

Assessment of social security coverage of workers in diverse forms of employment and in platform employment in China

MOHRSS

Ministry of Human Resources

and Social Security of PRC



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Nuno Cunha, ILO Senior Technical Specialist on Social Protection, Decent Work Team for Asia and the Pacific, Christina Behrendt, Head Social Policy Unit, ILO Social Protection Department and Mel Cousins, international consultant, reviewed the reports. Luis Frota, Project Manager at the ILO Office for China and Mongolia was responsible for the editing of the publication. Zhou Jie, National Project Coordinator provided translation and editorial assistance.

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Glossary

Digital platform employment	Refers to work mediated by an app or a website that matches demand for labour to the provision of products or services in return for money. There are two main types of digital platforms for employment: online web-based platforms, where tasks are performed online and remotely by workers, and location-based platforms, where tasks are performed at a specified physical location by individuals, such as taxi drivers and delivery workers.
Workers	The definition of the term "workers" depends on national laws and regulations. The ILO includes "self-employed workers" in the definition of workers. The European Union Council Recommendation of 8 November 2019 on access to social protection for workers and the self-employed 2019/C 387/01 classifies the two categories distinctly.
Data sharing economy	In China, data sharing economy refers to the part of the economy generated through digital platforms including, but not restricted to, the sector of digital platform employment. It can be defined generically as the economic and social system for the exchange and use of resources enabled by digital sharing platforms. The defining economic feature of the sharing economy is the efficient use of resources due to the reduction of transaction costs made possible by digital platforms.
Flexible work	In China, flexible work refers to the system through which workers may choose their working time schedules, location, and workload instead of having fixed working hours and pre-determined commuting times.
Non-standard employment	It refers to employment relationships that are different from full-time, subordinate, and indefinite contracts. The ILO includes six different types of work in this category: temporary employment, part-time work, temporary agency work, disguised employment relationships (also called bogus self-employment), and dependent self-employment.
 Internet+ Government service 	The policy "Internet plus government services", of the State Council (2016) requires the government public service departments to realize data sharing so that residents and enterprises can reduce the number of times required to interact with public administration, and they do it in a more convenient way.
Smart city or digital city	A smart city is an urban area that uses digital technology to collect data from citizens, devices, buildings and assets and converts the data into information to improve operations across the city. Smart or digital cities harness technology and data sharing between public service departments through Internet or cloud data to better monitor, analyze, plan, and govern the urban areas.

One stop, one window and one network	These are the targets of the policy "Internet plus government services". When handling public service business, the insured can handle all social insurance business by entering one single administration ("one stop"); all social insurance businesses can be handled at any window of the administration ("one window"); all social insurance businesses can be handled through one website ("one network").
One visit at most	The insured only need to enter the offline service hall of the social security administration once to carry out all the administrative requirements related to a service or business process.
One thing done with one visit	The insured may complete an administrative act requiring supporting documentations from different departments, without having to engage all of them and instead making all needed business operations through one of them only. For example, retirement approval involves the social insurance department (pension retirement approval), the medical insurance department (medical insurance retirement approval), the Civil Affairs Department (applying for the old-age certificate), and so on. As the data of social security, medical insurance, civil affairs, and other departments are shared, the insured can complete the approval of retirement at one time after applying in the service hall.
Instant handling	Because the public service business realizes data sharing, and individual data from other sources may be available and checked online, many processes can be completed automatically after the insured submits the application.
All social insurance administration via one website	People can handle all social insurance administration operations including old- age insurance, work injury insurance and unemployment insurance via one single website.
Common service within the same region	The same social insurance administration processes can be conducted from anywhere within the same social pooling region. For example, in any area within the province, one can consult personal insurance information, print insurance certificates, and make contribution payments.
Administration at fingertips	Social insurance administration is available by using a smartphone App, WeChat or Alipay applications.
N+1 for transfer of social insurance relationship	Prior to the reform, to transfer a social insurance relationship, the insured needed to submit application at the original place of insurance, print an insurance contribution certificate, and then return to the new place of insurance to submit the application, etc. The insured was involved in the relationship transfer process several times according to the requirements of the various handling administrations and travel between the new place of insurance and the original place of insurance. After reform, the insured only needs to apply once in the place of insurance (thus the designation "+1"), and other administration processes are completed by the administration without involving the insured.
Three-level management, five-level service	The management functions of social security are mainly undertaken at three levels: province, city and county (district), and the specific services are undertaken by province, city, county (district), sub-district (township) and community (village).

Abbreviations

ACFTU	All-China Federation of Trade Unions
CALSS	Chinese Academy of Labour and Social Security
DPE	Digital platform employment
DFE	Diverse forms of employment
EC	European Commission
EU	European Union
ILO	International Labour Organization
MOHRSS	Ministry of Human Resources and Social Security
NSFE	Non-Standard Forms of Employment
OECD	Organization for Economic Cooperation and Development
SAMR	State Administration for Market Regulation
SDG	Sustainable Development Goals
SIA	Social Insurance Administration

Foreword

The People's Republic of China has made remarkable achievements in extending social insurance coverage. The 13th Five-Year Plan on Human Resources and Social Security set national objectives of full coverage of those eligible for compulsory social insurance, which were achieved in 2020. Thus, almost one billion people have already been enrolled in basic pension schemes.

The growth of the digital platform economy has had a significant impact on labour markets and raises new challenges for social security coverage of workers in new forms of employment. Despite near universal social insurance coverage of the working population by legally covered compulsory schemes, platform workers, most of whom are migrant workers, and workers in other flexible employment are generally not adequately covered by social insurance. As the size of flexible workers in China is steadily growing (over 200 million in 2021), and as platform workers are an important and growing part of this group, their social security demands need to be appropriately and timely addressed. Thus, the 14th Five-Year Plan (2020-25) establishes the goal of promoting the participation of flexible workers in the employees' pension scheme. In addition, policy orientations in 2021 have also prioritized the extension of employment injury insurance to all flexible workers.

In this context, the EU-China Project "Improving China's Institutional Capacity towards Universal Social Protection" (2019-22) carried out research on assessing social security coverage of workers in non-standard forms of employment, with a focus on platform workers, migrant workers, and women in China. The current report is the product of this research. It aims to contribute to the formulation of national and provincial policy initiatives to expand social security coverage to workers in traditional and new non-standard forms of employment. During the time of the research, China has further regulated flexible work and attempted to increase the protections for workers in new forms of employment, notably by promoting a variety of pilot schemes. We hope this publication will provide evidence and policy recommendations to the national regulation on employment injury insurance and the future adaptation of pension schemes for platform workers.

Chang-Hee LEE Director ILO Country Office for China and Mongolia

Introduction

This publication assesses the access of workers in diverse forms of employment in China to social security and provides recommendations to close the policy and implementation gaps. It compares the social security situation of workers in platform digital employment, particularly women, and migrants, with the workers in other non-standard forms of employment.

The extension of social security to all workers, including those working through platform companies had started taking centre stage internationally, prior to the COVID-19 pandemic. The European Union Council adopted on 8 November 2019 the Recommendation COM/2018/0132 final - 2018/059 on "access to social protection for workers and the self-employed". In China, the extension of social security to flexible workers was considered the last mile of the Plan for Universal Social Security Coverage. The COVID-19 pandemic heightened the public consciousness about the labour and social security situation of these workers because of their vital contribution to economic activity and to social needs during several periods of lock down. At the same time, their lack of protection gained visibility. The protection of digital platform workers against illness, work accidents, unemployment and in old age thus became a subject of greater policy concern across the world in 2020-21, as these workers continued to work throughout the pandemic, even after being exposed to the SARS-CoV-2 virus. Moreover, digital platform employment became a vital source of income for an increasing number of workers and has significantly contributed to jobs recovery over the past two years. In this context, the European Commission, initiated a process of regulation for the working conditions of workers in platform employment in 2020, which culminated in an EC proposed directive to the European Council and the European Parliament on 9 December 2021. In China, a Guiding Opinion from the State Council in 2021 stated there was a priority for the extension of employment injury coverage for people working in food delivery, online car-hailing and instant delivery services (Lin and Yunjia, 2021).

The report focuses particularly on pensions and employment injury insurance and on the transformation of social security administration and services for workers in different forms of employment. Albeit imperfect, the term "diverse forms of employment" (DFE) is used in this report to designate different employment arrangements that deviate from full time permanent employment. According to the ILO, the term is preferred today to the term "non-standard forms of employment". Both names cover temporary, part-time, multiple jobs, agency work and self-employment arrangements, and other forms of employment deviating from previously conventionally called the "standard" of full-time, open-ended employment with a single employer. The term "diverse forms of work" includes traditional part-time and temporary work and new and digitally based forms of work, sometimes designated as "new forms of employment". In addition, in this report, the terms "diverse forms of employment" and "flexible employment" are used interchangeably. Although there is not an international definition for 'flexible employment" or "flexible work", and the notions are polysemic, this report uses them because they are the exact translation of the terms used in China's official documents such as social security policies and regulations, notably the China Social Security Law of 2011. They must however be strictly understood as comparable to "diverse forms of employment" used in the international literature.

The publication considers the portability of social security rights across different forms of employment and within and between provinces. It shows that there has been a progressive elimination of policy and practical barriers to the portability of social security benefits due to the Hukou system of residence, but there persist barriers to mobility of social security benefits for workers with flexible employment, even when they represent a sizeable part of the local labor force in some localities. The report shows that the vulnerability to social security risks associated with different forms of employment has a gender dimension. Whereas platform employment connects women to larger markets, offers flexibility in terms of working hours, and helps them to balance work with their family commitments, however it may sometimes accentuate gender inequities. Platform work is gendered, with women working in lower pay sectors, as they tend to join platforms related to domestic work and care. Platform work performed at home perpetuates a double burden for women whereby they add household chores and care obligations to work.

The publication was produced under the EU-China Project "Improving China's Institutional Capacity towards Universal Social Protection" (2019-22). This project is funded by the European Union and jointly implemented by the ILO and the Ministry of Human Resources and Social Security (MOHRSS) of China. The aim of the research is to provide inputs for MOHRSS to improve national measures to extend social insurance coverage to working populations in non-standard forms of employment. It is hoped that the research contributes to the formulation of national and provincial policy initiatives to expand social security coverage to workers in traditional and new non-standard forms of employment.

The report is organized as follows. The second chapter presents the research methods and the details of the survey carried out for this publication. The third chapter presents a review of the related literature and presents recommendations for the provision of pensions for workers in the platform economy, which result from the assessment of needs, and the analysis of policy gaps. The fourth chapter shows the results regarding the provision of employment injury insurance benefits. The fifth chapter identifies the administrative bottlenecks and the opportunities for expansion of social security to workers in all forms of employment. The last chapter concludes with a proposal for a specific action plan and monitoring system to expand universal social security coverage.



Objectives and methods of study

2.1 Objectives of the study

2

The study aimed to assess the social security situation of workers in diverse forms of employment (DFE), or flexible workers, and workers in digital platform employment (DPE) including both flexible workers and employees, with attention to those who were migrant workers and women. This included the appreciation of the policy, regulatory and administrative social security gaps that impact the extent of their coverage and the adequacy of their benefits, and their willingness to contribute to improve their social security situation.

2.2 Methodology

Social insurance administration

Key informant interviews with government officials were conducted in selected localities. The four provinces selected were representative of different economic development levels and forms of social security institutional organization: Zhejiang, Sichuan, Guangdong, and Beijing. The interviews were held with officials from relevant government departments and the social insurance administration to learn about local employment and social insurance policies and regulations, to obtain administrative data on coverage

and efficiency of social security administration and to understand the views of the government about the challenges and opportunities for the social security coverage of workers in diverse forms of employment. Field visits were organized by local offices of the Ministry of Human Resources and Social Security to social insurance administration centre service halls and back offices at the community, county, district/city and provincial level. Finally, **three research seminars** were implemented with national experts from academia, national departments and provincial counterparts, international experts from the ILO and social insurance administrations of European and Asian countries.

