Chasing Gold Stars: The Precarious Working Lives of Migrants on Food Delivery Platforms in Beijing, China

追求金星等级 – 外卖从业人员在北京的工作和生活状态

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Declaration of Authorship

I Simon Malyon hereby declare that this thesis and the work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated. Signed: SIMON MALYON

Date: 07/07/2022

Plate 1: Meituan Driver

"Today you are brave enough to stay in the city, tomorrow brave enough to stay another day, if you don't work it's alright, [by] the third day you stick up your bum and work" Li, Hebei Province.

Acknowledgements

Firstly, I would like to thank my fantastic supervisors Professor Katie Willis and Dr Sally Lloyd-Evans for their mentorship and support throughout this PhD research. Their consistency and kindness were unwavering and the quality of this as academic work was improved significantly by their expertise, challenge and attention to detail. I am very grateful.

To get me through this required a lot of support and I would like to thank Ting and my family for being there to help. This was a challenging journey, living between London, Beijing, Egham, and Leamington Spa with numerous house moves, visas, and time apart from friends and family. In the end I wouldn't change it and I am thankful for the experience.

To the participants who took the time to talk to me – this research would not have been possible without your help, and I valued the opportunity to learn about your aims and ambitions for your lives.

It was a real pleasure to work on this research in collaboration with my fellow researchers and now friends, Jenny Chan, Zhang Shuwan, Sun Ping and Joanna. I would also like to acknowledge the guidance of Professor Hu Xiaojiang and Dr Tian Fangmeng who supported a foreign researcher and provided lots of helpful suggestions.

I would like to express a big thanks to Cameron for proofreading the whole thesis and reminding me of the importance of brevity.

Lastly, I would like to thank the ESRC and the Newton Fund for funding me to complete this research, and Jane Gawthrope for ensuring I got timely support despite changes to the plan.

ESRC Award Reference Number: ES/J500148/1

Abstract

Chasing Gold Stars: The Precarious Working Lives of Migrants on Food Delivery Platforms in Beijing, China

This thesis centres on the working lives of migrant workers in the platform food delivery sector in Beijing, China. Through in-depth interview research with 37 migrants, I uncover the experiences, challenges and strategies they employ to improve their lives by pushing themselves to reach platform rewards ('gold stars'). Empirically this thesis addresses a knowledge gap which exists on platform work in the Chinese context, and the perspectives of drivers who make a living in this dynamic sector. This evidence helps contextualize global trends of digitally enabled labour, broadening the evidence base through a case study from China.

In this thesis I demonstrate how work is organised on platforms, to uncover the ways in which algorithms manage digital work. I identify the key features of two work forms and describe how they shape the experience of workers through different application, evaluation, and compensation methods. While the digital facilitation of work could be expected to minimise demands on drivers (e.g., reduced need for geographical knowledge), I find the skills demanded for workers to manage the variables in work and maintain a sustainable income are high. This evidence fills an identified evidence gap of the ways in which digital work platforms in China organise, monitor, and evaluate work which have previously been largely unexplored in English language academic work.

I find that a lack of income in migrants place of origin and a tenuous position in Beijing frame the lack of control that migrants can exert over the labour process, and a lack of control in work is a defining facet of precariousness. Control over the labour process in platform work is considered through two main lenses – these are the control of the supply of work and the evaluation of work. While platforms can offer workers choice to pick and choose work that suits them, due to the status of rural migrants and their relative position in the labour market this is heavily constrained. While facing significant challenges in work, I show how drivers 'get by' and bring qualitative improvements to both their own experience of work and their future lives. Migrants demonstrate a clear strategic focus to their migration to platform work in Beijing. To counteract the insecurity and instability in their work and income, they implement a strategy of intensity and income maximisation to reach their personal goals. The strategies identified demonstrate how migrant Chinese platform delivery drivers exercise agency in a highly restrictive, monitored, and quantified environment.

List of Figures

List of Plates

List of Images

List of Tables

List of Appendices

Glossary: Chinese Terms and English Translation

Alibaba	阿里巴巴	Alibaba, Chinese company specialising in e-commerce founded by Ma Yun
Baidu waimai	百度外卖	Platform delivery application for the internet company Baidu
Beijing	北京	Beijing, capital city of the People's Republic of China
chengzhongcun	城中村	Urban villages
chiku	吃苦	To 'eat bitterness', to put up with hardship
dagong	打工	Taking a job, often manual labour
Didi Chuxing	滴滴出行	Didi Chuxing, car-hailing application and company
diduan renkou	低端人口	'Low-end population'. Term used by the Beijing government to describe the removals of people living in urban villages
Ele.me	饿了么	Ele.me, platform delivery application and company
hukou	户口	Household registration
jianzhi	兼职	Part-time work
kuai	块	Unit of Chinese currency
kuaidi	快递	Express postal delivery drivers
laojia	老家	One's 'old home', hometown, native place
laoxiang	老乡	Fellow villager, somebody from the same hometown
liudong renkou	流动人口	The 'floating population' – term used to describe migrant workers without a local *hukou* in city of destination
luan	乱	Messy, disorganised
Mao	毛	Unit of Chinese currency

Meituan	美团	Meituan, platform delivery application and company
mimang	迷茫	Confused, bewildered
nongmingong	农民工	Rural peasant worker
pingtai	平台	Platform
qiangdan	抢单	To 'grab' an order
quanzhi	全职	Full-time work
RMB	人民币	Chinese currency, Renminbi
Sanlitun	三里屯	A popular shopping area in Beijing
suzhi	素质	Essentialised quality of a person, often related to social status and education
waidiren	外地人	To have come from another place or province, an outsider
waimai	外卖	Platform enabled food delivery services
Weixin	微信	WeChat, widely-used Chinese social media application
wending	稳定	Stability
wenhua	文化	Culture/cultural level
yali	压力	Pressure
Yuan[1]	元	Unit of Chinese currency
ziyou	自由	Freedom/flexibility
zhongbao	众包	Crowdsourced

[1] £1 = 8.8 Yuan (as of January 2021)

Table of Contents

Chapter 1 Introduction

"I've been waiting so long for you, but it's ok I didn't give up – There will always be a feeling of emotion by your side at Meituan, high pay, high earnings, high returns in this profession will allow you to get that little bit closer to your dreams. Life has many different possibilities, become a Meituan delivery driver, and you can become a better you!" **Meituan Driver Marketing**

I prefer our place and people. This is Beijing, you stay here for a while you will miss your home, after you get to a certain age you want to go home (Lit. 'the falling leave returns to the tree'), we cannot be outside for a whole lifetime, at the end [you] have to return to your hometown, so we make our home better and then go back there. **Qiang, 32, Guangdong Province**

In Beijing, tens of thousands of delivery drivers in multi-coloured uniforms zig-zag around on e-bikes. Outside most office buildings, universities and residential compounds e-bikes are parked up with drivers rushing past to complete a delivery and beat the clock. To ensure they stay on top of the algorithms that monitor their efficiency, they speed, drive against traffic and on pavements and run in and out of restaurants. They carry multiple orders at once during peak times with varying pick-up and drop-off locations against the threat of punishing fines, injury, and removal of their main source of income for themselves and their families.

Observing this in Beijing, my initial questions were how have platform applications driven these kinds of actions? How does the platform application manage the workforce and push people to work at this intensity? Who are these (predominately [2]) young men and what are their thoughts on, and motivations to engage in this new type of work? In 2018, I spent a year across two visits in Beijing getting to know platform work and interviewing migrant delivery workers[3]. Alongside China based researchers [4] I conducted in-depth interviews and questionnaires to uncover the experiences, challenges and strategies of migrant workers seeking to improve their lives by pushing themselves to reach platform rewards ('gold stars'). The interviewees in this research are male migrants drawn from

[2] Estimates from Meituan (Xinhua, 2019) put the percentage of female drivers at around 10% in China. The data collection and sampling methods are discussed further in Chapter 4.

[3] I have a strong grasp of Mandarin Chinese based on five years living, working, and studying in Mainland China, including completing postgraduate education in China. The ability to speak Chinese helped with the flow and spontaneity of conversation between myself and drivers and helped reassure drivers of the intention of the research. For the first 6 months of fieldwork, I was based at Beijing Normal University (School of Social Development) as an exchange postgraduate researcher.

[4] For this research, I worked alongside Chinese scholars who also had research interests in platform-facilitated work and with whom I collaborated to collect some of the data for this thesis. This collaboration is discussed in Chapter 4.

different parts of China to Beijing. They have previously worked in construction, mining, factory work and myriad service occupations, often moving frequently in search of more profitable opportunities (as with Qiang quoted at the start of this chapter). Most of the migrants are non-local *hukou* (户口) holders excluded from access to welfare benefits in Beijing and are deemed second-class citizens (Solinger, 1999). They are excluded from access to unemployment allowances, the minimum livelihood guarantee (*dibao*), low-rent public housing, employment-related training, support for new enterprises and subsidised school fees for children (Zhang L, 2012).

This thesis makes three main research contributions. Firstly, the ways in which digital work platforms manage the exchange between the worker and end-user is an important research question, as often the ways in which algorithms manage digital work is unclear. Platform applications run in a 'black box' where the asymmetrical display of information (and access to data produced by drivers) is hidden and can conceal exploitation of workers. In this thesis I lift the lid on the black box and uncover the control mechanisms that Chinese food delivery platforms such as Meituan use to manage the workforce. I find distinctive management features in Chinese platforms which are more extensive than in Western contexts and shape the experience of workers in unique ways. The evidence of this thesis provides insights into the ways in which digital platforms in China monitor, evaluate, and discipline the workforce. This thesis fills an identified evidence gap of how digital work platforms in China organise, monitor, and evaluate work which have previously been largely unexplored in English language academic work (as suggested by Chen, 2017; Heeks, 2017; Swider 2017).

Secondly, this thesis uses a framework of precarity to connect the links between a dependence on insecure work and the wider lives of migrant workers. The concept of precarity has come into use in the Global North in connection with marginal working conditions and insecurities felt by workers (Neilson and Rossiter, 2008). 'Precarity' attempts to encapsulate the insecurity and instability associated with contemporary employment relationships, often with a focus on 'non-standard' types of employment arrangements such as part-time and intermediated agency work (Fudge and Strauss, 2014; Millar, 2014). Broadly speaking, the concept of precarity is the choice of researchers concerned with labour markets in the Global North, while informal work is the key concept used by most researchers in the Global South (Siegmann and Schiphorst, 2016). Precarity and informality can be recognised as converging concepts; informality often centres around the workplace, while labour precarity seeks to transcend it and interacts with workers' livelihoods and social location (Siegmann and Schiphorst, 2016).

I use precarity as a framework to draw together the organisation and features of work and how they interact with, and exploit the existing vulnerabilities of workers. It brings those two facets together to

argue that platform work observed in isolation does not provide a full picture of the challenges faced by migrants engaged in the work, and the ways in which platform work is organised to exploit their vulnerabilities. This is because a focus solely on work conditions can fail to account for the social processes and relationships that determine how work becomes unreliable, unstable, or insecure and does not meet the needs of the worker (Fudge and Strauss, 2014). This evidence therefore contributes to better understanding the experiences of workers in different regions using a framework of precarity, and helps to contextualise global trends of digitally enabled labour, broadening the evidence through a case study from the Global South.

Thirdly, in this thesis I demonstrate how platform delivery drivers are not passive victims of precarious work and instead adopt strategies to negotiate their working lives in Beijing. Labour agency has often been conceptualised in terms of collective, organised labour activism overlooking agency that is not conceived in an organised and politicised manner (Castree, 2007; Coe and Lier, 2011, Coe, 2013; Tufts and Savage, 2009). Less research has considered and theorised individual workers' expressions of agency. To understand how workers respond to precarious work and manage work for their own advantage, in this thesis I utilise an understanding building on Carswell and De Neve's (2013) 'broader conceptualisation of agency' which moves away from labour agency as a form of resistance, to recognise the varied acts of workers to create manageable working lives and dignified livelihoods.

Platform delivery workers are not passive victims of structural conditions and precarious working lives but adopt strategies to negotiate platform work and life in Beijing. As Rogaly (2009) suggests, it is important to focus on the ways people with limited means make viable lives. In contexts where collective resistance is difficult, individual agency should be recognised as the means by which workers can strategize in their working lives. Individual agency in people who are 'agency poor' can achieve short-lived and localised benefits for the individual and be a positive influence on the spatially-embedded daily lives of workers in relation to the subjective experience of employment (Rogaly, 2009). The actions of workers can be interpreted in multiple ways and I show that the low-key and often invisible ways through which working people make viable lives is a vital element for research.

The next part of this chapter outlines the research aims and research questions of this thesis. This is followed by an overview of the research context of platform delivery work in China, and lastly the structure of the thesis by chapter.

1.1 Research Aims

This research has three key aims; for each aim I have two key research questions. I address research aims one, two and three in Chapter 5, Chapter 6 and Chapter 7 respectively:

1. To uncover how platform work is organised on a Chinese delivery platform application such as Meituan

- RQ1: What are the distinctive features used by Chinese food delivery platforms to organise and manage work?
- RQ2: How do platform workers experience the management features of platform delivery work?

2. To explore the processes through which migrant workers come to face precarious work on platforms in Beijing

- RQ3: What are the social processes through which workers come to experience precarity in platform work?
- RQ4: How does platform work shape the precarity of its workforce?

3. To consider the strategies employed by platform delivery workers

- RQ5: What strategies do workers employ to maximise the potential benefit of platform work?
- RQ6: How does platform work fit into workers' wider livelihood strategies?

1.2 Research Context: Platform Delivery Work in China

Online work platforms first began in the early 2000's and have expanded considerably since then (Berg et al, 2018). Platform-based business models have become integrated in a range of sectors across society and commerce, from retail to media and transport (Schmidt, 2017). Platform companies develop applications (apps), which users download and register to use, whilst they also seek to maintain and distance themselves from responsibility over the markets their apps create (Healy et al, 2017). Platforms match so-called 'independent contractors' to work and supply labour and services on demand. A range of activities, for example from ordering a taxi, to finding household help, to a range of clerical and administrative work is being transformed into app-facilitated activities; this can be observed in sectors such as cleaning (Handy), administrative help (Fancy Hands), freelance consultants and the medical profession (Medicast) (Evans-Cowley and Kubinski, 2014).

Platforms are digital infrastructures that facilitate the bringing together of two or more different groups to interact through the platform application which coordinates the supply and demand of the two parties. Work is offered and assigned through a mobile application and it will play a role in setting standards and regulating the workforce. In platform delivery work, the organisation of work is digitised, but the service allocated via the platform remains tangible and delivered to a client in a physical location (i.e., the customer). Working through platforms provides new opportunities for many workers to earn an income but in an environment that is loosely regulated, with unreliable work and few enforced labour standards (Ping, 2019). Workers are paid to complete a task rather than receive a definite income and in most Western contexts, often use platform work to supplement incomes earned elsewhere (Rosenblat and Stark, 2016).

China is experiencing growth in employment in service-based industries and a reduction in construction and manufacturing employment (China National Bureau of Statistics, 2018). Workers being laid off from manufacturing and other service sectors are trying their luck in the booming platform economy. As the digital economy is expanding in China, millions of new 'flexible' jobs mediated by platforms apps are being created. Delivery services have expanded rapidly in China, with close to six million employees on platforms (Sina, 2017). By 2016, an estimated 350 million people in China had signed up to food delivery applications (China Internet Network Information Center, 2016) and in 2016 256 million people used a food delivery service in the country across over 1000 cities (Tao, 2017). Meituan are one of the world's largest food delivery applications and have an estimated 50 percent share of the Chinese market, rivalling global competitors in valuation and overall global market share (Wang, 2018). At least 50 million workers were involved in the platform economy in

China in 2016, and Ele.me (a large food delivery platform) is said to have employed more than one million drivers in 2016 (China Internet Network Information Center, 2017).

China is leading innovations in platform economies with increasing global influence (e.g., bike-sharing, mobile payments, delivery). Chinese digital platforms such as Didi Chuxing (a ride-hailing app) and Meituan (food delivery) are perceived as one of the success stories in China's technological revolution (Williams, 2018). Didi Chuxing and Meituan rival global competitors such as Uber in valuation and have grown beyond in overall global market share (Williams, 2018). In 2016, one third of the top 200 digital platforms worldwide originated in China and were growing rapidly, contributing to an estimated 10.5% of China's GDP (Evans and Gawer, 2016). The largest three players in the platform food delivery sector in China are ele.me, Baidu delivery and Meituan, who all face fierce competition in an extremely competitive market (Tao, 2017). The three main internet companies in China are all significant (or the main) investors in the three major delivery applications: Tencent (Meituan Dianping), Alibaba (Ele.me), and Baidu (previously Baidu, now Ele.me) (Tao, 2017).

Chinese platform companies have started and will develop to play an important role in standardising business practice through their applications (Heeks, 2017). Much of the information that can be gleaned about platform delivery workers in China is found from Chinese language media and news reports. There are few academic publications in English on the experiences of platform work in a Chinese context from the perspective of migrant workers (although see Ping, 2019). Heeks (2017) finds research is skewed towards certain Western platforms leaving out Chinese platforms which employ significantly more workers. To illustrate this, on Google Scholar as of July 2019, a search for Meituan returned 886 results while a search for Uber in contrast yielded over five million results.[5] Despite the size of the platform economy in China, the experience of Chinese workers is largely missing from many academic studies.

In China, delivery workers are classified as independent contractors and are not protected by the national labour law with minimal job and income security (Chan, 2018). Food delivery platform workers generally engage in a service agreement with the platform or through a human resource company and are not legally entitled to government-administered social insurance benefits (Ping, 2019). Food delivery app workers have been called 'modern-day porters' due to their widespread use and the vast range of services they provide (Swider, 2017). They have a tenuous status in the city and are pushed out, marginalised and subject to evictions (Horwitz, 2017). There is evidence of increasing labour disputes in the sector and they suffer from a lack of institutional support (Sina, 2017b). The lack

[5] Electronic searches on Google Scholar for "Meituan" and "Uber".

of empirical evidence on Chinese delivery platform workers demonstrates the value of in-depth social and economic research on the interlinkages between work and drivers' status as rural-urban migrants.

1.3 Organisation of the Thesis

In Chapter 2: Digital Work, Precarity and Agency, I discuss the key characteristics of digital work and outline how platform food delivery can be located within a wider spectrum of platform work. To do this I demonstrate the organisational principles of platform work including algorithmic management which helps frame how work is organised on platforms. The concepts used in the thesis to situate the working experiences of platform workers are considered – these are the concepts of precarity and agency in work. I contend precarity can be used to consider the wider social context for workers alongside the experience of work itself. This is important because "the very elements necessary to produce migrants' value and acquiescence within the workplace are largely secured through the regulation of their daily lives outside of it" (Buckley et al, 2017:157). To provide a thorough picture of how drivers respond and strategise to the challenges of work, I consider how workers respond to precarious work through demonstrations of agency. To do this I demonstrate how I approach researching agency in this thesis and discuss how the actions of workers can be interpreted.

In Chapter 3: Rural-Urban Migration in Contemporary China: The *Hukou* system and Migrant Workers, I examine the political and economic developments in China through the lens of the *hukou* system and its impact on migrant workers. As migrants are subject to structural and institutional discrimination this limits their entitlement and access to services provided to urban residents; I show how this structurally disadvantages migrant workers and frames their entry into urban employment such as platform work. Secondly, I identify how migrants are primarily motivated by economic goals, but this is also shaped by social and cultural expectations and demands. Migrants find employment in sectors that are less desirable but particularly in construction, manufacturing, and the growing service sector in China. Studies of Chinese labour can often depict migrant workers as victims of employer exploitation but empirical engagement with experiences of Chinese labour has been mixed. Chinese workers are not passive to the challenges they face in the labour market, and research has demonstrated how migrant workers express agency in different forms.

In Chapter 4: Researching Platform Work in China, I discuss the process of conducting this research in China with migrant workers. Firstly, I discuss the preliminary study and collaborations with researchers based in China. I then discuss the design of the research and the chosen methods of data collection including semi-structured interviews and questionnaires. Secondly, I discuss the ethical issues that I faced in obtaining permission to carry out research, record interviews with workers and the issues

inherent to research in a different cultural context. Thirdly, I outline the process of qualitative data analysis of interview transcripts. This includes the use of NVivo software and coding to conduct thematic analysis and how I constructed theoretical concepts based on reflective interpretations of the qualitative data.

In Chapter 5: '*It's the system that gives you the time, and you can never outrun the system'* - Organising Platform Delivery Work in China, I uncover the organisation of the work regime through Chinese delivery platforms – from the stages of applying for work to grabbing orders and delivering, to managing the work process and receiving compensation. In platform work, the asymmetrical display of information is a key feature of workplace control (i.e., a black box) and covert algorithms often conceal labour exploitation (Rosenblat and Stark, 2016). This thesis provides insights into the 'black box' of work organisation through algorithms in the Chinese context of food delivery platforms. I uncover distinctive features of the organisation of work on Chinese platforms which shape the experience of workers in unique ways, including:

- Key features of platform work - I identify the main features of the two main forms of work in platform food delivery (*specialist'* worker (*zhuansong*) 专送/ '*crowdsourced'* worker (*zhongbao*) 众包) and describe how they shape the experience of workers through different application, evaluation, and compensation methods.

- Decision making in *crowdsourced* delivery work – I demonstrate how the platform applications shape the delivery experience to necessitate drivers to increase skill levels and evaluate risk for each delivery to maintain their status on the platform.

- A customer monitoring and evaluation rating system which is more extensive than Western platforms

I provide insights into how this organisation of work is experienced from the perspective of platform delivery workers**.** Maintaining a consistent number of orders across highly variable demand is one of the most difficult tasks for drivers. I identify the requirement for intensive decision-making for drivers to manage the variables of highly dynamic work. I argue the level of skills demanded for the worker to manage themselves, their work and make a sustainable income in platform work is very high. Through these insights I identify how risks of work are taken away from the platform application and the responsibility for managing errors or delays is placed solely on the drivers. I conclude that Chinese food delivery platforms have distinctive organisational and management techniques different from platform delivery work in Western contexts, which uniquely shape the experience of work for drivers.

In Chapter 6: '*The road is repaired and needs to be oiled'*- Rural Migrants Working Precariously on Food Delivery Platforms in Beijing, I focus on the social processes that result in precarious working lives for migrant workers on platforms in Beijing. This is shaped by the employment on platforms, but also the social relations that shape the entry into the labour market of the worker. Firstly, I address the drivers' experience of migration to Beijing and how this experience frames their entry into platform work. Secondly, control over the labour process in platform work is considered through two main lenses – these are the control of supply of work and of the evaluation of platform work. While platforms offer workers the choice to pick and choose orders that suit them because of the marginal status of rural migrants and their relative position in the labour market this is heavily constrained. I conclude that the extent to which people are dependent on platform work is strongly related to how they engage with platforms; the social context in which work happens and the position of the worker is all important.

In Chapter 7: Chasing Gold Stars - The Strategies of Platform Delivery Workers, I find platform delivery drivers are not passive victims of precarious work and adopt strategies to negotiate their working lives in Beijing. This chapter builds on Chapter 5 and Chapter 6 to demonstrate the ways in which workers demonstrate agency. The focus on strategies reflects a focus on the low-key and less visible ways in which workers make viable lives. I find that increasing work intensity to maximise earning opportunities and using platform work as an opportunity for *ziyou* ('freedom') in work are two strategies employed by workers. These two strategies are utilised to react to the challenges of work and life in Beijing and to proactively improve workers' future return home. I argue that the strategies of workers I have observed are demonstrations of *resilience* to manage the challenges of platform work and not *resistance* to platform work. The strategies I find are primarily used as a means of 'getting by' which help individuals to manage and improve their individual situation, but do not necessarily seek to shift the status quo or engage in collective resistance.

In Chapter 8: Conclusions, I discuss the main contributions of this thesis in three parts, which broadly tie into the research aims in Section 1.1. I conclude that the evidence gathered in this thesis contributes to an improved understanding of the experiences of digitally-enabled workers in China and contextualizes global trends of digitally enabled labour by broadening the evidence base through a case study from the Global South.

Chapter 2 Digital Work, Precarity and Agency

In this chapter I outline the social and economic changes that are facilitating the growth of digital and platform work which is the focus of this thesis. Firstly, I identify the key characteristics of digital work and outline how food delivery can be located within a wider spectrum of platform work. I then identify the organisational principles of algorithmic management on platforms which informs the analysis of the empirical findings in Chapter 5. Secondly, I discuss the concepts used in this thesis to situate the working experiences of platform workers; these are the concepts of precarity and agency in work which I then deploy analytically in Chapter 6 and Chapter 7 respectively.

2.1 Digital and Platform Work

How to situate platform work?

Since the 1980s, the common understanding of the employment relationship and its accompanying social contract has changed fundamentally (Fudge and Strauss, 2014; Theodore and Peck, 2014). Employment that has traditionally been understood as a bilateral contract between an employer and an employee is being remade socially and economically. Weil (2014) has described the transformation of the workplace from a direct employment relationship with an employer to a 'fissured workplace'. In a fissured workplace, employment is transferred to a network of smaller businesses which operate in more competitive markets. These (outsourced) smaller businesses operate in highly competitive markets which, "creates downward pressure on wages and benefits, murkiness about who bears responsibility for work conditions, and increased likelihood that basic labor standards will be violated" (Weil, 2014:8). Due to these pressures, the basic terms of employment such as hiring, evaluation, pay, supervision and training are increasingly co-ordinated by multiple organisations, resulting in a blurring of responsibility (Weil, 2014). These different organisational forms often result in non-standard types of employment arrangements such as part-time, fixed-term and intermediated agency work that deviates from a normative model of employment (Fudge and Strauss, 2014). Workers providing services across a range of different sectors (the delivery work of this thesis is just one example) are thus increasingly likely to be faced with ambiguous employment relationships.

The growth of non-standard types of employment can be seen in the increase of temporary and piecemeal work arrangements such as in digital and platform work. Fudge and Strauss (2014) identify two key trends in contemporary labour markets, that of the rise of non-standard, contingent or precarious work and increasing forms of labour intermediation (i.e., to be no longer employed by a single employer), and these changes are both central to the growth of platform work. These types of work arrangements allow for employment contracts to be rewritten largely at the whim of the

employer as workers are employed on an as-needed basis. As employers have turned to temporary employment arrangements in a drive for increased 'flexibility', this has significant repercussions for workers, including avoidance of compensatory payments for workplace injuries (Weil, 2014).

The impacts of temporary employment arrangement on workers is succinctly summarised by Peck and Theodore (2014:26): "temporary employment arrangements…allow employment contracts to be rewritten more or less unilaterally, as temp workers are engaged on an as-needed or contingent basis. For businesses, this creates "flexibility". Fixed (or sticky) labour costs can be rendered variable; workplace discipline and control can be exercised individually (and indeed daily); some of the risks and costs associated with demand fluctuations can be externalized to the workforce; employment relationships can be initiated and terminated at will. For workers, these conditions create "precarity". Job security is eroded in both formal and practical terms; asymmetrical power relations shift risks, cost pressures and vulnerabilities onto the workforce; access to job benefits and workplace rights is curtailed; exposure to arbitrary and capricious workplace discipline is increased, amplified by the constant threat of termination…". As argued here by Peck and Theodore (2014), employers use temporary employment arrangements to drive down the conditions for workers. While temporary employment arrangements are not inherently precarious, they are often made so through weak and ineffective protections for workers as the risks of work are placed on the workforce.

The process of work transitioning from standard employment (as traditionally understood) to temporary employment arrangements such as platform models is still in its early stages (Schmidt, 2017:9). In many aspects, digital work resembles many longer-standing working arrangements as work is broken down into smaller units which are allocated to unskilled workers. Payment per task (rather than time) also resembles pre-industrial piecework and labour arrangements in sectors such as the textile industries where workers complete orders per item at home for additional money (Berg et al, 2018). But this is "both a continuation and an intensification of developments that have been underway for nearly four decades" (Doorn, 2017: 900). The core characteristics of work on platforms such as irregular scheduling, piecework compensation, or workers providing their own equipment are not new – even if the technology that facilitates the work is (Stewart and Stanford, 2017). The casualisation of work and income instability in platform work has many features found in the wider labour market.

In summary, the platform delivery workers in this thesis sit at the intersection of temporary employment arrangements and the digital mediation of work via platforms. Temporary employment contracts are not new phenomena, but technology offers increased flexibility for employers to take advantage of temporary employment arrangements and externalise risk onto the workforce. This can

lead to an increased 'flexibility' for businesses to discipline workers individually and reduce the fixed costs of labour. As Peck and Theodore (2014) point out, this can lead to precarity for workers who have very little employment security.

How to define platform work?

Platforms aim to digitise and create value from human activities – this is Google monetising web-searches, *LinkedIn* using professional networks and Uber the use of private vehicles (Kenney and Zysman, 2016). The extraction of data is the main resource that drives platforms, as by positioning themselves as the intermediator between the groups they can extract interactions between these groups (Srnicek, 2017). Platforms are proclaimed to bring a range of benefits including increased efficiency, reduced carbon footprints, increased opportunities for workers and more flexible sources of income beyond conventional employment (Frenken and Schor, 2017; Schor and Charles, 2017). But if platforms are successful, they can create their own marketplace and monopolise certain segments of the market (Srnicek, 2017).

A range of terms have proliferated to describe and differentiate some of the different kinds of work on platforms, including the on-demand economy, gig economy, freelance work and the sharing economy. This confusion also applies when defining workers and the work they undertake; for example, workers are spoken of as 'Turkers', 'independent contractors', 'entrepreneurs', or 'producers', and terms such as 'HITs', 'awards' and the 'cloud' are used instead of jobs, payment and someone else's data centre (Schmidt, 2017). The number of labels is also a recognition of the profound changes in society and employment that are occurring (Kenney and Zysman, 2016). A term like 'platform' does not emerge organically to describe work and technology forms, but is drawn from stakeholders with specific aims and managed for impact with target audiences (Gillespie, 2010). The take-up of the term 'platform' itself, Gillespie (2010) argues, reflects terms and ideas that are specific enough to mean something, yet remain vague enough to work across different venues and audiences. A 'platform' suggests a design which facilitates an activity on which it takes place, and often implies a neutrality in regards to that activity; a "'Platform' emerges not simply as indicating a functional shape, it suggests a progressive and egalitarian arrangement, promising to support those who stand upon it" (Gillespie, 2010:350).

Platforms announce themselves as a new type of work, separate from previous work forms. Often defined under the bracket of the 'sharing economy', many of these different terms are often associated with positive connotations, whether that be the positive symbolic value of sharing (Schor

and Charles, 2017) or another language of values, such as information wanting to be free (Srnicek, 2017). Discourses of entrepreneurship are central to Uber's discourse, which may be tied to a legacy of a start-up environment and a so-called 'Californian ideology' (Srnicek, 2017), casting their labour force as skilled and mobile workers taking risks to be involved in an innovative business venture (Rosenblat and Stark, 2016). In practice, within the broader 'sharing economy', platforms have largely been able to self-define themselves (Schor and Charles, 2017); for example, Uber refers to itself as a logistics company, yet being almost identical to other platforms, and TaskRabbit defines itself as an errands and task platform while Amazon's Mechanical Turk (AMT) does not (Schor and Charles, 2017).

At a basic level, platforms are digital infrastructures that facilitate the bringing together of two or more different groups to interact through the platform (Srnicek, 2017). They function as an intermediary between two different users of the platform such as advertisers and users (Facebook, Google) or passengers and drivers (Uber). In platforms there is a triangular relationship in which there are three corresponding parties: the worker undertaking the work, the end-user who uses the service, and the digital platform which acts as an intermediary between the parties involved and facilitates the process (Stewart and Stanford, 2017). The platform provides the digital infrastructure that mediates between supply and demand provided by the other two parties, as seen in Figure 1.

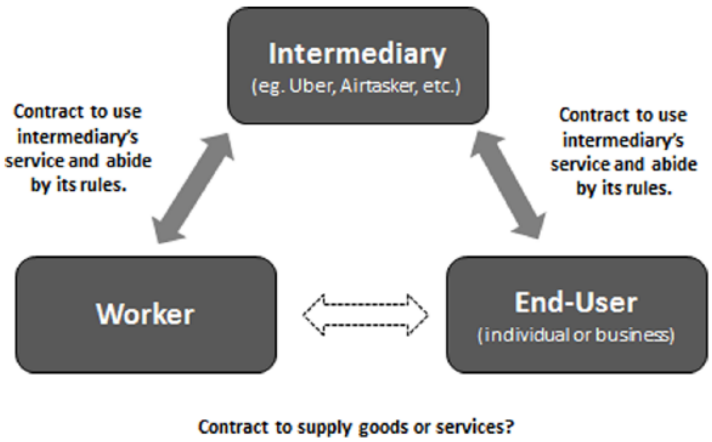


Figure 1: The Triangular Relationships of the Gig Economy (Stewart and Stanford, 2017: 425)

Platforms act as intermediaries by matching two parties with each other through the platform; for example, the driver of a car and passenger on Uber, buyers and sellers on eBay, or the workers and employers on labour-matching platforms such as Upwork. The delivery platforms in this thesis (e.g., the Chinese delivery platform Meituan) are the intermediaries that function to match the demand for

a product from the end-user (the consumer) and the worker (the delivery drivers). Matching platforms change the relationship between the worker and the platform as they only supply work (and the worker only receives payment) when there is demand. The relationship between supply and demand of work is mediated by the digital platform; work is supplied through the platform and driven by demand from the end user (i.e., the consumer).

Srnicek (2017) differentiates between five different types of platforms in terms of their organisational structure. Of these, the notion of 'lean platforms' resembles the case study of this thesis most closely. Lean platforms seek to reduce their ownership of assets to a minimum to maximise profits. These companies don't own assets in the conventional sense but remain in control of the software and data analytics: "Lean platforms operate through a hyper-outsourced model, whereby workers are outsourced, fixed capital is outsourced, maintenance costs are outsourced, and training is outsourced. All that remains is a bare extractive minimum – control over the platform that enables a monopoly rent to be gained" (Srnicek, 2017:35). After outsourcing of the work, capital, maintenance, and training, what is left is the platform taking an income for work happening on their terms but with the costs associated with the labour all outsourced.

It is helpful to classify the type of work being done on different platforms as there are a wide variety of employment relationships and potential conditions for workers. Platform work is usually distinguished as either work that is solely undertaken online and which in theory can be undertaken anywhere, or location-based and spatially-fixed services (De Stefano, 2016; Schmidt, 2017; Heeks, 2017). The terms for defining this vary, but the principle of distinguishing the work forms in this way is similar. For example, De Stefano (2016) refers to spatially-fixed work on a platform as 'work-on-demand via apps'. Heeks (2017) considers work that is offered and completed solely online as the 'digital gig economy' and digitally-enabled work that is delivered locally with a specific locational basis for the provision of the services as the 'physical gig economy'. Put another way, the 'digital gig economy' represents the digitisation of both the work and its organisation, while in the 'physical gig economy', the organisation of work is digitised, but the service allocated via the platform remains tangible and delivered to a client in a physical location (Heeks, 2017). Schmidt (2017) similarly draws the same distinction between work that is executed locally referring to it under the umbrella of 'gig work', and that which is solely web-based as 'cloud work', as seen in Figure 2.

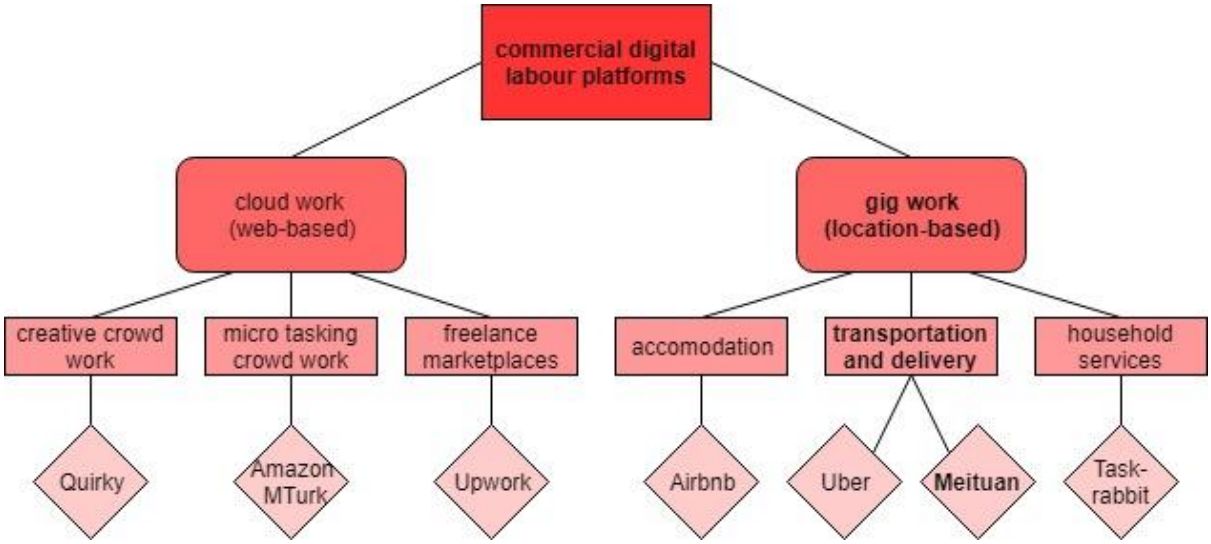


Figure 2: Categorisation of Digital Labour Markets in the Platform Economy, Locating Meituan Among Digital Labour Platforms. Adapted from Schmidt (2017:7)

The focus of this research is on what is classified in Figure 2 as 'gig work'. In this work the digital platform matches the supply and demand of activities which are then performed locally, most often by independent contractors. Work is offered and assigned through the mobile application and the application will play a role in setting standards and regulating the workforce. This categorisation of work on platforms helps to understand how work is organised for workers on platforms. Working as a platform delivery driver for a delivery platform such as Meituan can be conceptualised as a form of location-based 'gig work' for a commercial digital labour platform in the transportation and delivery sector. Drivers for Meituan and Uber make themselves available through the platform application (hereafter 'app') to consumers to complete a gig; the platform will organise this task and pay the worker for their labour, and the social relations of production take place on the platform (Gandini, 2019).

The organisation of work on platforms such as Meituan is managed by algorithms which are designed to optimise the efficiency of the matching process. With the rise of big data and machine learning, algorithms are used to perform complex decision-making tasks and function as management supervisors (Möhlmann and Zalmanson, 2017). The digital platform does this by collecting data through feedback, rankings, ratings and other evaluation mechanisms (Gandini, 2019). Evaluating the performance of work is not unique to platform work, but there are features in algorithmic management and the automatic implementation of decision (sometimes in real-time) that necessitate additional analytical understanding. The types of data that are collected and used by platforms in

different country contexts is also a question that requires further exploration, with value in empirical research to understand what data is collected, and how that shapes the experiences of work.

Algorithmic management describes the management practices facilitated by software algorithms over remote workers; it can be defined as work settings in which human jobs are assigned and evaluated through algorithms based on the data they produce (Berg et al, 2018). Möhlmann and Zalmanson (2017) define algorithmic management as being characterized by continuous tracking and evaluations of worker behaviours and performance, and the automatic implementation of decisions based on this data. They identify five characteristics of algorithmic management. Firstly, a tracking of workers' behaviour based on collating data from the actions of workers whilst using a digital device (e.g., a mobile phone). Based on this information, algorithms design personalised management decisions for each individual worker. Secondly, the constant performance evaluation of workers based on gathered data; this includes ranking workers' performance and reporting of behavioural anomalies. Thirdly, an automatic implementation of decisions with little or no human intervention. Fourthly, workers interact with a 'system' rather than humans where communication is mediated through the platform rather than person-to-person. The fifth characteristic of algorithmic management is low transparency. Algorithms are rarely explained to the workers, are often complex and change frequently depending on the circumstances: "companies are rarely motivated to disclose the underpinning criteria of their algorithms and are sometimes unable to fully explain the results themselves, creating very low transparency for those managed by the algorithms" (Möhlmann and Zalmanson, 2017:5). Algorithms can be altered and re-coded where the outcomes are seen to need adjustment to achieve outcomes influenced by the commercial interests of the owners (Beer, 2017). This poses challenges to traditional models for regulating work being undertaken by isolated independent workers (Stewart and Stanford, 2017). For workers, this results in them interacting with a 'system' rather than humans where they have little knowledge of the rules that govern the algorithms which design and manage their work.

Platform delivery work in China

There is a recent and emerging literature on platform-mediated delivery work in China. This literature provides valuable empirical insights and analytical frameworks to consider both the labour management regimes in platform work and the experiences and actions of the drivers. This section will explore the key issues raised in this emerging literature to help situate the findings from this thesis.

A first strand of this literature is based on empirical evidence of labour management in platform work. Due to the rapid growth of platform-mediated work in China, previously little has been known about how work is organised and managed on platforms. One of the key contributions of this literature is to explore the ways in which the platforms manage work alongside restaurants, consumers, and the

drivers themselves. This evidence is critical for understanding the ways in which platforms seek to exert control over drivers, but also to identify the spaces drivers find to express agency and engage in small scale resistance.

Rapid growth in the sector has impacted the organisation of work with previously direct employment forms being replaced by diverse forms of contingent labour. Sun et al (2021) identify at least four types of delivery work emerging from their fieldwork in China, each of which differs in the scheduling, employment relations, working conditions and labour rights experienced by drivers. In this context, platforms are collaborating with third party agencies to outsource the recruitment and management of this labour and reduce liabilities for forms of social security (Sun et al, 2021; Liu and Friedman, 2021). Due to pressures and consolidations in the sector, delivery workers are increasingly employed by intermediaries such as subcontractors or staffing agencies with labour agreements with these firms. This has reduced the cost of both hiring full-time workers and employment benefits including injury insurance.

Liu and Friedman (2021) find two work forms predominate: that of '*crowdsourced*' workers, who register for work directly through an app; and those employed by small-scale subcontractors. Platforms such as Ele.me use both work forms, with station-based couriers (those employed by small-scale subcontractors) delivering for restaurants willing to pay a premium for the guaranteed reliability, and *crowdsourced* workers (those employed directly through the app) used for smaller restaurants that cannot afford the premium and as a backup. *Crowdsourced* workers are the norm for most platform-based employment around the world, with a highly-flexible labour force who sign up via an app as individual contractors. Sun et al (2021) find this employment type is becoming the most prevalent in China. This labour force does not have access to a labour contract, a guaranteed income, or any social insurance benefits (Liu and Friedman, 2021). *Crowdsourced* drivers operate without a human manager and are governed by the algorithm which determines orders, prices, and bonuses. The second work form is subcontracted station-based employment. Stations are responsible for an area within a city and employ drivers to complete orders within this area. The platform algorithm will assign orders based on the driver's location and the driver generally will need to accept this order or negotiate with the local station manager.

Empirical research has also identified the complex web of relationships for groups who interact with and through the platform, which in turn shape drivers' experiences of work. The drivers are at the core of the supply chain for the food delivery service as they connect and mediate between the platform, the subcontractor (when applicable), restaurants and customers (Sun and Chen, 2021). The management of the service and relationships between the restaurant and the consumer is increasingly

being led by the drivers themselves, with the app only acting as a mediator. Chen (2020) uses a framework of 'digital control' to describe how platform applications are giving up direct control over workers. Chen (2020) argues that the conflict between capital and labour is being transferred to the driver and the consumer where the platform app functions as the mediator of conflicts between the two. Due to the new forms of data collection via drivers, consumers, stores and intermediaries, platforms are increasingly moving to reduce direct responsibility over the worker themselves. As the platforms withdraw from direct forms of control, management is becoming increasingly invisible. The management of drivers is thus moving from apps controlling the process of work and how it happens, to controlling the result and outputs of the labour.

Wu and Zheng (2020) similarly identify that for food delivery workers work is shaped by the properties and relationships with multiple agencies in the gig economy, including the platform, restaurants, consumers, riders, and the urban environment as a whole. The authors use a sociomaterial perspective to demonstrate the ways in which drivers are tethered to and co-construct the spatial and temporal aspects of human action during the delivery process. This sociomaterial perspective aims to deepen understanding of the interactions between the material elements (e.g., algorithms, the physical space) and the social elements (e.g., the actions of workers). In this lens, an analysis of the work considers both the social phenomenon such as the driver, the customer and the platform and myriad other factors such as the time, location and weather (Wu and Zheng, 2020). Using this approach, they identify that every delivery (multiplied for additional concurrent deliveries) is contingent upon the rider's negotiation with various spatial and material aspects which are embedded in a web of dynamic relationships among the multiple agencies involved. For example, while the platform company define a time in which the order must be completed, the restaurant also has its own tempo and routine in preparing food, the customer has an expectation of when to receive the ordered food and the urban infrastructure must be navigated on top of this. These elements are not always in harmony and the driver as the core must manage and co-construct multiple spatiotemporalities to meet the demands (Wu and Zheng, 2020).

A second key strand of this emerging literature links the experience of drivers, and their reported grievances, with a particular interest in autonomy and control in work, and the capacity of workers to express agency and use strategies to improve the situation in work. On job quality issues, Liu and Friedman (2021) find earnings are the paramount concern for drivers in both work forms, although they also express frustration on aligned issues such as the lack of orders, fines, and inconveniences associated with the delivery process. Cui Yan (2021), in a study of employment quality, uses employment 'precarity' as a measure for their framework to compare delivery work in China with more traditional employment. The sample compares delivery drivers with people employed in non-

agricultural sectors, including government agencies, business, services and manufacturing to demonstrate the relationship between the employment type and precarity. Employment as a platform delivery driver increases the individuals' employment precarity, reduces the individuals' employment stability and decreases the ability to withstand risk (Cui Yan, 2021). As the work does not expand on the social capital of drivers, Cui Yan (2021) suggests the work cannot improve drivers' chances of employment and restricts their ability to move to other sectors, thus further increasing individuals' employment precarity.

Chen (2020) suggests as platforms reduce direct responsibility over the work process to focus on managing the outputs, this is leading to a reduced space and capacity for driver autonomy. Drivers must manage the emotional, physical and mental challenges to deliver to the consumer while abiding to the platform's regulatory framework. Chen concludes that drivers' experience of '*ziyou'* (freedom), apart from the flexibility of when to start and finish work, is instead because management is becoming invisible. Wu and Zheng (2020) using a framework of spatiotemporal strategies also see drivers struggling to manage the various challenges presented by the various actors in delivery work as they juggle and weave multiple orders and improvise the delivery sequences. They find that to be successful in this work requires high levels of individual skill, creativity and tacit knowledge to navigate the dynamic system. This in turn, gives drivers some space "to configure their own spatiotemporality within the boundaries of the algorithmic system, sometimes pushing these boundaries to their limits" (Wu and Zheng, 2020:12).

