

oday, almost anything can be delivered straight to our door at the click of a button. It's become a convenience we rely on but there's a cost to this indulgence that Professor Nicola Christie is campaigning to raise awareness of through her research: the safety of the thousands of delivery drivers working in the gig economy (short-term and freelance jobs).

She's Professor of Transport Safety at UCL's Centre for Transport Studies and specialises in understanding safety through a public health lens, looking at the individual, social, economic and environmental factors that lead to collisions and casualties. In her 2018 paper, co-written with Heather Ward, The health and safety risks for people who drive for work in the gig economy, she highlighted the unacceptable level of risk that delivery drivers in vans and on motorcycles are exposed to and the lack of safety training.

Some of the results of this study are shown below.

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of respondents said there had been occasions while working when they've had to take action to avoid a collision

42% had been involved in a collision where their vehicle had been damaged

said someone had been injured, usually themselves **Professor Nicola Christie** highlights some of the issues associated with risks and road safety for the thousands of delivery drivers working in the gig economy

Professor Christie then looked specifically at the risks to motorcyclists, as she explained: "Motorcyclists are one of the most vulnerable groups on the road. In London, for example, motorcyclists are reckoned to be 80 times more likely to be involved in a collision compared to car occupants, so I wanted to know if working in the gig economy put them at more risk.

"We did surveys and interviews with motorcyclists who were working through the gig economy and getting their work commissioned via an app. The findings were very stark: they had no road safety training, had no protective wear apart from helmets and reported more traffic violations – such as speeding and running red lights – as well as being involved in crashes.

"In the UK, you only need a day's training to drive a motorcycle but that doesn't prepare someone who's working in a complex urban environment with high cognitive workload and distractions, which we know are the causal pathway for collisions. "They're also under pressure to accept jobs that they get notified about on their phone while they are driving because if they don't accept that notification within a certain time period, it's regarded as a rejection of that job. If they get too many rejections, they can get kicked off the system.

"People in the gig economy work under a very particular set of circumstances. It's predicated on pressure: the more you deliver, the more you earn but this leads to fatigue. One of our participants in the study said he was working 12-hour shifts every day for the three weeks up to Christmas. We have regulated working hours for professional drivers but there's no regulation for workers in the gig economy.

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> "From a human factors point of view, I see this situation as the perfect storm of risk factors."





International Association of Traffic and Safety Sciences in Japan, said the gig economy is a global phenomenon. Work is under way in various countries to provide more support, from smart helmets being piloted in China to a firm in Belgium which is mapping driver behaviours through telematics.

Professor Christie said: "We need more research and to also learn from what's happening in other countries so we can provide evidence of the risks to stakeholders. The smart helmet is an interesting concept as it means the driver isn't distracted by looking at their phone, and the helmet will also record crash incidents – but will a voice speaking through the helmet provide another distraction?

"Telematics is a good way to pick up on driver behaviours in a causal pathway, such as braking, acceleration and speeding, so if those behaviours are within an unacceptable limit, then there's feedback to the rider. However, I've done some other work on telematics in the delivery sector and it doesn't really seem to make a difference because its primary function is being used to track where delivery drivers are and manage customer expectations, rather than prioritising safety."

She believes her research has only uncovered the tip of

Ergonomics & Human Factors 2025

Professor Christie will deliver this year's Broadbent Lecture, titled *Managing Occupational Road Risk: Are We There Yet?* To find out more about Ergonomics & Human Factors 2025, visit conference.ergonomics.org.uk

the iceberg, and two things are needed to understand the size of the problem: more data on nearmiss and crash statistics and for all stakeholders to come together to work out who needs to take some responsibility for driver safety.

Professor Christie, a member of the Parliamentary Advisory Council for Transport Safety and a member of the Department for Transport's College of Experts, is also President of the London Road Safety Council, and she's been heartened by the fact Transport for London (TfL) has set up a Meal and Grocery Delivery Company Motorcycle Road Safety Charter in collaboration with the industry.

She said: "TfL used my research to develop its voluntary charter for food delivery on motorbikes with five gig companies so that, to me, is a real plus. I hope that this type of collaboration will help to identify ways to reduce death and serious injury among riders and provide a set of principles that delivery companies can commit to."

However, she believes this needs to happen on a more strategic basis, as she explained: "We need to work with stakeholders to discuss who takes or shares some responsibility for road safety. It's not just down to the riders themselves but should be wider. The responsibility should be shared through taking a systems approach, from the people who create the work, the gig workers who take on the deliveries and right through to the regulators as well so we develop safe working conditions for

gig workers."

Professor Christie argues that if these people were employees of a company, they'd be given safety training and delivery protocols, plus extra equipment such as high-vis clothing and adaptations to their vehicles where they can safely receive and review delivery orders while in transit. However, working within the gig economy means they're effectively self-employed so there are no safety protections in place.

She added: "No one is taking responsibility for the safety of these workers. They are generating profit for organisations, but the companies, together with the Health and Safety Executive, will argue that they're self-employed, and these workers' safety is not their responsibility, but it's the very nature of the high-pressure work they are undertaking that's causing these safety issues.

"The gig companies say they're just a platform and they're simply brokering the work to the gig workers, but the gig companies are the ones that give gig workers the job: they tell them what to deliver and where to go and even evaluate their performance. So, if that's not acting like an employer, I don't know what is."

Professor Christie, who is also an International Fellow for the