Perspectives of workers

Two methods were used to obtain data about the workers. First, **a targeted online survey to workers** in DPE and in DFE was implemented. A total of 3,145 valid questionnaires were collected, covering three aspects: Socio-demographic characteristics, including the age, gender, and educational background of workers in DFE; the second was the employment situation, including their main forms of employment, part-time employment, and work income, work mobility, signing of employment contracts, etc. The third related to insurance participation, including the current insurance affiliation and contributions, their perception about social insurance participation, and future willingness to participate in insurance. A detailed description of the methodology is provided in Annex I. Secondly, **focus groups and individual semi structured interviews** were conducted with workers in DFE, including in DPE. A total of 22 workers were interviewed. Through the interviews, workers shared their employment status and their affiliation to social security, their beliefs concerning non-participation and their demands and desire to participate in social security.

Perspectives of enterprises

The views of employers were collected through three approaches. First, 79 **questionnaires** were distributed to enterprises, 70 per cent of which were platform companies and 30 per cent were non-platform enterprises. The questionnaire covered basic company information, types of employment, social insurance coverage of employees, purchase of commercial insurance, and enterprises' suggestions for policy changes. Secondly, **two focus group discussions were held at the national level** with ten platform enterprises, including Meituan, Ele.me, Ali Group, Cao Cao Travel, Dada Group, Dongfang Huibo, Shanghai Feihe, and Xianbuxian. In these discussions, representatives of platform companies provided information on the employment situation, the level of social insurance coverage of their workers, their challenges and policy demands. Thirdly, **focus group discussions were held with local platform companies and human resource service companies** in Zhejiang, Sichuan, and Guangdong to understand the social insurance participation of dispatched employees, and their role in protecting platform economy workers. Those companies included Meituan, SF Express, JD.com, Sichuan Baineng Information and Technology Co., Ltd., Shanghai Foreign Service (Sichuan) Human Resources Service Co., Ltd., Meicai.com, and Yicai Group, etc. Table 1 below provides the contribution of the different methods to the issues and themes covered by the research.

Domains	Issues	Data /information source
Personal socio- demographic characteristics	 Gender Education Age 	Questionnaires , worker interviews
Employment status	 Main forms of employment (occupation, sector) Employment stability Part-time employment Income situation Type of employment contract Employment expectations in the next six months (working status, income, workload) The dependence of platform practitioners on platform work (length of work on the platform, and income from working on the platform) 	Questionnaires, worker interviews
Social security legal coverage	 Laws and policies concerning non-standard employees participating in insurance 	Laws, regulations and policies, on-site investigations (discussions with government departments)
Effective coverage of social security	 Which social insurances have workers participated in? Actual insured place and type of insured system Duration of insurance contribution payment Reason for not enrolling 	Questionnaires, workers interviews
Contributions	 Effective level of payment Contributions as a percentage of income Subjective perception of payment burden 	Questionnaires, workers interviews
Benefits received	 Pension amounts Compensation after a work-related accident Problems in the identification and compensation of work-related injuries Reimbursement of hospitalization expenses 	Questionnaires to workers and companies, workers interviews, focus groups (information by government departments)
Social security management	 Obstacles to participating in the insurance contribution payment What are the obstacles to cross-regional transfer and continuation? What are the obstacles to the enjoyment of social security benefits? 	Questionnaires to workers and companies, focus groups (information by government departments)
Individuals' future insured intentions and demands	 Willingness to participate in various social insurances Willingness to pay Willingness of the place of enrolment and the place of receiving benefits Suggestions to be improved in terms of social security management Willingness and plan to save for retirement 	Questionnaires, worker interviews

▶ Table 1. Evaluation indicators of social security coverage for workers in DFE

2.3 Delimitation of the study

The study has six important delimitations:

- 1. The research sought to understand the social security situation of workers in DFE and in DPE. A targeted survey of workers was implemented, covering workers in DFE and in DPE. The sample included all workers in DFE inclusive of those in DPE.
- 2. **The perspectives of employers** present two main limitations. First, the sample size of the returned enterprise questionnaires was small. Second, the enterprises participating in the roundtables are not satisfactorily diversified. Most enterprises are compliant with regulations and have well-established employment management systems and good employment practices.
- 3. The analysis focused on the social security coverage in respect to pensions and employment injury **benefits.** To this end, the survey of workers included specific questions on pensions and employment injury benefits and the report contains two chapters dedicated to these two benefits. However, a part of the literature review and the questionnaire also assessed the social security coverage in respect of a comprehensive range of social security benefits, namely:
 - i. the basic pension insurance for urban enterprise employees (voluntary affiliation as flexible worker);
 - ii. the basic pension insurance for urban and rural residents;
 - iii. the basic medical insurance for urban enterprise employees (as flexible worker);
 - iv. the basic medical insurance for urban and rural residents;
 - v. the work injury insurance scheme;
 - vi. the unemployment insurance scheme; and
 - vii. the maternity insurance.

In addition, the findings on the administrative capacity (Chapter 6) apply equally to other benefits, notably unemployment benefits, managed by MOHRSS.

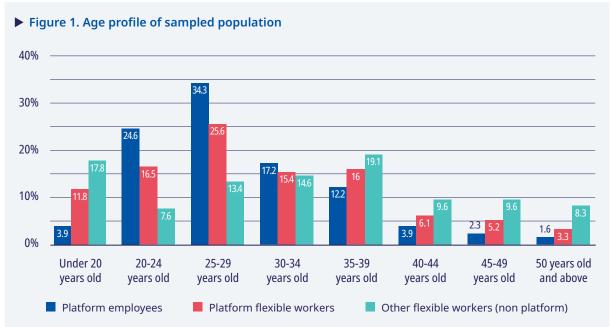
- 4. The scope of the field work was in three provinces namely: Zhejiang, Sichuan, Guangdong and in Beijing. The provinces were chosen for their representativeness of the geographic and socio-economic diversity notably in terms of internal labour migration patterns, and East-West and North-South differences in economic development. The research team conducted several focus groups and individual interviews. These discussions provided insight into the situation in those representative localities. Moreover, the report draws on literature, laws and policies and other grey literature on the status of administration, including pilot measures carried out in other provinces based on information provided by key informants. Two research seminars were implemented in Beijing to discuss preliminary findings with representatives of MOHRSS in a total of 11 provinces.
- 5. **The portability of benefits is a cross cutting theme.** The theme is not treated separately in a dedicated chapter but is part of the analysis of the gaps in assessing pensions and administrative bottlenecks for extending social security coverage.
- 6. **The study included gendered disaggregated data.** This is an area that is often missing in existing studies. The breakdown of statistics by gender appears in the section on descriptive statistics, and in the analysis of workers' participation in pensions benefits. The study provides recommendations for gender responsive social security policy design and administration for workers in DFE.
- 7. The study probed the capacity of the administration to integrate workers in new forms of employment. An attempt was made to assess specifically the administrative capacity of social security to include workers in new forms of employment. It was not always possible to obtain specific information on this theme, because most of the modernisation of social security administration so far has been aimed at strengthening the efficiency, efficacy, and integrity of the administration as a whole, irrespective of the nature of workers who benefit from the improvements. This may be a finding in of itself, in the sense that more work will need to be done in the future to further consider the different characteristics of workers in diverse forms of employment and the way they can relate to social security.

2.4 Descriptive statistics

This section presents the individual characteristics of workers sampled in the survey implemented in this study. A detailed account of the survey methods is provided in Annex I.

Age profile

Sampled workers in platform employment (both employees and flexible workers) tend to be younger than workers in non-platform (flexible) employment. The median age of platform employees is in the 25-29 years bracket and the median age of non-platform (flexible workers) is in the 30-34 years bracket. Platform employees tend to be younger than platform flexible workers.

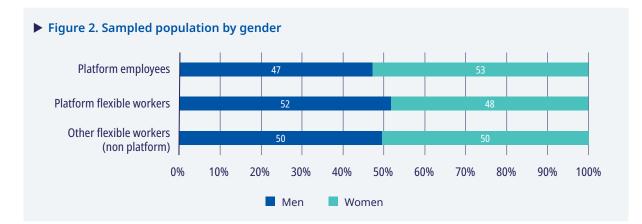


Source: Survey.

Note: 1,126 sampled have age information, platform employees n=435, platform flexible workers n=363 and other flexible workers n=157.

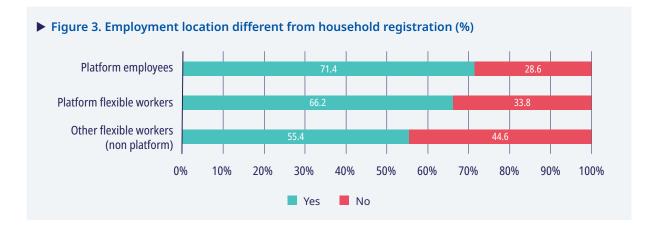
Gender

Women and men are equally represented in non-platform flexible employment. In platform employment, there are slighly more women than men who are employees and more men than women who are flexible workers.



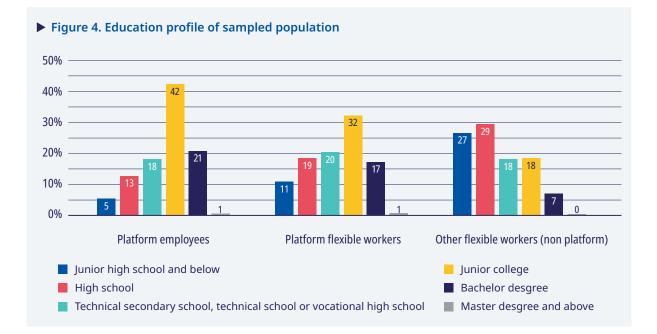
Residence

In 2019, migrant workers in China accounted for more than 20 per cent of the total population and roughly 35 per cent of the Chinese labour force. However, in some provinces and cities, the percentage of migrant workers can reach up to 80 per cent of the local labour force, mostly constituted by flexible workers. In this study's sample, most of the workers were migrants across all categories of DPE and DFE. More platform workers were migrants compared to non-platform (flexible) workers.



Education profile

Platform employees tended to have higher levels of education than platform flexible workers. In turn, platform flexible workers have higher levels of education than other non-platform flexible workers.