Sun and Chen (2021) address the question of agency by examining workers' lived experiences, struggles and survival tactics. The authors put forward a term of 'contingent agency' to describe how food delivery workers carve out spaces at the individual and small-scale collective levels to combat the increasingly unbalanced power of the platform companies. The authors find that it is very difficult to organise or collectivise in delivery work as workers frequently change jobs and the policies of the apps undermine any longer-term social connections. They find that workers have gained some forms of control and decision-making power that they value regarding where, when and how to participate in platform work. They also find drivers develop small-scale and individual strategies to improve their working situation including moving between apps for a better pay rate, working on multiple platforms simultaneously, or mobilising social resources and capital to manage the labour process in work. Chan (2021) similarly interrogates the control and autonomy of drivers at work, finding that autonomy is circumscribed by the data surveillance and customer feedback mechanisms. Individual freedom is framed in a way that crowdsourced drivers are not required to work a minimum amount of time, but this cuts both ways, and when there is less demand the platform companies reduce their dependence

on the labour. Chan (2021) concludes that the sense of freedom and autonomy as publicised by platform companies is thus severely constrained.

Sun et al (2020) explore flexibility from the workers' perspective to reveal that Chinese food delivery workers have encountered a decreasing level of flexibility due to managerial decisions and socio-technological factors. The authors find that due to a mixture of labour management tactics, technological engineering and cultural normalisation facilitated by the apps, this has led to what they term 'sticky labour'. This describes the stagnation of career advancement for low-paid service workers similarly experienced by food delivery drivers. In the Chinese context, the authors find that drivers are more likely to work fixed hours instead of flexibly as they are pushed by the apps to full-time and fixed-hour work. Aligned to this, workers increasingly become reliant upon and attached to the work, and often must manage a relationship with managers through social media (e.g., WeChat) to facilitate the work. This leads to more direct control from human managers via social media. The authors conclude this combination of increased working hours, algorithmic discipline and direct control from managers was decreasing the amount of flexibility workers have, rather than increasing it.

In terms of more overt resistance to platform applications, Chen (2020) describes how drivers can only express verbal frustration, including through WeChat groups or by blaming customers for giving them bad ratings. Chen (2020) concludes that unseen control is weakening the ability of drivers to resist. In contrast, Liu and Friedman (2021) find that while workers are subject to algorithmic control and evaluation, the subcontracting structure of employment (in contrast to *crowdsourced work*) has presented workers with new forms of leverage. Documented instances of collective resistance outside of China in platform work often rely on secure digital communication and support from independent labour organisations which are not present in China (Liu and Friedman, 2021). In China, due to workers having leverage over just-in-time logistics when in station-based employment, they have the capacity to engage in hidden forms of labour contention and small-scale collective actions. This is predominately in the form of workers organising through WeChat to simultaneously log out from the system to impact delivery in the area. These are usually short-lived and localised collective actions facilitated digitally, but the authors do find they have some benefit in creating space for negotiating their grievances, even if only temporarily.

In summary, this section has outlined how digital and platform work provides new opportunities for many workers to earn an income but in an environment that is loosely regulated, with unreliable work and few labour standards (Berg et al, 2018). Platform applications employ algorithms to take charge of managing the supply of work and regulating a dispersed workforce. There is little government regulation of many commercial digital labour platforms but the platforms themselves set the working

conditions – that is how the work is organised, paid for and disciplined (Berg et al, 2018). Workers will usually have little or no ability to seek redress for unfair or exploitative treatment with the platform directly and the only option for workers is to accept the terms and conditions imposed or find alternative sources of employment (Berg et al, 2018). This does not imply that platforms are completely unregulated, but that work is managed and regulated primarily by the platform itself. The digital tools to facilitate changes to work bring different challenges and opportunities for workers, and the transformations of work can be understood as part of a broader trend towards more precarious and contingent work forms coupled with automated management processes (Berg et al, 2018).

In this section I have discussed the social and economic changes that are transforming the world of work and the growth of digital forms of work including platforms. I have explored how platform delivery work can be considered within the context of digital labour and gig work and identified its key characteristics. I have demonstrated that understanding and defining labour relations in platform work, the management and organizational implications of platform work and the implications of this for workers are all vital issues for research. I have also discussed emerging literature on platform mediated food delivery work in China to contextualise the key findings of relevance to this thesis. These issues are central to this thesis and form the basis of the empirical investigation.

2.2 Precarity and Agency – Understanding the Working Experiences of Platform Workers

This section will expand on the use of precarity into a broader framework to draw together the organisation and features of work which create precarity, and how they interact with, and exploit the existing vulnerabilities of workers. It brings those two facets together to argue that work observed in isolation does not provide a full picture of the challenges faced by workers. This will frame the primary evidence in Chapter 6 which finds the extent to which people are dependent on platform work is strongly related to the social context in which platform work happens and the position of the worker is all important (Charles and Schor, 2017; Kenney and Zysman, 2016; Schmidt, 2017). This section will also consider how workers respond to precarious work and manage work for their own advantage, the focus of Chapter 7. To do this I use a broader conceptualisation of labour agency to recognise the varied acts workers perform to create manageable working lives and dignified livelihoods. In this thesis I use this understanding to interpret the low-key and often invisible ways in which working people make viable lives.

2.2.1 Precarity as a Conceptual Framework

The concept of precarity has come into use in the Global North in connection with marginal working conditions and corresponding insecurities felt by workers. The concept of precarity has origins as a political-analytical concept and mobilising device within European social movements responding to the decline of Fordism and erosion of the welfare state (Neilson and Rossiter, 2008). Connections between neoliberal globalisation, global economic change and transformations in the world of work are often posited as the key explanatory cause for the rise of precarity (Lewis et al, 2014; Standing, 2011; Waite, 2009). Guy Standing's (2011) book on the 'precariat' brought debates on the concept into the mainstream, while within social science in the UK, it has seen significant growth from a low base (Waite, 2009).

There is a tendency for the concept to be interpreted and used in rather different ways and there is often conceptual ambiguity in understanding how precarity is used to explore the experiences of workers (Kalleberg and Vallas, 2016; Waite, 2009; Alberti et al, 2018). A particularly useful categorisation is provided by Jorgenson (2016: 961) who finds three main uses of the term, "precarity designates a condition, precariat the identity formation, and precarization the processual aspects". In this thesis I am interested in the *processes* through which workers come to experience insecurity and instability in platform work as well as *how* they experience work (i.e., precarity as a condition and precarisation as a process).

A useful framework to evaluate the precarity of working conditions was developed by Vosko (2010) who defines precarious employment as work for remuneration characterised by uncertainty, low income, and limited social benefits and statutory entitlements. Based on Rodgers' (1989) analysis, Vosko (2010) argues four dimensions applicable to paid workers, degree of certainty of continuing employment; degree of regulatory effectiveness; control over the labour process (i.e., working conditions, wages and work intensity); adequacy of the income package. Stipulating such features of work can help to identify what makes employment precarious, but to deepen understanding of how employment facilitates this precarity, an approach needs to consider how the wider social, political and economic context shapes the making of a precarious worker.

Standing (2011) is the foremost proponent of precarity as identify formation – he describes a growing number of workers as belonging to a global 'precariat', an emerging social force and class in the making similarly subjected to vulnerability and insecurity arising from neoliberal globalisation. The 'precariat' is not simply the working poor or those working in insecure employment, but those who

also lack a secure work-based identity. The 'precariat' is distinct from the 'proletariat' as they suffer from a lack of an occupational identity, union-based traditions or stable careers. While noting the heterogeneity of this group, Standing (2011:15) asserts the precariat all share "a sense that their labour is instrumental (to live), opportunistic (taking what comes) and precarious (insecure)". To determine who shares these characteristics, Standing's (2011:12) 'precariat' consists of people who lack seven forms of labour-related security from employment security to income security and representation security. Research which identifies the conditions for workers such as lacking labour-related security is important, but this thesis does not seek to use the concept to identify a class of workers belonging to a global 'precariat', as such researchmay strip labourers of their agency and portray them as victims of precarious environments. Instead, this thesis aims to focus on the social processes and relationships that determine how labourers become precarious workers (Fudge and Strauss, 2014).

Research which uses precarity to understand the processual aspects (as pointed out by Jorgenson, 2016) seeks to consider the intersections between insecure work and wider lives. Researchers who use precarity as a research framework in this way will focus their research on the labour and work processes that engage with the local social context (i.e., norms and values) and the ways in which it impacts on local work practices and work organisation (Buckley et al, 2017; Carswell and De Neve, 2013). Precarity can be engaged with as "something more than a position in the labour market'" (Lewis et al, 2014: 581); referring to those who experience precariousness and lives consumed with uncertainty and instability and because of the relationship between insecure work and unpredictability in wider life (Bregnbaek, 2016; Millar, 2014).

Precarity seeks to connect political and economic trends seen as leading to a growth in temporary and transient work forms alongside subjective experiences of insecurity felt in a growing number of these work forms. To discern the production of precarity demands an analysis that situates the experiences of individuals or groups within a broader political and economic context. Rodgers (1989:1) summarises this as research which looks beyond the form of employment (e.g., standard or non-standard) to factors that shape the experience of work, "The concept of precarious work goes beyond the form of employment to look at the range of factors that contribute to whether a particular form of employment exposes the worker to employment instability, a lack of legal and union protection, and social and economic vulnerability". Therefore, in many key studies of worker precarity the local experience of workers is embedded within a broader political economy understanding. Waite (2009:421) argues this is the advantage of the concept," …it more explicitly incorporates the political

and institutional context in which the production of precarity occurs rather than focusing solely on individual experiences of precarity". Precarity as a concept can therefore be used to analyse both the political and institutional context in which the production of precarity occurs alongside an understanding of individuals experiences of precarity. Paret and Gleeson (2016:280) similarly value the concept (in comparison with terms such as insecurity and vulnerability) as it situates the experience of work (be that insecure and vulnerable) and relates it within historically- and geographically-specific contexts. This is important because "the very elements necessary to produce migrants' value and acquiescence within the workplace are largely secured through the regulation of their daily lives outside of it" (Buckley et al, 2017:157). This concept enables analyses which can deepen engagements with social and economic contexts which give rise to complex forms of precarious work among migrants.

Precarious employment is shaped by the relationship between employment status (e.g., self- or paid employment), form of employment (e.g., temporary or permanent, part-time or full-time), dimensions of labour market insecurity, as well as social context (e.g., occupation, industry and geography) and social location (or the interaction between social relations, such as gender, and legal and political categories, such as citizenship). Research which integrates the social and economic context can identify the relationships between elements which impact on workers. This can help understand how potentially multiple dimensions of precarity are related and intersect with one another, for example, relationship to compromised socio-legal status (Anderson, 2010; Lewis et al, 2014), citizenship status (Lee, 2016; Lewis et al, 2014; Swider, 2015a), and/or race and gender (Wills, 2009). For example, in the Global North 'hyper-precarity' describes the employment and immigration precarity of migrants working at the bottom end of labour markets (Lewis et al, 2014). The compromised socio-legal status of migrants aligns with work precarity resulting in a 'hyper-precarious' state for the individual involved. Precarious immigration status and exclusion from work and welfare underpin the precarious labour market conditions experienced by many migrants (Lewis et al, 2014). This not only conditions exclusion but also adversely shapes the terms on which workers are incorporated into labour markets (Lewis et al, 2014: 592). In this thesis, the linkages between the socio-economic context and platform work are explored and precarity is used to explore the relationship between work and workers' wider lives.

A framework of precarity has been applied in the Global South by Rigg et al (2016) to analyse how modern forms of development (i.e., the social and economic context) shape the poverty of workers and thus their integration into the labour market. Precarity is used to try and better understand produced or modern forms of livelihood exposure (as distinct from traditional forms). The authors find

that market integration has re-worked the nature of vulnerability for many rural-based households in Nepal. Vulnerability is understood as why households might be *prone* to poverty and poverty is understood as 'old' and inherited from the past. Precarity on the other hand is conceived as *produced* exposure, or 'new' poverty, derived from both market and policy-induced contemporary processes. Precarity in this conceptualisation leads to a focus on three major factors including environmental causes (including land dispossession; resettlement on marginal lands), economic causes (unsustainable levels of debt, market dependencies, growing inequalities and out-migration) and sociocultural causes (including an ageing population and emergence of multi-sited households). The authors argue that the utility of distinguishing between vulnerability and precarity is that they pay attention to different causal processes while recognising dynamic links between them which can be experienced concurrently. Rigg et al (2016) point out contemporary processes of development can be marginalising and economic expansion generates new forms of livelihood risk which can be missed when conceptualised as vulnerability.

In summary, research which uses a framework of precarity looks to explore the intersections between insecure work and the wider lives of workers. Using precarity as a research framework leads to a focus on both work practices and work organisation alongside a consideration of how this is shaped by the local social and economic context in which the work happens. Thus, this thesis seeks to use precarity as a framework to draw together an analysis of the features of platform work which can result in precarity for its workforce and explore how these features intersect with the existing vulnerabilities of workers.

2.2.2 Labour Agency

In this section, I consider Carswell and De Neve's (2013) broader conceptualisation of agency as expressed through the different things workers want and the choices they make to achieve them**.** This builds on Katz (2004) who considers how to interpret social practices as different forms of agency by questioning what acts can be considered as resistance. Theorising actions in this way leads to a research focus on how people live their everyday lives and shape opportunities in their favour.

Labour agency has often been conceptualised in terms of collective, organised labour activism overlooking agency that is not conceived in an organised and politicised manner (Castree, 2007; Coe and Lier, 2011, Coe, 2013; Tufts and Savage, 2009). Less research has considered and theorised individual workers' expressions of agency which recognises the role of workers as active (not just as

responsive to the environments produced by capitalism); research with this intention will recognise working class people as social beings who both intentionally and unintentionally produce economic geographies through their actions (Herod, 1997). Scholarship in the field of labour geography is moving towards an increased "recognition of the need to situate, contextualize, or "re-embed" labour's agency" (Peck, 2016:16). Conceptualisations of labour agency often do not focus on the individual acts, everyday and informal practices through which labourers construct their working lives (Carswell and De Neve, 2013). As suggested by Coe and Lier (2011:218), it is important to "…not only escape the narrow understanding of the 'agent' as being the unionized workforce, but also problematize the view of 'structure' being identical to the capitalist system". A broader conceptualisation of agency seeks to consider the role and agency of actors and not just capital in the ongoing social construction of labour markets. This necessitates engagement with "conceptually more disaggregated concepts of agency" (Carswell and De Neve, 2013:63).

Reflecting on the relationship between agency and structure, most authors find that expressions of agency are in close relation to the structural forces present in the local context. As suggested by Coe and Lier (2011:214), worker action should always be considered "in relation to the formations of capital, the state, the community and the labour market in which workers are incontrovertibly yet variably embedded". This implies it is of little value to evaluate acts in isolation from their structural context but rather labour agency must be conceived in relation to the different structures in which workers are embedded. Coe and Lier (2011:229) find that workers inhabit multiple subject positions with differential opportunities and restraints, "…for some their positionality within these structures will offer considerable 'wiggle room' for reworking power relations, for others meaningful agency will be tightly circumscribed by the intersection of structural forces". This implies that expressions of agency are likely to be highly dependent on the context in which workers are situated, also leading to difficulties in drawing conclusions about one place from another.

What counts as *agency*? Beyond the structures that render migrant life precarious one must also recognise agency. Workers are not only victims of precarious environments and we must also recognise the struggles of workers to better understand how social change happens (Paret and Gleeson, 2016). Castree et al (2004) argue agency can be understood as both the intention and the practice of taking action for one's own self-interest or the interests of others (Castree et al, 2004: 159–160). Coe and Lier (2011:8) suggest it is seen in "strategies that shift the capitalist status quo in favour of workers". Cumbers et al (2010), based on research in the UK, argue there has been a lack of sense of both individual and collective agency when analysing the economic and social changes and their

effects on the urban poor. Starting from how people use strategies and practices for 'getting by', they argue that within this context much writing on the urban poor considers them as disempowered individuals lacking social agency and the capacity to shape their own lives (Cumbers et al, 2010). Looking at strategies used for getting by leads to going beyond a search for overt forms of resistance towards "the daily struggles of workers and their families to ensure their own social reproduction" (Cumbers et al, 2010:55).

'Everyday resistance' is a theoretical concept introduced by Scott (1985) to describe acts that are neither collective nor easily recognisable forms of resistance. Everyday resistance considers a wider range of acts and social practices beyond highly visible and organised acts of resistance. This includes acts and behaviours used to maintain dignity and potentially undermine repressive behaviours of others, particularly when overt acts are unviable. Scott (1985) conceives of these acts as tactics used to engage in a form of resistance even if the actors themselves do not necessarily regard them as such. This concern for everyday resistance arose from a desire to articulate the perspectives of 'ordinary' people in the Global South and award them an agency seen as absent in other writings (Rigg, 2007:167). But conceiving of resistance in binary terms as oppositional when many actions are ambiguous and almost anything can be constructed as 'oppositional practice', makes this a difficult distinction (Cumbers et al, 2010:60). As complicity will often be more prevalent then resistance, this focus leads to excessive attention to points of friction overlooking the normal patterns of activity that lie beyond the field of resistance (Rigg, 2007). Actions at one time can "…challenge, support, undermine, reinforce, stabilise and corrode existing power structures, hierarchies and processes" (Rigg, 2007:168). Workers' strategies can be multiple, complex and contradictory and this reflects an understanding that 'agency' takes on a significantly different form and meaning across different contexts. Rigg (2007:182) proposes rather than a focus on ascribing positions of resistance and complicity to two difficult to define groups, it is more fruitful to "[be] identifying and examining the circumstances and contexts within which domination and resistance occur".

Similarly, Katz (2004) argues that acts are not most accurately theorised as resistance but rather strategies in which people live their everyday lives and shape opportunities in their favour. Katz (2004) considers how to interpret social practices by questioning what acts can be considered as resistance and what forms of agency are worth considering. Drawing a line between the *resilience*, *reworking* and *resistance* strategies of workers, this aims to distinguish between a range of 'resistance' strategies identified in the literature. *Reworking* is an intermediate category which considers people's efforts to improve conditions and gain a better distribution of gains within existing social relations and not

necessarily to undo these relations (e.g., through devising strategies to gain better terms). *Resistance* refers to the direct challenges to capitalist social relations (e.g., non-capitalist cooperatives, alternative currencies), which Katz (2004) suggests as 'game-changing' resistance and is much harder to find in the contemporary era. Coe and Lier (2011) find that many actions of individual or small groups of migrant workers will in most cases fall into Katz's (2004) category of *resilience,* while a focus on *reworking* and *resistance* will more likely emphasise collective over individual action. There is a recognition that it is possible to find *resilience* strategies develop into *reworking* strategies, which can lead towards incremental but potentially significant changes in the microspaces of working and living (Rogaly, 2009).

For Carswell and De Neve (2013), labour agency is heavily shaped by the social relations and livelihood strategies of workers. They argue that the decisions that people make regarding employment are deeply embedded within their livelihood strategies, which themselves are shaped by concerns about social reproduction. This approach considers labour agency and resistance as occurring both within and outside the workplace, taking a 'horizontal approach' beyond the factory into people's everyday lives. They find the ambitions of workers are varied, ranging from maximising earnings, to other demands for flexibility, autonomy and dignity in the workplace (Carswell and De Neve, 2013:67). The authors argue that it is the diverse agency (and demands) of workers that have contributed to the highly mobile labour force and differentiated employment patterns that have been identified in their empirical focus, the Indian factory sector. Carswell and De Neve (2013) also identify actions by workers outside the workplace beyond the sphere of employment in the settling of debts, buying of houses and removal of unequal relationships with landlords. This demonstrates the value of re-inserting into debates an engagement with the sphere of social reproduction and its links with production.

Rogaly (2009) argues that everyday, low-key practices that may be hardly visible constitute significant forms of agency suggesting labour geographers need to focus on the ways that people with limited means make viable lives. Rogaly (2009) focuses on the exercising of agency in spaces of production and employment for unorganised temporary migrant workers in India where individual migrants and groups are brought together casually to seek work on a particular job. Drawing on life history narratives of poor migrant workers, he finds three ways in which workers' agency responds to, and produces spaces of agricultural production, that of: temporary migration as an intentional move, negotiation and contestation of employment arrangements including the commanding of space for negotiation, and seeking out of alternative livelihoods. Individual agency is mostly informal and can be seen in various forms, from the act of migrating, to pushing for certain forms of payment or changes to job roles, to working to save money and open a business away from the gaze of the employer. While

the unorganised migrant workers are mostly 'agency poor' and these practices may only achieve short-lived or small change at micro-scale, expressions of agency can have a positive influence on the spatially-embedded daily lives of workers in relation to the subjective experience of employment.
This evidence points to the ways in which workers can take advantage of the resources and opportunities available to them, however limited, to take actions in the interests of themselves or others. This points towards the need to argue that small victories are possible even for poor unorganised workers in a labour market. A broader conceptualisation of agency then can help to focus on these different, low-key and often invisible ways through which working people are able to make viable lives. This moves away from labour agency as a form of resistance, to recognise the varied acts of workers to "create manageable working lives and dignified livelihoods for themselves" (Carswell and De Neve, 2013:69).

Conclusion

In this chapter I have demonstrated the social and economic changes that are transforming the world of work and which have laid the foundations for the growth of platform work. I have sought to demonstrate how platform delivery work can be considered within the context of digital labour and gig work and identified its key characteristics. In short, digitally-facilitated but locally-engaged platform work is exceptional and unexceptional at the same time – it is new and dynamic with impacts that are still to be fully understood, but is also part of and mirrors global trends of increasing flexibility of work facilitated by digital algorithms which manage and organise work. I have shown how platforms facilitate the bringing together of two or more different groups to interact through the platform and the significant ambiguity and 'black box' elements of how work functions through platforms. The particularities of digital labour and the impacts on workers still need to be explored – and this section has sought to provide the basis for investigation in this thesis.

Secondly, I have considered the concepts of precarity and agency in work and how they can be used to situate the experiences of workers in the context of Chinese platform workers. Precarity as a concept has different interpretations and uses but can be productively employed to consider the wider social context for workers alongside the experience of work itself. While this concept is mostly used to explore working conditions in insecure work environments in the Global North, I have demonstrated that there is conceptual and applied value to using this in a different context. To understand how workers respond to precarious work and manage work for their own advantage, I have outlined an understanding of a broader conceptualisation of agency which moves which moves away from labour agency as a form of resistance, to recognise the varied acts of workers to create

manageable working lives and dignified livelihoods. The actions of workers can be interpreted in multiple ways; this thesis will use this understanding to show that the low-key and often invisible ways through which working people make viable lives is a vital element for research.

Chapter 3 Migration in Contemporary China: The *Hukou* System and Migrant Workers

To understand what makes work precarious it is important to understand the wider social context in which migrants enter the urban labour market. This understanding helps to contextualise the decision to engage in platform work and frames the strategies and expressions of agency observed in the empirical chapters. To do this, in Section 3.1, I examine political and economic developments in China through the lens of the *hukou* (户口) system and its impact on migrant workers. There are conceptual and technical difficulties in defining the status of migrants in China. To assist understanding I outline the practical implications of the '*hukou*' system and how it structurally disadvantages migrants migrating to work in urban labour markets.

In Section 3.2, I examine existing research on the working experiences of migrant workers in China to contextualise the empirical research of this thesis. Rapid changes to the labour market are occurring in China, but we still know little about how the dramatic market growth and institutional changes have influenced the ways people find work in contemporary service occupations such as platform work (Chang, 2015). I identify migrants' experiences in sectors which employ significant numbers of rural-urban migrants, including construction, manufacturing, and the growing service sector in China. Migrants often fill roles that are undesired by urban residents, including small service sector businesses and diverse forms of flexible employment such as platform delivery work. Studies of Chinese labour often depict migrant workers as victims of employer exploitation and abuse (Lee, 2016). However, research has demonstrated migrant workers express agency in different forms, from resilience and negotiation, to direct resistance and protests. This section will build on the arguments of Chapter 2 regarding the conceptualising of agency in work and demonstrate that Chinese workers are not passive and express agency in different forms, including expressions of resilience and resistance. Together this information paints a picture of the political economy in which rural migrants' experiences of migration and work in Beijing are situated.

3.1 The '*Hukou*' System and Migrant Workers

Since economic reform and opening up (*gaige kaifang* 改革开放) began in 1978, China has experienced sustained and rapid economic growth averaging nearly 10% per annum for more than three decades (World Bank, 2013). This growth has been widespread across all regions within China;

if provinces were regarded as independent economies, 31 would be in the world's top 32 fastest-growing economies during this period (World Bank, 2013). This major economic success has pulled hundreds of millions of people out of poverty, all of China's Millennium Development Goals were achieved or within reach and China is now considered an upper middle-income country by the World Bank (World Bank, 2013b). There has been a dramatic decline of absolute poverty during this time; according to World Bank data, the poverty headcount ratio has fallen, from 88% in 1981 to 2% in 2013 (at a poverty line of $1.90 a day PPP) (Roser, 2017). Rural and urban workers across China have experienced substantial improvements in many social and economic indicators of development, especially when compared to other large developing countries such as India and Brazil (Lee C.K, 2016). The majority of people below the poverty line reside in rural and remote areas, particularly in Western China, although many more people are living just above the poverty line and vulnerable to risks and shocks that could push them under again (Gong and Li, 2013). There is significantly higher 'human development' in Eastern and Southern China than Western and Central China (see Figure 3).

Figure 3: Human Development Index – China. (UNDP, 2013:20)

During this period of rapid economic growth, according to the World Bank the overall Gini coefficient for China has increased to 42.1% in 2013, to exceed that of the United States (World Bank, 2013b). The richest 10% earn more than 50 times the average of the lowest 10% (Wang, 2010). Moreover, income inequality is exacerbated by growing disparities in both household assets and access to quality public services such as education. Differences in educational attainment within provinces are high, greater even than between coastal and inland provinces, indicating the size of rural-urban disparities

(Qian and Smyth, 2008). Educational achievements are heavily influenced by wealth, power and social networks, evident in the quality of school attended by children from different family backgrounds, and the declining share of college entrants from rural areas in the top universities (Gong and Li, 2013; Sun, 2019).

China's rapid urbanisation continues to be characterised by massive internal migration. Most movements are to nearby towns and within the province of origin, but research finds that a quarter to one third migrate to big cities on the coast (Chan, K.W 2012). The flow of migrants from the countryside has expanded the urban population by 500 million over the preceding three decades. There are significant difficulties in calculating the numbers of the 'floating' population (Chan K.W, 2012:188). China's urbanisation rate has reached over 50% although this rate would only be 36% if based on local *hukou* holders instead of all residents (Fangmeng, 2015). This has affected the lives of over 100 million children nationwide with four out of every ten children in China directly affected by migration (UNICEF, 2013). In 2013, the average age of migrants was 27.3 years, with children under 14 making up 19.8 percent of the total (UNDP, 2013).

Rural-urban migration has been different in China from that in most other (historically) poor countries (Knight and Song, 1999). China's internal migration is heavily controlled and regulated by the *hukou* (household registration) system (Chan K.W, 2012; Fan, 2008). The *hukou* system was introduced in the mid-1950s to divide the population into rural (agricultural) and urban (non-agricultural) residents, as well as into local residents and migrants, largely according to a person's place of birth (Chan and Zhang, 1999). The purpose of this system was initially a monitoring system, however as large influxes of peasants moved to cities and became a burden, the movement of people was strictly controlled (Knight and Song, 1999). The system required every resident to register only one place of permanent residence, therefore curbing migration outside the state plan. The conversion of a *hukou* from one place to another required official approval and was subject to a multitude of regulations. Under this system, urban *hukou* holders had access to employment opportunities in the city, subsidised food and housing, a so-called 'iron-rice bowl', (*tiefanwan* 铁饭碗). Peasants were restricted to where they could maintain themselves and therefore bound to the countryside receiving very few state benefits. Without an urban *hukou* and the associated social welfare benefits it was next to impossible for peasants to obtain these resources outside their registered location and therefore to move to live in cities (Chan and Buckingham, 2008; Zhang L, 2012).

Restrictions for rural *hukou* holders continued during the post-Mao period to achieve new economic goals. After economic reforms began in 1978, temporary migration started to open again as urban

demand for labour exceeded the supply (Knight and Song, 1999). Rural *hukou* holders were permitted to work in urban areas as 'temporary' migrants but could not access urban *hukou* and welfare (see Figure 4). This provided a large supply of labour available for work while also ensuring that this labour would eventually return to the countryside and not burden the resources of the host city. This created a situation that enabled labour-intensive industrialisation and urban development (Fan, 2008).

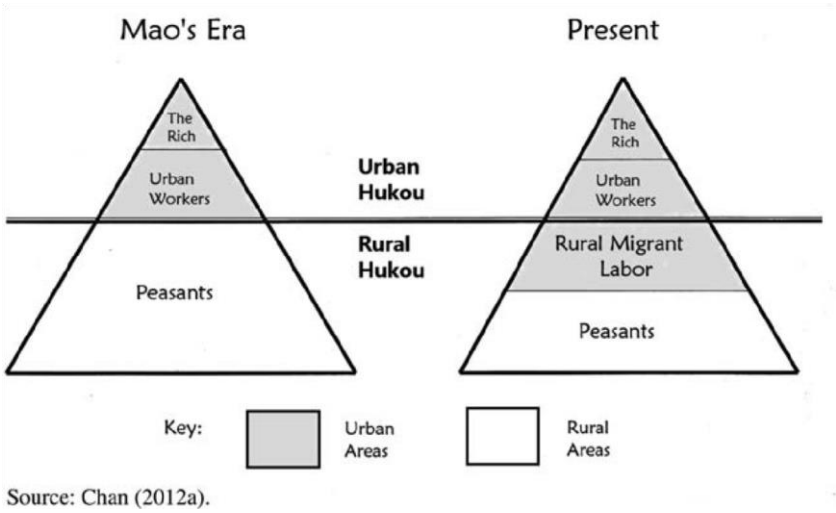


Figure 4: Social Stratification in Mao's Era and Present Day (Chan K.W, 2012: 189)

Under the *hukou* system, cities benefit from migrant labour but the social costs (costs of social reproduction) are shifted to the countryside. The role of the *hukou* in providing access to welfare and other services is commensurate to 'citizenship' in the given city and individuals without this status are deemed second-class citizens in that location and live without access to benefits (Solinger, 1999). To be a rural migrant in China (农民工 *nongmingong*) is a status with real impacts. Temporary residence status in the city of destination in theory enables applicants limited access to certain citizenship rights but this often does not translate into achieved citizenship rights for migrants in the city (Swider, 2015a). With the development of the market-oriented economy, people who move for work outside of their own *hukou* place are referred to as the 'floating population' (流动人口 *liudongrenkou*), living in urban areas as de facto residents for many years, but without proper urban *hukou* registrations (Chan and Zhang, 1999).

The *hukou* is one of the major tools of social control employed by the state (Chan and Zhang, 1999; Solinger, 1999). The *hukou* system links accessibility of state provided benefits and opportunities to people's status. Non-local *hukou* holders in China cannot access unemployment allowances, the minimum livelihood guarantee (*dibao*), low-rent public housing, employment-related training,

support for new enterprises and must pay higher school fees (Zhang L, 2012). Migrants' children are restricted from accessing schooling in the destination city and many children attend substandard migrant-run private schools or are left behind in rural areas often with grandparents to attend school (Goodburn, 2015). Migrants are also restricted from acquiring property in many locations, even at market prices. The *hukou* system in its current form is therefore more of a tool for excluding migrants from access to welfare in the migration destination than for controlling geographical mobility (its original function) (Fangmeng, 2015). The key features of the *hukou* system are:

- Each person is assigned a *hukou* (registration status) in a specific administrative unit (Chan K.W, 2012).
- Each citizen is required to register in one and only one place of regular residence and can only claim eligible entitlements available to them in that location (Zhang L, 2012).
- An individual's *hukou* status remains with him/her wherever one moves and works in China.
- *Hukou* status is not a probational status but is permanent and passed on to children (Fangmeng, 2015).
- The situation varies by city with wealthy cities generally most restrictive to transferring *hukou* status (Zhang, L, 2012).

From the early 1980s, local governments have been given increasing administrative and financial responsibility (Chan and Buckingham, 2008). Economic authority has been increasingly devolved to allow city governments the opportunity to pursue their own defined development interests. While obligations such as providing public goods are devolved, financial resources have not been provided to local government to fulfil their obligations (Zhang L, 2012). City governments are expected to meet expenditures from revenue generated locally resulting in a tension between promoting economic development and providing social services to *hukou* holders (Zhang L, 2012). In the late 1980s many big cities such as Shanghai and Guangzhou began a process of 'urban citizenship for sale' (Chan and Zhang, 1999). The design and implementation were left to local governments to address their own needs, with no fiscal obligation or contribution from the central government. As such, a city is strongly reliant on its ability to compete for highly-mobile investment and human resources, promoting economic development that can raise revenue locally (Zhang L, 2012). The situation varies by city with the wealthiest cities generally most restrictive to rural migrants. Applicants were often required to pay an urban entry fee, with the higher status of the city, the higher the fee (Chan and Zhang, 1999). The system discriminated against those individuals without the economic power to buy property while offering status to desired groups of migrants such as investors and professional workers (Chan and Zhang, 1999).

Traditionally, one's national identity is the basis of one's citizenship and defines the relationship between the individual and the state (Voertherns, 2015). However, the rights of citizens in China do not fit easily into a model of citizenship based on western liberal democracies (Guo and Guo, 2015; Johnson, 2017; Swider, 2015a). Vortherms (2015) disaggregates the concept of citizenship in China by breaking down the *hukou* into four principal components: rights, responsibilities, identity and membership. To have rights is to enjoy some share of the economic welfare of society which can come in the form of legal, political and social rights. The benefits of rights in China vary dramatically between places (e.g., health expenditures between places). Vortherms (2015) argues responsibilities are mostly not dependent on *hukou* status aside from family planning. In terms of identity, formal identity documents and how others see your status (e.g., certain foreign governments are more likely to grant visas to people with a *hukou* from certain cities). Vortherms also argues the *hukou* system is similar in how one obtains membership with a system similar to international immigration regimes where access is controlled and selective, based on a principle of eligibility not entitlement. Through considering the *hukou* in this way, Vortherms (2015) demonstrates how it resembles a subnational citizenship with the welfare state creating localised citizenship between Chinese cities. This conceptualisation can also be useful in trying to identify the differences in the provision of entitlements in different areas of the country (see also Johnson, 2017).

The call from central government to reform *hukou* registration for migrants is at an all-time high and accelerating urbanisation is seen as indispensable for sustaining economic growth and reducing rural-urban inequality (Chan and Buckingham, 2008; Zhang L, 2012). For most of its history, the Chinese *hukou* conversion process has operated with little transparency, but attempts are underway to make the process transparent and open to all who fulfil eligibility requirements. In 2016, Chinese Premier Li Keqiang stated that China would ensure 'orderly' migration of 100 million rural workers into cities (Shannon, 2016). As part of the plans to promote this new urbanisation programme, *hukou* reform aims to grant migrant workers legitimate local residency, equal access to public services and spur a more inclusive form of urbanisation according to Cai Fang, Vice President of the Chinese Academy of Social Sciences (Fang and Meiyan, 2016).

Recent changes to central government guidelines from the State Council are aimed at abolishing the urban/rural distinction that has existed since the 1950s (Goodburn, 2014). This establishes a uniform household registration system that does not distinguish between people of 'agricultural' or 'non-agricultural' *hukou* status; instead everyone will have a residents' *hukou* linked to their place of origin. People who migrate to an area different to their local *hukou* registration can apply for a temporary

residence permit in the city of destination which provides some rights to access services such as healthcare. Yet, the state cannot easily drop the tool and provide access to state services to all migrants. City governments are self-interested in finding and attracting value-added labour while restricting the output on social spending and the provision of public goods to non-local *hukou* holders. As they are expected to meet their expenditures from locally-generated revenues, increasing the number of migrants who can access local *hukou* results in a tension between promotion of development and provision of social services (Zhang and Li, 2016). Local governments are therefore incentivised to maintain a distinction of local and non-local *hukou* holders, with particularly stringent requirements on access to a local *hukou* in China's most desirable cities such as Beijing (Goodburn, 2014).

To integrate migrant workers, cities are expected to offer local *hukou* registrations and city governments are asked to take actions to supply most of the funding to fulfil this pledge (Zhang L, 2012). To manage this migration, policy is differentiated depending on the size of the city. Many local governments now have full power to set their own admission criteria and the number of new permanent *hukou* without a quota imposed by the central government (Chan and Buckingham, 2008). Guidelines for the transfer of *hukou* registration make it easier for migrants to settle in small cities and towns and prevent governments in medium-sized cities from setting too-strict conditions for *hukou* transfer (Goodburn, 2014). In China's megacities such as Beijing, local governments retain the power to shape reform based on their own situation; reforms will therefore not make it significantly easier for the bulk of migrants to transfer their *hukou* to larger cities such as Beijing.

A recent component of China's 'new model of urbanism' is a points-based residence registration system currently being implemented in some of the most attractive cities for migrants including Guangzhou, Beijing and Shanghai. This has been suggested as a means to reflect the differentiated 'contribution' of migrants to the city (Peng et al, 2014). Under this system, potential 'citizens' can accumulate points based on factors such as educational background and social insurance payments, with the criteria and points being variable and set independently by the city. As early as 2004, Shanghai established a system for admitting select migrants to a local *hukou* while excluding perceived low-skilled migrants (Zhang L, 2012). In this system, persons living in the city with residence permits (*juminzheng*) have been entitled to apply for a Shanghai *hukou* if they can meet requirements including paid taxes and social security fees, a middle-level professional title or technical certificate, and no criminal record (Zhang L, 2012). While the requirements are stringent and subject to annual quotas, this initiative opened an avenue to change residence status through qualification fulfilment. Shanghai's model serves as a template for migrant selection that other cities have adopted. In this

model access through the points system is favourable to migrants with skills demanded in the local labour market and who are more competitive. In Zhongshan city, Guangdong province, a college education is equivalent to +55 points, contribution to social security up to +20 points, years of residence in the city +2 per year, honour by virtue of heroic deed from +10 at the urban district level to +50 at the national level and donation of blood marrow up to +10, but a violation of family planning is -200 points (Zhang L, 2012). In Shenzhen, there have been approximately 120,000 applicants per year who reached the 100-point mark and approximately 6,000 applicants who have successfully transferred their status (Vortherms, 2015). Beijing has released its own draft of a points-based residence registration system for potential applicants which began in January 2017.

Reform to the *hukou* system might be expected to have an equalising effect by removing the arbitrary distinction of agricultural and non-agricultural to distinctions based on location (Chen and Fan, 2016). This moves the distinction to one of local and non-local rather than simply rural or urban. The increased flexibility and opportunity for interpretation in selecting migrants to be admitted to the city increases scope for differentiation based on age, gender and area of origin. This government-designated system emphasises eligibility rather than entitlement for the citizens who fulfil the selected criteria. The points system is the concretisation of this trend where an applicant's attributes (his or her '*suzhi*', 'the essential quality of a person'; see Jacka, 2009) are ranked along a variety of terms set by the city. While an individual's human capital is quantified in terms of educational credentials and professional certificates, other factors such as fulfilling social responsibilities, other sanctioned achievements and adherence to laws and regulations are also quantified and ranked. This effectively shifts the power of migration decision-making from central to local governments, that can then selectively attract migrants who fulfil their set criteria. This trajectory of *hukou* reforms implemented in many provinces does not in effect fundamentally change most migrant workers' situation (Chan and Buckingham, 2008). In practice it has the effect of creating an increasing hierarchy of citizenship status. In contrast to discourses of universalised Chinese citizenship rights, migration and its regulation at national and local levels is contributing to a trajectory of increased citizenship differentiation across China (Goodburn, 2014).

In summary, since economic reforms began in 1978, China has experienced sustained and rapid economic growth. This major economic success has pulled hundreds of millions of people out of poverty, yet there are significant disparities between rural and urban China. Income inequality is exacerbated by disparities in both household assets and access to quality public services, enabled through the *hukou* system. Citizens were previously divided into two unequal tiers, that of a privileged urban and an underprivileged rural, and China's internal migration has been heavily controlled and

regulated by the *hukou* system. Many commonly understood aspects of citizenship (for e.g., access to state-run education, healthcare, social security) are not available to those without a local *hukou* in China. Reform to the *hukou* system, including the removal of the urban/rural distinction and the introduction of a points system for eligible migrants, has opened up the potential for migrant workers to access a local *hukou* in the city of destination; yet local governments in larger cities such as Beijing are not incentivised to improve access to services for migrant workers and impose stringent requirements limiting access for the majority of migrants. This government-designated system emphasises eligibility rather than entitlement for the citizens who fulfil the selected criteria. This section has demonstrated the conceptual and practical implications of the '*hukou'* system for migrants in China; these shape entry into the urban labour market, as further explored in Section 3.2.

3.2 Experiences of Migrant Labour in Urban China

The evidence in this section will contextualise the experiences and strategies of migrant platform workers in this thesis. Rapid changes to the labour market are occurring in China, but we still know little about how the dramatic market growth and institutional changes have influenced the ways people find work in contemporary service occupations such as platform work (Chang, 2015). Studies of Chinese labour often depict migrant workers as victims of employer exploitation and abuse (Lee, 2016). However, research has demonstrated migrant workers express agency in different forms, from resilience and negotiation, to direct resistance and protests. This section will build on arguments from Section 2.2.2 on conceptualising agency in work and demonstrate that Chinese workers are not passive and express agency in different forms, including expressions of resilience and resistance.

3.2.1 Where Do Migrant Workers Find Jobs?

Migrants often have less access to formal resources to assist in job-hunting and instead rely on personal networks as they are inexpensive and reliable sources for job information. Social networks can generate valuable resources that help people overcome institutional constraints and find employment (Chang, 2015). This is shown in studies which demonstrate the value of social capital in finding employment in China for both migrants and urban residents (Lu et al, 2013). In China, hometown networks have often played an important role in information networks and regulating employment opportunities for migrant workers (Swider, 2015b; Xiang, 2004). In construction and related industries, kinship ties form an important part of recruitment and regulation of conditions and payments for workers (Guang, 2005; Swider, 2015b). In the informal economy (e.g., Fujian migrants specialising in the garment sector in Beijing) employers will tend to employ people with close ties to

their home region (Xiang, 2004; Zhang L, 2002). As rapid changes to the labour market are occurring (as suggested by Chang, 2015), we still know little about how the dramatic market growth and institutional changes have influenced how people find jobs in contemporary service jobs such as platform work.

China is experiencing growth in employment in service-based industries and a reduction in construction and manufacturing employment. According to China's National Bureau of Statistics (2018), most migrant workers are employed in low-paid sectors such as manufacturing and construction but increasingly a range of service sectors which now make up over 50% of employment. However, the jobs also tend to pay less than manufacturing (Hancock, 2017). There is a corresponding trend of state to private employment and the private sector now produces more than 60% of the nation's economic output, employs over 80% of workers in cities and towns, and generates 90% of new jobs (Xinhua, 2017). Flexible employment has been encouraged by the government as a response to the problems of unemployment and mass layoffs of state sector workers. Chinese government policies have sought to promote multiple channels of employment (*duoqudao jiuye*, 多渠道就业), including self-employment and diverse forms of part-time, temporary and flexible employment (Feng X, 2014). This has corresponded with a growth in the service economy and temporary staffing agencies making labour increasingly flexible without meaningful protections (Feng X, 2014).

According to a national representative survey undertaken at Tsinghua University in 2013, there has been a significant shortening of job tenure for workers born in the 1990s (*daduanhua*, 打短化) (Lee, 2016:325). The research found that workers born before the 1980s held jobs on average for 4.2 years, reducing to an average of 2.7 years for those born in the 1980s and to less than a year for those born in the 1990s. The implication is that there is decreasing job stability and an increasingly fluid job market in China. At the same time, flexible employment is more organised and less 'informal' in China due to more government intervention than equivalent developing countries (Feng X, 2014). Xiang (2017) suggests that in contrast to the trend in Western countries of decreasing state responsibility for ensuring social protection, China is experiencing significant expansion of social protection and labour rights. This can be observed in the 2008 Labour Contract Law, introduction of a minimum living security allowance (*dibao*) and expansion of healthcare provision in rural areas.

Migrant workers due to their lack of local *hukou* in the urban centre in which they work, and lower education and skills training, often work in the private sector. Many young migrants are funnelled through poor quality migrant-run private schools into low-skilled urban service work, often in jobs that are low-paid and high-turnover positions, with little chance for training or promotion (Goodburn, 2020). They often suffer from a lack of stable contracts and limited access to urban social benefits (Lan

and Pickles, 2011). China has a regressive national benefit system which allocates social benefits primarily to urban residents (Gao, 2010). Gao et al (2012) found monthly income is positively associated with social insurance participation and those with higher earnings can afford more social insurance payments. Older, male, and more educated migrant workers are more likely to have social insurance than their younger, female, and less-educated peers. Employees of foreign companies have the greatest advantage in participating in pensions, work injury insurance, and unemployment insurance. Employees of state-owned enterprises are more likely to have medical insurance and more likely to have social insurance than those working in the private domestic sector and those working in manufacturing have higher inclusion in social insurance participation than those in other industries (Gao et al, 2012).

A major employer of migrants is factory and export industries (Zhu and Lan, 2016). Migrants in export industries are in a weak bargaining position in the city and employers are able to 'cherry-pick' workers with the most 'desirable attributes' (Chan, 2012:198). There are increasing pressures from workers for higher quality and higher wage opportunities which have led to changes including up-skilling while some factories have been forced to shut down (Zhu and Lan, 2016). An economic restructuring campaign to cut excess industrial capacity began in 2016 and some export and heavy industries have been closed in Beijing (Wang, 2019). Factory employment on the assembly line has provided many jobs but with long hours in often stifling conditions with relatively low basic salaries (Ngai, 2005; Chang, 2019). Pun and Chan (2013) find that factory work removes the opportunity for family life as workers move frequently from temporary dwelling to temporary dwelling and are subject to reassignments. Work dormitories are designed to maximise control of workers. Workers are segregated by gender and are not allowed to visit other rooms. Any type of social reproduction such as cooking, receiving friends or family is not allowed which creates a type of alienation inherent in their work and living conditions.

A second major employer, particularly of male migrant workers, is the construction industry. Workers in construction are often subcontracted and without a boss or employer who is directly responsible for employment practices (Ngai and Huilin, 2010b). They often do not know the identity of the developers or the construction companies who are responsible for the payment of their wages. Due to the subcontracting system, wages are frequently withheld until the end of the year and often workers struggle to receive the income they have been promised. Consequently, when labour-related issues or non-payment arises, workers make a scene (nao, 闹) to force payment from employers (Ngai and Huilin, 2010b). Long and uncertain waits for wages caused by poorly-enforced contracts create significant levels of mistrust and anger towards construction contractors. Low levels of trust in the construction industry have impacted the willingness of workers to work in the sector.

