

Perceptions of Health and Safety among Chicagoland Rideshare Drivers during COVID-19



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Background

Rideshare drivers are those who use their private vehicles to provide rides for passengers through an independent contract arrangement with an online platform. Platform-based rideshare work is often touted for its flexibility and work life balance though it may impede on worker well-being. Prior to the COVID-19 pandemic, rideshare work had been associated with low wages, inferior working conditions, and economic insecurity (Stefano et al., 2021). The number of rideshares dropped drastically with the start of the COVID-19 pandemic. Early reports found that the number of trips dropped by over 70 percent in the US and over 80 percent of Uber and Lyft drivers reported a decrease in demand (Hawkins, 2020).



Financial Instability

Over 100,000 active rideshare drivers were providing transportation and delivery services to customers as independent contractors in the Chicago area prior to the pandemic. However, according to a recent study, single ride hailing trips in Chicago decreased by more than 75 percent starting March 11, 2020, a trend that continued until the end of May (Du & Rakha, 2020). As independent contractors, rideshare drivers qualified for CARES Act unemployment benefits, though many reported barriers to accessing benefits from state systems. Additionally, many drivers that worked part-time or those that were undocumented immigrants did not qualify for benefits. Expanded unemployment insurance benefits expired in July 2020, marking increased worry about basic needs for already vulnerable rideshare drivers (Karpman & Acs, 2020). A study commissioned by the San Francisco Local Agency Formation Commission investigated how these workers were affected economically and found that they were not only financially insecure, but also that they received limited support and training, despite demand (Benner et al., 2020).

Increased Health Risk

Rideshare drivers continued to work throughout the COVID-19 pandemic despite heightened risk. Due to the nature of their jobs, rideshare drivers experience increased risk of infection, as they work in small, enclosed spaces, have frequent interactions with the public, and lack workplace protections. There is a limited amount of research available on the occupational health of this vulnerable workforce population. The research that is available points to similar trends throughout the country. Multihoming of rideshare platforms, or working for more than one platform at a time, creates competition, which leads those in the rideshare industry to idle less and feel pressure to succumb to demand or lose potential riders, and in turn, revenue (Bryan & Gans, 2019).

Lack of Unionization

Prior to the pandemic, there were over 100,000 registered rideshare drivers in Chicago, 66% of whom were active and recorded at least one trip during September 2019 (Manzo & Bruno, 2021). In the Chicago metro area, rideshare drivers are not unionized though Independent Drivers Guild (formerly known as Gig Workers Matter) serves as a local ride-share advocacy group. The Independent Drivers Guild became affiliated with the Machinists Union in 2020 which advocates for more than 250,000 for-hire drivers on the east coast and in the Midwest, including the Chicago metro area. Their mission is to “unite drivers to fight for the right to collectively bargain, which is the only way to stop the exploitation and give drivers the power to negotiate better pay and working conditions” (*About Us*, n.d.).



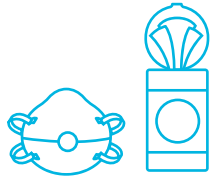
Methods

Through discussions with University of Washington investigators, University of Illinois Chicago (UIC) investigators sought to better understand the experience of local drivers during COVID-19. UIC researchers collaborated with the Illinois Drivers Guild (IDG), to survey app-based drivers in the Chicago metro area.

What the survey assessed



Drivers' risk perceptions



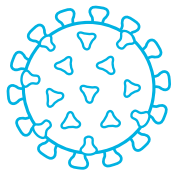
Employer support and workplace protections



Sources of trust



Stressors



Self-reported COVID-19 infection status



Overall job satisfaction



Effect of pandemic on hours worked

Three representatives from IDG, the rideshare advocacy group, completed the UIC CIRTification training, a human research protection training for community research partners. IDG worked with UIC researchers to design and implement the survey. The survey instrument developed for this study was adapted from the University of Washington rideshare driver survey (Beckman et al., 2021). With guidance from IDG, UIC researchers included new survey questions specifically geared toward Chicago rideshare drivers.