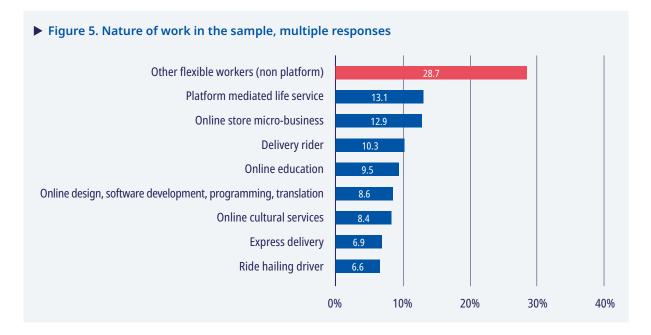


Nature of occupations

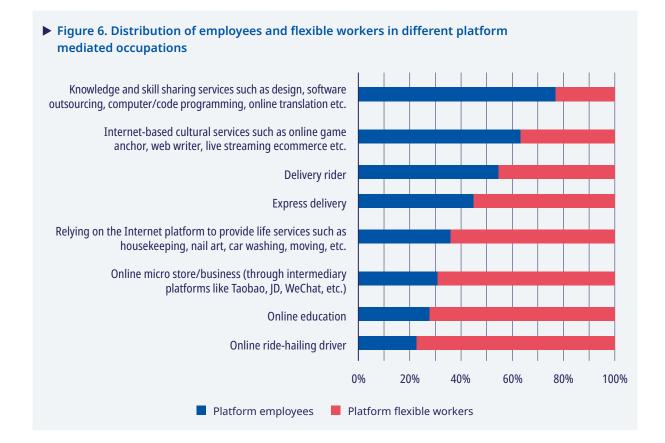
In the survey, platform employment is widely spread between different occupations. Platform mediated life services represent the single most important form of platform employment (13,1%). Life services referred to housekeeping, nail-art, car washing, and moving. This is followed by online store micro businesses such as Taobao and JD selling services (12.9%), and delivery riders (10.3%). Knowledge and skills sharing services

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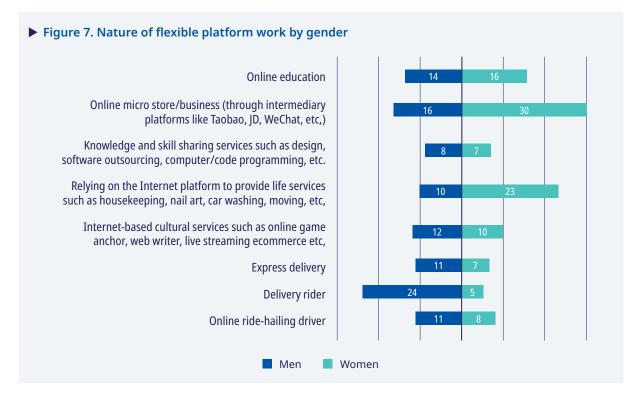
(8.6% of platform employment) refer to design, software outsourcing, programming, and online translation. Online cultural services (8.4%) referred to online gaming anchors, online writers, live streaming with goods.



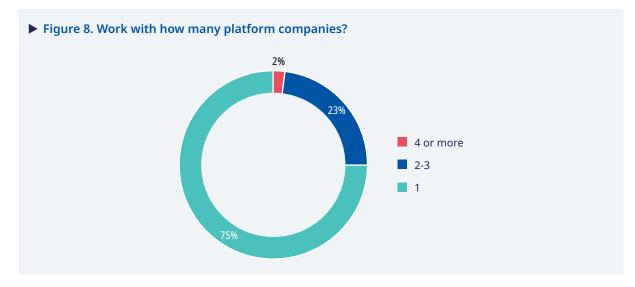
As shown in figure 6, platform employees are found predominantly in knowledge and skills sharing industries and internet based cultural services whereas platform flexible workers are found predominantly in online ride hailing, online education, online micro businesses and life services industries. Delivery riders and express delivery are respectively approximately 45% and 55% platform flexible workers.



Male flexible platform workers are predominantly represented in delivery riding occupation and in the online business industry, whereas women are mostly working in online businesses and providing life services through online platforms (Figure 7).

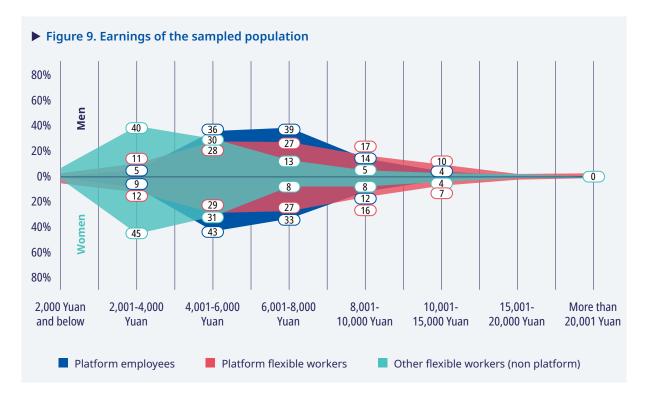


About one fourth of platform workers work in more than one platform.



Earnings

Figure 9 shows that in the sample, platform workers tended to have higher earnings than non-platform flexible workers. Female platform employees' median earnings are between 6,001-8,000 yuan, which are higher than male platform employees' median earnings which fall in the 4,001–6,000-yuan bracket. Women and men platform flexible workers have relatively the same earnings distribution. Both have relatively higher median earnings than their platform employees' of the same gender.



Comparative literature review

3.1 Introduction

This chapter reviews the international and national literature on the social security of workers in diverse forms of employment (DFE) with a focus on workers in digital platform employment (DPE). The first part of the chapter presents international standards, laws, and policies, with a particular focus on norms and policy instruments from the ILO and the European Union. The international literature review draws mostly on two papers commissioned by the ILO to the University of Maastricht Graduate School of Governance (Tamara et al, 2021) and to Mel Cousins (2021). The second part of the study is based on a systematic literature review of research in China conducted by CALSS. It uses the China Knowledge Network (cnki.net) to search and retrieve Chinese academic resources. The authors used a cross combination of key words to search, including 'non-standard forms of employment', 'platform employment', 'new forms of business', 'new forms of employment' as well as 'social security' and 'social insurance' ('old-age insurance', 'medical insurance', 'employment injury insurance', 'unemployment insurance'). The review is based on 97 valid entries. The chapter analyses the contributions and limitations of the literature to understand the extent and quality of social security coverage of workers in DFE and in DPE in China and establishes the gaps in the existing knowledge, that this study intends to fill, to assist policy formulation.

3.2 International standards, regulations, and policies

The major international standards and key principles applicable to social security for all types of employment¹, including work in DFE, include:

- The Social Security (Minimum Standards) Convention (No. 102). This standard provides guidelines for the development of comprehensive social security systems. It describes nine contingencies and related branches of social security (medical care, sickness, maternity, unemployment, employment injury, old age, invalidity, survivors, family benefits), and a set of universal principles for the personal scope of coverage, benefit levels including minimum replacement rates for different benefits, the monitoring and review of pension adequacy, as well as for the governance, administration, and financing of social security benefits. The convention refers to employees, including temporary and seasonal employees, and the economically active population, including the self-employed, and all residents. Benefits may be contributory or non-contributory or a mix.
- The Social Protection Floors Recommendation (No. 202) states that member States should prioritize the establishment of a national social protection floor of basic social security guarantees that allow a life in dignity for everyone, over the life cycle. It also recommends states to progressively move towards higher levels of benefits in accordance with C. 102 and other international social security standards. The Recommendation indicates that the basic social security guarantees should be provided to at least all residents and children, as defined in national laws and regulations.
- In the General Survey ILO 2020. 'Promoting Employment and Decent Work in a Changing Landscape, Report of the Committee of Experts on the Application of Conventions and Recommendations² and the 'Addendum to the General Survey: Promoting Employment and Decent Work in a Changing Landscape³, the ILO Committee of experts considered that more efforts should be made to ensure that those in "new" forms of work and employment are covered under the same terms and conditions as other workers. Ensuring coverage of digital platform workers helps to ensure a level playing field and a fair competitive environment among economic actors in both the "old" and "new" economy.
- The Employment Relationship Recommendation (No. 198) states that member states should effectively protect workers who perform work in the context of an employment relationship. It further establishes the principle of "primacy of facts": The determination of whether an employment relationship exists should be based on facts related to actual work performance, not on how the parties describe their relationship.
- The Transition from the Informal to the Formal Economy Recommendation (No. 204) provides guidance for preventing the informalization of jobs in the formal economy and encourages the coordination and cooperation across different authorities to enable the transition of workers and economic units from the informal to the formal economy.

According to Tamara et al (2021), in most countries, the distinction between employment and selfemployment is well documented and addressed in national labour laws. Nevertheless, in practice, the lines between employment and self-employment are less straightforward. Regulation and implementation gaps persist and result in several cases of disguised employment (OECD, 2018a; 2018b; Sacchi and Vesan, 2015). This situation applies in the case of platform employment as there is a lack of legal certainty of the labour relationship in many occupations in the platform economy.

One of the main actors leading the efforts on the regulation on platform employment is the European

¹ ILO. 2021. 'Resolution and Conclusions Concerning the Second Recurrent Discussion on Social Protection (Social Security), 109th Session of the International Labour Conference'. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/ meetingdocument/wcms_806099.pdf

² https://www.ilo.org/ilc/ILCSessions/109/reports/reports-to-the-conference/WCMS_736873/lang--en/index.htm.

³ https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_775883.pdf.

Union (EU). In 2017, the European Parliament, and the European Council adopted the European Pillar of Social Rights. This document contains 20 principles to support members States' labour market and social protection systems. Under principle 12, a call is made to the member States to ensure the right to adequate social protection regardless of type and duration of the employment relationship (Schoukens, Barrio and Montebovi, 2018). Together with the EU Directive on Transparent and Predictable Working Conditions, and a future proposal for a European Social Security Number, the European Pillar of Social Rights can be seen as a promising step to cover new forms of employment (Aranguiz and Bednarowicz, 2018). However, one of the challenges remains that it is not binding in nature (Potocka-Sionak, 2018; Spasova and Wilkens, 2018). More recently, the EU Directive 2019/1152 required EU member states to seek ways, through national legislation, to extend the rights accorded to standard workers to workers in DFE, including workers in DPE.

Among the members of the EU, France (Decrees on Digital Platform, 2016, and on labour mobility and representation of platform workers in 2021)⁴ and Germany (Work 4.0 Policy Paper, 2016) already have in place legal and policy initiatives to provide social security to the platform workers (Spasova et al., 2017)5. In a landmark legislation in the EU, a royal decree in Spain in 2021 (Real law decree n. 9/2021, 11 May 2021) recognised food delivery riders working for digital platforms as employees rather than independent contractors.

Within the 35 countries covered by the European Social Policy Network (ESPN), the network reports most workers in DFE are in principle entitled to the same benefits as other workers for almost all benefits, especially for pensions. Unemployment insurance is one exception. A study by IDEA Consult (2015) found that among 21 European countries, temporary agency works and fixed-term contracts have similar access to unemployment benefits as other work. However, it differs for those classified as self-employed workers (see Spasova et al., 2017). Except for a few Nordic countries, social security is predominantly employment-related in the EU, therefore access to social protection is in practice often conditional on satisfying minimum requirements of previous contribution periods, days worked in a year and other similar thresholds (Spasova et al., 2017).

3.3 International literature review

This section describes the definitions, principles, challenges in providing social protection for workers in DFE, the policies and initiatives in Europe, especially concerning the efforts to protect workers in the DPE.

3.3.1 Definitions

The ILO prefers the term "diverse forms of employment" to refer to employment relationships that do not fall under full time, subordinate, and indefinite contracts. Behrendt and Nesterenko (UNECE, forthcoming⁶) list the following forms of work under diverse forms of employment, in addition to full time indefinite contract and caracterise their barriers for social insurance participation in the following way:

⁴ Eurofound, *Revision of the Legal Framework for Platform Workers*, 2021. Available at: https://www.eurofound.europa.eu/data/ platform-economy/initiatives/revision-of-the-legal-framework-for-platform-workers and https://www.eurofound.europa.eu/ data/platform-economy/initiatives/ordinance-no-2021-484-of-21-april-2021-to-establish-representation-for-platform-workers

⁵ Eurofound, Database of Up-to-Date Laws, Regulations and Policies on the Protection of Workers in the Platform Economy in the EU, 2021. Available at: https://www.eurofound.europa.eu/data/platform-economy/records

⁶ Chapter 'Employment and Social Protection' in UNECE Handbook on Forms of Employment (forthcoming)

Form of employment		
Dependent employment	Full-time indefinite employment	 Depends on legal coverage of sector of employment and type of enterprise High exclusion risk: workers in micro-enterprises, excluded sectors or occupations, workers with low pay and without written contract
	Temporary employment	 Depends on minimum thresholds with regard to length of employment High exclusion risk: casual employment
	Part-time employment	 Depends on minimum thresholds with regard to regular working time Critical: marginal part-time work, zero-hour contracts
	Multi-party employment relationships	 Depends on regulation with regard to responsibility of each party High exclusion risk: casual employment, marginal part-time work
	Dependent contractors/ disguised employment	 Depends on mechanism to ensure correct classification of employment relationships; in some countries specific rules for dependent contractors Risks: inadequate regulation and enforcement
Independent employment	Genuine self- employment	 Depends on modalities for legal coverage by sector and type of occupation/profession Challenges: lack of coverage or voluntary coverage; adapted mechanisms to take into account contributory capacities; complex administrative procedures; fragmentation of the system

• Table 2. Diverse forms of employment and challenges for social protection coverage

Source: Behrendt & Nesterenko, forthcoming⁷.

