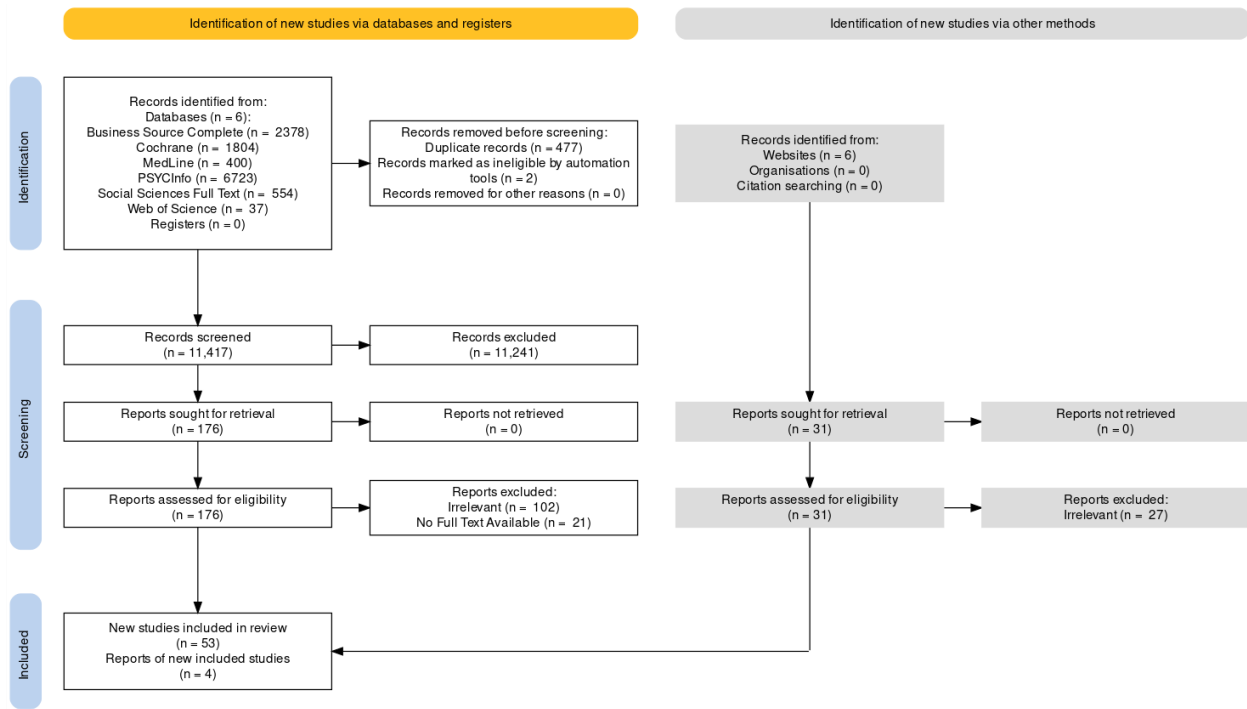
Upon extraction, two members of the research team performed both parts of the scoping review (i.e., title/abstract and full text reviewing) independently using a joint Rayyan (12) project with blinding on. The researchers cross-reviewed 10% of all screened articles to ensure inter-rater reliability. Within this 10% overlap, any articles in disagreement were deliberated by the reviewers until a decision could be made.

Following title and abstract screening, included articles underwent full text review. During full text review, papers were excluded if they did not meet our definition of the gig economy (as outlined above in Table 1). To provide broader context, grey literature articles that offered background information and statistics on the gig economy were included even if they did not directly relate to PLWD. Research studies, which formed the majority of our review, were only accepted if they focused on PLWD.

## **Results**

In total, 11,448 articles were screened for title and abstract relevance. Of these, we reviewed the full text of 180, and included 57 articles in our final review that ranged from 2002 to 2022. The complete overview of our process and results is outlined below in Figure 1, and the total list of articles can be found in Appendix B.

Figure 1. PRISMA Diagram of Scoping Review Methodology\*



\*Created with the Haddaway et al. (13) R package

Of the studies included in this scoping review, 41 discussed the intersection between disability and gig work. The remaining 16 studies were included for background context on either disability or gig economy related concepts and statistics. For those that studied both of our concepts, we mapped the findings of each article according to the type of disability studied, and whether or not the results from each study indicated push or pull factors when addressing how people with disabilities arrived at gig work. We defined push factors as any circumstances that may 'force' people with disabilities into gig work, such as a lack of opportunity in traditional employment, facing stigma and discrimination in the workplace and/or not receiving necessary accommodations. Along a similar vein, pull factors included anything that may attract people with disabilities to gig work, like the flexibility in scheduling that it can offer and the ability to work from home. The results of this categorization are presented below in Table 2.

**Table 2. Classification of Scoping Review Articles by Disability Type and Push/Pull Influences in Starting Gig Work**

Category	Number of Studies	Proportion of total	Push Proportion		Pull Proportion		Both Proportion		Not assessed Proportion	
Mental	10	24%	2	20%	1	10%	7	70%	0	0%
Physical	4	10%	1	25%	1	25%	1	25%	1	25%
Cognitive	4	10%	1	25%	1	25%	2	50%	0	0%
Developmental	0	0%	0	0%	0	0%	0	0%	0	0%
Multiple	7	17%	1	14%	0	0%	3	43%	3	43%
Unspecified	16	39%	6	38%	1	6%	5	31%	4	25%
Injury	0	0%	0	0%	0	0%	0	0%	0	0%
<b>Total</b>	<b>41</b>	<b>100%</b>	<b>11</b>		<b>4</b>		<b>18</b>		<b>8</b>	

Upon closer inspection, our analyses indicate that a large portion of studies (n=16; 39%) did not specify what type of disability was studied in their research. Of the articles who did specify, mental health was the largest category at 24% (n=10). Developmental and acute injury disabilities were the least studied (n=0, 0%). However, 17% (n=7) of studies included samples of participants with a wide distribution of disabilities, and it's possible that individuals with injuries and/or developmental disabilities were incorporated into these studies' categories of disability.

Overall, 43% (n=18) of studies included both push and pull factors that influence people with disabilities towards gig work, 27% (n=11) identified just push factors and 10% (n=4) identified just pull factors. Meanwhile, 20% (n=8) of studies did not assess push and pull factors when studying the experiences of people with disabilities in the gig economy.

## Discussion

Being that the industry is relatively new (through digital platforms), occupational research has yet to explore the inner workings of the gig economy and the diverse experiences of its workers and employers. Nested within this conversation, the lives of gig workers with disabilities will be especially important to examine moving forward. People of working age who have a disability already face challenges in securing and maintaining traditional forms of employment due to a variety of barriers, including workplace stigma, hiring practice discrimination, physical and mental impairment, lack of accommodations, long term and/or repetitive strain and sometimes an inability to meet job demands (14).

On some of these fronts, gig work is a lucrative opportunity for people with disabilities. Especially for those who have secured housing and are financially supported, gig work can provide a source of income

in a non-pressured environment that allows them ultimate freedom to situate work around their disability -- not the other way around (15). The abundance of jobs and tasks available in the gig economy also offers PLWD more choices and ways to match the work performed with their level of capacity and areas of interest and experience. This appears especially true for people with intellectual disabilities, who report highly favorable and successful experiences with pursuing self-employment and gig work (16,17). Given the influx of fully remote, digital gig work in the last decade, people with disabilities may also value the ability to work from the comfort of their own home, where their access needs are immediately met and where they may feel the safest and most supported (15,18).

