

Dying for data:

How the gig economy public data deficit conceals £1.9 billion in wage theft, runaway carbon emissions, and a health & safety catastrophe

September 2024

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Worker Info Exchange is a non profit organisation dedicated to helping workers access and gain insight from the data collected from them at work.

“ ADCU welcomes this report and urges TFL and the Mayor to take on board its findings and implement its recommendations across all operators as their licences come up for renewal...The lack of transparency for ADCU and TFL over driver data is a double whammy for the industry and puts London to the back of the line compared to major cities across the globe when it comes to regulating this industry.

Zamir Dreni, London Chairman, App Drivers and Couriers Union



“ This report’s shocking findings are likely just the tip of the iceberg and underline the urgent need for proper public data sharing to ensure the gig economy’s operations are not having a detrimental impact on workers, public health and safety and the environment.

Robust public data sharing should be a condition of any operator’s licence and TfL must make this a priority to address the serious issues laid bare in this report.

Steve McNamara, General Secretary of the licensed Taxi Drivers Association



“ Since the introduction of app-based private hire services, the London Cab Drivers Club has raised concerns in relation to the model’s impact on drivers, public safety, and urban congestion. This document highlights those concerns, including exploitative working practices, the oversaturation of private hire vehicles leading to congestion, and worrying public safety issues...[and] recognises the benefits of data in shaping a more robust regulatory framework.

Grant Davis, Chairman, London Cab Drivers Club



“ Uber’s ethos is to operate as a disruptive company driving the race to the bottom, both in terms of wages and terms & conditions. As a regulated TfL company, it should have to adhere to much higher regulatory standards in order to ensure it meets its duties to its workforce.

Unite would be in support of any measures which improve working conditions for private hire drivers in London. Unite has experience of the detrimental impact of the long hours culture, used to suppress wages and incomes in other sectors of the passenger and road transport sectors.

Jim Kelly, Chair of London and Eastern Unite the Union, Cab Section



“ As Uber seeks to renew its licence to operate in London, our city has a real opportunity to tackle road danger related to driver fatigue and to curb congestion and rising carbon emissions. Transport for London should seize the opportunity of this negotiation with Uber to learn from New York and to insist on critical data sharing to support limits to driving time to avoid fatigued drivers having to work very long hours driving around London’s streets waiting for a fare.

Every element of transport in London should be working to reduce road danger, to cut emissions and protect workers’ rights, that has to include the private hire fleet.

Caroline Russell, Deputy Chair of London Assembly Transport Committee

“ Understanding the nature and depth of the wage theft involved in platformization is a wake up call for policy makers and trade unions. Filling the intentional data gap about the costs of this business model can only ever be done through socially engaged research and for this reason we are indebted to Worker Information Exchange for doing the work.

Dr Elizabeth Cotton, Surviving Work,

“ If cities and their residents want safer roads, cleaner air, and a fair deal for drivers and couriers, they need key data to be made publicly available. This will enable us to hold gig work platforms accountable for their impacts on our streets today, and make informed choices about what they will look like tomorrow.

Dr Reuben Binns, Associate Professor of Human Centred Computing, University of Oxford

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1. EXECUTIVE SUMMARY

London and other UK cities are lagging far behind their international peers who successfully acquire all journey data from high-volume private hire passenger and food delivery platforms. They make this data publicly available, after effective anonymisation, in their city's open data banks. It is time for the UK to catch up.

The data is actively used by regulators and other stakeholders in New York, Los Angeles, Chicago and São Paulo to find a fairer compromise between private profit and the public good for their cities.

Similar access to journey data and algorithmic transparency is essential here in the UK if we are to tackle the mounting external costs of high-volume, high-impact gig economy services.

Uber's global target is 4 minutes from order to pick up while Deliveroo aims to deliver food on the doorstep within 30 minutes of order. But instant response to individual transport demand is operationally inefficient with data showing 38-40% of driver and vehicle time and distance travelled is wasted.

This inefficiency in turn has a devastating effect on pay and working hours, the environment and safety on our roads.

In the absence of publicly available journey data in the UK, we have used data mandated from platforms in cities such as New York City and Chicago, as well as our own data derived from subject access requests, and operator carbon reporting, to arrive at an estimation of the externalised costs of platform services borne by workers and local communities.

Our main findings are:

Public data deficit conceals £1.9 billion in wage theft suffered by workers, their families and communities in 2023

- 38-40% of the total time and distance worked and travelled by rideshare and food delivery workers is wasted driving around or waiting for work.
- Already low paid gig workers lost £1.9 billion in unpaid, unutilised working time and associated out of pocket operating costs in 2023.
- Due to deteriorating utilisation rates and platform operating inefficiencies, a gig worker may be only paid for between 4 and 6 hours for every 10 hours of working time.
- Gig platform operating inefficiencies cost workers an estimated equivalent of 8,000 years in unpaid time last year.

Public data deficit conceals a dangerously fatigued workforce

- As a result of employment misclassification and platform operating inefficiencies, workers are kept on the road for dangerously long hours with serious risk of fatigue related road traffic collisions.
- Uber operates at a lower standard for fatigue safety management in the UK to permit extended working hours that the company prohibits elsewhere including in New York, California, Australia and New Zealand. Other platforms policies are either non-existent or permit dangerously long hours.
- Regulators across the UK have failed to address the growing fatigued driving risk. This despite the direct intervention of a Coroner who called for regulatory control after an inquest was held into a motorcyclist death, caused by a fatigued private hire driver.

Public data deficit conceals community harms of rampant carbon emissions and urban congestion

- Uber's reported UK carbon emissions - up 65% in 2023 - are on course this year, if present growth continues, to exceed Transport for London's emissions from its entire transport operation including bus, rail and underground.
- High volume rideshare and food delivery estimated vehicle miles travelled in Britain last year totalled 5.1 billion.
- The excess emissions associated with platform operational inefficiency amounted to 370,000 tonnes of Co2.
- Platform inefficiency caused an estimated extra 2 billion vehicle miles of traffic on our already congested streets last year.

But our research and analysis is no substitute for public access to high-volume operator journey data and, given the scale of the problems posed by the operation of these services in our cities, there is no excuse for continued regulatory inaction.

Uber's license to operate is due for renewal in London in September 2024 and the mayor and Transport for London must demand public access to rideshare & delivery journey data as a condition of license renewal. Going forward, this should be a condition of license for all high-volume publicly licensed private hire operators.

Even without a regulatory requirement, passenger and food delivery platforms should voluntarily provide public access to their journey data in the same way that they currently must in New York, Chicago and elsewhere. Good corporate citizenship demands no less.

Trying to manage the future of transport in our cities without access to journey data is like trying to drive a car looking only in the rear-view mirror. With a level informational playing field, all stakeholders can work together to make more balanced, proactive and fair decisions about the future cities we all want to live in.

“ —

We commit to helping cities leverage our technologies to build smart, safe and more sustainable urban mobility networks, with transparency of our systems and without ever compromising user privacy.

Dara Khosrowshahi, CEO Uber and Wayne Ting, CEO Lime,

September 2021

2. Recommendations



Local licensing authorities should mandate the public sharing of data in city public data stores of all journeys undertaken by high-volume private hire passenger transport and food delivery platforms. The data should also be supplemented with meaningful algorithmic explanation.

We define high-volume as any private hire or food delivery operator servicing more than 10,000 bookings per day in a major urban area with populations greater than one million people; and 5,000 for regional cities with populations of less than one million people. The main operators that we believe meet this definition are Uber, Bolt, Gett and Free Now for passenger services and, Just Eat, Deliveroo and Uber Eats for food delivery platforms.



Make compliance with public data access, algorithmic transparency and worker rights a condition of license.

Local licensing authorities already have wide discretion to apply conditions and/or enact secondary legislation to require compliance with such requirements. To clarify and strengthen these powers to regulate requirements for private hire passenger and food delivery platforms to provide journey data and respect worker rights, the Department for Transport should enact any necessary additional enabling legislation and issue statutory guidance to local authorities.

RECOMMENDATIONS



Impose capacity controls to limit harms of on demand business model for transport and delivery services.

A decade into the gig economy it is clear that on demand services maintain very poor fleet utilisation rates. Such services are proven to cause congestion and not alleviate it. Neither surge pricing nor dynamic pricing have solved the problem. The introduction of autonomous vehicles for robo-taxi services is set to worsen the problem. Local authorities must introduce capacity limits to improve overall fleet utilisation. These caps should be applied to driver rather than vehicle licensing to avoid the distorting effect of a secondary market for vehicle license plates.

Local authorities do not have explicit authority to refuse licensing today but they do have wide discretion to introduce policies to improve fleet utilisation, for example, by setting variable license fee incentives. Poor fleet utilisation rates could be punished with increased licensing costs in order to shape better behaviour.

The Secretary of State for Transport should introduce appropriate legislation and issue associated statutory guidance to allow authorities in England to limit licensing to meet reasonable demand.



The government should legislate for worker status protection in its upcoming employment bill.

Despite years of endless consultations under the last government, the new government is planning still more consultation on employment status before introducing badly needed reforms to end the scourge of gig economy wage theft, exploitation and unsafe working practices.

The government must not dither and delay further but introduce legislation, as promised while in opposition, to curb rampant employment misclassification in the gig economy.