7 Chapter 'Employment and Social Protection' in UNECE Handbook on Forms of Employment (forthcoming)



The definitions of diverse forms of employment in various countries are diverse. Very few countries include in their legislations all the six categories identified by the ILO. Countries use the categories of part-time work, fixed-term or temporary jobs, and standard self-employment are the three main recurrent categories. Those countries include Italy (Sacchi & Vesan, 2015; Jessoula, Pavolini & Strati, 2017), Spain (Rodríguez Cabrero et al., 2017), Belgium (De Wispelaere & Pacolet, 2017), Estonia (Masso & Kadarik, 2017, Romania (Pop & Urse, 2017), Sweden (Nelson et al., 2017), Slovenia (Senčur Peček, 2018; Stropnik, Majcen & Prevolnik Rupel, 2017), Croatia (Vukorepa, Tomić & Stubbs, 2017), Turkey (Adaman et al., 2017), Czech Republic (Sirovátka, Jahoda & Malý, 2017), Netherlands (Burri , Heeger-Hertter & Rossetti, 2018) and Canada (Busby & Muthukumaran, 2016). In addition, national definitions diverge from international standard definitions depending on the labour market contexts: For example, in Italy project workers and continuous collaboration contracts are included in legislation (Jessoula, Pavolini & Strati, 2017). Similarly, in Spain diverse forms of employment include specifically casual and seasonal workers (Rodríguez Cabrero et al., 2017).

3.3.2 International principles on the extension of social security

ILO and EU policies emphasize the need to provide all workers with effective and adequate social security coverage regardless of their employment relationship. The C102 – Social Security (Minimum Standards) Convention, 1952 (No. 102) allows countries to justify the number of people covered by social security schemes based on the criteria of residence independently of the employment relationship, and emphasizes minimum standards below which, in such cases, no resident should fall (Greve, 2013). The ILO Social Protection Floors Recommendation, 2012 (No. 202) emphasised the coverage of all residents and children and in its Article 15 indicates that social security extension strategies should apply to persons both in the formal and the informal economy. Likewise, the EU Council Recommendation of 8 November 2019 on access to social protection for workers and the self-employed (2019/C 387/01) puts emphasis on ensuring effective coverage for "all workers, regardless of the type of employment relationship, and for the self-employed" (EU 2019, Art. 9).

The rise in new forms of employment, notably in the platform economy and the increase in job mobility of workers across different forms of employment calls for inclusive social protection systems that ensure portability of social security rights between schemes and across employment statuses. In recognition of this, ILO and EU principles encourage fairness of treatment between social security for the self-employed, and workers in other forms of employment and avoidance of fragmentation (ILO and OECD 2020, 15–16). In a recent report for the EU Commission, several principles for universal coverage are identified (Shoukens, 2019). These are:

- 1. *Labour neutrality* Measures should, insofar as possible, be neutral in design in regards to employment status, and should not encourage the creation of one form of employment over another.
- 2. *Equivalence* Although issues of redistribution need to be considered in scheme design, it will be important that there be a reasonable level of equivalence between what a worker pays into the scheme and what s/he receives from it as a benefit.
- 3. *Accessibility* It involves the ease of joining the social protection system and applying for benefits. Research in the EU indicates that transparency is a factor in the decision-making process as to whether a person takes out insurance.
- 4. *Comprehensiveness* A comprehensive approach avoids a fragmentation, which allows specific groups of workers to fall through the cracks in the system and, in keeping with the labour neutrality principle, allows people to move easily from one form of employment to another.

In order to have an effective social protection system in place, it is advisable to distinguish, between the basic principles which are valid for all involved work groups (standard workers, part-time workers, self-employed persons) and the application rules which have to take into account the specific work circumstances of each of the involved groups.

Schoukens (2019, p. 5)

The World Social Protection Report 2020-2022 calls for a high road for universal coverage of social protection, which encompasses:

- 1. The *extension* of protection to *all* workers;
- 2. The comprehensiveness of contingencies covered, responding to needs in the life cycle;
- 3. The *adequacy* of benefits; and
- 4. Their *adaptation to the developments* in the world of work.
- 5. Their sustainable and equitable financing

Behrendt and Nguyen (2018:9) have summarized the key principles used to guide policymakers in strengthening social protection systems:

- 1. *Universality of protection and accessibility:* Ensuring effective access for workers in all types of employment, adapted to their situation and needs. According to the ILO Social Protection Floors Recommendation, 2012 (No. 202) the universality of protection can be achieved based on social solidarity.
- 2. *Adequacy:* Ensuring that social protection systems do not only effectively prevent poverty, but provide appropriate income replacement, in an equitable and sustainable way. Regarding the adequacy and predictability of benefits Article 17 of R. 202 specifically indicates that members should aim to achieve the range and levels of benefits set out in the Social Security (Minimum Standards) Convention, 1952 (No. 102), or in other ILO social security Conventions and Recommendations setting out more advanced standards.
- 3. *Transferability:* Ensuring that social protection systems positively support labour market mobility, and account for the structural transformation of the labour market and the economy.
- 4. *Transparency:* Ensuring that all actors are fully aware of their rights and responsibilities; legal frameworks provide for clear and predictable entitlements; and administrative procedures are as simple and clear as possible, fully harnessing the potential of digital technology while protecting personal data and respecting privacy.
- 5. *Gender equality:* Ensuring that social protection systems are sensitive to the realities that women and men face in the labour market, in employment and society, and that they promote gender equality.
- 6. *Good governance:* Ensuring that social protection systems are financed in a sustainable and equitable way, as well as efficient management and administration. This requires high-quality public services that enhance the delivery of social security systems, respect for the dignity in access to services, efficiency and accessibility of complaint and appeal procedures.

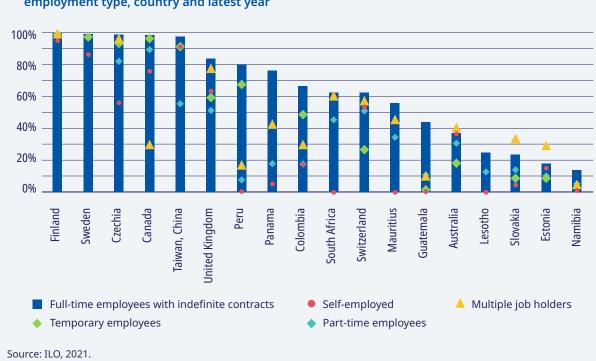
Universal social protection has a key role in achieving the 2030 Agenda for Sustainable Development, and in particular SDG target 1.3 on "social protection systems and measures for all, including floors". In 2019, the ILO Centenary Declaration for the Future of Work (2019) called on Member States to develop and enhance social protection systems that are "adequate, sustainable and adapted to developments in the world of work" (II.A.xv), and to strengthen the capacities of all people to benefit from the opportunities of a changing world of work through "universal access to comprehensive and sustainable social protection" (III.A.iii). In their Global Call to Action for a Human-Centred Recovery from the COVID-19 Crisis, governments, employers and workers of the ILO's 187 Member States committed themselves to "achieve universal access to comprehensive, adequate and sustainable social protection".

Recommendation R.202 puts emphasis on the progressive realization of the extension of social security coverage through national social security extension strategies. This requires setting targets and time frames (art. 19) and monitoring progress (art. 20). For that purpose, countries should regularly collect, compile, analyse and publish an appropriate range of social security data, statistics and indicators, disaggregated, in particular, by gender (art. 21).

3.3.3 The social security challenges of new forms of employment

One of the main areas of debate in international studies on social protection for workers in DFE concerns the question of how social protection is, or is not, coupled to employment (Behrendt, Nguyen and Rani, 2019). Insofar as social protection is tied to employment relationships, self-employed workers are excluded from social protection (Balaram et al., 2017). According to many scholars, some social protection systems cover only workers in long-term employment relationships, while others follow a more inclusive approach that cover also self-employed workers. (Aranguiz and Bednarowicz, 2018; Friedman, 2014; Paz-Fuchs and Wynn, 2019.) Therefore, some social protection systems in place fail to achieve their objective to protect all workers, in work and during work transitions and may exacerbate their poverty. The following Figure 9 shows that **self-employed, temporary, part-time workers, or multi job holders, sometimes reflecting a fragmented full-time job, are less likely to contribute to social security in 18 selected countries in different regions.**





► Figure 10. Share of persons in employment who contribute to a social insurance scheme, by employment type, country and latest year

The extent to which social security schemes are inclusive of workers in DFE depends on the social protection system in place. Both Bismarckian type (labour-related social insurance schemes) and Beveridgean type (universal systems determining qualification to benefits based on residency status) require adjustments in their design to cover or include emerging work arrangements due to the often-low pay, temporary nature, and flexibility of employment in DFE. However, the challenges for the labour-related systems are greater than for the universal schemes (Schoukens, Barrio and Montebovi, 2018). Even when access to social protection benefits for DFE is similar to that for standard workers, they are frequently unable to fulfil the same requirements for eligibility. This is due to several factors, such as reduced income and intermittent or scattered working days with prolonged spells of inactivity during the year. In addition, eligible individuals in DFE often have a smaller contribution capacity and shorter working careers resulting in significantly lower benefits. The relatively higher barriers for workers in non-standard employment, whilst being exposed to the same levels of risk concerning worker' health, income, and general economic activity, increases their overall vulnerability.

Another issue concerns the challenge of transferability of rights and entitlement to benefits when engaged with multiple employers in case of part-time work and self-employed work (ILO, 2016; Spasova et al., 2017).

Three key obstacles to the eligibility of workers in DFE to social security are most often cited:

- 1. Eligibility criteria pertaining to minimum income thresholds and minimum or maximum work time requirements.
- 2. Difficulties with determining eligibility in case of (un-)employment or under employment (working less hours than needed or wanted).
- 3. Implementation of same mandatory set of benefits versus optional coverage or a mix of mandated and voluntary coverage of benefits in case of workers in DFE.

Next to the design of the social protection system in place, mismatches between standard workers and workers in DFE should also be considered in terms of the actual income. It has been difficult to identify self-employed incomes. Furthermore, workers in DFE may have fluctuating income. Self-employed may pay contributions based only on minimum monthly reference wages (Spasova and Wilkens, 2018). The self-employed may decide to underreport income (OECD, 2019b) resulting in less accruement of benefits.

In addition, some social security systems provide only voluntary schemes (Schoukens et al., 2018) (See also Bäcker, 2017 for Germany; Kangas and Kalliomalia-Puha, 2017 for Finland; Kolsrud, 2018 for Sweden). In such cases, individuals engaged in DFE, particularly in self-employment, generally opt-out of for a variety of reasons. The self-employed often have to pay both the employer and employee contributions into the social protection schemes. This may result in a lower net income for workers in DFE compared to standard workers and is one of the most prominent reasons for non-participation (Codagnone et al., 2018).