By contrast, gig work may serve as a last resort for workers who have disabilities. Rather than being a choice, research suggests that some people with disabilities may be 'forced' into gig work when they are prevented from entering or sustaining work in the traditional job market due to the aforementioned barriers (19). These workers, who enter the industry by push and not pull factors, may be subject to more financial pressure trying to earn a livable, full-time wage from gig work. Given the income insecurity in the gig economy, trying to earn a significant amount of money is often reported as a stressful experience by these people (20). Further yet, socioeconomic research highlights the somewhat insurmountable struggle of trying to earn a livable income off of solely gig work, versus standard employment. The most recent work suggests that the lowest wages are typically earned by gig workers with disabilities, when compared to traditionally employed persons (with and without disabilities) as well as gig workers without disabilities (21,22).

To add an additional layer to this complexity, we must remember that gig workers are not provided benefits of any kind (23). Coupled with income insecurity, this means that gig workers with disabilities are probably less likely to be able to afford the necessary treatment and care for their disabilities than both non-disabled workers and those with disabilities in standard, secure employment. Ironically, the traditional working world that most often pushes out people with disabilities, is the very same one that offers long-term disability coverage and the best medical insurance. The workers who arguably need these services the most then, are seemingly given the least opportunity to access them and must front their disability-related costs out of pocket.

The emergence of the gig economy as a new industry (especially with respect to digital gig work) has yet to be fully explored in terms of its inner workings and the varied experiences of its workers and employers. Of particular importance is the examination of the lives of gig workers with disabilities. Individuals with disabilities who are of working age already face a range of obstacles in obtaining and



maintaining traditional forms of employment due to various barriers such as workplace stigma, discrimination in hiring practices, lack of accommodations, difficulty managing symptoms and hindered work performance (24). Thus, the gig economy presents a potentially lucrative opportunity for people with disabilities, especially for those who are financially stable and have secured housing. Such work allows for a source of income in a non-pressured environment that enables individuals to work around their disability rather than the other way around. The abundance of jobs and tasks available in the gig economy also offers people with disabilities more choices and ways to match their work with their level of capacity, areas of interest, and experience. In fact, individuals with intellectual disabilities have reported highly favorable and successful experiences with self-employment and gig work. Moreover, the growth of remote, digital gig work in recent years may also appeal to people with disabilities as they may value the ability to work from the comfort of their own homes, where their access needs are immediately met, and where they may feel the safest and most supported.

On the other hand, for some workers with disabilities, gig work may serve as a last resort. Rather than being a choice, research suggests that some people with disabilities may be 'forced' into gig work when they are prevented from entering or sustaining work in the traditional job market due to the aforementioned barriers. These workers may be subject to more financial pressure trying to earn a livable, full-time wage from gig work, given the income insecurity in the gig economy. Additionally, socioeconomic research highlights the challenge of trying to earn a livable income solely through gig work, compared to standard employment. In fact, recent studies suggest that gig workers with disabilities earn the lowest wages compared to traditionally employed persons (with and without disabilities) as well as gig workers without disabilities.

### *Limitations*

In the present scoping review, 39% of studies did not specify the type of disability studied in their research. Given the heterogenous nature of disabilities, with respect to symptoms, impairment, life-course trajectory, and stigma, it is important to distinguish between different types of disabilities and not make assumptions that all disabilities function the same way or see the same outcomes. For this reason, it is likely that some of the studies we outlined in the above discussion are relevant only to a subset of individuals with certain disabilities and not others.

For instance, in our results, “push” factors (n=2, 20%) were more often associated with mental health conditions than pull factors were (n=1, 10%). This was not true for cognitive disabilities, where push and pull factors were equally identified. However, in studies where multiple disabilities were lumped into

one sample or where disability-type was not mentioned, it is possible that different results were observed for both mental health conditions and cognitive disabilities than what we found above.

In addition to this point, 20% of studies that examined gig work for PLWD did not address push and pull factors for getting into the industry – which is an important piece of the puzzle when addressing the experiences of this population. More work is needed, particularly qualitative work, that focuses on understanding the factors relevant to decision-making in the labour force for PLWD.

Finally, we must consider that our conceptualization of certain push and pull factors is fluid, and somewhat subjective. To one worker the inability to have a flexible schedule in a traditional job may end up pushing them into the gig world (i.e., not fully by choice). To another worker, however, the opportunity to make one's own hours may be an attractive, 'pull' factor that influences choosing those opportunities over other employment that's available to them. Whether or not people with disabilities recognize certain situations as push or pull factors in their decision making may depend in part on their outlook, personality and life circumstances. We also chose not to further subdivide push and pull influences into specific categories (i.e., discrimination), since the body of literature included was too small and varied in nature for such analyses.

## Conclusion

The present scoping review was conducted to address how PLWD are navigating the gig economy, especially with the advent of digital gig platforms. Here, we sought to answer specific questions. How do PLWD end up in gig work? Do differences exist across categories of disabilities? Our results suggest that while some of these questions can loosely be answered, the majority remain unclear.

Our work suggests that push factors were more frequently noted than pull factors when looking at how and why PLWD initiate gig work. While this is so, articles that focused on mental health concerns were overrepresented in our review and may have formed the basis of where these results stemmed from. In order to decipher the differences between subgroups of workers, further work should highlight specific disabilities and employ qualitative or mixed methods design. Perhaps it is also the case that mental health related conditions are overrepresented in the entire population of PLWD who go into gig work. If this is true, future studies should consider addressing why mental health related conditions are more prominent than other types of disabilities in the gig economy.

In addition to this, future research should look into the role of intersectionality (25,26) in the gig work experience. Disability is only one aspect of identity. When compounded by additional factors such as

gender, racial and cultural marginalization, different and/or additional challenges may be faced in the employment world. Perhaps it is the case that people with disabilities who have additional minoritized identities are afforded less opportunity to secure traditional employment. As a result, they may experience more push than pull influences when it comes to getting into gig work.

To conclude, the findings of the current review suggest that gig work appears to be a precarious yet possible way of obtaining employment for some people living with disabilities. Depending on the type of disability that an individual has, the option to pursue gig work can feel like a welcomed solution or a last resort. It can offer flexibility, but often at the expense of income security. These points considered, as the gig economy continues to expand, discussions around equity and safety for the industry's workers will continue to be a crucial discussion for future researchers.

## Qualitative Study

### Methods

Findings from the scoping review provided us with context to expand our study; specifically, we conducted interviews with people living with disabilities working in the Canadian gig economy. Participants were recruited through online study advertisements posted to Facebook and Instagram. When signing up to participate, potential participants completed a screening questionnaire based on our above inclusion and exclusion criteria. Upon being randomly selected, participants were enrolled in the study after being given a consent form with background information on the study, eligibility requirements and the terms of their participation. Interviews were conducted virtually via Microsoft teams and took between 30 and 45 minutes. Following interviews, participants were compensated with a \$50 e-gift card. In addition to their interview, participants also filled out an anonymous demographic survey. Sample characteristics from the demographic survey can be found in the consequent results section, Tables 1-3.

During their semi-structured interview, we asked participants to broadly reflect on the following questions related to their work history, experiences in gig work, and their recommendations for the future of the gig economy. The complete interview guide is contained in Appendix C.

### Results

Overall, 21 PLWD who work in the gig economy participated in the study. Of these participants, 19 (n=19, 91%) completed identity and sociodemographic questionnaires (results below in Tables 1 and 2).

Only 16 (n=16, 76%) of participants provided details about the types of gig work they performed (Table 3).

