

► New forms of employment and labour protection in China

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Abstract

In recent years, China's labour market has seen a significant rise of the new forms of employment, which differs in scale, type, and function compared to the developed economies. This study focuses on four emerging forms of the new employment patterns in China, including app-based gig work, micro-task crowdsourcing, prosumer work, and platform outsourcing to individuals, particularly examining their diversity, scale, development, and the status quo of the labour protection. Additionally, the paper summarises the challenges faced by the labour law and policy in the digitalisation era in China, as well as the government and social partners' innovative measures to address them.

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Acronyms

ACFTU	All China Federation of Trade Unions
BRICS	Brazil Russia India China South Africa
GDP	Gross Domestic Product
MCN	Multi Channel Network
MIIT	Ministry of Industry and Information Technology
NFE	New Forms of Employment
OECD	Organization for Economic Co-operation and Development
RMB	Renminbi

► Introduction

Like the changes in the global labour market, the emergence and rapid development of new forms of employment has been one of the main trends in China's labour market in recent years. Since the Reform and Opening-Up in the 1980s, China's labour market has been dominated mainly by full-time standard employment with a permanent or fixed term, in addition to a small percentage of part-time employment, and labour dispatch employment. However, in the 1990s, because of the national-wide restructuring and downsizing of state-owned enterprises and the massive migration of surplus rural labour to urban areas, informal employment in China experienced a significant growth. Since the global financial crisis in 2008, the trend towards flexibility in the Chinese labour market has increased again,¹ and around 2012, the overall non-standard employment in China was estimated to account for at least a third of all formal sector employment². This second wave of flexibilization in China's labour market also coincides with the widespread use of digital technology in business and the increasing need for work-life balance for employees in recent decades. All these factors have contributed to the proliferation and rapid development of new forms of employment represented mainly by digital labour platforms in China. Compared to standard forms of employment and traditional non-standard forms of employment, China's new forms of employment (NFE) differ in the contract used by platform companies and workers, and in the way work is organized such as the entry and exit from work, working hours and work location.

While the emergence of new forms of employment is a global trend, there are significant differences in the size, type and role played by this employment form in the labour markets. Compared to developed economies, the scale of the new forms of employment in China is much larger and most associated with digital platforms. In particular, these employment forms play a more neutral role in the labour market and have brought unprecedented opportunities for new job creation to Chinese labour market while meeting the needs of employers and employees for flexibility. Particularly, the new forms of employment have the advantages of flexible time arrangement and free market access, showing the inclusiveness of the digital economy and low employment threshold; as a result, it has furthermore provided job opportunities with relatively higher income for China's secondary labour market participants including urban migrants, young people, women, the low-skilled, and the long-term unemployed, and thus contributing to the inclusive growth of the Chinese economy. However, it must also be acknowledged that this type of employment form deviates from the traditional standard forms of employment and therefore poses a greater challenge to China's existing labour protection system in the perspective of the legal status of the workers, social protections, and the rights of freedom of association.

The objective of this paper is to provide a panoramic description and analysis of the diversity of the new forms of employment that have been emerging in China, with the focus on their background, the main types, the status quo of labour rights protection, and the government's responses to the challenges of labour regulations brought by NFE. Finally, on the basis of the above, the paper puts forward corresponding policy recommendations on how to improve workers' protection in NFE.

This paper uses a wealth of secondary data, including the typical company's annual reports, news, governmental archives accompanied by the literature review, to build a complete jigsaw of the development of NFE in China.

¹ On January 23, the Ministry of Human Resources and Social Security, the All-China Federation of Trade Unions and the China Enterprise Association issued a joint statement urging employers to avoid or reduce mass layoffs by reducing wage costs, placing workers on leave or adopting flexible working arrangements. <https://globalhumanresources.blogspot.com/2009/05/china-answers-global-crisis-with-new.html>

² Zeng, Xiangquan. (2015). The Current Situation and Evolving Process of Non-standard Forms of Employment in China (working paper). International Labour Office, Geneva.

► 1 The emergence and classification of NFE in China

The rise of NFE is a common trend in the global labour market (Eurofound, 2020a; ILO, 2021; De Stefano, 2016; OECD, 2016; Harris & Krueger, 2015). Although scholars have not been able to pinpoint the concept of NFE, the concept itself in general implies two layers in the Chinese context.³ First, from a historical perspective, the NFE are the various types of employment forms that emerged around 2015, after the full diffusion of mobile digital technologies in China, mainly related to smartphones. Secondly, the new employment forms cover the diversity of employment forms, and the main homogeneity is that it is distinct from the current mainstream employment forms in China, i.e. employment through labour contract.

1.1. The Rise of NFE in China

NFE emerged around 2015 in the Chinese context with the following broad historical background. Firstly, the deep integration of digital technologies and the fundamental formation of the digital age have been the basis for the rapid development of NFE in China. The following technologies play an important role in the popularity of NFE. Smartphones began to broadly be accepted in China in 2008, and the mobile payment product Alipay emerged in 2011, which has driven fundamental changes in internet finance ever since. In 2013, the issuance of 4G licenses by the Ministry of Industry and Information Technology (MIIT), marked the formal entry of Chinese society into the 4G era, which led to an unprecedented increase in internet access speeds once the process of commercializing 4G was fully launched.⁴ These digital infrastructures not only continue to improve in terms of hardware, but also continue to deeply integrate with each other, resulting in mobile internet technologies playing an increasingly important and integrated role in the production and consumption process, and having a fundamental impact on the way of life in Chinese society. This effectively started the historical process of China's gradual move from digital technology into the digital age.⁵ This culminated in the proliferation of many new platforms. These new business models in China created the NFE around 2015. The real novelty of the platform economy, as Gérard Valenduc puts it, lies in the "concentration" of new combinations and reorganizations of what has already been achieved in the field of digital technology, as exemplified by the rise of the O2O business model. Digital technologies such as big data algorithms, mobile phones and artificial intelligence (AI) have been around for a long time, but now the traditional service sector has taken these innovations synchronously and regrouped them on top of traditional services to create new types of business models.

Secondly, the government's continuous support and encouragement of entrepreneurship policies have removed the institutional constraints on the development of NFE. In 2014, Premier Minister Li Keqiang first proposed the policy of "mass innovation and mass entrepreneurship" at the Davos Forum and made it an important means to "expand jobs and increase residents' income" in the government annual report.⁶

³ Ida argues that ".....the terms used to denote these forms of employment comprise modifiers which imply the existence of a 'normal' model from which they diverge ('atypical', 'non-standard', 'non-traditional') or differ in kind ('new', 'particular') or in quality ('flexible', 'contingent', 'informal'). However, striking in polemical terms, none of these designations is comprehensive and satisfactory for the purpose of rigorous discussion." *Regulating New Forms of Employment: Local Experiments and Social Innovation in Europe*, edited by Ida Regalia, Routledge, Taylor & Francis Group, p. 7.

⁴ China Internet Network Information Centre. *Statistical Report on the Development of the Internet in China*, 2015. Available at: <http://www.cnnic.net.cn/hlwzfzyj/hlwzxbg/201502/P020150203551802054676.pdf>

⁵ The EU defines the digital age as "a historical period in which digital technologies are used extensively in all aspects of human activity, including in the economic, political and most forms of human interaction". EU. *Automation, Digitalization and Platforms: Implications for Work and Employment*, 2018.

⁶ Mass Entrepreneurship and Innovation.

The government annual report of 2015 and the Opinions of the State Council on Several Policy Measures to Vigorously Promote Mass Entrepreneurship and Innovation clearly propose the development of "Internet + Entrepreneurship Services" and provide support through financial and tax policies and financing. This has liberated many institutional constraints on the development of new forms of employment. This supportive attitude was demonstrated by the fact that the concept of new forms of employment was mentioned for the first time in an official document in the government annual report and has been mentioned in subsequent government annual reports, with an inclusive attitude towards new forms of employment. For example, in 2016, 2017 and 2019, the government annual report clearly stated that it would "strengthen the support for flexible employment and new forms of employment". In short, the government's consistent and inclusive attitude towards new forms of employment around 2015 has provided a favorable policy environment for the continued development of new models such as digital labour platforms in China, and has contributed to the prosperity of new forms of employment.

Thirdly, the popularity of NFE in China is also in line with the current demand for more flexibility in the labour market by companies. In 2014, China's economic development entered a new normal period, with the gross domestic product (GDP) growth shifting from high growth rates of over ten per cent to medium to high growth rates. On the other hand, the increasing labour costs have further reinforced the competition pressure faced by enterprises due to the amendment of the Labour Contract Law in 2008. Under the dual pressure of both the slowdown of economic development and the adjustment of labour law, enterprises demand more flexibility in the labour market. New employment forms, packaged in digital technology discourse, are perceived as different from traditional employment relationships and therefore are used by enterprises as an important means to reduce employment costs and increase employment flexibility, as they are outside of the constraints of current labour laws system. As a result, companies have actively embraced these new employment forms.

Fourth, the workers' own need for flexibility is also growing. New forms of employment, especially digital labour platform work, have lower barriers and are freer to enter and exit, and therefore has served as a reservoir of employment for workers. Apart from entering the traditional manufacturing industry, riders and online taxi drivers provide an alternative livelihood option for the new generation of migrant workers who were born in the 1980s and after in the city. Data shows that the average income level of full-time riders and online taxi drivers is higher than the average income level of migrant workers. For example, according to questionnaire data, the average monthly income of riders through the Meituan platform is 3,823 Chinese yuan (Renminbi RMB) per month, with the average monthly income of dedicated delivery riders at 4,844 RMB, which is 18.96 per cent higher than the average monthly income level of migrant workers (4,072 RMB).⁷ In addition, the management of new industries, such as digital labour platforms is more lenient than that of the manufacturing industry and working hours are more flexible, partly satisfying workers' pursuit of multiple-choice.

► **Box 1: The historical evolution of employment forms in China**

The emergence of new employment forms is an important point and the latest phenomenon in the historical evolution of China's labour market. It is therefore useful to understand the trajectory of employment forms in China in order to understand the impact of new employment forms on the Chinese labour market. This box presents the historical evolution of employment forms in China for readers to understand the context in which NFE have emerged in China. The evolution of employment forms in China since the reform and opening up in the early 1980s has been divided into three stages. The first phase, from around 1980 to 2008, saw the establishment of standard forms of employment system based on labour contracts. After the 1980s, China began to reform the employment

⁷ Jia Donglan, *Survey Report on Labour Compensation of Takeaway Riders, Research on Labour and Social Security Policy*, No. 12, 2022. Unpublished.

system of state-owned enterprises, and as a precursor to the reform of the urban market economy, a market economy-oriented labour market began to be established in China. As the government wanted to break the rigid fixed employment system under the planned economy, the labour market was initially established with the labour contract system as the standard employment form. The labour contract system consisted of three forms of employment: an open-ended employment contract, a fixed-term employment contract, and an employment contract for the completion of certain work tasks. This system went through a pilot reform in the 1980s and quickly established itself as the mainstream of enterprise employment after the promulgation of the Labour Law in 1994. According to 1995-1998 China Labour Statistical Yearbook, by 1994, contract employees accounted for only 25.9 per cent of all workers in enterprises, but by around 1996 Chinese enterprises had begun to fully implement the labour contract system. Fixed-term labour contracts in particular have become the mainstream way of employing workers in enterprises in practice. The report of the enforcement inspection team of the Standing Committee of the National People's Congress on the inspection of the implementation of the Labour Law of the People's Republic of China shows that in private enterprises, most of them have fixed-term labour contracts of about one year, and the short-term nature of labour contracts is relatively obvious.

In the second phase, from around 2008-2014, in order to improve problems such as short-termism in the implementation of labour laws, China promulgated the Labour Contract Law in 2008, which strengthened the stability of employment to better protect workers' rights and interests. At the same time, part-time and labour dispatch were established as supplementary non-standard forms of employment during this period to meet the diversified employment needs of enterprises. Although the Law attempts to curb the short-termination of labour contracts and enhance the stability of labour contracts, it does not fundamentally adjust China's structure of employment forms, and the law generally still retains the standard forms of employment such as fixed and open-term labour contracts as the mainstream forms of employment for enterprises.

The third phase, starting from 2015 to the present, has seen the rapid development of various non-standard forms of employment. In particular, the emergence and rapid development of new employment forms have posed serious challenges to labour laws that were developed to regulate standard employment. As mentioned in this section, since 2014, Uber has introduced a new employment form, the digital labour platform, into China after entering the Chinese market and has been followed by the major Chinese platform companies. This employment model has gradually expanded from the online car industry to include takeaway delivery, city delivery and home living services, etc. The emergence of the Covid-19 pandemic in 2020 continued to give rise to a number of other types of new employment forms, including shared employees, teleworking and web hosting. So far, China's labour market has shown a trend of parallel development of labour contract employment, non-standard forms of employment and platform work in particular. At present, the range of industries using new forms of employment and the number of employees is increasing, posing a serious challenge to the labour laws.

1.2. Typology of NFE in China

1.2.1 Definition of NFE in China

The NFE in most of the developed economies are considered as a departure from the full-time, permanent, subordinate standard employment that prevailed under the Fordism⁸. Chronologically, this trend originated from important changes in the labour markets of developed economies that emerged from the 1970s onwards, closely linked to the economic and social development of these countries and the decline of standard employment forms at that time (ILO, 2015; Countouris, 2019). In particular, the spread of internet technology has brought about a renewed boom in NFE. In terms of specific types, the classification of NFE by different institutions includes four main types worldwide.

The first category is non-standard employment such as temporary, part-time and multi-party employment relationships (ILO, 2016). The second category is ICT, where employees or self-employed workers work in a variety of locations outside the employer's workplace (e.g. at home, at the customer's location or 'on the road') thanks to modern technologies such as laptops and tablets (Eurofound, 2020b). The third category is digital labour platforms work. This involves matching the supply and demand of paid labour through online platforms or applications. In addition to the above three types of NFE that have emerged in countries in general, other types of NFE have emerged in individual countries that are not generally prevalent, including shared employee and job sharing, etc. (Eurofound, 2020b). In summary, the scope of the so-called new forms of employment discussed by different institutions varies but they all have digital labour employment in common.

A comparison is made with the situation in the major developed economies mentioned above in this paper. In terms of timing, new forms of employment in China mainly started around 2015, significantly later than abroad. Therefore, part-time, labour dispatch and other non-standard forms of employment that emerged before 2015 are not considered new employment forms in this paper.

China uses deviations from standard forms of employment as the criteria for determining new employment forms, too. However, because China's standard employment differs from those of major developed economies, the scope of NFE is also different from that of developed countries. The standard employment form in China has two characteristics. First, standard employment in China mainly refers to labour contract employment which includes not only open-term labour contracts, but also fixed-term labour contracts. Regardless of the duration of the labour contract, all kinds of labour laws are equally applicable to both types, and there is no difference especially in the protection of workers' rights and interests. For example, they are both entitled to a minimum wage, are subject to the same maximum working hours and employment protections against dismissal. In addition, there is no difference between the two in terms of social security contributions and entitlements. Therefore, China's labour law system is based on the labour contract institution, especially fixed-term labour contracts instead of the unlimited-term contract like in most of the developed economies, as the main type of standard employment.⁹

⁸ Fordism denotes the mass production system which characterized by a standardized assembly-line linear production organization with distinct hierarchies of obedience. Workers under the Ford system are tightly controlled by supervisors and are required to follow a set schedule without high skill requirement. See Watson, D. (2019). Fordism: A review essay. *Labor History*, 60(2), 144-159.

⁹ This is because fixed-term employment contracts are more prevalent in Chinese companies than open-term employment contracts. For example, according to a study by Zeng Xiangquan, the proportion of the formal sector in China with fixed-term labour contracts was around 42 per cent in 2010, with an average contract duration of 38 months. The proportion of those with open-ended employment contracts was around 24 per cent. Refer to: Xiangquan Zeng, *Non-standard Forms of Employment in China: The Current Situation and Impact Analysis*, 2017.

Secondly, under the employment contract system, the relationship between the worker and the employer is clear, explicit and one-to-one subordination.

The NFE in China deviates from both of these characteristics. Firstly, the new employment form no longer employs workers on a labour contract basis, but more often employs workers through a service contract. Secondly, it is difficult for workers in the NFE to identify a clear, single employer who exercises management over them. For example, in the case of platform employment, whether the workers have a clear employer is a big debate.¹⁰ According to this criterion, NFE in China mainly include types of employment related to the digital platforms. In addition, the shared employees as one of the NFE has emerged that are highly correlated with the Covid-19 pandemic.¹¹ However, the emergence of this new type of employment was a product of the early days of the outbreak. As the pandemic has improved in 2023, it is now relatively rare for companies to use shared employees. Based on the reasons above, this paper limits its research scope to the types of new employment forms associated with digital platforms that are currently the most numerous and receive the most attention in China. The focus of this paper is to examine the diversity of platform employment in China.¹²

► **Table 1 Definition of NFE by different institutions**

Institution / Author	Traditional non-standard employment	ICT	Platform employment	Other
Ida (2006)	√	x	- ¹	x
OECD (2016)	x	x	√	x
OECD (2019)	√	√	√	x
Eurofound (2015, 2019, and 2020b)	x	√	√	√
This paper	x	x	√	x

¹ This form did not appear till the book is published.