Migrants' experience of work in construction can best be seen in ethnographic work such as Swider (2015b) and Guang (2005). They examine the employment relations in the informal construction and home renovation industries. Within the construction industry, Swider (2015b) observes that three employment configurations shape the lives of migrants on and off the jobsite, they are *mediated*, *embedded* and *individualsed* employment. This approach of conceptualising employment configurations seeks to explain why migrants enter specific employment configurations, how they shape the lives of migrants on and off the jobsite and why there is little movement across these configurations (Swider, 2015b). According to Swider (2015b), in a mediated employment configuration, workers have an informal yet standardised agreement with labour contractors regarding the conditions of the work, pay and other externalities. Workers live inside the compound of the construction site with most of their reproductive needs from eating to sleeping and entertainment largely conducted inside this space, with workers rarely leaving the jobsite. Migrants' mobility is restricted by the provision of housing and food onsite alongside long working hours and the need to ask for permission to leave the site from the contractor. The restricted mobility faced by migrants in this employment relationship prevents migrants from physical and social integration into the host community by limiting interaction with locals and gaining a limited knowledge of the city. The 'invisibility' of migrants in these relationships works to protect workers from potential state harassment but leaves them with restricted mobility behind the physical and social barriers placed in front of them.

In contrast, dense migrant communities built upon existing social networks form the basis of embedded employment. In construction, contractors are likely to hire only a small number of men at a time and kinship ties form an important part of recruitment and regulation of conditions. In contrast to mediated employment, workers are highly visible living in migrant enclaves and are subject to 'clean-up' campaigns and spot checks. The implication for workers is potentially increased inclusion into city life (at least within the confines of the enclave) and fewer restrictions on their mobility, but workers face increased vulnerability in relationship to the state (Swider, 2015b). Under individualised employment configuration, migrants seek work in 'spot markets' with direct hiring on jobsites or in illegal street labour markets. Employment relations between the worker and employer are also individualised and unregulated with workers at high risk of exploitation. Migrants in these conditions are hyper-mobile, moving between different legal and illegal activities and locations. Faced with an inability to acquire a local *hukou* and its associated benefits, many migrant workers do not register in

the city and effectively become 'illegal'. Due to this, the legal status of migrants is highly tenuous and forces workers to often live and work in spaces outside the umbrella of the state (Swider, 2015b).

Guang's (2005) research on 'guerrilla' migrant renovators in Beijing could be seen to fall into a categorisation of an embedded employment relationship. The informal urban renovators choose to remain unregistered and because of their physical mobility are referred to as "guerrilla workers". Guang suggests the renovators can be distinguished from regular formal-sector industrial workers through their lack of stable work, relationship with the urban state and ethical principles. They rely on getting constant work from urban homeowners and labour without the fixed workplace which could underpin stable employment relations. In addition, due to their status they are often questioned by city patrols and experience the urban authorities as a coercive institution rather than one with regulatory oversight of conditions; that is, the urban authority can be found located in the site of everyday reproduction rather than the site of production. This hostile urban environment of restrictive regulations and occasional hostility of locals pushes them into the outskirts of the city where regulations are less stringent. Confronted with these circumstances the workers turn toward relatives and fellow villagers for communal living and the increased feeling of security and sharing of information. The spaces they occupy in the city are therefore a result of the relationship with urban authorities and other groups which influence their patterns of work and reproduction.

3.2.2 What Strategies Do Rural Migrants Employ?

The initial migration from is often driven by economic reasons. It is not a simple case that every migrant seeks a local *hukou* in the destination city; migrants act flexibly depending on the relative benefits of their *hukou* status and balance priorities across different geographical locations, such as family in a rural location and income earning opportunities in the destination city (Chen and Fan, 2016). Many rural areas have an abundance of labour and there are more workers than are needed. A lack of sufficient and gainful employment in agriculture pushes some migrants to leave and seek employment in urban centres, as the land no longer provides security (Smith and Ngai, 2018). Temporary (non-*hukou* transfer) migration in China is fuelled by migrants seeking out employment in China's more prosperous coastal cities. Woon (2000) researched reasons migrants gave for leaving rural homes to South China and found over half of respondents said the main reason was to increase income-earning opportunities. Ariga et al (2012) similarly found migrants to be primarily motivated by economic incentives such as better work opportunities and living conditions and improved education

for their children. Migrants often perceive urban work as a means to improve household incomes, rather than as a source of permanent livelihood, and plan to return home (Murphy, 2002).

Notwithstanding the centrality of economic considerations, Murphy (2002:21) suggests that migrants consider a wide range of different personal and familial goals when making the decision to migrate, shaped by push-pull factors: "Although migration is usually motivated primarily by economic goals, the outcomes permeate cultural, political, and ideological spheres of rural life, which in turn shape the content of values and lead to the next generation of goals…migration strategies are not simply opportunistic and immediate responses to push and pull stimuli; they are also the products of values and life goals inculcated through longer-term socialization and life experiences". This creates a culture of migration where rural children grow up expecting to spend part of their lives working in the cities. The evidence suggests that while in China the most powerful motivation for rural residents to migrate is economic, migration strategies are also dependent on values and ambitions which frame what they seek to gain from migration.

Likewise, return migration is driven by a combination of economic and social factors for migrants. Rural land is still considered by many migrants as a safe haven and something they can always return to when encountering difficulties such as a temporary loss of income (Tang and Hao, 2019). The pull of reuniting with family is often a key factor which draws migrants home and migrants who have children in their home village are 2.5 times more likely to become urban returnees than urban floaters (Tang and Hao, 2019; Wang and Fan, 2006). A hostile urban environment and institutional and social barriers to integration are also major contributing factors which drive migrants to return home (Wang and Fan, 2006). Improving economic conditions and living standards in rural areas are starting to draw more younger migrants to return and even see it as a desirable option. Return migrants are more likely to be self-employed as through migration they have accumulated various forms of capital that increase the likelihood they will become self-employed (Demurger and Xu, 2011). According to Tang and Hao (2019), who conducted research on return migration intentions in Nanjing and Suzhou, the decisions of migrants regarding return migration are linked significantly to educational attainment, with those who have gained a college education more likely to stay in the city then return to a rural home. Overall, according to their research close to half of all migrants eventually intend to return home rather than stay in their current urban centre or migrate to another city.

Migrant workers frequent movement and job-hopping is seen as one of the most important expressions of agency for workers in China (Wang, 2010; Woronov, 2011). Migrants gain access to more opportunities through mobility, and migration experiences positively impact their incomes

(Wang and Wu, 2010). They accumulate social and human capital which they can use to improve their labour market outcomes (Wang and Wu, 2010). This striving for self-improvement and willingness to be extremely mobile can be seen in the work of Ling (2015) and Woronov (2011); they conducted ethnographic research with vocational school graduates who are largely second-generation rural-to-urban migrant youth working in modern service sectors. The so-called 'new generation' of migrant workers (*xinshengdai nongmingong* 新生代农民工) are migrant workers mostly under 35 who were born under the one-child policy and constitute a significant component of the migrant worker population. Many second-generation migrants want to move from the mechanical, repetitive, and low-status work of their parents' generation. This group are often better educated than the previous generation of migrant workers, more likely to be female, significantly less likely to be working in construction and more likely to work in manufacturing and access training opportunities (Pun and Chan, 2013). This generation have little or no engagement in farm work and an approximate 20% have a college education (Fangmeng, 2015). In contrast to their parents, they have greater aspirations to stay in the city and integrate into the urban economy and society. They are also more likely than the previous generation of migrant workers to move on from employment in search of other opportunities. The majority of the new generation however remain blocked from equal access to critical social services in the city (i.e., education, healthcare) despite long periods of urban residency and have to return to their place of origin to access services. For the significant number of migrants seeking to settle in China's megacities at the centre of investment and migrant employment, there remain very limited possibilities for access to a local *hukou* and access to vital social services.

Many younger migrant workers face a future in the flexible new economy that will mean jumping from job to job and seizing new opportunities wherever they might arise. According to Woronov (2011) migrant youth prefer indoor office work or entrepreneurial undertakings as much as their urban peers do. Woronov (2011:95) finds younger migrants taking advantage of a wealth of opportunity of lower-middle sector jobs in Nanjing: "Where I saw dead-end jobs, low pay and low status, these students saw – and grabbed – opportunity". These low-end part-time jobs were good practice to learn their way around the city, build social networks and learn how to make the best of any given situation. Tensions arise between individual aspirations for mobility and prestige and the state's agenda of producing a new generation of manual and low-skilled service workers (Ling, 2015). The young migrants are not passive and find space to challenge their position in the labour market by accumulating experience of urban lifestyles, learning standard Mandarin and gaining different types of work experience. They are learning the rules of the game and exploit opportunities to move on at

any sign of inconvenience. In this process they are challenging rural/urban and migrant workers as passive narratives through the process of expressing agency in the labour market.

Studies of Chinese labour often depict migrant workers as victims of employer exploitation and abuse (Lee, 2016). However, research has demonstrated migrant workers express agency in different forms, from resilience and negotiation, to direct resistance and protests. Studies have highlighted the ways in which migrants demonstrate agency in the labour market, including in direct resistance to their employers and even local governments. This includes a growing awareness of labour rights and demanding change which can turn into protests and 'collective action' (Chan and Selden, 2014). Pun and Chan (2013) suggest that the new generation of workers are more likely to demand employment protection and decent work. Pringle (2016) similarly finds the life expectations of migrants' contrasts with their daily experiences in the factory dormitory. He argues that a growing knowledge of labour rights among migrants is leading to short and intense bursts of labour unrest in factories. Ngai and Huilin (2010) find that workers motivated by anger with their employment conditions and unsettled status in cities are increasingly conscious of and prepared to take part in forms of collective action. Chen (2017) researched the experiences of Chinese taxi drivers adjusting to the on-demand platform economy and found evidence of increasing labour activism. Significant numbers of taxi drivers using platform applications such as Didi Chuxing had previously engaged in strikes. These collective actions have become well-known in China and were driven by feelings of being used or mistreated by ride-hailing platforms. Chen (2017) also found evidence of drivers using alternative apps to outmanoeuvre the tracking algorithms employed through the main platform app and demonstrated how drivers work around their marginal status.

A contest for control of migrants' working lives and the spaces they occupy in the city is a theme that runs through many of the studies of migrants' experiences in urban self-employment in China. The spaces migrants occupy in Beijing are circumscribed by their tenuous and uncertain status. Xiang (2004) and Zhang L (2002) examine the making and remaking of a migrant village in Beijing composed primarily of migrants from Zhejiang province operating a garment industry. As migrants first arrived in Beijing, they faced significant discrimination and difficulty in renting from local residents who were reluctant to provide renting spaces. Alongside this, local authorities also discouraged the renting of whole properties arguing that this would make it more difficult to identify who is a migrant and who is a legally-registered member of the community. As migrants' business ventures developed and expanded, the need for increased space for production and reproduction increased correspondingly. Through drawing on kinship networks and through negotiating land arrangements, migrants were able to develop enclosed urban spaces designed to enable their business and their daily lives. The

relationship between spatial production and migrant power highlights migrant enclaves as a site for contesting the "control over space, identity, private economies and alternative modes of city life" (Zhang Li, 2002:3).

Pringle (2016) finds strikes by migrant workers have fundamentally changed the victim image of migrant workers; for example, dock workers going on strike and making demands. Pringle (2016) also discusses the example of sanitation workers in Guangdong who were previously employed by the state but now outsourced and subject to frequent changes in employment relations. In the research Pringle found workers went on strike by refusing to clean the streets, winning significant concessions. This was despite structural conditions that make it difficult such as being unorganised and without trade union support. The workers were also an atypical group for strike action (they were not young, consumerist or mobile savvy) which Pringle suggests demonstrates the potential for worker action in China. Zhu and Lan (2016) similarly find that despite a repressive labour regime, Chinese workers are not passive in labour relations and on occasion there is evidence of collective action in the manufacturing sector. Pun and Chan (2013) also find that migrant workers struggle in a highly-managed and repressive labour environment facilitated by the dormitory labour regime that removes the opportunity for family life as workers are moving frequently from temporary dwelling to temporary dwelling. In response to this, workers use residences as space to share and organise and they find the new generation more likely to demand employment protection and decent work.

Where collective action is unviable, migrant workers strategise in other ways. Ngai's (2005) ethnographic account of a factory in Southern China shows in rich detail the processes through which the factory seeks to transform individual female migrants into productive workers. This process involves a range of projects of culture and power that subvert the bodies, behaviours and attitudes of the female workers (2005:75). Ngai finds in workers' daily lives and private thoughts, the temporary and fluctuating ways in which the workers negotiate and struggle with their work situation and identities. This is suggested to occur within a 'kaleidoscope' of power and hierarchies around gender, ethnic ties and rural-urban disparity (Ngai, 2005:132). This view problematises a dichotomous understanding of power and resistance and provides insights into the ways in which workers seek to make manageable and dignified lives. Ngai (2005) finds workers perform an array of actions from dreams and screams to jokes about male work supervisors that "are all points and lines of resistant behaviours, forming a cartography of resistance that will inevitably direct a challenge to power and control" (Ngai, 2005:195). This understanding seeks to open research to finding "multiple front(s) of

resistances" (Ngai, 2005:195), taking place in multiple spaces, and concerned not only with economic and political factors, but also cultural and psychic experiences (Ngai, 2005:196).

Other authors disagree and find little space or tolerance in China for collective actions and social unrest. Studies are sceptical of the possibility of labour movements in China and do not find more protests in second-generation workers but instead find 'authoritarian precarization' (Lee, CK, 2016), or factory work as a form of 'bloody Taylorism' (e.g., Foxconn) (Liu and Smith, 2016: 3). Zhu and Lan (2016) argue that labour agency in China is limited because of the restrictive *hukou* regime and intense suppression of workers' movements. They argue the powerful Chinese state has enabled a consent between labour and capital by creating illusions of socioeconomic mobility for workers which limit their willingness to act collectively. There is evidence of organised protests among platform workers in China, but workers recognised they were largely powerless in taking on a platform app (China Labour Bulletin, 2018). Ping (2019) finds that digitally-enabled food delivery workers are not passive entities subject to a digital 'panopticon' but have generated alternative ways of using and making sense of algorithms. The actions that drivers took were in response to the challenges of platform work including the gamification and time pressures that enabled the workers to manage the work, but not to engage in collective or resistant actions. The dispersed nature of the workforce and the lack of a firm location or labour contract make collective actions difficult to organise.

3.3 Conclusion

This chapter has examined literature on the working experiences of migrant workers in China in order to contextualise the experiences of migrants working on platforms in this study. In Section 3.1, I examined the position of migrants in Chinese society and demonstrated how the *hukou* system works to disadvantage migrants' entry into the urban labour market. Since economic reforms began China has experienced rapid economic growth, but with growing inequality between rural and urban China. This income inequality is exacerbated by disparities in both household assets and access to quality public services enabled through the *hukou* system. Migrants are physically present in the city which benefits from their labour but social costs, such as raising children, are shifted elsewhere. Migrants are subject to institutional discrimination which limits their entitlement and access to services provided to urban residents such as healthcare and schooling for children. As migrants move to urban-based jobs they are not considered to be legally urban workers with the rights and entitlements that this entails. This is the structural context faced by migrants in China.

In Section 3.2 I find an increasing range of service sectors employ migrant workers. However, workers struggle with living conditions and employment relationships which are often not legally defined or regulated by legal contracts. Migration is driven by variable access to employment opportunities and disparities in wages between urban and rural and across different regions in China. I identify migrants are primarily motivated by economic incentives, but this is also shaped by a range of social and cultural expectations and demands. Migrants find employment in a range of sectors in urban labour markets that are less desirable to urban natives, particularly in construction, manufacturing, and the growing service sector. Studies of Chinese labour can often depict migrant workers as victims of employer exploitation, but empirical engagement with experiences of Chinese labour has been mixed. Chinese workers are not passive, and research has demonstrated migrant workers express agency in different forms, including *resilience* and *resistance*.

Chapter 4 Researching Platform Work in China

Background

The data presented in this thesis was collected during fieldwork in Beijing, China between September 2017 and December 2018. In this chapter I discuss the overall research design of the thesis including primary data collection in the form of interviews and questionnaires and data analysis of qualitative data using NVivo software. I address key questions posed by Cresswell (2013) on geographical inquiries. Firstly, the choices I made of what to study. Secondly, what to include and what to ignore in a large and rich qualitative dataset by showing the process through which I constructed theoretical concepts based on reflective interpretations of the qualitative data. Thirdly, how this information is gathered including the methodology and epistemology through which I have drawn theory from the raw data.

This chapter is organised in three sections. Section 4.1 discusses the collaborative elements of this research and outlines the data collection methods I used to collect primary and secondary data to answer the research questions posed in this thesis. I employed three data collection methods: these were semi-structured interviews, questionnaires, and secondary data in the form of statistics and blog articles written by drivers on platform work. I outline the research process including the pilot study and initial fieldwork, field diary, recruitment of participants, sampling methods and justifications of my methods. I also address the process of accessing research participants, gaining research consent, and managing language difficulties. In Section 4.2 I discuss the ethical issues that I faced conducting a piece of research in China with migrant workers, including my positionality as a researcher, participant consent and obtaining permission to carry out research. Lastly in Section 4.3 I discuss the data analysis I undertook including the use of NVivo software and coding to conduct thematic analysis of the interview data collected.

4.1 Data Collection

Data for this research was collected during the period of September 2017 – December 2018. I had three periods of research and data collection in Beijing, which included a pilot study and difficult language training in Beijing (see Table 1).

Date	*Location*	*Main research activity*	*Additional activity*
September 2017 – January 2018	Beijing, China. Beijing Normal University, School of Social Development and Public Policy	• Discussion of research aims with scholars with expertise on Chinese migrant workers and conducting research in China • Undertook pilot study consisting of a questionnaire with 25 postal express delivery drivers. Undertook limited ethnographic study of the daily lives of express delivery drivers • Developed contacts with fellow researchers in Beijing	Orientation in Beijing Observations of delivery work
January - February 2018	UK	• Critical reflection of research aims and direction of research and re-design of research activities • Designed questionnaire	
March 2018 – July 2018	Beijing, China	• Difficult language training in Mandarin Chinese • Contacted a research assistant • Ran a trial of questionnaire with key contacts (feedback on accessibility, time to complete etc) • Re-designed elements of the questionnaire and collected responses • Designed interview questions • Conducted interviews with platform delivery drivers	
August-September 2018	UK	• Data analysis of data collected from 298 questionnaires • Qualitative data analysis and reflections on key themes from interviews	
October-December 2018	Beijing, China	• Conducted further interviews with platform delivery drivers	

Table 1: Sequence of Fieldwork Research Activities

4.1.1 Collaborations

The data collection of this thesis was in part a collaborative effort, working alongside China-based researchers of digital and migrant work. The collaborative elements include the questionnaire design and data collection, some of the interviews and the interview transcription.

During the period September 2017- January 2018, I successfully applied through the UK-China Joint Research and Innovation Partnership Fund (known in the UK as the Newton Fund) for a period of study at Beijing Normal University. The purpose of this study period was to establish connections with Chinese partners and look for opportunities to undertake a limited pilot study to inform the feasibility and practicalities of a PhD project. During this time, I received support and guidance from two Chinese academic staff: Dr Hu Xiaojiang and Dr Tian Fangmeng. They provided a valuable sounding board for me to discuss my research aims and provided critical feedback. I also used this time to build connections with other China-based researchers to improve my understanding of the research topic and the local context for undertaking research. Through this I got practical feedback on how I could go about collecting primary data with workers and discussed the feasibility of using ethnographic research methods.

During this period, I was introduced to Dr Jenny Chan, who is a China-based academic researcher with interests in labour studies in China, and fellow researchers from the Chinese Academy of Social Sciences (CASS), particularly Zhang Shuwan, Postdoctoral Researcher at CASS, and Ping Sun, Lecturer. At the time of the research design, the evidence base on the sector and the background of drivers was not well established. As such, the opportunity to work alongside China-based researchers who could bring understanding and local knowledge of the sector and who were more familiar with how to describe the working arrangements proved very useful. We found that we were similarly interested in the growing platform delivery sector and looking to undertake primary research in Beijing. We agreed that there had been little academic literature on the digital and platform sector in a Chinese context. This included understanding of how work was being managed on platforms, the role of the driver in delivering orders, the perspective of the driver regarding the work, and how this linked to the wider socio-economic context in which this work was situated. Based on this understanding, we agreed to work together and collaborate to collect primary data in these areas. We wanted the research to cover themes of mutual interest so that the evidence each collected would be of value for our respective research aims.

For the collection of interview data, we approached drivers, arranged, and conducted the interviews independently of one another, and we agreed to share the transcripts of the interviews we conducted. For the purposes of this PhD research, I used interview data collected by myself and Dr Jenny Chan.

This had the mutual benefit of expanding the size of the sample we could both use for the purposes of our research. For the transcription of the interviews, Dr Chan and colleagues supported with the transcription of the interview data into Chinese text and I subsequently translated the raw Chinese transcript data into English to conduct my own analysis.

Alongside Dr Chan and researchers from CASS, I co-designed a questionnaire to better improve the quantitative evidence base and help meet my research aim to uncover how platform work is organised on a Chinese delivery platform application such as Meituan. Over a series of meetings and discussion via email, we agreed the aims of this questionnaire were to improve understanding of the labour conditions, working experience and background of the drivers engaged in delivery work in Beijing (discussed further in Section 4.1.4). I wrote out the questions that I wanted to include in the questionnaire to share and we agreed on the questions to include. We also collaborated on the distribution of the survey. To do this, I reached out to drivers I had built rapport with previously to ask them to complete the survey and share with their acquaintances via a process of snowball sampling. Dr Chan and CASS researchers also distributed the survey via their network and together we were able to collate more responses than we would have been able to do independently. We each had access to the data collected from the surveys and shared this with each other for research purposes.

4.1.2 Preliminary Fieldwork

During the period September 2017 to January 2018, I undertook a pilot study consisting of a questionnaire with 25 postal express delivery drivers and a limited ethnographic study of the daily lives of express delivery drivers. The questionnaire was designed to understand the main motivations for migrating to Beijing to work in this sector and provide insight into their working conditions. Being based at a university, I took advantage of the easier access to delivery drivers working on and around the campus to administer the questionnaire. From this experience I learned the value of being introduced to a colleague as in snowball sampling rather than approaching workers on the street without an introduction. I also reflected on my approach to discussing the research and the value of demonstrating affiliation with a recognised institution such as a university for giving reassurance on the purposes of the research.

During this period, I also undertook pilot ethnographic research alongside Dr Jenny Chan with express delivery drivers in Beijing. This involved spending time with a driver over a day accompanying him as he made deliveries, sharing lunch, and visiting living accommodation. This proved useful to learn about how the work was organised and how workers spend time in between deliveries. For example, it was interesting to learn about the informal payment system for delivery work despite the digital facilitation of many other aspects of express delivery. I also usefully got to see how delivery drivers get around

the city and their use of back entrances of office blocks in the central business district of Beijing. This experience highlighted to me the potential value and insight of ethnographic methods for exploring in depth the experiences of workers. But based on my experience during the pilot study, I decided not to undertake intensive and longer-term ethnography. Digital platform workers are highly mobile when working and are very time stressed, often moving across the city and through the urban infrastructure at high speed. There are a range of safety issues in the sector which can make it difficult as a researcher to follow the worker whilst delivering. I decided for the purposes of this PhD research to speak to drivers during their non-working periods rather than when they were working as this had the advantage of finding them able to speak at length on their experiences.

A further benefit of this pilot period was to spend time observing work and drivers at work in the city. This primarily involved me observing different types of delivery work and making field notes to refer to and remind me of my initial observations. I also used this time to watch online videos of platform work recorded by workers, read news articles, and follow bloggers on WeChat. This stage involved significant periods of learning to inform the research; this included learning about where drivers live and work and how they apply for work and operate on platforms in Beijing.

In this research the questions asked, and decisions made, were reflected upon frequently. Baxter and Eyles (1997) suggest that the researcher's biases, motivations and interests in relation to the questions asked and the decisions made in the research are rarely reflected upon. To counter this, they suggest the researcher can provide an 'audit trail' of the research process, such as excerpts from field diaries, to demonstrate how research decisions were made. To provide this 'audit trail' I similarly used a fieldwork diary to document how I made decisions and important considerations. My field notes included details about the settings, events, people's behaviour and topics discussed, recorded chronologically, as suggested by Silverman (2005), and included thoughts about the fieldwork process as well as analytic observations. During times when I was less active conducting fieldwork this reflective process was also helpful in retracing my steps and seeing the process of tacit learning and the development of ideas. This is illustrated by fieldwork reflections I completed during the early stages of the research process:

Fieldwork diary, 09.2017

I think they are working for different companies – one of the biggest seem to be Meituan which is city wide and requires their drivers to wear very heavy jackets (Beijing was about 28 degrees today and incredibly muggy!) and helmets when they work. Other smaller ones seem to have logos on their bikes but not required to wear particular clothes when they are driving. One worker for Meituan came in where I was having my lunch, wearing a bright yellow heavy plastic bike jacket covered in the logo of

the company to pick up a packed lunch of fried vegetables on rice. He barely looked up from his phone as he entered the shop, the owner pointed to one of the bags of food on the windowsill behind the cash register where he was sitting and walked out again with the food. Another worker from the same company came in very shortly after to pick up one small packed lunch in a plastic bag – so it seems slightly uncoordinated that they wouldn't pick up two at the same time – or they were delivering to two very different locations?

During this period of learning I observed and read about platform work and how workers apply to work on platforms. Alongside these observations I also followed several WeChat blogs written by workers on their experiences. Across blogs, workers discuss issues they face working on platforms and these have been a useful resource to gain a better understanding of workers' concerns, as shown by Rosenblat and Stark (2016) in their work on Uber drivers. Blogs are a direct source of information regarding recent developments, concerns and opportunities in platform work; blog articles often address stories or events happening at work and include feel-good stories, views on changes to platforms and practices of informal organising. By reading blogs, exploring different areas of Beijing and chatting with workers informally, I learned how to better conduct research and made important improvements to my data collection process. These were to develop a better awareness of how to communicate as a researcher, find appropriate locations and times for the interview and gaining a recommendation from a fellow driver or friend before approaching or contacting a driver.

4.1.3 Semi-structured Interviews

Purpose of interviews

In a semi-structured interview there is freedom to allow the respondent to play a role in shaping some of the interview agenda. Interviews can be an effective way to produce a reflection of interviewees' circumstances and identify "the world from the subjects' point of view" (Kvale, 1996:1; Gillham, 2005). The aim of the interview is not to be representative of an entire population, but rather to understand how individuals experience and make sense of their own lives. Utilising semi-structured interviews was the most appropriate method to acquire a rich source of relevant data. The method was helpful in ensuring the conversation was free flowing and naturalistic while also ensuring comparability of responses. I followed pre-prepared questions (see Appendix C: Interview Schedule) while allowing conversations to progress naturally; when discussions moved into different directions determined by the interviewee, they were given the freedom to elaborate on a point and to give further details on their own experiences and perspectives.

Semi-structured interviews are purposeful and flexible conversations and I could respond as new topics emerged during the interview. Having a conversation creates a more personal atmosphere in which the interviewer and the respondents can build trust and feel more comfortable, thus producing deeper knowledge. I was therefore able to make changes to interview questions as new topics emerged during the interview. Interviewees were given the opportunity to explore the subject from their own frame of reference which helped me as an interviewer understand the process and context through which they came to choose platforms in Beijing for work (the value of this is demonstrated in the depth and honesty of responses, as can be seen in the empirical chapters of this thesis). Framing of the interview through the workers' own experience, language and cultural concepts helped uncover issues I had not thought of or had little understanding of prior to the research. Respondents were encouraged to ground their narrative in examples from their own working lives. For example, based on literature relevant to the UK and wider Western countries on platform work, I had assumed the instability of work was likely to be the main consideration of workers and asked questions to explore this. Through the course of interviews, it became clearer that drivers valued deciding how they worked on platforms in contrast to other work they had engaged in previously. This was strongly contextual and to understand how and why this was the case I took a flexible approach to the interview and responded to the perspectives of the drivers.

The research was not intended to be representative of the perspectives of all Chinese platform drivers, but my aim was to reach theoretical saturation on topics discussed related to my research questions. Saturation is where the collection of new data no longer provides greater understanding of the issue(s) being described and for the most part, no new themes emerge from the interviews (Eyles and Baxter, 1997). The data was collected until I was confident that the most significant issues and perspectives to answer the research questions had been addressed. For example, the 'freedom' (*ziyou*) in platform work was frequently discussed by drivers in relation to their work. The topic would often arise organically when platform work and their previous experiences of work were being discussed. I would use these discussions as an opportunity to explore the drivers' work history and how they came to choose platform work for the perceived freedoms on offer.

<u>Interview data collection process</u>

In this section I will discuss the process of collecting data through semi-structured interviews. This data was collected over two periods of fieldwork from March – July 2018 and October – December 2018. For the purposes of this thesis, I use evidence from a total of 37 interviews with drivers of which I completed 27 of these interviews with 10 completed by Dr Jenny Chan (see Appendix E: Interview

and Questionnaire Respondents). Interviews explored the routes into platform work, what framed the decisions of drivers, and the contextual and holistic factors which frame their decisions and strategies in work.

During the first stage of research, I had two main strategies for engaging with workers; they were to seek out drivers making deliveries and to approach drivers whilst waiting for orders being prepared for delivery in a restaurant. For the first strategy, I approached persons who could be identified by their attire as working for platforms. I used a critical case approach whereby respondents were chosen for their personal involvement in platform work (Weinstein et al, 2009). Solinger (2006) in her China-based fieldwork, would often use similar methods by engaging people at work or on the street in conversation and found it a productive method of research. Around the university I found drivers were required to park their motorbikes outside of the campus and walk the final stretch into the university to complete the delivery. This provided an opportunity to engage with them and introduce myself and the research and ask if I could accompany them as they conducted a delivery. As drivers were usually in the middle of delivering and under time constraints, they were mostly reluctant to engage in discussions, however on a few occasions they were willing to allow me to accompany them and I was able to have a short discussion and pass on my contact details. I gained some feedback on the time pressures and routines associated with their work, but it proved difficult to gather data beyond relatively short discussions.

I encountered some hesitation when I approached drivers alone and without prior notice or a recommendation from a friend. It can be very productive once contact and trust are gained to ask for assistance through a process of snowball sampling when conducting primary research in China (Sæther, 2006). I recognised that I required different methods to engage workers in an interview, to build trust, develop a rapport and help participants to understand the nature of the research.

Excerpt of a discussion with a platform worker - the value of snowball sampling!

A: Interviewee, B: Simon

A: Because I told them (roommates) about this, they said this thing (our research) have heard about, heard about it last year
B: Yeah, we had started some conversations last year
A: I told the guys in the dorm, in this society nowadays, you have to kind of think, have to worry about cheats
B: It's ok I'm not a cheat

A: I think this society you know the news is always showing there are too many cheats, he said (roommate) any situation/circumstance will have cheats, it's like that now, you see often if you are not careful you will be fooled
B: Yeah, it's better to have someone introduce you
A: So that's why Sun before had said, had said to you about this I hadn't paid attention, he asked me again last night said who you are right, that you want to understand a bit, said there's nothing to worry about I have already gone through it with him, you have talked with before right?
B: Yes, that's right
A: So, I said that's ok then, no problem, if you are interested then I can have a chat with you

During this period of approaching drivers without prior introduction, I found it was difficult to re-arrange extended interviews as many workers were busy and not open to arranging a specific time and location to meet. When conducting participant observations and snatched conversations with workers, I learned of the time intensity and demands of the work and of the periods of time when workers were relatively less busy. As Datta et al (2009) found when seeking to interview precarious workers, it can be difficult to arrange a concrete time as often workers are unsure of their schedule until the day before; contact and interviews are usually done at short notice and can be subject to cancellation or change. The importance of timing of the interviews was a key realisation as workers tended to be very busy during peak hours but were relatively free during the mid-afternoon hours which became the most productive time to conduct interviews. Without trust or a recommendation from a friend it proved difficult to gain an extended interview. When conducting research in China there is a strong value placed on insiders; often it is necessary to prove your status as official (e.g., through a business card) (Sæther, 2006). I found snowball sampling as an effective method of gaining research participants, particularly when I was asking people to give up time. After completing an interview and building a rapport with the respondent, I would then ask them to pass on my details through WeChat to co-workers and it proved the most productive method to gain further participants.

This initial period of data collection was occasionally challenging and required me to consider how I presented myself and responded to people's questions about the research. My knowledge of the research context was accumulated through five years of living, working, and studying in China. This shaped my approach to conducting the research as I have some experience of the social and cultural expectations in China. During this initial period, I worked on improving skills for communicating with the research group (Sæther, 2006). I developed confidence communicating my status as a researcher and in explaining what I was looking to find out and why. This process involved me learning how to discuss platform work and its terminology. With more time spent discussing my research, I developed

the ability to express myself and my research to drivers and convey my intentions for the research. Excerpts from my field diaries demonstrate my managing of the research process and my reflections on what was going well and how I could improve my communication:

An example of tacit learning based on my fieldwork diary notes, November 2017: Reflections

"Before the first interview I was a little nervous - I was refused for the first one, then told to come back later for the second one, and then the third men were a little questioning and confused and despite my best efforts to reassure them I was not testing them or they could be in the wrong [he said something like "I don't think this kind of thing is good for me-I am not able to do something like this"]. On the fourth attempt I recognised someone I had spoken to before and that familiarity helped…we also had a little chat about '11.11 Single's Day' how it was made up by Ma Yun, "Yeah it was 11's day last week so we had so many packages to deliver, working from morning to night…11's day is Ma Yun's idea, only started a few years ago, now there are lots of festivals"

It gives you confidence that you are not wasting people's time when you get a positive response, and they are willing to tell you about their work and do so with a smile and a sense of humour. Next, we went and talked to a man of 27 about his working experiences here. He was a little hesitant at first, but he relaxed and was really open to chatting about his working experiences which haven't always been positive - he worked in the city centre and was often angry at how he was treated, thinking about how to contact him again. Some reflections:

Is it better to do this on my own or with research assistant?

I think it would be preferable for the first interview if RA was there to assist in translating, and also to explain things and might help the interviewee to feel more comfortable. If not available shall I let him know in advance it is just me?

Where is an appropriate place to do an interview?

I think close to where they work is best. At the University, the underground coffee shops and milk tea places I think I can find somewhere down there. Preferably somewhere that is not too quiet or formal (or also too loud for the recorder), so the interviewee feels quite comfortable

Can I use a recorder/how do I ask or say this?

This is quite important for me to use, particularly on my own, but also if with RA, as if speaking for a long period of time it is very difficult to remember and note down the most important points, let alone verbatim. Ask after sat down and have introduced what we/I am doing

What/how do I want to ask questions?

I have them in Chinese in my notebook - I think that is not intimidating or odd to refer back to if need when in conversation. Feel my questions are too formal and should be more conversational! Feel they are not really related to how people will comfortably respond and can think about this again. Can I relate to news stories I have read/ TV shows seen - they are likely to have seen or at least heard of and seems a good starting point to talking about their work and their experiences of it.

After this period of gaining experience and making contacts, I started to also utilise a second strategy to engage drivers. I sought out a restaurant where many orders were being processed by delivery workers. In this restaurant there were plenty of drivers picking up orders and I was able to approach them whilst they were waiting for a collection. Sometimes they would have to wait for extended periods of time before taking the order and I was able to engage them in conversations regarding their work and work process, as recorded in my fieldwork diary:

Fieldwork Diary– Approaching drivers [10.2017]

"Sandwiched between the corner of the north third ring road and a main road going north, it's possible to get to most areas in Xicheng district pretty easily, or even into Haidian district and Beijing's major universities. On the ground floor are cafés and modern looking restaurants including for porridge and lamb soup. Outside the building are around 20 or more e-bikes. On the above floors from the 1st floor upwards are offices for mostly non-descript white collar workers served by a lift and a separate entrance. On the far side is the 'meishicheng' (delicious food-court), served by a tight stairwell heading to the basement. On the way down I passed a platform driver on the stairs with a handful of milk-teas. Surrounding a large canteen area with orange tables and chairs there are small family owned regional stalls, there are no windows and it's warm because of frying dishes. I ordered a milk-tea and had a look around, about 20 or so drivers in there, all male, flicking through their phones, having some breakfast, I approached one table with a guy in uniform and started chatting…"

Spending time with drivers in between orders enabled me to build contacts and exchange contact details with drivers. I would then subsequently contact them on WeChat to arrange a time when they were available to meet to discuss their experiences of the work further. At this stage I had met drivers in different parts of the city and in different locations from restaurants, small-scale cafés, on university campuses to parks and other public locations. To find a suitable place to conduct a research interview

and ensure the research participant was comfortable and aware of the aims of the research, I considered several factors which I will now outline.

In this research, there was a process of understanding the significance of different locations which addressed these concerns in an ethical and pragmatic manner. I aimed for interviewees to feel relaxed in their interaction with me and the research assistant. In locations familiar to the drivers where there was no management present, I found they were open and willing to discuss their work. I looked for locations which were open enough so people would not ask questions which could leave the driver feeling uncomfortable, away from management. I found that places in the city where platform workers would tend to take rest periods, such as in public parks and less expensive cafeterias in shopping malls, as the most appropriate location for the interview. I considered the appropriateness of the interview location based on feedback from fellow researchers; a platform worker dressed in full attire with a foreigner in certain locations could potentially draw attention to the purpose of data collection.

I looked to balance concerns about power relations and chose a location where participants could openly converse frankly and honestly without feeling uncomfortable. Elwood and Martin (2000) found that younger middle-class homeowners in the US preferred a coffee shop for interviews while working-class homeowners wanted to be interviewed at a neighbourhood restaurant; this demonstrated to the researchers the ways in which identities and power are constituted in the interview experience. As the researcher it was important not to position myself as expert (e.g., in a university office) or choose somewhere we are unable to converse freely (e.g., the company office). I agree with Elwood and Martin (2000:649) that "the interview site itself produces "micro-geographies" of spatial relations and meaning, where multiple scales of social relations intersect in the research interview…participants' varying positions, roles and identities in different sites can illustrate the social geographies of a place". This highlights the importance of selecting a location in which the impact of power relations is reduced, although recognising they can never be eliminated completely. In addition to these 'micro-geographies of place' I also managed pragmatic considerations of choosing a convenient location which is quiet enough for the recording device to work. Some of the locations could be relatively noisy and it occasionally affected the quality of the recordings. This had an impact on drawing data from some of the initial recordings. I was required to reconsider the approach to ensure that this was not a significant problem in subsequent interviews.

To ensure interviews could proceed without too many stoppages I prepared before conducting an interview including practice runs with trusted colleagues. Before the interviews began, I wrote out the key questions and the direction I wanted to take the interviews in my notebook, so I could refer to

prompts if needed. Interviews were generally at least 30 minutes long and particularly in a second language conducting interviews can be difficult whilst also making notes. Taking notes also removes some of the naturalness of the conversation and using a recorder enabled me to focus completely on the conversation and steer it towards areas of interest to the research.

A Mandarin speaking research assistant (RA) was recommended to me through a contact and was a student in a university in Beijing. I employed her to assist me in conducting the interviews and I instructed the RA on the aims and methods that I was using for the purposes of the research. In the first stages of interviewing when I was still becoming familiar with some of the related terms and expression, the RA helped me to unpick some of these terms and helped to further my understanding. The RA would introduce the purpose of the research and helped ensure it was stated clearly to respondents. The research assistant would be introduced during the interview and would confirm translations when I had difficulty understanding and ask questions of interest to elaborate upon points that I had not picked up on. During times when the research assistant was present, we would be able to confirm that I had understood the intended meaning of respondents' answers.

Conducting research in a foreign language required me to interpret ideas and concepts that are not direct translations of English. As some of the topics and terminology refer to certain elements of digital work and platform applications which are new, I would ask for confirmation or ask for an explanation in a different way. During interviews or discussions with workers, issues faced included difficulty when coming across new terms (such as *zhongbao,* 众包, *crowdsourced*) requiring confirmation and discussion. Alongside researchers with whom I had developed contacts we discussed our understanding of the different types of work and terminology used to describe features of the work. Features of platform work and the language used to describe them are renowned for ambiguity, misdirection and ease of misinterpretation (see Section 2.1). In this context there proved to be similar issues in understanding the different elements of the work; in particular related to the rating and evaluation system on the app, the potential awards offered to workers, and the employment relationships between the driver and the app.

Solinger (2006) suggests that it is important, even in a second language, that every word and thought should be caught and understood on the spot and that listening to a transcript later on will not help if the researcher has not understood the first time something was spoken. In this research I would confirm things with the interviewee (and research assistant) during the conversation that I had not completely understood; this was especially the case when I encountered new terms early on regarding platform working arrangements. I found it is difficult to understand and catch every concept on the spot as social and cultural differences inevitably can lead to different understandings. I used my status

as a foreign researcher to ask additional questions that may have seemed obvious to native Chinese speakers but helped me to understand the connotations of the issue being discussed. I found clarifying some of the terms used opened productive avenues of inquiry; interviewees were asked to explain why and in so doing provided insights into how they came to make decisions and form strategies in the work.

In this research, one of the concepts that became important due to the frequency and enthusiasm with which it was discussed in relation to platform work is the idea of '*ziyou'*, akin to a type of freedom. While I understood the word on first hearing, it took many questions and interviews to understand some of the ways in which *ziyou* is used by drivers. The frequency this concept was discussed required me to consider the implications of the term and how it is being interpreted and used by drivers in the local context. To interpret '*ziyou'* as I have done in this thesis, I first considered how it was discussed and probed into what the interviewees were referring to. This often led to conversations about their previous working experiences which they would use to contrast with their experience of platform work to demonstrate what this meant for them. While I endeavoured to understand everything on the spot this was not always the case; the discussions that arose from trying to understand the concept and its implications led to valuable discussions which frame a lot of the qualitative responses in this thesis.

4.1.4 Questionnaires

In this research I used questionnaire data to provide statistical insights that could not be collected using interviews. The advantage of employing multiple methods is the weaknesses of each single method can be reduced from the strengths of the other method (Olsen, 2004). In this research I have undertaken method triangulation which involves deriving information from at least two different methods, that of interviews and questionnaires. This can in turn strengthen the credibility of the conclusions drawn when multiple sources can provide similar findings (Baxter and Eyles, 1997). Questionnaires as a single method do not allow for interrogation of complexity, as suggested by Mei-po Kwan (2010:575), in questionnaires it can be "…difficult to convey a sense of people's feeling and their interactions with others. This in turn makes it difficult to obtain a contextualized and holistic understanding of the complex processes involved in their everyday experiences". By combining the quantitative data from the questionnaire with the interview data, I have aimed to demonstrate the conditions for workers and to explore how they are experienced by drivers and develop insight into the complex processes and everyday experiences of drivers. The questionnaire data has been used to provide a basis for understanding the conditions of workers which has contextualised and added depth to the findings.

In this research I used questionnaires to provide additional contextual data on the drivers (e.g., their age profiles). Quantitative methods in social geographic research enable researchers to identify broad geographic patterns in social issues (Kwan, 2010). As platform work is a dynamic and fast-growing sector in China, there is a scarcity of reliable statistics on the numbers of people employed, salaries of workers, and time spent working on platforms. Statistics on sensitive issues such as the turnover of staff, migrant status and hours worked are even more difficult to find. In China, officially-released statistics are often incomplete, and the researcher must question whether data has been politically generated or edited. For example, while data from the National Bureau of Statistics compares well to countries belonging to the former Soviet Union, any statistical data published should be taken seriously, but not uncritically (Björn and Shi, 2006). Alternative sources of statistics on platform work include data self-released from platform companies such as Meituan which are readily available online and in media reports. These also function as marketing materials for the companies and seek to portray the company in a positive light. I do refer to some of the data produced from these sources in the thesis but only do so in reference to the data I have collected to compare and contrast. Such corporate data does not necessarily accurately reflect the experiences of people engaged in this work, as I discovered during my preliminary research and in blogs completed by platform workers themselves.

The questionnaires were designed in co-ordination with the advice and suggestions of fellow researchers based in China (see earlier discussion of collaborations). Questions included in the questionnaire sought to address the following areas:

- Personal background (e.g., age, place of birth)
- Length of time working in the sector
- How the work was found/applied for
- Employment relationship
- Working conditions
- Positive elements of platform work
- Concerns/issues in their work

All respondents were aware of the purposes of the research; that this was a university-based research project on platform work and that all their responses were confidential. As suggested by Simon (2006), the confidential nature of the research was stated at the top of each questionnaire and made clear to each respondent. Before the survey went live I conducted a test of the survey with key informants to gain feedback and estimate the amount of time required to complete the survey. Collaboratively, we designed a questionnaire which links to a survey collation site. The questionnaire (see Appendix D:

Questionnaire [English Version]) was sent to platform workers with whom we had been in contact previously and we asked them to pass on the details to fellow workers as a form of snowball sampling. In the questionnaire respondents were asked if they were interested to take part in a follow up, a more in-depth second interview related to their working experiences on platforms. If they were interested, they were asked to leave their contact details after which I would contact them to arrange a convenient time to meet. Through this method, I was able to gain several contacts for the interview research.

An even distribution of respondents from different provinces or rural and urban areas was not intentionally sought in this research; a snowballing method instead was used to distribute the questionnaire to key informants we had built a relationship with who were engaged in platform work.[6] To ensure respondents were involved in platform delivery work, in the introduction to the questionnaire we stated we were looking for respondents who had engaged in platform work to respond to the questionnaire. To ensure respondents were working in Beijing at the top of the questionnaire we also stated we were looking only for respondents who were currently delivering in Beijing. This was to ensure consistency across the dataset as platform workers in different regions have different levels of payment and the nature of the work has other differences. The sample is not large enough to provide evidence of the regional distribution of platform workers in Beijing and this was also not one of the aims of the research.

We asked drivers who we had built a relationship with to distribute the survey to their colleagues. This strategy was aimed at ensuring we could be confident respondents had previously engaged in platform work. In total I used 298 questionnaire responses for the purposes of this research. I looked through the responses and nullified responses which had not been completed. To manage issues of non-completion, questionnaires which had incomplete answers or were completed far quicker than the pilot sample of 5 minutes were not used. I deemed a survey completed in less than one minute to have been insufficiently considered as it took less than 20% of the time found during the pilot study. Alongside Chinese research partners we paid participants 5 *Kuai* (50p) for completing the survey; this was made clear in the introduction to be a thank you for the time they spent during to answer the questions.

[6] All interview respondents used in this research are male. Female respondents who provided data for the questionnaire are not included in this research. As I only interviewed male platform workers, the questionnaire data used is filtered for responses from male respondents to ensure comparability of responses.

4.1.5 Limitations

In this thesis I used mixed methods of questionnaires and interviews to provide a fuller picture than a single method, with questionnaires offering quantitative insights and interviews more in-depth discussion. Initially I had strongly considered using ethnographic methods in this research to gain in-depth insights into the day-to-day experiences of drivers moving through the city and delivering goods. These perspectives could have helped provide direct insights into the physical and mental challenges that come with working in the sector. It proved difficult to do this; it is practically difficult to work at the speed of delivery drivers who are running against the clock, and I would have potentially put myself in physical harm to have done this. In the interviews I sought to ask drivers about the physical and mental challenges that are present in this work, and to an extent, I was still able to collect valuable evidence of this in conversation.