Data was collected through multiple choice, long-form, and scale ranged interview questions. Responses to most measures were based on a five-point Likert scale (e.g., scored 1, 2, 3, 4, 5). Several questions in the survey were inspired by previously validated scales and COVID-19 pandemic surveys conducted with other worker populations. For example, several questions used to assess perceived stress and anxiety were measured on a five-point scale using questions inspired from the Perceived Stress Scale (PSS) and Patient Health Questionnaire (PHQ-9) (Cohen, 1988; Kroenke et al., 2001). However, the wording of many questions was adapted to increase clarity for app-based drivers, per the advice of IDG.

Job satisfaction was measured using three questions inspired by the 36 question Spector Job Satisfaction Scale (JSS) (Spector, 1997). Respondents were asked whether or not they agree with a statement about their job (before and during the pandemic) using a five-point scale. To assess COVID-19 infection, we asked participants if at any time since March 1, 2020, they thought they had COVID-19, or had one or more related symptoms, or had received a positive test.

The survey also included two scales assessing psychometric judgements of how concerned drivers were about five scenarios related to COVID-19 exposures in their vehicles and six scenarios related to infection, including physical health and economic health outcomes. Drivers also indicated which individuals and entities they trust to provide accurate and truthful information during the pandemic to keep them safe at work; how frequently they undertook six health protective behaviors, that at the time of the survey, were believed to reduce exposure to COVID-19 (i.e., sanitizing surfaces to avoid fomite transmission, which at the time was considered an effective control); and how the company they work gave resources for exposure control during the pandemic.

Survey questions also measured current workload (frequency driving passengers), current hours worked, number of years worked as a driver, health insurance status and access to unemployment insurance during the pandemic. Demographic measures (age, race, ethnicity, language, and gender) were also collected. One qualitative question was included to provide an opportunity for

TABLE 1 Participant Demographics and Background Information

	N (%)
Age	N=139
20-29	16 (11.5%)
30-39	43 (30.9%)
40-49	46 (33.1%)
50-59	17 (12.2%)
60-69	14 (10.1%)
70-79	1 (>1%)
Race	N=169
Hispanic, Latinx, Spanish origin	46 (27.2%)
African American, Black	36 (21.3%)
White	36 (21.3%)
Asian	20 (11.8%)
Middle Eastern or North African	9 (5.3%)
Native American or Alaska Native	2 (1.2%)
More than one	12 (7.1%)
Other	4 (2.4%)
Prefer not to answer	4 (2.4%)
Gender	N=169
Female	35 (20.7%)
Male	131 (77.5%)
Gender queer/non-binary	2 (1.2%)
Prefer not to answer	1 (>1%)
Currently driving to transport people	N=170
Yes, as my only job	107 (62.9%)
Yes, I am driving, but I have other jobs	47 (27.6%)
No, I am not driving at all at this time	16 (9.4%)
Years working as a driver	N=169
Less than one year	18 (10.9%)
One to five years	99 (60%)
Five to ten years	49 (29.7%)
More than ten years	3 (1.8%)
Hours currently driving each week	N=181
Not currently driving	16 (9.7%)
1-20 hours	47 (28.5%)
20-40 hours	63 (38.2%)
More than 40 hours	55 (33.3%)

drivers to describe any unique challenges or events during the pandemic. Responses to all questions were optional. The survey was created in Qualtrics and pilot-tested with five app-based drivers and revised based on their feedback. The full survey took about 10 minutes to complete.

IDG organizers were trained to use a script to recruit and consent study participants. Social media groups for rideshare drivers and in-person IDG outreach at rideshare waiting areas were used to recruit participants. Only app-based drivers from the Chicago metro area were eligible to participate in the study. Eligible drivers were provided a QR code to complete the survey after they agreed to participate.

The survey was launched on September 8, 2020, but was put on hold from September 17, 2020 – November 30, 2020, due to a technical glitch, and finally closed on April 30, 2021. The survey was offered in English and Spanish and participants who completed the survey received a \$20.00 cash incentive. The Office for the Protection of Research Subjects at the University of Illinois Chicago determined this project to be exempt from review as no identifying information was being collected by researchers.

Analysis: Raw survey data were downloaded from Qualtrics. We conducted a descriptive analysis on the 177 respondents who completed the survey. All analysis was conducted in Stata 16. Analysis descriptively characterized the experience of Chicago metro area app-based drivers during the COVID-19 pandemic. Primary outcomes are characterized in detail in the Results section.