### Characteristics of the Sample<sup>1</sup>

<b>Table 1. Identity Characteristics</b>			
<b>Total Participants</b>		19	
<b>Age [Median, SD]</b>		26	±3.41
<b>Gender [Men, Women, Non-binary]</b>		53%	42% 5%
<b>Sex at birth [Male, Female, Other (i.e., intersex)]</b>		52%	47% 0%
<b>Race</b>	White/European ancestry	10%	
	Black/African ancestry	84%	
	East Asian (e.g., Chinese, Japanese, Korean)	0%	
	South Asian (e.g., Indian, Pakistani, Afghan)	0%	
	Southeast Asian (e.g., Vietnamese, Thai)	0%	
	Middle Eastern/West Asian (e.g., Iraqi, Persian)	0%	
	First Nations/Inuit/Metis ancestry	0%	
	Pacific Islander (e.g., Hawaiian, Samoan, Fijian)	0%	
	More the one population group	5%	
	Other	0%	
<b>Hispanic/Latino</b> [% Yes, % No]	11%	89%	
<b>Sexual orientation</b>	Straight/Heterosexual	83%	
	Bisexual	11%	
	Lesbian	0%	

<sup>1</sup> Please see supplementary materials for a complete copy of the demographics survey, including all response options for each of the questions.





	Gay	0%
	Other – Pansexual	6%
<b>Disability type</b>	Physical limitation	80%
	Mental health limitation	10%
	Comorbid physical and mental health limitation	10%

<b>Table 2. Socioeconomic Characteristics</b>		
<b>Total Participants</b>		19
<b>Household occupancy</b>	With family or other relatives	58%
	With friends or non-family members	21%
	Alone in own dwelling	21%
	Homeless	0%
	Hospital, rehabilitation facility or nursing home	0%
	Other	0%
<b>No. people in household</b> [Median, SD]	2	±1.42
<b>Dependents</b> [adults, children, none]	21%	2% 47%
<b>Number of dependents</b> [Median, S]	0.5	±1.21
<b>Years of education</b> [Median, SD]	13	±2.42
<b>Educational level</b>	Less than high school graduate	6%
	High school graduate (or GED)	6%
	Some college/university	25%



	Associates degree completed	6%
	Bachelor's degree completed	56%
	Master's degree completed	0%
	Professional degree completed (e.g., PhD)	0%
<b>Student</b> [Part-time, Full-time, No]	19%	13%
		69%
<b>Financial circumstances</b>	Not enough to pay some bills, no matter how hard you try	27%
	Enough to pay bills, but have had to cut back	67%
	Enough to pay bills without cutting back but no "extras"	7%
	Enough money for "extras"	0%
<b>Household income bracket</b>	Less than \$15,000	19%
	At least \$15,000 but less than \$30,000	31%
	At least \$30,000 but less than \$45,000	19%
	At least \$45,00 but less than \$60,000	19%
	At least \$60,000 but less than \$75,000	6%
	At least \$75,000 but less than \$90,000	0%
	At least \$90,000 but less than \$105,000	0%
	At least \$105,000 but less than \$120,000	6%
	Greater than \$120,000	0%
<b>Community environment</b>	Urban	69%
	Suburban	25%
	Rural	6%



Table 3. Gig Work Distribution					
Total Participants				16	
Industry	About				
	Never	Some of the time	half the time	Most of the time	Always
Manufacturing	31%	25%	25%	19%	0%
Courier	38%	25%	25%	13%	0%
Transportation	50%	19%	13%	6%	13%
Freelance artisan	19%	13%	19%	31%	19%
General labor/tasking	38%	25%	6%	19%	13%
Digital services	0%	31%	19%	38%	14%
Agriculture	63%	19%	0%	19%	0%
Other	60%	0%	20%	20%	0%
Hours per week working gig [Median, SD]		30		±21.14	

### Qualitative Analysis

#### Getting into Gigging: Push vs. Pull

Many participants (n=19, 90.5%) discussed their understanding of how they ended up in gig work in a negative or positive light. Of those that reflected on this, 84% (n=16) felt that they'd been pushed into gig work due to a lack of suitable and accommodating employment, especially in post-pandemic times:

“I started doing gig work because of the COVID-19 pandemic. I didn’t have my job secured and was rendered unemployed, so that made me look for gig access to sustain myself and my family.” – Participant 12

Other participants talked about the way that their disability intersected with their employability in the traditional job market:



“I've been hunting for jobs for quite a number of years now. I have bills to take care of, demands from family and my personal demands. So, I had to look for an alternative to take care of myself ... I had my hand amputated, and I tried to apply to some places, but I think they saw me as not physically fit enough for the work. So, I had to go into work that would be able to accommodate me, given my disability.” – Participant 18

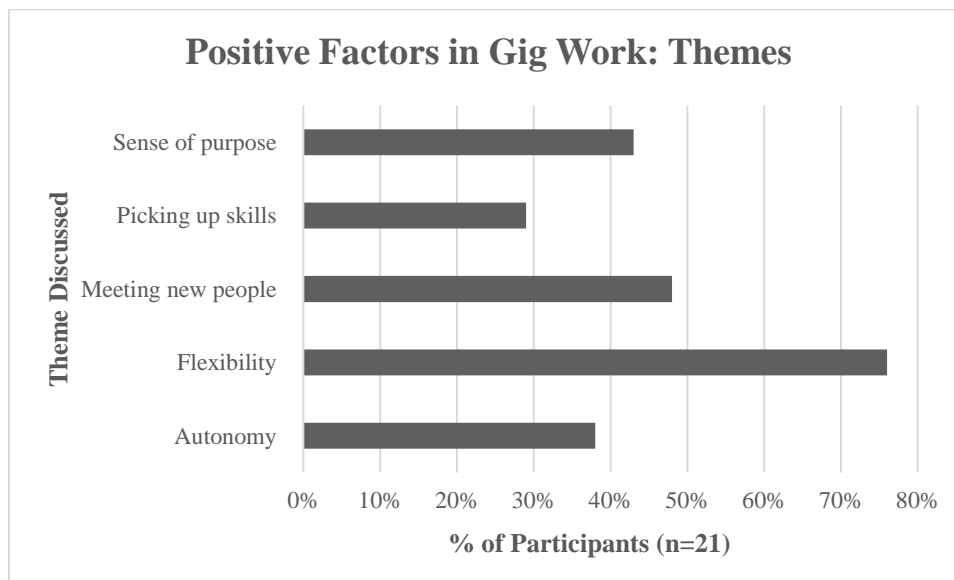
At 16% (n=3), a smaller portion of the sample viewed their circumstances more favorably, and felt that they had made a conscious choice to pursue gig work and were attracted to go into the field:

“I decided to go ahead with freelance gig because it's easier for me. I can stay at home and do a lot of work without having to answer to somebody like you do when you work in an office.” – Participant 20

### *Positive Factors associated with Gig Work*

Participants identified a number of experiences that reflected the positive side of working in the gig economy. The figure below provides an overview of the five major themes that were addressed in their interviews, the details of which are presented subsequently.