3.3.4 The inclusion of workers in new forms of employment in social security in the European Union

With a few exceptions, social security systems in continental Europe were established having in mind mostly dependent employees (Spasova et al., 2017). In these cases, deviations from the dependent employee model – such as platform workers or the self-employed – can cause coverage gaps in social protection (OECD, 2018a). The absence of legal entitlement is a critical aspect leading to the exclusion of workers in diverse forms of employment from social protection measures in European countries. A mix of approaches have been undertaken towards including self-employed persons in the social protection systems. Nevertheless, while some countries provide obligatory or voluntary access to social insurance, others do not provide legal access for the self-employed. Eurofound (2017) categorised EU member States as:

- 1. *Inclusive,* where the self-employed have the same protections as dependent employees (Finland, Denmark, Sweden).
- 2. *Separate* protection schemes for the self-employed (Austria, Belgium, France, Germany, Greece, Italy, Netherlands, Spain, Portugal).
- 3. Those with more limited social protection rights for the self-employed (UK, Bulgaria).
- 4. *No specific system* for the self-employed (Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia).

The statutory access to the different social protection schemes differs between the types of schemes. Out of the different social protection schemes, unemployment insurance tends to be the least covered, while healthcare is fully accessible to self-employed individuals. Non-contributory social assistance is prevalent in most European countries and is primarily income tested. Individuals engaged in DFE are eligible for these measures if their income is below a certain level (Spasova et al., 2017).



Figure 11. Legal coverage of self-employed persons in social protection systems in Europe

3.3.5 Social security of workers in the platform economy

According to Cousins (2020), access of workers in DEP to social security depends on whether and how they are categorised in national law, including if they are deemed to be employed or self-employed. There have been many changes in law and practice in this regard across the world over the past two years. In an international review of coverage of social security of platform workers, Cousins (2020) noted that there was a tendency in some countries (France, Italy, U.K., Spain) to classify some platform workers as employees or to extend employment rights to them (e-hailing taxi drivers, food delivery riders). However, these developments were recent and primarily in labour law, so they had yet to have a significant impact on social protection coverage. Cousins (2020) added that because of relatively inclusive social security systems, many countries provided coverage for platform workers (including those classified as self-employed), in a broad range of benefits. Many were covered mandatorily under pensions schemes, health care and for family benefits. The Nordic countries were most successful in providing coverage, not because they adopted specific schemes for platform workers but because they had universal social protection systems which were broadly consistent with the principle of labour neutrality. These countries only made distinctions as to the type of employment in specific cases (for example in terms of access to unemployment insurance). Denmark was an exception as it had revised its unemployment insurance to make it more accessible to people in non-standard forms of employment.

While there is a need to clarify the classification of workers to prevent disguised employment, this is not sufficient. Indeed, a worker may be considered genuinely self-employed, but his work experience and environment may not differ significantly from another worker classified as an employee. Yet, their level of labour protection will differ significantly (Balaram, Warden and Wallace-Stephens, 2017). To increase more meaningfully the protection of workers in all forms of employment and include platform workers equitably in social protection, regardless of their employment situation, various efforts have been undertaken (Tamara et al., 2021).

The following practices to encourage the participation of workers in DPE social security were identified:

- 1. *Improve the knowledge of authorities on platform activities.* For example, by mandating platform companies to provide information to the tax and social security administrations on individual incomes and working times.
- 2. Cross check income for tax and social security purposes and increasing governmental inter-institution collaboration.⁸ In Portugal, the tax authorities verify the veracity of income declarations to the social security administration done online by self-employed workers.
- 3. *Enforcing registration of self-employed platform workers with 'umbrella' companies* that facilitate the payment of contributions into social security systems. For example, in Sweden these third-party agencies perform a range of services to platform workers.
- 4. Ensure the collection of contributions of platform workers to social security at the source. For example, in Estonia, the new entrepreneur account is particularly suitable for platform workers who do not register as self-employed.⁹ The account receives revenue of sales of services of a natural person, is directly liable to pensions and health insurance contributions in a simplified way, which is remitted directly to social security administration.

⁸ The French tax administration requires platforms to provide information on the income of all users. France is also pursuing an integrated inter-agency approach and increasing inspection activity.

⁹ The entrepreneur account is a tax solution for the new forms of entrepreneurship, allowing for the simplified taxation of fees paid by one private person to another through the ride-sharing service platforms like Uber, Taxify, Bolt, etc. Since the total amount received into the entrepreneur account (not only the profit from the provision of services or the sale of goods) is taxed with business income tax, it is not possible to deduct costs or expenses. Therefore, in the areas of activity that involve direct or high costs, it is more beneficial to operate as a sole proprietor/self employed or through a private limited company. In addition, it is worthwile noting that all sole proprietors are, by definition, self-employed. But not all self-employed persons are sole proprietors, as the latter may have employees.

- 5. *Mandating platform companies to pay contributions to social security.* For example, in Chile the government collects a ten per cent contribution rate out of any e-invoice and directs it to the selected pension fund.
- 6. *Part subsidizing and matching contributions of platform workers based on general revenue* including earmarked taxes away from payroll taxes.
- 7. Basing contributions on the revenue from the rendering of services. In the digital economy these transactions are easily traceable. For example, under the Artists' Social Insurance in Germany, 50 per cent of contributions are paid by workers and from the other half, a third is paid from the state budget (as a state subsidy) and two-thirds are paid by a levy imposed on the aggregated remunerations paid by companies to the independent artists and publicists in a calendar year, irrespective of whether the recipient is insured under the Artists' Social Insurance Act or not.¹⁰

3.4 Literature review on diverse forms of employment and flexible work in China

3.4.1 Definitions

Studies in China have used various concepts and definitions to designate DFE in different periods. Some studies made explicit reference to the definition given by the ILO. Others gave the definition of organizations such as the OECD or the EC. Initially, the terms such as labour dispatch (Dong, Baohua, 2006; Li, Xiong, 2014) and informal employment (Zhang, Libin, 2004; Shi, Meixia et al., 2007; Huang, Gengzhi et al., 2009) were used in opposition to the notion of formal employment. It was believed that a large part of the new labour force entered the informal economy because the formal economy did not absorb all the new employment created. The employment conditions in the informal economy were comparatively poor and income was low. The informal economy attracted mostly migrant workers and laid-off workers. The government did not have a clear position on the development of these new sources of employment.

With the development of the market economy, the diversification of forms of employment led to investigations on DFE (Wang, Mingsheng et al., 2009; Qian, Yefang et al., 2011, 2018; Wang, Yongjie, 2018, 2020) and non-standard labour relations (Dong, Baohua, 2008; Chen, Xiaoyu, 2010; Ma, Yueru et al., 2011; Yang, Hongmei et al., 2014). Some studies contended that work in DFE was not necessarily inferior to standard employment. Instead, the literature emphasised also the positive aspects of flexible labour relations with weak subordination ties, short term duration, and diversified characteristics. Later, with the emergence of internet technology, more people entered employment through digital platforms, which further increased the use of work in DFE (Li, Panyi et al., 2020), also called new forms of employment (Zhang, Chenggang, 2016; Tu, Wei, 2019; Yan, Ni et al., 2020; Guan, Bo et al., 2021) or DPE (Wang, Yongjie, 2020; Lou Yu, 2021).

According to the latter studies, platform employment was characterised by (characteristics and designations referred ipsis verbis in the Chinese literature):

- A digital platform as the carrier of the services;
- > Cooperation agreements (commercial service contracts) as the link between workers and the platform;
- Worker self-management as the principle of work organization;
- Labour value exchange is realized through platforms;
- Labour participation is flexible;
- Workers can carry out work flexibly and conveniently by taking autonomous decisions on labour tasks performed and by owing their production tools;
- Workers do not take orders from a single employer.

¹⁰ Becker and Chesalina, 2021. See also Galian, Carlos, Margherita Licata, & Maya Stern Plaza. 2021and ILO. 2021

Some of these characteristics have been contested in the literature that demonstrated that there were some elements of effective subordination in work in DPE (Liu and Xiu, 2021).

China does not use the concept of DFE in its laws and regulations related to labour, employment, and social security (such as the Labour Law, Labour Contract Law, Social Insurance Law, etc.). The concept of flexible employment has been commonly used in government policy documents, laws, and regulations. There are three types of labour contracts in China's "Labour Contract Law": Fixed-term labour contracts, indefinite labour contracts, and labour contracts for the completion of certain tasks, each of which provides distinct forms of protection. According to Chinese national law, flexible employment is a generic term used to refer to forms of employment which are different from traditional mainstream employment in terms of working times, regulations, income and remuneration, workplace, social insurance and welfare entitlements and labour relations. In 2012, the Ministry of Human Resources and Social Security (MOHRSS) in the "Interpretation of the Social Insurance Law" considered flexible employment to include the following aspects:

- 1. *Employment in the informal sector*, that is, employment forms that do not meet the general standards such as labour standards, production organization management, and labour relations management as adopted by enterprises. For example, employment by the household production.¹¹
- 2. *Self-employment* including two types: Self-employed individuals (own account workers) and self-employed in partnership with others (business partnerships).
- 3. *Independent employment* including: Freelancers, freelance writers, individual actors, models, independent intermediary service workers, etc.
- 4. *Temporary employment* including Family service hourly workers, street vendors, and other types of gig work (MOHRSS, 2012).¹²

The next section focuses on the content of studies on emerging work in diverse forms of employment (new forms of employment and DPE).

3.4.2 Review of national laws and policies

The 14th Five-year Plan for Human Resources and Social Security Development details the priorities of the 14th Five-Year Plan period (2021-25) for the area of employment and social security. The document contains the following 14 objectives relevant to the promotion and protection of workers in new forms of employment and flexible employment.

¹¹ This is different from international definition of Employment in the informal sector which refers to work in informal economic units.

¹² This definition is also different from ILO's definition of temporary employment.

Priorities under the 14th five-year plan for human resources and social security development

Table 3. Completion of the 13th Five-Year Plan period social security goals and 14th Five-Year Plan goals.

Employment injury

- i. formulate trial measures for occupational injury protection.
- ii. implement pilot programs of occupational injury protection for platform and flexible workers.
- iii. build an information platform on occupational injury protection for flexible workers.

Unemployment insurance

i. expand the coverage of unemployment insurance, with a focus on encouraging micro, small and medium-sized enterprises, migrant workers and other units and groups to actively participate.

Social insurance administration for new forms of employment

- i. provide convenient services such as online insurance registration and application for employees in new employment forms in national digital platform.
- ii. support workers of new employment forms in flexible employment to access services such as registration of basic old-age insurance for enterprise employees, inquiry of personal rights and interests records, and transfer and continuity of social insurance relations on public service platforms as individuals.

Statistics

- i. establish a job survey system and improve the statistical system for urban new employment and unemployment registration.
- ii. strengthen analysis of employment dynamics of key groups such as college graduates, migrant workers and flexible workers.

The following quantitative objectives were set for 2025.

Indicators	2015 Baseline	13th five-year plan objectives	Achieved in 2020	Objective For 2025
Basic old-age insurance coverage (%)	82	90	91	95
Number of unemployment insurance participants (100 million people)	1.73	1.8	2.17	2.3
Number of work injury insurance participants (100 million people)	2.14	2.2	2.68	2.8
Labour contract signing rate of enterprises (%)	90	>90	>90	-

Source: MOHRSS, 2021. The 14th Five-Year Plan for Human Resources and Social Security Development, June, 2021, p.4 and 12 (English edition).