Results

There were 152 surveys completed in English, 29 surveys completed in Spanish and 4 surveys were incomplete and not included in the analysis. Data from the completed English and Spanish surveys were combined and analyzed together for the 181 respondents.

Demographics and background information from the survey respondents are presented in Table 1. Majority of respondents were between the ages of 30-49 years old (64%) and identified as male (78%). Respondents predominantly identified as Hispanic, Latinx, or of Spanish origin. Over ninety percent of the drivers were currently driving at the time they took the survey, and more than half had been a driver for 1-5 years. The majority also reported that they currently were driving less than 40 hours a week.

TABLE 2 COVID-19 Status	
	N (%)
At any time, have you been tested for COVID-19?	N = 172
Yes	93 (54%)
No	76 (44.2%)
I am not sure	3 (0.02%)
At any time, have you received a positive diagnosis or test for COVID-19?	N = 171
Yes	34 (19.8%)
No	135 (78.5%)
I am not sure	2 (0.02%)
At any time, did you stop working for a while because you became too sick from coronavirus to drive?	N = 77
Yes	28 (36.4%)
No	45 (58.4%)
I am not sure	4 (0.05%)
At any time, did you feel sick enough to stop working but did not because you feared you would be laid off?	N = 172
Yes	35 (20.3%)
No	131 (76.1%)
I am not sure	6 (0.03%)
At any time, do you know of drivers who had to stop working for a while because they became too sick from coronavirus?	N = 172
Yes	74 (43.0%)
No	90 (52.3%)
I am not sure	8 (0.05%)

COVID-19 symptoms or diagnoses among rideshare drivers

Only 54% of rideshare drivers (N=172) stated that they have been tested for COVID-19 since March 1, 2020, though tests were not widely available at the onset of the pandemic. Only 20% of respondents stated that they received a positive diagnosis of COVID from a health care provider. Though, about 38% reported experiencing one or more COVID-19 related symptoms (fever or chills, difficulty breathing, coughing, sore throat, congestion or runny nose, muscle or body aches, headache, fatigue, nausea or vomiting, diarrhea, or new loss of smell or taste). However, 60% of rideshare drivers surveyed did not respond when asked whether they stopped working because they became too sick to drive (this was the lowest response rate with almost 100 less responses than all other questions).

About 20% (N=172) of the drivers reported that although they felt sick enough to stop working, they did not, because they feared they would be laid off. Additionally, 43% of drivers (N=172) reported knowing of other drivers who had to stop working for a while because they became too sick from coronavirus.

A little more than half the drivers (57%, N=171) reported having health insurance, though rideshare drivers hired through independent contracts with online platforms are not provided employer-based health insurance. Other sources of health insurance (i.e. through a spouse, Affordable Care Act marketplace) were not asked about in the survey.

Low response rates around unemployment insurance, limit the ability to make claims in this study, however, about 31% (N=94) reported applying for and receiving unemployment insurance (UI) benefits. About 15% applied but did not receive UI and 20% did not qualify.

Findings from the psychometric judgement scales are presented in Table 2.

Ride Share Drivers' perceptions of risk, concerns, and fears related to exposure to and/or to contracting COVID-19 at work

Seventy-four percent of rideshare drivers said they are very often or always concerned about catching COVID-19 and 83% of rideshare drivers reported being very highly concerned about bringing COVID-19 home to their families. Over 75% of ride share drivers responded that they are highly concerned about not being able to work if they get sick, being laid off, or other barriers to work.

Overall, drivers expressed very high levels of concern about all five exposure scenarios (73%-85% were always or very often concerned for all scenarios), with majority expressing concerns about the general cleanliness of their vehicles and about people sneezing/coughing/spitting in the vehicle they drive.

Company implemented workplace controls to prevent COVID-19

Table 3 presents the COVID-19 protections and controls that the drivers reported receiving from the company that employs them (e.g., Uber, Lyft). A little more than half the drivers (N=174) reported that their employer very often or always provided masks, hand sanitizers, and disinfecting supplies. Over 60% of drivers reported their company/employer provided barriers (shield or plastic guard) between them and passengers.

About 26% of drivers (N=174) reported that their employers refused to provide any PPE drivers needed, and 20% of drivers reported that their company placed restrictions on the use of PPE.