Source: Compiled by the author from relevant studies, 2022.

1.2.2 The diversity and typology of platform-related NFE in China

Platform employment mainly refers to various types of emerging employment forms that match labour supply and demand in a timely manner through digital platforms.¹³ The most important feature of platform employment in China is that it has broken through the subordinate characteristics of standard employment. Although there are various subtypes, they have the following common characteristics. First, platforms and workers mostly sign cooperation agreements which are always considered as civil contract relations in nature rather than labour contracts. Secondly, in terms of employment management, indirect control by algorithms replaces direct control by managers in platform work. Under digital platform employment, the algorithm behind

¹⁰ There is, of course, a large debate in reality as to whether platforms are employers in the sense of labour law. Platforms consider themselves to be mere information intermediaries, playing the role of information aggregators, and not employers. However, some studies have argued that platforms exercise some degree of control over workers through their algorithms.

¹¹ This is a new form of employment in which the traditional catering industry lends surplus staff to retail platform companies for "shared employment" and telecommuting. This model was first widely used in retail platforms such as Freshippo, Suning and Daily Fresh. According to Sina Finance, more than 1,800 employees have been recruited to work at Freshippo, more than 3,000 at Walmart and more than 3,000 have signed up for Suning Logistics' "talent sharing" program.

¹² If the readers are interested in other kinds of NFE in China, other than the digital labour platform work, please see Appendix I.

¹³ Eurofound. *Employment and Working Conditions of Selected Types of Platform Work*, 2018. Publications Office of the European Union, Luxembourg.

the internet platform or smartphone Apps replace the manager in the traditional sense, directly matching labour demand and supply in real time, assigning work tasks by means of platform dispatching or workers grabbing orders. It also monitors and evaluates the quality of work through customer evaluations. All these means are very different from the traditional human resources management in bureaucratic structure enterprises.

Platform employment in China itself, as a composite concept, encompasses a rich variety of subtypes. Based on the literature review, and according to the essential characteristics of employment forms, it is argued that platform employment in China currently consists of four main subtypes, namely location-based gig work, online micro-task crowdsourcing, prosumer work, and platform outsourcing to individuals.¹⁴

Location-based gig work

Location-based platform work refers to jobs that are operated through a service-providing intermediary digital platform which uses big data and algorithms to mobilize and engage a dispersed workforce, matching them with customers' demands and using them to deliver local tasks offline (De Stefano, 2016). Such digital platforms often perform these functions with the help of applications on mobile devices (ILO, 2021; Eurofound, 2018). Compared to other types of NFE, location-based platform work retains the core commonalities of contingent or temporary labour, flexible work arrangements, and a multiparty information connectivity mechanism centred around digital platforms (Harris, 2017; CIPD, 2017; Friedman, 2014; Duggan et. al., 2020). Meanwhile, its most distinguishing features lie in that: (1) Although task allocation is finished online, the labour process of location-based platform work is completed offline at a specific location and time and involves face-to-face interactions with customers; (2) The gig worker in location-based platform work is selected, assigned, managed and subjected to minimum performance benchmarks established by the digital platform organizations (Duggan et.al., 2020), while the platform controls and standardizes the labour process and the quality of completed tasks, setting the level of pay (often including piece rate and distance-based pay) and taking a percentage of the total amount paid by the client; (3) The transaction goods of each location-based platform work order are not assets, nor innovative production requiring technical content and professional knowledge, but relatively unskilled, monotonous and manual services, such as transportation and the delivery of food and parcels within the same city; (4) Even if the same kind of service is provided, the rules may vary considerably among different platforms, showing high flexibility that can be adjusted at any time in line with market demand and labour supply.

Online micro-task crowdsourcing

"Crowdsourcing" in the broadest sense refers to the distribution of tasks to an indeterminate "crowd" by a labour demander in the form of piecework.¹⁵ Workers can freely accept the order by applying individually, bidding or racing, and should complete the task according to the demand and time frame set by the task publisher. Online micro-task crowdsourcing is a subset of crowdsourced work, specifically an emerging form of work that modularly subcontracting work into a series of tasks characterized by highly repetitive, low-paying and low-skill threshold,

¹⁴ The current classification of platform employment in China is mainly based on industry, for example, e-hailing, food-delivery, live streaming, etc. This classification method is convenient, but does not reflect the essential differences in employment forms. This is because it is entirely possible for different employment forms to exist on platforms in the same industry. For example, on an e-hailing platform, there may be multiple employment forms such as standard forms of employment, part-time jobs, and crowdsourcing at the same time. This paper therefore does not follow the currently popular industry-oriented classification criteria, but rather classifies employment forms according to their relationships with the platforms.

¹⁵ The term "crowdsourcing" is a portmanteau of "outsourcing" and "crowd". ETUI divides online crowdsourcing into two specific types, including microtask crowdsourcing and crowdsourcing for freelancers. The latter is mostly for independent self-employed workers possessing certain professional knowledge, skills and higher education, with a high threshold for employment. Its tasks include copywriting, visual design, photography and editing, legal consulting, computer programming, and online training. As Chinese online freelancers emerged earlier than the defined time point for the emergence of new employment forms, with famous platforms such as the ZBJ appearing in 2005, this type of employment form is outside the scope of this report.

then distributing them to online crowds through a specific digital labour platform, that utilizes a flexible and geographically dispersed mass workforce (ETUI, 2020; Xie & Wu, 2019; Keegan & Meijerink, 2021). "Micro-tasking" emphasizes that the task is often a small part of a carefully dismantled procedure or a tiny corner of a large volume of work, which is generally monotonous and mechanical with less complexity or skill requirements

Common types of micro-task work include voice transcription, matching tags or classifications to images, web content audits, AI training, questionnaire filling and product comments, moreover, these tasks can be operated solely in the online space relying on the internet, which means workers can complete all steps remotely, from accepting the task to the completion and submission (ILO, 2018).¹⁶ Noteworthy, there is often a lack of communication among the worker, the demand publisher and platform during the specific work session. The remuneration is usually decided unilaterally by the demand publisher, and the task operation specifications and instructions are also usually proposed by the publisher; the platform rarely interferes with the level of remuneration or the content of the task. Platforms only earn revenue by charging a percentage commission to the demand publisher, without conducting direct management for the worker.

Prosumer work

Prosumer is a portmanteau of the words "producer" and "consumer" to describe users who actively produce, upload and share information and works on content-based or social entertainment platforms. They are users of platforms' dissemination channels, but also help platforms to create commercial value from the content they produce. While they may have participated in the content production on platforms for non-profit purposes such as hobbies in the early stages, more and more prosumers are now beginning to regard themselves as a professional occupation, and platforms or third-party intermediaries are beginning to enter into contractual agreements with prosumers to regulate and manage their behavior, and evaluate their performance by indicators such as reputation, satisfaction and popularity with the help of consumers (Valenduc, 2021). This form of employment is often called prosumer work.

Prosumer work can be further subdivided into two types according to their revenue model: some platforms pay content producers directly, setting rules on the percentage of share or revenue calculation, and have a degree of direct control over the income of the producer; the other type of model is where the producer is asked by a merchant or third-party intermediary to publish specific content on the platform to promote and advertise their products. In this case, the payment of fees and cooperation agreements are directly between the consumer and the merchant, and the platform is not involved in the matching process. However, in either case, as the platform still controls the content recommendation algorithm, it determines which content is exposed to users at a higher frequency; meanwhile, the platform operator has the option to suspend or close certain prosumer's account at any point, which can lead to the loss of sponsorship and revenue. As a result, such platforms continue to have significant influence over content creators (ETUI, 2020).

Platform outsourcing to individuals

Platform outsourcing to individuals is a new outsourcing model that has emerged with the rise of the digital economy, whereby employer companies outsource tasks or occupations directly to

¹⁶ Online content auditing refers to the manual review of messages published in a certain online space and the removal of harmful information involving pornography, violence and other information that is not in line with public order and morality. At present, Chinese content auditors mainly work for large content production platforms such as Weibo, Tik-Tok, Kuaishou, and Bilibili, as well as commodity trading platforms that involve information exchanges between buyers and sellers in the forms of articles, videos, images, and comments. Such workers in China are mostly recruited directly by platform companies and are rarely used in a crowdsourcing manner. For example, according to Bilibili's 2021 annual report, the company has as many as 3,160 content auditors (content auditors) on staff internally alone; according to LatePost, the number of auditors at ByteDance had exceeded 20,000 by early 2021.

individual workers through third-party Internet platforms (OECD, 2021). Compared to the traditional outsourcing model,¹⁷ the special features of platform outsourcing are: (1) The third-party agency that undertakes the outsourcing business is an Internet platform company that provides human resources solutions, rather than a traditional HR service company; (2) The relationship between the employer, the third-party platform and workers performing the tasks are to be seemed as a commercial partnership. In the traditional outsourcing model, the third-party contractor mostly adopts the mode of labour dispatch to provide workforce for the employer enterprise, or cooperates with the employer enterprise on a project basis for certain specific businesses, at which time the worker and the third-party contractor will still conclude a contract with employment relationship. However, in the case of platform outsourcing to individuals, the platform company, as the contractor, crowdsources the jobs or tasks required by the employer to individual workers. At the same time, in order to avoid the possible tax and labour law risks faced by the outsourcing company, the workers are registered as self-employed with the assistance of the platform, and finally constitute a business partnership with the outsourcing company (Gao, et al., 2021). (3) In individual platform outsourcing, there is a dispute over whether the business outsourced by the employer is a non-core component. In the traditional outsourcing model, the employer tends to outsource non-core business, such as recruitment, payroll accounting, social insurance payment and logistic business including staff canteen chef, security guard and receptionist, etc. However, in platform outsourcing to individuals, there are a large number of life service platforms outsourcing their core business, for example, the takeaway platform outsources the takeaway delivery work to a third-party platform, and these tasks can, to a certain extent, be understood as an indispensable and integral part of the business model of the company.¹⁸

More details of these sub-types of NFE will be explained in the following sections.

¹⁷ Human resource outsourcing services in China in a broad sense can be divided into three main categories: Traditional labour affairs outsourcing (labour dispatch and staffing agency), business process outsourcing (outsourcing of a few specific tasks, such as recruitment and compensation), and flexible employment (outsourcing business or job positions to individuals). The first two are regarded here as traditional outsourcing models. Wu Qingjun, *Policy Supervision and Industry Development Trend of Labour Outsourcing in China*, 2022. Available at: https://mp.weixin.qq.com/s/_LQeQeQApOWLt9N7kDWW8A

¹⁸ However, in order to avoid the risk of employment liability, takeaway platforms often claim that their core business is solely the use of algorithmic technology to achieve supply and demand matching and route planning.

► 2 The Development of NFE in China

2.1. NFE in China: An overview

2.1.1 Rapid growth in the market size of the platform economy

The development of China's platform economy has several characteristics. Firstly, the value of platform output is at the forefront of the world. According to the International Labour Organization, the value generated by China's platform economy accounts for 22 per cent of the world's platform economy, ranking second in the world after the United States at 49 per cent.¹⁹ Secondly, in terms of development trends, the penetration of China's digital labour platforms into various industries, especially the tertiary sector, is increasing, and the rate of transformation of the service sector is increasing. According to the 2022 China Sharing Economy Report²⁰, the capacity carried by online taxis accounted for 31.9 per cent of the overall taxi capacity in 2021 and food delivery accounted for 21.4 per cent of the catering industry, more than three times more than in 2016. Industries such as logistics and healthcare via online platforms have also grown by a factor of one. Thirdly, in terms of the growth rate of different sectors, the sectors with the fastest growth in penetration of the digital labour platform model currently include webcasting, on-line taxis and deliveries.

► Table 2 Market penetration of digital labour platforms by sector.

Ranking	Industries	Growth rate
1	Webcasts (mainly shows and games)	32.5%
2	E-hailing	22.4%
3	Delivery	20.0%
4	Online education	16.1%
5	Online healthcare	14.9%
6	Shared logistics	1.3%

Source: China Sharing Economy Development Report, 2021. Available at <http://www.sic.gov.cn/News/557/10779.htm>

2.1.2 Overall growth in employment and predominance of external hiring

In line with the growing market size of the platform economy, the overall number of workers in new forms of employment is also growing in China. As platforms employ workers not only directly but also externally through intermediaries, the latter are particularly difficult to count.²¹ Therefore, there is a lack of data on the total number of workers on the digital platforms in China. This is very similar to the international community. The relevant data are currently fragmented and come from three main sources. First, although there are no official statistics on NFE, but the National Bureau of Statistics estimates that the current scale of flexibly employed people in China is around 200 million, which includes workers who are typically in new forms of employment.²² The second source is the China Sharing Economy Report, published by the National

¹⁹ ILO. *World Employment and Social Outlook, 2021: The Role of Digital Labour Platforms in Transforming the World of Work*, 2021.

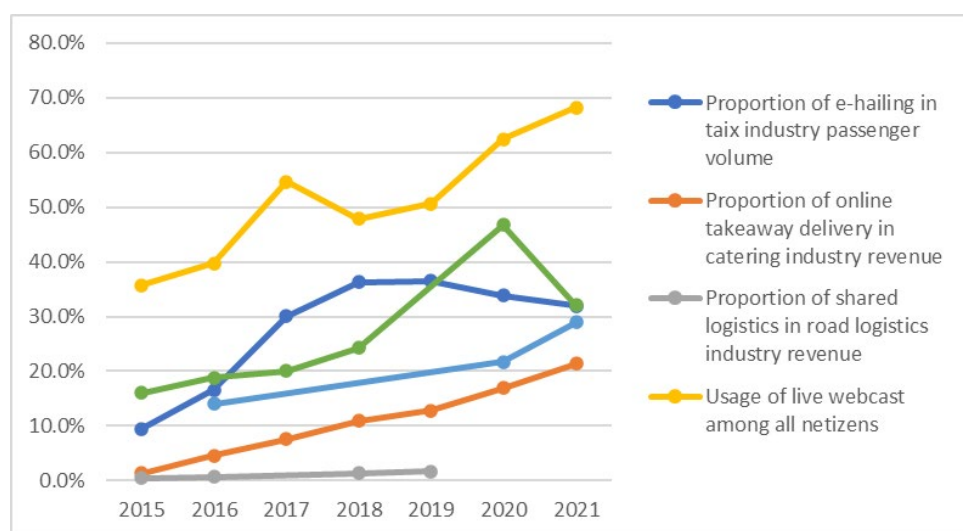
²⁰ China Sharing Economy Development Report, 2022. Available at <http://www.sic.gov.cn/News/557/11278.htm>

²¹ ILO. *World Employment and Social Outlook, 2021: The Role of Digital Labour Platforms in Transforming the World of Work*, 2021.

²² But the specific percentage of NFE workers to flexible employment are not given in this source.

Information Centre annually, which projects the number of workers participating in platform services. According to the report, it is estimated that the number of workers involved in the provision of services in the platform economy (i.e. the number of external hires) has increased from 50 million in 2015 to 84 million in 2020, a growth rate of 68 per cent. Based on this data, it is estimated that the proportion of China's workforce that has ever participated in the service platform economy has increased from 6.5 per cent of employed person in 2015 to over ten per cent in 2020. At the same time, the number of employees directly employed by platforms has grown from five million in 2015 to 6.31 million in 2020, a growth rate of 26.2 per cent, which is lower than the growth rate of the labour force involved in the provision of services. Third, data from the platform companies' own disclosures (this section will be described specifically in section 2.2).

