



Platform based food delivery: HSE and accidents among bicycle couriers in Norway

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In only a few years, on-demand platform-based bicycle delivery have become common place in most Norwegian cities. Bicycle couriers take assignments through a digital app, and deliver food or goods to customers. The majority of couriers are freelancers, and get paid per delivery.

There are several conditions that suggest this group of transport workers are particularly risk prone. Firstly, bicyclists have a significantly higher accident risk compared to car drivers (Bjørnskau, 2021). Bicycle courier are therefore more vulnerable in traffic, compared to other groups, such as delivery van drivers, bus drivers, and truck drivers. Furthermore, bicycle injuries are underreported in Norway, indicating that the actual risk may be higher. The official injury statistics are based on police-reported accidents, which represent only a small fraction of actual incidents.

Secondly, bicycle couriers appear to have a weaker safety net than employees in traditional transport companies (Nielsen & Kongsvik, 2022; Christie & Ward, 2018)). While transport company employees typically receive health, safety, and environment (HSE) training and are protected under workplace health laws, most bike messengers in the platform economy are employed under atypical conditions, often as independent contractors or freelancers, and do not receive the same legal protections. This means they lack certain rights in cases of illness or injury related to work. Companies also do not have the same HSE responsibilities for freelancers and independent contractors, suggesting that safety efforts may not be as systematic and comprehensive as in more traditional transport companies.

Thirdly, many couriers experience high work pressure, both to deliver food or goods quickly and to secure enough assignments to meet hourly requirements. High stress and time pressure can negatively impact road safety by encouraging shortcuts that compromise traffic safety, such as neglecting to use safety equipment or speeding.

To date, knowledge concerning risk factors, accidents, and injuries for platform based bicycle couriers is very limited. In the current study, we aim to develop a better understanding of the accident situation for bike couriers, and investigate the relationship between workplace factors and accident rates. This includes examining the relationships between work place factors, accidents, stress and unsafe riding practices.



Method

In the present study, we triangulate different sources of data, including expert interviews with experts that are familiar with the food delivery industry (n=6), in-depth interviews with platform based bicycle couriers from the largest companies operating in Norway (n=15) and a survey among bicycle couriers (ongoing).

Informants were recruited through a combination of contact with union members, and snowballing method. Participants to the survey were recruited through online rider-groups on Facebook and Whatsapp, and through union member groups. In addition, a shorter version of the survey was administered in the field, where bicycle couriers were approached at restaurants where they pick up food. The survey is ongoing at present time.

In-depth interviews were conducted following a semi-structured interview guide. The guide included questions designed to explore the nature of the work, the incentive structure, the training bike couriers receive, the equipment provided and utilized, workload, stress levels, and incidents such as experienced accidents, near misses, and injuries. Additional inquiries focused on the physical and psychological strains associated with working as a bike courier. These questions aimed to uncover the broader context of their working conditions and the specific challenges faced daily.

The objective of the survey is to quantify accident occurrences and assess associated risks, with questions designed to explore traffic exposure, accident events, mechanisms, safety equipment utilization, and various risk behaviors.

Results

Initial findings from interviews indicate that minor accidents and near misses are quite common among bicycle couriers. Most informants we spoke with have had several minor incidents, and experience near accidents on a regular basis. Preliminary findings from the survey, which included responses from 71 bicycle couriers, reveal that 73% have experienced one or more accidents while working. Additionally, among those who reported accidents, 87% sustained injuries in at least one incidents.

Of course, these findings are preliminary, and are based on a quite small sample, as data is still being collected. Nonetheless, findings suggest that accident rates are high. More detailed analyses will be necessary to determine the accuracy of these initial findings. Moreover, we will also explore differences, for example between bicycle couriers that are employed and get paid by the hour and freelancers.

Discussion and conclusions

This study aims to provide new insights into the frequency and underlying mechanisms of accidents among bicycle couriers, as well as the factors contributing to these incidents. This is



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an ongoing study. Detailed analysis will be presented at the conference to thoroughly evaluate the impacts of these regulatory changes.

References

Bjørnskau, T. (2021). Risk in road traffic 2017/2018 (TØI-rapport 1782/2020).
Transportøkonomisk institutt.

Christie, N. and H. Ward (2018) The emerging issues for management of
occupational road risk in a changing economy: A survey of gig economy drivers,
riders and their managers, UCL Centre for Transport Studies

Nilsen, M., & Kongsvik, T. (2023). Health, safety, and well-being in platform-mediated
work—a job demands and resources perspective. *Safety science*, 163, 106130.