TABLE 3 Determinants of Risk Perceptions	
	N (%)
On the Job Risk Perception	
Number of respondents who were "always" or "very concerned" about the following determinants of COVID related stress...	N=174
Contracting Covid-19 at work	130 (74.28%)
Infecting my family members	144 (83.24%)
Infecting my passengers	108 (62.07%)
Not being able to work if I got sick	143 (82.18%)
Being laid off or working less hours	134 (77.0%)
Health Perceptions	
Number of respondents who were "always" or "very concerned" about Covid exposure in the following scenarios...	N=174
General cleanliness of the vehicle I drive for work	138 (78.86%)
People sneezing, coughing, spitting in my vehicle	148 (84.57%)
Touching dirty door handles or other surfaces in my vehicle	133 (76.43%)
Access to PPE while working	129 (73.72%)
Access to handwashing facilities	135 (77.15%)

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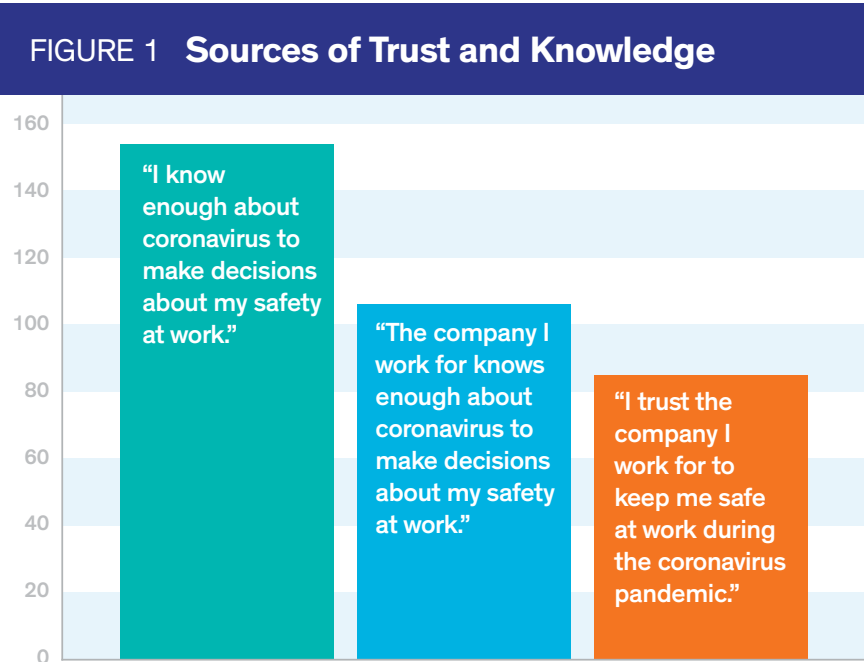
TABLE 3 Determinants of Risk Perceptions

	N (%)
Sources of Trust and Knowledge	
Number of respondents who “strongly agree” or “agree” that...	
I know enough about coronavirus to make decisions about my safety at work.	154 (89.53%)
The company I work for knows enough about coronavirus to make decisions about my safety at work.	106 (61.27%)
I trust the company I work for to keep me safe at work during the coronavirus pandemic.	85 (49.13%)
Health Protective Behaviors	
Number of respondents who reported to “always or very often...”	N=171
Hand wash/sanitizer after interacting with a passenger?	157(91.8%)
Worn a mask at work?	167(97.6%)
Worn gloves at work?	85 (49.7%)
Disinfect your work area?	153 (89.5%)
Keep windows open	138 (80.7%)
Employer Protections	
Number of respondents who reported “My workplace (employer) has always or very often...”	N=174
Provided masks for you?	97 (55.75%)
Provided masks for passengers?	61 (35.26%)
Provided hand sanitizer for you?	70 (48.61%)
Provided hand sanitizer for passengers?	74 (43.03%)
Provided disinfectant supplies?	94 (54.34%)
At any time during the pandemic has your workplace (employer)...	N=174
Provided health information about the coronavirus?	140 (80%)
Provided exposure information about the coronavirus?	128 (73.56%)
Provided any barriers (shield or plastic guard) between you and your passengers?	106 (60.57%)
Refused to supply the PPE you need?	45 (25.86%)