3. Journey data sets for the public

WHAT DATA SHOULD BE PROVIDED BY PLATFORMS

Data

- Anonymised journey data for high-volume online platform private hire passenger, food delivery services including time, duration, distance, pay, fare and occupancy number.
 - Journey GPS routing data should also be provided with origin and destination.
 - The data should be aggregated and /or effectively anonymised before publication.
 - Breakdown of journey phase durations: Time waiting for dispatch (phase 1), time enroute to start (phase 2), time on journey/delivery (phase 3).
 - Breakdown of journey distances: Distance while waiting, distance enroute, distance on journey/delivery.
 - Vehicle type including fuel (EV, hybrid, combustion, hydrogen, LPG) and level of automation (L0-L5 from completely manual to completely automated).
 - Monthly average passenger occupancy
-

Algorithmic explanation

- Meaningful algorithmic explanation of work allocation/dispatch, fare & pay setting.
- Meaningful algorithmic impact risk assessment and mitigation relating to potential harms to the rights and freedoms of workers, customers and the community

“

For example, our data shows the impact on travel times of moves like the closure of Tower Bridge in 2016 which could be useful when similar projects are planned.

Under Uber's new leadership we want to be a better partner to city planners and regulators, so we hope this data will help give them valuable insights for the future.

Fred Jones, General Manager Uber UK on launch of Uber Movement UK in March 2018, a public data scheme criticised over its failure to share genuinely useful information.

Uber quietly shuttered the global programme in October 2023.

4. Introduction



Transport is big *public* data.

Transport data generated by workers and consumers using gig economy apps and the logic of the algorithms directing their operations must be shared on an open basis for access by city planners, trade unions, community groups and civil society.

Gig economy delivery and transport workers, and their communities find themselves at the apex of the many problems our cities are struggling to tackle.

Issues like precarious employment, low pay, road traffic danger, urban congestion, poor air quality and the effects of climate change are all part of the daily at-work experience.

The digital transformation of modern urban services like food delivery and passenger transport was supposed to herald an era of greater environmental efficiency, road safety, employment flexibility and transparency yet too often the opposite is the case.

INTRODUCTION

Given the scale of impact from passenger transport and food delivery apps such as Uber, Bolt, Free Now, Deliveroo and Just Eat, the public sharing of data and meaningful explanation of the operational management algorithms in the public domain are crucial to solving these pressing challenges.

These app-based services have leveraged a competitive advantage from an asymmetry of information. Opacity has facilitated a business model reliant on an oversupply of vehicles to service an on-demand marketplace and the exploitation of workers often trapped in debt and in-work poverty.

But experience in other, more transparent public markets shows that such services can easily operate profitably without reliance on an inefficiency and an excess of negative externalities for workers and their communities. The solution lies in transparency, accountability and corrective incentives - whether capacity limits or service taxes to incentivise more efficient operations.

Tackling UK regulatory infantilism

Local government administrations already have considerable powers to demand that app-based companies provide data for public use.

Perhaps even more importantly, local politicians have soft power to challenge and persuade the platform companies to do the right thing and provide the necessary transparency in the public interest just as they have done in New York, Chicago, Seattle, California and elsewhere.

Uber alone has, both voluntarily and by power of regulation, provided data to 54 cities in the USA and Canada alone, yet, here in Europe, almost nothing is publicly shared. The regulatory purpose of transport licensing is public safety but without open access to data that objective cannot be fulfilled.

Despite the growing problem of driver fatigue risk in the gig economy and the resultant tragedy on our streets, local authorities have neglected their duty by not insisting on the provision of this data so this risk can be managed. Central government has failed to provide statutory guidance to insist upon it.

What about privacy and public data sharing?

It is true that the data protection of workers and service users is paramount and journey data must be effectively anonymised before release to the public domain. Such data must be stripped of all personal identifiers and aggregated at location and fare level. Technologies can be used to inject noise into the data for further anonymization without degrading the quality of analysis.

INTRODUCTION

Uber has innovated to deal with this very problem with the development of their so-called elastic sensitivity tool available on an open-source basis which was co-developed with researchers at the University of California.

The anonymisation mechanism, Diffix, which was tested using the New York City taxi public data set, is able to effectively anonymise data so as to make it “extremely unlikely” that individuals could be isolated or identified. The benefits of Diffix are recognised by the French data protection authority CNIL.

Other cities have already begun using technologies to share data safely. The City of Amsterdam, Utrecht, Eindhoven, Rotterdam and The Hague have innovated a mobility data sharing standard with privacy-by-design principles baked in.

While platforms may complain that public data sharing of effectively anonymised data risks compromising personal privacy, many of them are anyway already trading our personal journey data for ad clicks. Uber’s own privacy policy says, “We share data... including advertising or device identifier, hashed email address, approximate location, current trip or order information, and ad interaction data...with these intermediaries to enable their services.”

London can lead the way

Uber’s operator license comes up for review by Transport for London (TfL) in September 2024. TfL is one of the largest regulators at scale of app-based transport services, not only in Britain and Europe, but in the world. If TfL acts, it sets the agenda for other regulators. On the other hand, if they fail to act, it has a dampening effect on the development of regulation elsewhere.

In a decade since the advent of the mobile-tech enabled gig economy, big government has largely failed to tackle the worst abuses of the sector. Some of the most effective interventions have been at the grassroots level by local communities, trade unions and by the collective action of the workers themselves. Local empowerment as a force for social justice can be turbo-charged by the unleashing of open transport data.

Trade unions, local boroughs, wards and community groups can and should directly demand accountability from the passenger transport and food delivery apps.

As Deliveroo puts it: “food delivery is a hyperlocal business. We think about our offer to consumers on a neighbourhood-by-neighbourhood level.” We need to think about local platform accountability in just the same way.

The cost of excess labour and vehicle supply by high volume food and passenger service platforms.

High volume platform operators	Consumers	Workers and independent restaurants	Local communities
Network effects for a competitive advantage in faster response times	Lower prices overall at least initially until the platform dominates	Ease of access to work for workers and custom for restaurants	Increased traffic congestion
Strengthened bargaining position to force pay and other costs lower	Faster service response at all hours	Less work/custom as network grows	Worsened climate impact due to vehicle emissions & effect on congestion
Increase profits with surveillance based dynamic pay and pricing systems targeting individuals and groups	Intrusive surveillance for exploitative dynamic pricing	Lower pay as network grows	Worsened local air quality
Dominant, monopolistic platform market position with strong network effects for strongest players		Longer working hours due to lower pay & utilisation	Greater risk of road traffic accidents
		Greater risk of road fatigue related accidents & pressure of algorithmic management to respond faster to customer demands	Economic deprivation due to excess wealth transfers, lower pay, higher operating costs & economic costs of congestion.



After conducting analysis of rideshare public data sets, the New York City Taxi and Limousine Commission introduced regulations in 2018 to target both the problem of fleet under-utilisation and the resultant lower overall pay for drivers.

The rideshare platforms are now newly regulated to observe a pay floor for all driver working time, including standby time, and they are further penalised for poor fleet utilisation.

It is a win-win-win situation: the platform rideshare operators have regulatory certainty and the correct economic incentives to make more efficient use of their fleet; the workers benefit from higher pay from more regular work; New Yorkers win because authorities have reduced congestion while keeping fares affordable and without any material degradation in service.

The regulatory authority now has the information to make smarter decisions, based on real data, to periodically review how many vehicles it is appropriate to license at any one time.

5. Data deficit conceals £1.9 billion in wage theft

5.1 MAXIMUM MARKET OPTIMISATION CREATES MAXIMUM OPERATIONAL INEFFICIENCY

Gig economy platforms are amongst the biggest workplace data collectors in the world. They collect billions of data points on workers, their movement and behaviour, and use this data to optimise their operations for a rapid response to consumer demand.

How, when, and which workers are dispatched is algorithmically determined to maximise profit at minimum cost – the highest price for them at lowest pay to the worker.

However, they are only able to do this through the denial of worker rights, an oversupply of unpaid labour, and constant excess of standby vehicles. Rideshare drivers and delivery workers must remain available on their apps and on our roads at all moments to serve platform interests but are not compensated for this waiting time.

This phenomenon is perhaps best put by the Employment Tribunal Judge Snelson, quoting Milton, in their ruling against Uber in 2016: “they too serve who only stand and wait”.

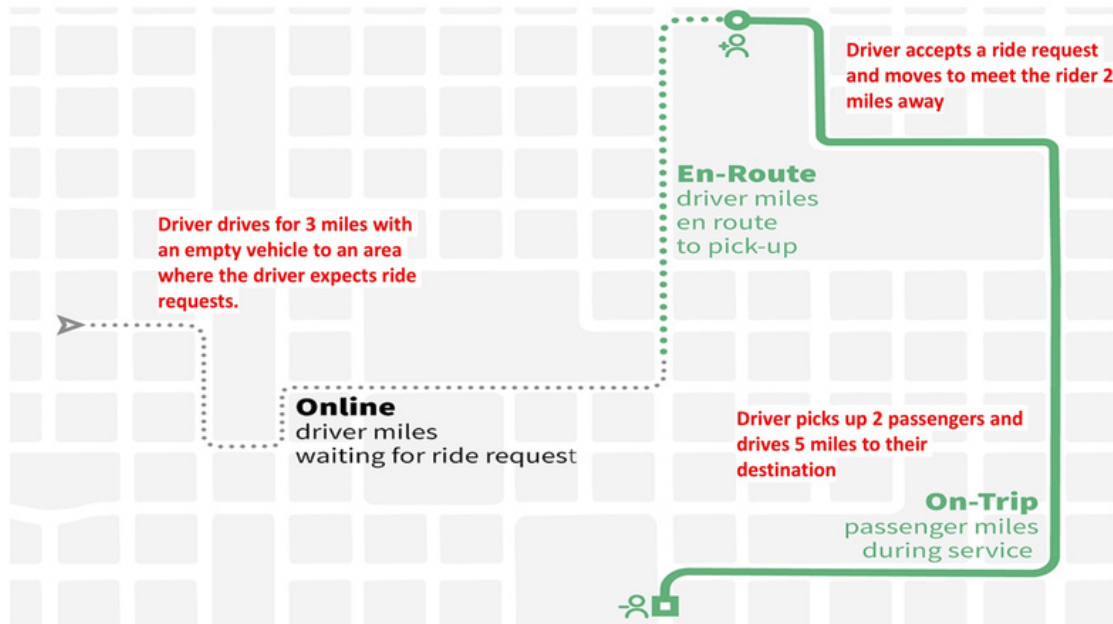
By our estimations, rideshare drivers average 4 million journeys per week across the UK, and delivery workers average 1.7million journeys. We argue there is a total economic loss to workers and communities in lost wages and costs of £1.9 billion.



DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

5.2 SHOWING OUR METHODOLOGY

The three phases of gig work on shift



Source: Michiko Namasu, [Uber under the hood](#) derived from Fehr & Peers.

Throughout this report we will discuss how worker time and distance of transport service is analysed. We will refer to the industry practice of understanding this time and distance in three distinct phases of work known as P1, P2 and P3.

- Phase 1 (P1) - standby
- Phase 2 (P2) - time enroute to the passenger or convenience delivery pick up
- Phase 3 (P3) - time spent on task with a passenger or package enroute to the destination

In a [blog post](#), Uber's Senior Data Scientist for Sustainability uses the above illustration to explain the P1, P2 and P3 phases of a typical journey for a passenger or delivery worker.

Using this example, we can see that rideshare drivers and couriers must generally bear the time and distance cost of five miles of travel before earning pay for the required passenger or delivery journey of five miles. At a mileage utilisation of just 50% it is a stark example of platform inefficiency. In comparison, private car journeys avoid P1 and P2 entirely while ranking taxis can eliminate P2 miles and greatly reduce P1 miles.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Using reported carbon emissions to estimate vehicle miles travelled and hours worked

Our goal is to estimate the economic loss experienced by gig economy workers due to platform operational inefficiencies leading to wasted time and miles during work mode periods P1 and P2.

For rideshare, our approach is to start with Uber's reported UK emissions and its carbon per passenger mile metric. We then apply qualified assumptions about average vehicle occupancy and utilisation to calculate vehicle miles travelled in P1 (standby mode), P2 (enroute to pick up mode) and P3 (on journey with passenger or package). Using market share data, we assemble a total industry analysis.

Next, we adjust this total to account for any double counting of miles due to drivers working on more than one app at the same time. Finally, we calculate the lost pay from working time unpaid in P1 and P2 and the out-of-pocket costs paid by workers for miles not reimbursed.

We take a similar approach for the food delivery sector by similarly flexing carbon data reported by Just Eat and Deliveroo.

It is important to note that this method cannot give us a complete understanding of the losses borne by workers for P1 and P2 because we cannot capture the additional working time spent waiting in a stationary position.

This discrepancy is likely to be a more significant factor for food delivery riders and for rideshare drivers working in more densely populated urban areas. In short, the financial loss to workers we estimate is a great deal more than we can estimate from just miles and carbon.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

5.3 CALCULATING LOSSES TO RIDESHARE WORKERS

Starting from Uber's carbon reporting

Having collaborated with the World Resources Institute, the originator of the Green House Gas protocol, Uber's reporting for their rideshare division is more developed than their competitors. The ESG report is independently assured by LRQA and the reporting of carbon accounts for all miles travelled for P1, P2 and P3 from log on to log off.

It is significant that Uber monitors and takes management responsibility for carbon emissions for P1 but still does not pay workers for this time and distance.

Uber reports 616,159 tonnes of Co2 equivalent emissions for its UK rideshare and delivery business in 2023. The report fails to break out delivery emissions from rideshare but says that the bulk of them come from rideshare mobility.

From carbon intensity metric to vehicle miles travelled

The LRQA independent assurance statement declares a carbon intensity metric for Uber of 191 gCo2 per passenger mile for its European transport operations in 2023.

Since Uber does not provide an intensity metric for delivery, we will take the conservative approach and apply the same metric for delivery.

We have deducted 27,909 tonnes of CO2 for the delivery business to arrive at an estimate for the UK rideshare business emissions as 588,250 tCo2. This is an estimate based on the Uber Eats UK market share relative to Just Eat and Deliveroo.

From this carbon emissions number, we calculate 3.1 billion Uber UK passenger miles were travelled (PMT) in 2023 during P3 time.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Occupancy

To calculate vehicle miles travelled (VMT) in P3, we divide PMT by the average number of passengers carried. However, Uber does not disclose the UK vehicle occupancy rate so we must turn to other sources.

In 2019, the California Air Resources Board conducted an occupancy survey of rideshare vehicles to determine occupancy. The survey involved 42 drivers over 2,418 non pooled fares to calculate an occupancy average of 1.54 for non-pooled rides.

Neither Transport for London nor the Department for Transport report occupancy data regularly. However, TfL commissioned surveys in 2006 and 2010 which found that two out of three private hire vehicle journeys had just one passenger. This suggests that occupancy in London may be as low as 1.33 but we take a more conservative approach and use 1.54.

We calculate that there were 2 billion vehicle miles travelled in P3 time by UK Uber rideshare drivers in 2023.

TfL-licensed private hire vehicles could fill all three eastbound lanes of the M4 from London all the way to Bristol.

TfL private hire licensing figures. Based on average vehicle size, parked with normal spacing from Chiswick Circle to Bristol exit.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Estimating vehicle and worker time utilisation - Worker Info Exchange data analysis

Having calculated P3 mileage, we must now consider what proportion of an average UK Uber journey is apportioned to P1 and P2 to calculate dead miles and time.

We can think about utilisation in terms of time in each work mode or distance in each work mode. The carbon data relates to miles and movement so ultimately, we must make our estimated on that basis.

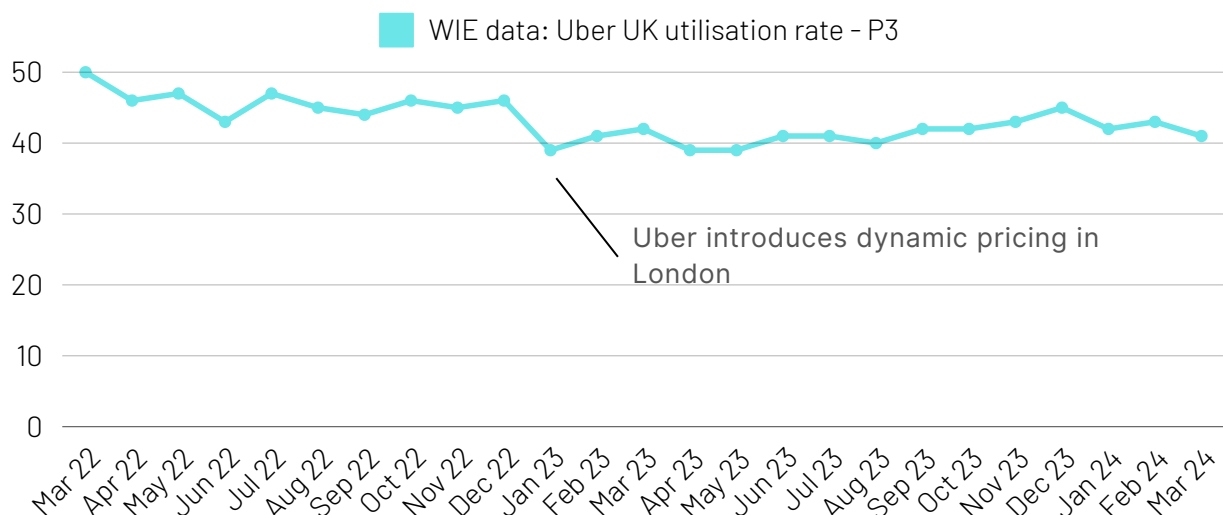
However, time in each mode is also very relevant particularly since workers may spend a lot of time stationary with their vehicles while waiting for work or travelling at low speeds in congested urban areas.

We start with the data from our own data trust of Uber drivers we represented in accessing their personal data through subject access requests.

The data includes the time duration for around 300,000 trips between 2022 and 2024. Our analysis found that that drivers average P3 utilisation rates for time on shift have declined over the period to around 41%.

By comparison, the current annual average P3 time utilisation rate in New York is 54.9% for Uber and 53% for the industry average where presently there has been regulatory intervention to suspend new licensing until utilisation improves.

While we cannot solely rely on WIE data, because it is a much smaller sample compared to the scale of industry data collected and made public by regulators in New York, Chicago and California, there is clear indication that utilisation rates are on a downward trend in the UK.



DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

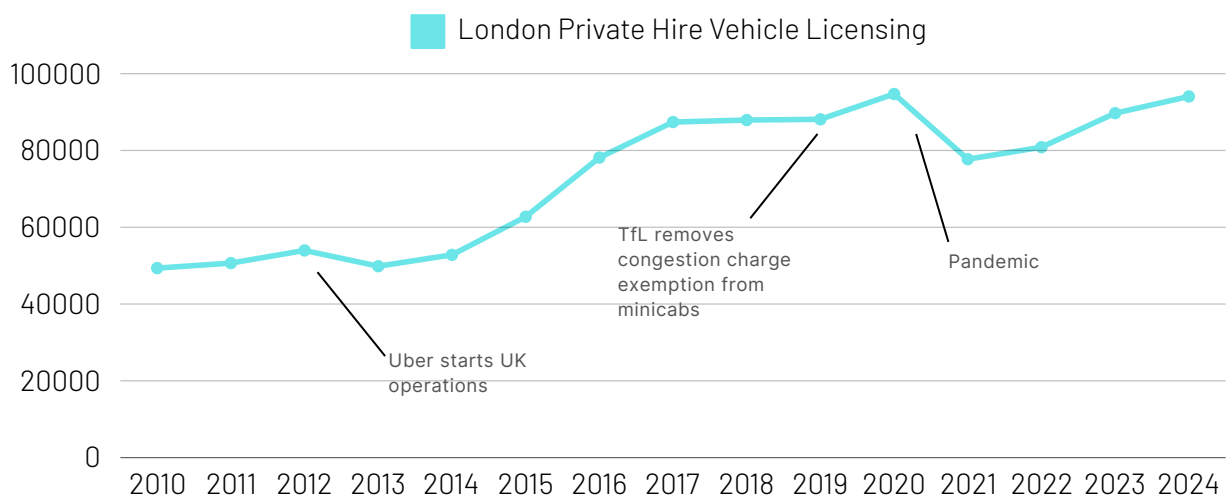
Downward forces on UK utilisation of time – no licensing limits & algorithmic pay

There are two possible reasons for the downward trend in utilisation we see in the UK from WIE data. The first is the rapid expansion of capacity in the London market with licensed vehicle numbers up 16% since January 2023. This is consistent with Uber's rapid expansion of reported UK carbon emissions with an increase of 65% in 2023, although the true volume increase is closer to 35% after we adjust for changes in Uber's carbon reporting methodology.