This case study is focused only on one side of the lives of rural-urban migrants, that of their working lives in Beijing, and not on the family and home lives of drivers drawn from various parts of China. To fully consider the source for the motivations and strategies of drivers, and to paint a full picture of the challenges and vulnerability of migrants, it is important to understand where they have come from. While in Chapter 3 I draw on literature which gives insight into the social and economic changes that have been occurring in rural China and the impact of the *hukou* on non-local migrants, this thesis gives an insight but not a first-hand picture of how rural work and the challenges of rural life drive people to move to Beijing. This research also only draws on interviews and survey data from male respondents and is therefore based on male perspectives. Due to the small number of female drivers and the difficulty I had accessing female interview respondents, they are not represented, and their perspectives not discussed. Platform work is open to both genders and easier to enter than other manual forms of work in China such as construction due to the recruitment methods (as discussed in Chapter 3). It is important that future research uncovers the unique challenges and motivations of female drivers to understand how migration, gender and technology shape the experience of their working lives.

4.2 Research Ethics

4.2.1 Positionality

The researcher is an active instrument in the qualitative research process, and I agree that the researcher and their characteristics have a formative influence on the data collected. To manage this, I have sought to demonstrate how I have taken a mindful approach and engaged in a reflective

research process which can help reduce these issues, but not remove them. This section demonstrates the efforts I undertook during the research process to ensure 'confirmability' in the research; this is the degree to which the findings are determined by the respondents and conditions of the inquiry, and less by the biases, motivations and perspectives of the researcher (Baxter and Eyles, 1997).

The extended period of fieldwork in a different cultural context allowed me to gain familiarity with the issues faced by workers as in ethnographic inquiry (Crang and Cook, 2007). As noted by Sæther (2016), when researching in China foreign researchers can often struggle with getting interviewees to trust them, interviews can fall through and require time, patience, self-awareness, and a willingness to adapt. Sæther (2016) notes the China field is characterised by a strong focus on the necessity of proficient language skills and contextual knowledge to do qualified academic work. Solinger (2006) is an experienced China field researcher and suggests offering insider knowledge can open the floodgates as people felt much freer to speak frankly, in her own experience as she appeared already to be aware of their circumstances. On the other hand, an outsider status can have benefits by opening opportunities to interviewees who may be reluctant to speak about their experiences otherwise (Scoggins, 2014). Reflecting on where one stands in relation to one's interviewees is the first step toward recognising the influences of your own perspectives which requires self-awareness and feedback to manage and improve. As a researcher this required me to be patient and willing to learn and adapt my approaches to ensure respondents were comfortable with my questions. I was not expected to be aware of some of the circumstances of work and life in China during the interviews and it was largely understood that I sometimes would need to ask confirmatory questions. As a foreigner it was reasonable for me to go into details of people's experiences and asking detailed questions was received positively, particularly alongside the research assistant who could help clarify potential misunderstandings.

An understanding of the social context is of vital importance when conducting primary research; this reduces the unequal power relations between the researcher and participant, particularly when this may also involve unstructured interviews (Weinstein et al, 2009). Good interviewers have an ability to quickly determine the kind of person who the respondent will feel comfortable talking to and can adjust to the situation. This is particularly important when the interviewer and respondent come from different backgrounds, where these impressions could bias responses or affect the willingness of people to be interviewed. My familiarity with the social and economic context based on conducting previous research and experiences studying and working in China proved valuable in adapting to manage the relationship with respondents. I also took note of the advice and techniques employed by

experienced researchers who have conducted research in China, for example how to approach participants, build trust and ensure respondents are comfortable with the research process (Sæther, 2016; Scoggins, 2014).

Some of the topics bridged in the research were potentially of a sensitive nature, including labour contracts and employment disputes, housing removals in Beijing and access to social security and the *hukou* policy. I took a considered approach to the research and when it was felt that I had built up a certain amount of rapport with the respondents I would bridge these topics directly. As Turner (2013:12) notes, topics that one might not consider sensitive can suddenly become so in China if related to political decisions or economic interest. Solinger (2006) was reluctant to draw on topics in interviews that could run contrary to Party policy or ask blunt questions that put interviewees on the spot. I did not ask respondents to give statements or opinions directly related to policy but asked for their experience of the issues from their perspective; although elements of removals in Beijing were discussed this was not directly political.

Most workers had experience living and working in Beijing and were required to use standard Mandarin in their work and had a strong grasp of Mandarin. Interviewees came from different provinces in China, although a significant number came from Hebei and northern China where regional accents differ less from standard Mandarin. Mandarin Chinese is the standard language taught in the education system throughout China. Mainstream education, media and business are mostly conducted in Mandarin throughout the country, but significant numbers of people do not claim it as their first language and speak with a regional dialect. In interviews with speakers from other parts of China including southern China, on occasion I would have to confirm my understanding of what was being put across. In a one-on-one interview I had the opportunity and time to do this without greatly disrupting the interview which also allowed the conversation to flow quite freely and without too many obstacles.

As suggested by Simon (2006), it is important to consider the positionality of the research assistant and be aware of the potential of biases in the research process as a researcher's positionality is always influenced by those whom we have access to in the field (Turner, 2013:7). As a research assistant was used in this project to both gain a better understanding of the situation in the field and in implementing questionnaires, I took care to ensure that questions were asked in a similar way throughout the research process to minimise the potential of biases. As I took measures to ensure that the RA was briefed on the purposes and principles of undertaking research interviews, I feel there were some minor, but not significant differences in the interview results based on independently conducting interviews and those alongside the RA. For example, being a semi-structured interview,

the RA would sometimes ask follow-up questions that I might have not considered based on the RA having more understanding of the local context. The RA had some awareness of social research methods but I introduced principles of research that I was seeking to use, including not leading the respondents to certain responses. I found that with the RA some respondents felt more relaxed initially and felt comfortable to confirm any additional questions they had. I do not feel there were significant differences in the research methods or data collected using a female (rather than a male). We conducted interviews in public spaces such as cafés and the environment of a large city such as Beijing means that were not out of place as female/male to the extent that we may have significantly impacted the data collection.

4.2.2 Participant Consent

I aimed to ensure the participants were comfortable with the interview process and knew what the purpose of the research was and why they were taking part. In initial discussions I approached drivers on the street or in restaurants without a prior introduction. The audio recording device was not used during initial discussions with drivers as this detracted from the naturalness of the situation. I would introduce myself and the research and explain that I was interested in learning more about platform work. Discussion would range from where I and the driver had come from and why they had moved to Beijing, to discussing more specifically about how the app was working for them and what types of orders they had been delivering recently. After introducing myself and if I managed to build rapport with the driver, I would ask if they would be interested to have a further discussion about the work. If they were interested, I shared contact details through WeChat and told them I would send them a message to arrange a time to meet. If the driver refused, I thanked them for their time and moved on.

Some of these initial discussions did not lead to an interview but I kept a record of any interesting or new points from the discussion. My notes were written into a notebook or on my mobile phone at the next suitable time and place based on my recollections after the end of the discussion. These discussions were usually of a formulaic nature and would only discuss a limited range and depth of topics related directly to the performance of the work, and no issues which could be deemed sensitive arose during this process. In the notes I would write down the location and the platform but would not record any characteristics that could identify an individual.

Data collected without respondents' knowledge and possibly without informed consent raises the question of ethics. Before recording I confirmed with the respondents the aims of my research and confirmed that they accepted to be recorded. I did not use signed consent forms during the interviews after advice from professors in Beijing who felt this could cause confusion for drivers as these would

create a formality that may make drivers wary of the research. Instead, the research assistant and I would outline the aims of the research verbally; we spoke to participants clearly about the purposes of the research and how we intended to use the data. When agreed with the interviewee, interviews were recorded using an audio recording device. I explained that this enabled me to follow our conversations more clearly and for me to listen again later for the purposes of the research. I used two recording devices simultaneously to ensure that I had a back-up device if there were any issues with the quality of the recordings.

During the fieldwork, I collected data including personal information such as where the driver was from in China, what area of the city he was living and working and what company he was delivering for. To ensure confidentiality of respondents, we took steps to not collect personally identifiable information such as ID or employment numbers from which responses could be related to a particular driver. In this thesis, I have used the *pinyin* (*Pinyin* is the Romanisation of the Chinese characters based on their pronunciation) of the name of the driver without using the Chinese characters. I have not used the full name of the respondent but translated a family name into Pinyin (for example, Zhang) so that the driver cannot realistically be identified from this work. To ensure the research was protecting the anonymity of the respondents, all the data collected in the form of interviews and questionnaire data was stored on a password-protected hard drive.

4.2.3 Obtaining Official Permission

In China, the sensitive nature of social and economic relations renders it necessary to take a measured approach to conducting primary research. Before arrival in China, I liaised with several researchers who had conducted research regarding some of the practical and ethical issues a researcher might face. Prior to beginning fieldwork, I obtained approval from the Royal Holloway Research Ethics Committee for the research and data collection[7]. In this ethical approval application, I demonstrated the data collection methods I planned to use including issues around verbal consent, conducting research as a non-ethnic Chinese foreigner in Beijing and conducting interviews and ensuring anonymity for respondents. I also completed a Royal Holloway, University of London Field Work Risk Assessment Form in which I conducted a self-assessment of potential hazards and the controls I planned to use to manage the identified minimal risk. I then had this checked and authorised by an academic supervisor and approved by the Department of Geography Health and Safety Coordinator..

[7] REC ProjectID: 1328. Project title: 'Precarity and platform work of young migrant workers in Beijing, China'.

Based on recommendations from fellow academic researchers, I found an affiliation which would establish the legitimacy of the research. I discussed my research aims with scholars with expertise on Chinese migrant workers and conducting research in China more generally. These included discussions about fieldwork and logistics and provided me with suggestions regarding my research methods. This sense of belonging to a research institute has also been found elsewhere to be very important when conducting research in China; it also provided me a legitimate reason for conducting research and an appropriate visa (Mallory, 2014; Scoggins, 2014; Solinger, 2006). Official affiliation can result in restrictions for researchers in China, particularly when the research may involve issues of a potentially sensitive nature. This can include restrictions on the research topics, access to data and access to particular areas. In the conducting of research, an affiliation with a Chinese university proved very useful as it demonstrated I had a legitimate reason to be conducting the research; it gave reassurance to participants and was important for employing research assistants. In addition, when introducing myself I would discuss my background and reasons for conducting this research. Having a recognised university supporting my research in some cases proved a discussion topic and a useful way to establish rapport with the respondents.

4.3 Data Analysis – Epistemology, Coding and Thematic Analysis

This section will detail the process of translating transcribed semi-structured interviews into codes, themes and finally arguments that are used in this thesis.

4.3.1 Transcription

To assist in the transcription of the raw interview data, the university in Beijing recommended a trusted colleague to complete the transcription. In the files which were transcribed, the names of the respondents were deleted to reduce the chance that respondents could be identified. Transcription is not a straightforward technical task but involves judgements on the level of detail (for example to transcribe everything in a long recording) and data representation such as representing regional accents or non-standard words (Bailey, 2008; Davidson, 2009). To ensure that the transcription reflected the tone and content of the interview we looked to include non-standard language and idioms which I then checked to understand the meaning. In this process I spot-checked the transcripts as they developed to ensure a standard process across all the transcripts to limit errors.

To avoid meanings being lost in translation, I endeavoured to make the translated texts as close as possible to its original meaning but leave contextually-specific words and cultural references in Chinese and translate their meaning for an English audience (Temple and Young, 2004). In this thesis I use quotes from the interviews to demonstrate evidence for the interpretation and arguments I make.

These interview extracts (and more extensive autobiographical stories) were chosen to demonstrate key trends. I reference respondents' interviews directly and do not combine interviewee's responses to make a composite picture. This helps to show there is divergence of perspective on some of the themes of the research.

4.3.2 Thematic Analysis

I have approached the research from a constructivist perspective, that is I seek to make claims about knowledge based on interpreting the meanings of individual experiences which are socially and historically constructed, with the aim of developing a theory or pattern (Cresswell, 2013). Baxter and Eyles (1997) argue that one of the most important issues with analysis of qualitative data is the way interview conversations are constructed into theoretical concepts. They suggest that credibility of the results is a key guiding principle of qualitative research. They define this as the degree to which a description of a human experience is such that those having the experience can recognise it and those outside (i.e., the reader) can understand it. The credibility of the research rests on the link between the experience of the research participants and the concepts which the researcher has used to group them through a process of interpretation. The implication is that the research participants should be able to identify the experiences represented on paper and the process through which this is interpreted by the researcher.

During qualitative data analysis I moved from raw data (extended semi-structured interviews) covering a wide range of topics and experiences through a process of systematic analysis to provide insight into the research questions I had outlined. One of the main difficulties in the analysis process was the richness of data collected linked to the complexity of the lived experiences of workers. In coding the qualitative data, I made use of two stages: firstly descriptive coding followed by a process of analytical coding based on the codes I had created (Cope, 2010). In the descriptive coding phase, I used codes to describe the issue, discussion point, feeling and other relevant comments. These were allocated to describing the content of the respondent's comments (e.g., tiredness) in the first stage coding of the raw data. This process of indexing the data helped me to manage the data more easily and retrieve sections that related to important ideas or experiences which had significance to the research questions. The initial description stages of this analysis were primarily aimed at describing the data, but there is inevitability a blurring between the description and analysis coding. For example, I would describe a section as tiredness as this being most significant implication of that statement, this also linked to other important concepts such as making money in intensive bursts, living away from family, moving around a busy city and working constantly through a platform application. To judge

what content could be considered in one analytical code, I maintained that it should be internally cohesive but externally distinct.

The first stages of the descriptive coding process involved familiarising myself with the conversations through reading and listening to the recordings and beginning to mark sections of data relevant to the research questions. This was mostly done on paper for ease of use and enabled me to move around the transcripts easily (and with more pleasure!) than on the computer. I then used NVivo qualitative data analysis software to facilitate thematic analysis of the data. NVivo software was most useful to store the data safely, count the number of qualitative codes and to retrieve codes and information quickly through searches. Particularly helpful is the ability to efficiently search through all the content that has been recorded within a 'node' and analyse this for key trends and similarities. Codes referred to differing lengths of this data from single sentences to longer accounts of, for example, how workers rationalise their decision to work on platforms.

The data produced in this study includes extended quotes from workers on their experiences of past work, migration and of being a migrant in Beijing. Some of these extended beyond descriptive coding and included many different aspects of these experiences and could not always be easily distinguished as referring to one issue. In these instances, I would make note in NVivo of what they were discussing but would not be coding in the same way as direct references to '*ziyou*' (freedom) which could more easily be coded. When a comment or discussion referred to more than one issue, I would code these multiple times, as the issue they were referring to had relevance across multiple codes. Coding is an interpretive process and different researchers can interpret the same data differently. In the descriptive phase I checked my coding with a supervisor to consider the replicability of the codes I was creating. Based on this I was able to identify that the codes I was identifying were comparable to those coded by a supervisor and then continued with the coding process. Alongside my own checking of the analysis, the content within the codes helped to ensure the research had a consistent and transparent approach.

For the second stage of coding, I used a combination of inductive and deductive coding to bring together the descriptive codes with conceptual analysis of platforms, migration and work in China. The themes in this thesis are not an objective analysis but an interpretation based on my understanding drawn from my own perceptions, experiences and biases reflecting that qualitative data analysis is not so much a technical exercise as a "…dynamic, intuitive and creative process of inductive reasoning, thinking and theorizing" (Basit, 2003:143). In this thematic analysis I had sought

to conduct data analysis in an inductive manner. Yet, the analysis was not entirely inductive or deductive as the researcher is always moving between 'data' and 'ideas' and responding to each other (Schensul, 1999). In practice this involved going back and forth between the transcripts, the descriptive codes I had used in the first round of coding and my research questions. This helped me to work towards creating analytical codes which captured a theme of the interview data and addressed my research questions. One technique I used was a simple quantitative count of the number of times a certain issue or topic was mentioned. For example, a comment on *ziyou* was common to most accounts and therefore forms an important section of Chapter 6 on strategies in work. For example, the most common codes after the analytical coding process were completed were:

- can earn more money on platforms in Beijing
- platform system messing me about
- time pressure
- managing my work hours
- *ziyou*

In this process, I grouped the descriptive codes until they started to reflect an issue common to the responses (i.e., from different descriptions of tiredness as a descriptive code, to 'time pressure' as an inferential/analytical code).

4.4 Conclusion

In this chapter I have outlined the process through which I collected primary data during fieldwork in Beijing, China. Semi-structured interviews explored the routes into platform work, what framed the decisions of drivers, and the contextual and holistic factors which informed their decisions and strategies in work. Questionnaire provided insights into the amount of work engaged in by drivers over a larger sample filling a gap where official statistical evidence is not available in China, due to the sensitive nature of social and economic relations, I consistently took a measured approach to conducting primary research. Through contacts with researchers with expertise on Chinese migrant workers, I developed awareness of the practical and ethical issues of primary research on work and migration. The research process was iterative requiring self-reflection, discussions with fellow researchers and time spent with platform drivers to best design and conduct research in this context. Important improvements I made during the research process included communicating my purpose as a researcher of platform work in China, finding appropriate locations for a research interview and utilising snowball sampling to build trust and networks.

For interviews with workers, I used semi-structured interviews which were informal and in locations familiar to the interviewee. I used a research assistant to help me negotiate and translate the research and ask additional questions that I may have missed. Throughout the research, I aimed to ensure I could build trust and make the respondent feel comfortable to produce deeper knowledge. To analyse the collected data, I moved from raw data to analytical coding through a process of systematic analysis to provide insights into the research questions. In coding the qualitative data, I made use of two stages, descriptive coding followed by analytical coding with conceptual analysis of platforms, migration and work in China. In this process I sought to establish 'themes' which interpreted the raw data through the prism of the research questions.

In summary, this chapter has covered the methods used to design data collection, gather primary data in the form of interviews and questionnaires, outline the ethical issues faced in undertaking this research and methods for data analysis using NVivo software and thematic analysis.

Chapter 5 'It's the system that gives you the time, and you can never outrun the system' - Organising Platform Delivery Work in China

Image 1: Meituan Advertisement to Drivers (Meituan, 2020)

…actually, at every moment we are rushing around to make up time, but it's the system that gives you the time, [and] you can never outrun the system (Zhu Gan, 45, Hebei Province).

5.1 Introduction

China is leading innovations in platform economies but the scale of the platform economy and the social change it is facilitating contrasts with a lack of empirically-informed studies on the impacts of platforms in China (Chen, 2017; Heeks, 2017; Swider 2017). Meituan are currently the world's largest food delivery application and have an estimated 50 percent share of the Chinese market, rivalling global competitors in valuation and overall global market share (Wang, 2018). However, the organisation of work on food delivery platforms in China is largely unidentified. Uncovering the organisation of work on platforms can help us contextualise the experience of work in this important, but under-researched sector. On platforms, the asymmetrical display of information is a key feature of workplace control (i.e., a black box) and covert algorithms often conceal labour exploitation (Rosenblat and Stark, 2016). In this chapter I address the 'black box' of work organisation through algorithms in the Chinese context of food delivery platforms. I address two research questions in this chapter:

- RQ1: What are the distinctive features of the management techniques used by Chinese food delivery platforms to organise work?
- RQ2: How do platform workers experience the key organisational features of platform work?

To do this, I uncover the management of the labour process for platform delivery workers and examine how drivers experience the labour process from recruitment, application for work, evaluation of work and the payments they receive. Firstly, I find that Chinese food delivery platforms have distinctive organisational and management techniques which are more extensive than Western platforms. The key features of platform delivery work fit into two main work forms, that of '*specialist*' (*zhuansong*,专送) and '*crowdsourced*' (*zhongbao*, 众包). The majority of respondents operate as *crowdsourced* workers who gain work through the app by 'grabbing' orders through a dynamically-priced system. Drivers are responsible for managing the entire delivery from application for work to collecting the item, deciding the route and delivering the item to the consumer. Workers gain points, rewards, reputation and income from delivering multiple successful orders. At all stages there is potential for unexpected delays to occur which impacts on the allocated time to complete the delivery. Customer satisfaction ratings are much wider and extensive then those provided to customers in Western contexts and drivers must proactively engage in strategies to ensure that they do not receive negative ratings from customers (this is further explored in Section 6.3.2). Through these insights I demonstrate how the risks of errors or delays are placed solely on the drivers and the responsibility for individual orders is taken away from the platform application.

Secondly, this chapter will provide insights into how the labour process is experienced from the perspective of platform delivery workers. The precarity faced by drivers is shaped by the relationship between work and the wider lives of drivers and how this shapes their entry into the labour market (this is the basis of Chapter 6). This chapter discusses data from the questionnaire which provides insights into the conditions of drivers including their education and *hukou* status. I identify the importance of hometown networks for drivers to choose platform work and in the process of getting up and running. Workers manage a period of learning and preparation before they can compete for orders and secure an income through platform delivery; this includes finding the right app, purchasing equipment and finding somewhere to live, learning how to work through a platform including learning the routes and learning how to grab profitable orders. Maintaining a consistent number of orders across highly variable demand is one of the most difficult tasks for drivers. I identify the requirement for intensive decision-making for drivers to navigate (literally and figuratively) the variables of multiple orders. Despite the digital facilitation of work and use of algorithmic management techniques, the

level of skills demanded for the worker to manage themselves and make a sustainable income is very high.

5.1.1 Growth of Food Delivery Platforms in China

Food delivery applications provide a wide range of other services (e.g., medicines, various goods) through a platform application. China has experienced a continued and rapid expansion in e-commerce driven by consistently high growth in disposable incomes per capita, doubling over the course of eight years from 2008-2015 to reach over 30,000RMB (£3500) per person annually (Reuters, 2019). This growth has facilitated a significant demand for a wide range of consumer items, particularly in major cities. China is currently the world's biggest e-commerce retail market, holding over 50% of the global market and growing (Millward, 2016). In 2017, it is estimated over a quarter of all retails sales in the country will have been facilitated through e-commerce, passing a milestone of US$1 trillion dollars spent online over the course of a year (Millward, 2016). The sector is subject to constant change from the intense competition as recognised by Wang Xing the CEO of Meituan-Dianping, who envisions a winner-takes-all battle between the platforms; this is demonstrated by the third largest platform Baidu delivery exiting the market in 2016. Meituan (the largest delivery platform) has yet to make a substantial profit.

For the consumer, a list of providers near the user's location appear which can be used to search for specific restaurants or certain types of items. For each restaurant there is a menu and ordering system and the payment is conducted online. Other services can also be provided for example, supermarket and pharmacy deliveries, to a personal shopping service. Meituan markets itself to white-collar urban consumers as a fast, reliable delivery service. In advertisements to consumers, the delivery worker for Meituan delivering to urban consumers is famous Shanghai movie star *YangYang*, and a white-collar urban office worker in a fashionable Beijing office district orders milk-teas through the Meituan app to avoid going outside into the hot sun:

Image 2: Meituan Advertisement to Consumers (Meituan, 2020)

5.2 Questionnaire Respondents

Before discussion on the labour process, I will provide a summary of drivers' characteristics taken from the questionnaire results. For this research we conducted a survey (via WeChat) of workers engaged in platform work in Beijing, China. We have taken a purposeful selection of cases where participants are sought based on their involvement in platform work. A total of 298 male respondents who completed the questionnaire will be drawn on for the purposes of this research. Respondents were drawn from a range of different regions in China (see Appendix E: Interview and Questionnaire Respondents) and we collected data on if respondents had acquired a local Beijing *hukou*. The questionnaire was sent to platform workers with whom the researchers had been in contact previously and asked them to pass on the details to fellow workers as a form of snowball sampling. In our survey, most of the sample are below the age of 30 (Figure 5).

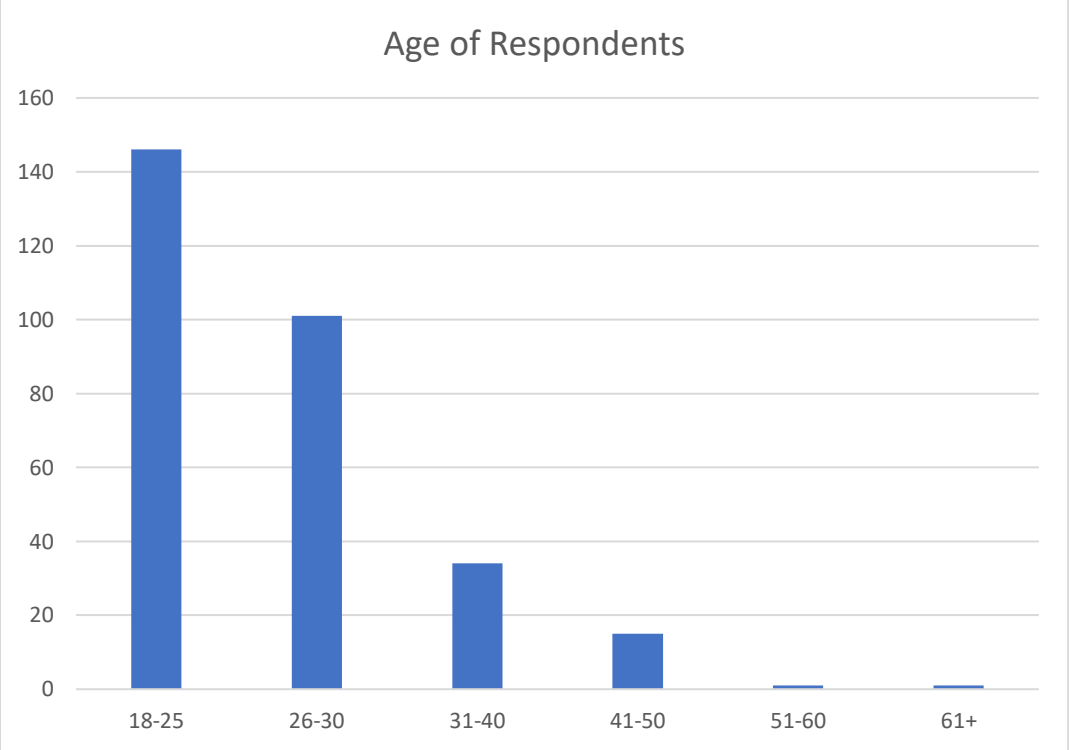


Figure 5: Age of Respondents

These results are similar to Meituan's research which finds 82% of their drivers are born in the 80's or 90s, evidence that the majority of their registered drivers are under the age of 40 (Xinhua, 2019). Meituan also find that 90% of the drivers are male, again this is similar to our survey findings as 85% of respondents are male. Chen (2017) found taxi drivers working through platform applications in China to primarily be in the 31–50 age bracket (77%), and about 16% were below 30. The average age of crowd workers across the globe is 33 according to an ILO survey, with a younger average age in developing countries (Berg et al, 2018:22). Of our respondents, a large proportion have completed secondary education (Figure 6).

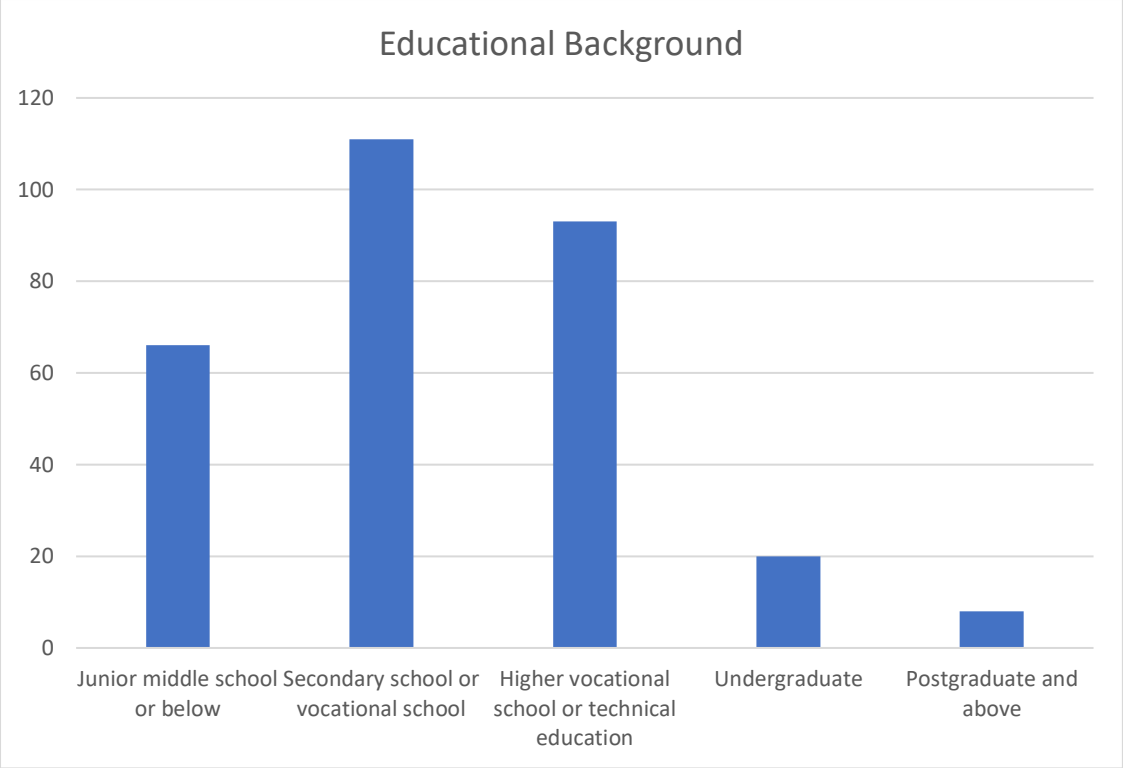


Figure 6: Educational Background of Respondents

In total 66/298 respondents completed junior school or below, at 22% of the sample, and only a small minority of respondents completed tertiary education. Younger migrant workers in China are sometimes referred to as a 'new generation' of migrant workers under the age of 35 and are likely to have completed school with 20% having a college education (Fangmeng, 2015). In *crowdsourced* work on digital platforms (for example, in completing online surveys, not locally completed as with delivery work) in Asia, the workforce is also relatively well-educated and 80% of their workers have a bachelor's degree, although the higher demands for qualifications makes this qualitatively distinct from this context (Berg et al, 2018).

Meituan's internal research finds that 31% of their drivers have previously worked as production line operatives in a factory (Xinhua, 2019). The workers we surveyed have come from a range of different occupations and have often engaged in different lines of work in the construction, mining, factory, and small business sectors (this is discussed further in Section 6.2). Few respondents (10 from 298 survey respondents) indicated they had previously engaged in farm work before migration to Beijing. Instead, workers have been engaged in a wide and varied range of semi-skilled work with many respondents engaged previously in other service industries such as in restaurants, express delivery work and security work. Meituan finds 75% of their drivers come from a rural area, while close to a half of drivers have lived in the area they work for nine years or over, highlighting that they are

relatively longer-term residents of the destination (although the spatial differences of this across China are not identified) (Xinhua, 2019). Most respondents in our research have worked for one year or less in platform work at 74%, highlighting the transitional nature of employment in the sector. In our survey, less than 10% of respondents have a local Beijing *hukou.*

A local Beijing *hukou* can provide privileges and access to a range of services in the city. Without a Beijing *hukou*, most of the drivers live without a range of 'citizenship' rights and not deemed legally local *hukou* holders in this jurisdiction. Migrant workers are therefore unable to access the benefits of a Beijing *hukou* including access to state-run education, healthcare, and most aspects of social security. Drivers felt they have little to no realistic chance of gaining access and therefore prevented from achieving longer-term security in the city for themselves or their families. This shapes the family strategies of workers who mostly live separately from their families to maximise the benefit of both urban employment and more affordable housing and state education outside of Beijing (see Chapter 7). Platform work, though, is very much open to migrant workers. Platform apps such as Meituan and Ele.me have no requirement for a Beijing *hukou* and are in theory open for all to download and use. Section 5.3 will now discuss the process for entering platform work and the choices of employment.

5.3 Getting a Job - Entering Platform Work

5.3.1 Choosing a Form of Employment

There are two main forms of employment on the platform Meituan, these are '*specialist*' (*zhuansong*) and '*crowdsourced'* (*zhongbao*) workers.[8] '*Crowdsourced'* is the translation of the Chinese word *zhongbao* (众包) – although this does not accord with the same definition that labour scholars use (i.e., Heeks, 2017). For the purposes of this thesis I refer to workers as '*crowdsourced'* as an English translation of the work as defined by the Chinese platforms, as did the drivers who I interviewed for this thesis. When I do this, I am referring to an understanding as I have demonstrated above – that '*crowdsourced'* is a type of platform enabled work on Chinese delivery platforms that is distinct from another form, that of *zhuansong* (专送). For the purposes of this research, it should be noted that the majority of drivers interviewed work as '*crowdsourced'* workers, unless otherwise specified. The

[8] We attempted to collect quantitative data on the employment relationship of platform drivers. Due to constant change in the sector in China and the range of terms used to describe the employment relationship and its connotations it can be quite difficult to pin down the different features of the work (i.e., *zhiying/zhuansong/ziying* are all used to denote similar employer-employee relationships).

descriptions of work as outlined in this chapter (and throughout this thesis) are therefore focused primarily on those who work as '*crowdsourced'* workers.

There are significant differences in the employment relationship between the platform and the worker in these two work forms which have impacts across a range of features associated with the work. I have identified features of working for a Chinese delivery platform in terms of the work *application, evaluation and conditions.* Identifying the key structural features of the work allows us to understand how the work is managed through the platform. This work builds on Veen et al (2019) which demonstrates the labour process of platform-based food delivery work in Australia and how features were experienced by workers. I expand on this by identifying the key features of two different types of work in the Chinese context and explore the implications for workers. This helps to consider the experience of work from the drivers' perspective and the decisions and options available to them (this is further explored in Figure 7). The organising principles I have identified have been drawn from secondary data collection, literature reviews of platform work and interviews with platform delivery drivers in Beijing.

***'Specialist'* worker (*zhuansong*) 专送**	- Work Form -	***'Crowdsourced'* worker (*zhongbao*) 众包**
	Application	
Assigned work	《》	Apply for work
Single employer	《》	Potential of multiple employers
Work materials provided	《》	Provide own work materials
Spatially fixed	《》	Spatially flexible
	Evaluation	
Personal relationships/hierarchy	《》	Non-personal relationships/digital hierarchy
Cumulative value of work experience	《》	Non-cumulative value of work experience
	Compensation	
Non-dynamic/stable price	《》	Dynamic pricing/variable price
Delayed wage payments	《》	Rapid wage payments
Payment as salary or lump sum	《》	Payment per delivery

Figure 7: Key Features of Platform Delivery Work

This figure demonstrates the key differences between the two most prominent work forms for delivery drivers on platforms. Under *application,* these are the processes through which workers apply for work. As I will demonstrate in this chapter, '*crowdsourced*' workers are required to 'grab' each order they agree to deliver based on their evaluation of the value of that piece of work. They can simultaneously register and work for multiple applications and are free to selectively choose orders across multiple platforms. They provide their own work materials including the transport they use (i.e., an e-bike) and are free to move about the city and search for orders wherever they are located. For *specialist* drivers, work is assigned by the platform and they have little opportunity to refuse to complete an assigned order, making it extremely risky to manage work on multiple platforms simultaneously. Usually, the clothing and other materials required are provided and they will be

assigned an area (for example, Xicheng district in Beijing) and must remain in this area to be able to accept orders when they are requested.

Evaluation refers to the rating and management systems employed by platforms to manage and discipline the workforce. For '*crowdsourced'* workers, the evaluation of their work is done solely through the platform algorithms and customer evaluations which create a picture of the performance of the driver, and a place on the digital hierarchy (i.e., number of stars). This evaluative picture is permanent and remains with the driver, but after a defined period of time (usually one week or one month) the performance rewards are wiped clean and they must start again to complete rewards and maintain their ranking. For *specialist* drivers, there is also customer and algorithmic evaluation of their work, but there remains significant value placed on relationships with the station manager and other relationships to ensure they can be assigned preferable areas and less work. This I suggest contrasts with the digital hierarchy for *crowdsourced* drivers as they can maintain and build relationships to improve their relative standing over time.

Compensation refers to the payment system employed by the platform to remunerate workers for their labour. For *crowdsourced* drivers, they are empowered to 'grab' orders as and when they deem them to be worth their while, that is, they are free to choose which orders to deliver depending on their willingness to accept the price for that delivery, and receive payment per delivery they complete. The price for these deliveries is dynamic and subject to the supply of orders and number of drivers within reasonable distance who are potentially able to complete that order. They can request to withdraw earnings from the application at any time and usually will enter their account within 48 hours. For '*specialist'* drivers, they will receive a stable salary for their work paid monthly.

5.3.2 Applying for Work

Potential drivers will need to decide what form of employment they want to work in (i.e., '*crowdsourced'* or '*specialist*' work, then alongside this there are different ways to apply for work on the platforms, including digital and non-digital methods. Potential drivers have several avenues available to apply for platform work including:

(1) online via a platform company website
(2) via downloading and applying through an app
(3) direct approach
(4) through a jobs-website with adverts posted by an intermediary

In advertisements to potential drivers on the Meituan website, Meituan advertise delivery work to potential drivers as an opportunity to "*Freely (ziyou) accept orders, flexibly settle your account*". There

are aspirational messages of high incomes, security and the potential to surpass white-collar workers through platform work (see Image 3).

Image 3: Screenshot From Meituan Website Homepage (Meituan, 2020b)

Translation

"Join Meituan to be a delivery brother. High incomes, many orders, good security, you're the one who can surpass the white-collar workers!"

Commission + subsidy + insurance = highest salary of 13,000 RMB

New driver gifts – Rush order bonus – Accident insurance – Graded development

Orders as many as the sea / distribution (of orders) done by location

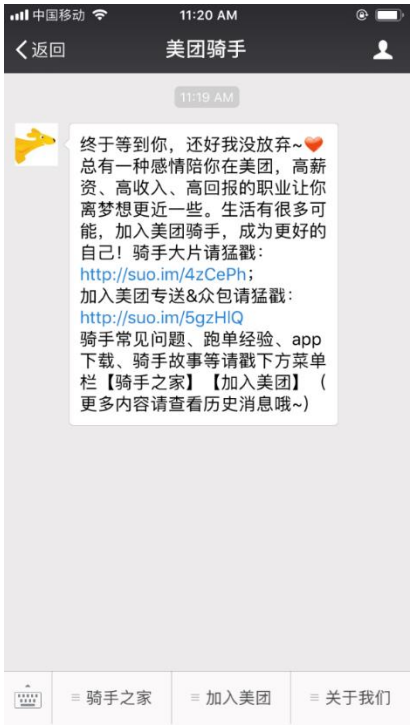
Slogan: 美团外卖，送啥都快 (Meituan waimai, song sha dou RMB), Meituan deliveries, delivers anything quickly

Potential applications are invited to become a delivery brother (*xiaoge*) 小哥, literally a 'little brother' of the platform, giving the suggestion of younger and male applicants being the norm for this type of work. Similar to Uber (Partner-drivers) and Amazon's Mechanical Turk (Turkers), Meituan does not refer to workers as employees. Aspirational messages of high salaries and plentiful work are advertised to potential applicants. Meituan in their own recruitment campaign quote driver Li Shen, "from the coal mine to an internet company ... my family can now be at ease" (Meituan, 2020b). Adverts propose earnings of up to 13,000 RMB (£1,450) a month which can surpass white-collar workers and focus on the potential for high incomes to be earned through the platform. A monthly salary of over 10,000 RMB (£1,100) closes in on an average salary for Beijing residents with a *hukou* (China Daily, 2016). This is significantly greater than the average salary of migrant workers in China,

although the advertisement does not outline the expenditures both prior to and during work. Alongside purported salaries are a range of bonuses and benefits offered to potential drivers including bonuses, accident insurance and development opportunities on the job.

(2) Via an App

By downloading the Meituan app on a smartphone via WeChat, an applicant is taken to a home screen where they are provided with information about how to apply. An emotive message welcoming the applicant to the App and Meituan is given highlighting the opportunity to earn high incomes and realise the achievement of personal dreams through platform work with the company:



Translation

"I've been waiting so long for you, but it's ok I didn't give up – There will always be a feeling of emotion by your side at Meituan, high pay, high earnings, high returns in this profession will allow you to get that little bit closer to your dreams. Life has many different possibilities, become a Meituan delivery driver, and you can become a better you!"

Drivers from afar please energetically click: [Link]

Join Meituan special delivery and crowdsourced, please energetically click: [Link]

Image 4: Screenshot of Meituan Driver Application, Introductory Message

Once an applicant has entered through the app, they are able to express a preference for the city and district in the city where they want to deliver. On this application page the requirements are laid-out for potential drivers, including age requirements, the need to provide your own vehicle (if applying as a *'crowdsourced' driver*) and smart-phone (Image 5).

Image 5: Screenshot of Meituan Driver Application, Q+A section

Translation

1. What requirements are there to become a driver? Can you run orders part-time?

"If you are in good health, aged between 18-50, have a smartphone and transportation device, then you can apply to become a driver. If you have regular work or the time when you can take orders isn't fixed, then you can become a zhongbao (crowdsourced) driver, make use of your free-time on the Meituan platform to accept orders and earn money"

Importantly, applicants are also provided with the option of two different employment relationships, that of *zhuansong* (*specialist*) or *zhongbao (crowdsourced)* (Image 6).

'*zhongbao*' driver (*crowdsourced*).

"Freely ("ziyou") accept orders, flexibly settle your account"

'*zhuansong*' driver ('*specialist*')

"fixed shifts, full-time work"

Image 6: Screenshot of Meituan Driver Application, Choosing 'Type' of Work

Applicants are then taken to a page where they provide a screenshot of their national identification card and await confirmation of next steps from the app. This will include a requirement to sign up to a 'terms of service' agreement which has some contractual effects. As is the case for other types of digital work, these documents are rarely read or scrutinised by workers who generally do not consider the potential value of a labour contract (Berg et al, 2018). Most workers interviewed work without an

enforceable labour contract or social security in case of injury, often stating they have signed a contract but that they had no access to this and felt it would be of very little value in the event of any incidents. Access to social insurance is not provided to *crowdsourced* drivers, this is common to platform workers in other contexts where drivers will often work without medical or retirement benefits (Malin and Chandler, 2016).

3. Advert on a delivery vehicle

On the back of delivery e-bikes in Beijing are adverts which detail the income-earning potential of platform delivery work (Plate 2).

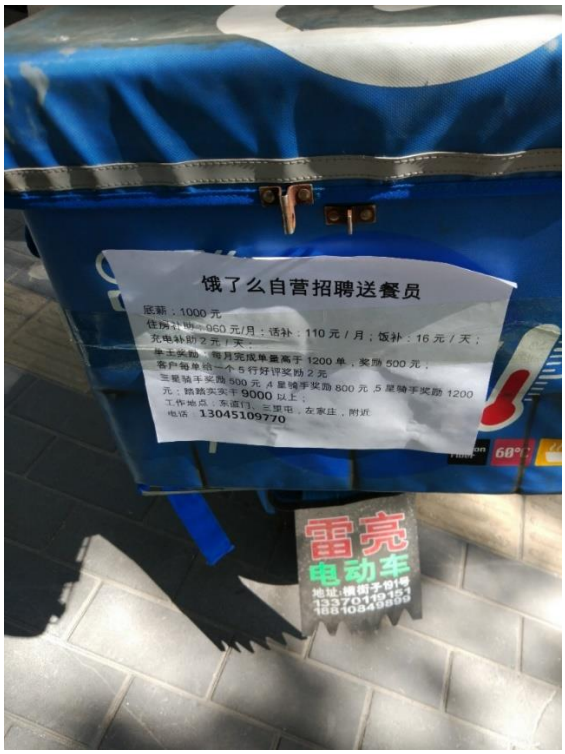


Plate 2: Job Advertisement to Drivers on Ele.me

Translation of text from Plate 2: Job Advertisement to Drivers on Ele.me

Base pay: 1000 RMB

Accommodation subsidy: 960 RMB/month. Phone subsidy 110 RMB/month. Food subsidy: 16 RMB/day. Charging battery subsidy: 2 RMB/day

Order king awards: Every month complete over 1200 orders, award of 500 RMB

Customer award for every 5 stars positive rating, receive 2 RMB

Three stars driver award 500 RMB, four stars driver award 800 RMB, 5 stars driver award, 1200 RMB

Reliably work and earn over 9000 or above per month

Work location: Close by Dongzhimen, Sanlitun, Zuojiazhuang (areas of Beijing)

The financial offer provided to potential drivers is outlined very clearly with an amount of money for accommodation and food also available. The instrumental nature of the income-earning potential of the work contrasts with the emotive language of the advert displayed online and through the app. Potential drivers are already located in Beijing and are more likely familiar with the conditions and opportunities of the work. While emotive advertisements from Meituan are targeted at attracting potential migrant workers from distant rural areas of China to advertise the opportunities on offer, potential workers located in Beijing are targeted with information on the payment per delivery and conditions for hitting targets.

4. Advert on 58.com for employment through an intermediary:

Alternatively, on websites such as 58.com a popular job recruitment website, hundreds or even thousands of intermediary companies post recruitment notices for delivery work every day. Figure 8 shows a position for a *zhuansong* rider working on set routes within a defined area, but with scope to increase the amount one can deliver.

Advert on 58.com for employment through an intermediary (translation)

Position description

Basic requirements:

1. Age 18-42, able to use a smartphone, able to ride an e-bike
2. Healthy body, able to endure hardship, has a sense of responsibility, those without experience are ok;
3. 10am until 9pm, in practice work time is 6-8 hours;
4. Responsible for collection and delivery within an area of 3 kilometres, unfamiliar routes taken by experienced riders

Salary conditions:

Work regularly: 6000-7000 RMB/month

Work strenuously: 7000-8000 RMB/month

Work to one's maximum: 8000-10000 RMB/month

Paid per piece, work more earn more (*duolaoduode 多劳多得*), no upper ceiling

Figure 8: Advert on 58.com for Employment Through an Intermediary

For platform workers, an introduction and a recommendation from a *laoxiang* or a friend play the most important role in the recruitment process. In Meituan's own research on their workforce, they find that 42% of their drivers were introduced to the work by a friend, what they term '*laoxiangdailaoxiang* (老乡带老乡) or 'fellow villager brings fellow villager', a number comparable to what we find in our survey. In this survey we find that close to 60% of respondents found platform work after being introduced by a friend (Figure 9). Twenty per cent of drivers found out about the work through WeChat or social media, this was often from articles which suggested there was potential to earn high incomes in the sector.