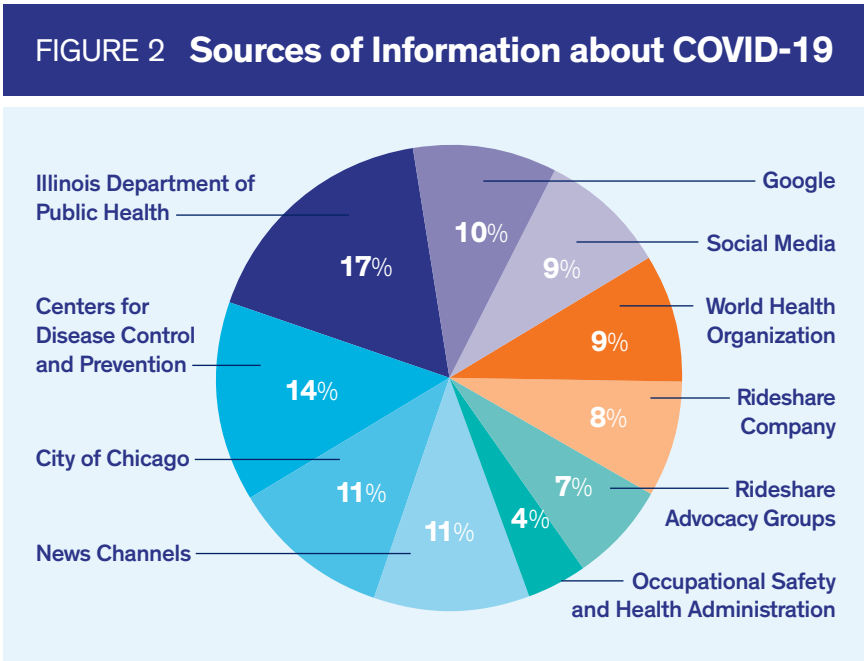
Drivers' health protective behaviors to keep them safe at work

Over 90% of drivers responded that they always or very often wear a mask when driving and wash their hands or use hand sanitizer after a passenger leaves their vehicle. About half of the drivers reported that they keep their windows open all of the time while driving passengers.

Drivers' feelings and trust related to their work, coronavirus



A majority of drivers reported that their employer/company shared COVID-19 related health and exposure information either via email, flyers, or in meetings. Sixty percent of drivers (N=174) polled believe that the company they work for knows enough about COVID-19 to make decisions about the safety of their drivers; half of the drivers responded that they trust the company to keep them safe during the pandemic.



About 90% of rideshare drivers believe that they knew enough about COVID to make decisions about their safety at work. When asked **what sources of information they used to learn how to protect themselves at work**, the Illinois Department of Public Health (IDPH), Centers for Disease Control and Prevention (CDC), and the City of Chicago were identified as the top sources used. The Occupational Safety and Health Administration (OSHA), the federal government's foremost authority on worker health, was the least frequently cited source. Notably, both rideshare companies and advocacy groups were equally relied upon. While rideshare drivers may be informed about COVID-19 safety protocols, this does not mean that they are not concerned about transmission. One driver was quoted as saying:

“ I think wearing a mask, hand disinfecting and washing and physical distancing when possible is the best course of action until enough vaccinations are given for herd immunity. Masks work... just look at how low and insignificant the cases of colds and regular flu have been this season... because so many people were masked up when near one another.