Prior to 2023, Uber reported carbon emissions on a tank to wheel (TTW) basis which does not account to CO₂ associated with fuel extraction, refining and transportation. In 2023, Uber changed its methodology to the well to wheel (WTW) which accounts for the full lifecycle footprint. This latter method becomes increasingly important as the industry shifts to electric vehicles and CO₂ emissions are shifted upstream.

Transport for London intervened in the market in 2019 to reduce the congestion charge exemption from private hire drivers. This has had little apparent impact on reducing the number of private hire vehicles licensed.

This suggests that future road pricing initiatives aimed at drivers rather than platforms or their consumers are unlikely to be effective in reducing congestion or improving driver pay. The independent integrated impact assessment from TfL's 2019 decision correctly predicted that platform power over labour would mean that a great deal of the cost would be borne by workers rather than passed on wholesale to passengers.



DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

The second potential contributor to the decline in utilisation is the introduction of dynamic pricing by Uber in the UK in Q4 2022 and Q1 2023. Excess capacity in the market gives operators greater opportunity to engage in what the US Federal Trade Commission has called surveillance pricing for customers, while at the same time engage in what law professor Veena Dubal of the University of California describes as algorithmic wage discrimination for workers.

Workers without the protection of statutory employment rights, who provide transport service capacity to platforms are vulnerable to discriminatory practices such as dynamic pay setting systems.

The widespread use of such technologies rolled out across the industry recently which can personalise pay for the lowest rate the system predicts they will accept. Customers can similarly be personally profiled to predict the highest price they are likely to pay under a given set of circumstances.

In litigation brought by Worker Info Exchange against Uber on behalf of drivers, the judgment noted that dynamic pay systems "*taken as a whole, affects the drivers to a considerable extent. This system is applied to every passenger they carry. These are therefore successive decisions, each with financial consequences that determine the income they can earn.*"

With an excess inventory of supply on hand that cost platforms nothing, they can charge customers a premium for a fast, reliable response while paying drivers less because of an excess supply of labour.

In a recent earnings call, Uber CEO Dara Khosrowshahi explained to investors: "*as driver supply improves, surge comes down, ETAs improve, the service itself becomes more compelling....more driver supply brings down prices for riders and improves reliability.*"

As such, profit maximisation for platforms is not aligned with efficient utilisation of worker's time and that of their vehicles.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Estimating vehicle and worker time utilisation - using international benchmarks

The California Air Resources Board analysed all ride share data submitted to the industry regulator, the California Public Utilities Commission for 2018. The data set included 365 million trips from 642,000 vehicles covering 4.3 billion vehicle miles travelled (VMT).

The average utilisation of vehicle miles travelled was 27.8% for P1 standby, 10.8% P2 enroute to pick up and 61.4% for P3 on journey with passenger.

A further study was conducted by [Fehr and Peers](#) on behalf of Uber and Lyft to measure vehicle travel miles and utilisation of their fleets for the month of September 2018 across six metropolitan areas including Boston, Chicago, Los Angeles, San Francisco, Seattle and Washington DC.

The average utilisation, after adjustments to account for duplication of miles due to driver multi-apping, was consistent with California results at 28% for P1, 10% for P2 and 62% for P3.

On balance, we think it is reasonable to use similar P1, P2 and P3 mileage-based utilisation rates as recorded in the US for the purposes of estimating the externalised cost of dead miles and time for rideshare in the UK.

This is a conservative approach with our own data suggesting that utilisation may be much worse in the UK.

When we apportion accordingly, we can calculate Uber UK's P1, P2 and P3 for total vehicle miles travelled as 3.2 billion miles in 2023.

Work mode	Ratio	VMT (mio)
P1(standby)	28%	903
P2(enroute)	10%	323
P3(on journey)	62%	2,000
Total Uber UK vehicle miles travelled		3,225

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Industry wide analysis

Although Uber dominates the UK rideshare market with 76% market share, we must consider the impact of the industry as a whole.

Using industry market share data, we can derive 2023 carbon and mileage estimates for Bolt, who do not report carbon emissions at all, and for remaining others.

We apply the same carbon intensity metric of 191gCO₂ per mile and make the same occupancy assumption of 1.54 passengers per journey.

Before we calculate an estimate of the industry wide economic cost to workers for P1 and P2, we must make an adjustment for any double counting of vehicle miles travelled from drivers multi-apping, ie. simultaneously making themselves available for work on multiple platforms such as Uber, Bolt and others.

The ability to multi-app is somewhat limited by the management control exercised by platforms in the form of both carrots and sticks. For example, drivers with higher performance ratings can enjoy preferred access to premium jobs associated with the Uber One consumer subscription service and, those who cancel jobs due to multi-apping, can be deprioritised.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

In the Fehr and Peers study, the calculated reduction in overall VMT to account for multi-apping ranged from 7% for some multi-apping to 13.6% for always multi-apping.

Accordingly, P1 ranged from 37% for always multi-apping, 33% for some multi-apping and 28% for always multi-apping. P2 remains stable at around 10%.

As the structure of the market in the US is not dissimilar to the UK, with Uber holding 76% market share to Lyft's 26%, Uber in the UK also holds 76% market share compared to Bolt's 20%, so we will use the same overlapping adjustment.

Taking the most conservative approach, we adjust UK VMT with P1, P2 and P3 to yield an estimated 3.7 billion rideshare vehicle miles travelled in 2023.

Platform market share	ktCO2	Total VMT	VMT adjusted for 13.6% multi-apping overlap
Uber 76%	588.3	3,225	2,787
Bolt 20%	154.8	849	733
Others 4%	31.0	170	147
Total	774.0	4,244	3,667

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Estimated lost pay and costs for rideshare workers

Of this 3.7 billion miles travelled, up to 38% of worker time and incurring costs goes unremunerated.

We must adjust our sums downward to account for Uber's commitment to take responsibility for costs and working time for P2 after the UK Supreme Court ruling. Uber does not pay workers for P1 miles and cost. Bolt does not pay for P1 or P2 miles, time and cost.

From P1 and P2 vehicle miles travelled, we calculate unpaid working time by assuming an average speed of 20mph for P1 and P2 vehicle miles travelled (VMT).

We believe this is conservative given that average traffic speeds in London, where a great proportion of Uber's UK business is located, is just 10mph.

Many urban centres now have 20mph limits and stoppage time for pick up, drop off and traffic lights reduce average speeds. It is important to note here again that since carbon and motion drives our cost estimates, we are not counting for time lost when the vehicle is stationary, waiting for a job or, capturing stoppage at traffic lights or in traffic jams during P1 and P2.

We have costed lost time at £15 per hour to also include additional employment costs above the effective minimum wage such as national insurance and pension costs.

We cost the dead miles at 45p per mile which is the HMRC reimbursement rate and the rate that Uber recognises for P2 miles. Again, this costing is conservative because the HMRC rate has not been adjusted for inflation since 2011. (Although the personal miles reimbursement at work is not appropriate for commercial vehicles working for hire and reward where the rate should be significantly higher.)

Our conservative total estimated losses for rideshare workers from wage theft and out of pocket expenses in 2023 is £1.29 billion.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

	P1 & P2 dead VMT (mio)	Unpaid hours at 20mph (mio)	Lost pay at £15ph (mio)	Fuel cost at £0.45 per dead mile (mio)	Total Losses to workers (mio)
UK rideshare	1,393	70	£1,045	£627	£1,285
Uber P2 deduction	-279	-14	-£241	-£145	-£387
Total	1,114	56	£804	£482	£1,285

*These figures reflect that Uber, unlike other companies in the industry, does pay for P2 time.

5.4 CALCULATING LOSSES OF FOOD DELIVERY WORKERS

After estimating the economic losses experienced by rideshare workers in 2023 due to platform inefficiencies, we now shift our focus to assessing similar losses for food delivery workers.

As food delivery generally remains outside of regulation it is more difficult to find reliable data about the average proportions of time and distance for P1, P2 and P3 working. On the one hand, the fundamentals remain the same as for rideshare – P1 and P2 working is unpaid due to employment misclassification so there is every incentive for the employer to underutilise workers.

Just Eat purports to pay drivers for P2 miles and time but this is highly theoretical since they provide no published basis for this distinct pay period. It would be difficult, for example, for a driver to calculate a claim for P2 time and mileage for travel to a restaurant where an order was subsequently cancelled. Section one of the Employment Rights Act in the UK requires that workers are provided with a written statement of particulars so there can be no ambiguity about the basis for their pay. Unfortunately the basis for pay in the food delivery sector is almost completely opaque and, as such, is rife for abuse by platform employers.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

On the other hand, there is some limited opportunity for multiple drops in a single journey. However, this can be offset by additional waiting time at restaurants. Just Eat's carbon accounting assumption, according to their 2021 return to the Carbon Disclosure Project, is drivers will generally travel out and back from A to B rather than from A to B to C. This makes food delivery carbon intensive because dead miles are far greater than for a planned delivery round with a large number of deliveries on a single circuit.