**Figure 1.** Positive Factors in Gig Work: Themes



### *Flexibility & Autonomy*

Participants cited flexibility and autonomy as the most prominent advantages to working in the gig economy. Overall, 76% (n=16) of the sample felt that flexible working conditions were important to them:



“I can dictate when I deliver work. It kind of gives me time to do other things. I can work at my own pace.” – Participant 20

A smaller portion (n=8; 38%) mentioned autonomy as a related concept and spoke on the lack of autonomy that comes with having management in a traditional job and the difference that they experienced with gig work:

“I have more time for me. I want to do things and grow in the way I do things -- I don't have to work under strict orders or stricter policy from companies or organizations. So that is one of the most important positive benefits.” – Participant 18

One participant expressed positive associations with financial autonomy and the earning potential for their work as a major attractive feature:

“The platform I work [on], I have observed a lot of benefits from it and it's truly fun. You get to stay in your comfortable home environment and make hundreds of dollars a day.” – Participant 10

### Meeting New People

The second largest positive theme, 48% of the sample (n=10) felt that the constant rotation of new faces in certain types of gig work opened them up to positive social experiences:

“One of the positive experiences I've had is that I tend to meet a lot of people...see new things. I've spoken with white people, spoken with Black people, spoke with elderly people, young ones, middle-aged people. I see the whole world.” – Participant 14

Participants who described the social benefits of gig work often did so by comparing them to traditional jobs they held prior:

“I get to meet a lot of people and new things and get to go to a lot of places that I wouldn't have been exposed to if I wasn't working there or if I was back working in the laboratory.” – Participant 21

### Having a Sense of Purpose

Following closely behind social interactions, 43% (n=9) talked about the sense of purpose they felt working in the gig economy:



“When I go out and see my graphic design in someone’s shop or office, I really appreciate it. It’s like there’s an inner joy. At least I’m contributing to society.” – Participant 1

Along a similar vein, others spoke about the ‘giving back’ aspect of their work and how this encourages them:

“It’s helped me to learn outside my comfort zone and made me understand that despite my disability, I can still function. I can still give back positively to where I work. It puts me in a position where, no matter how society treats me, I can always come back strong.” – Participant 2

According to one participant, the sense of purpose felt through working gigs has revitalized their motivation for success:

“I think working gig is actually giving me another shot at life. I've been able to achieve a level of status that I'm now trusted with clients. I work with individuals, corporate organizations and that makes me feel like I have people who will really depend on my services.” – Participant 6

#### Picking up Skills

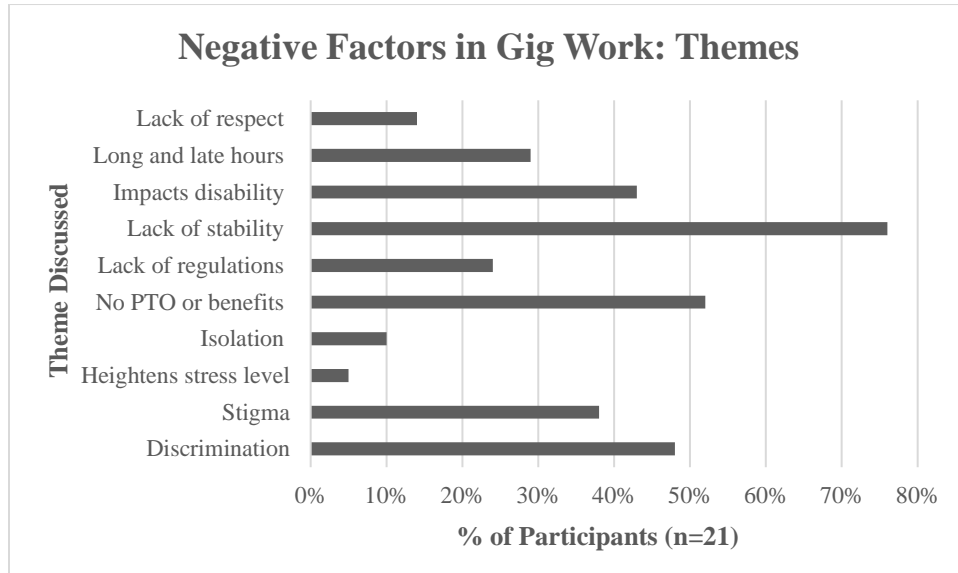
Of the positive characteristics that participants mentioned, 29% (n=6) were happy with the variety of work available in the gig economy that has allowed them to branch out and acquire new skills:

“I’m working with this consulting company that are doing projects that are way over my head, but I get to be a ‘learner on the go and fill in the gaps’ person. I enjoy that.” – Participant 22

#### *Negative Factors associated with Gig Work*

Although positive themes emerged from the interviews, on the whole, participants had more negative than positive things to say about working in the gig economy. The results of the prominent negative characteristics are presented in the figure below and then discussed in detail.

Figure 2. Negative Factors in Gig Work: Themes



#### Lack of stability

Of all of the themes that were recognized, both positive and negative, the largest centred on the lack of stability in the gig economy. 76% (n=16) spoke about this extensively, in a variety of contexts. For many, this was primarily financial:

“I’m always in constant fear about my financial insecurity because of working in the gig economy. I constantly think about the next job, especially during these times when life is kind of hard.” – Participant 12

On this note, one participant voluntarily disclosed that their annual net income for the previous year was \$6,000. Others echoed claims about the fluctuating nature of available jobs and income:

“Well, the negative experience would be that it's not stable. You could be making a couple of thousand bucks in a month and then for the next couple of months, it's all very dry and you don't have anything coming in.” – Participant 13

“Job security -- you don't have that. It’s not guaranteed the amount of money you make a week or a month. Let’s say one week you make \$50.00. Next week it may be lower or next week might be higher.” – Participant 20

Others mentioned that they did not have the power to influence their stability because of an overabundance of workers looking for gigs:



“These days you actually have a lot of undue competition coming in and that’s given customers the power more than service providers.” – Participant 13

For some, it was important to consider instability in the larger context of life, including how it relates to juggling their responsibilities and disability:

“Yeah, the aspect of me not having enough money to take care of myself has affected me the most. I'm just trying to manage. Because I also have to take care of my sick mom.” – Participant 19

Although variation existed in their reasoning, overall the sample remained fairly unanimous that the gig economy is not yet financially sustainable for most.

#### No PTO or benefits

The second largest negative factor that 52% of participants identified (n=11) was the lack of paid leave and benefits available to them:

“When you work with a company [in regular employment], there is always insurance to cover healthcare and it’s entirely different with gig work. It is nothing like that. So you're just kind of expected to be able to pay for everything that you need.” – Participant 15

Others expressed similar thoughts, and reflected on the pressures that exist in the gig economy that do not allow time off to be possible:

“In professional jobs, you can go on leave. In the gig world, you rarely see those things. Because once you’re off, you can just be replaced. So you must try your best to always be on deck.” – Participant 19

Participants went on to express the impact that not having benefits has had on their health and how getting into regular employment is not necessarily the solution that works:

“I desperately need benefits. Like, I’m not getting the physiotherapy that I need. I can’t go to a clinic. I can't travel. I have mobility issues. You need benefits that are comprehensive.” – Participant 22

#### Discrimination & Stigma

On the tails of instability and lack of benefits, nearly half of the sample (n=10, 48%) were candid about the fact that they still experience discrimination in the gig world:





“At some point during gig work two years ago – I’m a graphic designer – someone gave me work to do. But when the person came to realize that my leg was amputated, they didn’t give me any work for a long time again. Some of my customers just left because I’m disabled.” – Participant 1

Others spoke about how some of these experiences translated into demotivation:

“Most of the time when I work for a client and I go to deliver, they’ll be like wow, ‘it’s a disabled person’. And it’s very discouraging. Like, what do you mean by ‘it’s a disabled person’? Sometimes when I come back after delivering work at a company, it’s like ‘why was the work given to disabled person?’. And when I get home, I don’t feel like doing anything.” – Participant 16