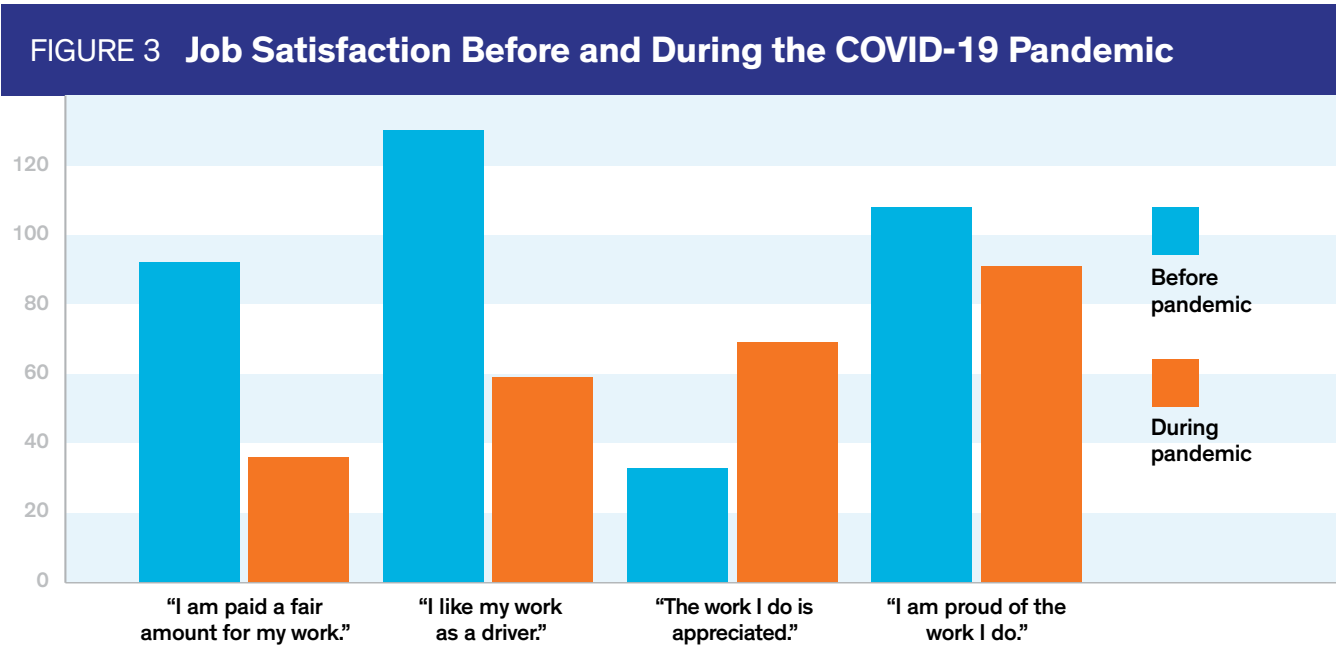
Drivers’ job stress during the time of the survey

Table 4 describes job stress during the time of the survey. Close to half the drivers reported feeling worn out, emotionally exhausted, and sleeping poorly. Over 60% of drivers reported feeling anxious, nervous, and on the edge when they thought about their health, or the health of their family, their finances and COVID-19. About half of them also reported not being able to control or stop worrying.

TABLE 4 Measuring Job Stress	
	N (%)
Number of respondents who reported experiencing the following “a large part of the time or all the time”	N=168
Feeling Worn out?	78 (46.4%)
Feeling Emotionally exhausted?	89 (53.0%)
Sleeping badly or restlessly?	83(49.4%)
Waking up several times and difficulty going back to sleep?	71(42.3%)
Number of respondents who reported feeling “several days or nearly every day”	N=168
Anxious, nervous, or on the edge	107(63.7%)
Not able to control or stop worrying	91(54.2%)
Depressed, down, or hopeless	75 (44.6%)
Little pleasure in doing things	81(48.2%)

Job Satisfaction: How you feel about your job

Rideshare drivers were asked if they felt they were paid a fair amount for their work, if they liked their work as a driver, if they are proud of their work, and if they felt their work as a driver was appreciated both before and after the pandemic. Survey data indicated that their opinion regarding all four of these topics had changed since the onset of the pandemic (Figure 3). While sentiments around fair pay, liking the job, and pride all decreased during the pandemic, rideshare drivers did note increased sense of appreciation for their work.



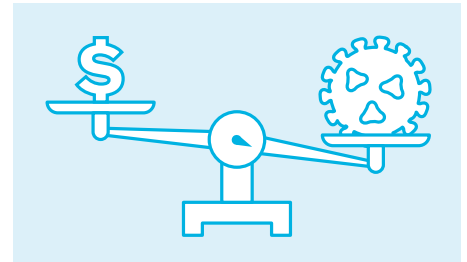
Discussion

There is limited information on the health and safety of app-based rideshare drivers. App-based rideshare drivers, as independent contractors, do not have health and safety protections on the job, and the industry is weakly regulated. The aim of the study was to understand barriers and facilitators to implementing policies and guidance that support the health and safety of app-based rideshare workers as the pandemic continues. Results from this study could be used by IDG, and other worker and rideshare advocates, to advocate for improved working conditions for rideshare drivers in Chicago.