Estimated carbon emissions and vehicle miles travelled for platform food delivery

To calculate the economic loss of excess capacity for delivery workers we start with published global CO₂ emissions data for delivery from Just Eat for 2022, the latest data available, and Deliveroo for 2023.

We then apportion estimated global CO₂ according to the UK delivery order volumes for 2023, also published in the annual reports for Just Eat and Deliveroo. We have estimated Uber's unreported delivery CO₂ according to market share with Just Eat at 45%, Uber Eats at 27% and Deliveroo at 26% according to 2021 research.

Just Eat's carbon data, like Uber, is independently verified. Deliveroo has not explained its methodology nor is their data independently assured.

It is possible that their CO₂ emissions, and therefore dead time/miles, are understated because we cannot be sure they have properly accounted for return dead miles in the same way as Just Eat.

We had to consider whether to use Just Eat or Deliveroo data as the baseline to estimate Uber's delivery emissions. We decided to use Deliveroo's data because it is more conservative even if the data is less reliable.

We assume 110g per mile CO₂ to calculate vehicles miles travelled (VMT) and from that we derive dead miles, dead hours and associated costs borne by workers. We believe the 110g assumption is reasonable given the wide mix of vehicles on delivery with cars predominately used in the suburbs, and e-bikes and scooters predominately used in more dense urban areas.

However, we retain the 191g CO₂ rate for Uber's estimated emissions for Uber Eats because this the intensity metric Uber publishes for use with all of their emissions for all lines of business.

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Just Eat confirm that they calculate return miles on every trip so that assumes 50% of miles are effectively dead miles and time. This reflects common work practices of couriers who generally travel out from a restaurant area and return to the same area after completing a delivery. Unlike rideshare drivers, couriers generally know where to source the next delivery order and proceed directly to that area.

To sense check, we can calculate CO2 per order which comes out to 592gCO2 for Just Eat and 169g CO2 for Deliveroo. Some of the variance in the per order calculations can be explained given Just Eat's concentration in suburbs and regions where they may rely more on cars for delivery rather than bikes and mopeds compared to competitors.

Another sense check is a research report commissioned by Uber and conducted by the Rocky Mountain Institute which estimates that total London food/grocery delivery emissions in 2023 to be 103 kt CO2 whereas we estimate total UK sector emissions to be 103 kt CO2. The Rocky Mountain Institute paper confirms that Uber was the source of the data estimating London emissions.

We apply the same assumptions for multi-apping as for rideshare. This is a conservative approach because we have little confidence that Deliveroo has accounted for carbon emissions associated with return journeys to restaurants or enroute time to restaurants after dispatch so there is a low likelihood of duplicated miles overall.

We estimate 1.5 billion vehicle miles travelled by the top three UK food delivery platforms in 2023.

Platform market share	ktCO2	Total VMT (mio)	VMT adjusted for 13.6% multi-apping overlap
Just Eat (45%)	145.0	1,318	1,139
Deliveroo (26%)	26.9	244	211
Uber Eats (27%)	27.9	146	126
Total	199.8	1,709	1,476

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

Estimated lost pay and costs for delivery workers

We apply the same assumption of average speeds of 20mph to calculate lost pay of £421 million at a rate of £15 per hour.

We use 35p per mile to calculate mileage cost using a midpoint between the HMRC reimbursement rate for bicycles and motorbikes but substantially less than the reimbursement rate for cars.

We arrive at an estimated total economic loss to food delivery workers of £617 million in 2023.

This is a conservative figure based on carbon emissions but excludes considerable stationary time which likely to be more significant for urban based delivery couriers. For these reasons, we believe the estimated loss is likely significantly understated.

	Unpaid vehicle miles travelled (mio)	Unpaid hours at 20mph (mio)	Lost pay at £15ph (mio)	Fuel cost at £0.35 per mile (mio)	Total Losses to workers 2023 (mio)
UK online food delivery	561	28	£421	£196	£617

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

5.5 ADDING IT ALL UP - CONSOLIDATED ESTIMATE OF GIG ECONOMY WAGE THEFT

When we combine the estimated losses for operational inefficiencies, the cost for which is borne by workers, **we estimate total economic losses from wage theft and unreimbursed costs to be £1.9 billion for 2023.**

We do not need to make a P2 adjustment for Uber for delivery like for rideshare because Uber refuses to recognise worker rights for this period for couriers.

2023	Lost pay £15ph (mio)	Dead miles cost (mio)	Losses to workers(mio)
UK online rideshare	£804	£482	£1,285
UK online food delivery	£421	£196	£617
Total loss to workers			£1,902

“

Operators should be required to share data from any e-scooter service with city authorities.

Although data sharing arrangements vary, best practice is for cities to either require agreed data sets directly from operators to a regular cadence, or use a third-party company to generate live data reports.

Local authorities should consider committing to how data will be used prior to a service starting. For example, the number of e-scooters permitted to be deployed could be directly linked to demand of users - and monitored through live or weekly data sharing

Lime submission to UK parliamentary select committee, June 2020

DATA DEFICIT CONCEALS £1.9 BILLION IN WAGE THEFT

5.6 LIMITATIONS IN THE ABSENCE OF PUBLICLY ACCESSIBLE JOURNEY DATA

We have taken a conservative approach at each step of our calculation using higher rates of occupancy and utilisation of total journey vehicle miles realised in the USA than is likely to be the case here given the historic reporting of occupancy rates and the poor utilisation trending we are seeing in Worker Info Exchange data.

It is conservative in approach also because we are calculating journey miles and working time from carbon emissions data. This does not capture the many hours workers will remain in a stationary position while in standby working mode in P1 and to this end we have under counted working time lost as unpaid.

We recognise that 100% fleet and network utilisation may not be feasible under the current parameters. We simply make four points about this.

First, labour abuses in the form of misclassification and piece work pay have created market dysfunction enabling platforms to put far too many vehicles and workers on the streets relative to demand and they do so because they do not pay workers for their time and cost on standby.

Second, platforms should not be permitted to externalise their supply costs in this way. Every business has to carefully manage internal capacity costs to meet profitable demand. It is not right that precarious British workers should bear the production cost risks for global platform corporations

Thirdly, there is a considerable asymmetry of informational power between platforms and their workers, consumers and the public. Platforms have been given unfettered access to our streets with excess capacity at zero cost on standby, they have been able to leverage market dominance with surveillance based, personalised, dynamic pay and pricing systems. The result of such algorithmic dominance is higher prices for consumers and lower pay for workers.

Fourthly, given the vast scale of operations and the considerable impact on workers, our communities and the environment, the time has come to secure public access to journey data generated on our streets by our custom and by our workers.

Seattle



Ride share firms have long been required to share data with the city of Seattle as a condition of license.

As a result of access to the data set which identified exploitatively low pay, the city enacted minimum pay legislation for ride share drivers (Fare Share) and for couriers (Pay Up).

The result was achieved in conjunction with the Teamsters union.

At first the data was not publicly shared but this was successfully challenged to the Washington state Supreme court.

6. Data deficit conceals safety catastrophe

The brutal calculus of platform operational inefficiency is that workers must work for longer and longer shifts to make up for poor utilisation for paid P3 time and the lost pay for P1 and P2.

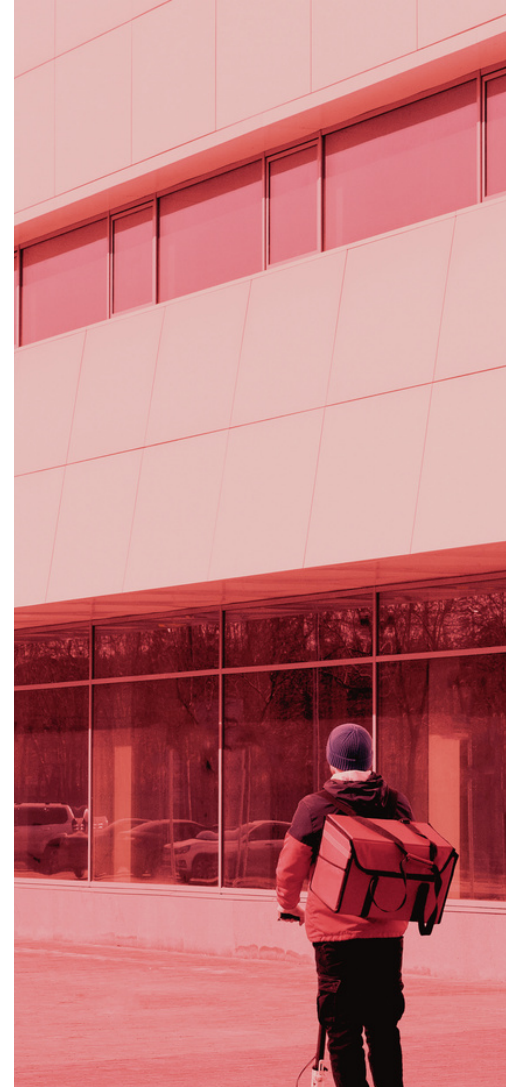
For every 10 hour shift, a gig worker can expect to be paid for just 6 of those hours. To be paid for a normal 8 hour spell, they need to work a shift of longer than 13 hours. Fatigue risk, is clearly a serious issue of concern. (See appendices 5 and 6 for comparative safety standards.)

6.1 ALGORITHMICALLY INCENTIVISED OVERWORK

Private hire and taxi drivers are at particular risk of fatigue related accidents. Factors contributing to fatigue included long working hours due to low pay and poor rates of utilisation.