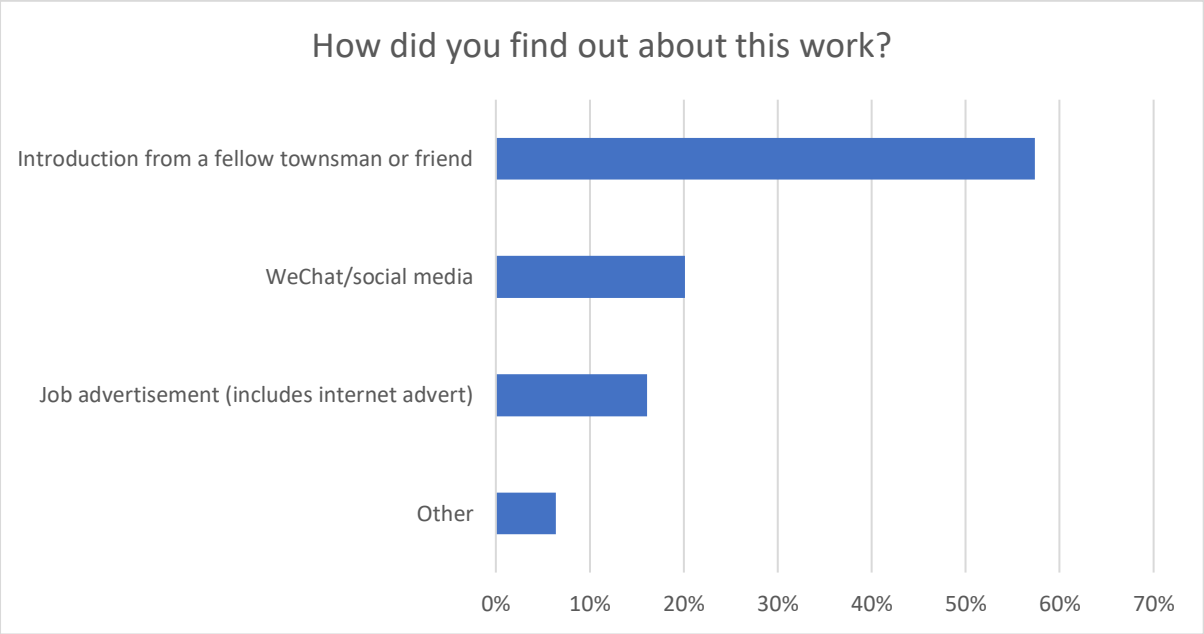


Figure 9: How Did You Find Out About This Work?

Despite the widespread platform work opportunities in major cities like Beijing, in some areas of China such as smaller cities or rural areas there is less first-hand knowledge as to what opportunities are available through platforms as they have grown rapidly in only a few years; this is reflected on by Chang from nearby Hebei province:

> *Q. A friend introduced to you (to this work)?*
>
> *A. Yes, my friend from my hometown, we are laoxiang (from the same hometown), when I was at school he was in the year above, he knows me and brought me over, now nothing is easy to do*
>
> *Q. Isn't it as simple as downloading an App?*

> *A. Because in my hometown, you don't know about this kind of thing, you don't know this thing works, because you haven't come into contact with it, its only hearing other people introduce it to you, you then understand, you have the inclination and you are willing to come out to work with him, [he] will then bring him out with you (a laoxiang), because if you are in your hometown, we basically don't know that there is platform delivery, and don't know that you can use it to earn money, don't know about anything, then you come out and you get to know everything…* (Chang, Hebei Province).

Many respondents said they were first told about this because of a friend or family member returning from Beijing over Chinese New Year. Several respondents pointed out that every time after New Year the number of workers who came to Beijing increased due to many people returning to their hometowns and suggesting you can earn higher incomes on platforms to their friends and family, as suggested by Chen:

> *I was at home without work, then I felt like in Beijing the opportunities to earn money are a bit more …To begin with I was in my hometown and heard this platform delivery work the salary is a bit higher, then I came by myself to Beijing because with ordinary work, the salary might be a bit lower, 3000 RMB, then I heard that this sector the wages are a bit higher. At home the salary level [for this work] is lower, even if this work exists, the salary is much lower* (Chen, Shandong Province).

False adverts and non-existent or unrealistic job opportunities are advertised often through intermediaries and it can be difficult for migrants without much experience of living in a big city to judge which are realistic. While there are thousands of job opportunities advertised online in Beijing targeted at migrant workers including through platforms, it can be almost impossible to judge which are likely to be a reliable option where you can make money without too much risk. As in one advert on 58.com, a warning is given to potential applicants of the consequences of signing up to other intermediaries by an intermediary based in Shanghai:

Translation

Meituan drivers recruitment! !

Important notice: Recently lots of intermediaries have pretended to pass off as official employers, resulting in negative results. Please all potential employees keep one's eyes open, to avoid negative employers cheating you from your money!

One worker told how he had been cheated by an intermediary into work that wasn't as well paid as they had advertised after paying a fee to sign up; this is one of the dangers of coming to Beijing on your own without contacts or prior knowledge:

> *When I first came to Beijing I didn't have any friends here, I came on my own and wanted to find a job with a higher salary, looking on the internet, then I found a job with a higher salary but it wasn't reliable, they were all cheats, and all middlemen, in the interview process they want some fees, these fees afterwards they said will repay you but actually isn't like that. The application was online, got in contact with them then they promised a good job, I went over, said it was really good but it wasn't like that, found it was a bit fishy, you can't think of yourself as that perfect, then I started to lower my expectations and learnt how to cook western food in Wangjing (Beijing office district), worked for two years following someone but the salary was low at 2000-3000…*
>
> *Q. How did you apply?*
>
> *I hadn't started to learn about it then I heard some other people talking about it, I first downloaded an app to understand it, delivered a few working part-time, then found out there are lots of app's for delivering like Meituan, Fengniao, Woda…then I have done quite a lot of different platforms to find out which platform is more suitable because every platform looked similar but in practice actually they have some different points* (Tong, Anhui Province).

Research on migrant workers concentrated in 'urban villages' finds information is shared through information boards including job adverts and other services (Guang, 2005; Swider, 2015b). Platform workers in this survey tended not to be living in densely-concentrated communities such as urban villages and instead live with other *laoxiang* (fellow-villagers) in small flats and share information online. For a migrant without experience of living in Beijing there are practical difficulties in judging the quality of job opportunities. In research on migrant networks, it has been identified that up to 90% of rural migrant workers get jobs through so-called spontaneous means such as the recommendation or help of relatives of friends; they suggest this is because of the insular nature of rural migrant worker communities often on the outskirts of major cities (Gu et al, 2007). Niu et al (2016) find that close to half of migrant workers in Shanghai will find jobs through personal social networks and 29 percent find jobs through labour market intermediaries. They also find that migrants who are male, have received less education, and have spent less time in Shanghai will use labour market intermediaries. Those who have spent longer in the city will tend to use social networks to find jobs, suggesting the use of social networks grows for migrants as they spend a longer time working in the city (Chang,

2015). Migrant workers in China are now 'information rich' and able to gain information on work opportunities through online channels (Lee CK, 2016).

This research finds that an introduction from a friend remains the most important and trusted source of information. In an ambiguous or hostile environment, personal contacts are used to facilitate the process of finding reliable work. Contacts are used instrumentally for getting a first job recommendation and can reduce the likelihood of being tricked into paying fees to an intermediary, helping to reduce risk of a move to Beijing. In this study, while 20% of drivers found out about the work through social media, recommendations remain the most important source of information which is similar to findings elsewhere on migrant work in China from Niu et al (2016) and Gu et al (2007).

5.4 Starting on Platforms – Getting Up and Running

There is a period of learning and preparation required before an individual can begin to secure an income through platform delivery; this includes finding the right app, purchasing equipment and finding somewhere to live, learning how to work through a platform, learning the routes and how to grab profitable orders.

5.4.1 Purchasing Equipment and Finding a Living Space

Purchasing work materials and transportation is common to platform- facilitated work (Stewart and Stanford, 2017). There is a high initial cost to moving to Beijing and beginning platform work, purchasing an e-bike, uniform and safety gear and renting a place usually alongside other drivers. Drivers noted that an initial cost of starting work can be up to 20,000 RMB (£2300). This is necessary to pay their way for at least the first month when they are less likely to be making a significant income. Purchasing a suitable vehicle is a major expenditure for potential drivers, it is an investment that needs to be made before any money can be earned through the platform. As put by one driver, without the money to buy a vehicle he tried using shared bicycles but quickly found out that this wasn't a productive way to complete deliveries:

> *When I first arrived, I had no source of income, not one RMB at all, you have to find a place to live. If you want to do this directly you have to invest, find a place to live and buy an e-bike, somewhere to charge your vehicle, (the restaurant I found) somewhere to put my feet down (loujiao), the restaurant closed then I started in the winter…*
>
> *The Fengniao app provides some vehicles and uniforms with requirements. For us working in zhongbao (crowdsourced) we don't have those restrictions, you can buy the clothing or choose not to but of course you need a transportation vehicle. If you are just riding an Ofo (a shared*

> *bicycle) how much money can you make? When I first started working this I didn't have any money to buy an e-bike, I did runs for half a month riding an Ofo all day long, earned 100 RMB a day and was so tired my legs were so painful, it was tough (xinku), I couldn't stand it* (Zhang, Hebei Province).

Meituan, Ele.me and Baidu Waimai (and most of the other delivery platforms) have different and multicoloured uniforms for their drivers. From the bright yellow of Meituan, to blue at Ele.me, the uniformed drivers are very easy to identify speeding around the city. For crowdsourced drivers, a uniform is not a strict requirement but not wearing one can be evaluated negatively by customers.

Alongside customer ratings, platforms will also run occasional spot checks on their drivers to evaluate their attire and equipment; this requires them to send a photo of themselves at their location in their uniform and helmet and of their food box. As seen in the advertisements, accommodation is not offered to workers; this is unlike the experience of many migrant workers in Beijing who have been housed in on-site accommodation. In our survey we find platform workers' pay an average of 700 RMB per month for rent in Beijing, three-quarters of whom share a room, with only a quarter of platform workers having their own personal space. Drivers in this research mostly find lower-priced accommodation such as basements of larger apartment buildings or in converted *hutongs* (traditional Beijing alley houses). Drivers noted that the most important factor in finding appropriate accommodation is the price, otherwise earnings from the platform would not be able to cover the cost. The only options available are therefore living with more people.

5.4.2 Choosing an Area of Beijing

Crowdsourced platform workers in Beijing have the flexibility to choose which area of the city to apply for orders; the greatest numbers of available orders are in areas with higher concentrations of office districts and white-collar workers, but also universities and schools provide significant demand. Workers can move to different parts of the city (or a wider area) to accept and make deliveries. They can respond to surges in demand, the locations of which are indicated on the app by a heat map with a higher demand indicated in darker colours, a method common to multiple platforms for displaying expected demand to drivers (Rosenblat and Stark, 2016). It is important for *crowdsourced* drivers to become well acquainted with areas of high demand to pick between a greater selection of orders and build a steady supply of work during peak hours. *Crowdsourced* workers rely on acquaintances to teach them which areas are the most likely to have high demand and a stable supply of orders and there is a period of learning before drivers can learn to pick the better orders:

> *The longer you have used (the app) and longer time on it, the orders you can grab are better, more suitable, more familiar and make less mistakes, avoid problems…I learnt the*

geographical location of each place, where are the collection places and businesses and the routes

Q. There is a period of learning required?

You need about one month before you are familiar enough to get into a rhythm

Q. Did you learn yourself?

I learned about a lot of apps then chose one, then learned it completely then use that all the time

Q. Why this area?

Because this area Sihui is close to Baiziwan, Guomao is very close, about 2km, CBD central business district, then in this area there is a concentration of lots of big companies and lots of demand for food deliveries at lunch there are lots of people driving (Tong, Anhui Province).

A period of learning on the job of between 10 days to a month or more is required before workers can get to grips with delivering to the demands of the app. For *specialist* drivers, an employed driver will provide guidance and training, this is an internship phase to become familiar with the work area, with an experienced driver taking you around after which you can start delivering for money. For *crowdsourced* workers, drivers will have to find (or already have) an acquaintance to provide guidance and support during this learning period. During this period for both work form, recent starters will earn significantly less then more experienced drivers; this is because the number of orders and efficiency that they are able to deliver them are reduced:

Q. You have to learn where to go before you can work?
Yes, because no matter whether you are crowdsourced or specialist, firstly you need to be acquainted with the business area. Because when we entered the company, we only knew this business area and they gave us ten days (to learn it), ten days to learn the terrain, learn the different location of the restaurants and location of the communities, those ten days you basically don't earn a salary, very little, just a subsidy. An internship phase…to become familiar with the work area, then you have a driver taking you after they think you are ok then pass you and you can start running for money

Q. Then you should have an advantage?

Yes, because as soon as you see the order you know, how long to get there, even in that neighbourhood which entrance you can use, the number building, is it closer to east or west

> *gate, then its more convenient, you know it all. Or which neighbourhood lets vehicles in, which don't, you know. Experience is a must…to get experience requires a period of time searching and accumulating…how to rationally organise my time, how to manage the routes, having multiple jobs how can you manage the sequence, this is all experience* (Gaoxing, Henan province).

Gaoxing demonstrates the time investment needed before drivers can begin to make a significant income. This period of learning requires guidance from a more experienced colleague (not provided directly to *crowdsourced* workers) to show them the tricks of the trade. There is a significant geographical knowledge needed despite the use of GPS systems and digital technology – as entrances can be blocked, communities or universities can forbid the use of e-bikes or other unexpected issues may arise at any time. When working to tight deadlines and on a race against the clock, these extra minutes matter for drivers. Drivers also need to find spaces to spend the time in-between peak delivery times to rest and recharge. They must charge their phone and electric battery on their e-bike during off-peak times, usually for a small payment in a backyard store who cater for delivery drivers. Drivers often spend the afternoons between peak orders in cheap canteens and public parks or rest on their bikes parked by the side of the road.

5.4.3 Choosing a Platform

Workers gain experience of the platforms through trying out working for multiple platforms. Only about one third of workers have used just one delivery platform and most workers have used at least two different platforms (see Figure 10).

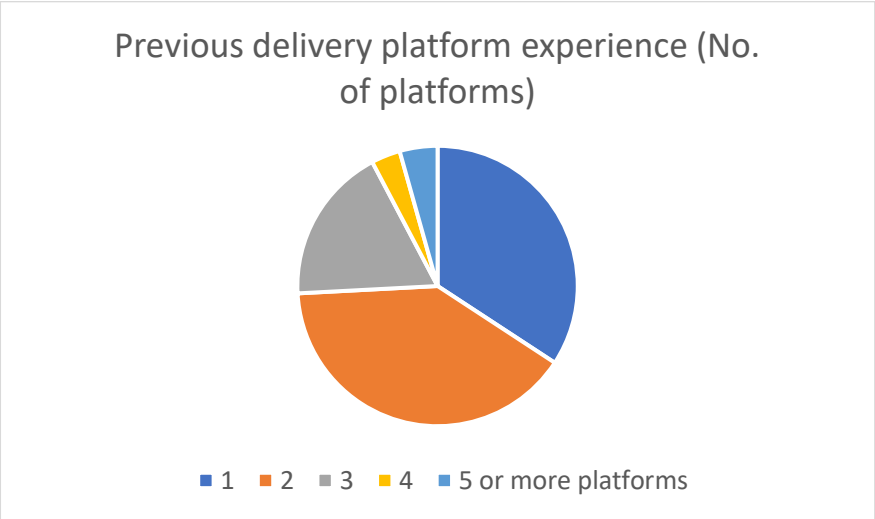


Figure 10: Number of Previous Delivery Platforms Worked On

The number of major platforms available is decreasing, as is the trend for platforms in other contexts (Srnicek, 2017). In China, there still are many different delivery platforms, but 71% of respondents in

our survey use Meituan or Ele.me, the two largest delivery platforms, as their primary platform employer, with the other 29% employed by at least nine different delivery platforms. Berg et al (2018) found digital workers (employed in various types of digital work, not just delivery work) tend to only work on one platform (51%), and there is similar evidence here. There are costs in terms of time, learning how to use the platform and other factors which result in high transaction costs on multiple platforms. Workers must establish a positive rating and feedback and invest time to establish their reputation, as well as looking for work across multiple platforms and potentially needing to learn new skills to use them. The evidence from our survey points towards workers trying out different platform applications to test out the benefits and costs of different platforms, before predominately using one platform as their main source of work.

5.5 *'Qiangdan'* - Grabbing an Order

As with most platforms, there is the option of part-time and flexible working and workers are compensated on a piecemeal basis (Stewart and Stanford, 2017). *Crowdsourced* workers apply to 'grab' an order through the platform application, which can appear automatically and when the phone is refreshed (see Image 7: Platform Interface Displaying Orders for *Crowdsourced* Workers

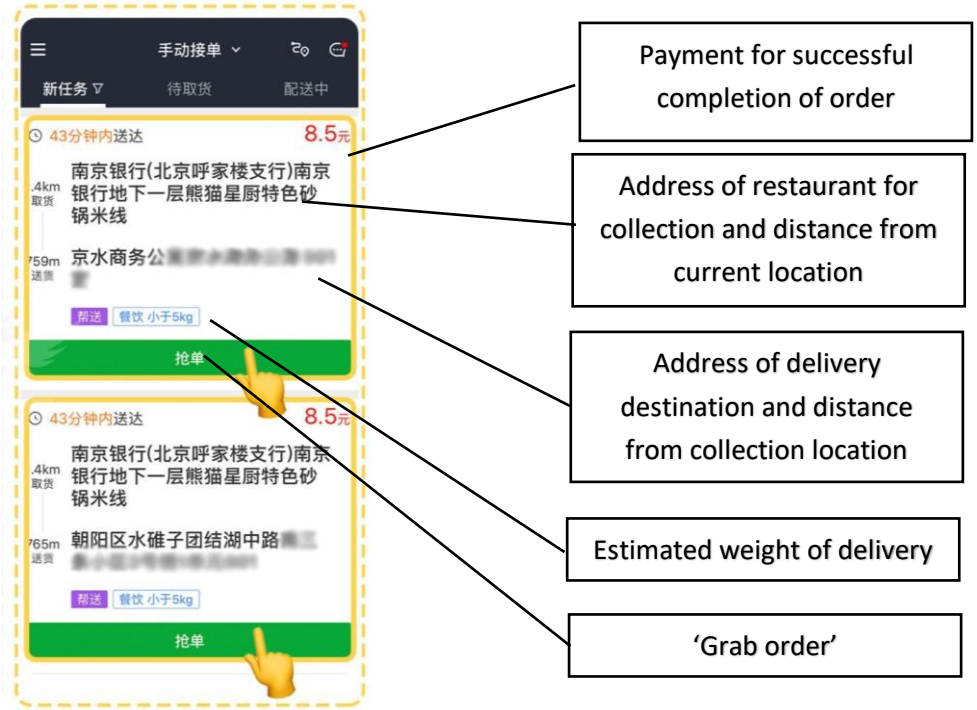


Image 7: Platform Interface Displaying Orders for *Crowdsourced* Workers

Online applicants who choose to become a *crowdsourced* driver are offered work freely and accept orders as and when they please. The implication is drivers will be operating on a free, open and fair platform in which all drivers will have the opportunity to pick and choose the orders which they are willing to do and ignore those which they don't deem valuable. The screenshot in Image 7: Platform Interface Displaying Orders for *Crowdsourced* Workers displays the interface of the platform application through which workers interact with the ordering system. The driver can scroll through a list of available orders in their area which they are eligible to deliver. This system for *specialist* workers does not operate in the same way as they receive orders from the platform which they are required to complete. This order-grabbing system operates differently to some equivalent food delivery applications in other countries, e.g., in Australia, drivers receive a delivery request which they can then accept of refuse on the app, depending on the terms and willingness of the driver (Veen et al, 2019). In this context, *crowdsourced* drivers are provided with a list of deliveries with dynamically changing payment terms, which change frequently depending on the latest calculations of supply and demand locally. To encourage orders to be picked up, the price will rise until it is grabbed by a driver or if left without a driver is often given to the *specialist* drivers and removed from the *crowdsourced* list.

Drivers have the flexibility to apply for more or fewer deliveries at one time; this depends on the calculations of the driver and willingness to take on the risk of not delivering on time and receiving the consequent fines. Higher-ranked drivers are permitted to apply for more deliveries at one time then drivers without a ranking or of a lower rank, which is advantageous when delivering at peak times as they can deliver more orders at once. The price per order functions differently depending on the employment relationship of the driver and the app. *Crowdsourced* drivers' earnings depend on their ability to grab multiple orders and deliver them simultaneously. The price per order on the platform is set dynamically dependent on the demand of orders to the platform from consumers and the supply of available drivers to complete those orders: "The delivery fee considers many factors such as the type of product, distance etc. Aside from the delivery fee, we also at varied times launch related surge promotions. Please follow in real time the latest news inside the app" (Meituan application). The number of orders that are available is dependent on a range of factors that influence the demand for orders and the supply of drivers in the area willing to accept the price available for the completed order. On the demand side, the time of the day is the most important deciding factor limiting the availability of orders.

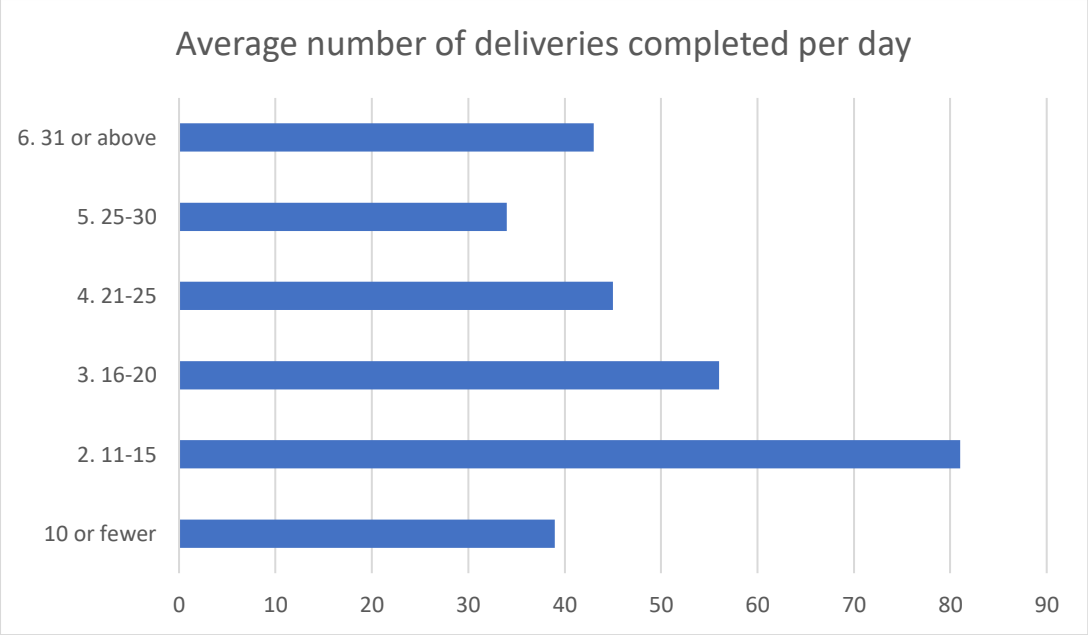


Figure 11: Average Number of Deliveries Completed Per Day

In our survey we find there is a lot of variability in the number of deliveries completed per day by drivers (see Figure 11). This could indicate drivers working part-time balancing delivery work alongside other priorities. This can be the case for drivers completing less than 10 deliveries a day, but to complete more than 10 deliveries a day requires a significant time commitment. The number of completed orders per day is more likely to be restricted by a supply of suitably-priced orders for drivers which they are willing to 'grab'. Once a driver has grabbed an order on the app and has the route set for them, they drive to the restaurant (or other establishment) to collect (or purchase) the item. The route according to the application is designed for the driver and appears on the phone (see Image 8) (note the straight lines through a complex city).

Blue 取 indicates collection, red 送 indicates delivery location

Image 8: Collection and Delivery Map

This delivery map demonstrates the route through the city planned for the driver and where they are required to collect an order and the delivery destination. This map indicates the route with a straight line through a dense city – it is the responsibility of the driver to learn the most efficient routes (with the help of technology) and plot their own routes. This will also be driven by the time remaining to complete the order as indicated in the map – although the relative priority of orders will be managed by the driver as customers may put pressure on them to deliver sooner (this is discussed further in Section 6.3.2). The labour process indicated here follows a similar path to other platform delivery work in other contexts (see Figure 12).

Verifies all items are included and confirms this in the app
↓
Places food in the delivery-bag
↓
Receives the delivery address on the app
↓
Starts the navigation-system
↓
Commutes to the (first) customer
↓
Hands food to customer
↓
Notifies platform about completion of delivery via the app

Figure 12: Stages in the Delivery Process (Adapted from Veen et al, 2019:7)

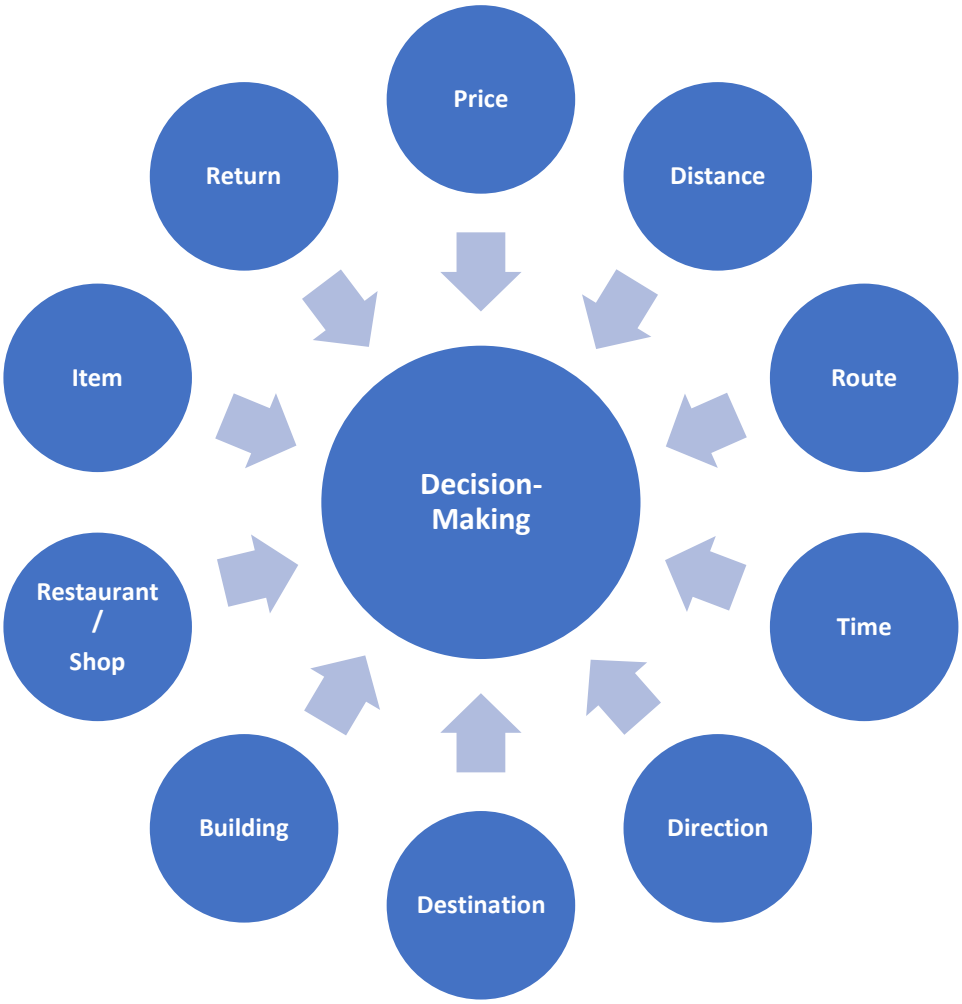
Drivers are expected to deliver the item directly to the hands of the consumer; this is the same for an order to the centre of Beijing's *hutong* alleyways or the fortieth floor of a white-collar office block in the central business district of Guomao.[9] It is the responsibility of the driver to ensure they avoid making a delivery to an office building with a slow or broken elevator or choose a route where the traffic will slow them down. Some drivers set out 'red lines' of areas they will not deliver to because of the inconvenience; this can be tall office buildings with only a limited number of elevators and lots of workers on lunch breaks, or universities as drivers are unable to ride e-bikes on campus and have to carry orders, or to 6th floors in older buildings in the city without elevators.

5.6 Decision-Making

I identify that despite the digital facilitation of work and algorithmic management techniques used to manage work on platforms, the level of skills demanded for the worker to manage themselves and make a sustainable income is very high. *Crowdsourced* drivers have autonomy over many work variables in platform delivery work, including setting their work hours and time spent working for the platform, the amount of work they choose to do and to pick between the types of orders they are willing to deliver. Unlike some food delivery apps where orders are allocated to drivers (see Veen et al, 2019), *crowdsourced* drivers have the potential to grab orders that they value. Drivers can make their own decisions on how to manage their work on platforms, but this is heavily circumscribed by having to manage multiple variables which can impact on the delivery process and therefore the income and future work potential of the driver. The implication of this is that the risks of delivery work are all placed onto the driver who must make decisions and judgements about the relative potential

[9] I even observed a driver delivering to a security guard on the Beijing underground.

cost and benefit of each delivery (see Figure 13). The grabbing of an order requires drivers to evaluate the myriad costs and benefits several times and do it concurrently if grabbing multiple orders.



- The price – is the price suitable for this order?
- The distance – how far is this journey?
- The route - can I complete other orders on the same route?
- The time– can I complete the order(s) on time?
- The direction – do I know how to get there and am I familiar with this location?
- The destination – is the location easily accessible by e-bike?
- The building - do I have to climb the building or is there an accessible lift?
- The restaurant/shop – do they tend to produce orders on time?
- The item – is it something that might break/leak on the journey?
- The return - are their orders I can pick up on the return?

Figure 13*: Decision-Making in Crowdsourced Delivery Work*

One of the key skills of working in platform delivery work is self-management; how fast to drive, the number of orders to take on, how far to push oneself to hit platform rewards. Once an order(s) appears on the screen the decision-making progress can begin. The pros and cons of each relative

order is weighed up based on an estimation of the different factors and the driver's willingness to manage the inconvenience this delivery involves. As workers become more literate in the use of platform applications, they develop intuitions (Shapiro, 2017). For platform delivery drivers, these intuitions require a significant period of learning; this learning involves making mistakes and changing behaviours to adapt to the requirements (both spoken and assumed) of the platform. This tacit knowledge is built up over a period on the job and learned through practice and discussions with friends also on platforms. Most drivers would not recognise this as learned knowledge or a skill, often stating the work is unskilled and that anyone can do it after a period on the job. Yet the decision-making process demands drivers consider a wide range of potential inputs and resolve them independently; even if they become efficient in choosing the most appropriate orders this stretches what might be deemed intuitions to become a learned and constantly evolving skill.

Crowdsourced drivers are responsible for managing the entire delivery from application for work to collecting the item, deciding the route and delivering the item to the consumer. At all stages there is potential for unexpected delays to occur which impacts on the allocated time to complete the delivery. The risks of delays are placed on the drivers and the responsibility is taken away from the platform application. Drivers often must wait during peak times for an order to be produced which reduces the time left over for delivery. If the order is delayed and the customer refuses to accept the order, the responsibility to compensate the customer falls on the driver. This carries significant risk for the driver and requires them to carefully consider the variables in Figure 13 before grabbing an order. Based on this evaluation, drivers calculate the number of orders they can grab at one time and deliver within the set time limit. This involves multiple simultaneous decisions that are made before a driver can grab an order:

> *Q. Is that a good order?*
> *These types, this isn't a good road/route…because this route has two routes, the area you are delivering to there aren't many other people ordering, the restaurant is there, you deliver there but there aren't other orders you can pick up on the way, very few…when riding I usually take seven to eight orders together at lunchtime and deliver as quickly as possible, then think about the next lot, usually I won't look (at the screen) when I am driving, complete a delivery then fast as possible look to grab the next lot of orders…during the busiest time during the day at lunch is only one and a half hours, you need to take advantage of the hour and a half to quickly deliver as many as possible, usually wait until these are delivered then go and grab some more for the next place. Usually start at 11am until 12.30, the busiest time is usually until 1pm, in just that (short) amount of time, we try and earn 170-200 (RMB) or there about* (Qiang, Guangdong province).

This decision-making process must be done very quickly and multiple times for multiple orders. The competition for orders is such that any delay on grabbing a good order will likely end in another driver taking the job. Drivers try to manage this by constantly refreshing the page for new orders by pressing a refresh button at the bottom of the app screen. Often the orders left on the grab screen are the least desirable orders as they are too isolated from other orders and a driver cannot complete multiple orders simultaneously. On its own the refresh rate of the app is often too slow for drivers to be able to grab their preferred orders. In practice, hundreds of taps on the refresh button can be made per minute. Many *crowdsourced* drivers are constantly refreshing the app waiting for the next order to come through to grab it before another driver. Having fast hands to refresh the page on the app is a useful skill in ensuring you will at least see the order as soon as anyone else. This is similar to the experience of other digital labour forms including Amazon Mechanical Turk where a common experience for workers is a problem of work disappearing before acceptance, often occurring with more preferable and better paid work (Gupta et al, 2014).

During peak times drivers are often speeding between restaurants and different areas of the city. The speed of the delivery renders the use of the GPS inconsequential and only the least experienced drivers will rely on this to steer them around the city:

> *Now in this area within six kilometres there isn't anywhere I don't know…from Sanlitun to almost Zixincun. From Xizhimen past there, to over here is Taiyanggong middle road, that's east south west north four corners. Some of these places I couldn't say I go often, it's in the middle mostly, but if the price is suitable, we can go*
>
> *Q. Isn't the GPS the most accurate method?*
>
> *It is accurate, but we don't need it, not for us, you learn and become familiar, within 6km there isn't a place I don't know, so I don't need to look at the GPS…you won't earn much money if you aren't familiar with the roads, if you need to find out the direction and you have no idea where to send it, it's too slow. We grab an order and can directly go and send, don't have to manage other things. Now I know everywhere, it requires skill* (Zhang, Hebei province).

Some drivers suggested that managing the decision-making process as has been outlined is '*feinao*' (费脑), to be mentally tiring:

> *…the first most important thing is to not have to search for a place, get the address and we just go there and then directly hand it over, a tired body actually isn't too tired, but now it's tiring in your brain (feinao), with this we have to consider the direction, that tires your brain.*
>
> *Q. What is tiring?*
>
> *It's like if you for example grab an order to this area, you have to think for a second, you can't just take one order, we usually have to take quite a few different orders. For example, this area has what places, this area what places, this area there are a few more orders, that area or that area (which) are more, you all have to think about, you yourself have to make all of that work* (Qiang, Guangdong province).

The GPS will not highlight shortcuts and side roads that can significantly shorten the time it takes to complete the journey. Inaccessible areas are also not displayed on the GPS and must be learned by the driver depending on the area they are delivering. Some university areas will not allow drivers to use their bikes on campus and must complete the last (and sometimes significantly lengthy) part of the journey on foot.

In summary, there is a significant learning period to get up to speed when delivering, this includes learning the most efficient routes around Beijing, where shortcuts can be taken and where bikes were not allowed so they would have to go on foot. Despite this being an important learned skill that improves their ability to compete on the platform, the navigational skills required to direct and plan their routes around the city were not seen as a technical skill that could be used in other work. For taxi drivers, navigation knowledge that had taken many years to acquire has been gradually reduced with the use of technology (McGregor et al., 2015). But for many platform delivery drivers, technology was not sufficient to complete the orders to the speed demanded. Instead, drivers are pushed to increase their navigation knowledge to improve the efficiency of their deliveries.

5.7 Evaluating work – Managing Reputation on the Platform

Drivers are given the autonomy to make decisions on how they conduct and plan their work. The platform at the same time will try to manage the relative freedom given to drivers to ensure there is a continuity in the services provided and that workers behave as expected by the algorithms. To manage this challenge, platforms implement management practices which manage and enforce expectations of the workforce (Rosenblat and Stark, 2016). Platforms manage the labour force through tracking worker behaviour through a data collection system to evaluate driver performance

and implement decisions (i.e., rewards and penalties depending on performance against set criteria) (Möhlmann and Zalmanson, 2017). Platform delivery apps receive three main types of data which feed into the algorithms and management of work, GPS data on the locations of drivers including speed, worker-app interactions (e.g., a cancellation of an order) and ratings by the customer and restaurants (Veen et al, 2019). Platforms rely upon these data points to evaluate the work being undertaken and use it to refine management of work.

One of the most important of these metrics is customer evaluation; through empowering customers to evaluate the service provided by the drivers. The delivery platforms are enabling a set of norms and expectations of the service that should be provided to the customers. The performance reviews from the customer are important for the functioning of the algorithms as they can provide feedback on a range of subjective indicators from a customer. Customers are empowered to act as managers over drivers using the driver rating system where their ratings will impact the eligibility and success of workers using the app, this is known as 'management by customers' (Gandini, 2019). The reputation systems on platforms are important to overcome the lack of information regarding the quality of the worker (according to the standards of the platform). This functions as a monitoring and evaluation system for a decentralised workforce.

The app allows the user to track the location of the driver throughout the journey from order to collection and to delivery at the destination (see Image 9). During the journey, the customer can communicate with the driver at any time either by sending a direct message through the application or directly phoning the driver through an anonymised phone number. An estimated time of arrival is set arbitrarily by the application which is not related to the driver's location but to the time the order was made by the customer (i.e., 45 minutes after payment made).

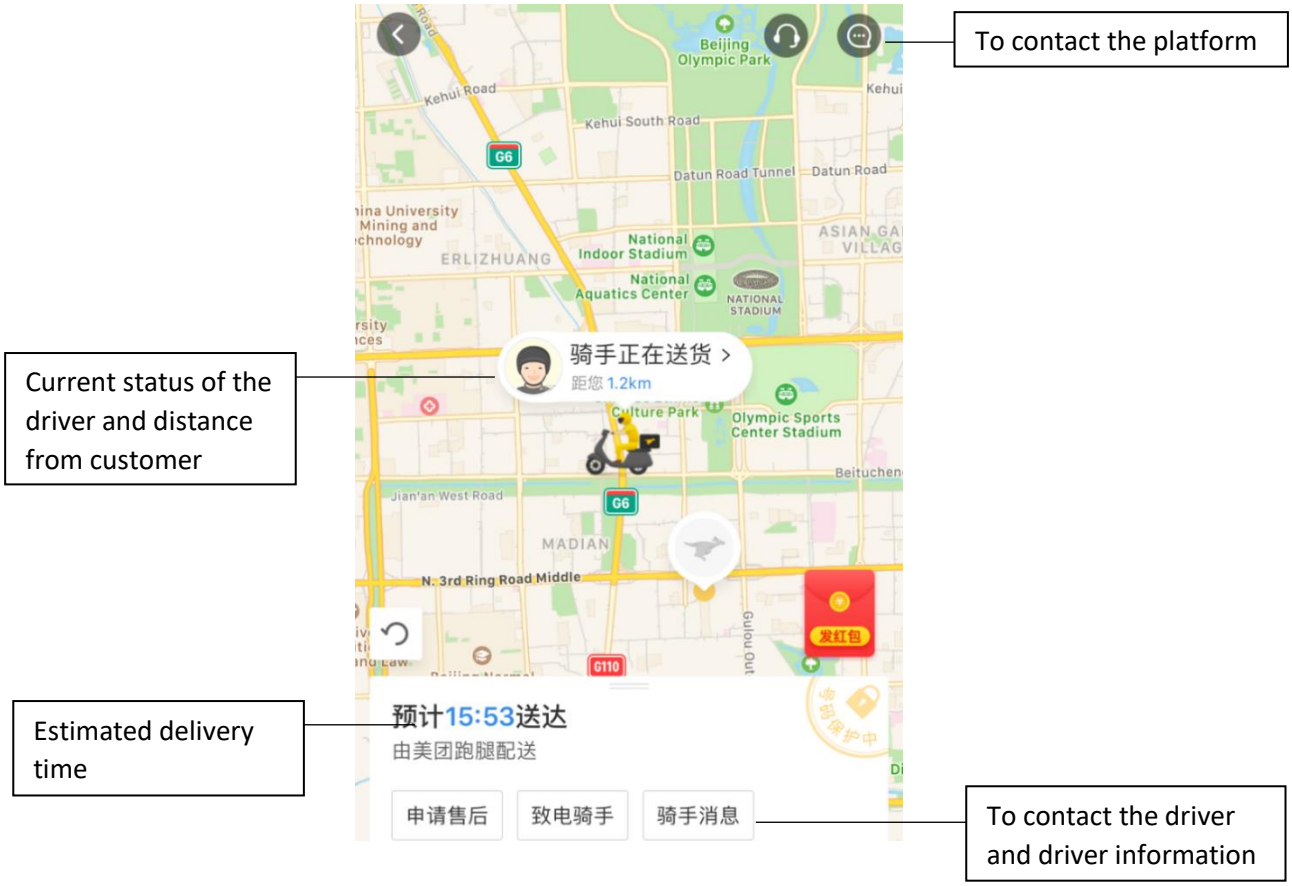


Image 9: Tracking a Driver in Beijing, Meituan

One of the most important management features of the platforms is the evaluation and fines system for late deliveries. *Crowdsourced* drivers are given a set time to complete the delivery from when they grab the order through the app. For crowdsourced workers this has no relation to their own location relative to the restaurant. The driver must estimate the time necessary to drive to the restaurant, pick up the order and deliver to the customer. Drivers must calculate the likely travel time based on their own experience and judgement and run the risk of underestimating the time needed to collect the order. Sometimes they find a customer has provided an inaccurate location and will need to reroute to a different destination. Drivers must proactively engage in strategies to ensure that they do not receive negative ratings from customers. Drivers stated that customers will often monitor their route through the city closely and might feel wronged if they were not the first delivery made on their route, even if they delivered within the allocated time.

Meituan uses a combination of persuasive techniques and coercion to discipline drivers. Meituan *crowdsourced* drivers are free to grab which orders they wish based on their evaluation of the order, but fines for cancellation or delayed delivery are costly. In terms of comparison, UberEATS uses three key performance criteria to evaluate the workforce. These are acceptance criteria (the proportion of orders accepted or rejected), cancellation ratings (the number of orders cancelled after being

accepted) and customer satisfaction ratings (customer evaluations on the performance indicated by a thumbs up or down) (Veen et al, 2019).

Meituan customers can evaluate the service provided by the driver from the collection of the item and the journey and delivery of item to the customer. There is a wide spectrum of indicators in which the customer can rate the delivery driver, including on punctuality, communication skills, behaviour and appearance (see Image 10). Through the application, customers can view how the driver has been evaluated previously including their average delivery time (e.g., 28 minutes per delivery), percentage of orders delivered on time (e.g., 99.08%) and the overall satisfaction level (e.g., 95%). Importantly, besides the quantitative measures, a wide range of evaluative comments or 'tags' (标签) which judge their efficiency, service attitude and appearance are clearly displayed. Examples of 'positive tags' are: 'polite and enthusiastic' (礼貌热情), 'wearing work clothes' (穿戴工服), and 'clean, tidy and hygienic' (整洁卫生). By contrast, examples of 'negative tags' are: 'slow delivery' (配送慢), 'poor attitude' (态度差), and 'difficulty communicating' (联系沟通困难). Customer satisfaction ratings are much wider and extensive then those provided to customers in Western contexts such as the five-star ratings for Uber driving (Veen et al, 2019).

Image 10: Driver's Rating Page on Customer App, Meituan

There are a wide range of 'tags' available to evaluate the service provided by the driver and an overall satisfaction score given to the driver based on an average of previous evaluations. A platform's provision of 'tags' for customers to review drivers creates expectations of the service that workers are expected to provide. A five-star system is used to rate the driver and the ratings are cumulative and permanent. Platform drivers are evaluated through a point ranking system for which they receive rewards and fines based on their performance. Evaluations from customers are calculated into a 'satisfaction level' for each driver expressed as a percentage. These performance metrics function alongside disciplinary measures which are set by the platform application if the driver delivers late or receives a negative rating (i.e., usually a one- or two-star rating for a customer). In the example shown

in Image 10, the number of positive comments highly outnumber the number of negative comments given to the driver which are marked out in grey at the bottom of the screen.

High ratings are common to most platform evaluations from customers, and there is a growing body of evidence that ratings are generally inflated and not very accurate (Frenken and Schor, 2017). Raval and Dourish (2016) find ridesharing drivers don't value the rating system and suggest most of their customers don't understand the implications of their ratings. Within this system, it is not always clear for the worker what standards they must attain and on what they are being evaluated (Möhlmann and Zalmanson, 2017). For workers on Amazon Mechanical Turk, reputation is also one of the key concerns of workers. The availability of good and higher paid work is dependent on their rating and is one of the most important concerns for workers. This impacted on Turkers' willingness to accept certain orders for the fear of receiving a negative rating for making too many errors or the work had been designed badly with high potential for issues to arise. As suggested by Srnicek (2017), platforms perform a role that is moving from enablers to gatekeepers. This is common to platforms globally as they take the decisive role in deciding who can remain working on the platform. On Chinese food delivery apps, disciplinary procedures can begin the second the delivery was delayed beyond the set time. This in turn rushes drivers to take risks on the road when completing orders to ensure they fulfil the order before the allocated time elapses. The restaurant takes time to produce the order and the time for producing the item is the responsibility of the driver. If a driver mistakenly grabs an order there is no repeal option for the driver and it must be completed. As drivers quickly find out if an order is not completed within 45 minutes the app will deduct money and potentially block them from the app for 72 hours, effectively cutting off a driver's source of income for one mistaken grab.

5.8 Getting Paid – Five Stars and 'God-like' Drivers

In contrast to media reports and Meituan advertisements, most drivers do not earn close to 10,000 RMB a month, on average earning less than 5000 RMB (£575). A third of respondents state they work on platforms part-time, but this must be considered alongside the high average number of hours worked. Often workers suggest that rest days are not necessary and do not accord with their ambitions to maximise their earnings. For means of comparison, platform-facilitated taxi drivers in China also mostly earn less that 5000RMB per month (93%) which falls below the average income of the employed in urban units in China (Chen, 2017). This suggests that despite long hours, the platform food delivery drivers in this study earn below the average for urban areas in China but earn an amount similar to other platform-facilitated work such as taxi driving. *Crowdsourced* workers receive no

payment when they do not complete orders, but their expenses do not reduce significantly. Therefore, the income earned also includes the running and operating costs of their vehicles and other expenses which reduce this take-home income further.

Platform work (including entirely online work) often use gamification mechanisms (i.e., rankings, gold-stars, rewards) to motivate the workforce (Rosenblat and Stark, 2016). This can include a range of mechanisms, such as leader boards for workers to gauge themselves against fellow drivers, bonuses to workers with higher accuracy scores and badges for high achievement (Vakharia and Lease, 2015). Drivers can earn rewards for making a positively rated and timely delivery. The design of the rewards encourages workers to achieve targets with one platform as they are cumulative within a defined time period (see Image 11). The more gained during the allocated time (e.g., a month), the higher the bonuses. A worker's reward bonus is wiped clean at the start of every time period (e.g., start of the month) and the driver will start freshly accumulating rewards and medals.