Within this domain, 38% (n=8) of people talked about behaviors that indicated stigmatizing attitudes towards disabilities. Although a dynamic social environment was highlighted as a benefit of gig work, conversations about stigma showed a different side of this facet:

“Because of having to interact with many different people, you face people with different attitudes and all different behaviors. So that sense of being stigmatized because of your disability, it’s very difficult for me. Sometimes I feel like I’m breaking down.” – Participant 12

Others were open about the way that more ‘blue collar’ gig work is often perceived by others:

“As a cleaner, sometimes people see you as a thief. Or you’re a lost cause. Or you’re hopeless. Or you’re doing it because there is no way out. They forget the fact that every bit of work is contributing to the economy, society, the environment...But they neglect you and look down on you sometimes, make negative gestures towards you. See you as someone who can’t do more than that.” – Participant 2

#### Work negatively impacts’ disability

In total, 43% (n=9) of participants felt that the nature of their work in the gig economy was negatively affecting their health and mental wellbeing:

“The mental aspect of it. To some extent the physical aspect too, because for you to be able to work in gig, you have to be hardworking. You have to be very persistent. You have to be able to give it all. That tends to make some stress in the body and the mind -- mental imbalance and stress disorders.” – Participant 18



Others spoke about the impact of pressure from gig clients and customers:

“If I don't have certain boundaries in my contracts with clients -- sometimes there's a lot of back and forth or emergency situations that require a quick turnaround. And sometimes that's doable, but sometimes that has a negative impact on my health for a period of time.” –

Participant 22

#### Long and/or late hours

Considering that income and job instability is common in the gig economy, it is perhaps unsurprising that this can be coupled with the need to work longer and later hours. 29% (n=6) of the sample spoke about this in the context of their disability:

“The part that disturbs my health is having to work late hours in the night. When I'm working late nights, it just brings a sense of fatigue. In the mornings, I just have to continue like a normal human being with doing my work, but I'm tired. The nature of my work depends on what the client wants. And it's really exhausting.” – Participant 1

“Some days I will have to work through the night with no rest. Deliveries can come at any anytime, even in the night. So it's affected me because sometimes it's at a time when I should be at home trying to get a comfortable sleep.” – Participant 9

Others put this in the context of their additional responsibilities:

“Working in gig is stressful. Extremely stressful, because you have to cover a lot of work in a day. You have to do a lot of deliveries in a day and you have to work hard to be able to make money for yourself and to take care of yourself and pay bills and take care of family and friends.” –

Participant 21

#### Lack of regulations

Where a lack of regulations and effective policies were concerned, 24% (n=5) spoke of a wide array of experiences. For some, this was in the form of not being compensated for work:

“I would say the only negative experience, as far as customers, some of them have shorted me.”

– Participant 19

Others discussed the fact that their working conditions can pose a threat to physical safety:



“When I'm working late at night sometimes it's not really secure. You may get robbed on your way home or on your way to work. When you're working for a regular company, that's not the case.” – Participant 18

Another participant reflected on the lack of supervision and care that's given to gig workers:

“If you die, you just get replaced. They don't even care to ask if you're okay. I think we need policy and insurance. A code of conduct, and some ethics. Irrespective of if its gig work, it has to be governed.” – Participant 2

### *Gig work or Regular Employment?*

After sharing their experiences, participants were also given the opportunity to discuss their ideal work arrangement and reflect on whether or not they would prefer to stay in the gig economy or go back into regular employment if it could suit their needs. Despite being able to identify valid concerns with their work, of those who discussed this (n=16, 76%), the majority (n=12, 75%) indicated a preference for gig work:

“Well, with my disability, it's not really obstructing or stopping me from working in a physical sense. But I just consider it less stressful when you work from your home, from bed. You do it anytime you want to do it. So I consider it to be less stressful.” – Participant 10

Another participant had similar views about the value of flexible work that the gig economy facilitates:

“I think that I would actually always prefer gig jobs because it offers flexibility. It offers all different things from a regular job. Regular jobs ask you to do things in a specific way, but a gig job is just about your productivity. So I think if working gig is actually going to improve sustainably, by planning and considering the well-being of workers, I think a lot of people would prefer a gig job.” – Participant 6

Only 25% (n=4) of those who discussed a preference for gig work or regular work said that they would prefer regular employment if given the choice:

“Having a regular job would have been easier but there's no work [available].” – Participant 4

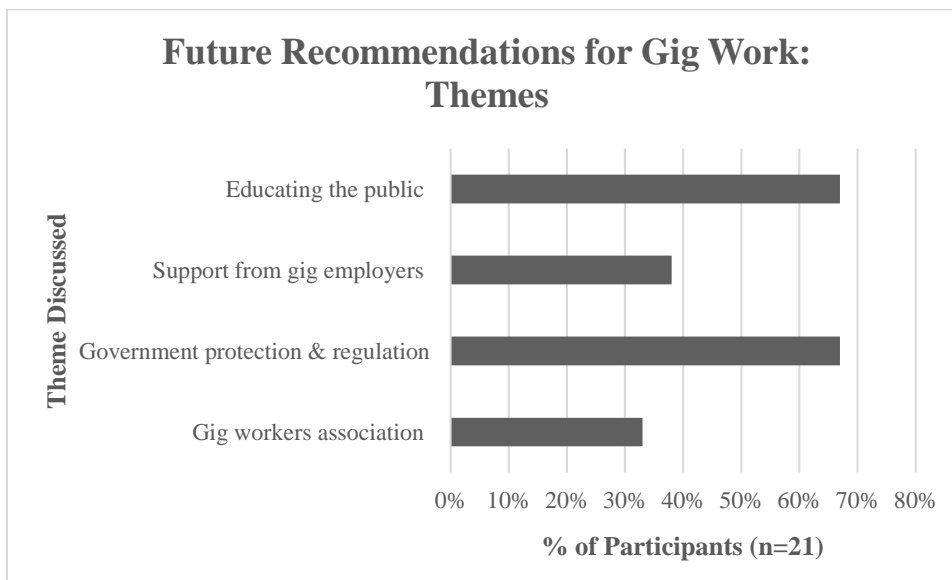
One participant mentioned the way that they felt their disability shaped preferences for gig versus traditional employment and grappled with their preferences:

“Lately I’d say it’s a little bit difficult to choose because both have pros and cons. But I didn't really want to work with my condition -- with this kind of disability. I would say gig work if every part of my body was functioning well. But if a person is disabled or has some mental disability or physical disability, if asked to choose, I’d say regular work.” – Participant 18

### Future Recommendations

Participants were also asked to provide their opinion on what they would like to see for the future of the gig economy, especially in the way of improving opportunities and working conditions for people living with disabilities.