Since the establishment of the social security system, the state and some provinces and cities have promulgated multiple policy documents concerning the insurance participation for workers in DFE, which can be divided into two stages according to their target groups: prior to and after 2015. The reason for this time division is that the sharing economy, a new Internet business model, was first acknowledged in the Communiqué of the Fifth Plenary Session of the 18th Central Committee of the Communist Party of China in 2015. The Communique promoted the development of new technologies, new industries, and new business models to promote employment and entrepreneurship. A detailed overview of national and some relevant provincial laws/regulations and policies for workers in DFE is provided in Annex 1.

Before 2015 the main target groups were specific groups such as laid-off workers, migrant workers, individual industrial and commercial households who were subject to informal employment.

Overall social insurance policies for workers in DFE emphasized that migrant workers must be insured with pensions, medical insurance, and employment injury insurance in accordance with the law, while it is voluntary for other workers in DFE to participate in pensions and medical insurance.

> After 2015 the targets include all workers under new forms of business and new forms of employment.

National-level policies require **research and improvement of social insurance participation and payment measures for flexible workers** that adapt to the characteristics of the sharing economy. Policies require to implement the Universal Participation Plan to effectively strengthen the protection of workers' rights and interests. Policies establish the launch of pilot programs for occupational injury protection for workers in new forms of business.

Provincial measures: Annex II presents the policies of Beijing, focusing on the protection of workers in the express delivery industry. Zhejiang Province policies envision those part-time employees and workers in new forms of business who do not meet the conditions of signing a labour contract can participate in social insurance as flexible workers according to regulations. It emphasized for the first time, that all workers in the new forms of business can participate in work-related injury insurance before contributions to other risks. Guangdong's policy stated that for people with difficulties in employment who rely on Internet service platforms and other new business formats and new models to realize flexible employment, subsidies will be provided for their participation in social insurance.



During 2021, the pace of regulation of the platform economy and new forms of employment accelerated. The following timeline shows key milestones of the policy process.

- On 29 June, 2021, MOHRSS released its "14th Five-Year Plan". Key priorities for social security included: Relaxing the Hukou restrictions for flexible workers to participate in social insurance in place of employment and encouraging their participation in the basic pension insurance for enterprise employees.
- On 16 July, MOHRSS and other seven departments/organizations jointly issued the "Guiding opinions on safeguarding the labour rights and interests of workers in new employment forms". Among others, the Opinions include reform directions for pension insurance, medical insurance, employment injury insurance and social security administration for workers in DFE. The Opinions require all localities to relax the household registration (Hukou) restrictions for flexible workers to participate in basic pension and basic medical insurance in the place of employment. They demand local governments organize those not enrolled in the employee schemes to participate in the basic pension and medical insurance for urban and rural residents, to ensure all eligible persons are insured.
- On 26 July, seven departments including the State Post Bureau and MOHRSS jointly issued the "Opinions on protecting the rights and interests of the couriers". The Opinions encouraged express delivery companies to directly employ workers, to provide methods for calculating work injury insurance contributions and to encourage companies to purchase personal accident insurance for couriers.
- On 18 August, at a regular policy briefing, Mr. You Jun, the Vice Minister of MOHRSS, stated that the employment injury protection for platform workers will adhere to social insurance principles. According to MOHRSS, the scheme will be government-led and will be established under the broad framework of the work injury insurance system. At the same time, the system model, policies, and methods will be innovated to adapt to the platforms.
- On 10 September, MOHRSS, together with the Ministry of Transport, the State Administration for Market Regulation (SAMR), and the All-China Federation of Trade Unions (ACFTU) held a meeting with ten leading platform enterprises (Meituan, Didi, etc.) to provide administrative guidance for implementing the "Opinions" of 26 July and urged them to set an example in protecting workers' rights.

Timeline of policies in 2021 regarding the protection of platform workers in China.

2021

16 July

MOHRSS and 7 departments issued *Guiding opinions on* safeguarding the labour rights and interests of workers in new employment forms

26 July

7 departments including MOHRSS jointly issued the "Opinions on protecting the rights and interests of the couriers"

18 August

MOHRSS said, in policy briefing that the injury protection for platform workers will adhere to social insurance principles.

10 September

MOHRSS, other departments and the All-China Federation of Trade Unions (ACFTU) meet 10 platform enterprises to discuss implementation of social security of platform workers

29 June

MOHRSS released its "14th Five-Year Plan". In addition,

On 27 September, 2021, the State Council unveiled the outlines of development plans for women and children over the next decade. It sets main targets and strategic measures to realize women's equal rights to social security and improved coverage and level of protection. Gender-disaggregated statistics will feature in the national social insurance registration information database.

3.4.3 Review of contents of research

With the rapid development of DFE in China, especially in DPE, the research on work in DFE is also growing. The main themes include:

Characteristics of work in diverse forms of employment. Studies showed that most jobs in nonstandard employment tended to be characterized by long working hours, low skill level requirements (high substitutability) and poor working stability (Liu, Qi, 2009; Xue, Jinjun, 2012; Zhang, Lin, 2018; Wang, Yongjie, 2018; Guan, Bo et al., 2018). Workers who were more likely to be in DFE had lower education levels, were older (especially in traditional DFE) and from rural household registration (they were internal migrants) (Wang, Yongjie, 2018; Wang, Quanxing, 2019). Some studies found that workers in DFE were a heterogeneous group that was also highly stratified. For example, the educational level and income of workers in DFE are generally higher than those of traditional DFE. There was a gendered pattern of employment of workers in DFE, for example male employees outnumbered women in the ride-hailing industry (Zhan, Jing et al, 2018; He, Qin et al., 2018).

Job creation potential of diverse forms of employment. Some researchers have focused on the relationships between the rise of DFE and the changes in the labour market (Yang, Yansui, 2003; Lai, Desheng et al., 2018; Wang, Yongjie, 2020) and assessed the impact of social insurance contribution payments, the minimum wage system and other policies on the increase in DFE (Zhu, Juan et al., 2012; Zhang, Jian et al., 2019). Others looked at the place of DFE in employment policy, with reference to the future development of DFE and the impact on the quality of work (Zhang, Chenggang, 2016; Mao, Yufei et al, 2019; Yang, Yiyong et al., 2021). Most scholars hold the view that DFE should be promoted and standardized. Dong Baohua et al. (2007) proposed that labour legislation should protect and regulate flexible forms of employment rather than oppose them or restrict them. Shi Meixia et al. (2007) believed that China should regulate the labour relations of informal employment through a government-led model set forth in the main national legislation. Guan Bo (2019) pointed out that the new forms of employment promote jobs, and it is necessary to accelerate the adaptation of the employment and social security system to new forms of employment. Yang Yiyong et al. (2021) proposed to prioritise employment policy and to strengthen the support, regulation, and security of the policy for flexible employment. However, a small number of scholars hold the opposite view. Qian Yefang (2011) suggests that the proportion of workers in DFE in China should be reduced to improve their occupational stability.

New social risks brought by DFE and social security systems. Zhang Haomiao (2019) pointed out that new forms of business bring new types of social risks, including working poverty, lack of social insurance and the absence of occupational welfare. Ding Yuanzhu (2016) pointed out that welfare tied to employers in a rigid manner can hardly adapt to new technologies and new forms of business and social security reform need to find a balance between employees and employers. Liu Tao (2018) said that social security in the electronic era involved the use of digital media and de-formalization, and required the country to rapidly digitalise its tax and social security administrations. Based on the analysis of 102 court decisions on platform/labour provider disputes in China from 2014 to 2019, Tianyu Wang et al. (2020) found that traffic accidents constitute most of the cases brought to court. The workers' demands for the courts to establish their labour relationship aim first to ascertain the personal or company liability with compensating third parties, followed by the workers' hopes to receive insurance benefits for injuries they sustained, and only in a minority of cases in respect of other labour rights.

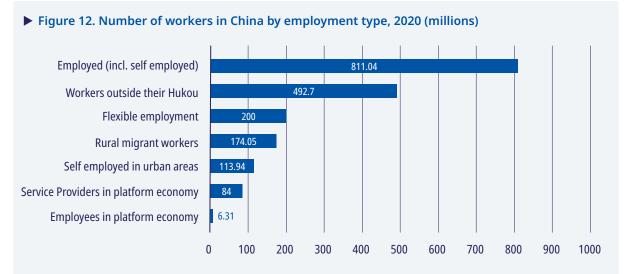
Labour relations and labour protection in DFE. Some authors studied the labour relations of DFE at the theoretical level (Dong, Baohua, 2006, 2008; Wang, Mingsheng et al., 2009; Tong, Zhixiong, 2013; Xie, Decheng, 2016; Bo, Tingyu, 2018; Li, Gan et al., 2019), from a legal perspective (Dong, Baohua, 2007; Chen, Xiaoning, 2010; Qian, Yefang, 2011; Ma, Yueru et al., 2011a, b; Jin, Rongbiao, 2015) and from a corporate perspective (Yuan, Ling et al., 2010, 2013; Wang, Jian, 2019). Chen Bin et al (2020) showed that only a small group of employees have standard labour relations with platform companies in China, most have ad hoc agreements, the contents of which vary according to the platform company. Tianyu Wang et al (2020) found that existing labour law does not provide sufficient legal protection in the case of platform workers because often the criteria of work subordination are disputed. Meng Xianyu (2020) argued that there tend to be weak subordination ties in platform employment relationships between the worker and the platform, resulting in the absence of labour relations and corresponding labour rights. Chen Bin et al (2020) showed on the contrary that the client-led rating and incentive systems provide strong means of control of platforms over the work relationship. Irene Zhou (2020) emphasized that there are opportunities for collective bargaining even in the case workers have non-standard relationships with their platform labour providing companies. Finally, there is consensus that workers in non-standard employment need labour protection, but there are different views on the scope of such protection and the division of responsibilities between government, corporations, and the worker.

3.4.4 Empirical research

Statistical analysis of large datasets

Size of the workforce

The China Sharing Economy Development Report of 2021 estimated the number of service providers and employees in the platform economy in China at 84 million and 6.31 million in 2020. Tao Hong (2017) estimated that a total of 213.15 million workers could be categorized as DFE in China. The analysis conducted by Wang Yongjie (2018) using the data of the China Urban Labour Survey (CULS) in 2016, showed that the proportion of DFE in Chinese cities reached 34.95 per cent of total employment.

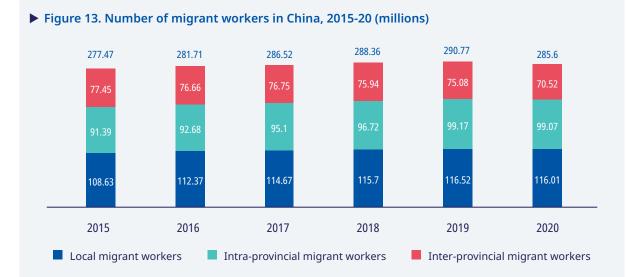


Source: National Bureau of Statistics of China, 2021. Available at: http://www.stats.gov.cn/tjsj/zxfb/202104/ t20210430_1816933.html

Note: 200 million flexible workers is an official national figure.¹³

¹³ The State Council of the People's Republic of China, 2021. Available at: http://www.gov.cn/zhengce/2021-07/08/content_5623233. htm

According to official figures (NBS 2021), the total number of migrant workers nationwide was 285.6 million and 116.01 million were local migrant workers in 2020. There were 70.52 million inter-provincial migrant workers. 99.07 million migrant workers were employed in the same province of origin. Among all migrant workers, men accounted for 65.2 per cent and women account for 34.8 per cent.



Source: National Bureau of Statistics of China, 2021. Available at: http://www.stats.gov.cn/tjsj/zxfb/202104/ t20210430_1816933.html

Note: 'Local migrant workers' refers to migrant workers working within the township area where their household registration is located. 'Other migrant workers' refers to migrant workers who work outside the township area where their household registration is located.