Dynamic, surveillance-based, personalised pay systems add additional pressure for workers to maintain a favourable performance profile in the hope that the algorithm will reward with more and better quality work.

Dynamic pricing systems also encourage drivers to work extended or split shifts so that they are available for all peak times in the day when the pay offered might be higher and/or when they are more likely to have their working time better utilised. For example, food delivery couriers may choose to work the breakfast, lunch and dinner peak times and then return again for the post-midnight fast food delivery rush. Private hire drivers might try to do the morning and evening commute rush and then return again for the late evening rush when the tube stops running as clubs and pubs empty.



78% of food delivery workers surveyed in London said they suffered from fatigue such that they felt unsafe continuing to work but felt the pressure to do so because of financial need.

27% of workers surveyed said that they did so regularly.

Worker Info Exchange research

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

6.2 SAFETY STANDARDS

According to road safety charity BRAKE, 10-20% of all road traffic accidents and 4% of all fatalities are caused by driver fatigue.

The number is generally believed to be understated because drivers may not be admit to fatigue causing an accident and due to the lack of physical evidence. The impairment to driving ability due to fatigue is significant and according to Road Safety Scotland any driving 17 hours after awakening is the equivalent of drink driving at over the legal limit.

So how much can workers safely drive and how much rest is required? The ILO standard is that workers should not drive more than 9 hours per day or 48 hours per week and the minimum rest period should be no less than 10 hours.

Under UK law, employed goods vehicle drivers must not be on duty for longer than eleven hours per day and must not drive for more than 10 hours per day.

In the EU the weekly driving limit is 56 hours for HGV drivers.

Standard	Max hours	Min rest interval	Min rest days
UK regulation for goods vehicles	10 hrs driving 11 hrs on duty	8.5-10 hrs	1 day off every 14 days
EU regulation for commercial drivers	9-10 hrs driving	9-11 hrs	24-45 hrs weekly
ILO	9 hrs driving 48 hrs weekly	10 hrs	
UK Office of Road and Rail	12 hr shift	12 hrs day shift 14 hrs night shift	2 days after 14

DATA DEFICIT CONCEALS HEALTH & SAFETY CATASTROPHE

6.3 POOR SAFETY CULTURE IN THE GIG ECONOMY

Health & Safety Executive data indicates a greater likelihood of injury or death at work for self-employed workers than for employed workers.

36% of all work related fatalities reported in the UK are attributed to self-employed workers though they make up just 15% of the total workforce. Employed workers are likely better protected due to more formal safety and risk management systems.

A 2023 academic study of food delivery workers bears out this analysis, also finding higher levels of risk taking amongst workers with “short contract duration, less job security, irregular working hours, various forms of dependent self-employment, and also bogus/informal work arrangements.”

Gig employers not only fail to develop good safety procedures, they actively promote unsafe behaviours at work. Workers are incentivised to speed or otherwise take risks on the road to complete more deliveries per hour than is safe to do.

Recognising precisely this road safety risk, a University College London Centre for Transport Studies report recommended that couriers be paid per block hour and not per delivery drop.

Uber tracks driver and courier ETAs; they provide us this information as part of their response to data subject access requests.

However, Uber does not tell us or workers how ETA data is used and how workers are profiled according to performance against planned ETAs.

Deliveroo acknowledge that they too assign and track ETAs but they refuse to provide the data, arguing, wrongly in our opinion, that such data is not the personal data of the worker.

DATA DEFICIT CONCEALS HEALTH & SAFETY CATASTROPHE

Who pays the price?

Evidence shows that road safety risk in London falls disproportionately on the most economically disadvantaged communities.

According to TfL, almost twice as many people within the population of the most deprived 30 per cent of Londoners, according to the deprivation index, are killed or seriously injured in road collisions compared to their peers in the least deprived 30 per cent of Londoners.

Gig economy workers are exposed to additional occupational health risks compared to other road users, with cyclists and motorcyclists facing the most risk.

While cyclists and motorcyclists accounted for just 2.6% of the distance travelled by vehicles in London (2017-2021), they represented almost 27% of those killed or serious injured in road traffic collisions.

A voluntary approach fails to deliver

Transport for London (TfL) recognises that the gig economy delivery services and their unsafe work practices has been a major contributor to stubbornly high KSI statistics (killed and seriously injured).

To address this, they convened the industry to find a path towards improved safety for the 40,000 workers they estimate are using two-wheel vehicles for deliveries in London.

All of the major app-based food delivery companies, including Just Eat, Uber Eats, Deliveroo, Getir, and Stuart, signed the TfL Meal and Grocery Delivery Motorcycle Road Safety Charter.

The charter claims to demonstrate the companies' commitments to road safety. However, no community groups, trade unions or workers were invited to participate in this top-down process, and crucially, most of the principles do little to acknowledge the vulnerabilities of delivery workers on the road or to mitigate the safety issues caused by platform demands on worker performance.

The Road Safety Charter initiative has not led to a central collection of data on gig worker casualties in London.

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

Safety is a collective responsibility

In his Vision Zero Action Plan the Mayor of London declares that we all “whether we are travelling in London or managing the transport network, share a responsibility and a moral obligation to reduce danger and the fear it creates”.

Delivery and ride-hailing companies must also be included as a responsible party for London’s road safety; for the thousands of drivers and riders on whom they depend, and for the safety of all other road users and pedestrians impacted by their presence on London roads.

An improvement in risk management can only be achieved when journey data is made available in the public domain and conditions are imposed on public licensing to improve safety, pay and fleet utilisation.

“

I’ve done eight orders in an hour...our algorithm’s really good...You know, I am an average cyclist but the algorithm worked pretty well. I think I got lucky that time.

”

Deliveroo CEO, Will Shu, on his personal best for deliveries.

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

6.4 CASE STUDIES

Case Study: Mansfield

Early on the morning of March 30th, 2014 Mark Buckley was riding his motorcycle to work when near Mansfield he was struck and killed by a private hire vehicle driven on the wrong side of the road by Kevin Wiesztort of Aeron Taxis.

Mr. Wiesztort was arrested, charged and convicted of death by dangerous driving and was imprisoned for 45 months.

At his trial it emerged that the driver was severely fatigued having slept only 9 hours in the previous three days. Just before the accident, a passenger had phoned to complain about Mr. Wiesztort's unsafe driving on a trip to Birmingham airport.

The employer operator failed to take any action that might have prevented the fatal accident.

The Coroner, Máirín Casey recorded a finding of unlawful killing at the inquest and made some tough recommendations for changes to local licensing conditions to make sure that employer operators manage their drivers to safe working hours.

As a result, the local council added a new condition for operator licensing as follows:

"The Operator will monitor drivers working hours to ensure they are safe to transport the public. Although there is no legal framework for taxi drivers hours, it is incumbent upon the Operator to ensure drivers do not work excessive hours and that they are fit to drive and thus will not put the public at risk."

Operators are further expected to keep records of driver hours available for inspection by the regulator.

The Coroner had expected that the changes would be more widely adopted across the industry but that has not happened.

Transport for London's newly revised handbook for operators offers only the following direction regarding fatigue risk:

"Make sure your drivers are not tired and are alert at all times."

There is no direction that operators should monitor and record hours or set limits.

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

The Coroner referenced Louise Casey's report into failures at Rotherham Council and in particular four points that were relevant for proper supervision of safety by licensing authorities:

- 1. Councils have powers of licensing and regulation which can be used to disrupt illegal activity and keep the community safe. This is in addition to the duties and powers of the police.**
- 2. Authorities cannot claim they are powerless to act.**
- 3. Plans and strategies must connect with reality on the ground.**
- 4. Documents which are clearly aspirational including summaries of good practice must be rooted in the day-to-day experience of staff to be evidenced by inspectors/enforcement officers at the frontline to ensure that they are acted upon in order to have the desired effect**

The Coroner closed the inquest inquiry in 2016 in anticipation that changes in the regulatory regime nationally would be forthcoming from the Department for Transport and local licensing authorities across the country.

She said such would be a 'fitting legacy for Mr. Buckley.' These changes have not been made and the UK private hire industry, with working practices stressed by a rapacious on-demand gig economy model, is profoundly unsafe.

The very purpose of the licensing regime is public safety and every licensing authority has failed when it comes to the problem of overworked, under paid and fatigued drivers.

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

Case study: Australia

In 2018, Sam Thomas was killed after his Uber driver pulled away while he was alighting from the vehicle causing him to fall into the path of a bus. The Uber driver, Nazrul Islam was convicted of negligent driving occasioning the death of another.

Mr. Islam had only worked as a driver for three weeks before the accident happened. Islam was sentenced to 200 hours of community service but was spared jail time and deportation.

The judge blamed fatigue for the cause of the accident noting that Mr. Islam had been working on the Uber platform for 21 hours when the accident happened. Uber introduced new platform limits some months later.

After the accident, the Ride Share Drivers' Association of Australia called for industry regulation of working hours including centralised reporting to tackle the risk associated with drivers working for multiple apps.

The drivers association also questioned why Uber had not also been prosecuted in the case.

Case study: Basingstoke

In 2020, Deliveroo rider Marcos Martins died in Basingstoke after his moped collided with a stationary lorry.

At this inquest, senior coroner Christopher Wilkinson decided that the death was caused by the driver being distracted by the Deliveroo app. He said:

"The problem I face is how one deals with that because, while I have a concern about the distraction specifically for delivery drivers, my understanding is there are a number of companies involved and each individual rider is almost self-employed, and that makes it difficult to know to whom to write. There are concerns as a result of this incident, for delivery drivers, and I think that is a public service message."

DATA DEFICIT CONCEALS SAFETY CATASTROPHE

6.5 INACTION IN THE UK

In 2018, Uber UK introduced a 10 hour limit before a mandatory log off for 6 hours rest. However, the limit only applied to on trip or so called P3 time which is only about 60% of true working time.