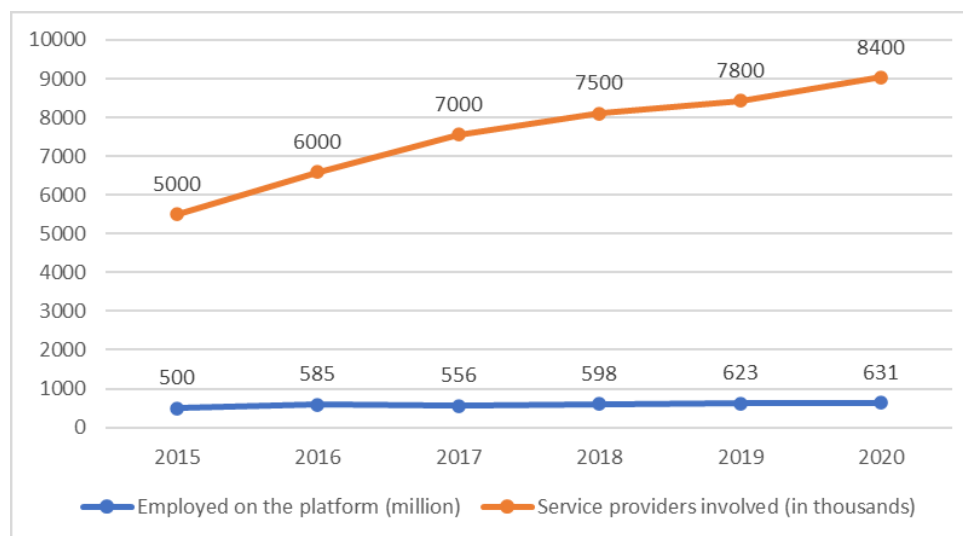
► **Figure 1 Trends in penetration of the digital labour platform by industry (2015-2021).**



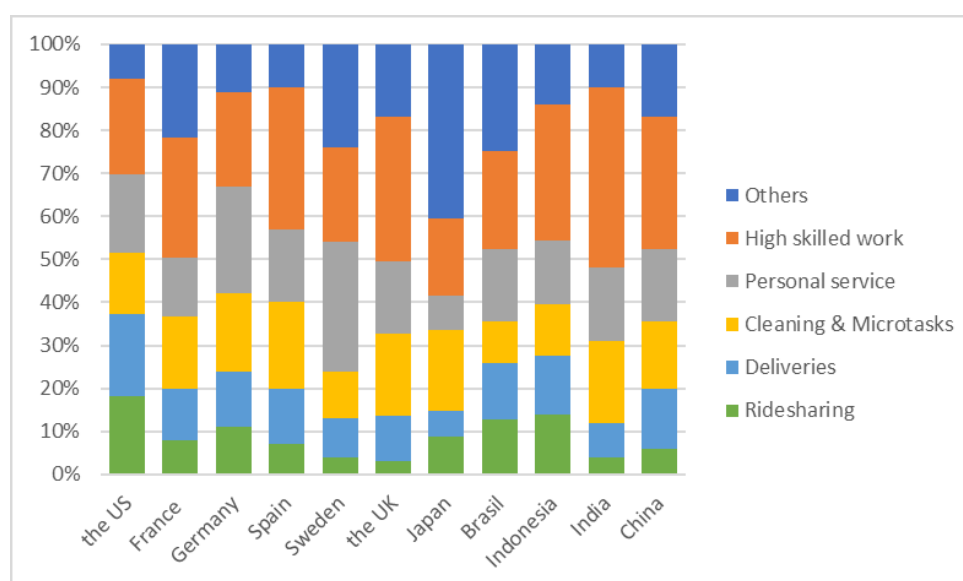
Source: China Sharing Economy Development Report, 2021. Available at <http://www.sic.gov.cn/News/557/10779.htm>

2.1.3 Low-skilled workers predominate in location-based platforms

Compared to international society, China's on-demand work through platforms are more developed and therefore employ a higher proportion of low-skilled platform workers. According to data from the Boston Consulting Group Global Survey 2018, the proportion of workers employed by location-based platforms such as China's online car, food delivery industry and everyday life services accounts for around 36 per cent of the overall platform workforce, which is higher than not only developed economies such as Japan and Sweden, but also BRICS countries such as India and Brazil.

► **Figure 2 Number of workers in NFE in China (2015-2020)**

Source: China Sharing Economy Development Report, 2021. Available at <http://www.sic.gov.cn/News/557/10779.htm>

► **Figure 3 Types of platform work by country**

Source: Boston Consulting Group, Future of Work Survey, 2018. Available at <https://www.bcg.com/publications/2019/new-free-lancers-tapping-talent-gig-economy>

2.1.4 New types of NFE further emerge during the Covid-19 pandemic

The outbreak of the Covid-19 pandemic and its requirements of prevention and control forced some offline consumption to move online, further increasing the consumer demand for platform services such as takeaway delivery and fresh food delivery. In addition, slow-growing platform economy sectors such as healthcare platforms, online education and online live streaming also began to flourish in the post-epidemic era. This has facilitated an influx of more workers from traditional industries affected by the epidemic into the platform economy, somewhat alleviating the pressure of unemployment and playing the role as an employment reservoir. According to the riders' employment report of Meituan, a famous online-delivery digital platform in China, the number of newly registered riders who delivered at least one order on the Meituan platform

reached 336,000 for 2019 and 2020 during the COVID-19, which accounts for about 8.4% of the total number of riders earning income through Meituan in 2019 (3.987 million).²³

In the past several years, the location-based gig work on the platform which was widely used mainly in the online car and food delivery industries, is expanding to other industries as China's platform economy sector expands.²⁴ Prosumers such as web hosts and the digital culture industry have now become new areas that provide significant job opportunities. These new types of work have been supported by the government. Since April 2019, the China Occupation Dictionary was revised several times and 158 new occupations were added, including new occupations closely related to digital platforms such as livestream salespersons.²⁵

2.2 The development of different types of NFE in China

2.2.1 Location-based gig work

The industries involved in location-based platform work in China mainly include e-hailing, take-away delivery, in-town instant parcel delivery and housekeeping. Although they all belong to the same subtype of NFE, there are other business models used in the different types of industries. For example, e-hailing drivers, either join the platform with their own private cars to reach cooperation, or lease vehicles provided by the platform. Typical companies include Didi, Dida Chuxing, Huaxiaozhu Hailing, Shouqi Hailing, CaoCao Arrive, and Shenzhou Hailing, etc. For take-away riders, the current employment forms include escrow agents, crowdsourcing and merchant self-support (Gig Economic Research Centre, 2022). Typical companies include Meituan, Ele.me, and Freshippo. Some of the couriers responsible for delivering parcels serve multiple express platforms through the app at the same time, which should also be included in the category of location-based platform work, such as courier companies like Shunfeng, Yuantong, Shentong, Yunda, ZTO Express and Meituan Errands. The housekeeping and cleaning service industry has also been closely linked with the Internet in recent years, and service workers who obtain jobs through online platforms also belong to this type of NFE, with representative enterprises such as E-Home Cleaning and Auntie Help (Gig Economic Research Center, 2022).

► **Table 3 Representative firms of location-based gig work in different industries**

Different industries of location-based gig work	Representative firms
E-hailing	Didi, Dida Chuxing, Huaxiaozhu Hailing, Shouqi Hailing, CaoCao Arrive, Shenzhou Hailing
Takeaway delivery	Meituan, Ele.me, Freshippo
Expressage	Shunfeng, Yuantong, Shentong, Yunda, ZTO Express, Meituan Errands
Housekeeping & Cleaning	E-Home Cleaning, Auntie Help

Scale

In terms of scale, location-based platform work has the most numerous workforce among new employment forms in China and is growing rapidly. In particular, it has absorbed a large number of unemployed people since the Covid-19 pandemic. Compared with other developed economies,

²³ Meituan Research Institute, 2022. Available at: <https://about.meituan.com/research/report?typeCodeOne=5>

²⁴ Chen, Long. *Labour Order Under "Digital Control": A Study of Labour Control of Take-away Riders*. Sociological Research, 2020, 35(6): 113-135, 244.

²⁵ 158 New Occupations Have Been Added to The New Edition of The China Occupational Dictionary http://www.gov.cn/xinwen/2022-09/28/content_5713475.htm. Also see: http://www.mohrss.gov.cn/SYrlzyhshbzb/zwgk/gggs/tg/202005/t20200511_368176.html

location-based platform work in China is by no means a marginal and niche employment phenomenon, but a huge and important component embedded in the daily operation of society, an irreplaceable force in the service sector that completes the "last mile" execution, and therefore it has received most attention from both the society and the government.

In the case of the e-hailing industry, for example, although there is a lack of official statistics, the rapid growth of the industry can still be seen in data from different sources. In June 2020, the CEO of China's largest e-hailing company, Didi, said it is one of the world's largest flexible employment platforms, with about 11.66 million active drivers serving on it²⁶; according to the data published by the Information Interactive Platform for the Supervision of Car-hailing Service as of 31 January, 2023 a total of 300 e-hailing platform companies nationwide had obtained operating permit licenses, meanwhile a total of 5.112 million e-hailing driver licenses and 2.166 million vehicle transport licenses had been issued across the country, increasing 0.4 per cent and 2.3 per cent, respectively, from the previous year.²⁷

In terms of the takeaway delivery industry, the size of the rider workforce has also grown rapidly and has become an important 'reservoir' of employment during the pandemic. The total number of riders who earned revenue through the Meituan platform reached 3.987 million in 2019, up 23.3 per cent from 2018; in the first half of 2020, the number of newly registered riders on the Meituan platform reached 1.386 million. (Meituan Research Institute, 2020). The Ele.me platform has around three million riders on its roster and has absorbed "tens of thousands" of workers as newly registered riders since the 2019 pandemic outbreak (Ali Research Institute, 2020). In addition, the National Ministry of Human Resources and Social Security estimates that the market demand for online delivery workers may reach 30 million in the next five years.

Worker Profile

In terms of gender, the most typical location-based platform works in China are two labour-intensive industries, transportation and deliveries, which are predominantly physically demanding, and in which a large proportion of the workers are male. Data shows that 93.3 per cent of takeaway riders are male, while 92.6 per cent of e-hailing drivers are male (Meituan Research Institute, 2020; China NFE Development Report on E-hailing Platforms, 2019). However, housecleaning service workers differ from the above two groups in terms of gender characteristics. According to a survey conducted by the Gig Economic Research Center at the South China University of Technology, gig workers in domestic service are more evenly distributed in the gender ratio, and the proportion of female workers is slightly higher, accounting for about 52 per cent.

In terms of age group distribution, most location-based platform workers are young people. For example, 83.7 per cent of takeaway riders are in the 20-40 age group (Meituan Research Institute, 2020); 70 per cent of housecleaning workers are 35 years old or younger and 40 per cent are 25 years old or younger (Gig Economic Research Center, 2022); the post-80s are the main participants among e-hailing drivers, accounting for about 47 per cent, followed by 24.4 per cent for the post-70s (China NFE Development Report on E-hailing Platforms, 2019); the all-platform data of CaoCao Arrive shows that 59.22 per cent of drivers are in the 31-45 age group (CaoCao Arrive Big Data Institute, 2020).

In terms of education distribution, due to the low entry threshold and the low requirements for academic background and skills, most location-based platform workers are not highly educated. For example, the proportion of having a high school education or below is more than 82 per cent for riders (Meituan Research Institute, 2020), 69.54 per cent for e-hailing drivers (CaoCao Arrive Big Data Research Institute, 2020), and 46 per cent for housecleaning workers (Gig Economy

²⁶ <https://www.huxiu.com/article/410482.html>

²⁷ Which is constructed by China Transportation & Telecommunication Information Centre (CTTIC). https://www.mot.gov.cn/fenxigongbao/yunlifexi/202302/t20230216_3758411.html

Research Centre, 2022). However, a certain proportion of location-based platform workers have received higher education: about 11.7 per cent of e-hailing drivers have a bachelor's degree or above (China NFE Development Report on E-hailing Platforms, 2019), and 14 per cent of house-cleaning workers have a bachelor's degree or above (Gig Economy Research Center, 2022), with a wide range of education levels within the group. It is speculated that this kind of worker is subordinate to location-based platform work in a part-time mode and should have another more stable job in their lives. It also reflects the fact that the gig economy does provide more opportunities for some highly educated people to earn extra money.

In addition, due to the nature of flexible arrangements, the location-based platform work plays the role of a job reservoir, absorbing labourers with employment difficulties, and has even become the main way for many people in poor rural areas to gain employment when moving to the city. For example, 257,000 of the takeaway riders employed on the Meituan platform were from the poverty population in 2019, accounting for 6.4 per cent of the total number of riders. After getting a job, 253,000 of them have now been lifted out of poverty, the proportion of which is about 98.4 per cent. Besides, nearly 80,000 of the newly registered riders on the Meituan platform in the first half year of 2020 came from poor households. Furthermore, the location-based platform work has also absorbed a large amount of redundant labour from secondary and tertiary industries, providing transition and livelihood opportunities for groups that are temporarily unemployed or tired of factory work (Meituan Research Institute, 2020).

Finally, in terms of motivation, substantial income, highly flexible working arrangements, low barriers to entry and temporary transitions are the most important reasons why location-based platform workers choose to take up the job. For example, nearly half of the e-hailing drivers consider the job an effective way to earn extra income and highly approve of its flexible schedule mode; meanwhile, nearly 20 per cent of drivers consider it a low-threshold employment opportunity and regard it as a temporary employment transition (China NFE Development Report on E-hailing Platforms, 2019). For takeaway riders, nearly 46 per cent of riders choose the job due to the flexibility of working hours and freedom of schedule, while 38 per cent choose to become riders due to economic factors, believing that rider jobs have guaranteed income without wage arrears, and can offer considerable money in quick speed to meet urgent financial needs (Meituan Research Institute, 2018).

2.2.2 Online micro-task crowdsourcing

Currently, the main types of microtasks in China include click farming, transcribing information, filling out questionnaires, and training artificial intelligence. As China has not yet incubated crowdsourcing labour platforms that are relatively comprehensive and highly integrated in terms of work task types (like Amazon Mechanical Turk, Clickworker or Microworkers.com), at this time online micro-tasks in China are mostly published by diversified small platforms, showing the characteristic of non-centralized channels.

In this context, click farming refers to the intentional act of creating net-flow by visiting specific websites, watching specific videos, or following specific users as the published requirement raised by the labour demander; information transcription refers to the transcription of different types of non-digital information (e.g. audio recordings, road signs, checkout slips, etc.) into editable digital information; questionnaire completion refers to labourers who meet the needs of sample screening filling questionnaires to help the demander complete market research or academic surveys. These three types of tasks are mainly released through freelance crowdsourcing online platforms such as ZBJ and Time & Fortune in a sporadic, episodic pace, without forming a dedicated labour platform.

Among those subtypes of micro-task crowdsourcing, specialized platforms for training artificial intelligence are well-developed in China. Workers are responsible for performing tasks such as collecting raw data, annotating and coding data to help the AI learn new algorithms, providing

support to the development of the core products and businesses of large internet companies. Depending on the core business of the internet company being served, there are significant differences in the types of tasks posted by different crowdsourcing platforms. Details can be found in table 3 below.

► **Table 4 Types of tasks on artificial intelligence (AI) training platforms**

Representative companies	Posting task types
Youdao Crowdsourcing (zb. youdao. com)	Focusing on the training of screenshot recognition and speech translation function of the Youdao e-dictionary. Tasks posted include transcription, error correction, semantic segmentation, framing and annotation of handwritten text, images or short English audio, etc.
Jingdong Microworker (weigong. jd. com)	Serving the business of the Jingdong shopping platform. Crowdsourced workers are required to make sentiment judgements on consumer reviews and feedback on e-commerce platforms, selecting whether the text is positive, neutral or negative based on their own perceptions, marking user claims, as well as framing, categorizing and annotating similarities between product images.
Baidu Crowd Test (test. baidu. com)	Serving the search engine and map navigation businesses of Baidu. The tasks involved LBS panoramic image collection, speech and corpus material collection, text and multimedia annotation, product experience and filling in user behavior research.

Source: The official websites of these micro-task crowdsourcing platforms.

In addition, there also exist relatively independent small micro-task crowdsourcing platforms, such as Mbh.AI (www.mbh.ai) and Longmaosoft (www.longmaosoft.com), on which workers can search for micro-tasks in data collection and labelling.²⁸ Some platforms, such as Testin Cloud, have formed data factories with the ability to control the whole process of data collection and labelling, and workers can register as members of the crowdsourcing platform to provide remote testing and artificial intelligence (AI) training services for enterprises and developers under the leadership of the platform.²⁹

Scale

Due to the short-term nature of tasks and the high mobility of the workforce, there are no authoritative statistics on the size of the workforce involved in micro-task crowdsourcing, but rough estimates suggest that the number of participants reaches tens of millions. The following is a summary of the workforce size revealed by relevant crowdsourcing platforms on their official websites or in media interviews.

²⁸ The tasks can cover a wide range of areas such as autonomous driving, computer vision, intelligent speech, natural language understanding, and face recognition, etc.