Previous research at the University of Washington has begun to elucidate how the COVID-19 pandemic has affected this worker population. Investigators sought to better understand rideshare driver experiences during COVID-19 (Beckman et al., 2021). Through surveys and qualitative interviews, the study identified that rideshare drivers received few protections from their employer; drivers experienced fear of exposure and infection at work. While the study identified an increased need for health-supportive policies and protections for app-based drivers, Washington rideshare drivers are unionized with Teamsters Local 117. These drivers have had access to additional resources throughout the pandemic that were not available to Chicago metro area rideshare drivers.

When asked to share any specific experience or challenge during the COVID-19 pandemic, Chicago metro area rideshare drivers responded with ideas around job safety, ways to protect themselves, and city, state, or institutional supports. Responses that captured overarching themes are included below.

Study results indicate that, at the beginning of the pandemic, rideshare workers were forced to make the impossible decision between their health and their income. Presenteeism, or going to work when ill, may result from the insecure nature of rideshare work. Rideshare drivers surveyed reported fear of retaliation for denying customers or going to work while sick. Despite limited test supply early in the pandemic, almost half of rideshare drivers reported experiencing symptoms of COVID-19. In addition to fears around retaliation, rideshare drivers mentioned notable fear around going to work and getting sick.



“ I switched from taking customers to delivering food only to minimize risk. The company says it requires passengers to wear masks, but I know a driver who was deactivated for cancelling a customer who refused to wear one. The company doesn't support us or back us up. They also have cut our pay again. The state should do something about how much of our pay is kept by the company and require that no one loses their job just for trying to keep themselves safe.

“ I have not driven since March 15. I loved my job and enjoyed the people. I just cannot risk getting coronavirus as I suffer from extreme allergies, and I have a 94-year-old mother that I must protect and care for. My family does not want me to return to driving due to the safety issues of the virus. I worry about the financial issues almost every day.



Rideshare companies, like Uber and Lyft, were considered trusted sources of information during the pandemic. The rideshare companies also implemented workplace controls to prevent COVID-19, which garnered trust from rideshare workers. However, rideshare drivers did acknowledge a need for policy and systems change to support their health and safety on the job.

Inadequate, low wages, as well as lacking benefits, continue to place rideshare drivers in vulnerable work arrangements. Gig workers, like rideshare drivers, are frequently left out of social safety net programs. For example, the City of Chicago launched a new program funding Personal Protective Equipment (PPE) for taxicab drivers, but rideshare drivers were not eligible. Unionized rideshare workers in Seattle have negotiated for funding to purchase PPE, fair pay, and paid sick leave; Chicago rideshare workers do not have collective bargaining power.

“ There are too many risks right now, too many expenses and pay that keeps shrinking whenever the companies decide to change our contracts.



“ The state or city must consider more regulations of rideshare as it currently stands.



Rideshare driver's mental health emerges as a compelling area for further exploration, advocacy, and action. While there is limited occupational health literature around the Perceived Stress Scale (PSS), and the response scale used in this study was modified for the target population, it is challenging to compare the PSS-4 scores in the app-based drivers to other occupational cohorts, both before and during the pandemic. However, University of Washington researchers assert that app-based rideshare drivers have PSS scores above population norms, upon comparison of their study sample to healthcare workers in New York City during the COVID-19 pandemic and migrant Filipino workers in Hong Kong.

Chicago area rideshare workers noted decreased levels of job satisfaction and increased levels of job stress since the beginning of the pandemic. In addition to existing insecure work arrangements and COVID-19 risk, Chicago area rideshare drivers have experienced increased rates of carjacking's since 2020. Drivers experiencing extreme stress and uncertainty have turned to IDG for support (Jacobs & Cherbonneau, 2023).

In summer of 2021, Independent Drivers Guild (IDG) launched a Mental Health & Wellness program (MHWP) for rideshare drivers in the Chicago area. The goal was to develop resources and capacity to recognize and understand the mental health needs of rideshare drivers, as well as provide emotional and practical support to address these needs. IDG organizers underwent 12 hours of training to build skills around (1) Recognizing signs of emotional distress; (2) Understanding the causes of distress; (3) Integrating emotional support skills into outreach methods. IDG worked with affiliate organizations in New York, New Jersey, and Connecticut on best practices for implementing community mental health interventions.