That means an Uber driver could work 16.5 hours to reach 10 hours of on trip drive time with Uber.

The limit does not take into account time spent working simultaneously on other apps or for part timers who may have worked a job on another shift.

Uber's policy in Australia, in response to gig economy related deaths on the road, is a 12 hour shift limit for P1, P2 and P3 with a mandatory rest period of 8 hours.

Bolt's limits in Ghana are an astounding 16 hours with just a 5 hour mandatory rest period.

But fatigue is a universally human phenomena that is not market or culture dependent. It is difficult to justify why platforms choose to operate to a lower standard in the UK than which they observe in other countries.

A cursory media review shows that death or injury of delivery workers is common, yet these critical workplace safety incidents do not appear to be properly investigated, and data is not centrally collected.

As a result, platform operators are not properly held to account, and we are unlikely to see improvements in safety performance unless there is more transparency.

Chicago

The city of Chicago was able to investigate through access to Uber data, how the app used differential pricing for different neighbourhoods, with price increases predominantly affecting low-income areas.

The city was also positively able to identify and address public transportation gaps for residents who had to commute via more expensive ride share service to warehouses in the northern suburbs.

7. Data deficit conceals community harms

7.1 ACCESS TO DATA HELPS COMMUNITIES ASSESS PLATFORM IMPACT

In the previous section we used Uber, Deliveroo and Just Eat's limited reporting of carbon emissions to estimate a £1.9 billion economic loss to workers.

In this section we will consider the data needs of community stakeholders who are most impacted by rapidly expanding yet operationally inefficient online private hire passenger and food delivery services.

With 71% of London's licensed private hire drivers living in areas designated in the first and second most deprived quintiles of the index of multiple deprivation, both the potential and need for journey data is great if we are to tackle discrimination and economic injustice.

As Meera Joshi, current Deputy Mayor of New York City and former head of the New York City Taxi Limousine Commission put it in an [interview to the BBC](#): "without data you only have anecdotes".

Yet, under her leadership, the city authorities mandated data collection from operators and made minimum wage protection a condition of license. After this transparency and regulatory intervention, driver earnings were collectively boosted by \$225 million per month.

This is money that can have a transformative effect on working families and on communities that desperately need economic fairness to prevail.



Communities, trade unions and other civil society organisations can mobilise to tackle the broader economic unfairness of the prevailing gig economy business model but they need public access to journey data to hold business and political leaders to account.

DATA DEFICIT CONCEALS COMMUNITY HARM

The high cost of urban congestion and poor air quality

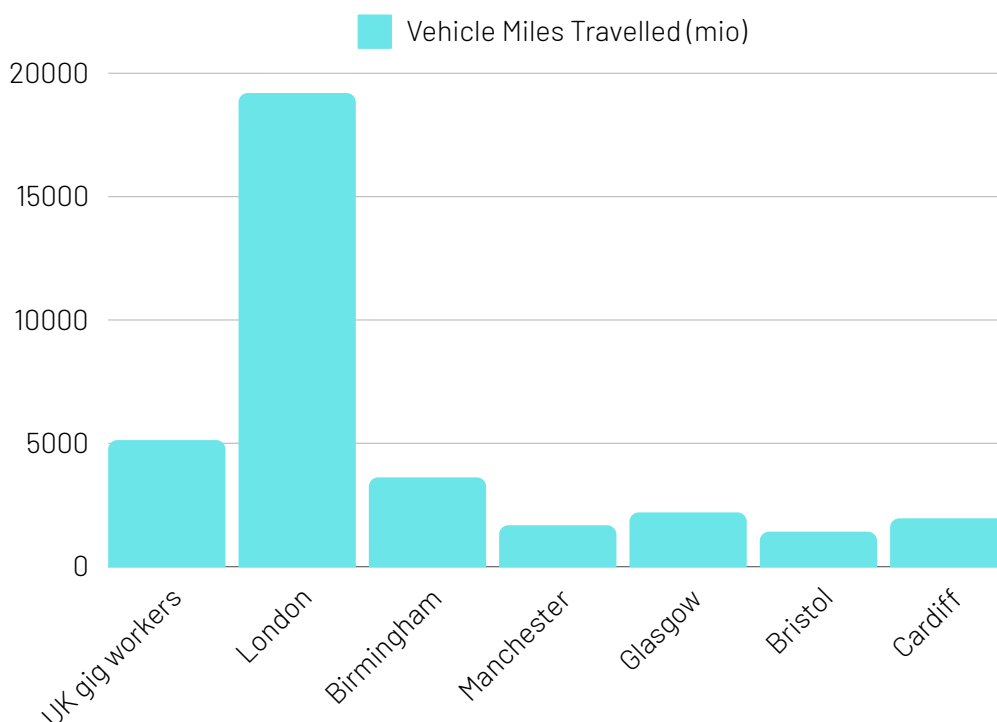
With an estimated 5.1 billion vehicle miles travelled last year, the physical impact of high-volume private hire passenger and food delivery platform services is enormous. The sector completes nearly twice the number of vehicle miles travelled than travelled by all vehicles in Birmingham and more than three times that of Cardiff.

Many cities are struggling to manage limit traffic congestion while finding new ways to improve mobility. London is regularly ranked as the most congested city on earth with the average motorist losing 156 hours a year stuck in traffic for a total economic loss of £5.1 billion per annum.

Average speeds in central London have been in decline which lengthens journey times and degrades the reliability of the public bus network.

Yet, while the high-volume suppliers of taxi and private hire services like to position themselves as a solution to urban congestion, evidence shows the opposite to be the case.

An MIT study found that ride hailing services caused 1% more congestion by volume and an increase of 4.5% by duration. Worryingly, the study found that public transport ridership fell by 8.9% immediately after such services entered the market.



DATA DEFICIT CONCEALS COMMUNITY HARM

Poor air quality relating to traffic congestion is also a significant community concern with an estimated 4,000 premature deaths each year due to air pollution.

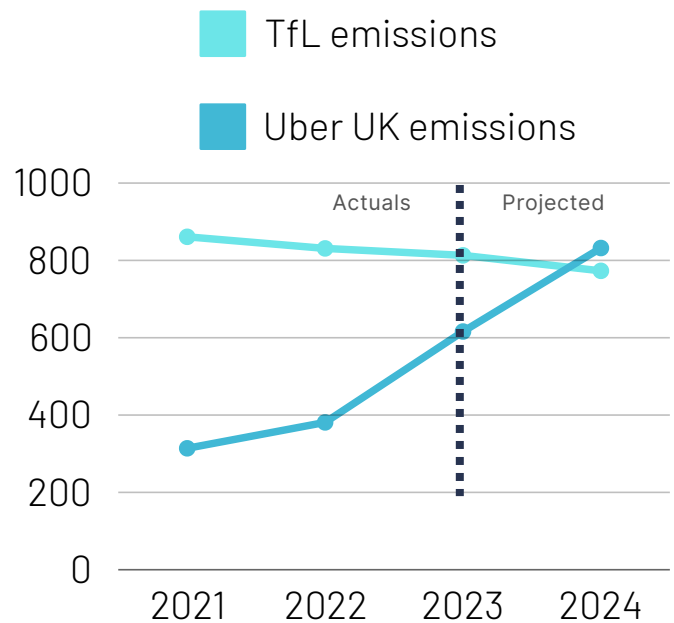
By operating more efficiently, platform operators can reduce 2 billion miles we estimate are expended in P1 and P2.

The reduction of gig economy dead miles and time could be a win-win for workers and the environment with busier drivers earning more money with less emissions and congestion arising.

7.2 THE TIME FOR BOLD ACTION FROM POLICYMAKERS

Cities and communities are making tough choices to invest technologies to transform to a low carbon future and for resilience in the face of a changing climate. Transport for London is investing heavily to decarbonise by 2030. To decarbonise the public bus fleet is estimated to cost the public purse £1 billion.

Yet, if Uber's UK rideshare emissions continue to expand in 2024 as they did in 2023, the operator is on course this year to surpass TfL's emissions for all transport operations including bus, rail and underground. This is even before we consider Uber's delivery related emissions.



*Assumes Uber emissions continue to expand at current rate of 35% pa and Uber London makes up 66% of disclosed Uber UK emissions. Numbers based on TfL carbon budget.

Source: TFL CO2 budget

The policy trade off then makes little sense if TfL, on the one hand, fails to drive corrective regulatory action to limit the rampant expansion of emissions from its licensees in the private sector, while on the other hand spending billions to decarbonise public transport.

With so much at stake for the public purse and for the environment, we must have data in the public domain so that transport planners and the communities they serve can make informed strategy about our common future.

“

Establish a taxi industry data hub which presents public-facing, GDPR-compliant information on supply and services provided over a short to medium-term period to assist in much more targeted interventions that tackle supply issues.

Ensure the data gathering is shared on a regular basis with policymakers to help inform a targeted approach to ensure the highest quality of service across all regions; for all users; and at all times.

Put in place formal partnerships with industry actors to ensure the greatest quality of data is shared and analysed by policymakers and regulators

Recommendations to Irish Parliamentary Joint Oireachtas

Committee on Transport and Communications, presented by Niall

Carson, General Manager Free Now Ireland and Fiona Brady, Head of Operations and Public Affairs, Free Now Ireland, September 2022

DATA DEFICIT CONCEALS COMMUNITY HARM

Capacity limits for human and autonomously driven vehicles

New York City has set capacity limits on private hire and food delivery vehicles in order to control the excess capacity in P1 and P2.

In Scotland, Glasgow City Council has set limits on private hire vehicles and the cap is reviewed periodically.

Platforms like Uber furiously resist any attempt to limit their ability to add capacity. In New York, Uber unsuccessfully sued the city council over its decision to limit license capacity there.