²⁹ Huxiu Feature Report. AI migrant workers: ByteDance has more than 40,000 data taggers in Tianjin and other places. 2020. Available at: <https://finance.sina.com.cn/chanjing/gsnews/2020-03-12/doc-iimxyqvz9766534.shtml>

► Table 5 Workforce of typical micro-task platforms

Representative companies	Workforce size
Baidu crowd testing	"...provided a large number of product testing, user recruitment and questionnaire research services for various Baidu product lines, with about two million users participating in experiencing various Baidu products...accumulated nearly five million pieces of feedback on bugs and suggestions, and collected 1.2 million research questionnaires." "The crowdsourcing platform has recruited a large number of professional data annotators, with over 5,000 annotators online every day to complete all kinds of basic tasks or data annotation work with certain professional requirements. Up to now, a total of 500 million images and 80 million pieces of text-based data have been annotated." "...has trained nearly 2,000 active data collectors in more than 300 major cities across China, and has collected hundreds of thousands of real data for Baidu's various product lines, including more than 120,000 pieces of voice and video data and nearly 10,000 LBS panoramic photos."¹
Jingdong microworker	"The Jingdong big data microworker intelligent labelling platform will open 30,000 home-based jobs for poverty alleviation...to carry out auxiliary work such as picture taking, page design and data processing. Poor households participating in the Jingdong microworker program can earn a guaranteed salary of 2,500-3,000 RMB, with a maximum monthly income of nearly 10,000 RMB. At present, Jingdong microworkers are located in several places like Yinchuan, Ningxia; Zhangye, Gansu; Guilin, Guangxi; and Pu'an, Guizhou."²
Mbh.AI	"There are more than 300,000 such teams on the data crowdsourcing platform Mbh.AI. They are all registered companies with an average of 20-25 data annotators, like "small data factories" distributed in Guizhou, Henan and Shanxi. According to estimates by Wang Jinqiao, a researcher at the Institute of Automation, the Chinese Academy of Sciences, the number of people engaged in this kind of work has reached ten million nationwide."³

¹ See Baidu Crowd Testing official website, 2018. Available at: <https://test.baidu.com/business01.html>

² Chinatopbrands.net. Jingdong provided 70,000 jobs to poor areas to fully participate in the "Digital Platform Economy Promoting Employment and Poverty Alleviation Campaign," 2020. Available at: <http://www.chinatopbrands.com.cn/s/1450-5125-17750.html>

³ Huxiu Feature Report, AI migrant workers: ByteDance has more than 40,000 data taggers in Tianjin and other places. 2020. Available at: <https://finance.sina.com.cn/chanjing/gsnews/2020-03-12/doc-iimxyqvz9766534.shtml>

Worker profile

In terms of gender ratio, women account for a higher proportion in micro-task crowdsourcing work. The China Flexible Workforce Development Report (2022) survey shows that there is a large concentration of women in positions such as content auditing and data tagging, with around 46.15 per cent of companies indicating that there are more female flexible workers in such positions, and the report suspected that the main reason for such gender distribution is the society's construction of women's meticulous and patient gender roles coincide with the requirements of such positions.

In terms of age distribution and marriage status, micro-task crowdsourcing workers are a younger group, with 92.31 per cent of enterprises indicating that the age of workers in these positions is mainly in the "30 years old and below" range, and 65.38 per cent of enterprises have unmarried workers in these positions (Yang et.al., 2022).

In terms of education, 76.92 per cent of companies report that the education level of workers in this category is concentrated in junior college and vocational college, with limited professional knowledge levels and relatively weak bargaining power in the labour market (Yang et.al., 2022). This distribution of education reflects the fact that most micro-tasks do not require a high level of skills, for example, most data labeling jobs can be mastered with only simple training, and only a few require professional background and foreign language skills.

Sample interviews from the media survey came to similar conclusions, namely that micro-task crowdsourcing practitioners, especially AI trainers responsible for data tagging, are mostly poorly educated and located in poor counties with a lot of free time, and it is common for full-time housewives raising children can work part-time in this position. It is worth noting that there is a trend towards opening small workshops of part-time crowdsourcing workers. In such a team, they can get more task packages based on acquaintance networking and word-of-mouth accumulation, compared with completely dispersed individual workers. However, the turnover rate within such teams also remains high.³⁰

In terms of motivation, economic factors play an important role in micro-task crowdsourcing workers' career decisions, with around 27.4 per cent of them working for extra income, and 15.7 per cent working to earn the tuition.³¹ The remote, home-based nature of micro-tasking is also a key attraction for workers, with around 15.3 per cent of workers choosing the job because they prefer to work from home or they are restricted to working from home. In addition, a total of 39 per cent of workers took up micro-tasking for gaining leisure and enjoyment from the process.

2.2.3 Prosumer work

Prosumer work has grown rapidly in China, with typical categories including online anchors, bloggers and web writers. The different types of prosumers vary greatly in their working models, content produced and ways of earning income, as well as the representative platforms they rely on.

Online anchors, or broadcasters, refer to a person who participates in the tasks of planning, editing, recording, production, and audience interaction in a live Internet program, and is responsible for hosting the show. Anchors can be categorized by content as live entertainment, game commentary, talent shows, outdoor adventures, and merchandising (Gig Economy Research Centre, 2022). Real-time online interaction with consumers is the most prominent and distinctive feature of this work. The main source of income for entertainment anchors who mainly share their talents, games and daily lives is the page view and gifts from their fans. Those who have stable popularity, committed fan groups and can maintain relatively fixed broadcasting hours will get the opportunity to sign up with the platform and become professional full-time anchors, and the platform will pay them a base salary. Another type of anchor is closely connected with e-commerce, and their income mainly comes from commission sharing. These kinds of workers can be commonly found in Taobao live streaming and Tik-Tok agricultural products promotion, and most of them have personal studios or are attached to a third-party media company/agency/guild to cooperate with merchants or manufacturers. There are also some self-employed independent anchors who are also online shop owners and bring their own products to the platform mall. In China, representative platform companies include Huya Live, Douyu Live, Tik-Tok, Kuaishou, CC Live and Huajiao Live.

Bloggers or vloggers/KOLs/influencers, on the other hand, mainly produce non-real time content, then update and post it on the platform at a certain frequency.³² The form of the posted content mainly includes themed videos and articles, while the content covers a wide range of diverse topics such as the popularization of science knowledge, life sharing, art works and current affairs commentary, which usually possess a certain degree of professionalism or entertainment and require a high degree of creativity and talent from the workers. In terms of revenue, bloggers mainly earn income through advertising, e-commerce, paid/rewarded content, and platform subsidies, with some bloggers signing up with multi-channel networks (MCNs) to gain access to

³⁰ Hedgehog Commune Feature Report. I trained AI for a giant Internet company: Draw a box region with the mouse and earn 0.03 RMB a time, 2021. Available at: <https://mp.weixin.qq.com/s/VkJEmMgghKIPn5LiB1z23w>

³¹ A total of 815 workers engaged in micro-tasks such as information transcription and questionnaire completion were selected from the original sample for analysis in this report. ILO. *Survey of Online Digital Platforms in China*, 2019.

³² Sometimes the identities of anchors and bloggers can co-exist, as in the case of Bilibili, where a large number of game content bloggers are also anchors.

more marketability channels, brand resources, team support and operational assistance. These kinds of representative platform enterprises in China include Weibo, and Xiaohongshu, etc.

Web writers are those who create literary works on the platform. Popular writers whose works have a stable volume of subscriptions and interactive comments are given the opportunity to sign up with the platform. Sources of income for this group include full attendance bonuses, related subsidies or rewards set by the platform, remuneration based on the number of words and subscriptions after signing up, remuneration for publishing novels and copyright fees for film and TV adaptations, etc. Representative platforms include Jinjiang Literary City (jjwxc.net) and Qidian.com.

Scale

The number of workers in the above three categories is already over ten million people, making them the largest group of workers in China's NFE, and it is still maintaining a high growth rate. For example, in terms of the anchor group, as of December 2021, there were nearly 140 million anchor accounts in China's online performance (live) industry, with about 100 million active accounts, of which 10.534 million accounts broadcasted more than 15 hours per month with 8.26 million new accounts being registered from January to June 2022 alone (China Performance Industry Association, 2022).³³ For the blogger community, according to Ad Master's 2020 KOL Marketing Trends White Paper data, the number of active bloggers/KOLs on eight domestic mainstream social platforms in the first half of 2019 had already exceeded ten million. For the web writers, the number of Chinese online literature authors reached 19.36 million in 2019, and the number of contracted authors reached 770,000 (China Audio-video and Digital Publishing Association, 2019); and it is still growing at a high rate every year: more than 1.5 million new registered authors and 130,000 new contracted authors were added to 45 major online literature websites nationwide in 2021 (Online Literature Centre of China Writers' Association, 2021). In addition, representative companies of various genres of prosumer work have also disclosed the number of people working on their platforms in their respective annual reports or media surveys, as detailed in the following table.

► **Table 6 Workforce size of typical prosumer platforms**

Representative companies	Workforce size
Tik-Tok	"Data measurement from August 2019 to August 2020 shows that a total of 20.97 million people earn income directly through the Tik-Tok platform by engaging in creation, live streaming and e-commerce; in addition, MCNs and guilds promote employment of about six million people, and live streaming teams employ about 8.64 million people." (National Academy of Development and Strategy, RUC, 2020).
Kuaishou	"Every year, more than 20 million content creators earn income and achieve direct employment in Kuaishou; in addition, the e-commerce ecology formed around the platform has led to about 9.23 million new jobs, and the content ecology has created about 5.4 million positions in broadcast studio, MCN agencies, live streaming guilds, commercial agents, service providers and other affiliates." (School of Labour and Human Resources, RUC 2022) .
Huya Live	"As of December 31, 2021, Huya had partnered with over 2,300 talent agencies and managed over 563,000 anchors on its platform." ¹ (Huya's Annual Report, 2021).

³³ Refers to anchors having been on webcast for at least once within a year.

Representative companies	Workforce size
Bilibili	"In Q4 2021, average monthly active content creators reached 3 million and average monthly video submission volume exceeded 10 million Average monthly active content creator grew 61% year-on-year." (Bilibili Annual Report, 2021). "As of December 31, 2021, approximately 550,000 content creators participated in the Cash Rewards program." (Bilibili Annual Report, 2021)
Weibo	"As of August 2020, the scale of top content authors on Weibo with a fan size greater than 20,000 or a monthly reading volume greater than 100,000 exceeded one million, with a year-on-year increase of 25 per cent; the scale of famous bloggers with a fan size greater than 500,000 or a monthly reading volume greater than ten million approached 80,000, an increase of 30 per cent year-on-year. Weibo KOL advertising endorsements will cover 300,000 content authors, with a money flow of 2.22 billion RMB, increased 150 per cent year-on-year. At present, Weibo V+ member content payment business has covered 8,000 content authors, with revenue flow approaching 300 million RMB, a 62 per cent year-on-year increase. In terms of e-commerce, more than 500,000 content authors have now opened Weibo mini-shops, and the Institute expects the profit conversion efficiency of e-commerce content to increase by 30 per cent within the year." (This data was announced by Cao Zenghui, Senior Vice President of Weibo, on the 2020 Weibo Super Celebrity Festival)
Xiaohongshu	"In terms of total numbers, there are over 600,000 bloggers with 1,000-50,000 followers, nearly 160,000 bloggers with 5,000-50,000 fans, and about 20,000 KOLs with more than 50,000 followers, including about 3,000 Top KOLs with more than 300,000 followers."²

¹ Self-employed anchors are not counted.

² Rocket Data, 2021.

Worker profile

The gender ratio of different types of broadcasters is different. For example, in the field of live gaming or sports commentary, the proportion of male anchors is slightly higher than that of female anchors; while in the field of life style sharing, product recommendations, beauty and fashion, and talent performance, the proportion of female anchors is higher, for example, the number of female anchors in Kuaishou accounts for 71.5 per cent; the gender proportion of female anchors in Taobao is 68.3 per cent, and the proportion of female anchors on Tik-Tok is 57.5 per cent.³⁴ The proportion of male creators in the blogger group is higher, accounting for about 61 per cent (Bilibili Uploader Ecosystem Report, 2021). Among web writers, the number of female authors is rising rapidly, surpassing male authors in overall numbers (China Audio-video and Digital Publishing Association, 2019).

In terms of age distribution, the prosumer group as a whole is characterized by a younger-age trend, with broadcasters and bloggers mainly in the 24-30 age group, accounting for 35 per cent and 71 per cent of the total number of content creators in this category respectively (National Academy of Development and Strategy, RUC, 2020; Bilibili Uploader Ecosystem Report, 2021) while Generation Z is gradually becoming the main creative force in the new generation of on-line writers. The proportion of post-90s young authors is 44.6 per cent (China Audio-video and Digital Publishing Association, 2019), and for newly registered web writers in 2021, the proportion of post-95s reached 80 per cent.³⁵

³⁴ Foresight Industry Research Institute. *Analysis of Market Status and Competitive Pattern of China's Live Streaming E-Commerce Industry in 2021: The Development Gap of Anchors on Different Platforms Appears*, 2020. Available at: <https://www.qianzhan.com/analyst/detail/220/210625-748acc31.html>

³⁵ Yuewen Platform. *Portraits of Online Literature Writers*, 2021. Available at: <https://mp.weixin.qq.com/s/Zi5vIJCizksyS9H6LIHD9Q>

The distribution of educational degrees in the prosumer group is diverse, and there are slight differences between different subtypes of prosumers because some content creation carried out by bloggers involves professional knowledge or skills, and engaging in online writing also requires a higher level of knowledge and literacy attainment, the proportion of workers with a higher education of bachelor's degree or above is greater among bloggers and online writers compared with anchors. For example, 31.3 per cent of online anchors have only a secondary school education or less, and full-time anchors have a higher rate of high school education than those in the part-time category (Gig Economy Research Centre, 2022); web writers' education level is mainly concentrated in undergraduate and junior college, and more than 75 per cent of top authors of high popularity had gained an university education or above (China Audio-video and Digital Publishing Association, 2019; Yuewen Platform, 2021).

In terms of geographic distribution, the prosumer group is mainly concentrated in third-tier cities and above. In the case of network anchors, for example, 21 per cent of workers live in new tier 1 cities, followed by 20 per cent respectively in tier 2 and tier 3 cities (National Institute of Development and Strategy, Renmin University of China, 2020); only about 30 per cent of anchors come from rural areas (China Performance Industry Association, 2022). In particular, for anchors in the subdivision of e-commerce broadcasting, metropolitan like Guangzhou, Shenzhen, Beijing, Shanghai and new first-tier cities, such as Hangzhou, and Chengdu, are the most desirable destinations to seek jobs and are also the cities with the largest recruitment demand from platform enterprises. These cities basically constitute the dominant groups of "commercial broadcasting economy", and have a good resource foundation as the ecosystem consists of e-commerce platforms, MCN organizations, short video platform companies and commodity supply chains (Boss Zhipin, 2020). In terms of the geographical distribution of the bloggers' base, the five provinces with the fastest participant growth rate are mainly in the central region of China, namely Henan, Shanxi, Hunan, Jiangxi and Yunnan (Bilibili Uploader Ecosystem Report, 2021). Online writers are also geographically gathered at new emerging big cities (China Audio-Video and Digital Publishing Association, 2019).

For motivation, 66.28 per cent of full-time anchors choose to work in this profession because of the flexibility of their working hours and locations; in addition, low barriers to entry (55.04 per cent), simple interpersonal relationships (38.04 per cent) and opportunities to be exposed to new things (36.02 per cent) also account for a high proportion of the career motivations for anchors (Gig Economy Research Centre, 2022).

Generally speaking, the prosumer group is dominated by the creative and entrepreneurial urban 'Generation Z', which presents a young, diverse and energetic portrait of the workforce.

2.2.4 Platform outsourcing to individuals

Platform outsourcing to individuals (POI) as a new type of flexible employment is becoming widely used by China's platform companies including instant delivery, logistics and transportation, new retail, online e-commerce, live streaming, culture and media, education and training, knowledge payment, cleaning and housekeeping, etc., covering an extremely wide and diverse range of industries.

The motivations for enterprises to use POI are diverse: reducing employment costs (49.66 per cent), alleviating pressure on self-recruitment (30.26 per cent), short-term projects or seasonal employment demands (28.75 per cent), business changes or uncertainties (27.92 per cent), authorized position and payroll restrictions (17.88 per cent), risk avoidance of policies and regulations (9.63 per cent), and establishing a talent pool for selection (7.84 per cent) are all important reasons for enterprises to adopt it (Yang et.al., 2022).