Living conditions

The average monthly income of migrant workers was 4,072 yuan. The rural migrant workers are increasingly employed in the service sector. Transport and logistics represented 51.5 per cent of all migrant worker employment and were the highest-paid sectors 2020 (4,814 yuan average per month). Contrary to a common perception, only 53 per cent of China's migrant workers are employed in the more economically developed eastern provinces.

Company surveys. According to the "New Urban Youth: Employment Report for Food Delivery Riders in 2018" released by the Meituan Research Institute, in 2018, Meituan food delivery comprised more than 2.7 million jobs, of which 670,000 were from impoverished counties and 77 per cent of the riders were from rural areas. Meituan takeaway riders born in the 1980s and 1990s accounted for the largest proportion, 92 per cent were men, and 50 per cent of riders were the main source of household income. Among the drivers of Didi's online ride-hailing platform, 6.7 per cent are registered by the state as living in poverty, 12 per cent are retired military personnel, and more than 21 per cent of the driver's families have only one driver employed. At Ele.me, eighty per cent percent of the riders come from rural areas. Anhui, Henan, and Sichuan are the provinces where riders mostly come from. Among the top five counties of origin, 60 per cent were national-level poverty-stricken counties.

Targeted surveys. Several targeted surveys have been implemented to obtain qualitative insights on the working conditions in the platform economy instead of measures of its representativeness.

- ▶ He Qin et al. (2017) collected 4,762 valid questionnaires targeting workers on DPE through vvgong.com.
- Zhan Jing et al. (2018) obtained online data of work in DPE using the same method, and offline research data from typical surveys. The samples involved Beijing, Hebei, Henan and other provinces and cities, with 7,242 valid questionnaires received.

- Yan Ni et al. (2020) used the method of judgment sampling to conduct a survey on workers in DPE in three districts of Wuhan City and distributed 227 questionnaires.
- Yang Weiguo et al. (2021) obtained 12,942 valid samples by using the employment survey data from the U Car Hailing Platform in 2016.

The following are key findings from targeted surveys. Guan Bo et al. (2018) conducted a survey on 320 workers in new industries, novel occupations, and forms of business (the "three new" categories) in three sub-districts of Beijing. According to the research, nearly 20 per cent of those workers did not have social security and there was a large gap in the insurance participation in work-related injury insurance and maternity insurance. Zhang Nan (2019) confirmed the lack of social insurance for workers in new forms of business. He Wenjiong (2020) pointed out that the number of workers in DFE who participated in the basic old-age insurance and the basic medical insurance for employees on a voluntary basis was relatively small.

Mixed research methods. These studies provided more in-depth knowledge about the social situation of workers in DFE and platform employment. Using semi-structured interviews and text coding analysis, Chen Weibo et al. (2019) tried to build a work risk identification system for workers in DPE. Qiu Yulin et al. (2019) showed that some flexible workers were left outside of the system due to multiple barriers to insurance participation. Yu Por (2021) conducted in 2019, a survey of workers' characteristics and working conditions on three major digital labour platforms in Beijing followed by in-depth interviews. He showed that platform workers in the food-delivery service sector, increased from 7.17 per cent to 41.63 per cent between 2018 and 2019. More than half of them worked full-time in 2019. Full-time workers help the platform respond better than part time workers to 24/7 orders. However, irrespective of job duration, the workers were paid at a piece rate, calculated based on the number of served customers. In addition, whilst there was a rise in demand for stable work with fixed hours, labour relationships deteriorated with increasing numbers being recruited through external companies as self-employed.

Women and the platform economy

China's gig economy is attracting more and more women. Flexibility is one of the major advantages of digital platforms for women, since they can in principle, choose where, how, and when to work. However, long working hours and problems in separating work and personal life, may pose a problem for women's participation in platform work. According to the Beijing Yilian Labour Law Center, in 2020, 95 per cent of couriers worked more than eight hours per day, 66.8 per cent worked more than 11 hours, and 28 per cent worked more than 12 hours. In addition, as was mentioned earlier, women spend four hours per day on housework compared to 1.5 hours for men. There is still insufficient provision of quality public childcare available to flexible workers – there are indeed specific difficulties for migrant workers to access public care in cities. The COVID-19 crisis has accentuated the double burden of care and work, women now spend 2.5 times more time on unpaid care work than men in China, averaging almost four hours a day.

In summary, despite the existence of numerous empirical studies, there is lack of an up-to-date representative in-depth quantitative analysis of work in DFE in China. At the same time, there is also a lack of detailed comparative research on different forms of DFE, and particularly what differentiates traditional DFE and work in the DPE.

3.5 Research on social security policy and administration for workers in diverse forms of employment

3.5.1 Review of contents

Suitability of the current social security system

Guan Bo (2019) observed that changes in the corporate management of human resources have resulted in increased risks of job instability and weakened labour relations. Wang Yuying (2017) pointed out that China's current social security system lacks flexibility to accommodate the social security needs of workers in DFE, and to protect migrant workers who are predominantly working in these work patterns. These developments damage the equity of social security. Jia Chang (2019) agreed that the current social insurance system is not adapted to the new employment relationships due to the frequent job changes of workers in new forms of business and the diversification of modes of income formation. Zhang Xuedan et al. (2020) mentioned that the social security contribution of workers in DPE involves challenges in three aspects: person responsible for contribution, proportion of contribution and the basis for the calculation of contribution. Chen Bin et al (2020) argue that even when platform workers have a legal right to a social protection, such as basic pensions, they may not have access in practice, due to non-compliance with specific practical requirements, such as continuity of employment, length of employment or income below a required threshold or intermittent contributions. For example, they argue that people working as food delivery providers may fail to access social security in practice because they have a high turn-over rate and may therefore fail to accumulate sufficient continuous length of employment to be entitled to benefits.

Social security of workers in diverse forms of employment

According to most of the scholars reviewed in the literature, workers in DFE should be included in the same social security system as standard employees, albeit with some adaptations (Zhao, Jianguo et al., 2010; Tao, Hong, 2017; Zhou, Chang et al., 2017; He, Xiaoyong, 2019; Li, Panyi et al., 2020; He, Wenjiong, 2020; Guan, Bo et al., 2021). Some scholars suggested that the social security system should be redesigned to fit the characteristics of workers in DFE (Li, Xiaoman et al., 2019). Others believe that workers in DFE should be entitled only to some basic rights such as the minimum wage and a safe working environment and could be excluded from other entitlements such as paid leave and compensation for dismissal (Shi, Meixia et al., 2007; Liu, Qi, 2009; Lu, Ming, 2019; Lou, Yu, 2021). Most scholars emphasize the general responsibility of the government to create an appropriate regulatory framework (Liu, Qi, 2009; Irene, Zhou et al., 2017; Tao, Hong, 2017), and to recognize some responsibility of enterprises (platform companies), as well as the protection role of trade unions and industrial associations (Yuan, Ling et al., 2013; Zhang, Haomiao, 2019). The latter can try to formulate guidelines for wages and working hours and provide professional benefits for workers in digital platforms. Other scholars focused more on the individual responsibility of workers and the need for policies to encourage them to participate in social insurance or to purchase commercial insurance that meets their own needs (Li, Panyi et al., 2020).

Factors that hinder participation in social insurance

According to Chinese scholars, the willingness of workers in DFE to participate in insurance is not high mainly due to their unstable economic situation, volatile earnings, the low affordability, insufficient awareness of the necessity of participating in social security and the worry about inability to enjoy the benefits (Zhang, Nan, 2017; Li, Honglan, 2018; Cao, Jia, 2018; Kuang, Yalin, 2020). The insurance participation is also influenced by objective factors such as the difficulty to ascertain labour relations or restrictions based on household registration (Chen, Bin 2020 et al; Yan, Ni et al., 2020; Guan, Bo et al., 2021). The specific difficulties differ according to different types of social security branches.

Specific barriers and policy options to bridge social security gaps

- Old-age insurance: Li Honglan (2018) argued that the relaxation of restrictions to the participation of non-locals based on household registration can greatly promote the insurance participation of workers in new forms of business. Following the observations of other scholars, Xue Huiyuan et al. (2019) noted that the traditional employing-unit-based old-age insurance system cannot adapt automatically to the situation of workers in new forms of employment. The authors observed that in the latter case there is discontinued insurance participation, difficulty in terms of portability and limited economic affordability due to the high level of individual contributions. They suggest exploring the establishment of an old-age insurance administration for workers in new forms of employment that relies on "big data" and "Internet + social security". They recommend big data-driven platform organizations to contribute to insurance on behalf of their workers; to accelerate the development of individual tax deferred commercial pension insurance and to strengthen publicity to improve the social insurance awareness of workers in new forms of the traditional between the characteristics of new forms of employment and the requirements of the traditional social old-age insurance system. The author advocates setting up a Chinese version of "individual retirement accounts" while strengthening the information system and increasing the incentives for insurance participation.
- Medical insurance. Tan Zhonghe (2017) pointed out that the difficulty in expanding medical insurance coverage lies in the fact that the system is not adapted to the insurance needs of work in new forms of business. For example, workers who have signed multiple part-time labour contracts should not pay different insurance contributions for health coverage. This is compounded by the difficulty in the identification of flexible workers. Qiu Yulin et al. (2019) pointed out that the main reasons that hinder flexible workers' participation in the medical insurance for employees are, similar to pension schemes, the restrictions on household registration that bar workers from enrolling in their place of work. In addition, although flexible workers can participate in the medical insurance for residents in their place of household registration, there are many inconveniences in the process of insurance participation and for the portability of benefits. Furthermore, he argues that there is a heavy burden of contribution and the level of compensation for medical bills is different compared to medical employee insurance. Wang Zongfan (2005) proposed that informal employees should first participate in medical insurance mainly against major diseases, as individuals, with low contribution rates and low contribution base and certain subsidies from the government.
- Employment injury insurance. Zhang Jun (2017) pointed out that in line with the current law, work-injury insurance takes labour relations as the condition for worker affiliation. It further requires employing units to make contributions and to bear part of the responsibility with certain payments according to the law. In practice, single individuals may find it difficult to obtain evidence for the ascertainment of work injury without the support of employers, and there are various challenges in terms of social security procedures that are not adapted to single individuals. Song Zhuoyi (2020) noted that the current standard for defining labour relations in employment injury insurance law is very strict, it requires the signature of a labour contract, and employees have no right to pay contributions to work-related injury insurance on their own. The author also added that there is insufficient motivation of employing units to pay on behalf of self-employed and for isolated workers to participate individually in work related injury insurance. Hao Yuling (2018) recommended that the integration of workers in new forms of business into the work injury insurance system should adhere to the principle of "employer contribution" (in other words, platform companies or main employers should contribute on behalf of workers) and that it should be focused on the prevention of work-related injuries.