In summer 2022, 30 drivers participated in IDG's first Chicago area wellness event. UIC supported IDG's development of outreach materials about stress reduction, which included translated brochures, pamphlets, study guides, and other incidental materials for drivers to take home with them after attending a wellness session. IDG has now established a planning committee to pilot ongoing mental health and wellness groups in English & Spanish (including trauma informed sessions) and is raising awareness through their social media channels.

Limitations

Limitations of this study are as follows. The survey design did not ask rideshare drivers for the number of hours driven before or during the pandemic. Without an understanding of how hours worked changed, we cannot draw any conclusions on job security or employment opportunities for rideshare drivers during the pandemic. Rather, results focus on perceived COVID-19 status, risk perception, stress, and job satisfaction. Unlike the University of Washington study, this study did not examine the correlation between stress and COVID-19 status. Therefore, we are unable to make claims about these associations.

Relatedly, data was collected in fall 2020 in early 2021. At the time of gathering responses, the Chicago area was no longer in initial phases of COVID-19 lockdown. Initial COVID-19 restrictions on gathering, dining, and entertainment ended in summer 2020, therefore response recall may have been impacted and perceptions may have shifted.



Conclusion



Continued research around perceived job stress and feelings of anxiety or lack of control should be explored further among this worker population. IDG has plans to build skills of organizers to recognize and respond to trauma, and further integrate mental health into outreach activities. The organizing team aims to develop messages to destigmatize and raise awareness of mental health that will be distributed via social media and through in-person outreach at city airports. Collaborations between researchers and worker advocacy organizations can support worker organizing efforts by providing the evidence needed to justify policy and systems change. UIC and IDG continue their collaboration around rideshare driver wellbeing.

References

- About Us. (n.d.). IDG. Retrieved February 28, 2022, from <https://driversguild.org/about-us/>
- Beckman, K. L., Monsey, L. M., Archer, M. M., Errett, N. A., Bostrom, A., & Baker, M. G. (2021). Health and safety risk perceptions and needs of app-based drivers during COVID-19. *American Journal of Industrial Medicine*, 64(11), 941–951. <https://doi.org/10.1002/ajim.23295>
- Benner, C., Johansson, E., Feng, K., & Witt, H. (2020). On-demand and on-the-edge: Ride hailing and Delivery workers in San Francisco. 5.
- Bryan, K., & Gans, J. (2019). A theory of multihoming in rideshare competition—Bryan—2019—Journal of Economics & Management Strategy—Wiley Online Library. <https://onlinelibrary-wiley-com.proxy.cc.uic.edu/doi/10.1111/jems.12306>
- Cohen, S. (1988). PERCEIVED STRESS SCALE. 2.
- Du, J., & Rakha, H. A. (2020). COVID-19 Impact on Ride-hailing: The Chicago Case Study. Findings, 17838. <https://doi.org/10.32866/001c.17838>
- Hawkins, A. (2020). Uber is doing 70 percent fewer trips in cities hit hard by coronavirus—The Verge. <https://www.theverge.com/2020/3/19/21186865/uber-rides-decline-coronavirus-seattle-sf-la-nyc>
- Jacobs, B., & Cherbonneau, M. (2023). Carjacking: Scope, Structure, Process, and Prevention. *Annual Review of Criminology*, 6:1, 155-179.
- Karpman, M., & Acs, G. (2020, June 29). Unemployment Insurance and Economic Impact Payments Associated with Reduced Hardship Following CARES Act. Urban Institute. <https://www.urban.org/research/publication/unemployment-insurance-and-economic-impact-payments-associated-reduced-hardship-following-cares-act>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9. *Journal of General Internal Medicine*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Manzo, F., & Bruno, B. (2021). On-Demand Workers, Sub-Minimum Wages. <https://illinoisepi.files.wordpress.com/2021/01/ilepi-pmcr-on-demand-workers-sub-minimum-wages-final.pdf>
- Spector, P. (1997). Job Satisfaction: Application, Assessment, Causes, and Consequences. <https://doi.org/10.4135/9781452231549>
- Stefano, V. D., Durri, I., Stylogiannis, C., & Wouters, M. (2021). Platform work and the employment relationship. 61.

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