Scale

In terms of the scale of the POI workforce, due to the complicated varieties of industries involved and the high rate of labour mobility, there is a lack of authoritative statistics on the scale of this group at the government level, but much of the survey data of different resources show that the scale of this group has reached approximately ten million people. For example, according to the survey of the Flexible Employment Research Group of Renmin University of China, it is estimated that the number of flexible workers in China has reached 98.674 million up to now; among them, in 2020, the adoption of new flexible employment (business projects and occupational positions outsourcing to individuals) accounted for 34 per cent of China's human resources outsourcing service structure. In addition, through the comparison of the increased rate of self-employed urban workers' registration in recent years, the group estimated that the total number of individual outsourcing workers registered in bulk after the emergence of the tax-advantaged platform for flexible employment in 2018 and 2019 would be about 6.9 million. Another instance lies in takeaway riders: an incomplete survey conducted by Beijing Zhicheng Migrant Workers' Legal Aid and Research Centre in 2021 showed that there were approximately 1.607 million takeaway riders were registered as contractors on the flexible employment platforms in Liaoning, Jiangsu, Zhejiang, Fujian, Jiangxi, Shandong, Guizhou and Guangxi alone. Finally, the data on the size of the workforce disclosed by some representative third-party human resources (HR) service platforms under the POI model, are detailed in the table below.

► **Table 7 Workforce size of typical outsourcing platforms to individuals**

Representative companies	Workforce size
Haohuo Network Technology Co.	"The platform has now served a wide range of more than 40 scenarios, including instant delivery, new retail, community group buying, logistics and transportation, lifestyle services, and on-line e-commerce." (China Sharing Economy Development Report, 2021) "To date, Haohuo Cloud has built and operated six digital economy industrial parks across China, serving nearly 4,000+ platform companies and providing comprehensive employment services to over a million workers." (China Sharing Economy Development Report, 2022).
Zcent Technology Ltd (Beijing)	"Our business covers many industries such as internet, sharing economy, logistics and delivery, catering, education, knowledge payment, live streaming, new retail, cultural media, etc.... has a number of branches across the country, and up to now, has provided human resources and other related services to over 1,500 enterprises and a total of five million workers." (Zcent Technology website, 2022).
Quhuo Technology Ltd (Beijing)	"Our services cover a number of scenarios such as instant delivery of takeaways, e-hailing driver management, housekeeping, and the operation and maintenance of shared bicycles. By the end of 2020, the average number of active workers on the Quhuo platform was about 54,500 per month, of which 48,900 were takeaway delivery riders...there are over 1,000 full-time on-line taxi drivers." (Quhuo Technology Annual Report, 2020).

Worker profile

In terms of worker profiles, as most individual platform outsourcing employment forms are the result of other new forms of employment such as location-based platform jobs being further reshaped and iterated by platform companies, POI workers have greater similarity and overlap with location-based platform workers, micro-task crowdsourcing workers and prosumers, which has been discussed in detail above.

► Box 2: case study: Quhuo Technology company

Founded in 2012, Quhuo Technology Inc. is a multi-scenario human resources operation solution platform focused on China's service industry. With the Quhuo+ digital platform as its core, the company provides flexible employment solutions for large lifestyle service platforms including Meituan, Ele.me, Didi and Freshippo. It helps corporate clients mobilise huge labour resources and uses a combination of training, performance monitoring and compensation incentives to transform scattered workers into skilled workers who can follow industry-specific standardised and efficient service procedures.

Currently, the services provided by Quhuo Technology include instant delivery of takeaways, online taxi driver management, cleaning and housekeeping, and shared bicycle operation and maintenance, with a business scope covering 111 cities across China, managing an average of about 1.3 million orders per day and a workforce pool of over 100,000. (Quhuo Technology website, 2020; Quhuo Technology annual report, 2020). In terms of the business model, the platform establishes a purely commercial partnership with the workers, outsourcing the business needs of the partner companies to each individual worker. Each worker registered on the Quhuo platform is automatically registered as a self-employed contractor and is matched with jobs by the platform. The platform provides workers with certain online skills training and resources for learning and upgrading, as well as financial services for starting their own business, and pays workers monthly for their services through another third-party labour agent company. The platform is seen as providing flexible labour solutions to partner companies, for which it receives a fee. It is worth noting that Quhuo uses the platform to monitor the workload and performance of workers in real time and analyze their labour performance data, thus enabling dynamic management of individuals. Compared to traditional labour dispatch and labour outsourcing, the Quhuo model further avoids the risk of employment and reduces the cost burden for enterprises by registering workers as self-employed contractors; compared to the pure crowdsourcing model, the Quhuo model effectively avoids the difficulty of recruiting workers under high mobility through a centralized labour pool and platform monitoring, and improves the problems of terminal management and payroll distribution. For workers who become legally self-employed, they can participate in freelancer insurance or social insurance as independent contractors, but surveys show that their willingness to pay for such insurance is generally low, and they are more likely to buy commercial insurance, the fee rates of which are much lower, to provide themselves protection against potential occupational injuries. As the income they may receive when not paying social security is higher, many workers choose this career path, which is characterised by a lack of labour protection and higher risks, for economic reasons.

► 3 Labour protections for NFE in China

The challenges posed by the new form of employment include the difficulty of identifying the employment status of platform workers, the deterioration of the working conditions, the inadequate coverage of social security, especially the insurance against work-related injuries, and the insufficient collective representation of platform workers. The problems faced by China and other countries in the world are similar, and the most controversial issues in the society also include the rationality and transparency of the algorithm and the government supervision besides those above.

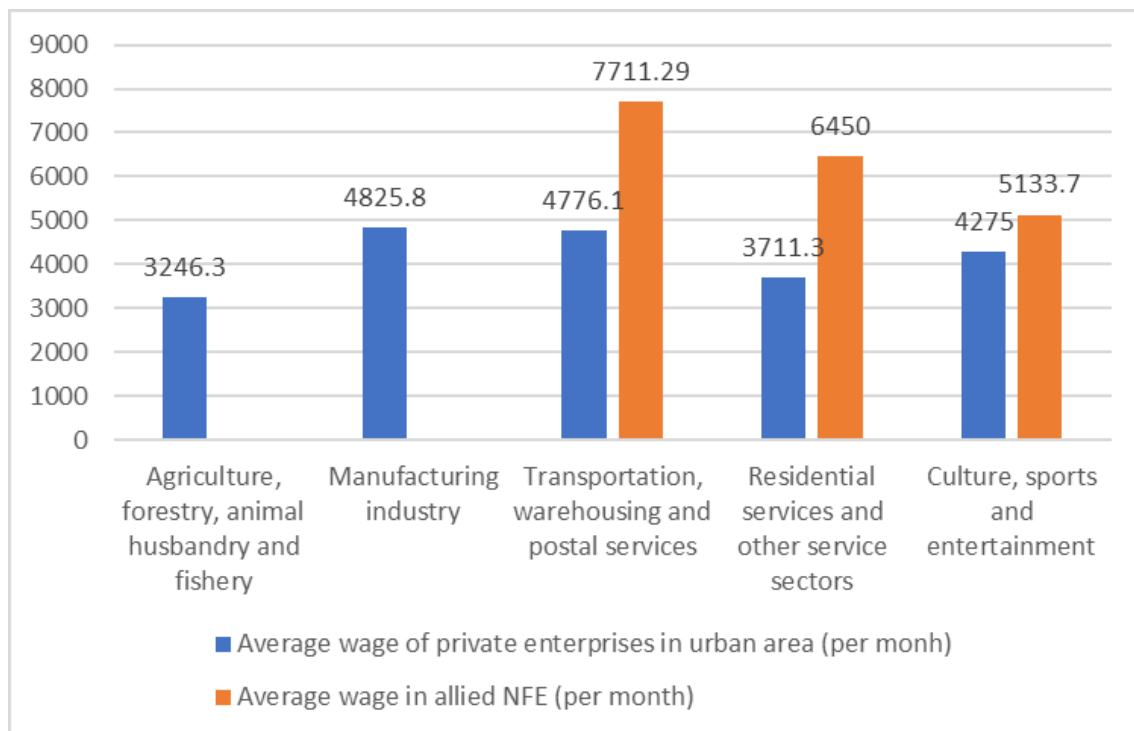
3.1 Status quo of labour protections

3.1.1 Relative high average incomes and large internal differentiation due to weak bargaining power

In terms of average income, workers in the new forms of employment earned more than those in manufacturing and similar traditional services (see Figure 4). Taking location-based platform workers as an example, after deducting various types of rent, fuel costs and platform commission, the average monthly income of online taxi drivers is 7,711.29 RMB which is significantly higher than the average monthly wage of transport workers in the urban private units; the average monthly income of full-time delivery riders is about 6,450 RMB, which is also distinctly higher than the average salary of normal residential services practitioners. The average monthly income of prosumers, taking online writers and anchors for instance, was 5,133.7 RMB and 11,220 RMB respectively, both exceeding the average wage level in the culture and entertainment industries.³⁶ In addition, the average monthly income of all types of new employment forms is obviously higher than the average wage of manufacturing workers, which means that the income status of NFE is more considerable and attractive than that of factory workers/traditional service industry workers. The prosumer work even opens up a whole new track, providing a large number of low-barrier, high-potential jobs for groups with difficulties or narrow employment channels.

However, workers in all new forms of employment face the problem of large inner differences in income levels within groups. In the case of location-based platform work and micro-task crowdsourcing work, the pay system is mostly based on piece-rate wages, more work for more pay. Such a system not only makes workers' incomes lack bottom-line protection, but also forces them to work overtime intensely to maintain a decent income level. For example, 6.08 per cent of e-hailing drivers have a monthly income of less than 3,000 RMB, but there are also 10.19 per cent of the drivers earn 10,000 RMB or more per month, with a working time of 12-16 hours a day (Tsinghua Academy of Social Sciences, 2021). For prosumers, the popularity of the content they create and the size of their followers greatly affect the number of gratuities and the opportunities for commercial promotion contracts, resulting in a ragged intragroup distribution of income. For example, a survey conducted by the 'Boss Zhipin' platform in 2020 showed that there is a serious polarization of income in the live broadcast sector. The income of anchors from large MCN organizations significantly raises the average, but 71 per cent of anchors earn less than 10,000 RMB per month. Only those who contracted with platforms or affiliated with agencies receive a base salary, while individual prosumers with low popularity may even have no income. Overall, the income ceiling for prosumers is higher but the floor is also lower than other new employment types.

³⁶ See the Annex 2 for details of wage level data for each type of new employment forms.

► **Figure 4 Earning comparison between workers in NFE and traditional industries**

Source: Annual data from the National Bureau of Statistics of China.³⁷

In addition, new employment workers generally have less bargaining power to influence the average price of each task and the percentage of the platform's commissions. For location-based platform workers and micro-task crowdsourcing workers, they are often controlled by the unilateral pricing and payroll calculation systems dominated by the employment platform/franchisees/third-party outsourcing companies. For example, Wu et al. (2019) found that, e-hailing platforms use incentive-based pay systems to conduct economic control over workers, and manage online drivers' work efficiency with a basic unit price much lower than that of traditional taxis and a series of subsidies and bonuses for taking orders during peak hours. Besides, this group also has difficulties in countering unreasonable commission rates set by platforms. In the Didi platform case, its opaque commission mechanism and the excessive percentage have caused great dissatisfaction among e-hailing drivers, but they can only resist by completely changing the service platform (Tsinghua Academy of Social Sciences, 2021). For prosumers, only famous anchors/bloggers/webwriters who have strongly committed fans may have an upper hand in the negotiation of remuneration. At present, collective organizations/unions based on industry or geography are not yet widespread among workers in new forms of employment, so the possibility of collective bargaining is minimal. As bargaining power affects the likelihood of a reasonable increase in future earnings and the fairness of income distribution, the disadvantageous position of workers in new employment forms in this regard will be a barrier to their income growth.

3.1.2 Exchange poor labour protection for higher incomes

The higher income levels of workers in the new forms of employment are accompanied by risks that cannot be ignored. Their work quality is generally low, the protection of basic labour rights is inadequate, and some workers, for economic reasons, have voluntarily exchanged low protection for relatively higher incomes.

³⁷ Available at: <https://data.stats.gov.cn/easyquery.htm?cn=C01>

Inadequate protection of basic labour rights and interests is firstly reflected in the low rate of signing labour contracts, which is prevalent among workers in various new employment forms, and has laid down hidden dangers for safeguarding rights under ambiguous employment relations. Taking location-based platform work as an example, according to data in the 2018 All-China Federation of Trade Unions's report "Research on the Labour and Economic Rights and Interests of Workers in New Industries, New Business Patterns and New Modes", the labour contract signing rate for three groups, including couriers, food delivery workers and e-hailing drivers, was only 43 per cent, much lower than the signing rate of enterprises nationwide (more than 90 per cent) in the same period released by the Ministry of Human Resources and Social Security. The percentage of those who had not signed any form of contract or agreement was 21 per cent.

In terms of working hours, the primary dilemma faced by workers in NFE is the lack of clear standards for the working hours system and norms for calculating working hours.³⁸ As the work characteristics of this group are difficult to fit into the framework of the existing working hours system, how to measure the working hours of this group has become a new challenge. For example, in order to obtain orders, workers sometimes need to spend a lot of time browsing and searching for information on the platform website, but these extra online hours are often not recorded by the platform as actual service hours. In addition, new employment workers generally work long hours without holidays, are not entitled to overtime allowances and have a disrupted day and night schedule. For location-based platform workers, the lower unit price and the mechanism of "more work for more pay" are the main incentives for this group to work overtime in exchange for income. Nearly 80 per cent of location-based platform workers actually work far more than eight hours per day, which is the maximum legal working hours stipulated by the standard working hours system, and are not compensated for overtime.³⁹ In addition, due to the special nature of the food delivery and transportation industries, weekends and holidays are peak times for customer consumption, therefore it is common for workers to work without rest on statutory holidays, and their right to rest and leave is not guaranteed. The same dilemma of long working hours is faced by prosumers, with anchors working 10-12 hours a day as a normal part of their lives (Boss Zhipin, 2020), and another more prominent problem with working hours is the inverted day and night schedule. In order to meet the time habits of an audience, most anchors have to adjust their working hours to late at night, and the unhealthy habits of staying up late and lacking exercise have become the daily routine of professional anchors (Gig Economy Research Centre, 2022).

3.1.3 Limited coverage of and access to various social insurance schemes

Workers in NFE generally have a low rate of participation in various types of social insurance and narrow access to social security. Firstly, taking pension insurance as an example, for NFE workers, except for those who participate in insurance as flexible workers, the path to "Social Endowment Insurance for the Urban Working Group" from platform enterprises is not clear, and their participation rate is significantly lower than that of employed workers with a standard employment relationship, and most workers can only choose to join the "Social Endowment Insurance for Urban and Rural Residents", which has a lower level of protection (Yuan, 2021). Data from a survey of full-time takeaway riders in (China Labour Review) shows that only 12.93 per cent of workers are covered by urban workers' social pension insurance, 23.02 per cent are covered by urban and rural residents' social pension insurance, and 13.75 per cent are covered by commercial pension insurance, while the remaining workers are either unaware of their pension insurance coverage or are not covered (Feng, 2021). Secondly, in terms of medical insurance, the proportion of NFE workers participating in both basic medical and employee medical insurance is equally low, with 35.7 per cent participating in basic medical insurance for urban and rural residents and only six

³⁸ According to the provisions of China's Labour Law, the working hours system includes the standard working hours system, the comprehensive calculation working hours system and the irregular working hours system, the latter two of which are collectively referred to as the "special working hours system."

³⁹ Details of working hours in various new employment forms are shown in the Appendix 3.

per cent participating in employee medical insurance (Tan, 2018). Furthermore, in terms of work injury insurance, according to the Social Insurance Law of the People's Republic of China, only employees who have established an employment relationship with a specific employer can enjoy work injury insurance. This leads to the fact that the group of flexibly employed workers in the NFE cannot be included in the existing compulsory work injury insurance system at the policy level, and the way for workers to participate in work injury insurance in their individual capacity is basically missing, which undoubtedly exacerbates the risks faced by this group when they suffer personal injuries at work, making it difficult to obtain compensation and protection in the event of an accident. It is worth noting that in recent years, some platform companies have provided protection for workers in NFE through commercial insurance, out of concern for social responsibility and reducing business risks. However, this form of protection is not only cumbersome to apply for, but also has stringent claiming conditions and low compensation amounts.⁴⁰

3.1.4 Low participation of trade unions and non-institutionalized means of defending rights

At present, the trade union participation rate of NFE workers in China is still at a relatively low level. According to the data of the 8th China Employee Survey, the trade union participation rate of platform workers is only 26.5 per cent, of which only 20.8 per cent of full-time NFE workers have joined a trade union organization.

Low union participation rates mean NFE workers are more likely to use non-institutionalized means to defend their rights. According to the Leeds Platform Labour Protest Index, from January 2017 to July 2020, there were 160 platform labour protests involving location-based platform workers in mainland China, accounting for 12.6 per cent of the global total.⁴¹ The majority of these protests were scattered groups of workers. This result reflects, to a certain extent, the absence of institutionalized and formalized trade unions among workers in the new forms of employment, and the fact that at present spontaneous workers' groups are the main realistic way for China NFE workers to fight against platform capital.