In the UK, Uber CEO Dara Khosrowshahi took a hard line with then Transport Minister Chris Grayling on the subject of caps insisting that this “especially in London, is the wrong way to regulate the market and an inappropriate market intervention by government.”

Move EU, the lobby group representing Uber, FreeNow and Bolt see capacity limits as ‘regulatory obstacles and discrepancies’ which ‘hamper competition’. Move EU even make the quite astonishing claim that such limits ‘undermine sustainability goals’.

But 12 years after the arrival of the gig economy to Britain, the laissez-faire approach to private provision for app-based public transport services isn’t working and the regulatory regime is broken.

The issue of capacity limits and access to data will become more critical in the near future as autonomous vehicles (AVs) start to arrive on our streets. The Tesla and Waymo robo-taxi fleets promise lower cost to consumers but also a much wider market expansion.

Transport for London has warned about the risk of even more congestion and the dystopian vision of driverless vehicles roaming around our cities, without a passenger on board, in search of custom.

Yet, in 2022, Waymo told the Law Commission, a body set up to consider necessary changes in law, that regulators should not limit the number of AVs on the road in any way: *“we believe a national scheme should allow for broad commercial deployment. Creating limits on numbers would impede this and would be akin to imposing a second pre-deployment trial phase. It would also create an added layer for decision-makers to govern and industry to comply with.”*

DATA DEFICIT CONCEALS COMMUNITY HARM

Uber has recently developed its strategic alliance with Waymo which signals intent for the deployment of many AVs in UK and European cities for passenger services and food delivery .

The safe deployment of AVs and capacity limits is a controversial topic and a public debate is needed.

But before that can happen in a meaningful way, communities and city authorities must have collective access to private hire passenger and food delivery journey data from high volume platforms, as well as meaningful information about the algorithms that deploy their platform services on our streets.

More broadly, our political leaders need to consider whether Britain now needs capacity limits, taxes or other incentives for gig economy platform service providers to improve utilisation, treat workers fairly and to limit the harmful effects on communities and the environment of excess traffic.

São Paulo



In 2016, the Sao Paulo City Council proposed new regulations for app-based transport services including charging a license fee based on the kilometers travelled by service providers. The license fee charged in the form of credits can be varied by area, time of day and type of vehicle used.

This encourages behaviours of platforms to help ease congestion and to provide services to disadvantaged communities that might otherwise be excluded.

There is also a requirement for the platforms to provide the city with access to data so that such smart regulations to be applied and for the data to be shared through the [Laboratory of Technology and Protocols for Urban Mobility \(Mobilab\)](#).

8. Conclusion

Platform operated rideshare and food delivery services are wildly inefficient.

An excess of unpaid workers on standby and underutilisation of vehicles, algorithmically optimised for maximum platform profit, is driving wage theft at exorbitant scale. Drivers and couriers are working increasingly excessive hours and pushing through physical and mental exhaustion to make ends meet, with devastating safety consequences for all. The sector is set to only grow as platforms expand their reach into the market and carbon emissions rise.

The first step for all stakeholders to confront these issues is the collection and open publication of journey data from the passenger and food delivery apps. Regulators must take bold action and use existing and additional powers to make compliance with public data access, capacity and fleet utilisation targets, and worker rights, a condition of operating license.

Where other major world cities already collect journey data, regulators, workers, unions, and civic society have been able to improve city transport planning, to advocate for and affect higher standards for working conditions including minimum wage protections, and to detect discriminatory pricing tactics affecting consumers.

It is time for the UK to catch up.

“

The transport revolution is underway and success can't be achieved in isolation. The data, insight and knowledge acquired by large MaaS (movement as a service) platforms when it comes to understanding user behaviours, patterns and preferences is invaluable.

Therefore, cities that focus on a collaborative approach with existing MaaS platforms will be the ones supporting their communities with a transport system that not only caters to their needs but is fairer and more sustainable.

Mariusz Zabrocki, General Manager UK, FreeNow, 2023

APPENDIX 1

ESTIMATION FOR UBER UK PASSENGER AND DELIVERY MILES TRAVELLED

	Carbon emissions	Emissions per passenger & delivery miles gCO2e	Passenger and delivery miles in P3 (mio)
Uber UK rideshare	588,250	191	3,080
Uber Eats UK	27,909	191	146
Uber UK total	616,159	191	3,226

Sources: [Uber 2024 ESG report](#), [Uber climate assessment and performance report methodology](#), [LRQA assurance statement](#) for Uber for financial year 2023 and quarter 1, 2024. [Deliveroo 2023 annual report](#). Market research data.

Method: Uber Eats data is included but not broken out in Uber's ESG reporting so UK delivery emissions estimate is determined by using industry market share data and flexing Deliveroo's reported 2023 emissions data. Deliveroo reported global emissions data and we have estimated its UK division emissions by according to reported delivery order counts by regional market unit.

APPENDIX 2

ESTIMATION FOR UBER UK VEHICLE MILES TRAVELLED IN WORKING MODE
P3

Uber UK Passenger miles travelled (PMT) in P3 (mio)	Assumed Occupancy	Estimated Uber UK Vehicle miles travelled (VMT) in P3 (mio)
3,080	1.54	2,000

Sources: [Uber 2024 ESG report](#), [Uber climate assessment and performance report methodology](#), [LRQA assurance statement](#) for Uber for financial year 2023 and quarter 1, 2024. Utilisation rate adopted based on [California Air Resources Board 2018 research](#) for initiative to set a rideshare Clean Miles Standard for use by the state regulator, the California Public Utilities Commission.

Method: Estimated Uber UK rideshare passenger miles divided by assumed occupancy rate of 1.54.

APPENDIX 3

FEHRS AND PEERS 6 METRO AREAS RIDESHARE UTILISATION RATES FOR P1, P2 AND P3, SEPTEMBER 2018. ADJUSTED FOR MULTI-APPING.

City	P1 VMT (000)	P1 ratio	P2 VMT (000)	P2 ratio	P3 VMT (000)	P3 ratio
Boston	14,700	30%	5,340	11%	28,280	59%
Chicago	29,700	32%	9,080	10%	54,600	58%
Los Angeles	38,300	24%	17,660	11%	104,130	65%
San Francisco	31,500	27%	11,930	10%	75,150	63%
Seattle	9,700	32%	2,880	10%	17,550	58%
Washington DC	24,400	31%	8,100	10%	45,990	59%
Total VMT	148,300	28%	54,990	10%	325,700	62%

Sources: Fehr and Peers

APPENDIX 4

RIDESHARE UTILISATION RATES COMPARISON

Work Mode	Share of journey time (Industry wide New York 2019)	Share of journey time (Uber New York 2024)	Worker Info Exchange journey time (Uber UK 2022-24)
P1 - Standby	24.5%	n/a	41%
P2 - Enroute to pick up	16.5%	n/a	16%
P3 On journey with passenger/package	59%	55%	43%

Sources: 2019 Study on urban congestion from [New York City Taxi and Limousine Commission](#). [2024 published data](#) from NYC Taxi and Limousine commission.

APPENDIX 5

CORPORATE FATIGUE MANAGEMENT POLICIES

Operator	Market	Limit on hours	Mandatory rest interval
Uber	<u>UK</u>	10 hr limit driving passengers (P2&P3)	6 hrs
	US	Nationwide 10 hr limit driving passengers (P2 & P3) + local regulatory requirements	6 hrs
	<u>Australia</u>	12 hr cumulative limit on all online time per day. Includes UberEats. (P1, P2 & P3)	8 hrs 24 hrs after 12 consecutive days 24 hrs after 28 consecutive at limit
	<u>New Zealand</u>	13 hr cumulative limit on all online time . Includes UberEats. (P1, P2 & P3)	8 hrs 24 hrs after 12 consecutive days 24 hrs after 28 consecutive at limit
	<u>Hong Kong</u>	12 hr limit of accumulated passenger and en route driving time over 72 hrs (P2 & P3)	6 hrs
Bolt	<u>Ghana</u>	16 hrs on shift	5 hrs

APPENDIX 6

SELECT INTERNATIONAL REGULATORY STANDARDS FOR RIDESHARE DRIVER FATIGUE MANAGEMENT

CITY	Regulatory requirement - hours	Rest	Enforcement
<u>New York City</u>	10 hr limit driving passengers (P3) across all platforms in 24 hr period 60 hr limit in a calendar week	n/a	\$200 fine per dispatch Data collected by regulator
<u>California</u>	10 consecutive hrs driving passengers (P3) No more than 10 hrs driving within 15 hr working window (P1,P2,P3)	8 hrs off after 10	Data collected by regulator
<u>Chicago</u>	12 hr limit driving passengers in 24 hr period		Data collected by regulator
<u>Seattle</u>	14 hr limit total driving (P1,P2,P3) in 24 hr period	10 hrs	Data collected by regulator
<u>Ontario</u>	12 hr limit driving passengers (P3) 14 hr duty limit (P1,P2,P3)	10 hrs	
<u>India</u>	12 hrs online across all platforms	10 hrs	
London & UK	None	None	None

APPENDIX 7

OVERVIEW OF INTERNATIONAL CITY DATA SHARING REQUIREMENTS (NON EXHAUSTIVE)

CITY	DATA REQUIREMENT
New York City	Journey data Publicly available sets
Toronto	Journey data
Chicago	Journey data Publicly available sets
California State	Journey data
Mexico City	Journey data
Sao Paolo	Journey data
London	No private hire data requirement TFL bike journey data No private bike hire requirement
Moscow	Journey data
Beijing	Journey data
Melbourne	Journey data
Paris	Private bike journey data
Amsterdam & Eindhoven	Private bike journey data
San Francisco	Private bike journey data
Los Angeles	Private bike journey data