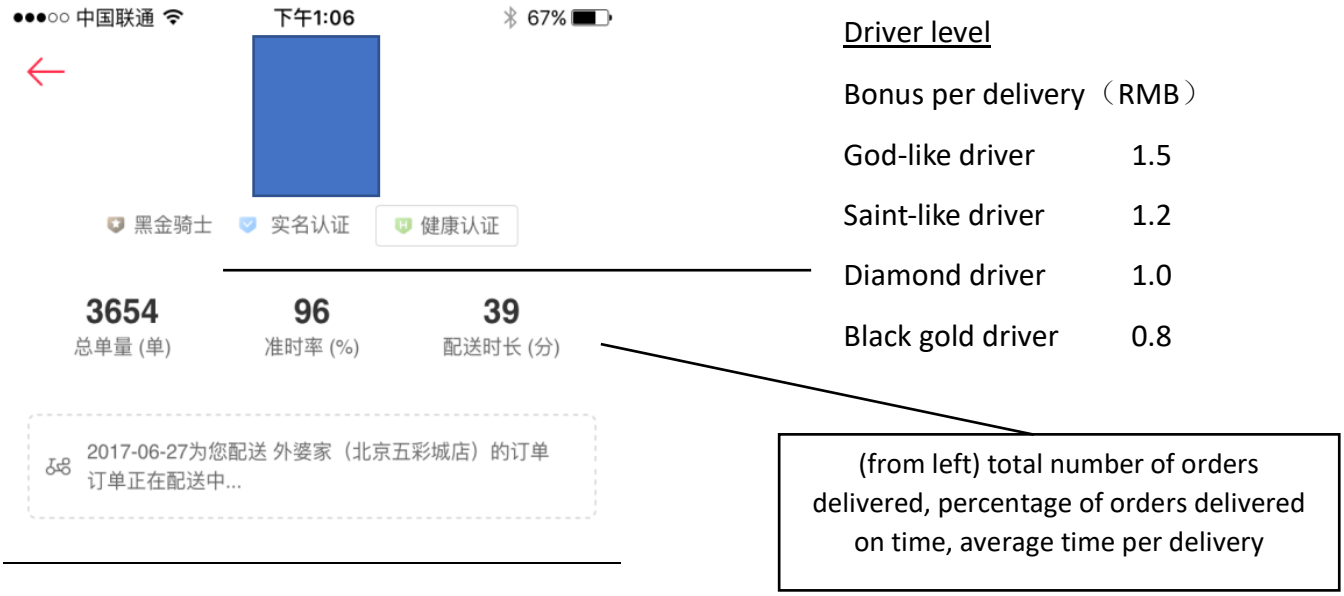


Image 11: Screenshot of an Incentive System for Drivers

In any given area, the highest-ranking drivers are searchable on a top drivers list where a driver can compare their own completed orders with the most successful drivers. This driver has accumulated enough points during the time period to become a 'black-gold' driver for which they receive a small additional bonus for every completed successful delivery. The bonuses available can be a significant motivator for drivers as they increase the take home payment. A driver explained his plans to gain the benefits of completing more deliveries to achieve more medals and higher bonuses:

The highest number of deliveries is over 400 (a month), I have delivered 200 orders this month. The award/reward is separated into different grades, a regular member (of the app) can be a bronze medal, silver medal, gold medal, the gold medal prize is for 400 orders, in one week (they give out) 4.4million RMB, at the moment I should be a silver medal at about 200 (completed deliveries).

Q. How much is that?

I don't get to 200 deliveries (the number needed for a gold medal), the highest reward I can get is the silver medal, you have to make a distinction, (if) willing or not to work to regular hours, the weather now isn't too hot. At the moment the weather isn't too cold or too hot, when it's too hot…

Q. Can you get the highest reward?

The highest award you can definitely get it, if you think this week run for five days, then you have another 230 (to make), the amount depends on how many orders you grab and how many you deliver, usually I can get to 200 orders for 200 RMB extra

Q. So you will prioritise reaching the silver medal?

Yes, I aim to get a gold medal, but now the orders are fewer, some weeks the number of orders coming through isn't enough, so I maintain a silver medal rating of between 150-200 orders (Sun, Shandong province).

Maintaining a consistent number of orders across highly variable demand is one of the most difficult tasks for drivers. Workers are provided with limited information on the changes being made to the platform while the designers of the algorithms use the data produced by drivers to refine the system in search of increasing efficiency. For Uber drivers, the application's ability to change its rates unilaterally and without driver buy-in causes much driver distrust and dissatisfaction (Rosenblat and Stark, 2016). Similarly, AMT workers rarely know why their work is rejected or why they have received a suspension from the platform and are only given basic information regarding their expulsion. This strongly impacts the experience of work and the ambiguity leaves many workers concerned about their future employment (Gupta et al, 2014). Drivers in Beijing similar to their US Uber counterparts, become dissatisfied and frustrated as the platform changes the rates for drivers without consulting them.

The number of available orders fluctuates dramatically during different times of the day and different seasons in the year. *Crowdsourced* workers only earn for each completed delivery and rely on a

consistent supply of orders available to grab on the platform. Drivers can withdraw payment from the app usually within 48 hours after requesting withdrawal and this can be sent to families in other parts of the country very efficiently. As suggested by Liu, this reliability of payment from platform companies and the security in knowing how and when it will be received is a positive advantage over other areas of work:

> So that's why I came to do platform delivery. In this the money is more accurate. You wait two/three days then it is in your account, this will definitely reach your hand. Its clearer…the payment is just as it should be. These companies…in normal circumstances they can't run away. Even if the competition is intense, they can't run away (Liu, Hebei Province).

The flexibility and security of payments provided through platform work is a valued and important benefit for drivers (this is discussed as an element of '*ziyou'*, freedom, in Section 7.3). Their experience of payment is in stark contrast to the experiences of many migrant workers in other sectors such as construction and other industries where missed payments are common.

5.9 Conclusion

This chapter contributes to an identified lack of empirically-informed insights into the organisation of work on platforms in China. In platform and digital work, there often exists a 'black box' of how decisions are made about the workforce. This asymmetrical display of information is a key feature of workplace control and covert algorithms often conceal labour exploitation (Rosenblat and Stark, 2016). This chapter has sought to address this knowledge gap in the Chinese context where the distinctive features used by Chinese food delivery platforms to organise, monitor, and evaluate work are largely unknown. This chapter has uncovered the organisation of the work regime through the Chinese delivery platform Meituan – from the stages of applying for work, to grabbing orders and delivering, to managing the work process and receiving compensation. Meituan fits work into two main work forms, that of '*specialist*' (*zhuansong*,专送) and '*crowdsourced'* (*zhongbao*, 众包). I identify distinctive organisational and management techniques of Chinese food delivery platforms in the application, evaluation, and compensation of work.

Delivery work is advertised using aspirational messages of high incomes and the potential to surpass white-collar workers. During the application process companies such as Meituan use emotional and aspirational messages to highlight the opportunity to earn high incomes and realise the achievement of personal dreams. Despite information on the application process being widely available and accessible on the internet a recommendation still is the defining feature of recruitment for migrant workers in this case. I identify that hometown networks play an important role for drivers in facilitating

their successful entry into platform work. Contacts are used instrumentally for getting a first job recommendation and can reduce the likelihood of being tricked into paying fees to an intermediary, helping to reduce risk of a move to Beijing.

Most respondents operate as *crowdsourced* workers who gain work through the app by 'grabbing' orders through a dynamically priced system. *Crowdsourced* workers are gig workers responsible for managing the entire delivery from application for work to collecting the item, deciding the route, and delivering the item to the consumer. *Crowdsourced* drivers have the autonomy over many work variables in platform delivery work, including setting their work hours and time spent working for the platform, the amount of work they choose to do and to pick between the types of orders they are willing to deliver. Unlike some food delivery apps where orders are allocated to drivers (see Veen et al, 2019 on Australia), *crowdsourced* drivers have the potential to grab orders that they value. Drivers are provided with a list of deliveries with dynamically-changing payment terms, which change frequently depending on the latest calculations of supply and demand locally. Drivers can then apply for more or fewer deliveries at one time depending on the calculations of the driver and their willingness to take on the risk of not delivering on time and receiving a fine.

Maintaining a consistent number of orders is one of the most difficult tasks for drivers and I provide a framework of decision-making to summarise the challenges drivers face to manage the variables of work. I identify the requirement for intensive decision-making for drivers to navigate the variables of multiple orders. A significant period of learning and preparation, is often led by fellow drivers who advise how to compete for orders, work strategically and secure an income through platform delivery. Despite the digital facilitation of work and use of algorithmic management techniques, the level of skills demanded for the worker to manage themselves and make a sustainable income is very high. For platform delivery drivers, to develop intuitions and make successful decisions require a significant period of learning. It is the responsibility of the driver to learn the most efficient routes and plot their own routes. Making a wrong decision can impact on the delivery process and be evaluated poorly, impacting the income and future work potential of the driver. At all stages there is potential for unexpected delays to occur and the risks of this are placed on the driver, with strict penalties for errors. The implication of this is that the risks of delivery work are all placed onto the driver who must make decisions and judgements about the relative potential cost and benefit of each delivery.

The evaluation and ranking system by customers is extensive and shapes the income earned for drivers who manage their reputation carefully. Workers gain points, rewards, reputation and income from delivering multiple successful orders as in other contexts of digital work (Rosenblat and Stark, 2016).

Customer satisfaction ratings are much wider and extensive then those provided to customers in Western contexts and drivers must proactively engage in strategies to ensure that they do not receive negative ratings from customers. Through these insights this chapter has demonstrated the ways in which Chinese platform delivery apps such as Meituan design and manage work to place risks and variables on the drivers.

Chapter 6 '*The road is repaired and needs to be oiled*'- Migrants Working Precariously on Food Delivery Platforms in Beijing

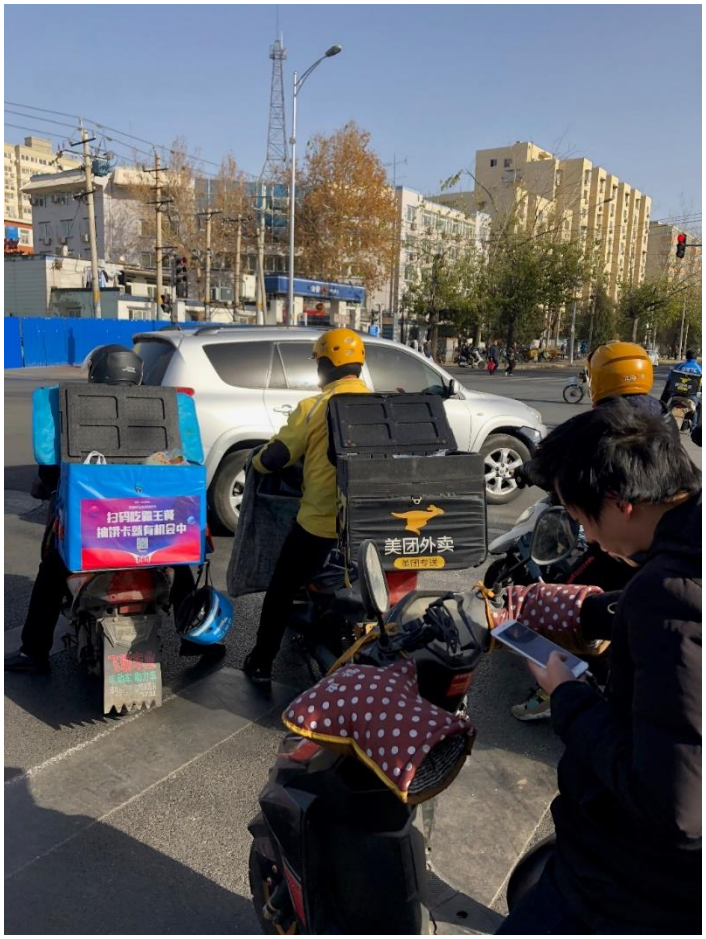


Plate 3: Drivers Negotiating a Busy Beijing Crossing in Wudaokou, Beijing

Prologue

Li, Henan Province

"I started working in a kitchen from 16, after middle school, my family said…you won't be hungry, you will always have food, then suddenly 10 years passed. I worked for 12 years in total, really annoyed me, there I worked for one laoban (boss) for eight years…I was too annoyed with it, I said I won't work anymore! The boss said you don't do this work what can you do? I had a look…tried a few different things, then I saw this thing seems quite good, ride an e-bike outside going to and fro, not bad, do it for a while then see where I'm at. All day buried in the kitchen it was enough, working for one person for eight years, I am also too lazy to find work, started this it [seems] alright, ok, quite good, quite satisfied. Then its three years.

I finished lower middle school and went to Zhengzhou looking for work, labouring, then I had relatives in Henan people's hospital said you are young, can't do anything right? Come and work in the canteen and do odd jobs, did those odd jobs and slowly learned some skills in the kitchen, playing second fiddle to someone (da xiashou). In the first month do you know how much I earned? I earned 130 kuai, not too shabby (sarcastic), the second month 150. When I came to Beijing do you know how much I earned? 500 Kuai, 12 years ago, first month was 50 kuai, the second month 150 and the third month 300 awesome! (lihai!) (sarcastic).

Didn't like it in the kitchen, then a relative opened a restaurant, going to buy meat and vegetables from the market…because I was a relative he wasn't willing to part with much money, then I went to work in a factory, a steel factory. In the factory working there, first month salary was 550, after food and drink I was only left with 200, save 200, I was working to my extreme for 550 Kuai, it was difficult to deal with. The salary was low, then I went to work and earned 600/700, then a colleague said in Shandong an iron factory is looking for people, so I ran over to Shandong Liao city, worked for 8 months, earning 1700/2000, it was an improvement in my life level, then from 2007/8 it was the Beijing Olympics, that was the first time ever coming to Beijing. From then the whole country's consumption level increased, because the price of housing was on fire. Pork meat that was five Kuai now cost 10 Kuai……then in the factory working for 1000 Kuai, eight hours work, then nine hours on the road back to my hometown. Then working in a coal factory, one month I could earn 1700/1800 plus a bonus…

…thinking of earning 10,000 in a month was an astronomical figure, one month was 1000, then earn 10,000 in one month, I [would have to] work one year for that… I worked for one year, I earn a month's salary, his (boss) salary is 10,000, he spends 2000, saves 8000, but in one month I only earn 1500 and spend 500 and save 1000…his life level is quite high…this is the Chinese economy, I couldn't take it.

Then I started to think up every possible method, I went to a coal mine, in a coalpit, but what was it that I didn't expect? I was looking for money, but that work I didn't know anything about it, I had never been down (the mine) before. Then I went to the coal mine but didn't get employed so then went in a contracted team, month by month, when I started I wasn't able to do anything, as soon as you go down, it's all black, completely black, one lamp on your head, if that's off you are blind, extend your hand and you can't see your thumb…worked there for over a year, then I ran to Shanxi to a coal mine for a month, then ran…I was a temporary worker…insurance and that, I didn't have any, it was a small boss's team and I laboured for him…then I changed a coal mine.

…it wasn't too dangerous, all coal mines are dangerous, it was like torture, so so tiring, every day going down the mine, down there for 13/14 hours, as soon as you go down you work. They don't let you stop working, like in the old society when the Japanese forced workers at the edge of a sword, it was the same, you cannot not work, to earn money not working is not possible, every day go home, from 8am to 5pm, 6am meeting, 7am go down, get back and its 7.30pm, eat some food and sleep, as soon as I opened my eyes back to work, working in the day, in a whole month I wouldn't even see the sun. Dark all day long. When the rotas changed, and I saw the sun I wanted to cry, one month later I finally saw the sun, worked for two months and stopped, it's too tiring, so tiring my spine had started to pop out. In the end I managed to continue for over a year. Worked there last year, the year before. You gave money to the coal mine boss (laoban) and all the coal you brought out was yours, [you] had to do it as fast as you can to get the coal out, that was staying in the coal pit for 24 hours, bringing lots of coal out. Why did there used to be accidents in the mine, [because of] blasting into the mine then trying to scoop out the coal. My (yifu) mothers' sisters' husband he bought himself a three-wheeled vehicle to go in, bring out three lots in one car, how much could you make, you bring out how much coal and got paid that amount.

…I definitely won't work in the coal factory again, now the coal mine is nationalised, it has formal contracts, safety, all the insurances, not the same as before, now it's really loud down there, all the machinery…now the country's policies are a bit better, they won't force you, no invisible hand pressing on you. Today you are brave enough to stay in the city, tomorrow brave enough to stay another day, if you don't work it's alright, [by] the third day you stick up your bum and work"!

6.1 Introduction

The focus of this chapter is on the working lives of migrants working in platform delivery work in Beijing. Precarity is understood as insecurity and instability associated with contemporary employment relationships such as in platform work. This will build on research on precarity which brings together the connections between insecure work and wider lives. A key starting point is the recognition that elements necessary to produce migrants' value and compliance in the workplace are often secured through the regulation of their lives outside of work (Buckley et al, 2017). This therefore requires the researcher to engage with the social and economic context which gives rise to precarious work among migrants. This chapter will build on this to demonstrate how migrant workers' wider

vulnerabilities arising from the social and economic context interact with the organisation of platform delivery work, resulting in precarious working lives.

This chapter will address the following research questions:

- RQ3: What are the social processes through which workers come to experience precarity in platform work?
- RQ4: How does platform work shape the precarity faced by workers?

The empirical data in this chapter is in two sections, Section 6.2 focuses on social processes which shape migrants' entry into the labour market. The evidence in this section demonstrates how workers struggle in-between the push of low incomes and the difficulty in establishing themselves in a highly-dynamic sector in urban Beijing. I identify that migrant platform workers struggle with a lack of alternative options for employment. Migrants' lack of income and tenuous position in Beijing frame a lack of choice in the labour market. This shapes the relationship of workers with their employment on platforms and increases their dependence on securing consistent and profitable work on the platform.

Section 6.3 focuses on how drivers' vulnerabilities intersect with the features of platform work that results in precarious working lives for delivery drivers. I find that a lack of control in work is a defining facet of precarity. Control over the labour process in platform work is considered through two main lenses – these are the control of the supply of work and the evaluation of work. This evidence demonstrates how the organisation of platform work reduces the space for workers to exercise control over how and when they work. While platforms can offer workers more choice to pick and choose orders, because of the workers' dependence on this source of income they lack the ability to be selective. I conclude, the extent to which people are dependent on platform work is strongly related to the social context in which platform work happens and the position of the worker is all important (Charles and Schor, 2017; Kenney and Zysman, 2016; Schmidt, 2017). The precarity faced by migrant workers is due to both the organisation of platform work and how it interacts with and exploits the existing vulnerabilities of migrants. It is not just that there is an intersection of the two processes, but that the design of platform work exploits the vulnerability of migrant workers.

6.2 Migration to Beijing

In this section I examine the lack of opportunities migrants have to gain an income in their place of origin. This is important because it shapes their entry into the urban labour market and their dependence on securing profitable work which delivery platforms seek to exploit. I find that many drivers had experienced a push from their place of origin due to a lack of income earning opportunities

and increasing living costs. While China has overseen high levels of economic growth, many rural areas suffer from a lack of employment opportunities and experience mass out-migration of younger people (Chan, K.W, 2012). Migration is often driven by a lack of opportunities to maintain a sustainable income in the countryside (Fan, 2008). For many of the drivers interviewed, work in farming does not provide an adequate level of income and they had little option but to move in response to these pressures. Li provides an indicative comment of the tangible push out of rural China he experienced due to the combined pressures of low incomes from farming and the increasing cost of living:

> *This society can't help but push you out on to the road, it's heartless. You don't have any other choice; you get pushed out onto the road. Now in this wider environment, can you plant on two acres of land? I'm sorry, tomorrow you catch a cold and you can't afford the doctor. You basically cannot live on it (farm income). In this city, the society is like this, you are in this wider environment…*
>
> *Five people in my family, above there are elders and below (children). It's not that I couldn't raise them, it's this country. This society is non-stop, not stopping and making you move forward, you have to keep up, go along with the masses. The society is just like this, before across the country older peasants don't come out, don't labour, stay at home to work the field. How many people were planting in the field? In this society, before laobaixing* (老百姓*, the common people Lit: Old one-hundred names) were all farming, a surplus, if you see it from the amount of work, one year four seasons all there. Now laobaixing have to come out to labour…when they have rest time, they come into the city to labour, when busy (at home) go back to collect the harvest. Now laobaixing don't bother planting, come to the city to labour, the land has become bare.*
>
> *The country isn't short of provisions. This is very strange, the country isn't short of grain, before when all the laobaixing were on the fields, the country was short of provisions, couldn't provide for people to keep warm and fed, suddenly laobaixing stopped working the land, the land becomes bare, they don't lack (for food), and the news says, this year is a bumper harvest, there is something invisible pushing you (out), pushing you onto a treadmill, you just go along with the treadmill. Chairman Xi said, "the road is repaired and needs to be oiled", if you don't work, I'm sorry, put the money to one side, you starve to death, it serves you right* (Li, Shanxi Province).

As Li from Shanxi experienced, the price for rural produce has dropped significantly in China and it is unproductive for many young workers to stay in rural areas to farm. There is an abundance of rural labour, with an estimated 80-100 million surplus rural labourers, mostly in the age range of 35 and above (Chan, 2012). In China, the majority of rural-born workers in the 1980's (the majority of the sample) have never engaged in farming, often having moved with parents who were migrant workers themselves or completed school while elderly grandparents maintained the farm (Zhang X, 2012). The overabundance of rural labour makes farming unviable and instead many choose to follow the well-trodden path of leaving rural China to provincial and coastal cities for employment. Platform drivers came from different areas of China, but respondents often suggested there are similarly few options to make a sustainable living, either from farming or other small business ventures:

> *Now there are so many people, you can only labour (dagong), if you want to start your own venture, firstly [have] no cash, secondly nothing is easy to do well. Open a store or something is good, but the competition is great, open your own store, everyone buys from the internet, real stores aren't good, can't live on that. Now things from the earth aren't worth money, before sweetcorn was one kuai or more, wheat a few kuai, now wheat is nine mao, sweetcorn is five to seven mao, lost half of the value, it makes no money, if you grow vegetables it's the same…vegetables don't sell as its too cheap it becomes rotten* (Zhang Y, Henan Province).

Whilst farming is a fall-back option for Zhang, it does not provide enough of an income for him to support his family. Yongwang had been employed in his rural hometown in secondary industries such as construction, and small-scale manufacturing of plastics. Located in Hebei province close to Beijing, the business could benefit from easy access to the Beijing market without the expense or regulation required of a business in the city. Some industries such as small-scale manufacturing are now less desired from the perspective of the government and regulation has forcefully changed certain undesirable and polluting sectors. For workers like Yongwang, the impacts of environmental and other regulations in outer Beijing are an example of how government regulation affects unfavoured small business sectors and the workers within them. To fill this gap, flexible employment has been encouraged by the government as a response to the removal of undesirable sectors (Feng X, 2014), as experienced by Yongwang from Hebei:

> *My hometown is 140km from here, quite close, when I was at home I had my own plant works, my own business, then later on there was the development of Xiongan new district (South of Beijing) and all our businesses were closed down, don't let us work anymore. In this country all the country's hotel's one-use cutlery plastic bags were all made by us. I was working in that,*

> *my family is doing the plastics business, then later on building a new district they closed off the water and stopped the electricity to clean up our businesses. All of it, the work of the environmental protection bureau who cleaned up, I didn't know this was coming…After clean-up operations, I stayed around at home for close to one year going out and about to do a few things, looking for things to do. All of the fruit shops' plastic holders in Beijing are from our hometown. Afterwards they didn't allow us to do the work, we sold all the machines off, other businesses in our hometown are also started to hear something, that they should move away. Now other things are not easy to do, to do other investments (i.e., in Beijing), you have to go home. This is temporary [platform delivery work], do this first, first do this to pass a period of time. I went home to open a metal melting factory, then as soon as they started playing up the new economic district[10], they stopped allowing us to work, because of this I came here to work in delivery, come and try it temporarily…* (Yongwang, Hebei Province).

Yongwang's experience demonstrates the risks of government intervention. At short notice, he had to find an alternative option for work and chose platform delivery to fill the gap temporarily. Developments such as Xionggan new area may bring economic activity, but have variable impacts on peoples' livelihoods in the surrounding countryside. Yongwang shows the impacts of change in his place of origin, often a result of exposure to the market and government intervention.

More generally, in China, local governments continue to encourage urbanisation to boost consumption levels. In the process this dispossesses people of land by changing land use, and forces them to cities from the countryside (Lee, CK, 2016). Without access to productive land, they find themselves in a vulnerable position without landholdings to rely upon. As identified by Rigg et al (2016) in Nepal, economic growth and market reforms can bring contradictory livelihood effects with a resulting growth in precarity as market forces reduce the value of produce and land dispossessions deprive rural people of sustainable incomes. These effects include 'produced' exposure of precarity arising from market dependencies, such as dispossession of land, growing inequalities between rich and poor, out-migration and the emergence of multi-sited households. For many migrants in this research, they face similar pressures from market forces and 'produced' exposure. This included unprofitable use of the land for agriculture and growing inequality which had pushed them to leave in pursuit of higher earning employment opportunities. The experience of Li and Yongwang demonstrates the impacts of market and government intervention on undesired sectors such as small-scale manufacturing and agriculture.

[10] Refers to Xiongan new economic area located in Hebei province

In other sectors, construction and mining have been a major employer of migrant workers; 30%-50% of the 260 million strong migrant work force have found employment in construction which is also the number one industry employing male migrant workers (Lee, CK, 2016). As China's economy slows, economic investment in large infrastructure and construction projects is reducing and major cities such as Beijing are no longer building to the scale of the last 10-20 years. Moreover, alongside such changes to the rapid economic development in China, there is the diminishing of some routine employment as it becomes outdated or obsolete in the face of change. Government regulations and developments play a key facilitating role in driving the growth of certain sectors, while forcefully reducing others. Mining has been a major employer of migrant workers, but as it is becoming more technologically advanced the number of workers needed is reduced (as experienced by Li in the prologue to this chapter). The construction sector was a previous employer to some of the platform workers in this study, but as building levels have reduced, they have been pushed to seek out other opportunities. Traditional sources of employment for migrant workers in construction and manufacturing are changing and the entry requirements are becoming more stringent, as experienced by Li :

> *Q. How did you think to come to Beijing for this work?*
>
> *To say something hard to hear, our cultural level isn't very high, we worked with people from my hometown and all are working in construction and the like…for people like us if we wanted to go to work in factories, I'm not sure that they would even want people like us, really, because now even a regular factory looking for workers asks for a certificate, for a body type (身材 shencai). Because they set these conditions on the advertisements, like between what ages, from 18-35, your cultural level-how much culture do you have, how tall are you, and others all of these conditions, age, height, culture usually they will ask for these. A skilled worker gets priority, like a guard, a former soldier get priority, like us who are older earning to maintain a family, as soon as you enter a factory your salary will of course be really low, like 3000RMB (per month) which is low, at home I have a wife and kids and I think that is just too low. Actually, I don't want to be out here working to earn money, but I have no choice, otherwise I can just go home but without a salary I can't just sit around at home. Being outside, I don't want to be outside[11], so really do want to go home….if I could earn 5000 RMB at home I would go home, and now this work isn't easy to find, here in China our labour force is*

[11] 'To go outside' implies to leave one's home to another place, often for work

> *too vast, too many workers… There is too big a labour force, and too many left over, there is so many people looking for work, if you don't do the work others will* (Li, Jiangsu province).

Li demonstrates a lack of options he faced for employment, describing a feeling of being stuck between a lack of employment options at home, and changing demands in sectors such as factory work. Chan (2012) found migrant workers are often in a weak bargaining position and employers in the factory export industry are able to 'cherry-pick' workers with the most 'desirable attributes', such as highly-selective age requirements. Platform work in contrast does not have requirements such as these, and the low entry barriers are a key reason why migrants were able to find work. This is in contrast to requirements for other work, including in factories. Without the skills to be able to pick alternative employment opportunities, drivers suggest they are in a logical pursuit of the highest salary available to them based on their own educational and cultural background, that of being a migrant worker from the countryside moving to urban Beijing. Their consideration of their value in the labour market was related to what employment opportunities they were able to attain based on their own educational credentials and experiences expressed as their ('*wenhua*') culture; that they do not have the cultural level to find better jobs, so choose platform delivery, as discussed by Li in the previous quotation. An estimation of their value in the labour market has led them to conclude that platform work is the most profitable opportunity available to them to increase their income.

Migrants on entering the labour force in Beijing, can face difficulties in establishing themselves with a stable place to live. Zhang X (2012) identified that rural-urban migration in China has started to show features similar to those in other countries in the Global South. This includes migrants living on the edge of large metropolises, setting up informal institutions such as medical clinics and separate communities from mainstream urban society. The state plays a central role in facilitating the promotion of certain types of work and housing, this can be observed in the rapid removal of urban villages (城中村, *chengzhongcun*) and small family-owned restaurants in Beijing which took place in 2018 (Plates 4 and 5). Beijing has implemented strategies to change the urban infrastructure, including removals of migrants and migrant businesses which operate semi-legally. The aim of heavily-restrictive policies is to reduce the total population in the city (see Chapter 3). This has resulted in large removals of so-called urban villages mostly located on the outskirts of Beijing and populated with mostly rural-urban migrants. Sectors such as the small restaurant sector in Beijing has been reduced significantly as informal restaurants serving urban villages have been removed.

Plate 4: Zhangbaicun Urban Village Destruction, Beijing

Plate 5: "Relocate and vacate the land, I'll start first, government direction", Zhangbaicun Urban Village, Beijing

As found by Knowles (2014) in Beijing, places on the urban periphery are temporary and fragile places subject to competing pressures. The growth of the city and the high costs of property have resulted in tensions between the need for places for people to live and the demand for profit. This resulted in large numbers of removals and destruction of semi-formal and licensed areas under the auspices of safety checks after a fire in the city at the end of 2017. Migrants have subsequently been pushed into

different areas in the city, including underground and overcrowded rentals. This is also the experience of many platform workers who often live in informal and overcrowded accommodation with insecure tenure. They are responsible for finding and paying for accommodation themselves (unlike other sectors such as construction or factory work where this is usually provided at low cost, see Swider, 2015b). The safety checks, evasions and removals in Beijing had a significant impact on the life of some of the respondents. Many moved to accommodation in the city, often in basements and other marginal locations such as in overcrowded Beijing *hutongs*. Drivers said they were living in crowded accommodation with other drivers due to the cost of renting in Beijing, and the difficulty of finding alternative safe and cheap forms of accommodation. Beijing is one of the most expensive cities in China to rent, and possibly even the world relative to incomes (Sheffield, 2016). This made living in Beijing as a platform worker expensive and many drivers had high fixed costs. Working in Beijing is seen as a temporary opportunity to make money, but not to reside in the longer term. Zhao and Yongwang's interviews demonstrate how they feel unwelcome in the city and have no realistic plans for a future in the city:

> *Q. Do you want to continue living in Beijing?*
>
> *Actually, this city, Beijing does not welcome us here…now I am here to make money, make my purse, make it thicker, I have some ideals before I can go home, to do a small business or something like that*
>
> *Q. Can you take advantage of government benefits in Beijing?*
>
> *We are not any highly-skilled talents, that the country, local government needs, this thing (platform work) isn't acknowledged, the entry level is that low, right? You want to reside your hukou in a city, unless you have money, unless you can show you have brains, [only then] the government will keep you there. This is the reality, but for regular laobaoxing (the common people) and the masses, the policies being implemented we cannot enjoy them, to say something hard to hear, we have temporary residence permits, we have no rights or nothing we can do…we have no right to apply for a residence permit right? Previously it was the temporary residence permit, now we have no rights to apply for that because we have no social insurance, to stay in licensed housing even if you have enough money, I live in licensed housing, but sorry, you haven't paid into social insurance, no one will let you apply for it.* (Zhao, Hebei province).
>
> *Beijing is like a bus stop, just a temporary station, usually people yearn to come to Beijing, it's the capital of the country, perhaps even people from other countries, it's the heart of China. But after you come, sometimes work is good, [but] no matter how good, not every element is*

> *really that good, its unsatisfactory…so in Beijing people yearn to come to this place, but after you come, if you really can't earn any money then should choose to leave, those with ability can stay in Beijing, I don't have ability, only can temporarily work on some things, earn a little fast money* (Yongwang, Hebei province).

Beyond the immediate short-term opportunity to increase earnings, making a life in Beijing was not seen as a feasible or realistic option by the drivers. They often remarked they were the lowest level of society (最底层的, *zui diceng de*) and that for people of their background and occupation it is not worth planning for the long term in Beijing. They understood it is extremely unrealistic to acquire a Beijing *hukou* and are only temporarily residing in the city to earn money.

The focus of this chapter is on how precarity is shaped by the intersections between insecure work and the wider lives of workers. This section has demonstrated how workers struggle in-between the push of low rural incomes and the difficulty in establishing themselves on the fringes of urban Beijing. As identified by Rigg et al (2016) in Nepal, economic growth and market reforms can bring contradictory livelihood effects including 'produced' exposure to precarity arising from market dependencies, unprofitable use of the land for agriculture and growing inequality. For drivers in this study, there are limited opportunities to gain an income in their place of origin which increases the financial pressure to migrate. Many drivers experienced a tangible push out of the countryside due to a lack of income-earning opportunities and increasing living costs. Other sectors in which respondents had gained employment previously such as mining and factory work were in transition, and they chose platform work as the next best option in the circumstances to meet their personal economic goals. In Beijing removals of many urban villages in peripheral areas in the city make it difficult to find cheap and secure accommodation. These pressures result in contradictory livelihood effects and a resulting growth in precarity as drivers are pushed out from rural areas. These factors all shape the relationship of workers with their employment on platforms and increase their dependence on securing consistent and profitable work on the platform, which is the focus of Section 6.3.

6.3 Control Over the Labour Process

Section 6.2 demonstrated how platform migrants 'produced' exposure to the market and precarity shapes their entry into the urban labour market. In this section I identify the ways in which their vulnerabilities intersect with the features of platform work resulting in precarious working lives as delivery drivers. This is important as precarity faced by migrant workers is due to both the features of work and how these features interact and exploit the existing vulnerabilities of workers. Specifically, the analysis below demonstrates how companies such as Meituan design work on platforms to exploit

the vulnerabilities of drivers. Drivers expressed a lack of control over the mechanisms designed to manage work through two main themes, these are a lack of control over *the supply of work* and of the *evaluation* of their work. This section builds on Chapter 2 where I outlined how algorithmic management is central to the organisation of work on platforms, and Chapter 5 where I demonstrated how platform applications exercise control over the management of the labour process. Firstly, an unstable and unpredictable supply of delivery work limits the options for drivers to control how and when they work. As they must reach delivery targets set by the platform to achieve more profitable orders, they are bound to working long hours in competition with other drivers for a limited supply of work. Secondly, algorithmic management and the evaluation of work are considered from the perspective of the drivers. These are the control mechanisms designed by the platform to regulate and evaluate drivers and score the quality of their work. This includes how drivers are pushed to balance competing priorities, cater for the customer and perform emotional labour to achieve positive ratings and maintain their work status on the platform.

6.3.1 Supply of Work

This section will discuss how limits to the supply of delivery work take advantages of the precarity of migrants seeking consistent work. Due to downward pressure on payments and lack of certainty over future orders drivers have little option but to increase their time spent screening orders. This reduces the control over how drivers manage work as the platforms react to an increased supply of new entrants by reducing the terms available for all drivers.

Delivery services have expanded rapidly in China, with expectations of growth up to 10% of GDP by 2020 and close to six million employees on platforms (Sina, 2017). Yet the future of platform delivery work is not certain as structural changes to work and the economy make a long-term outlook difficult. Meituan CEO Wang Xing acknowledges, delivery work is not likely to be long-term career option, as the platform plans to promote large-scale operation of autonomous delivery vehicles (Cheng Yu, 2018). An expansion of the supply of work has brought drivers from across the country to major cities such as Beijing, but algorithms react dynamically to the increased supply of drivers and gradually reduce the payment per order to reflect the increased supply of workers. This experience of working in a rapidly-saturating market with worsening conditions per delivery were felt keenly by many drivers:

> *After Chinese New Year because this work has no skill content, just if you can do the work, and play on a phone you can do it, after New Year it hasn't been any good.*
>
> *Q. Why?*

> *Everyone knows we earned lots of money last year, some even earned 7-800 RMB in a day, so lots of people came, so on the platform there are lots of people. The number of orders is limited, but the number [of people] grabbing orders are many, so it reduces the price, and now it's not easy to grab orders…this is a social phenomenon, nothing you can do, everyone is here to make money…the platforms are good, and the choices it offers are too* (Pu, Henan province).

For those like Pu who had worked in the sector for a longer period, the continual reduction in price per order was the most frequent point of contention. Pu identifies a low barrier to entry for new drivers and a lack of skill needed to start delivering. In Chapter 5 I demonstrated that platforms have not removed the need for skill but rather changed and increased the burden on drivers to manage risk and manage a wide range of different variables to make a profitable income (see 5.6 on decision-making in delivery work). What Pu refers to as a low barrier to entry is designed by platforms to recruit drivers from across the country to start work and increase supply. This increase in the supply of drivers is what then drives down the price per order.

An increase in workers was evident after the Chinese New Year in 2018. Drivers suggested salary decreases for *crowdsourced* workers of up to 50%, from a peak of close to 10,000 RMB per month, were now earning between 3000-5000 RMB a month. Workers are not informed of the number of workers they are competing with but observe the physical number of drivers on the roads. Companies retain data on the number of drivers and the algorithms set prices per delivery based on the estimation of the market demand and supply of drivers. Drivers are unaware of upcoming changes to the price of orders and assess these changes through the platform interface daily. Drivers experience an increase in the number of other, similarly-located drivers using the app as the downward pressure this is putting on prices for completing a delivery and the competition to grab an order before another driver. Wang describes this experience:

> *in work there are too many (drivers) now, all over the road is drivers, it's not good to work in. Before last year when you had an order sent out by the system and no one wanted it, they would increase the price to 10 kuai an order, then after another five minutes it and no one wanted it added to become 15 kuai, in the end 20 kuai…now an order comes out and it is gone in one second, there are too many people, sometimes you are thinking how to increase the price, you haven't thought it through and its gone, it has been grabbed by someone else, so this system is like looting a burning house (趁火打劫, chenhuodajie) …it was eight kuai then that went to seven, then six and now even five are being grabbed by people, this sector the price is becoming lower and lower. If the order came out and no one grabbed it, it would start*

> *to rise in price. Now it feels like an order comes out and then it's gone, you have to think of ways to make money by different means* (Wang, Hebei province).
>
> *The sector is getting worse and worse at the moment, now the orders are too few to make money…the platform is more and more about algorithms (智能, zhineng)…the system doesn't care how many people are working as crowdsourced drivers, they only care if the orders can get out, don't care who grabs them, who can't get any…what is fair or unfair to drivers, 'if you can grab one that's good after all that is good for the platform', before you could grab as many orders as you wanted, it's not the same anymore* (Zhang, Hebei province).

Wang and Zhang's emotive comments reveal the anxiety and pressure of competing with a seemingly unlimited workforce recruited freely through the app. They manage with little information on wider trends collected by the platform which could be used to plan workloads. This is common to algorithmic-based management of work as evidenced by Möhlmann and Zalmanson, (2017), who find platforms unmotivated to share information. This creates uncertainty for drivers like Wang who can only interact with the dynamic interface without access to the data he and his colleagues produce through working for the platform.

Drivers have high fixed costs and are vulnerable to decreases in the supply of work and a reduction in income. Running costs do not decrease substantially with a drop in the supply of work as expenses such as accommodation and maintaining themselves in Beijing remain largely the same. Costs associated with their work including the maintenance of an e-bike or petrol for motorbike drivers may decrease slightly but do not to make up for the decline in income. A vulnerability to a reduction in the supply of work mirrors the experience of workers on online platforms in other contexts; Berg et al (2018) find that despite spending a lot of time on platforms looking for work, 91% of online crowd workers (not just delivery drivers) in the Asia and Pacific region would like to do more work indicating that underemployment is a serious problem for digital workers in Asian countries. This is further intensified for delivery drivers in this research as they are unlikely to have other sources of income or employment which can make up for a changing supply of work. Graham (2017) identifies a comparable precarious situation for crowdworkers in countries such as Vietnam. There is often fierce competition between digital workers seeking earning opportunities through digital labour platforms who engage in under-bidding strategies to gain work. Due to a high supply of workers and lots of demand for work, digital labour platforms significantly expand their labour pool. For workers, this can result in a 'race to the bottom'. This results in an inability of workers to exert bargaining power resulting in disempowerment, insecurity and instability in work, which mirrors the lack of control faced by delivery drivers in this context.

As the number of workers signing up to platforms has increased, the competition to grab orders has become more intense, this is experienced as time pressure as drivers are in competition with each other for the same preferable orders. When an order appears on the drivers' phone, they usually have just a few seconds to resolve a range of questions related to the delivery, and the need to calculate orders at speed was told by a driver:

> *What's it like working through an app?*
>
> *You have to calculate it, your brain is flying through it quickly, because the better orders as soon as they come out (on the phone) they are grabbed within a few seconds and then gone. As soon as you hesitate, you take time to think it over then it's gone, it's been grabbed by someone else*
>
> *Q. How do you manage time?*
>
> *It's related to your experience. If you cannot adequately predict all different types of problems, your overtime rate will be very high, then you will earn a lot less. Because all of the app's basically are like this, as soon as you go overtime, they at least will take 1/3 to ½ of the transporting fee. The app limits the time and it will always be very short, when you have multiple tasks at the same time, if you don't cross red lights and drive in the wrong direction (on a one-way street) it's very difficult to complete on time. The sector is striving after speed…so the time given to drivers is very short…and in the restaurant it's not like as soon as you get there you can take it away, lots of the time you have to wait in the restaurant, but the time they give you is already calculated, it's not according to each delivery, so there is nothing you can do about it* (Gaoxing, Henan province).

Gaoxing discusses how a driver cannot reject an order once it has been grabbed and will have to spend time waiting during collection; this is time it requires restaurants or stores to process the order before the workers can take it away. Time pressure was one of the most prominent themes discussed by drivers. As outlined in Chapter 5, drivers are required to balance a wide range of competing demands to ensure they complete orders to satisfy the demands of the platform, while also fulfilling their own ambitions in work. Workers are required to manage the amount of time they use to complete deliveries and can choose how many orders they can concurrently deliver by grabbing the amount they can fulfil in the allocated time. This has impacts for drivers in terms of the price of orders, the speed at which drivers must grab them and the distances they must travel to complete them. One of the main responsibilities of drivers is to judge from which restaurants and stores to accept orders – if

they choose to accept an order that takes longer then they had estimated there is a chance this could impact on multiple subsequent deliveries.

As drivers complete more orders to reach a medal target (and bonus), this further drives down the price for all drivers akin to a 'race to the bottom' found by Graham (2017). Drivers with high fixed costs have little option to withdraw their labour or take other actions to improve their income, but instead compete with each other to complete more profitable orders. This resulted in intense competition for the best orders and explains the intensity with which observed drivers refreshed their phones. The competitive nature and dynamic pricing of the deliveries resulted in very changeable incomes for drivers. This blog article written by a worker on a popular WeChat blog for delivery drivers provide evidence of the increased pressures faced by workers and because of changes to platform algorithms. They argue for drivers to not take up orders to fight against reductions in price:

Delivery drivers, please protect your bottom line! (Home of Delivery Blog, 2019)

Alongside the explosive growth of the delivery sector over the last few years, the number of delivery drivers has become huge. Through analysis of publicly available statistics from Meituan and Ele.me [two major platforms] there are now more than six million drivers. Exactly because of driver numbers sudden increase, platforms over the last two years have seen a step-by-step decrease in the value of platform orders. The direct result of this is every delivery driver's income falling sharply, or to earn a similar income to before, need to put in more time and effort. So, a portion of drivers have decided to leave.

With people leaving, there are also more joining. Some new drivers who have just started don't understand the current market situation, they see an order and are easily excited, as soon as they become excited, they are willing to grab any and every type of order. The platform will not really concern itself with the income for workers, it is more concerned with how the platform orders are used up. When the platform finds out the price per order has decreased, when the platform orders completely can be absorbed [by the workforce], we have all seen the result of what comes next.

This is Meituan's price per order [image of decreasing price per order on Meituan platform app]. Appealing to all delivery drivers, especially new drivers! Please protect your bottom line across two elements:

1. Starting price minimum of 4.5 RMB per order

2. Every KM receive 2 RMB

*Look at how I have analysed the statistics: if one driver (usually about 80% of drivers) will under normal circumstances complete 30 orders in a day, the lowest amount a driver can take will be 4.5*30 = 135RMB, and if every delivery is the average delivery distance of 3km, in one day the income earned is 3*30*2 = 180RMB.*

In the words of a fellow delivery driver who is on the road dashing around crazily every day, one day's income at least needs to be over 150RMB to make it worthwhile trying, what do you think?

This blog demonstrates the difficulties faced by drivers trying to build a stable income, and the awareness that increased supply of drivers was reducing the terms for every worker. In this blog they exhort all new drivers to take action to 'protect their bottom line', to ensure that everyone using the platform for work can receive an income that makes it worthwhile. Faced with these circumstances workers could try to be selective in which orders to choose. However, they often had little choice but to take on less profitable orders or risk not making any income or covering their expenses.

This section has shown how platforms design work to take advantage of migrants seeking consistent work. As seen in the experiences of Gaoxing, drivers are limited in the extent to which they can exert control over the labour process. Due to the scarcity of work, the downward pressure on payments and lack of certainty over future orders leaves workers with little option but to increase their working intensity in response. They have little control over how they manage work as the platforms react to an increased supply of new entrants by reducing the terms available for all drivers. The next section will outline the second key feature of control of the labour process in platform delivery work, that of the evaluation of work.

6.3.2 Control Over the Evaluation of Work

This section will demonstrate how drivers experience a lack of control over the evaluation of their work. This builds on the evidence in Section 5.7 to demonstrate how the organisation of platform work (including customer ratings and monitoring) reduces the space for drivers to exercise control over how they work. This leads on from the previous section to show how the precarity faced by migrant workers is due to both the features of work and how they interact and exploit the existing vulnerabilities of workers.

Reputation Management

Platform applications manage the labour force using technical, bureaucratic, normative and computer controls (Veen et al, 2019). Technical and computer controls shape how platform work is performed

by its workers and normative controls work to ingrain behaviours that are favourable to a customer-focused interaction. To facilitate preferred behaviours, platforms use a range of management techniques that range from persuasion to coercion (Malin and Chandler, 2017). The ratings and evaluation system is the key instrument used to shape the behaviours of the drivers using a mixture of enforcement and punishment, encouragement and reward. Numerous studies have shown how workers on various types of digital online labour platforms can be unfairly rejected and therefore not remunerated if their rating drops below set standards (Berg et al, 2018). Amazon Mechanical Turk (AMT) workers, for example, struggle to gain work if their approval rating drops below 95% and have to undertake hidden work to maintain ratings and their reputation (Gupta et al, 2014). Gupta et al (2014) find workers are afraid of being blocked for a low rating and devised strategies to prevent this from happening; tactics employed by workers to maintain their reputation on the platform are defensive, including spending time to research the work to ensure they can complete it and training themselves up in different areas. This is an example of invisible work - the unpaid work required to work on the platform before they can take on remunerated work. Drivers have little interaction with a human boss and have little opportunity to feedback any issues or question management decisions, as is common to platform work in other contexts (Möhlmann and Zalmanson, 2017). In the case of Meituan, as the platform has a one-sided rating system, the driver is not able to provide any feedback to the app and many workers felt frustrated at their inability to appeal against the decisions made. Drivers who are managing a late delivery will not gain much value in negotiation with the platform and will likely be referred to chatbots, and instead take it upon themselves to manage the customer relationship and therefore the customer's evaluation of their performance.