3.2. The obstacles of labour protection

3.2.1 Difficulties in determining employment relations

Similar to most countries in the world, China's labour law adopts a strict dichotomy where the legal status of the worker is crucial to the worker's access to the employment and social security protections. Once a worker is deemed to have an employment relation with an employer, all labour protections apply without distinction. At the same time, self-employed workers are hardly subject to existing labour laws and are more likely to be subject to the relevant civil law system. In comparison, civil law is weaker in terms of both the area and the level of protection. For the determination of the existence of the employment relations, there are several specific indicators. Firstly, whether the employer and the worker have signed an employment contract is the primary indicator for determining whether an employment relationship exists. Secondly, if the parties have not signed an employment contract, then the substantive determination of the employment relationship will be entered into. There are five specific indicators: (1) the employer and the worker meet the subjective qualifications stipulated by laws and regulations; (2) the labour rules and regulations formulated by the employer in accordance with the law apply to the worker; (3) the worker is subject to the labour management of the employer; (4) the worker is

⁴⁰ See special report *The Delivery Rider, Trapped in an Algorithmic System*. Available at: <https://mp.weixin.qq.com/s/Mes1RqIOdp48CMw4pXTwXw>

⁴¹ Project website. Available at: <https://business.leeds.ac.uk/research-ceric/dir-record/research-projects/1721/leeds-index-of-platform-labour-protest>

engaged in paid work arranged by the employer; and (5) the work provided by the worker is an integral part of the employer's business.⁴²

In general, these indicators are useful for the identification of employment relations in traditional employment methods, but challenges are encountered in the identification of employment relations for workers in new forms of employment. First, in the early stages of the development of digital labour platforms, the platforms adopted a variety of employment methods, and in addition to standard employment methods such as employment relations, they also made extensive use of new methods such as establishing civil partnerships with workers. Moreover, with the evolution and iteration of the platforms' business models, most of the workers in the new forms of employment currently do not sign employment contracts with the platforms. For example, early delivery platforms had signed labour contracts with a small number of riders, but the direct employment model was all but abolished around August 2017.⁴³ According to 25 platforms surveyed by the Beijing Municipal Trade Union, only 33 per cent of workers had signed labour contracts with the platform.⁴⁴ It is therefore difficult to determine the legal status of workers in new forms of employment by the presence or absence of an employment contract.

Secondly, the legal status of workers in new forms of employment often relies more on the five indicators of factual determination, but workers in new forms of employment often find it difficult to meet the above five indicators at the same time. The most important feature of the platform economy is that various types of workers are aggregated on the same platform at the same time, and the business model is different from that of traditional hierarchical enterprises, so the management and control of workers by the platform is different from that of traditional enterprises. For example, the platform claims to be an information aggregation platform, but does not operate specific businesses such as transportation, takeaway and delivery (the 5th indicator is not satisfied). In addition, the typical new employment form such as online taxi drivers and riders have a certain right to choose whether to take orders or not, and are not directly managed by the platform in the actual service process, but are controlled by an algorithm hidden behind them. Whether this algorithmic control can be equated with the traditional hierarchical bureaucratic control of companies is also a matter of debate in academic circles (indicator 3 is not met). Moreover, platform companies will adjust their employment practices in response to court decisions, further adding to the difficulty of judicial decisions.

For these reasons, judicial practice has not reached a uniform standard or mainstream opinion on whether workers in the new forms of employment can be recognized as employees. For example, of the 105 such cases decided by the Chaoyang District People's Court in Beijing in 2018, 39 cases (37.1 per cent) confirmed the establishment of employment relations between the platform and the workers, while 58 cases (55.2 per cent) found that the two parties did not establish employment relations.⁴⁵ Among the cases concerning the new forms of employment received by the courts in Qingdao between 2016 and 2018, 38 cases were concerned to confirm the employment relationship by the parties, and 13 cases were found to have an employment relationship, accounting for 34.2 per cent of the total.⁴⁶ In addition, the above-mentioned courts all acknowledged in their white papers that in the actual adjudication, the issue of legal status is one of the difficult points in handling labour disputes related to NFE.

Since it is difficult for workers in new forms of employment to be identified as having an employment relationship with the platforms, they do not benefit from the various protections offered by labour law, including minimum income, working hours, job stability and various public services. In addition, trade unions focus on workers in standard employment where an employment

⁴² Ministry of Labour and Social Security Circular No. 12 [2005] on Matters Relating to the Establishment of Labour Relationships.

⁴³ Expressboo, 2022. Available at: http://expressboo.com/detail_1874_1.html

⁴⁴ The Current Situation of Employment and Labour Relations of Workers on Sharing Economy Platforms: A Study Based on Multiple Platforms in Beijing.

⁴⁵ White Paper on Labour Dispute Trials on Internet Platforms.

⁴⁶ White Paper on New Employment Forms Disputes in Qingdao Central Court.

relationship is established and therefore do not pay enough attention to these workers in the new forms of employment where the employment relationship is ambiguous.

3.2.2 The rigid linkage of social security with employment status

The determination of employment relations is not only closely related to the employment protections, but is also closely related to workers' access to the social security schemes. There are three main schemes of social security in China, including: (1) Social security for urban workers who have a recognised employment relationship; (2) Social security for flexibly employed workers without an identified employer; and (3) Social security for urban residents. Overall, the social security for urban workers with the highest level of protection (the first type) not only has more programs which include four items: pension, medical, unemployment and work injury, but also the first three types of contributions are shared by employers and employees. Compared to the employer's obligation to contribute, the employee bears a lower percentage of the contribution. The work injury insurance items are fully covered by the employer's contribution obligation. In contrast, the other two schemes of the social insurance require the worker or the citizen to bear the entire obligation to contribute, and the program is limited to pensions and medical treatment. However, the prerequisite for participation in social security for urban workers is the recognition of an employment relationship, so China's high standards of social insurance programs are closely tied to the employment relationship.

As mentioned in the previous section, it is difficult for workers in new employment forms to participate in the social security programs for urban workers because the determination of their employment relations is more contentious. Of course, this group of workers can participate in social security targeted for flexibly employed workers. However, the current challenges lie in the following: firstly, although there are no institutional barriers for platform workers as flexibly employed workers to participate in pension and medical insurance, the actual participation rate is not high as the premiums are entirely paid by individuals themselves, currently at 20 per cent of the contribution base, and are all contributed by workers, making the burden of contributions heavy. According to survey data, the proportion of takeaway riders who have actually participated in social security for flexibly employed persons is about 17.4 per cent.⁴⁷ Secondly, the problem of insurance participation in different places. Some mega-cities, such as Beijing and Shanghai, have a household registration system (*hukou*) that prevents rural migrant workers without a household registration in these cities from participating at their place of work and can only access insurance at the place where their household registration is. Thirdly, some types of insurance cannot be accessible. For some new forms of employment workers, especially riders and city couriers, there is a higher probability of occupational injury. However, they are unable to participate in work injury insurance because they do not have an employer in the legal sense. In addition, they are also unable to participate in unemployment insurance as flexible workers.

If the newly employed form workers participate in residents' social insurance as residents, although the personal burden is light and the government has certain subsidies, there are some problems as follows: firstly, the level of benefit is low. In particular, the level of pension insurance benefit after retirement is low compared to the treatment of retired workers. For instance, in 2018, the nationwide average absolute amount of employees' pensions is around 20.7 times compared with non-salaried residents' pensions, while the gap of pensions replacement rates between these two systems is 3.7 times⁴⁸; secondly, they face the same problem of not being able to participate in work injury and unemployment insurance as flexibly employed people.

⁴⁷ Tu, W. et al. (2023). Quasi-Subordinated Workers in China: A Typology of Gig Riders Based on Economic Dependency and Subordination and Inter-group Heterogeneity Analysis in Working Conditions. *Human Resources Development of China* (02), 73-86. doi:10.16471/j.cnki.11-2822/c.2023.2.005.

⁴⁸ Lu, Q. (2020). Public Pension for Non-salaried Residents in China: Participants, Funding and Benefits. *Chinese Social Security Review*, Vol. 4, No. 1, 19-34.

► Table 8 Advantages and disadvantages of different types of social security programs for workers in NFE

Participant Status	Advantages	Disadvantages
Enrolled as employee	Mandatory, many entitlement items, little contribution from yourself, high level of entitlement, administration operated by employer.	An employment relationship needs to be established. Currently difficult to determine as an employee.
Enrolled as flexible-employed person	Voluntary, entirely self-funded.	Low participation rate, heavy personal burden, few entitlement items, self-administered.
Enrolled as resident	Voluntary, government subsidized.	High participation rate but low level of benefits, few entitlement items, self-administered, household registration restrictions in some mega-cities.

3.2.3 Traditional regulatory instruments do not fit to the platform business model

The government is supposed to play an important role in addressing the lack of labour protection for workers in new employment forms. However, various obstacles make it difficult for the employment situation of platform enterprises to be effectively regulated by the government. At present, the regulatory challenges faced by the Chinese government are mainly in the following three areas.

Firstly, traditional information collection channels are not effective. Because platform workers are not required to register in the labour bureau and rarely participate in social security, their data and information are difficult to collect. For example, it is difficult for China's tax authorities to get an accurate picture of the income of webcasters and therefore to legally calculate taxes.

Secondly, the platform enterprises are "deliberately avoiding" the regulation. Out of the psychology of escaping from the employment relations, platforms are unwilling to disclose employment information to government on the ground that they involve confidential. In order to reduce the risk of employment relations, some platforms outsource the employees, resulting in confusion in the employment relationship. In the food delivery industry, for example, the platforms mean to outsource the takeaway delivery business to local agents, who set up stations (Zhan Dian) to manage the riders, but the local agents will further outsource the personnel of the riders to the third-party human resources service companies or platforms. These third-party HR companies are often non-local. This complex subcontracting relationship makes it difficult for local governments to enforce regulations.

Thirdly, the hindrance of the working mode. From the perspective of industry regulation, some platforms lack effective industry supervision departments because of unclear industry classification. Early in the development of takeaway delivery, postal, food safety, transport and human resources departments had corresponding management authority over the takeaway industry, but the authorities were not clear. With the development of the platform economy, this situation is now beginning to improve. From the perspective of labour protections, the protection of the rights and interests of platform employees requires the integration of employment, social security, employment relations, labour inspections, statistics and other multi-departmental operations, which is difficult to promote systematically under the current compartmentalized work mode. From an administrative perspective, most platforms are headquartered in the megacities and only set up branches or related business departments in the cities where they operate, making it difficult for the local governments to effectively supervise platform companies.

► 4 Emerging regulatory responses of labour protection in the NFE

Although the workers in the four new forms of employment mentioned above are generally inadequately protected, the current policy focus currently remains on location-based platform workers, and there are not many policies for workers in other new forms of employment. For example, for platform outsourcing and prosumers, although the government has introduced industry-specific regulatory policies, it has not yet introduced policies from the perspective of workers' rights and interests' protection. In particular, micro-task crowd workers have not even attracted government's attention. Based on this situation, this section focuses on a descriptive analysis of the existing policies for location-based platform workers.

4.1. National policy and regulations

4.1.1 Regulation of platforms mainly through sectoral authorities in early period

The early development of the platform economy exposed problems in consumer safety, monopolies, and big data discriminatory pricing. This prompted the industry authorities as the first actors to regulate, with a number of government departments, including the Ministry of Transport, the Ministry of Public Security, the Food and Drug Administration and the General Administration of Market Regulation, to introduce a series of industry regulatory measures as early as 2016. The Interim on the Regulation of Car Hailing Services, promulgated and implemented in 2016, was one of the first documents concerning digital labour platforms. Since then, there have been two peaks in the regulation of the platform economy. The first peak was around 2018. In this year, the government introduced legal policies on takeaway deliveries, webcasting and e-commerce. The second peak was in 2021, and this time the focus was on limiting monopolies, personal information security, algorithms and labour protection.

While industry regulatory policies on the platform economy have continued to increase, at the height of the first peak, few industry authorities made provisions for the protection of workers' rights and interests. Even when they were occasionally mentioned, the overall provisions were relatively principled. For example, the above-mentioned Interim on the Regulation of Car Hailing Services was mainly about the operating qualifications of the car-hailing platform, with only one article concerning platform workers, namely allowing network-hailing platforms to sign employment contracts or service agreements with drivers, and requiring platforms to fulfil their corresponding responsibilities to protect workers. However, this provision is rather general compared to the other articles in the regulation.

Starting in the second half of 2021, industry regulators began to introduce more specific measures to protect the rights and interests of workers in new employment forms in their respective regulated sectors, including takeaway riders, truck drivers and couriers. For example, to support the protection of rights and interests of takeaway riders, the market regulator put forward ten recommendations, including requiring platforms to protect the incomes of riders, to enhance labour safety, to strengthen food safety training and to encourage riders to participate in social insurance. Particularly noteworthy was the proposal to require platforms to optimise their algorithms, including not to set up the strictest algorithms, and to establish the labour quota by the average of the algorithm. This is the first time that the platform algorithm system had been regulated when it comes to protecting workers' rights and interests.

► Table 9 Documents issued by sectoral authorities

File name	Sector	Time	Object
Opinions on the Protection of the Lawful Rights and Interests of Courier Groups	Ministry of Transport, State Post Bureau, National Development and Reform Commission, Ministry of Human Resources and Social Security, Ministry of Commerce, General Administration of Market Regulation, All-China Federation of Trade Unions	2021.6.23	Courier
Guidance on Implementing the Responsibilities of Online Catering Platforms and Effectively Safeguarding the Rights and Interests of Take-away Food Deliverers	General Administration of Market Regulation, State Internet Information Office, National Development and Reform Commission, Ministry of Public Security, Ministry of Human Resources and Social Security, Ministry of Commerce, All China Federation of Trade Unions	2021.7.16	Riders
Regulations on the Administration of Algorithmic Recommendation of Internet Information Services (draft for comments)	State Internet Information Office	2021.8.27	Algorithms
Law of the People's Republic of China on the Protection of Personal Information	Standing Committee of the National People's Congress	2021.8.20 Adopted 2021.11.1	Various platform companies
Opinions on Strengthening the Protection of the Rights and Interests of Truck Drivers	Ministry of Transport and other 16 ministries	2021.10.11	Lorry drivers
Code of Conduct for web hosts	State Administration of Radio and Television, Ministry of Culture and Tourism	2022.6.8	Webcaster

4.1.2 Recent responses mainly focus on labour protection

In contrast to the earlier sectoral regulation, the introduction of policies related to the protection of labour protections was mainly in the second half of 2021. In July 2021, the Ministry of Human Resources and Social Security issued the "guiding opinions on safeguarding the labour protection of platform workers" (referred to as Document 56), which for the first time made comprehensive provisions for the protection of platform workers in new employment forms. This document innovated the Chinese labour law system in three aspects, including: firstly, for the first time, a new third category of workers' employment status was introduced beyond the dichotomy between workers and the self-employed, which the document called the quasi-employment relation. Secondly, it provides that this new type of worker may enjoy some basic labour rights, including specifically the right to fair employment, the right to remuneration for work, the right to rest, safety at work, the right to participate in social security in accordance with the regulations, the platform labour rules and the right to democratic participation to determine the algorithm. It specifically stipulates that platform workers' labour remuneration shall not be lower than the minimum wage, and also specifies that a new separate occupational injury insurance system will be established for them. Thirdly, platform workers have equal access to a range of employment public services. These include services such as access to the employment information, policy and legal aid, vocational training, compulsory education for children, and other public services.

In order to implement this document, the Ministry of Human Resources and Social Security has held policy guidance for some typical platforms to promote the application regularly. In addition, the Ministry has also requested local governments to issue detailed documents that are in

line with the actual situation in each locality. At present, specific local documents have been issued to refine the content of Document 56 in two main areas: firstly, the rights and interests of platform workers have been refined, and secondly, has further clarified the relevant competent authorities' obligation.⁴⁹

► **Box 3: Implementation measures to safeguard the labour rights and interests of workers in new employment forms in Zhejiang province**

Zhejiang province is one of the more economically developed southeastern coastal provinces in China and was one of the first provinces to introduce policies to protect the rights and interests of workers in new employment forms. After the Ministry of Human Resources and Social Security issued Document No. 56, Zhejiang province has refined the document, for example, by refining labour conditions such as the recognition of labour relations, wages, working hours and social security. Some of the provisions are selected for introduction in this column.