**Figure 3. Future Recommendations for Gig Work: Themes**



### Educating the Public

The largest suggestion proposed by 67% (n=14) of participants was around wanting to see the general public more educated on their lived experience and seeing them as capable people:

“I think it would be nice to raise awareness on the importance of treating people with disabilities with respect, as much as we treat someone else. You know, it's never nice to treat someone with a disability as if you’re stigmatizing that person.” – Participant 12

“Everyone should be educated not to look down on people with disabilities, and also to provide a supportive environment for them.” – Participant 2



Others felt that there should be more free education offered on gig employment and its intricacies, and the opportunities available there for the future workforce:

“I guess I would say that schools, whether it's private or public school, they should involve freelancing as a course. Mostly in high schools.” – Participant 10

#### Protection from the government

Following public education, an equally felt sentiment (n=14, 67%) was the need for government regulation and better policies in place to support gig workers:

“With income insecurity and benefits and stuff, I think what the government should do is put policies in the organizations where gig work is being conducted, so as to ensure that the financial security of the gig worker is maintained.” – Participant 12

Others were critical of the role that the government could feasibly have in regulating the industry, but still felt there were opportunities for them to provide assistance:

“So I think it might be hard for governments to jump into the gig economy because at the moment, it's actually going to take out the flavor of it being about having a lot of flexibility. I think what the government can do is more like provide support for people who are in the gig economy. They could provide support for insurance saving or for pension savings.” – Participant 13

Finally, for some, government protection came down to making benefits and legal resources accessible to them:

“There needs to be better regulation. There needs to be portable benefits options. Even processes to support contracts with these employers and those types -- even legal resources.” – Participant 21

#### Supports from gig employers

In total, 38% (n=8) of participants mentioned areas that platform apps themselves could improve on.

When asked about this, one participant spoke about the health and safety angle:

“I know ergonomically, I'm struggling. And that's a huge area that's lacking, and I can't even imagine if you're an Uber driver or another type of gig worker. Workplace safety is definitely a big thing in the gig economy.” – Participant 22

Another suggested financial services, perhaps along the lines of retirement savings programs and corporate discounts that many traditional businesses offer, for gig workers:

I think you could have companies come up with specialized discount programs or maybe specialized savings plans” – Participant 6

#### A gig workers’ association or board

When asked about what they would like to see happen in the future of the gig economy, a smaller portion of participants 33% (n=7) shared the idea of a gig workers’ group that could serve a variety of functions. For some, this resembled something like a union that could offer protection:

“You should have that protection where there’s an agency you can talk to that can protect you, where you can learn your legal rights. They can back you up and once that happens you have that sense of protection.” – Participant 13

For others, this looked more like a social community where peers provide disability-friendly support in the context of gig work:

“I think we should create a platform where people with disabilities come together to share their opinions, their experiences, and their point of view. That will help them to have a sense of belonging and help them have passion for their work.” – Participant 18

## Discussion

Although platform apps and gig work predate the pandemic, the number of people that they employ has sharply increased as a result of COVID-19-related job loss and the influx of available work that was driven towards gig platforms at that time (27). Because of these recent changes, research has not yet been able to properly investigate working conditions in the gig economy. This remains especially true in the context of gig workers with disabilities, who face a different set of challenges and do not have access to the same employment opportunities of the healthy workforce (28). The present qualitative study sought to describe the gig work environment for people living with disabilities in their own words – the benefits, drawbacks, and best practice suggestions for the future.

Through the interviews we conducted, we were introduced to themes that were both expected and unexpected. Recent studies on the gig economy, for instance, echo the financial instability that was found in our study and the mental and physical health consequences of it (29,30). The need for benefits and access to paid leave has also arisen in recent survey work (31), where these drawbacks were

reported as even more critical than insufficient income. As mentioned by a participant in the present study, gig workers with disabilities are often the people who need medical benefits the most, due to managing ongoing health concerns and having little income to cover external disability-related costs themselves. On the positive front, other studies report on the flexibility and autonomy that gig work facilitates and how these freedoms can support health and work-life integration (32,33).

More obscure observations from our work suggest that the above focuses are not the only stressors and advantages that PLWD are facing. A select few studies have mentioned racial discrimination in certain fields of gig work (34) and gender inequity (35), but none so far have touched on disability-related stigma and discrimination. Similarly, positive aspects of gig work that have been studied have not included our participants' described sense of purpose in their work and connection to the world around them. However, in one study that did briefly reflect on this, the results indicated that gig workers feel a low sense of belonging due to the transient and transactional nature of their work (36). This discrepancy could be due to the sector that each sample works in and deserves further exploration.

Aside from addressing the positive and negative aspects of the gig work experience for PLWD, the present study also provides strong directions that legislation and private gig companies can take to improve working conditions. The clear need for a portable benefits package has been expressed, which others in the field deem particularly important when it comes to the deleterious health consequences of working gig (37). Alongside this, more rigorous occupational health and safety regulations similar to those adopted by traditional workplaces have been suggested by the present sample. This may be especially relevant in the context of physical gig work, where Uber drivers, delivery persons and Task Rabbits can be exposed to undue harm with no formalized training on how to mitigate this (38,39).

### *Limitations*

The sample was recruited through online networks, where parameters were put in place to restrict study advertisements to Canada. From the respondents who filled out our eligibility survey, we selected a sample of 21 using a computational randomizer that the research team built into Microsoft Excel. While this is so, we cannot guarantee that the sample accurately reflects the population. In the demographic survey, our sample indicates a high skew towards those with Black and African ancestry that is not reflective of the percentage of Black people in Canada's total population (40). This figure could speak to an overrepresentation of Black Canadians working in the gig economy, which is currently being explored and suggested by findings in the U.S. gig worker population (41) or an issue with

recruitment. Further work should aim to characterize the population in a larger sample that can clarify our finding.

It is also worth noting that a small number of our sample (n=1, 6%) reported significantly high earnings from gig work, which is a deviation from the low income and income instability that most experienced. Future quantitative studies could examine patterns of gig work income and level of post-secondary education.

## Conclusion

The present study was conducted to address how people with disabilities are navigating the newly expanding gig economy. Here, we sought to answer specific questions. How do PLWD arrive at their choice to participate in gig work? What are the advantages and disadvantages to the work, and how do these intersect with having a disability? What improvements would they like to see prioritized for the future of the gig economy?

The results of our interviews demonstrate that more often PLWD felt pushed into gig work due to a lack of employment options, rather than attracted to go into the field. This lends support to prior work that indicates that employment choice is not necessarily a reality for this population (28). Future research should consider focusing on stratifying such results by disability type, to assess the differences and similarities that exist, for instance, between people with mental disorders and people with physical mobility impairments. Even without that piece of the puzzle uncovered, participants identified a need for governments to work with employers to provide more opportunities for supported employment for PLWD. Doing so may lessen the sense of powerlessness that the population feels and has over their employment options.

## Gig Work at Large: Where do we go from here?

Our work suggests that gig work is a viable, albeit precarious form of work for some people living with disabilities. Depending on the type of disability that an individual is living with, the option to pursue gig work can feel like a welcomed solution or a last resort. It can offer flexibility, but often at the expense of income security. These points considered, as the gig economy continues to expand, discussions around equity and safety for the industry's workers will continue to be a crucial discussion to which future researchers should pay attention.





It is also critical for future studies to examine the intersection between other minoritized identities and gig work. PLWD may also be racialized, and/or experience gender, cultural and sexual orientation inequity when it comes to employment. It is more than likely that on top of having a disability, compounded marginalization results in even less employment opportunities. These workers, therefore, may especially be working in the gig economy as a last resort – even when it is detrimental to their physical health and financial security. Moving forward, we must take these points into consideration when designing studies that will help support healthy policies for gig workers. In doing so, we help ensure that the industry moves towards inclusivity of and protection for all gig workers.