Companies actively solicit consumer feedback to discipline workers' attitudes and behaviour, evaluate job performance and improve social interaction to enhance competitiveness. Fuller and Smith (1991: 11) conclude that 'consumer' reports broaden managerial power, augmenting it with customer power. Whether it is a brief encounter involving workers and customers, or longer-term relationship building with affective commitments, workers' efforts in producing a desired state of mind in the service recipient is required. Hochschild (2012) argues doing "emotional labour" entails "the management of feeling to create a publicly observable facial and bodily display" in exchange for a wage (Hochschild (2012:7). As found by Chen (2017) with on-demand taxi drivers, the organisation of work through platforms imposes additional requirements on workers. This includes co-ordinating pick-ups, maintaining positive conversations and ensuring the customer is informed of any changes – all new demands for emotional labour. In a comparable sector to platform delivery work, Choi (2018) finds male taxi drivers in South China had experienced a loss of control over working conditions and power

over customers in service encounters which Choi interprets as a feminisation of their masculine service niche. Drivers felt angry at the symbolic domination of customers over them as they were required to pacify customers who were angry or threatening to file a complaint. Taxi drivers suffered from working in a reforming service industry which supposedly offered space for them to experience more freedom compared with factory labour, but increasingly required them to perform emotional labour.

For Beijing's platform delivery drivers, reputation management is the responsibility of the individual who must maintain positive ratings from the customer or risk fines and potentially being removed from the platform. The metrics which measure work are based on personal performance against the set standards which results in a "highly individualised sense of responsibility for one's own job stability", as found by Neff (2012:28; in Raval and Hourish, 2016). As with Uber, accountability for the whole dynamic and interactive process is downloaded onto individual drivers as customers cannot rate the in-app system separately from the driver's performance (Rosenblat and Stark, 2016). To gain a positive rating, drivers must ensure their behaviour and appearance accord to the expectations of customers, as put by Pai:

> *I would say the most important relationship in this job is with the customer. The vast majority of customers are good, but it only takes one in a hundred to really bring you a problem. Sometimes people understand when it's raining outside that they can't get their delivery on time; they might even call me to let me know not to rush and take my time. Some others though don't understand, they call you and push you, I will have to go off my route to accommodate these people first and give them priority so to avoid a negative rating from the customer* (Pai, Hebei province).

Pai demonstrates the need to change behaviour depending on the expectations of customers. Drivers are at the whim of the customer who can demand behaviours or risk the threat of a negative rating. Customers are empowered by the platform to act as managers with the power to rate, evaluate and penalise workers who do not fulfil their expected demands. Behaviours are not always explicitly demanded by the platform application, for example helping a customer with a task, but they can be rewarded positively by the customer. As shown in Chapter 5, while technology such as GPS can be used to organise a route through the city, it often requires the skill and judgement of drivers to satisfy the customer's requirements and manage their expectations. Wang explains the impact of normative controls which work to ingrain behaviours that are favourable to the customer:

> *I am someone who is dedicated to their work. If I don't do the work I can choose not to do it, but as soon as I do it I will do a good job, you can see every order I deliver is like this, last month I received close to 200 positive ratings from customers. I haven't asked any of them for a*

> *positive rating, after I have delivered the food, delivered to people living up flights of stairs, 'hello, your delivery has arrived', after he has taken it, your litter can I help you to take it down for you. This is a warm-hearted thing to do, living upstairs, especially if they have reached a certain age. I help them to take the litter out and put it in the trash for them, they will definitely say you are good, this is a warm-hearted thing to do, every month I receive almost 200 or more positive ratings. When I am delivering and I know I will be over time and can't complete the order, I will call them in advance, there has been a delay in the road in some place, then if they are a student, I will buy them a 3-4 kuai bottle of Coke, 'I delayed you, please you drink a bottle of Coke', they are very happy. Why do I do this? It's up to your own efforts, when you do anything, you should do it well* (Wang, Hebei Province).

As demonstrated in Section 5.7, the customer can use a wide range of tools to evaluate the driver through 'tags' which judge their efficiency, service attitude and appearance. This includes their level of politeness, communication skills and attitude which are all behaviours rated by the customer and feed into the overall rating for the driver and are cumulative and permanent. Wang demonstrates how drivers come to perform expected behaviours in their work to achieve positive ratings from customers. There are no requirements or guidelines in which drivers are expected to perform tasks or pay for items when there are unexpected delays, but drivers may strategise that the impact of a negative rating or a complaint outweighs the costs of buying a soft drink for the customer. There is a performative element to rated work as expressed by Wang, that can be to speak softly and in standard Mandarin, to be polite, efficient and run errands for people alongside their work. These actions align with the defensive strategies Gupta et al (2014) suggest are used by digitally-evaluated workers to protect and maintain their reputation on platforms to ensure future work.

Performative work is common to work being evaluated through anonymous platforms. If customers call en route, drivers often re-direct their route to ensure the most demanding customers are provided for first and avoid the consequences of a poor rating. What had previously been managed by an organisation and call centre, has now been moved to become the responsibility of the individual. This has implications for their everyday work, and also in how they can ensure they maintain a positive reputation in the eyes of the customer. These newly-imposed requirements contribute to an intensification of work stress for the workers and significant mental strain on the drivers, as they calculate and manage the dynamic variables involved (as demonstrated in Section 5.6). As shown in Section 6.3.1, drivers are often reliant on platform work as their main source of income and need to perform multiple deliveries to make a profit and sustain themselves. Drivers described managing these

variables as intense and tiring calculations, sometimes referred to as *feinao* (费脑, *brainwaste*). Qiang describes '*feinao'* as the feeling of trying to predict and manage an unpredictable and unmanageable number of variables for each order, multiple times in quick succession. The mental strain faced by drivers is how to complete orders to maximum efficiency whilst time, speed, the physical environment and the customer all have the power to cause serious negative consequences.

Workers on platforms commonly strategise the customer evaluation systems and 'game' them to try and gain a competitive advantage (Möhlmann and Zalmanson, 2017). In discussions with drivers, the star ratings given by customers form the most important metric of their performance. As with Uber a four-star rating is perceived as a failing grade despite a lack of clear guidelines on what level of service is requisite for each star rating (Rosenblat and Stark, 2016). Drivers were wary of receiving a one- or two-star rating from the customer as then they will be disciplined. Meituan will give a fine for one poor rating but may temporarily freeze a worker's account or even block them from the app for too many occurrences in a short period of time (usually stated as three in a week). Managing the relationship with the customer requires drivers to maintain their calm and composure when they are frustrated. The requirement for emotional labour in platform work is high – drivers manage their emotions as part of their service provision. As suggested by a driver, your mood is within the remit of the platform ratings which impacts on your performance, pay, and longevity on the platform:

> *You have to control it (mood), if you don't control it the customer will complain and the platform will deduct money, if it's serious your account will be blocked and don't let you continue running orders, so you must control your emotions and don't get into arguments with the customers.*
>
> *Q. Have you before?*
>
> *No, we request customers to understand us, to see it from another perspective, to understand us. They are in the office ordering deliveries and they have waited and are hungry, waited for an hour, we also want to deliver as quickly as possible, can't because of a few complaints, say a few words that are hard to hear and then make an unnecessary mistake* (Wu, Anhui province).
>
> *…[A]fter all the customer is still the customer, sometimes can't say something to the customer that is too hard to hear, also require to speak with courtesy to the customer, after all he is the customer, put the customer at the centre right. In this area there is pressure, sometimes negotiating with customers is very tiring (feijin), like delivering to a customer location is their*

> *responsibility, in the end they give us a telling off, we feel there is this type of pressure* (Chen, Shandong province).

The threat of being blocked from the platform pressures drivers into maintaining positive behaviours. As seen in ridesharing, drivers are similarly pushed to project certain emotions in challenging circumstances despite feeling wronged. For platform delivery drivers, the skills required are to not only maintain calm but also negotiate with the customer when the time or product is not in as perfect condition as expected:

> *…if the food order went a little bad on the road, if you (the customer) doesn't want I will eat it, I eat the food and return the money, I just ran about 2-3km for no reason, you deliver an order is 10 kuai, then food 20 kuai, some bad people they don't want the order, sometimes you can speak through with them and they take it, sometimes they simply won't take it, I return them the money, this order I pay the bill, you give him 20 kuai and then 10 kuai for the fee, it's the same as you paying 10 kuai extra to eat a meal. If it's only a little bad, the order has gone bad, I negotiate with you like this, I compensate you the money and order another meal. On the road, in truth, there are always bumps and scrapes and being knocked over…I will explain the situation, if I explain well they will take it, sometimes if they really don't want it then I use money to buy it, buy one for myself.* (Weijun, Hebei province).

> *Communication... when you meet a situation where the restaurant doesn't produce the meal on time, you must first get in contact with the customer, you don't wait for the customer to get in touch with you, (if) the customer calls you then their mood is already not good. When you pre-emptively call them, they can anticipate, they know the score, "oh, your delivery to me will be delayed". They have an idea, they won't be so anxious, if you don't get in contact then wait for them to become impatient then call you, their attitude won't be the same, their emotions won't be the same.* (Gaoxing, Henan province).

Weijun and Gaoxing's comments demonstrate the need for effective communication skills to manage customer expectations. For drivers in this study, they must manage the relationship with the customer to try and ensure they do not receive too many one- and two-star ratings. Deference and subordination to customers is built into a good service. To be courteous toward a rude customer requires emotional work. Voice-to-voice and face-to-face contacts, such as a sincere apology for failing to meet the expectations, is essential to cool things down. These behaviours are evaluated extensively by the customer and every interaction can have an implication for their rating, and thus their future ability to attain profitable work.

This section has shown how a lack of control over the evaluation systems of delivery work contributes to the precarious working lives of drivers. Customers act as managers with the power to rate, evaluate and penalise workers who do not fulfil their expected demands which reduces the space for drivers to exercise control over how they work. This builds on the previous section to show how the precarity faced by migrant workers is due to both the features of work and how they interact and exploit the existing vulnerabilities of workers.

6.4 Conclusion

This chapter uses the concept of precarity to consider the interrelationship between insecure platform work and the wider lives of migrant workers in Beijing. Temporary employment arrangements and the gig economy are not a new phenomenon, but technology offers increased flexibility for employers to externalise risk to the workforce, discipline workers individually and reduce the costs of labour. These features can lead to precarity for workers who have little employment security under these circumstances. Precarity can be measured using indicators to help to identify the conditions of precarious work. This chapter has expanded on this to use precarity as a broader framework to draw together the organisation and features of work and how they interact with, and exploit the existing vulnerabilities of workers. It brings those two facets together to argue that platform work observed in isolation does not provide a full picture of the challenges faced by migrants engaged in the work, and the ways in which platform work is organised to exploit their vulnerabilities. I argue that the extent to which people are dependent on platform work is strongly related to the social context in which platform work happens and the position of the worker is all important (Charles and Schor, 2017; Kenney and Zysman, 2016; Schmidt, 2017).

Section 6.2 demonstrated how the elements necessary to produce migrants' value and compliance in the workplace are often secured through the regulation of their lives outside of work (Buckley et al, 2017). Migrants struggle in-between the push of low rural incomes and the difficulty in establishing themselves in a highly dynamic sector in urban Beijing. Evidence from interviews identified that migrants' exposure to market reforms and government intervention brings contradictory livelihood effects. Government regulations have played a key facilitating role in driving the growth of certain sectors while forcefully reducing others, pushing migrants to seek out other opportunities. As the numbers of available jobs and entry requirements for employment of migrant workers in sectors such as construction and manufacturing are changing, platform work has become an increasingly important source of work. In Beijing, drivers often live in crowded accommodation in marginal locations with other drivers due to the cost of renting and the need to avoid removals from cheaper locations such as urban villages. This made living in Beijing as a platform worker expensive as drivers had high fixed

costs. A lack of alternative employment and high fixed costs increases their dependence on securing consistent and profitable work on the platform. Due to the scarcity of work and high fixed costs, migrants often have little option but choosing to persist with platform work.

Section 6.3 focuses on how drivers' vulnerabilities intersect with the features of platform work that together result in precarious working lives for delivery drivers. Drivers are limited in the extent to which they can exert control over the labour process, and I find that a lack of control in work is a defining facet of precariousness. Control over the labour process in platform work is considered through two main lenses – these are the control of the supply of work and the evaluation of work. This evidence demonstrates how the organisation of platform work reduces the space for workers to exercise control over how and when they work. They have little control over how they manage work as the platforms react to increased labour supply and reduce terms. The risks of variable demand are placed wholly on the workforce who must shoulder the risks of a variable and limited supply of work whilst in competition with large numbers of other drivers for the same orders. The platforms exploit the lack of alternative options and oversupply of workers to reduce the scope for workers to exert control over the labour process. A lack of control over the evaluation systems of delivery work increases the precarious working lives of drivers. Customers act as managers with the power to rate, evaluate and penalise workers who do not fulfil their expected demands which reduces the space for drivers to exercise control over how they work. Drivers are always one mistake, one issue with an order or one missed delivery from receiving a negative rating which could penalise or even remove them from their source of income. This evidence demonstrates how the organisation of platform work (including customer- driven ratings and monitoring) reduces the space for drivers to exercise control over how they work. While platforms can offer workers choice to pick and choose orders, because of the workers' dependence on this source of income they lack the ability to be selective. This chapter has demonstrated how migrant workers' wider vulnerabilities arising from the social and economic context interact with the organisational features of platform delivery work, resulting in precarious working lives.

Chapter 7 Chasing Gold Stars - The Strategies of Platform Delivery Workers

Plate 6: Waiting for Orders Near Yonghegong, Beijing

I prefer our place and people. This is Beijing, you stay here for a while you will miss your home, after you get to a certain age you want to go home (Lit. 'the falling leave returns to the tree'), we cannot be outside for a whole lifetime, at the end [you] have to return to your hometown, so we make our home better and then go back there. (Qiang, Guangdong province).

Last month I worked for 31 days straight, didn't rest…doing over 28 days (a month) is enough, but the number of orders at the moment are fewer, to earn more money then I can't rest…(Zhang, Hebei province).

7.1 Introduction

Platform delivery drivers are not passive victims of precarious work and adopt strategies to negotiate their working lives in Beijing. This chapter will build on Chapter 6 which demonstrated the structural context and precarious nature of work and life faced by migrants in platform delivery work, to show the ways in which workers demonstrate *resilience* and "create manageable working lives and dignified livelihoods for themselves" (Carswell and De Neve, 2013:69). Research in contexts where collective resistance is difficult can focus on the different, low-key, and often invisible ways through which working people are able to make viable lives (Rogaly, 2009; Wills, 2010). To engage in collective actions which seek to change the status quo are often unfeasible in an environment with few labour contracts and marginal work status. This does not discount the importance of collective resistance to improve the conditions of workers but reflects the stories and experiences of the interviewees of this research. By focusing on low-key and often invisible actions, this chapter will show in the Chinese context of platform food delivery, how drivers maximise the potential of work to create manageable working lives.

Agency can be considered as both the intention and the practice of taking action for one's own self-interest or the interests of others (Castree et al, 2004:159–160). Based on the literature review in Section 2.2.2 , I take the starting point that agency has often been interpreted narrowly as a form of *resistance* taken collectively. Agency can be understood in a broader sense then has usually been the case in some fields of economic and labour geography as strategies that shift the capitalist status quo in favour of workers (Coe and Lier, 2011:8). Rather than viewing labour agency as a form of resistance to the status quo through collective action, I consider Carswell and De Neve's (2013) broader conceptualisation as agency expressed through the different things workers want and the choices they make to achieve them. They argue that the decisions that people make regarding employment are deeply embedded within their livelihood strategies, which themselves are shaped by concerns about social reproduction. These actions can include considering the ambitions of workers for maximising earnings, to other demands for flexibility, autonomy, and dignity in the workplace (Carswell and De Neve, 2013:67). This approach considers labour agency as occurring both within and outside the workplace, beyond the factory into people's everyday lives. This builds on Katz (2004) who considered how to interpret social practices as different forms of agency by questioning what acts can be considered as resistance. Theorising actions in in this way leads to a research focus on the ways in which people live their everyday lives and shape opportunities in their favour.

There is an ambivalent and less confident view of the potential for worker action in the Global South, with a need to reflect on case studies from a range of different countries (Coe and Lier, 2011). Many unorganised migrant workers in the Global South are 'agency poor' and practices may only achieve short-lived changes at a micro-scale, but with positive impacts on the daily lives of workers in relation to the subjective experience of employment (Rogaly, 2009). Often actions of individuals or small groups of migrant workers will fall into Katz's (2004) category of resilience (Coe and Lier, 2011). In the Chinese context, the most frequently observed expression of agency is migrants' mobility, to move frequently in search of new employment opportunities wherever they arise (Wang and Wu, 2010; Murphy, 2002, Woronov, 2011). Observing migrants in industries such as manufacturing, scholarship has found evidence of workers motivated by anger with their employment conditions and unsettled status taking part in collective actions (Ngai and Huilin, 2010, Zhu and Lan, 2016, Pun and Chan, 2013, Pringle, 2017). Where collective actions are not found, Ngai (2005) observes actions which make work easier and subvert authority of their management. In low-paid service work, Woronov (2011) finds younger migrants using low-paid service work to learn their way around the city, build social networks and improve their status in the job market. Ping (2019) observes platform food delivery workers generating alternative ways to respond to the challenges of platform work including the gamification and time pressures. Building on this evidence, this chapter identifies two strategies through which workers respond to the precarious nature of platform work to improve their experience of work and their future return to rural homes.

In this chapter I therefore address the following research questions:

- RQ5: What strategies do workers employ to maximise the potential benefit of platform work?
- RQ6: How does platform work fit into workers' wider livelihood strategies?

The following sections will discuss two strategies identified. I find that maximising earning opportunities in platform work and choosing platform work as an opportunity for *ziyou* ('freedom') in work, are two strategies employed by workers:

- Chasing Gold Stars – working intensively to maximise earning opportunities
- '*Ziyou*' (自由) – gaining 'freedom' in the labour process

These two strategies are utilised by migrants to react to the challenges of work and life in Beijing and to proactively improve their future return homes outside of Beijing. I will argue that the strategies of workers I have observed are demonstrations of *resilience*, not *reworking* or *resistance* in the workplace (according to Katz, 2004). The strategies I find are primarily used as a means of 'getting by' which help

individuals to manage and improve their individual situation, but do not necessarily seek to shift the status quo or engage in collective resistance.

7.2 Chasing Gold Stars – Maximising Earning Opportunities in Platform Work

In this section I demonstrate how workers seek to maximise the opportunities within platform delivery work to maximise their income. This consists of two main aspects. Firstly the decision to migrate to Beijing to improve their income beyond what they can earn in rural areas to support their family. I find drivers using platform work to sustain families ('to not break the line') through sending home remittances. Migration to platform work in Beijing is seen as a household strategy with one driver often supporting a wider family and their expenses. Drivers expressed demands for increased incomes to purchase homes and ensure stability for their families, as well as to fulfil aspirations of having a car and support children to further their education. Secondly, I show how workers maximise the income they can gain on platforms by setting and reaching personal goals. They do this through strictly managing their time in the absence of formal working patterns. I demonstrate how they manage work through self-discipline, time management practices and earning goals.

Migrants in China may have worked in cities for many years but tend to view urban work not as a permanent source of livelihood but as a temporary means to increase household income before returning to the countryside for long-term security (Fan, 2008). In China, migrants circulating between their urban work and rural areas is the norm and shows no sign of changing; after 30 years, it has become the dominant way of life among many migrants (Chen and Fan, 2016). This contrasts with some literature on a second-generation of migrants born between 1980 and 1995 who being younger and educated have greater aspirations to stay in the city (Ling, 2015; Woronov, 2011). As found in other research on migrant workers in China, despite having potentially worked in the cities for years the drivers I researched still tend to consider urban work in a major city as a means to improve household income rather than a permanent livelihood. Migrant workers' 'dual frame of reference' is used to explain a willingness to take on wages lower than the local population in the migration destination (Wills et al, 2010). In this research the 'dual frame of reference' of migrating to earn money and improve their quality of life for a family living outside of Beijing, was a common reason for choosing to work in Beijing. The workers in this study see no realistic opportunity to live long-term in Beijing and bring their family to the city without a local *hukou*. Instead they consider their income earned through the prism of its value in their place of origin.

As demonstrated in Chapter 6, migrants (mostly) separate themselves from their families to maximise their earnings and minimise their expenditures. Drivers often saw platform work for its value in bringing more financial security and stability to their families based in townships and more rural parts of China. Drivers referred to a principle of 'elders above me and minors below' (*shangyoulao, xiayouxiao,*上有老下有小*)*, and several respondents referred to income drawn from platform work as necessary 'to not break the line' (*women bu neng duan le xian,* 我们不能断了线) of remittance sent home to their families. Chen and Fan (2016) suggest that rural-urban migrants purposefully circulate between urban work and their rural villages and pursue a multi-location strategy, maintaining their *hukou* status in their place of origin but earning an income in an urban centre. This is a strategy at the family level – they see this as the way to gain the most entitlements from both urban and rural areas and minimise their socioeconomic risks. This is linked to the difficulty of migrants to maintain an income great enough to provide for a family and maintain a rural secondary income should migration-related income opportunities become fewer (Fan, 2008). This household strategy prioritises economic returns and the minimisation of risk through diversifying income streams across urban and rural China. In this research, drivers often stressed the importance of maintaining a stable income to support family expenditures and used platform work to maintain their home while often living apart from family who remain at home. This is demonstrated in a discussion with Qiang from Guangdong who emphasises the need to maintain continuity in his income:

> *Q. Do you use earnings for yourself?*
>
> *Firstly, it's to raise my children, raise a family, secondly, I've bought a house and still have a 100,000RMB loan, every month I have to pay the mortgage. Now in China pretty much most houses have a car, I also want to buy a car, so I work for this. For these ideals I struggle, nothing else, people are like this, put the family in a good position, buy myself a car and have a happy life is what it's for, I don't have any other interests.*
>
> *Q. It seems these aims are not in Beijing*
>
> *They are all in my hometown, your home is in Beijing, we cannot realise that, only [to buy] 1 square metre in a house in Beijing I would have to work for a year, but it's better in my hometown…our small city township, 6/7000 RMB for a square metre is about right, one square metre here is 10's back there. So I prefer our place and people, this is Beijing, you stay here for a while you will miss your home, after you get to a certain age you want to go home (Lit. the falling leave returns to the tree), we cannot be outside for a whole lifetime, at the end [you] have to return to your hometown, so we make our home better and then go back there.*

A: Rural houses tend to be bigger than apartments in Beijing, right?

Our homes are so much bigger than here, because it's cheaper, we bought a house that's 140 sq. metres. It's big enough for us, and on the bottom floor have a garage, just I don't have a car! So, I am working for this aim, that is alright for us…that's not too bad, according to my perspective that's ok. Because my child is getting bigger, the second has just been born less than a year old. My wife is at home looking after them, wait another season and then my mum can look after them, at this time I won't feel settled if I let my mum look after them, because they are so small. Wait until they are able to walk and then let my mother look after them, then I let my wife go out for work, two people earning earn faster

Q. Could you work closer to home?

Because I have a family, have young ones that I must raise, if you say [work in] Shanghai, if I couldn't earn 10,000RMB in the first month then my expenses would be too much. We are aiming for continuity, we can't break the line, so we can't move to another place, because if you go there you have to start again. Our family has expenses…this line cannot break…my wife isn't working, it's just me earning money (Qiang, Guangdong Province).

In this conversation, Qiang demonstrates a clear strategic focus to his migration to platform work in Beijing. Many drivers felt they had a strong responsibility to provide for families who they had often left behind in their hometowns. The need to maintain family at home often placed them under pressure to ensure a stable income to remit to their families, despite highly variable demand and significant price fluctuations. For Chen, his choice to migrate and work in platform delivery was not just to maintain a basic standard of subsistence living, but also to ensure his family could make a deposit on a house:

At home the salary level [for this work] is lower, even if this work exists, the salary is much lower…we who come out to labour is because home is poor, to come out and make money then allow our lives to be a little better, then go home to buy a house. But make every effort to improve oneself after that can do a lighter/easier work, I think that is what makes life better…Of course in this type of work there is pressure, maybe the pressure if greater than at home, after all living outside in different parts of the country to where one is from it's just me my myself, I don't have any relatives in Beijing, wife kids are all at home, I feel the pressure definitely, but to live more prosperously, I have to be in Beijing, because at home the salary is too low (Chen, Shandong Province).

These quotes demonstrate a common strategy, working as a family they often travel independently to Beijing to earn and remit money to their family. Some of the stated ambitions of drivers go beyond minimising socioeconomic risk (as suggested by Fan, 2016) and they have ambitions to improve the quality of life for their families and their future through the earnings in platform work. Some respondents suggested the purchase of property was the only way to ensure stability and security. Other respondents also indicated that the motivation to work hard was driven by ambitions to improve their status, purchase a house or a car, and to ensure access to education for their children, as exemplified by Zhao:

> *Q. Rural areas have fallen behind urban areas?*
>
> *[I]t's not too far behind, but it is behind. This society is like this, before it was to plant on a few mu (unit of land) of land, it has moved on from there right, the demands (for a better life) compared to before are they the same? (rhetorical) …my wife says go and run, run some more and earn more.*
>
> *Q. You are working hard for a life in Beijing?*
>
> *To earn more money, the children are growing up, want to continue in school, go to university, as soon as you get to university you need money. Also, in the future, our elders are getting older, at the very least will take medicines and injections and you have to look after your elders…everyone is expending (effort), just your work is different, the direction you are working towards is different. Your aims, your vision…you want to make sure your family are looked after, that is the aim, I look at the table at home, how many dishes can we put on the table today?* (Zhao, Shanxi Province).

Zhao has the ambition for his children to access education and progress to university in the future. Education for children is a major expense that could not be avoided or worked around; even when education costs are low there are additional costs including out-of-school classes to ensure children are keeping up with their peers. Aware of the competitive nature of the workplace in China, it was suggested that university for their children was the only way to ensure a white-collar job for their children, and not to have to work in manual labour as they have done:

> *The financial pressure is quite great…after all we are country people, country people [are] one family, parents help look after the kids, do the planting, now children's costs are really too high, and that money has no use. [I have] two children, one child is too few, another and I couldn't live, 4/5 years old and 10. Children and all the other things, clothes, food, drink, it all requires money….with kids, you see other families have ideas for their*

> *children to wear good clothes, if your own child wears shabby clothes you can't accept that, so [we] often buy clothes for him, dress him all pretty, you can't allow him to develop self-pity, if you see the child looks too unreasonable…when he's playing with the other kids, buy some toys, take him out for food, give him some snacks, a bit of shopping, then you have a few hundred Kuai, that's quite a few days' work...Earn as quickly as possible, raise my children…let them go to extra-curricular classes, English classes, dance music classes, these things, let him have a rich experience…when I was small we couldn't take extra classes, where in the countryside can you do extra classes. I have been outside for a while, experienced lots of things, maybe my thoughts on things are different* (Zhang, Hebei province).

Zhang demonstrates increasing aspirations which he looks for the earnings from platform work to satisfy. A number of respondents indicated returning to the countryside to begin a private enterprise would be the ideal scenario but they faced a high level of competition to open a successful business. This has been found among many Chinese male migrants who aspire to set up their own businesses (Choi, 2018). In 2005, the Hunan Province Statistics Bureau found nearly 200,000 rural migrant workers returning to run over 80,000 private enterprises, which have employed over 500,000 rural labourers (Shengzu, 2007). However, there is mixed evidence that returnees become successful entrepreneurs and fulfil their ambition to manage their own enterprises and many end up working for new bosses who are their fellow natives (Murphy, 2002). Despite this, this respondent indicated they planned to open small restaurants or small private enterprises in retail or in related industries in their hometowns through the income they have earned:

> *I want to do this work for two/three years to earn money then open a small waimai store, because in my hometown I can do a few simple fried dishes, to carry on doing this is not good, do this for five to ten years…I had thought to do it for two-three years then have my own store, that way I it would develop quicker.*
>
> *I will only be able to continue working for another half a year, the next year will have to see the circumstances, if I will carry on earning more money than it should be this area, open a fast food place, rice and fried dishes, I have done this at home, this was my initial aim when I first came to Beijing, to work for a few years and earn some money then open a small restaurant, just doing waimai, send deliveries outside…There are more possibilities here, not too many people at home, and not really any space to develop…Beijing has lots of people and opportunities. If you can endure hard work (耐劳, nailao), work a few years…or go home to work in the factory or mine…the things you see here are different to home, the interactions*

> *with society are different, here I have developed really quickly, think in a few years I will be in Beijing, because when I first came I wanted to do something here, do something with myself (appear to be doing well) then go back, I say go back but not home, hometown is not interesting, go home to see my wife and son…but I can't go home often, the pressure is great* (Li, Shanxi province).

Murphy (2002:89) suggests we should consider migrants' desire to migrate for reasons of children's education and house building as important as the drive for economic survival; both are driven by basic needs of self-respect from their community. Murphy (2002) finds there is a strong desire on the part of returnees to be one's own boss and escape the subordination of being a migrant worker or returning to a life of drudgery in agriculture; returnee entrepreneurs tend to concentrate on the line of business in which they previously worked; and there is a strong correlation between duration of migration in urban labour markets and the size and success of a returnee's subsequent business enterprise.

Many of the workers had ambitions for their family to attain a higher material consumption level through their earnings from platform work. The ambition is not just to maintain subsistence, instead they voiced ambitions for bigger houses, cars for a new garage, better clothing for their children and a path to a university education. Aspirations for material progress and security at home help frame their way of thinking about their work and life in Beijing. While recognising that the work was low paid by standards in Beijing, they evaluate the work through a prism of what it can provide in their chosen home outside of Beijing. This dual frame of reference makes the difficulty and struggles of work on platforms seem worthwhile. While a route to an urban life in a major city such as Beijing is blocked off for their families, workers seek to take advantage of the income-earning opportunities it produces to improve the material quality and stability of their life elsewhere. 'To not break the line' and 'earning for family' provide workers with a moral and legitimate purposes for living apart from their families for extended periods of time and motivate workers to maintain remittances whilst living apart from their families.

This section will now describe the strategies employed in work by drivers to maximise the income-earning potential of platform work by increasing work intensity. This strategy helps them to achieve the personal goals set out so far in this chapter.

Food delivery platforms seem to provide the opportunity for workers to take control over their work schedule and choose how much they want to work to fit their own priorities, life situation and commitments. The design of platform-working technology can offer the potential to dip in and out of

work to fit around one's own priorities, but the potential of delivery work to provide flexibility is circumscribed by the design of the rewards and precarity of workers (see Chapter 5 and Chapter 6). This can be observed in the practices users adopt in response to the design of the technology by the platform (Lehdonvirta, 2018). Chinese delivery platforms recognise that flexibility and balancing work and earning opportunities on the app with other life goals are not major selling points for its workforce. As demonstrated in Chapter 5, platform work is advertised to workers through its potential for high income-earning opportunities by 'working to one's maximum'; advertisements tell drivers they will need to *eat the bitterness* of long hours and physically-intensive work to get that little bit closer to their dreams. Chinese platform companies recognise that platform work is taken by workers with the intention to maximise the opportunity available to earn a higher income. We find that the potential of higher incomes to be earned through platform work is the most significant reason for migrants engaged in platform work in Beijing (Table 2).

Category	**%**
To increase my income	56%
Raise/support a family	45%
Level of freedom/flexibility is high	24%

Top three reasons, could choose multiple reasons

Table 2: Motivations for Working in Platform Work

This evidence corresponds to other research on migrant worker motivations in China which finds economic reasons as the primary motivation for migration (Ariga et al, 2012; Wang and Wu, 2010; Murphy, 2002; Woon, 2000). Specifically we find that migrants are primarily motivated by employment and the potential of increasing their incomes to support family. To attain this goal of maximising their income, drivers choose to work intensively and work long hours with very few days off, and we find that 43% of respondents state they never take a rest day while 90% take four days a month or less (Figures 14 and 15).

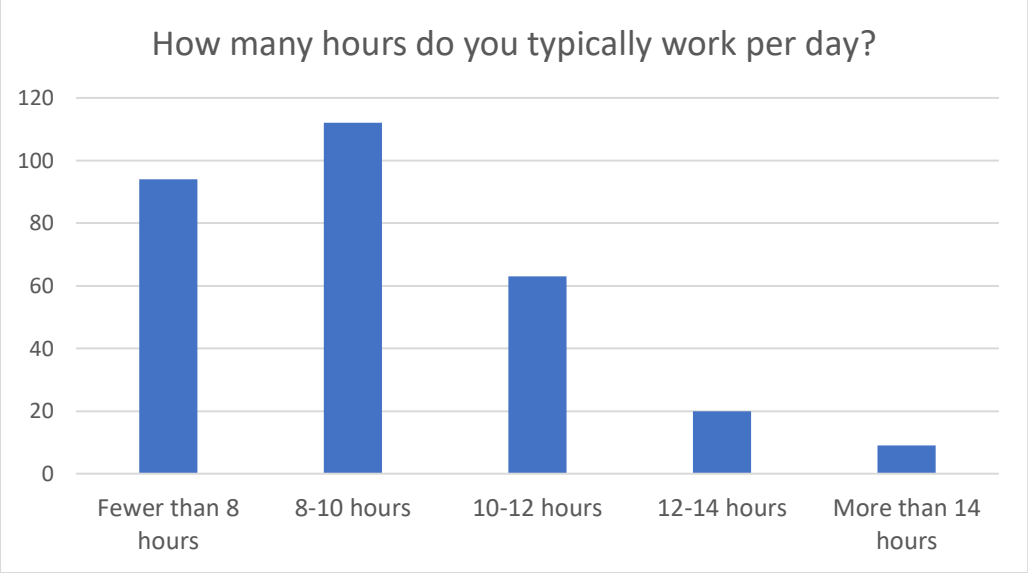


Figure 14: How Many Hours Do You Typically Work Per Day?

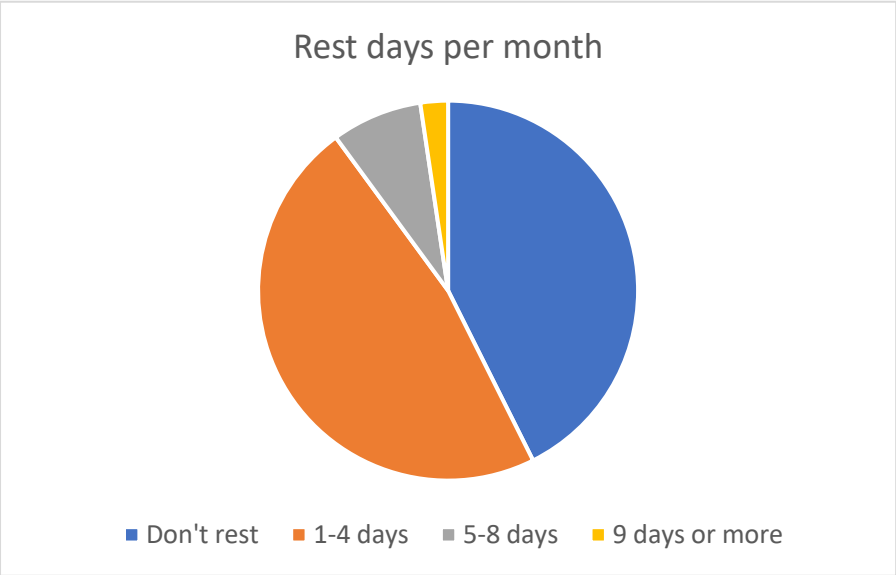


Figure 15: Rest Days Per Month

In other research on migrant workers in China, Wang and Fan (2012) find migrants work a weekly average of 62.6 hours and Ngai (2010) found migrant workers in the construction industry regularly work 13-14-hour days (although this was seasonal). Chen (2017) found that half of Didi Chuxing drivers reported working from 10 to 12 hours a day, and one in ten drivers worked more than 14 hours per day – this would indicate slightly longer working hours per day then this study. This suggests that platform workers in this survey are likely to be working at or slightly above the average for migrant workers overall in China. The average number of hours worked per week in platform work in China compared with the US and UK demonstrates a key difference in how this work is used by its workers

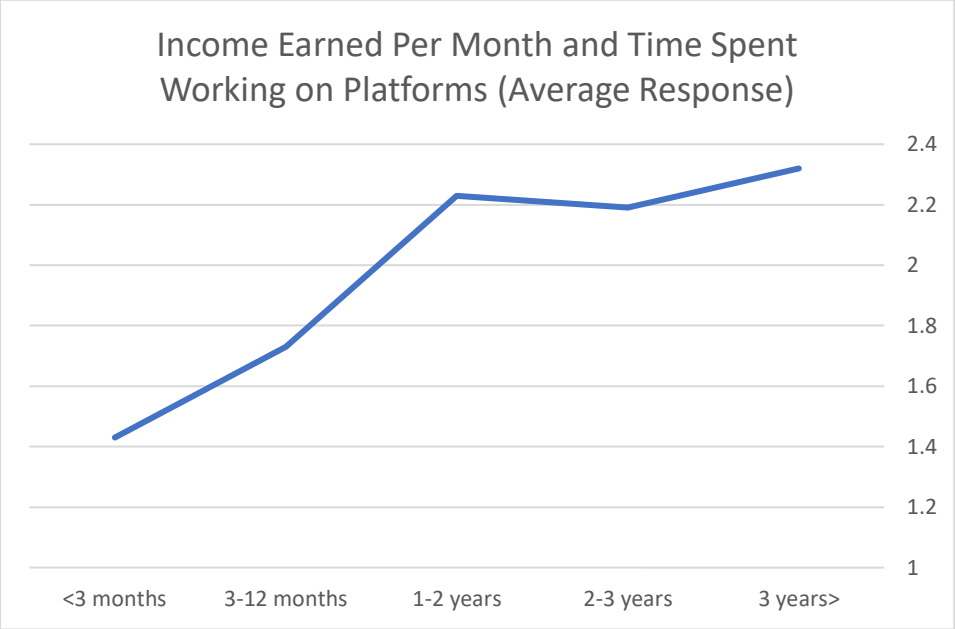
(Rosenblat and Stark, 2016). Deliveroo in the UK find 85% of their drivers work flexibly and use platform work to supplement their primary income (O'Connor, 2016). In contrast to flexible employment and balancing work with other priorities, most workers in Beijing are less inclined to use platform work as an opportunity to 'balance' different priorities, with the opportunity to increase income the most important factor in this work.

Drivers must manage significant variability in demand to reach their goals and send remittances. The demand for orders is highly seasonal and the drivers must take advantage when orders increase, particularly in the winter and summer months. The demand for orders is highly dependent on the variability of the seasons in Beijing which has hot summers and cold winters, and workers can strategise their intensity and grabbing of work to match the demand for orders. Workers are often able to gain a bonus from the app for delivering during the difficult weather conditions as when it rains or there are strong winds then there will be more orders. Drivers suggested that the best times of the year to work by far are when the weather is at its worst, when consumers are not willing to go outside and some drivers who cannot 'eat as much bitterness' will drop out. Workers pointed out on numerous occasions the worse the weather (or pollution), the better business is for them and the more they would try to take advantage of those opportunities:

> *Q. I heard some work for 15/16 hours (a day).*
>
> *I'm the same…In one month I could earn 10,000 RMB, last month I only earned 5000 RMB. Next month the salary will be higher again, maybe between 7000-8000 RMB. If next month maybe the weather is hot, the number of orders will increase, and I reckon will carry on increasing.*
>
> *Q. That's quite a big increase.*
>
> *The fluctuation is quite stark, every year after Chinese New Year and come back, after back in Beijing, it was in a dip, because the number of orders is really few, workers are many, and you can't earn much money. Every year the pattern is the same, when it rains, after May, the number of orders starts to increase, a steady increase…because the weather is hot, everyone in the offices have air conditioning, outside is too hot and they are afraid of the sun, afraid of the UV rays, so we step up, can't you see all the platform drivers have black faces…and in the winter [we are wrapped up] you can only see our two eyes* (Zhao, Shanxi province).

Despite the high variability in the number of orders available to grab on a day to day and seasonal basis, workers are able to maintain and increase their income in platform work over time. Drivers'

income earned over time is relatively stable but with a steady increase with more time spent working on platforms (Figure 16).



Income per month (RMB)	Number
<3000	1
3000-4999	2
5000-6999	3
7000-8999	4
9000>	5

Figure 16: Income Earned Per Month and Time Spent Working on Platforms (Average Response)

From our survey respondents, there is a small increase over time in the income that workers can gain from platform work but this peaks after about one year. Salary fluctuates significantly on a day to day and seasonal basis but seen over a longer period of time the income of workers tends to increase as they gain more experience. This increase comes from the efficiencies that can be gained from experience of learning the routes, how to grab better orders and how to engage with customers.

As suggested by a number of interviewees, an increase in the competition for orders was now starting to put significant downward pressure on the fee given for each delivery and workers interviewed don't expect their incomes to increase in the future. Low pay per order meant that drivers depending on platform work as their main source of income had to make up for this by working long hours to achieve their earning goals. In response to these pressures, workers frequently conveyed a message of 'If you are always running you will make money' and 'the more you labour, the more you gain' (*duolaoduode, 多劳多得*). Drivers manage the variability of work by adopting narratives of individual responsibility and a rationale of self-reliance in their struggle for increasing their financial security. Working longer hours and waking up earlier to begin delivering was commonly expressed positively, as by Wang below. In a highly individualised sector workers are taking on discourses of individual responsibility and long work hours as a virtue to judge personal qualities of fellow workers. Drivers have co-opted the marketing messages from the platform and use it to frame their motivation and drive to work longer

for more money. As put by Zhang, in this context the main motivation for working is to increase their income and working without rest is the most efficient way to achieve that:

> *Last month I worked for 31 days straight, didn't rest…doing over 28 days is enough, but the number of orders at the moment are fewer, to earn more money then I can't rest, then on the afternoon of the 31st I had something to do in the afternoon then I went off work, after all I have been completely present (for a month), after going off work I watched the news and some videos…*(Zhang, Hebei province).

Working longer hours and waking up earlier to begin delivering was commonly expressed as a strategy to increase income, as by Wang:

> *Q. Can you earn a stable salary in platform work?*
>
> *A. That is on the individual, to speak honestly the more you put in, the more you get back, like those who wake up early in the morning when it's getting light at 6am in the morning, have a two-hour rest at lunchtime and work all the way through to 12 (the next day), every day they can earn 500/600 RMB. [some] in one day only earn 100-200 RMB, don't wake up in the morning, in the evening always going home sooner, you don't work then you can't earn money, right? That is because of the individual, you go to a place, only if you exert yourself and go through hardships can you earn money, right? To speak objectively, however many the number of orders is, the money [given] is that much, it's given to those who are prepared to earn money right?* (Wang, Hebei province).

In online crowdsourcing gig work, workers similarly drew on a range of self-disciplinary tactics becoming competent at managing themselves and learned to navigate precarious working opportunities including working towards earnings goals, following daily routines and operating a mental time bank (Lehvondirta, 2018). An individualised sense of responsibility also has been found among Uber drivers in the US (Rosenblat and Stark, 2016). Delivery workers are placed in direct competition with each other for the same orders, and only receive payments for their own successful delivery. There is no value placed by the platform on co-operation with other drivers and few efficiencies can be gained from working together. Instead, workers understand that the system is designed to reward the hardest and fastest working individuals who are willing to push themselves to the extremes of their ability and the apps' designated delivery times. The highly variable payment system is seen to work to the advantage of those who can eat bitterness (*chiku*, 吃苦) and out-run the competition:

> *What is the most important in this work is to be able to chiku, (to eat bitterness), sun, wind, rain or shine you have to be out there working. At this time, it's not too bad and everyone of course likes to be outside delivering and the price per order goes down accordingly, it's in the winter when it's freezing or the hot summer and you have to continue to work and deliver. We get a subsidy for the extreme hot and cold, that keeps you going as well when the weather is really hot or really cold* (Pai, Hebei province).

To *eat bitterness* is to work when the conditions are hard, and others are unwilling or unable to carry on working. The hard and long hours worked were at times contrasted with those who wake up later in the morning and take a rest in the afternoon during dips in demand:

> *Some of the workers who work as a zhongbao just work hand to mouth and I don't really approve of that, they earn enough money to sit around and play games, when their food runs out they go out again to do a couple more orders and then go back to playing games. You have to be able to control yourself if you work as an order grabber, because you have to set orders and keep working* (Pai, Hebei province).

Those workers who only come out during peak hours for a few deliveries and those who take rest breaks during the day were sometimes suggested as undisciplined and not hard working:

> *If you are someone who is very industrious, you work in zhongbao (crowdsourced work) you can make lots of money, if you are little lazy then it's better to be working in zhuansong (specialist work) and be sent orders, because then you don't have to get anxious worrying about the number of orders…you just run them. If you are someone who is more industrious, you can earn more doing crowdsourced work...like my friends earn around 400RMB per day.*
>
> *Q. Can you earn a stable salary?*
>
> *This is the problem of the individual, because like my friends basically they are all stable at 400RMB a day or thereabouts, sometimes a day or two at 300RMB. So, if you say their salary is always unstable, then that is their problem, their experience isn't rounded enough, resulting in all kinds of errors at work, then he won't be able to make any money* (Gaoxing, Henan province).

Part-time working is not encouraged by platforms as they encourage more work from their drivers through incentivising increased numbers of orders which cannot realistically be achieved alongside other commitments. Hitting these targets demands long work hours and leaves little time and opportunity to gain secondary incomes outside of the platform. Sometimes part-time working was

understood in younger workers who were without family responsibilities in other parts of the country. Mostly, *crowdsourced* drivers suggested they had a type of personality that was suited to the 'gig' nature of work.