First, on working hours and labour quotas. The document of the Ministry of Human Resources and Social Security stipulates in principle that it is necessary to "improve the rest system, promote industries to clarify the standard of labour quotas, and scientifically determine the workload and labour intensity of workers. Enterprises should be urged to reasonably determine rest methods in accordance with the regulations and pay reasonable remuneration on statutory holidays that are higher than the remuneration for normal working hours." The Zhejiang province document, on the other hand, specifies that enterprises should take advantage of data technology to reasonably control the length of workers' online work, and for continuous work of more than four hours, a break of no less than 20 minutes should be set. (Article 17) Enterprises shall reasonably determine labour quotas and remuneration standards for receiving orders in accordance with the national statutory working hours system. The labour quotas determined shall enable more than 90 per cent of the workers in the same position in the enterprise to complete them within the statutory working hours. (Article 18).

Second, social security. The document of the Ministry of Human Resources and Social Security stipulates in principle that "to organize and carry out pilot projects on occupational injury protection for flexibly employed workers on platforms, platform enterprises should participate in accordance with the regulations". In Zhejiang province, it is specified as "to promote the protection of occupational injuries for workers in new employment forms, platform enterprises shall participate in occupational injury insurance for workers in accordance with the provisions of the Regulations on the Promotion of Digital Economy in Zhejiang province. The platform enterprises follow the principle of local participation and, with the consent of the local social insurance agency, can participate in the insurance within the district city, and the contribution base can be the average monthly salary of workers in the province in the previous year. If a worker transports multiple orders at the same time and it is difficult to determine the responsibility, the first single platform enterprise of the same journey shall bear the responsibility of work injury insurance. If the platform enterprise participates in work injury insurance for a single insurance policy, the participation and payment of premiums, identification of work injury, identification of labour capacity, treatment standards and dispute handling shall be in accordance with the Regulations on Work Injury Insurance, the Regulations on Work Injury Insurance of Zhejiang province and its relevant supporting regulations."

⁴⁹ Implementation advice from all provinces.

4.1.3 Piloting occupational injury insurance for workers in NFE

Compared to other labour rights, the work injury insurance coverage for platform workers is the most urgent. Since 2018, some provinces have started to pilot occupational injury protection in accordance with the requirements of the State Council.⁵⁰ Zhejiang province was one of the first provinces in China to reform the work injury insurance for NFE workers. Their solution was to allow platform workers to participate in the existing work injury insurance system. However, the workers who actually participate is still rare because it is voluntary rather than mandatory.

In order to improve the shortcomings of this model, starting in July 2022, the Ministry of Human Resources and Social Security, together with relevant departments, decided to launch pilot occupational injury protection for workers in new forms of employment in seven Chinese provinces and some typical platforms focusing on four industries: car hailing, food delivery, instant delivery and same-city freight.⁵¹ This is tantamount to creating a separate insurance scheme for platform workers in addition to the existing work injury insurance system. The new work injury insurance will make it mandatory for platform workers to participate in the insurance, and the standard of participation will be based on a per-order fee, with the overall level of benefit being the same as that of work injury insurance. This innovation is expected to solve the current problem of the inability to insure workers in new forms of employment with work injury insurance.

The pilot projects were launched and implemented from 1 July 2022, with the first batch of pilots being carried out in seven provinces and cities across the country on seven platforms. By the end of July 2023, 6.15 million people had been covered.⁵² As of the end of August 2022, Suzhou has already seen the first case of a takeaway rider being recognised and compensated for a work-related injury.⁵³

4.2. Initiatives by social partners

4.2.1 Trade union law amended and guidance issued

As the main representative organization of workers, the All China Federation of Trade Unions have taken two main steps to improve worker protections. Firstly, the trade union law was amended to allow workers in new forms of employment to join trade unions; in December 2021, the Trade Union Law was amended, with Article 3 being amended to read: "Trade unions shall adapt to changes in the organization of enterprises, the structure of the workforce, employment relations and employment forms, and shall safeguard the rights of workers to join and form trade unions in accordance with the law". This new article adds the change to "employment forms", which means that platform workers are allowed to join trade unions, removing the legal barrier that prevented workers in NFE from joining the trade unions.

Prior to that, in June 2021, the All-China Federation of Trade Unions also issued the Opinions on Effectively Safeguarding the Labour Rights of Workers in NFE, which included the following aspects: (1) Actively exploring ways to encourage the lorry drivers, online taxi drivers, couriers and riders to join trade unions. Implementing online applications for union membership, and innovative service contents and service models; (2) Initiate consultations with industry associations, head enterprises or representative organizations on piece-rate unit prices, commissions, labour

⁵⁰ The Guidance on Stabilising and Expanding Employment in the Digital Economy and the Guidance on Promoting the Standardised and Healthy Development of the Platform Economy both contain requirements for social security participation for workers in new employment forms.

⁵¹ Specifically, Beijing, Shanghai, Jiangsu, Guangdong, Hainan, Chongqing and Sichuan.

⁵² http://www.news.cn/2023-09/04/c_1129844842.htm

⁵³ Workplace injuries new initiatives to protect take-away riders, Suzhou Industrial Park, the first case of occupational injury protection confirmation under new employment forms. Available at: <https://www.sipac.gov.cn/szgyq/jsdt/202208/f085c39a98584547adbb-d58c79bad354.shtml>

quotas, labour protections, rewards and punishment systems in the industry; (3) Taking the initiative to participate in the formulation of relevant laws, regulations and policies, cooperating with the government and its relevant departments to improve relevant systems and promoting pilot work on occupational injury protection; (4) Carry out legal aid services and "legal examination" of employment on the platform, and to promote the improvement of the mechanism for the diversified settlement of labour disputes; (5) Carry out activities such as vocational training, job skills training, vocational skills competitions and mental health education.

4.2.2 Other measures for the workers' protection in the NFE

The above-mentioned legal policy has promoted the attention of trade unions on platform workers, and has already achieved some of its targets. First, the promotion of trade union membership for workers in new forms of employment has been officially launched. By the end of 2021, the number of trade union members newly developed by the All China Federation of Trade Unions for platform workers exceeded 3.5 million, of which all 12 head enterprises in four typical industries, namely truck drivers, online taxi drivers, couriers and take-away delivery workers, have established their trade unions.⁵⁴

Secondly, some local unions have concluded collective contracts with platform companies. For example, in November 2021, Jingdong signed a collective contract with logistics workers, covering the payment of "six insurance and one gold fund" for such workers, the provision of labour safety equipment, the provision of continuing education opportunities, the issuance of "Jingdong family gifts" and other welfare benefits.⁵⁵ In July 2022, a collective contract was signed between car-hailing drivers and the platform, covering incentive standards, holiday benefits for drivers, life subsidies, training activities and a salary distribution system for employees in Ningde city.⁵⁶ On July 2023, one of the two food delivery platforms Elema passed a collective contract as well as 3 special collective contracts. The collective contract covers the platform's own employees and more than 3 million "gig riders" across the whole country.⁵⁷

Thirdly, the ACFTU has provided various public services for workers in new forms of employment. For example, the ACFTU has established 86,000 service stations for the outdoor workers across China, covering more than 62 million outdoor workers.⁵⁸ These stations mainly serve sanitation workers, taxi drivers, traffic police officers, couriers and other outdoor workers, solving their livelihood problems such as rest, drinking water, lunch and toilets.

Fourth, trade unions also play a role in policy advocacy. The disputes among digital labour platforms mainly focus on the recognition of employment relations. For this reason, the Legal Department of the All-China Federation of Trade Unions has selected and published ten typical cases handled by courts around China in recent years, including new professions such as online taxi drivers, takeaway riders and web streamer. To facilitate understanding and application, the cases are followed by an analysis and commentary by lawyers.⁵⁹ This is the first time in China that a typical case is published on a dispute case of a worker in new forms of employment, which has had a certain impact in the society.

⁵⁴ All China Federation of Trade Unions (ACFTU): Over 3.5 million new trade union members developed in new forms of employment last year, 2022. Available at: <http://www.workercn.cn/c/2022-01-30/6947084.shtml>

⁵⁵ *Safeguarding the Labour Security Rights of Workers in New Employment Forms, Jingdong Group Holds First Collective Bargaining Meeting*. Available at: http://bj.news.cn/hyzt/zgh2021/zxdt/2021-11/28/c_1128106810.htm

⁵⁶ *The First Enterprise with New Employment Forms in Ningde City to Sign a Special Collective Contract on Wages*, 2022. Available at: http://nd.fjsen.com/2022-07/26/content_31093289.htm

⁵⁷ <http://acftu.people.com.cn/n1/2023/0714/c67502-40036115.html>

⁵⁸ Speech at the National Conference on Promoting Trade Unions for Workers with New Employment Forms. Available at: https://www.acftu.org/wjzl/ljhl/lyf/202204/t20220424_807663.html?7OkeOa4k=qAq5cArqAlrqAqjxsiVj2aG2wZwLPVknPumacB-GqqqqqqqqqqqqAq

⁵⁹ Available at: <https://new.qq.com/omn/20211203/20211203A0426H00.html>

► Figure 5 Riders take a tea break at a service station in Ningxia



Photo source: Nxnews.net.⁶⁰

4.3. Initiatives by platforms

Although the system for labour protection in new forms of employment is being improved, their rights and interests are still inadequately protected compared to those workers in the standard form of employment. Currently, legal policies mostly encourage enterprises to take certain responsibilities in the form of advocacy and advice, with few mandatory obligations. Platforms themselves have begun to pilot some protection measures due to legal advocacy and pressure from the customs.

4.3.1 Supplementary social security schemes

In order to solve the lack of coverage of the existing statutory social insurance system for workers in new forms of employment, some platforms have tried to supplement protection through commercial insurance. For example, China's largest online taxi platform, Didi, cooperated with commercial insurance companies to design special schemes for online taxi drivers, including pensions, medical insurance, and accident insurance. To accommodate the high mobility of online taxi drivers, these insurances can be paid for and withdrawn from at any time, and Didi has matching subsidies for their drivers of up to 150 RMB and 400 RMB for a pension and medical insurance respectively, for drivers who meet the criteria.⁶¹ Meituan, is the largest delivery platform in China, facilitates riders on the platform to pay for commercial accident insurance, ensuring that riders are covered by commercial insurance 100 per cent.

4.3.2 Participation of algorithms and regulation by workers

In response to heated discussions in Chinese society about the lack of openness, transparency and unreasonableness in the algorithms, some platform companies have started to invite

⁶⁰ Image source: Nxnews, 2021. Available at: http://www.nxnews.net/jc/jrww/202012/t20201201_6948486.html

⁶¹ Interview with the Didi by the authors.

workers in new employment forms to attend seminars to collect their opinions on algorithms and platform rules. For example, Meituan has held 136 seminars nationwide since November 2020, covering more than 60 cities, with more than 2,000 riders participating and over 100 valid opinions collected. Didi held seminars to listen to the suggestions of drivers and made adjustments to the scoring rules for drivers.

► **Box 4: Platform companies listen to workers with new employment forms and improve their algorithms**

The iterative upgrading of algorithms has led to an increase in the labour intensity of new employment forms. According to reports, optimised algorithms have allowed takeaway platforms to "reduce capacity losses by 19 per cent, so that meals that used to be delivered by five riders can now be delivered by four riders", and delivery times have been reduced from 50 minutes to 35 minutes per order. In 2020, the issue of opaque algorithms sparked a huge outcry in Chinese society and raised questions about the rationality of platform companies unilaterally developing them. Due to the high level of concern, some prominent platforms have started to hold seminars to listen to workers' opinions when developing their algorithms and regulations, two examples of companies are described below.

In 2022, Didi set up the "Driver-Ride Relationship" initiative, inviting drivers and passengers to participate in discussions and make adjustments to the platform's rules and regulations. For example, after listening to the opinions of online taxi drivers, Didi adjusted the platform's fare increase and surcharge function, stipulating that "if a passenger requests more than the scope of the platform's service, the driver and passenger can negotiate the relevant fees themselves."

Meituan has established a "product experience officer" system for riders, inviting them to participate in app reviews and receive corresponding rewards. For example, some riders have given feedback that some orders need to cross over viaducts and rivers, which leads to problems such as long distances to pick up food, difficulty in delivery, and lack of delivery time. The technical team collected information on natural barriers such as viaducts and rivers in major cities across China and accessed it in route planning to provide more realistic delivery time predictions, improving the delivery experience for riders. For example, some riders suggested that Meituan should make the "order number font bigger and bolder" and "adjust the position of the back button to make it easier to use" to optimise mobile phone operations, which have also been adopted by Meituan and entered into the optimisation process.

4.3.3 Provision of various services

In early 2020, 14 prominent platform enterprises, including those in the online taxi, takeaway, truck and live streaming industries, signed the Platform Enterprises' Initiative on labour protection. The content covers three aspects: firstly, they take the initiative to undertake the obligation to protect the rights and interests of workers in new employment forms. Secondly, they take the initiative to share the interests of corporate development with workers. Thirdly, they actively promote the overall development of workers. In addition, some enterprises have also started to take the initiative to provide some caring services to workers. For example, according to the symposium, Meituan has provided subsidies for the treatment for riders and their children who suffer from serious illnesses. In 2021, a total of 374 riders were provided with illness subsidy and 296 children of riders were helped and rescued.

► 5 Address labour protection for NFE in China: A way forward

5.1. The determination of employment relations

The difficulty in identifying employment relations or the frequent misclassification of platform workers is a key obstacle to labour protection and the lack of social security coverage. In order to solve this problem and at the same time give platforms a certain degree of flexibility in employment, the Ministry of Human Resources and Social Security's latest policy established a compromise method, by creating a new category of workers who do not fully meet the criteria for determining employment relations. However, there is no clear test for the criteria for determining this category of worker. Therefore, the following is recommended. Firstly, clear criteria for the recognition of a third category of workers should be introduced. At the same time, in order to avoid the loopholes for arbitrage that have been created by similar reforms in countries such as Italy and Spain, it recommends that the criteria for the recognition of this category of workers should be strict, so as to prevent their abuse by platforms or other companies.⁶² Secondly, the current criteria for determining employment relations should be adjusted in due course to clarify the legal nature of algorithmic control by the platforms and to give more clear guidance to judicial practice. Thirdly, we can draw on Recommendation No. 198 of the ILO, which allows for the determination of employment relations through "prior consultation between the most representative employers' and workers' organizations, so that workers with certain characteristics, in general or within a specific sector, are classified as workers or self-employed". The platform is also allowed to rebut this legal status (i.e. a rebuttable hypothesis). For example, it could be agreed that the online taxi driver or crowdsourced rider should be quasi-subordinated workers, but the platform could re-submit an arbitration decision on this legal status if it has sufficient evidence, reducing the possibility of a significant increase in the incidence of employment relations recognition cases as a result of the legal adjustments.

5.2. The improvement of working conditions

China has now set up the main scope for the protection of the rights and interests of workers in new forms of employment, including working conditions such as wages that may not be lower than the minimum wage, wage subsidies to be paid on holidays, mandatory participation in occupational injury insurance and encouragement to participate in other social insurance schemes. In the future, it is recommended that specific implementation methods involving working conditions be further clarified. For example, whether the minimum wage should be calculated according to the time waiting online or according to the time when receiving the order.⁶³ Secondly, the issue of participation in pension and medical insurance for workers in NFE has not been fully resolved. It is recommended that the current social security system for flexibly employed workers be improved, the cost of personal contribution for flexible workers to participate in insurance be reduced, and platforms be required to give certain subsidies. There is also a need to facilitate access to insurance for flexibly employed workers. Through these reforms, the motivation of platform workers to participate in insurance will be increased. Thirdly, the algorithm should be developed with the participation of the workers and this process should be institutionalised and made accessible in public. At present, although companies have begun to listen to workers' views, the content is mostly focused on the platform's operational rules and rarely directly

⁶² Miriam A. Cherry, and Antonio Aloisi. *Dependent Contractors in the Gig Economy: A Comparative Approach*, American University Law Review, 66: (3), 2017.

⁶³ The author recommends that the actual on-call time be calculated if it does not exceed eight hours, and eight hours if it does.

involves the economic interests of workers (e.g. pricing for each order, labour quotas), and the way in which views are listened to has not yet been institutionalised. In the future, it is recommended that workers' democratic participation be institutionalized and that the acceptance of opinions be made in transparency.

5.3. The employee representation and voice

The channels for workers in NFE to join trade unions are now open, but the specific ways in which trade unions can protect workers' rights and interests in the context of NFE have yet to be improved. It is therefore recommended that: firstly, trade unions take the initiative to engage platforms to negotiate on the protection of workers' working conditions, and use the head platforms as a grip to form industry-wide standards. In particular, the Chinese takeaway industry, the express delivery industry and the online car industry are highly concentrated and are already suitable for collective bargaining at the industry level to determine labour quotas, unit price standards, and algorithms, etc. Secondly, trade unions should take advantage of their easy access to workers, conduct surveys on workers in NFE and regularly publish data on the protection of workers' rights and interests to make up for the current lack of statistics and provide data support for collective bargaining. Thirdly, trade unions should take the initiative to participate in the revision of labour laws and the government's policies. For example, as China is discussing the improvement of the Labour Code Law recently, trade unions can actively voice out and call for the labour protection of the platform workers to be included in the future revision of the law.