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## Appendices

### Appendix A: Scoping Review Search Term List

Concept 1 (Population)	AND	Concept 2 (Environment)
<b>Illness Disease Disability, Sick leave</b>		<b>Gig work</b>
<p> ("chronic pain" or "long term pain")  ("cardiovascular disorder" or  "Cardiovascular disease")  ("Diabetes Mellitus" OR diabetes)  (fatigue OR "Fatigue syndrome" OR "chronic  fatigue")  ("Musculoskeletal disorders" or "joint  disease" or "muscular diseases"  arthritis OR osteoarthritis or "rheumatoid  arthritis" OR "rheumatic disease")  "Multiple sclerosis"  ("Chronic Obstructive Pulmonary Disease"  OR copd")  "Back pain"  (neoplasms OR cancer)  (Asthma or "respiratory disease")  (headache OR migraine)  ("digestive system disorders" OR "Digestive  system diseases")  ("mental disorders" OR "anxiety disorders"  OR bipolar OR "depressive disorder" )  "post traumatic stress"  "Chronic stress"  (injuries Or injury OR injured OR wounds")  (disabilit* OR disabled OR impairment)  ("cerebrovascular accidents" or Stroke)  "Operative Surgical Procedure" OR surgery  ("post operative" OR "postoperative")  Arthroplasty  Accident*  (Occupation* disease OR "occupation*  health" OR "occupational health service"  OR "work related illnesses" OR "vocational  rehabilitation" OR "occupational  rehabilitation")  ("sick leave" OR absenteeism OR "sickness  absence")  ("chronic illness" OR "chronic health  problem" or "chronic disease")  ("substance use" OR "substance abuse" OR  "substance use disorder" OR "addiction" OR  "drug (ab)use" OR "alcohol (ab)use" </p>		<p> ((gig OR alternative OR independent OR informal OR  atypical OR casual OR insecure OR nonstandard OR  "non-standard" OR outsourced OR precarious OR  "short-term" OR unprotected OR transient OR digital  OR crowd OR participative OR app OR platform OR  "on-demand" OR sharing) ADJ1 (work OR labo#r OR  econ* OR employ*))  "ride hailing" OR "ride sharing"  "digit#ed gig economy"  "Outsourced services"  "digital labo#r platform"  (Uber OR TaskRabbit OR Fivver OR Lyft OR DoorDash  OR Upwork OR PeoplePerHour  Freelanc*  "precarious employment"  Self-employ*  "independent contractor"  "e-commerce"  "new economy" </p>

## Appendix B: Full List of Included Articles

<b>Title</b>	<b>Year</b>	<b>Journal</b>	<b>Authors</b>
Motives for entrepreneurship and establishing one's own business among people with disabilities: Findings from a scoping review	2021	Disability & Society	Norstedt, Maria and Germundsson, Per
New view on the Canadian burden of stroke: Productivity loss in adults who return to work	2021	The Canadian Journal of Neurological Sciences / Le Journal Canadien Des Sciences Neurologiques	Wein, Theodore and Mancini, Johanna and Rogoza, Raina M. and Pericleous, Louisa
Essential work, precarious labour: The need for safer and equitable harm reduction work in the era of COVID-19	2021	International Journal of Drug Policy	Olding, Michelle and Barker, Allison and McNeil, Ryan and Boyd, Jade
Gig workers with disabilities: Opportunities, challenges, and regulatory response	2020	Journal of Occupational Rehabilitation	Harpur, Paul and Blanck, Peter
People with intellectual disabilities as business owners: A systematic review of peer-reviewed literature	2020	Journal of Applied Research in Intellectual Disabilities	Hutchinson, Claire and Lay, Kiri and Alexander, June and Ratcliffe, Julie
Telework after COVID: A 'silver lining' for workers with disabilities?	2020	Journal of Occupational Rehabilitation	Schur, Lisa A. and Ameri, Mason and Kruse, Douglas
The influence of occupational class and physical workload on working life expectancy among older employees	2021	Scandinavian Journal of Work, Environment & Health	Schram, Jolinda L. D. and Solovieva, Svetlana and Leinonen, Taina and Viikari-Juntura, Eira and Burdorf, Alex and Robroek, Suzan J. W.
Peer work as precarious: A qualitative study of work conditions and experiences of people who use drugs engaged in harm reduction work	2020	International Journal of Drug Policy	Greer, A. and Bungay, V. and Pauly, B. and Buxton, J.
Why self-employment rates are higher among people with work limitations	2020	Journal of Disability Policy Studies	Gouskova, Elena
Does the effect of disability acquisition on mental health differ by employment characteristics? A longitudinal fixed-effects analysis	2020	Social Psychiatry and Psychiatric Epidemiology: The International Journal for Research in Social and Genetic Epidemiology and Mental Health Services	Aitken, Zoe and Simpson, Julie Anne and Bentley, Rebecca and Milner, Allison and LaMontagne, Anthony Daniel and Kavanagh, Anne Marie
Employment experiences of formerly homeless adults with serious mental illness in Housing First versus treatment first supportive housing programs	2020	Psychiatric Rehabilitation Journal	Tiderington, Emmy and Henwood, Benjamin F. and Padgett, Deborah K. and Tran Smith, Bikki





Labor relations and the overdose crisis in the united states	2020	Addiction Research & Theory	Ikeler, Peter
Inclusive management for social entrepreneurs with intellectual disabilities: 'How they act'	2020	Journal of Applied Research in Intellectual Disabilities	Caldwell, Kate and Harris, Sarah Parker and Renko, Maija
Stressful by design: Exploring health risks of ride-share work	2019	Journal of Transport & Health	Bartel, Emma and MacEachen, Ellen and Reid-Musson, Emily and Meyer, Samantha B. and Saunders, Ron and Bigelow, Philip and Kosny, Agnieszka and Varatharajan, Sharanya
It suits my needs': Self-employed individuals with psychiatric disabilities and small businesses	2019	Psychiatric Rehabilitation Journal	Ostrow, Laysha and Smith, Carina and Penney, Darby and Shumway, Martha
Employability of persons with mental disability: Understanding lived experiences in Kenya	2019	Frontiers in Psychiatry	Ebuenyi, Ikenna D. and Guxens, Monica and Ombati, Elizabeth and Bunders-Aelen, Joske F. G. and Regeer, Barbara J.
Work-related outcomes in self-employed cancer survivors: A European multi-country study	2019	Journal of Occupational Rehabilitation	Torp, Steffen and Paraponaris, Alain and Van Hoof, Elke and Lindbohm, Marja-Liisa and Tamminga, Sietske J. and Alleaume, Caroline and Van Campenhout, Nick and Sharp, Linda and de Boer, Angela G. E. M.
Disabling working environments and mental health: A commentary	2019	Disability and Health Journal	Milner, Allison and Shields, Marissa and King, Tania and Aitken, Zoe and LaMontagne, Anthony and Kavanagh, Anne M.
Quality of life among entrepreneurs with chronic fatigue syndrome	2018	Dissertation Abstracts International: Section B: The Sciences and Engineering Rehabilitation Counseling Bulletin	Kesler, Brittany
The process and experiences of self-employment among people with disabilities: A qualitative study	2018	International Journal of Public Health	Ashley, Deborah and Graf, Noreen M.
Employment status transitions in employees with and without chronic disease in the Netherlands	2018	International Journal of Drug Policy	de Boer, Angela G. E. M. and Geuskens, Goedele A. and Baltmann, Ute and Boot, Cecile R. L. and Wind, Haije and Koppes, Lando L. J. and Frings-Dresen, Monique H. W.
Transitions in income generation among marginalized people who use drugs: A qualitative study on recycling and vulnerability to violence	2018	Journal of Cancer Survivorship	Boyd, Jade and Richardson, Lindsey and Anderson, Solanna and Kerr, Thomas and Small, Will and McNeil, Ryan
Factors influencing job loss and early retirement in working men with prostate cancer: Findings from the Life After Prostate Cancer Diagnosis (LAPCD) study	2018	Journal of Career Assessment	Bennett, Damien and Kearney, Therese and Donnelly, David W. and Downing, Amy and Wright, Penny and Wilding, Sarah and Wagland, Richard and Watson, Eila and Glaser, Adam and Gavin, Anna
Individuals with disabilities in self-employment through vocational rehabilitation: Predictors of successful case closure from 2008 to 2012	2017		Yamamoto, Scott H. and Alverson, Charlotte Y.