To manage variable demand for work it was important to use these narratives to discipline oneself. In response to highly variable demand for orders (and therefore the supply of work) it is necessary to push longer and harder to grab orders that are further away or where others are unwilling to go. This ensures a driver is taking every opportunity that becomes available to make as much money as is possible and achieve personal targets. In this context, drivers face highly variable daily and seasonal patterns of work which they manage by increasing their work intensity. Workers are maximising the opportunity offered by platform work to increase their income and grab as many orders as possible. This work intensity is encouraged by the reward systems of the platforms as workers receive financial incentives for delivering more items within a set period of time. To achieve these rewards workers often set targets for how many items they had to deliver; these are often concrete numerical targets of how much they had to earn per day before they could go home and rest. Without formal structures to compel workers to push themselves to complete deliveries, targets helped drivers to control and manage themselves. Often workers were clear about how much they were earning and their targets for earnings per day and per month: For example, Qiang outlined his strategy:

> *Q. Can you ensure a stable income?*
>
> *Yes. I give myself a target, one day (to earn) 300 or more RMB*
>
> *Q. After all expenses?*
>
> *Without anything else, this is just purely earnings, just net profit*
>
> *Q. So you have a daily target?*
>
> *Yes, I am one of those types. If you are living you must always have a target…we set a target for earnings, money is the aim, time is not the aim, for example today I am in the mood to run and all the orders go smoothly, run orders until 7 or 8pm in the evenings, then I could make over 400RMB, then I can take off early…my target for today has been met.*
>
> *Q. So it's not the same every day?*
>
> *It's not the same every day, sometimes run until 8pm and have earned 260 or 270RMB then I have to keep running orders until later to achieve my target.*
>
> *Q. Are the orders or price more important?*

If the price is higher it's the same, sometimes (when the price is lower) I have run these ones, have to drive for longer, all the different types (strategies) I have all tried. Ones that are priced higher with fewer orders...if you are trying to increase the number of orders because you want to gain the bonus, you are running for the most orders, like 7 RMB for one order, but you have to do twice as many, run 20 or more to make 170-180RMB. All of these things I have tried before loads of times.

Q. If you achieve 300RMB do you feel you have achieved a stable income?

Yes, every day I can fix it, other people I don't know so much, but I can…sometimes I rest for an afternoon, once a week rest an afternoon. Because I can manage it, I am able to manage it myself (Qiang, Guangdong province).

Drivers can engage in different strategies to achieve their set target. The target is usually intertwined with the rewards on offer from the platform application. The rewards are designed to encourage drivers to deliver more to hit set targets and to achieve the number of orders required to accumulate bonuses from the app usually requires drivers to take on more orders which are potentially less lucrative:

Q. Is it your target or the Meituan target you are going for?

Now there is a 'rush' prize [chongdanjiang] if this week you can complete 200 orders, achieve the target. The app gives you the target…sometimes it is (the app's target), sometimes it isn't, sometimes it's for the 300 kuai target, sometimes driving one day isn't going smoothly, in the afternoon then take a rest for a while, then you go after reaching the target again. If the target set us for this week is 200 orders, if today is Monday and [I'm] not doing many orders successfully, in the morning did 10 or so, then in the afternoon I don't want to run orders, then the remaining six days I have 190 orders; then for the next few days work according to this target, so I can work quickly for this prize, to achieve the reward.

Q. So you set your targets yourself?

Sometimes go after them, we can rush after our own targets, like 300RMB or more a day, so it's not certain.

Q. Do you always get the prizes?

Mostly get them…the app sets the target, we can usually get them. Because they set the target for us, to let us to earn more money. We set the target to earn money, after all the basis for this all is just one word, to make money. The app I think set outs the regulations for us, then

> *sets the targets, to give us this target, to allow us to struggle and rush towards it, because it's not only about one person, in Beijing there are tens of thousands of people (doing this). If they don't do this, then it would be like what I do, make runs in the morning, in the afternoon don't want to do it, not in the mood and don't want to make runs, so if they don't set the target then no one would be running* (Qiang, Guangdong province).

Research has shown how Uber drivers are often enticed to go online on the app through surge pricing and advice on when there is predicted to be increased demand and therefore increased prices available to drivers (Rosenblat and Stark, 2016). Similarly, drivers in this context are rewarded for taking orders that are less favourable and for hitting numerical targets for successfully completed orders. There is an interweaving of the app's set targets for drivers and the financial rewards on offer for meeting them and drivers' ambitions to hit their personal income targets. Workers respond to the incentives set by the app to reach their own personal goals but also remain responsive and adapt their workload to the changing rewards on offer. This is consistent with studies of Uber drivers responding to changing incentives used to manage the workforce; when Uber drivers began with goal income targeting and working until they earned a specific amount, over time they adapted their scheduling to match spikes in demand (Shapiro, 2017).

In summary, workers implement a strategy of intensity and income maximisation to counteract the insecurity and instability inherent in platform work to reach their personal goals. Platform delivery work is dynamic and fast-paced requiring drivers to make frequent decisions on the number and type of orders to take on. Drivers react to changes in demand or reduced income per order by working harder and longer to try and make up for the shortfall and maintain a stable salary through setting goals and achieving rewards set by the platform. They decide the speed and intensity of their deliveries and decide on the risks involved and the number of hours they are willing to work for. Faced with high expenses in Beijing and dependants at home, many drivers adapt a strategy suggested by Zhang, 'to earn more money then I can't rest'. The response to great insecurity and instability in work and life is to respond with a short-term goal to maximise earnings as quickly as possible. Working intensively over a short period of time before moving on or moving home is better than maintaining yourself over a longer period in Beijing. Workers earning for family at home said they increase their income for 'elders above me and minors below', and 'To not break the line' to provide a stable income for family. Working through a dual frame of reference they earn income to fulfil these ambitions. Work intensification is used to maximise the financial gain of platform work in a short-time frame. This is to maximise income and work longer to meet their personal ambitions, not to balance platform work alongside other priorities.

Plate 7: Meituan Drivers at Intersection

7.3 *'Ziyou'* – Gaining 'Freedom' in the Labour Process

In this section I will outline the use of the expression *'ziyou'* (自由, *'freedom'*) and how platform workers seek to gain increased freedom to choose how and when they work. The expression *'ziyou'* in Mandarin Chinese refers to freedom, usually that of an increased freedom (and flexibility) to make one's own choices. While I acknowledge that government control places significant restrictions on migrant workers, I suggest the expression of *ziyou* is instead used by workers to frame how they seek to gain control of elements of the labour process and manage work to achieve their priorities. This is contextually driven and contrasted with other work available to them in sectors such as construction, manufacturing and related industries.

Zhang (2008) explored *ziyou* from the perspective of *bangbang* workers in Chongqing, China, working in a piecemeal manner moving heavy goods around the city for customers. Zhang (2008:68) argues a central role for the government in promoting discourses of *ziyou* among rural migrant labourers as

"neoliberal governmentality in post-Mao China transforms individual rural migrant laborers to "responsible," "self-reliant" subjects through the state's promotion of the discourse of *ziyou* (freedom)". Zhang places the state as central to shaping the decision-making of migrant workers as they internalise neoliberal techniques of governance framed as '*ziyou'* due to a distrust of the state. *Freedom*, Zhang argues, is not indicative of the absence of power or governance but is a technique of governing where the regulation and management of subjects happens "through freedom". Instead of viewing *ziyou* through the prism of government control, I consider how workers co-opt this term and use platform delivery work to increase '*ziyou'* relative to their previous work experiences and other work opportunities.

The opportunity for *ziyou* through platform work was often expressed by interviewees as self-explanatory, in that platform work and increased *ziyou* go together. In contrast, the flexibility to pick orders is heavily constrained by both the platform algorithms and restrictions of life as a migrant in Beijing. I observed constrained work and lives in Beijing; workers are subject to heavy punishments for miscalculations, to significant financial and physical risk with the potential for expulsion at short notice (from both the platform and their living situation). To better understand how and why the narrative of freedom is used to describe their working lives in Beijing I asked drivers to explain in how they saw this work as providing *ziyou*. I used thematic analysis and coding of their responses to find the most significant reasons drivers give to explain *ziyou* and found two narratives on how they value platform work as providing *ziyou*. These are:

- *'The ability to arrange my own time and take time off when I please'*
- *'To work without coercion or management by others (没人管, mei ren guan)'*

Crowdsourced drivers have the autonomy over many work variables in platform delivery work (see Section 5.6) and this is one of the key differences from the work they have experienced before. Möhlmann and Zalmanson (2017) suggest autonomy is the ability to exercise control over aspects of work such as its content, location, timing and performance standards. For Uber drivers, the flexibility of platform work is found across three main areas in contrast to more traditional employment; these are time flexibility to choose how long they work for, no direct supervision by a boss or feeling they had to respond to someone else's requests, and to be able to work in isolation without having to report to an office or management (Möhlmann and Zalmanson, 2017). In this study, delivery drivers can choose the hours they work, if they want to leave and return home and which apps to work for, but do not have autonomy over the content and performance standards. The *ziyou* discussed by drivers is the ability to choose to stop working, to arrange your own work time and the flexibility to

leave work and return home when they please. For *crowdsourced* workers, platform work is organised so that workers can *grab* orders that they wish to complete and receive the specified payment. This pay-as-you-work organisation provides workers the opportunity to choose orders and refuse (by not grabbing) orders they do not see as valuable or worth the effort of delivering. This offers the opportunity to make decisions based on their own estimation of the value of the order and the ability to choose to not deliver (even if this was not frequently chosen). In this research I find that drivers frequently describe the ability to pick orders and decline an order as '*ziyou*', as illustrated by Qiang:

> *Q. Do you think this work is ziyou?*
>
> *Yes, it's quite free (ziyou), you can say there are no time constraints, we just grab an order and then deliver it for them, don't want to grab then can take a rest in the middle (of orders)*
>
> *Q. Is it more ziyou then when you worked as a 'specialist' (zhuansong) before?*
>
> *There are really big differences, as a 'specialist' if you have or don't have an order you still have to be at your post, it's like being at a job, now it's not like that, we can be at post but don't want to grab orders, we can freely (ziyou) grab orders and send as quickly as possible, the difference is really big; the contracted workers they have time regulations, we in this (crowdsourced work) don't have any time regulations*
>
> *Q. What kind of time regulations?*
>
> *Those (contracted workers) are fixed, for example after 10am you must be at your post in the team, you can only get off at 2pm, in the middle you can't leave your post, for example in the middle you have a thing you can't leave, when you want to leave you must ask permission from the station manager, if at home you have something happen and you must ask permission to take it off. Another example if your vehicle's tyre is broken, you need to tell your station manager, we doing this type (of work) don't need to tell anyone about it, we just directly push it, have a rest, it's much more convenient in many ways.*
>
> *Q. It seems like the platform restricts the flexibility?*
>
> *Nothing is completely, 100% free (ziyou)* (Qiang, Guangdong province).

Qiang finds *ziyou* working as a crowdsourced driver without any requirements to be on post or complete a minimum number of orders. Qiang works long hours and often competes for higher

rewards, so for him he uses the opportunity not to work less, but to choose when, where and how much to work. To a limited extent, he can exercise control over some of the aspects of work defined by Möhlmann and Zalmanson (2017). He chooses which areas to work in, how much and when to work, and when to leave, without receiving a financial penalty.

The opportunity to pick and refuse orders is more valued than the option to set their own work schedule around other priorities (in contrast to other contexts., e.g., US Uber drivers). Drivers were less interested in balancing other commitments in Beijing such as family or having free-time outside of work. Rather they valued the option to work intensely while also having the option to leave at a time of their choosing. In research on platform work the opportunity for autonomy and flexible employment is often suggested by workers as one of its main attractions (Rosenblat and Stark, 2016). Meituan themselves describe 'crowdsourced' work in the application process as being able to offer workers the ability to 'freely grab orders' ('*ziyou qiangdan').* This is one of the promises of platforms, that of "flexible employment" and to be able to pick and choose orders as and when it suits the autonomous individual (Rosenblat and Stark, 2016:3761).

Platform work was used as an opportunity to work without the coercion of human management as experienced in sectors such as construction and manufacturing. This was contrasted to '*specialist*' delivery drivers working who were perceived to not have the *ziyou* gained by *crowdsourced* workers, as the interview extract with Qiang who had worked in a station beforehand showed. As demonstrated in Chapter 5, there are a range of algorithmic management techniques which organise the labour process on platforms. For drivers, the opportunity of earning money without direct human intervention was central to the value of *ziyou* in platform delivery work. They saw themselves as more suited to working without direct management by others and they felt this is a significant reason why they were more suited to the gig nature of *crowdsourced* work. This included those who prefer to work without the pressure of other people managing them or forcing them to do things they do not choose themselves.

Platform work was often contrasted with restrictions in work that the previous generation of migrant workers have engaged in. Many drivers suggest their personalities have driven them to wish to avoid the restrictive nature of these types of work. Workers highlight the choices they have made to be spatially flexible in their work and outside of the control of a station manager. While station managers will organise information sessions where they provide information on clothing, changes to payments, safety and chant slogans, c*rowdsourced* workers did not have to attend these events (although they

were encouraged through rewards). These meetings were mostly viewed as useless and a waste of time, and for *crowdsourced* workers can be avoided if they do not need a boost in their rating. These sessions are resented when workers are forced to line-up outside in full uniform, early in the day and if the weather is poor. In contrast, many of the *crowdsourced* workers valued the autonomy they had to organise their own time:

> *Q. What's the benefits of this work?*
>
> *It doesn't have restrictions, (it's) ziyou, if you are tired can have a sleep, sleep until any time is fine, wake up and then can continue working, if you have something on today I can stop working, I can busy myself with that thing, if you are logged-off the app the platform won't send you orders.*
>
> *Q. Is work ziyou?*
>
> *Yes I think like that, I have laboured for six years before, no matter it is a big or small company even a three person small company, they will have some management (guanli) systems, the time will be managed strictly, from what time until when can you finish, the work time requirements, you can't do as you please. In this sector I feel you can organise your own time, in this work I am very happy to do the work.*
>
> *Q. Does the platform restrict ziyou?*
>
> *It has an effect, but I am still willing to do this work…I want to thank this industry and thank platforms, I think platform delivery provides high salaries, no restrictions, ziyou, a salary similar to white-collar workers who might earn like 5000-7000RMB in big companies, we can even stay at the same level as them or surpass them and even higher sometimes. The positive element is it doesn't require any educational credentials unlike these big companies which is an advantage of platforms, the time is really ziyou, if you want to earn more you can run more and not rest, if you are ok doing just enough you can hit your target then take a rest* (Tong, Anhui province).

Tong finds the lack of direct management and supervision as the most important source of *ziyou* in work. Some suggested they recognised that *ziyou* was subject to restrictions on the app but still concluded that largely being outside of human controls as more positive. In contrast, *'specialist'* drivers must be online for set hours per day often having to wait around in parks during the afternoon instead of having a rest. *Crowdsourced* drivers when logged out of the app could sleep until late, work longer hours, stop when they have something else on, and do so without managers to discipline them:

> *A. This work is ziyou, times like when the weather is cold, wind is sharp or it's raining and don't want to work you can take a rest, mostly because its ziyou.*
>
> *Q. Why have you chosen to work as a crowdsourced driver?*
>
> *A. Mostly because it's ziyou, work when you want, don't want to work can rest, mostly because it's ziyou*
>
> *Q. Why is ziyou that important?*
>
> *I got used to that at home, I don't like people managing (guanli) me. However, much I can work then I will grab that many orders and finish, I think today I want to earn 200RMB then I reach this, I want to work, if I don't want to work then go home…Sometimes I will see if the order price is high, if it's high now, then I will run. The most I can run is 40 orders, one day about 400RMB, now in one day I can run 20 orders and that's ok…They said this is ziyou, you can go off work when on work, 8pm get off work and there are good orders you can still run, can run anytime…* (Li, Shanxi province).

The work provides drivers the flexibility to meet other personal needs such as returning to their homes without having to leave work permanently. This includes the opportunity to work when they please depending on their priorities and to be free of direct human intervention in the managing of work and leaving the post:

> *Firstly, it's ziyou, no restrictions, compared with specialist drivers who have to wait around in the park for the orders I can rest all day. In crowdsourced work after lunch peak time you can basically go home to rest, if for example a friend from home came on that day you could choose not to go work and just directly go, don't have to ask for leave, apart from you don't earn money that day, nothing else* (Zhang, Hebei province).

Workers had often previously worked in construction and on the factory floor which is often managed through fixed contracts with penalties for leaving, long work hours and little flexibility in payment; in these sectors the worker has little autonomy or flexibility to choose their work arrangements (Ngai, 2005, Ngai and Huilin, 2010b). In construction migrant workers often work on year-long contracts through to Chinese New Year when they receive a large lump sum (Swider, 2015b). There are low levels of trust and frequent labour disputes over unpaid wages, often leaving workers out of pocket and extremely frustrated (Pringle, 2016). As Qiang argues in the following quote, work is mostly fixed with the worker part of a wider process which cannot be stopped or slowed down. Workers in these

sectors have their mobility restricted, with accommodation often provided on site and subject to company (and local government) regulatory controls (Zhu and Lan, 2016). In contrast to the restrictive nature of factory and construction work, workers suggested in platform work they are able to choose their own schedule:

> *Q. How does this compare to other work?*
>
> *Working in a factory is fixed, because if you leave your responsibilities (Lit. one radish in one hole) it can't be filled. If you leave no one can replace you, I live near Guangdong and heard that those on the assembly line its 'chachacha', you can't leave, if you leave the work then there is no work. So, in (factory work) it's only Spring Festival when everybody is off. Spring Festival is a national holiday and over there we place importance on Spring Festival so everyone knows that we have to be off. In this grabbing order work it's slightly better, today you grab, tomorrow want to go home, you can go, because no one is controlling you…when you are delivering you have restrictions, on the one side you can't say it's too free (ziyou) but this thing is for making money* (Qiang, Guangdong province).

Qiang suggested he experienced a sense of freedom from punitive rules and lifestyles of working in constricting occupations he had previously experienced. Ngai and Huilin (2010b) find migrants in construction work describing it primarily as bitter (*ku* 苦), dirty (*zang* 脏) and exhausting (*lei* 累) , and the opportunity for *ziyou* is not one of the key defining features. The relentless routine of factory work in China has been documented by several authors (e.g., Ngai, 2005). Factory workers in China are monitored very closely and subject to intense disciplinary measures to coerce them into maintaining strict completion targets. This experience is compared by Li with his experience of platform work and the opportunity to choose more flexibility then working on one routine task on the factory floor:

> *Q. Was it a higher salary or better work you wanted?*
>
> *Why do we start to do this work? It's relaxed/easy, free (ziyou), no one tells you (what to do), in comparison when working in the factory there is lots of restrictions – there are rules and regulations. In this work you can think of if it as freer (ziyou). And we get used to seeing new things every day, when you are running orders outside you see all sorts of people, when you work in factory, it's more one-dimensional, you do the one job make that thing, say you have to make a cup, you absolutely have to make that cup, it's annoying, it's monotonous, always making that cup is just really annoying. You keep doing the same thing it gets frustrating. It's up to how an individual sees it, some people like freedom (ziyou) working,*

> *we like it and it is more comfortable. It's not tiring and no one asks what I am doing, all day outside, feeling of being really free (ziyou). It's how an individual sees it; some people like to stay in the factory. We got used to that work and didn't like the feeling of being in a factory, because all of us who come out to do manual work, if your salary in Beijing factory isn't too high either, it's about 5/6000RMB, we thought, well it's pretty similar in app delivery and no one controls you, no one asks after you* (Li, Jiangsu province).

Lund -Thomsen (2012) suggests choosing the location of work is one of the main expressions of workers' individual agency. They consider to what extent workers have a choice in determining their own place of work (finding three main locations where workers can undertake work, in the factory, village centres or home-based work settings) and what facilitated and/or constrained the micro-level decision-making processes of unorganised workers in relation to opting in and out of particular work forms. In a context where there are few opportunities to express one's agency in work, the choosing of one's own working location based on their own and family needs brings benefits to the workers. In this research, drivers are choosing to work without direct human management and supervision and consider this as 'freedom' from overly restrictive controls in the work process.

In summary, this section has described how workers use the expression '*ziyou'* (自由, '*freedom*') to demonstrate how platform work has given them increased freedom to choose how and when they work. I find two key narratives are used by drivers to describe how they value platform work for providing *ziyou*. These are: 'The ability to arrange my own time and take time off when I please'; and '*'*To work without coercion or management by others (没人管, *mei ren guan*)'. I find that workers use the idea of *ziyou* to frame how they seek to gain control of elements of the labour process and manage work to achieve their goals. For *crowdsourced* drivers in particular, the autonomy they have over some work variables in platform delivery is a key difference from the work they have experienced before and is how they seek to shape work in their favour.

7.4 Conclusion

This chapter has sought to focus on the low-key and often invisible ways in which working people make viable lives where collective resistance to the status quo is a difficult option. Platform delivery workers are not passive victims of structural conditions and precarious working lives but adopt strategies to negotiate platform work and life in Beijing through the prism of their personal ambitions. In contexts where collective resistance is difficult, individual agency should be recognised as the means by which workers can strategise in their working lives. Individual agency in people who are

'agency poor' can achieve short-lived and localised benefits for the individual and be a positive influence on the spatially-embedded daily lives of workers in relation to the subjective experience of employment (Rogaly, 2009).

In this study I find drivers engage in two major strategies to maximise the gains of platform delivery work; these are increasing the intensity of their work to hit personal goals, and working for '*ziyou*'. I contend that these expressions of agency are a demonstration of *resilience*, not *reworking* or *resistance* in work (according to Katz, 2004). The strategies I find are primarily used as a means of 'getting by' which help individuals to manage their situation. They bring qualitative improvements to both their own experience of work and their future lives most likely outside of Beijing, but do not necessarily seek to shift the status quo. Evidence from interviews finds workers engaging in mostly individual actions to self-improve their conditions in work. For example, workers react to the variable supply of orders by increasing their work intensity and completing deliveries to attain rewards derived from the platform to maximise income. This is evidence of workers reacting to an environment that is unstable, short-term and flexible. With little tangible benefit to co-operating in work, the strategy of increasing their own competitiveness is individual and driven by the desire to maximise this opportunity in a short-time frame.

Firstly, drivers react to changes in demand or reduced income per order by working harder and longer to try and make up for the shortfall and maintain a stable salary through setting goals and achieving rewards set by the platform. Platform delivery work is dynamic and fast-paced requiring drivers to make frequent decisions on the number and type of orders to take on. They must decide the speed and intensity of their deliveries and decide on the risks involved and the number of hours they are willing to work for. To maximise the income-earning opportunity in this work, I find workers engage in narratives of self-reliance (*duolaoduode*) and eating bitterness (*chiku*) as a virtue to justify their approach. I find workers earning for family at home said they increase their income for 'elders above me and minors below', and 'To not break the line' to provide a stable income for family. These values are given as the most important reasons to justify their time away from families. Working through a dual frame of reference they earn income to fulfil ambitions to purchase a house, car and higher education for their children and increase their standard of living. I find that increasing work intensification is used to maximise the financial gain of platform work in a short-time frame.

Secondly, I find workers use platform work to gain more *ziyou* (freedom) in the work process. I find the expression of *ziyou* is used by workers to frame how they seek to gain control of elements of the labour process and self-manage work to achieve their priorities. This is contextually driven and

contrasted with other work available to them in sectors such as construction, manufacturing and related industries. This *ziyou* was summarised in two main themes as 'The ability to arrange my own time and take time off when I please' and 'To work without coercion or management by others (没人管, *mei ren guan*)'. *Crowdsourced* drivers have some autonomy over work variables in platform delivery work and this is one of the key differences with work they have experienced before. Workers highlighted the choices they have made to be spatially flexible in their work and outside of the control of a station manager, to choose to have time off, visit family or attend to personal errands. Often *ziyou* was contrasted with previous experiences of work in sectors such as construction and factory work where there is less flexibility to tailor their schedule around family and other needs. In contrast to the restrictive nature of factory and construction work, workers suggested in platform work they can choose their own schedule. Rather than being part of a routine manufacturing line subject to intense supervision, drivers chose this work for a greater degree of autonomy.

These two strategies identified demonstrate how Chinese platform delivery drivers seek to exercise agency in a highly restrictive, monitored, and quantified environment. Whilst collective resistance was most often not evident, drivers are not passive victims but adopt strategies to negotiate the challenges they face and exploit the advantages of work where they can find them. The strategies are evidently embedded within their wider livelihood strategies, viewing work through a prism of what it can bring to sustain and improve their families' living conditions in the future. The expressions of agency are therefore located within the workplace (e.g., to strategise how intensively to work, to choose the '*ziyou'* of crowdsourced working patterns to work without supervision) while being linked to their wider livelihood strategies (e.g., working intensively and splitting with family across locations to maximise earnings and minimise expense and risk, to being able to leave work to visit family at short notice in case of emergency). I argue that these strategies fall into what Katz (2004) terms expressions of *resilience* in the workplace. In a context where platform drivers are agency poor these strategies achieve largely individual and small improvements in their day-to-day working lives. But observed through the prism of their wider livelihood strategies, the improvements achieved based on their strategies become evident. While most of the drivers in this research did not actively seek to rework or resist the status quo, they take actions to manage the challenges in platform work and maximise the potential of work for themselves and their families.

Chapter 8 Conclusions

At the start of this research, I set out to better understand the fast-growing platform applications in China and what motivated migrants to move from different parts of China to urban Beijing and work digitally on an app to deliver items to urban consumers. I aimed to find out how platform applications manage the workforce and push people to work at the levels of intensity I observed. What are the social processes which shaped their experience of this work and how do these factors interact with and are shaped by platform delivery work? And lastly, what strategies (if any) do migrants have to manage the inherent insecurity of this work and shape work in their favour? In answering such questions, this thesis contributes to research on the use of algorithms in the platform economy, particularly the features of work within the Chinese context which have not been demonstrated in-depth previously.

In this conclusion, I discuss the main contributions of this thesis in three parts, which broadly tie into the research aims stated in Section 1.1.

8.1 Organisation and Management of Digitally-Enabled Work in China

This thesis has explored the organisation of food delivery platform work in Beijing, China. Temporary employment arrangements and the gig economy are not new phenomena, but technology offers increased flexibility for employers to externalise risk to the workforce, discipline workers individually and reduce the costs of labour. The ways in which digital work platforms manage the exchange between the worker and end-user is an important research question, as often the ways in which algorithms manage digital work is unclear and conceals labour exploitation.

I identify the key features of two work forms within platform delivery work, that of '*specialist*' (*zhuansong*) 专送 and '*crowdsourced*' (*zhongbao*) 众包) and describe how they shape the experience of workers through different application, evaluation, and compensation methods. A framework of decision-making is used to demonstrate the myriad variables for each piece of work. Drivers manage the risks of each order which have been externalised by the app to become their responsibility. I demonstrate how the platform applications shape the work to necessitate drivers to increase skill levels through having to evaluate risk for each delivery to maintain their status on the platform. I thus argue maintaining a consistent number of orders across highly variable demand is one of the most difficult tasks for drivers. While the digital facilitation of work could be expected to minimise demands

on drivers (e.g., reduced need for geographical knowledge), I find the skills demanded for workers to manage the variables in work and maintain a sustainable income is considerable. I thus argue the level of skill demanded for the worker to manage themselves, their work and make a sustainable income in platform work is very high.

This thesis finds that the customer monitoring and evaluation rating system on Chinese platforms such as Meituan is more extensive then in Western contexts and shapes the experience of workers in unique ways. The evaluation system rates drivers' ability to manage the delivery process, and drivers can be evaluated across a wide range of indicators and tags which build into a comprehensive picture of how they work and manage the delivery process. Poor decisions, a lack of knowledge, a mistake or taking too much risk can result in their work being evaluated and rated negatively. These ratings then increase or decrease their incomes through bonuses and access to work in the future. Together, this evidence demonstrates the ways in which technology and algorithm designed for platform apps shape the experience of work from the perspective of the driver. It reveals some of the concealed ways in which platform applications design work to externalise the variables and risks to the workforce. Drivers subject to an extensive customer monitoring and digital evaluation system are disciplined individually, have little security and are subject to high levels of risk. These features of work interact with pre-existing vulnerabilities of migrants' and result in precarious working lives and employment for drivers in Beijing.

8.2 Migrants Working Precariously on Food Delivery Platforms

This thesis uses a framework of precarity to link a dependence on insecure work and the wider lives of migrant workers. Precarity seeks to connect political and economic trends seen as leading to a growth in temporary and transient work forms alongside subjective experiences of insecurity felt in a growing number of these work forms. Precarity is often the choice of researchers concerned with labour markets in the Global North, but insecure work is a feature of digital work in different parts of the world. This evidence therefore contributes to better understanding the experiences of digitally-enabled workers in China and helps contextualize global trends of digitally enabled labour, broadening the evidence base through a case study from the Global South.

To discern the production of precarity demands an analysis that situates the experiences of individuals or groups within a broader political and economic context. Evidence from Chapter 6 demonstrates how the elements necessary to produce migrants' value and compliance in the workplace are often secured through the regulation of their lives outside of work. I use precarity as a broader framework

to draw together the organisation and features of work and how they interact with and exploit the existing vulnerabilities of workers. The thesis brings those two facets together to argue that platform work observed in isolation does not provide a full picture of the challenges faced by migrants engaged in the work, and the ways in which platform work is organised to exploit their vulnerabilities.

I identify how platforms can offer workers more choice to pick and choose work that suits them, but due to the status migrants and their relative position in the labour market this is heavily constrained. I find that a lack of income in migrants' place of origin and a tenuous position in Beijing frame their lack of choice in the labour market. Platform work is situated in society and shaped by labour market standards and enforcement (e.g., there is no negotiated minimum for work and no effective enforcement of labour standards such as contracts and insurance). Platforms set the price of work dynamically (i.e., the lowest acceptable price which drivers in the location will accept) and the more people that sign up to work, the lower the price can be set and the more profitable it is for platforms. Because of the large numbers of workers available who need work to sustain themselves and their families, this results in a rush to grab orders which creates intense competition. The platform reduces the payment and conditions until the point where it becomes impossible to make a sustainable income. While a race to the bottom of worker payments and standards is not new to platform work, the speed at which dynamic algorithms react to an increase in labour availability (i.e., in real time) is a new development. The algorithms set pricing determined by the availability of workers to accept the dynamically-set terms. This is subsequently set by the extent to which migrants are willing to accept these terms.

Migrants themselves struggle in-between the push of low incomes and the difficulty in establishing themselves in a highly changeable sector in urban Beijing. Drivers are limited in the extent to which they can exert control over the labour process, and I find that a lack of control in work is a defining facet of precariousness. Control over the labour process in platform work is considered through two main lenses – these are the control of the supply of work and the evaluation of work. The evidence provided demonstrates how the organisation of platform work reduces the space for workers to exercise control over how and when they work. While platforms can offer workers more choice to pick and choose work that suits them, due to the status of migrants and their relative position in the labour market this is heavily constrained. I identify in this chapter that due to a lack of alternative employment opportunities, relatively high fixed costs in Beijing and lack of opportunities to secure a stable future in the city, migrants come to work motivated to earn money quickly and work intensively, which shapes their 'entry' into the labour market. In summary, the research shows how migrant workers' vulnerabilities, arising from the social and economic context, interact with the organisational features of platform delivery work, and result in precarious working lives.

8.3 Strategies at Work: Towards a Broader Conceptualisation of Agency

The actions of workers can be interpreted in multiple ways; I demonstrate that the low-key and often invisible ways through which working people make viable lives is a vital element for research. To engage in collective actions which seek to change the status quo is often unfeasible in an environment with few labour contracts and marginal work status. To understand how workers respond to precarious work and manage work for their own advantage, I have outlined an understanding of a broader conceptualisation of agency which moves away from collective labour agency as a form of resistance, to recognise the varied acts of workers to create manageable working lives and dignified livelihoods.

In this research I identify two strategies through which workers respond to the precarious nature of platform work to improve their experience of work, and their future return to homes outside of Beijing. Firstly, migrants use platform work to sustain families ('to not break the line') through sending home remittances. Migration to platform work in Beijing is seen as a household strategy with one driver often supporting a wider family and expenses in their place of origin. This household strategy prioritises economic returns and the minimisation of risk through diversifying income streams across urban and rural China. Drivers expressed demands for increased incomes to purchase homes and ensure stability for their families, as well as to fulfil aspirations of having a car and supporting children to further their education. To achieve this, migrants demonstrate a clear strategic focus to their migration to platform work in Beijing. To counteract the insecurity and instability in their work and income, they implement a strategy of intensity and income maximisation to reach their personal goals. Working intensively over a short period of time before moving on or moving home is better than maintaining yourself over a longer period in Beijing. Increasing work intensification is used to maximise the financial gain of platform work in a short-time frame. Worker agency is deployed to maximise income and work longer hours to meet their personal ambitions, not to balance platform work alongside other priorities.

Secondly, I identify that the expression of *ziyou* is used by workers to frame how they seek to gain control of elements of the labour process and self-manage work to achieve their priorities. This is contextually driven and contrasted with other work available to them in sectors such as construction, manufacturing and related industries. They exercise limited autonomy over some of the work variables in platform delivery work and that is one of the key differences with work they have experienced before. This includes the ability to choose their own schedule, when to leave and when to log off, whether or not this option is taken up. Rather than being part of a routine work that is

subject to intense supervision, they often expressed a preference for the freedom to choose this work for a greater degree of autonomy.

The strategies identified demonstrate how Chinese platform delivery drivers seek to exercise agency in a highly restrictive, monitored, and quantified environment. I contend that these expressions of agency are a demonstration of *resilience*, not *reworking* or *resistance* in work (according to Katz, 2004). The strategies help workers to 'get by' and bring qualitative improvements to both their own experience of work and their future lives retuning to rural homes, but do not necessarily seek to shift the status quo. Work strategies are embedded within their wider livelihood strategies, viewing work through a prism of what it can bring to sustain and improve their families' living conditions and homes in the future. The expressions of agency are therefore located within the workplace, that is to strategise how intensively to work, to choose the '*ziyou'* of crowdsourced working patterns to work without supervision. This is linked to their wider livelihood strategies, working intensively and splitting with family across urban and rural locations to maximise earnings and minimise expense and risk, and to be able to leave work to visit family at short notice in case of emergency.

To conclude this thesis, I want to argue for the need for further research on the human labour aspects of the gig economy especially in China. Platform work will continue to expand into different sectors and become widespread in other regions of the country. During the Covid-19 epidemic, the vital importance of drivers' labour has become obvious; they have provided a service to urban citizens while shouldering much of the risk. But there is little evidence that social security or other benefits are being offered to workers who take these risks on urban citizens' behalf. The drivers in this thesis are highly visible manifestations of the growth of platform work, but there are other sectors (and regions) in which people gain incomes from platform work. In the digital gig economy in China, there is very little evidence in the Anglophonic research literature of workers who work entirely online. Research should seek to explore what their working lives are really like, and how comparable are the strategies employed by workers in the physical and entirely digital gig economy.

This thesis has presented a snapshot in time of the experiences of some of the challenges and opportunities of platform work from the perspective of its workers. Platform work is here to stay but evidence from this thesis has demonstrated that for many drivers this work is only a short-term and temporary stop towards achieving aims of more financial security for themselves and family. I have argued the case that workers' everyday struggles and strategies are critical to an understanding of labour agency. In the Chinese context, one of the most frequently observed expressions of agency is

migrants' mobility, to move frequently in search of new employment opportunities. The picture of what happens to migrants who work on platforms after they choose to finish (or exhaust themselves) is not very clear. There was a recognition that this work does not provide them with many skills that could be easily transferred, despite the level of skill required to navigate the challenges of this work. Most saw this work as an opportunity to save money to support family and achieve other goals such as opening a small business nearer their rural homes. Life history and longitudinal research drawing on evidence from their place of origin would help build a picture as to what extent platform work is contributing to changing or improving their lives – to know better if their strategy of chasing gold stars on platforms and building for the future has brought them that bit closer to their goals.

> *[E]veryone is expending (effort), just your work is different, the direction you are working towards is different. Your aims, your vision…you want to make sure your family are looked after, that is the aim…* (Zhao, Shanxi province)

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Appendix A: Information sheet for participants (ENGLISH)

RESEARCH ON PLATFORM WORK

一 INTRODUCTION TO THE RESEARCH

Hello! We are researchers currently conducting research into platform work from the perspective of its workers, including experiences of using apps to facilitate work. We have designed this research according to university guidelines and is subject to ethical approval.

Thank you very much for your participation!

Your responses to the interview will not be used for purposes other than this research and will be kept confidential and anonymous. The data you provide in this interview including audio files and interview transcripts will not be linked to your personal details and the responses will be kept securely on computer file which will be password protected.

The interview will take approximately 30 minutes. You can withdraw from the interview at any time. If the current time is not suitable, we can arrange another time at your convenience.

Research Content:

1. Research Participants:

We are conducting this research with people who use food delivery platforms for their work, including Meituan, Ele.me and Baidu waimai.

2. Research Aims:

We want to explore in the age of the internet and platform applications, the experiences of platform workers in this sector including, career development, career conceptions, social security and labour protections, individual and collective experiences in the work and future plans.

To do this we aim to better understand the experiences of people using platforms in their work, this includes the basic characteristics, issues and developments of the work, the conditions of your work and employment status and labour relations and other issues felt relevant to the work.

二 Research Investigators

Simon Malyon, PhD student, United Kingdom London University, Royal Holloway.

Contact details: email: simon.malyon.2015@live.rhul.ac.uk; phone： +8618401771584

[Background]

[Research assistant background]

Appendix B: Information sheet for participants (CHINESE)

共享经济平台下外卖领域的用工与劳动现状调查方案

一 平台经济下用工背景介绍

外卖工友:

你好！我们是社科院的学者。为了解外卖行业就业、劳动权益和互联网使用状况，我们做了以下调查，请求您抽空帮助完成。我们将严格遵守国家规定，保证您提供的信息不被非法利用，请结合实际情况认真回答，十分感谢!

您对此研究的所有回答都会用于此研究并会保密。采访需要30分钟的时间。

如果您现在不便，请您留自己的联系方式，我们会联系您安排更方便的时间。

调研内容

1. 调查对象: 在外卖平台就业的劳动者。以美团、饿了么、百度等第三方大型订餐平台为主，兼顾包括闪送、到家，以及餐饮商家的自建网络订餐平台。

2.调研目的

了解外卖订餐平台劳动者的就业状况（包括劳动者基本情况、劳动权益状况、就业状况、劳动关系状况，基本特点、存在的问题及发展趋势），

探讨互联网背景下，外卖平台劳动者的职业发展、就业观念、社会保障、劳动保护、维权空白等个别劳权和集体劳权实现的途径，

二 研究团队

课题组成员**:**

毛森杰 （英文：Simon Malyon），博士生，英国伦敦大学皇家霍洛威学院博士生。硕士毕业于英国伦敦大学皇家霍洛威学院地理系。正在北京师范大学社会发展与公共政策学院访问学习。联系方式：邮箱： simon.malyon.2015@live.rhul.ac.uk; 电话：+8618401771584）。

[Research assistant background]

Appendix C: Interview Schedule

外卖劳工采访大纲（半开放式）Interview Outline

Date 日期 Platform 所在平台 Interviewer 采访人

Background

1. 干外卖多久了？家人在这边一起居住吗？

How long have you been working in this sector?

Are you living with your family?

2. 您是怎样找到这份工作？之前做过什么工作？为什么要到平台上打工？

How did you find this work?

What work did you do previously?

Why/how did you decide to come to Beijing to work in this sector?

Perspectives

3. 总的来说，你觉得这份工怎样？ a. 最辛苦的在哪里？ b. 好的地方在哪里？

In summary, how are you finding working in this sector?

What is the most difficult aspects? What are the positive aspects?

4. 分享一个 印象最深的工作经历

Can you share an experience that has left a deep impression on you in this work

5 工作稳定吗？ 你有选择工作量的权利吗？（例如:可以自己决定送多少单子）？

外卖行业比其他行业更自由？

Do you find working in this sector stable?

How do you decide how much to work?

Do you find working in this sector flexible?

Conditions

6. 每个月现在能挣多少？工资怎么算的？基本工资加补贴？（百度，美团， 饿了么不一样）

How much do you usually earn in a month working in this sector?

How are your wages calculated?

Do you have a basic salary or work per delivery?

7. 最累的一天做了几单？工作时间多长？最晚到几点？上夜班吗？

What is the maximum you can deliver in one day?

What is the longest you have worked?

Do you work during nights?

Working on a platform

8.现在所属的公司/工作站点是互联网平台自营的吗？还是劳务派遣或/外包公司？

您认为这个平台 APP 怎样？

Is the company/platform you currently work for an internet contractor/labour dispatch organisation/subcontractor?

What do you think about working for an APP?

9.有哪方面是您觉得不错的？（派单、结帐、奖励、评分等方面）

What aspects do you like about working for an app? (orders/payment/awards/rating system?)

b. 您觉得有什么地方需要改良，能让您工作更方便？

What aspects do you think could improve?

c. 好评有什么用？差评会受罚吗？怎么算积分？

What are the benefits of positive rating?

What happens/penalties do you receive from a negative rating?

How does your score get calculated?

d. 系统派单存在什么问题？

What aspects of the ordering system do you think have issues?

10.一般都什么情况会被罚？被罚的话，怎么办？

Under what circumstances do you usually receive punishment/fines?

How does this work?

要是顾客投诉，对您的工作会有甚么影响？

If a customer complains, what are the impacts in your work?

如果顾客投诉，您怎么处理？

If a customer complains, how is it resolved?

Future plans/work and life strategy

11. 你认为做外卖行业对未来的发展有好处？ 你未来打算继续做这个工作吗？

+ 你还有要补充的吗？

What are the benefits of working in this sector for your future development?

Do you plan to continue to work in this sector in the future?

Is there anything you would like to add?

Appendix D: Questionnaire [English Version]

1. How long have you worked in [platform] delivery?

1. 3 months or less 2. 3-12 months 3. 1-2 years 4. 2-3 years 5. 3 years or above

2. How did you find this work?

1. Introduction from a fellow townsman or friend 2. Applied through a job advertisement

3. WeChat group 4. WeChat moments 5. Internet application 6. QQ group 7. Radio broadcast 8. Other

3. What type of employment relationship do you have?

1. Directly employment 2. Self-employed/operated 3. Outsourced/employed through a contractor 4. Crowdsourced

4. For which platform (平台) are you currently employed?

1. Meituan 2. Ele.me 3. Baidu 4. Shansong 5. Daojia 6. Taodiandian 7. Dazhongdianping 8. Dianwoba 9. Shenghuobanjing 10. Meicanwang 11. Xiangha web 12. Other

5. After tax, how much approximately do you earn every month (RMB)?

1. Less than 3000 2. 3000-4999 3. 5000-6999 4. 7000-8999 5. 9000 and above

6. How many delivery platforms have you worked for previously? (Include part-time and full-time)

1. One 2. Two 3. Three 4. Four 5. Five or more

7. Do you work in delivery full-time or part-time?

1. Full-time 2. Part-time

8. Have you signed a labour contract?

1. Yes 2. No 3. Don't know

9. Who have you signed with?

_____

10. Have you signed a labour agreement (劳务协议)?

1. Yes 2. No 3. Don't know

11. Why did you choose to work in delivery?

1. Increase income 2. Support one's family 3. [Previously] laid-off/unemployed and needed employment 4. Level of freedom (自由) is high 5. The entry requirements are low 6. Other_____

12. In peak season, how many deliveries to you make per day on average?

1. 10 or fewer 2. 11-15 3. 16-20 4. 21-25 5. 25-30 6. 31 or above

13. Currently what is your social security situation?

1. No social security 2. I pay for social security myself 3. Both myself and the platform contribute 4. Not clear of the meaning

14. How many hours do you typically work per day?

1. Fewer than 8 hours 2. 8-10 hours 3. 10-12 hours 4. 12-14 hours 5. More than 14 hours

15. In one month, on average, how many days are you able to rest?

1. Don't rest 2. 1-4 days 3. 5-8 days 4. 9 days and above

16. In your employment in delivery, what two problems are you more concerned about (choose two)?

1. Income is unstable 2. Don't pay into social security and worried about the future

3. Traffic accidents, injury and other accidents 4. Equipment or moped being stolen

5. Negative rating or receive complaints 6. Other_____

17. Which of the following statements accord to your situation (please rate 1-5: 1. Disagree strongly 2. Disagree 3. Neither/or 4. Agree 5. Agree strongly

- I am currently relatively satisfied with my current income
- Delivery work is a respected (dignified) line of work
- The platform and company's management is overly strict
- The end of 2017 safety checks (evasions and removals in Beijing) had a significant impact on my life

Personal Characteristics

1. Age: 1. 18-25 2. 26-30 3. 31-40 4. 41-50 5. 51-60 6. 61+

2. Gender :1. Male 2. Female

3. Hometown: _____

4. Do you have a Beijing hukou? 1. Yes 2. No

5. Educational background: 1. Junior middle school or below 初中及以下 2. Secondary school or vocational school 高中或中专 3. Higher vocational school or technical education 4. Undergraduate 5. Postgraduate and above

6. Marriage status: 1. Unmarried 2. Married 3. Other

7. Previous work experience: _____

Appendix E: Interview and Questionnaire Respondents

Interviewed by Simon

1. 15th March 2018
2. 19th March 2018
3. 25th March 2018
4. 29th March 2018
5. 9th April 2018
6. 9th April 2018
7. 9th April 2018
8. 13th April 2018
9. 27th April 2018
10. 9th May 2018
11. 9th May 2018
12. 1st June 2018
13. 1st June 2018
14. 29th October 2018
15. 29th October 2018
16. 8th November 2018
17. 8th November 2018
18. 12th November 2018
19. 13th November 2018
20. 16th November 2018
21. 20th November 2018
22. 23rd November 2018
23. 23rd November 2018
24. 23rd November 2018
25. 28th November 2018
26. 28th November 2018
27. 4th December 2018

Interviewed by Dr Jenny Chan[12]

1. 21st April 2018
2. 21st April 2018
3. 24th April 2018
4. 24th April 2018
5. 24th April 2018
6. 25th April 2018
7. 25th April 2018
8. 25th April 2018
9. 25th April 2018
10. 25th April 2018

[12] Dr Jenny Chan is an experienced academic researcher based in Hong Kong with interests in China's social development. My collaboration with her is discussed in Section 4.1.

Questionnaire Respondents

Q. Which province is your *hukou* residence?

Province	**Number of respondents**
1=安徽 Anhui	17
2=北京 Beijing	22
3=重庆 Chongqing	20
4=福建 Fujian	13
5=甘肃 Gansu	15
6=广东 Guangdong	20
7=广西 Guangxi	9
8=贵州 Guizhou	0
9=海南 Hainan	3
10=河北 Hebei	30
11=河南 Henan	23
12=黑龙江 Heilongjiang	3
13=湖北 Hubei	4
14=湖南 Hainan	3
15=吉林 Jilin	2
16=江苏 Jiangsu	11
17=江西 Jiangxi	11
18=辽宁 Liaoning	1
19=内蒙古 Inner Mongolia	3
20=宁夏 Ningxia	1

21=青海 Qinghai	2
22=山东 Shandong	7
23=山西 Shanxi	60
24=陕西 Shaanxi	4
25=上海 Shanghai	2
26=四川 Sichuan	3
27=天津 Tianjin	2
28=西藏 Tibet	3
29=新疆 Xinjiang	0
30=云南 Yunnan	1
31=浙江 Zhejiang	3
Total	**298**