5.4. The public employment services

Compared to other economies, the Chinese government plays a more important and proactive role in the coordination of employment relations.⁶⁴ At a time when laws relating to digital labour platforms are not yet issued, it is recommended that the government should: Firstly, improve the way public services are provided, and provide more convenient services to workers in new forms of employment. For example, services such as social security administration, employment consultation and skills subsidies should fit the characteristics of newly employed workers, provide more convenient digital methods and improve the accessibility of relevant information and channels. Secondly, the basic information of workers in new forms of employment should be included in the scope of labour statistics, and corresponding statistical standards should be formulated as soon as possible, so as to provide a reference base for the government to formulate policies and collective bargaining among stakeholders. Thirdly, to provide skills training for workers in new forms of employment that meet their characteristics, such as app-based trainings for career development, to enhance their future employability. Fourthly, the courts and human resources departments are to be encouraged to publish typical cases on the classification of employment relations and labour protections of workers in new forms of employment, so as to guide the judiciary in making more accurate and expectable decisions.

⁶⁴ The Emerging Industrial Relations of China, Edited by William Brown and Chang Kai (2017). Cambridge: Cambridge University Press

Annex

Annex I: Analytical framework for the employment forms in China

Due to the limited pages, the typological system of employment forms in China was not fully discussed. However, there is not a comprehensive set of classification of employment forms in China's policy system currently. Different concepts are used for various policy purposes, including terms such as informal employment, flexible employment, NFE, and new flexible employment. This appendix attempts to provide a simple typology of the conceptual system of employment forms in China to provide a basic framework of analysis for other researchers.

Type		Subtype		Discussed by the author
Non-standard forms of employment	Platform employment (the main NFE)	Location-based platform/gig work		√
		Online based Crowdsourcing	Microtasks	√
			Freelancers	x
		Prosumer work		√
		Platform outsourcing to individuals		√
	Other NFE	Telework		x
		Shared employee		x
	Traditional flexible employment	Seasonal workers for very short periods of time, usually less than six months		x
		Part-time		x
		Labour dispatch		x
		Daily work	Daily work through social media, e.g. WeChat, mainly in the service industry	x
			Daily work in the manufacturing industry	x
		Outsourcing	Outsourcing of labour services	x
			Business outsourcing	x
	Self-employed	Own account workers and entrepreneurs		x
Standard forms of employment	Labour contract employment	Employment with open ended contracts		x
		Employment with fixed-term contracts		x
		Employment contracts for the completion of certain work tasks		x

Annex II: Income levels of workers in NFE by subtype

Types of NFE	Income Level
Location-based platform work	According to the Meituan Research Institute's <i>"New Youth in a New Era: 2018 Takeaway Rider Group Research Report"</i>, professional riders who directly sign up with platform earn the most considerable income, with about 56 per cent of professional riders earning 6,000-8,000 RMB, with an average value of about 6,450 RMB; riders employed through agents or franchisees earn an average value of about 4,340 RMB; crowdsourced riders earn an average value of about 3,540 RMB, and 39 per cent of crowdsourced riders earn less than 2,000 RMB. According to Tsinghua University's <i>"Research Report on Travel Platforms in China's Tier 1 Cities in 2021"</i>, after deducting various types of rent, fuel costs and platform commissions, the average value of drivers' actual monthly income was 7,711.29 RMB, 56.31 per cent of online taxi drivers' actual monthly income was between 6,000-10,000 RMB, 26.70 per cent of drivers' actual monthly income was between 3,000-6,000 RMB, 9.22 per cent of drivers earned 10,000-20,000 RMB, 6.8 per cent earned less than 3,000 RMB, and only 0.97 per cent earned more than 20,000 RMB. Drivers who earned higher incomes drove 12-16 hours a day, and even required both spouses to drive together to maintain their income levels.
Online micro-task crowd-sourcing	Based on the ILO's 2019 survey of Chinese online digital platforms, of the 815 workers engaged in micro-tasks such as transcribing information and filling out questionnaires, about 43.1 per cent practitioners earned an average weekly income of less than or equal to 100 RMB through the platforms, 25.3 per cent earned an average weekly income of 100-300 RMB, 14.23 per cent earned 300-500 RMB, 11.53 per cent for 500-1,000 RMB and 5.8 per cent was greater than 1,000 RMB.
Prosumer work	<i>The 2019 China Online Literature Development Report</i> states that the average monthly income of Chinese online authors is 5,133.7 RMB; among them, 44.6 per cent of authors have an average monthly income of less than 2,000 RMB or no income for the time being, 24.1 per cent of authors have an average monthly income between 2,000-5,000 RMB, 20.1 per cent in the range of 5,001-10,000 RMB, 7.1 per cent in the range of 10,001-20,000 RMB, and 4.1 per cent earned more than 20,000 RMB. According to <i>China Online Performance (live streaming) Industry Development Report (2021-2022)</i>, in terms of income structure, among the anchors whose main source of income is live streaming, most of them are in the mid-range with a monthly income of 3,000 to 5,000 RMB. The number of high-income top anchors is relatively small, and as a whole, the income distribution within industry is balanced. In terms of income approach, traditional webcasters mainly receive virtual gifts from viewers through live interactions, and then earn a proportional share with the platform and the webcast guild. According to Boss Zhipin's <i>Report on Live Streaming Talent for the First Half of 2020</i>, the average monthly salary of an e-commerce anchor was 11,220 RMB, with serious income polarisation in the field. Anchors subordinate to large MCN agencies significantly pulling up the industrial average volume, yet 71 per cent of anchors earned less than 10,000 RMB per month.
Platform outsourcing to individuals	When working in the same industry, individual platform outsourcing workers have similar income features with other three types of NFE, so they are omitted here.

Annex III: Working hours of workers in NFE by subtype

Types of NFE	Working hours
Location-based platform work	The Meituan Research Institute's <i>Meituan Rider Employment Report for 2019 and 2020 During the Epidemic Period</i> shows that, with the inclusion of part-time riders, the percentage of riders with an average daily delivery time of less than four hours was approximately 58.8 per cent; however, after the pandemic outbreak, long delivery times for riders were common, with interviews showing that some riders were delivering for more than ten hours per day and delivering over 100 kilometres. According to the CaoCao Arrive Big Data Institute, the average daily online hours of e-hailing drivers on its platform was 9.1 hours in 2020. According to Tsinghua University's "<i>Research Report on Travel Platforms in China's Tier 1 Cities in 2021</i>", the average daily working time of e-hailing drivers is 11.05 hours, and the average weekly driving time is 6.45 days. Specifically, 49.21 per cent of online taxi drivers work 8-12 hours a day, followed by drivers who work 12-16 hours a day, accounting for about 27.38 per cent. The proportion of drivers working 4-8 hours a day was 16.27 per cent, then 4.37 per cent of drivers working 16-20 hours a day and 2.78 per cent of drivers working less than four hours a day. The majority of e-hailing drivers were on duty seven days a week, accounting for about 74.76 per cent, and less than ten per cent of the driver group only be at service for less than five days.
Online micro-task crowd-sourcing	Based on the ILO's 2019 survey of Chinese online digital platforms, about 52 per cent of the 815 workers engaged in micro-tasks such as transcribing information and filling out questionnaires spent an average of less than ten hours per week performing paid work on the platforms, 24.5 per cent spent 10-20 hours per week, 16.7 per cent spent 20-40 hours per week, 5.3 per cent spent 40-60 hours per week, and only 1.6 per cent spend an average of 60 hours or more per week.
Prosumer work	<i>The 2019 China Online Literature Development Report</i> states that the average daily creation time of Chinese online authors reaches 4.5 hours, of which 37.7 per cent writers work three hours or less, 31.4 per cent for 3-5 hours, 22.5 per cent for 5-eight hours, and 8.4 per cent work more than eight hours. According to Boss Zhipin's <i>Report on Live Streaming Talent for the First Half of 2020</i>, anchors working for 10-12 hours a day is the common norm in the industry.
Platform outsourcing to individuals	When working in the same industry, individual platform outsourced workers are similar to the other three types of NFE in terms of working hours, so they are omitted here.

References

Ali Research. 2020. *Ele.me, Blue Knight Survey Report in 2020*. Available at: <https://www.bj-xinghe.com/wp-content/uploads/2020/10/2020%E8%93%9D%E9%AA%91%E2%BC%A0%E8%B0%83%E7%A0%94%E6%8A%A5%E5%91%8A1.pdf> (Accessed 30 October).

Bilibili. 2021. *Uploader Ecosystem Report*. Available at: <http://activity.hdslb.com/blackboard/stat/c/20211209/997efb91edb82a77c7148f2c24a2ec5f/Bilibili-Uploader-Ecosystem-Report-2021.pdf> (Accessed 30 October).

_____. 2021. *Annual Report*. Available at: <https://ir.bilibili.com/media/yumeuspu/2021-annual-report-on-form-20-f.pdf> (Accessed 30 October).

Boss, Zhipin. 2020. *Report on Live Streaming Talent for the First Half of 2020*. Available at: <http://www.199it.com/archives/1073513.html> (Accessed 30 October).

CaoCao Arrive Big Data Institute. 2020. *Analysis Report of the Group Image of E-hailing Drivers in 2020*. Available at: <https://mp.weixin.qq.com/s/Ahuw5UisKUejUIR3t4TK8g> (Accessed 30 October).

CIPD. 2017. *To Gig or Not to Gig? Stories from the Modern Economy*. Available at: https://www.cipd.co.uk/Images/to-gig-or-not-to-gig_2017-stories-from-the-modern-economy_tcm18-18955.pdf (Accessed 30 October).

Chinese Academy of Labour and Social Security. 2019. *China NFE Development Report on E-hailing Platforms*. Available at: http://m.banyuetan.org/kj/detail/20190128/1000200033136211548645425243136177_1.html (Accessed 30 October).

China Audio-video and Digital Publishing Association. 2019. *Report on the Development of Chinese Online Literature*. Opening Ceremony and Summit Forum of the 4th China "Network Literature +" Conference. Available at: https://www.thepaper.cn/newsDetail_forward_9029449 (Accessed 30 October).

China Performance Industry Association. 2022. *China Online Performance (Live Broadcast) Industry Development Report (2021-2022)*. <http://perform.capa.com.cn/1670901912316.pdf> (Accessed 30 October).

Countouris, N. 2019. *Defining and Regulating Work Relations for the Future of Work*, International Labour Office, Geneva.

De Stefano, V. 2016. *The Rise of the "Just-in-Time Workforce: On-demand Work, Crowdswork and Labour Protection in the "Gig-economy*. Conditions of Work and Employment Series, 71, International Labour Office, Geneva.

Duggan, J., Sherman, U., Carbery, R., & McDonnell, A. 2020. *Algorithmic Management and App-work in the Gig Economy: A research Agenda for Employment Relations and HRM*. Human Resource Management Journal, 30(1), 114–132.

ETUI. 2021. *Working on Digital Labour Platforms: A Trade Union Guide for Trainers on Crowd-, App- and Platform-based Work*. The European Trade Union Institute. Available at: <https://www.etui.org/publications/working-digital-labour-platforms> (Accessed 30 October).

Eurofound. 2015. *New Forms of Employment*, Publications Office of the European Union, Luxembourg.

_____. 2018. *Employment and Working Conditions of Selected Types of Platform Work*, Publications Office of the European Union, Luxembourg.

_____. 2020a. *Labour Market Change: Trends and Policy Approaches Towards Flexibilisation*, Challenges and Prospects in the EU Series, Publications Office of the European Union, Luxembourg.

_____. 2020b. *New forms of Employment: 2020 Update*. New Forms of Employment Series, Publications Office of the European Union, Luxembourg.

Feng, X. 2021. *China Labour Review*. Beijing: China Workers Publishing House.

Friedman, G. 2014. *Workers without Employers: Shadow Corporations and the Rise of the Gig Economy*. Review of Keynesian Economics, 2, 171–188.

Gao, Y., Zhou, M. & Ji, Q. 2021. *The Path to Compliance for flexible Labor Platforms: Path Design for Compliance Solutions*. Beijing: Law Press.

Gig Economy Research Centre, South China University of Technology. 2022. *Online Platform Laborers: Classification, Rights and Interests and Governance* (1st ed.). Beijing: China Legal Publishing House.

Harris, B. 2017. *Uber, Lyft, and Regulating the Sharing Economy*. Seattle University Law Review, 41, 269–285.

Harris, Seth D. & Krueger, Alan B. 2015. *A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: The Independent Worker*.

Huya. 2021. *Annual Report*. Available at: <https://ir.huya.com/Annual-Reports> (Accessed 30 October).

ILO. 2016. *Non-standard Employment Around the World: Understanding Challenges, Shaping Prospects*. International Labour Office, Geneva.

_____. 2021. *World Employment and Social Outlook 2021: The Role of Digital Labour Platforms in Transforming the World of Work*. International Labour Office, Geneva.

Meituan Research Institute. 2018. *New Youth in a New Era: 2018 Takeaway Rider Group Research Report*. Available at: https://s3plus.meituan.net/v1/mss_531b5a3906864f438395a28a5baec011/official-website/c21d0443-decf-41d5-9813-ef8eaa6516d0 (Accessed 30 October).

Meituan Research Institute. 2020. *Rider Employment Report for 2019 and 2020 During the Epidemic Period*. Available at: <https://mri.meituan.com/research/home> (Accessed 30 October).

National Academy of Development and Strategy, RUC. 2020. *The Age of Flexible Work: Research Report on Tik-Tok Platform Promoting Employment*. Available at: <http://www.199it.com/archives/1116200.html> (Accessed 30 October).

State Information Center. 2021. *China Sharing Economy Development Report*. Available at: <http://www.sic.gov.cn/sic/93/552/557/0219/10463.pdf> (Accessed 30 October).

OECD. 2016. *New Forms of Work in the Digital Economy*. OECD Digital Economy Papers, No. 260, OECD Publishing, Paris.

OECD. 2021. *The Rise of Domestic Outsourcing and its Implications for Low-pay Occupations*, in *OECD Employment Outlook 2021: Navigating the COVID-19 Crisis and Recovery*, OECD Publishing, Paris

Online Literature Centre of China Writers' Association. 2021. *2021 Blue Book of Chinese Online Literature*. Available at: <http://www.chinawriter.com.cn/n1/2022/0822/c404027-32507921.html> (Accessed 30 October).

Quhuo Technology. 2020. *Annual Report*. Available at: https://filecache.investorroom.com/mr5ir_quhuo/107/2020%20Annual%20Report.pdf (Accessed 30 October).

School of Labour and Human Resources, RUC. 2022. *Research Report on Short Video Platform Promoting Employment and Creating Social Value*. Available at: <http://slhr.ruc.edu.cn/docs/2022-03/061db596340c4ae0aad12d6d24c3cc5e.pdf> (Accessed 30 October).

State Information Center. 2022. *China Sharing Economy Development Report*. Available at: <http://www.sic.gov.cn/sic/93/552/557/0222/10464.pdf> (Accessed 30 October).

Tan, Z. 2018. *Some Thoughts on the Basic Medical Insurance for Non-regular Workers*. China Medical Insurance, (01):9-13. doi:10.19546/j.issn.1674-3830.2018.1.003..

Tsinghua Academy of Social Sciences. 2021. *Research Report on Travel Platforms in China's Tier 1 Cities in 2021*. Available at: <http://www.199it.com/archives/1246525.html> (Accessed 30 October).

Valenduc, G. 2021. "A Historical Perspective on the Drivers of Digital Labour Platforms," Chapters, in: Jan Drahokoupil & Kurt Vandaele (ed.), *A Modern Guide to Labour and the Platform Economy*, chapter 5, 81-95, Edward Elgar Publishing.

Wu, Q., Zhang, H., Li, Z., & Liu, K. 2019. *Labor Control in the Gig Economy: Evidence*

from Uber in China. Journal of Industrial Relations, 61(4), 574-596.

Xie, F. & Wu, Y. 2019. *Is the Gig Economy a New Form of Employment Where Both Labour and Capital Win?* Economist (06), 5-14. doi:10.16158/j.cnki.51-1312/f.2019.06.001

Yang, W., Wu, Q. & Zhang, J. 2022. *China Development Report on Flexible Employment: Efficiency, Flexibility and Compliance of Diversified Employment*. Beijing: Social Sciences Academic Press.

Yuan, Z. (2021). *Study on Social Insurance Status of Workers Under New Employment Forms*. Journal of China University of Labor Relations, 35(01): 75-84. doi:CNKI:SUN:GHLJ.0.2021-01-010.

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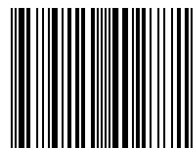
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