Rural and urban vocational rehabilitation self-employment outcomes	2017	Journal of Vocational Rehabilitation	Ipsen, Catherine and Swicegood, Grant
Entrepreneurship as a means to Employment First: How can it work?	2017	Journal of Vocational Rehabilitation	Ouimette, Michelle and Rammler, Linda H.
An analysis of self-employment outcomes within the Federal/State Vocational Rehabilitation System	2009	Journal of Vocational Rehabilitation	Revell, Grant and Smith, Frank and Inge, Katherine
Self-employment among people with disabilities: Evidence for Europe	2009	Disability & Society	Pagan, Ricardo
What types of jobs do people with disabilities want?	2011	Journal of Occupational Rehabilitation	Ali, Mohammad and Schur, Lisa and Blanck, Peter
'Doing my own thing': Supported self-employment for individuals with cognitive disabilities	2002	Journal of Vocational Rehabilitation	Hagner, David and Davies, Tobey
The employment situation of people with disabilities in Lebanon: Challenges and opportunities	2007	Disability & Society	Wehbi, Samantha and El-Lahib, Y.
The informal economy: A literature review	2014	West Neighborhood House	VanderBerg, Natasja
The experiences of individuals in the gig economy	2018	United Kingdom Government	Broughton, Andrea and Gloster, Rosie and Marvell, Rosa and Green, Martha and Langley, Jamal and Martin, Alex
Making It Work: Understanding the Gig Economy's Shortcomings and Opportunities	2022	Tony Blair Institute for Global Change	Tay, PeiChin and Large, Oliver
Toward a More Inclusive Gig Economy: Risks and Opportunities for Workers with Disabilities; Toward a More Inclusive Gig Economy: Risks and Opportunities for Workers with Disabilities	2022	Proceedings of the ACM on Human-Computer Interaction	Sannon, Shruti and Cosley, Dan
A nationwide web-based survey of factors associated with depressive symptoms among Japanese workers.	2022	International Journal of Social Psychiatry	Saito, Shota and Qi, Ruan and Tran, Huyen Thi Thanh and Suzuki, Kenji and Takiguchi, Toru and Noto, Shinichi and Ohde, Sachiko and Takahashi, Osamu
Internet Platform Employment in China: Legal Challenges and Implications for Gig Workers through the Lens of Court Decisions	2021	Industrial Relations / Relations Industrielles	Tianyu Wang and Fang Lee Cooke
Precarious Work in Midlife: Long-Term Implications for the Health and Mortality of Women and Men.	2022	Journal of Health & Social Behavior	Donnelly, Rachel
Self-Employment as Career Choice for People with Disabilities: Personal Factors that Predict Entrepreneurial Intentions.	2019	Journal of Rehabilitation	Castillo, Yuleinys A. and Fischer, Jerome M.



Pros & Cons of Regulating the Gig Economy: Independent contractor legislation.	2020	Congressional Digest	Congressional Digest
Barriers to employment for people with intellectual disabilities in low and middle income countries: self-advocate and family perspectives.	2022	Journal of International Development	Bialik, Kimber and Mhiri, Manel
Inclusive Management Research: Persons with Disabilities and Self-Employment Activity as an Exemplar.	2020	Journal of Business Ethics	Martin, Bruce C. and Honig, Benson
Gig Workers as Essential Workers: How to Correct the Gig Economy Beyond the COVID-19 Pandemic.	2020	ABA Journal of Labor & Employment Law	Cherry, Miriam A. and Rutschman, Ana Santos
The New Peonage: Liberty And Precarity For Workers In The Gig Economy.	2020	Wake Forest Law Review	Zietlow, Rebecca E.
Self-Generated Economic Activity As A Form Of Employment For People With Disabilities.	2020	Acta Scientiarum Polonorum - Oeconomia	Stolarczyk, Paulina
Self-Employment for People with Psychiatric Disabilities: Advantages and Strategies.	2019	Journal of Behavioral Health Services & Research	Ostrow, Laysha and Nemece, Patricia B. and Smith, Carina
Precarious Employment during the COVID-19 Pandemic, Disability-Related Discrimination, and Mental Health.	2022	Work & Occupations	Brown, Robyn Lewis and Ciciurkaite, Gabriele
Flexibility in the gig economy: managing time on three online piecework platforms.	2018	New Technology, Work & Employment	Lehdonvirta, Vili
The Unintended Consequences of Flexicurity: The Health Consequences of Flexible Employment.	2018	Review of Income & Wealth	Bender, Keith A. and Theodossiou, Ioannis
Issues And Challenges To Self Employment Among Persons With Disabilities: Micro Level Study Of Ahmedabad.	2016	Pranjana: The Journal of Management Awareness	Bhanushali, Kishor
Zero-sum social policy: going gig and the Australian National Disability Insurance Scheme.	2020	Studies in Political Economy: A Socialist Review	Baines, Donna and Macdonald, Fiona and Stanford, Jim
Inclusion and exclusion in the digital economy: disability and mental health as a live streamer on Twitch.tv.	2019	Information, Communication & Society	Johnson, Mark R.
Disability and self-employment: evidence for the UK.	2011	Applied Economics	Jones, MelanieK. and Latreille, PaulL.
The Costs of Insecurity: Pay Volatility and Health Outcomes	2020	Journal of Applied Psychology	Sayre, Gordon



Disability Accommodation in Nonstandard and Precarious Employment Arrangements.	2013	Work & Occupations	Shuey, Kim M. and Jovic, Emily
Is the internet the game changer? Disabled people and digital work in China	2022	Disability & Society	Qu, Yuanyuan
COVID-19 and the labour market outcomes of disabled people in the UK	2022	Social Science & Medicine	Jones, Melanie

## Appendix C: Interview questions

### Qualitative Interview Guide

1. Can you tell me about your work history and why you started pursuing gig work?
2. What has been one positive experience you've had in gig work?
  - At this time, was there anything else that influenced your health and well-being, either positively or negatively?
  - In the experience, can you identify any work factors that were within your control (for example, flexibility with the time of day and amount of hours, type of task/job performed, location (in some contexts), equipment used (in some contexts)) that contributed to or detracted from your health and/or safety?
  - Looking back on that experience, is there anything that could have made the experience safer for you and/or supported your health?
3. What has been a negative experience you've had in gig work?
  - At this time, was there anything else that influenced your health and well-being, either positively or negatively?
  - In the experience, can you identify any work factors that were within your control (for example, flexibility with the time of day and amount of hours, type of task/job performed, location (in some contexts), equipment used (in some contexts)) that contributed to or detracted from your health and/or safety?
  - Looking back on that experience, is there anything that could have made the experience safer for you and/or supported your health?
4. Moving beyond those specific experiences, over the entire time you've worked in the gig economy/sector, which parts of the work have affected your health, well-being and/or disability the most, and how so?
5. In an ideal world, would you rather work in the gig economy or in a regular job?



6. In your opinion, what needs to change in the world of gig work to create more opportunities for people with disabilities?

7. Is there anything else you would like me to know?



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