- Unemployment insurance. Sun Shouji et al. (2020) observed that the contribution-based unemployment insurance has low participation rates. The authors argued that an individual account system of unemployment protection does not resolve the problem of the low payment ability of flexible workers due to an absence of solidarity; instead, the establishment of a multi-level unemployment protection system with both unemployment insurance and unemployment assistance can effectively expand the coverage. Meng Xianyu (2020) pointed out that social insurance unemployment systems are traditionally tied to stable permanent labour relations. The inability of unemployment insurance systems to account for the existence of informal and hidden employment as well as casual employment make it difficult to bring platform workers into the unemployment insurance system. The author recommends innovating the theoretical approach to the problem of unemployment insurance of workers in new forms of employment by disconnecting social insurance and labour relations. First, according to the author, labour relations should be clearly regulated so that platform companies cannot evade social security contributions and labour protection through hidden and ambiguous employment. Secondly, a list of "legitimate reasons" for unemployment should be set up to avoid being unable to verify effective involuntary unemployment in case of platform workers. Thirdly, different payment mechanisms for contributions should be set up, according to different types of work, with the platform bearing part of the contributions in certain cases, to highlight the employer's responsibility. Finally, contribution periods could be shortened, and benefit levels could be improved to increase the attractiveness of unemployment insurance benefits. Xiao Wei (2019) proposed to improve employability to enhance the "flexicurity" of flexible workers, meaning that finding rapidly another job should be as important as being supported during job search.
- Future direction of social security. Han Bingzhi (2018) noted that social security is a necessity for workers in new forms of business. China Social Security Magazine (2018) pointed out that workers in new forms of business have become the priority focus of social security coverage expansion. Xi Heng (2020) observed that the universal coverage of social security cannot exclude workers in new forms of business. Hua Ronghui (2019) recommended several basic principles to be followed for the future social security to adapt to changes in the labour market: Universality and accessibility of protection, adequacy of security, portability of security, gender equality and good governance. Lou Yu (2021) proposed the concept of "quasi-employees" to protect the labour rights and interests of platform workers. Although there is agreement on the need to protect workers in DFE, there is yet no firm agreement amongst scholars on the roadmap to bridge the existing policy and administrative gaps in social security coverage.



3.5.2 Policy recommendations from the literature review

This section summarizes key policy recommendations from the literature review.

Improve the participation of platforms and workers in social security

- 1. Clarify the responsibilities of platform companies, in terms of obligations to contribute as employers, and to retain and remit contributions to social security or tax bureaus on their behalf and on behalf of all workers in DFE.
- 2. Learn from other countries the potential of industry associations, communities, or voluntary or private partner-agents to pool contributions of platform workers to national social security
- 3. Include platform workers in trade union organizations as well as sector and enterprise level collective bargaining.
- 4. Encourage the participation of workers in social security through legal, financing, administrative (including compliance) and awareness raising measures.

Review social security affiliation policies

- 1. Prevent the misclassification of workers' employment relationships through strong legal frameworks and compliance measures and safeguard legally the social security rights of de facto employees at same level of employees de jure.
- 2. Reduce the effect of the absence of employment relations in social security entitlements by ensuring at least a floor of social protection and equitable access to social insurance for workers in DFE
- 3. Remove the restrictions of household registration to access to social security of workers in DFE and in DPE.
- 4. Strengthen the capacity of the social security administration to interact individually with workers who do not have an employer.
- 5. Make social security coverage compulsory for priority risks while encouraging the participation on a voluntary basis for other risks, and progressively expand mandatory coverage to all risks.
- 6. Explore the design of social security policy adapted to multiple job holders.

Adapt the design of social security contributions

- In response to the income instability of workers in DFE, regularly update the payment levels for voluntary worker contributions to employee and residence pension and medical schemes, explore solutions for suspensions of contributions, expand flexible contribution payment cycles, and introduce shorter qualifying periods for benefit entitlements.
- 2. In response to the affordability of contributions:
 - a. Explore reduced contribution rates for workers in DFE matched by government support, whilst minimizing the negative incentives of reduced contributions on informalization.
 - b. Contribution rates could vary according to income levels.
 - c. Low-income groups may benefit from specific preferential subsidization measures
 - d. Other factors, such as age, could be considered to make contributions more affordable.

Focus administration and services on workers on new forms of employment

- 1. In terms of social insurance fund management, speed up the establishment of national pooling, realize integrated management of five insurances and resolve the practical implementation problems with the social insurance portability for platform workers.
- 2. In terms of the contribution and payment systems, harness the advantages of information technology and speed up Internet-based management and services; making innovations on management modes and extend administration and services for new-types of flexible workers at the sub-district, township and community levels in order to facilitate the provision of proximity services.

3.6 Summary and conclusions

This chapter reviewed the international literature and research in China on the employment, labour conditions and social security of workers in DPE and in DFE. The main findings of the review include the following:

- With the development of work in DFE in China, the number of related studies steadily increased. The research focus has evolved with the changes in the forms of employment. In the early stage, more attention was paid to migrant workers and other groups. In recent years, with the rise of DPE, research gradually turned more specifically to the labour relations and the protection of rights of workers in DPE.
- 2. The content of the research has also evolved. Early research focused more on the clarification of concepts and how to respond to the problems caused by DFE and how to include DFE in the existing legal and policy frameworks. Later research began to study DFE as a pervasive and lasting form of employment and more attention was paid to the necessity to evolve policy and regulations.
- 3. The research on social security for workers in DFE grew gradually in depth. In the beginning, the focus was generally on labour rights protection; then there was greater specific focus on social security for workers in DFE; and finally, more in-depth studies were conducted on various insurance types for workers in DFE.

However, it can be seen from the literature review that the current research still has some shortcomings. Specifically:

- 1. The definition of DFE is relatively vague and no consensus has been reached on its scope. There are large differences in the definitions and statistical methods adopted by different studies, making the research conclusions less comparable and difficult for further in-depth discussion.
- 2. More studies adopted a normative and qualitative approach, based on targeted research methods. There is a lack of updated understanding and descriptions of the phenomenon of DFE based on quantitative analysis of nationally representative surveys.
- 3. Studies on the social security of workers in DFE focus more on existing policies and scheme design, and less on administration. At the same time, the studies on policies pay more attention to the situation of a certain type of insurance and lack a comprehensive perspective; they also focus more on the optimization of existing policies rather than on innovative solutions and ideas.

This study focuses on the social security coverage of workers in DFE, and to a certain extent, contributes to enriching the knowledge base in this regard in three aspects:

- 1. It provides a definition of DFE from a practical perspective.
- 2. It differentiates and compares workers in DPE who are employees and those who are flexible workers and compares flexible workers who are in DPE and those who are not in DPE.
- 3. In addition to policy analysis and literature review, the study draws on a wide range of mixed methods including questionnaire surveys, field investigations, and on-site interviews, and evidence-based dialogues with policy makers and practitioners, at national and local levels, including key stakeholders such as platform companies and workers, to obtain a large amount of first-hand information and data.
- 4. The study adopts a comprehensive perspective to analyse insurance participation for workers in DFE and DPE in pensions and proposes innovative policy ideas for employment injury insurance based on existing experimentations and national debates. It provides up to date analysis and recommendations concerning social security administration and services.



Pension benefits

4.1 Introduction

In recent years, work in DFE has become more diversified, particularly with the advent of DPE (Zhou, 2020). The increase in the number of workers engaged in DPE has brought about new challenges to social security in many countries. The number of service providers and employees in the platform economy in China reached 84 million and 6.31 million respectively in 2020 (China Sharing Economy Development Report 2021). In this context, the extension of pension coverage to workers in digital platforms has become a policy priority. Due to similar challenges in various regions in the world, studying the issue of pension coverage for workers in DFE and DPE is not only of great significance for policy development in China but also to other countries. The study considers the policy and regulatory context of China. It draws on lessons from the international experience. It uses literature research, questionnaire surveys and field investigations to assess the actual status and willingness of workers in DFE and DPE in China, to participate in pension insurance. It analyses the existing problems and their causes. Finally, it makes policy recommendations for pension coverage of workers in new forms of employment.

4.2 Policy framework

According to China's current laws and policies, there are three main types of systems and methods available for workers in DFE and DPE to participate in pension insurance:

Platform workers may participate in the basic pension insurance for urban employees as an employee. The participation in urban employee pension scheme as an employee requires the existence of a labour contract between the platform company and the worker. The participation of the worker in the pension scheme is in this case, mandatory. Both the employer and the worker pay a contribution in accordance with the prescribed rate and contribution base (see below).

- Participating in the basic pension insurance for urban employees as a flexible worker. The types of flexible workers participating in this form of employee basic pension insurance are roughly divided into three categories, namely, self-employed individuals without employees, part-time employees who have not participated in the employee basic pension insurance, and other flexible workers. This participation involves voluntary participation to the urban employee social insurance scheme. Individuals can decide to enrol or not, the level of contribution, and the frequency of payment.
- Voluntarily participating in the basic pension insurance for urban and rural residents. Participants may be rural residents or flexible workers. Individuals may decide to enrol or not, and the level of contribution.

Table 4 below provides an overview of the current laws applicable to most provinces.

	Basic pension insurance system for urban enterprise employees		Basic pension insurance system
	Participate in the insurance as an employee	Participate in insurance as a flexible worker	for urban and rural residents
Mandatory/ voluntary enrolment	Mandatory	Voluntary	Voluntary
Place of enrolment	Location of enterprise	Location of employment (or Hukou for a few localities still)	Location of household registration
Sources of financing	Joint payments by the employer and individual employees	Personal contributions	Financial subsidies and personal contributions
Base of payment	Individual payment base: The actual average monthly income of the individual in the previous year. Employees with an income level lower than the lower limit of the local payment base (60% of the local full-scope social average wage) are paid in accordance with the lower limit. Those with an income level higher than the upper limit (300% of the local full-scope social average wage) are paid in accordance with the upper limit Enterprise payment base: the sum of employee payment bases	Multiple levels of payment base are set between the upper and lower limits of the local payment base. 2 The insured person voluntarily chooses the payment base. The lower limit of the payment base is 60% of the local full-scope social average wage; the upper limit is 300% of the local full-scope social average wage	Multiple levels are set locally, which are voluntarily selected by the insured 3

Table 4. Comparison of three insurance participation channels for workers in DFE

	Basic pension insurance system for urban enterprise employees		Basic pension insurance system
	Participate in the insurance as an employee	Participate in insurance as a flexible worker	for urban and rural residents
Contribution rate	Enterprise: 16%Individual employee: 8%	20%	
Structure	Individual contributions (8%) are included in personal accounts, and enterprise payments are included in the social pooling fund	Of the individual contributions (20%), 8% is included in personal accounts, and 12% is included in the social pooling fund	Individual contributions, local government subsidies, collective subsidies, etc. are all included in personal accounts
Minimum contribution period	15 years	15 years	15 years
Retirement age	 60 years for men 55 years for women officials 50 years for women workers 	 60 years for men 55 years for women 	► 60 years
Pension benefits	Basic pension + personal account pension (+ transitional pension)	Basic pension + personal account pension (+ transitional pension)	Basic pension + personal account pension 6

Provinces have different regulations regarding the ability of workers to contribute to social security depending on their formal place of residence (Hukou). In most regions, with exception of only a few localities, the restrictions for enrolment in pension schemes based on the place of Hukou have been removed for all workers regardless of their employment relationship. In a small number of localities, the enrolments may still be limited to flexible workers with local Hukou or to flexible workers with non-local household registrations who meet certain conditions. These regions are mainly labour inflow areas with relatively high social security benefits, such as Beijing, Shanghai, and Zhejiang.

Payment bases for flexible workers under the urban pension employee scheme are set by localities. Flexible workers select a base and pay the contribution at the rate of 20 per cent. In contrast, the contribution level under the resident scheme set by each locality is either a fixed amount or a certain percentage of the local social average wage. In the case of participation as an employee, the contribution rate for enterprises is the same for all provinces except Guangdong. From 2022, all provinces except Guangdong have applied the rate of 16 per cent. Guangdong will increase from 14 per cent to 16 per cent in 2022-23. The total contribution rate of voluntary insurance for most local flexible workers is 20 per cent, which is lower than the total contribution rate on behalf of enterprise employees (24 per cent). Of the total contribution rate, 12 per cent goes to the social pooling fund and eight per cent goes to the personal account. However, there are a few different practices. For example, Shanghai stipulates that the flexible workers have the same contribution rate as enterprise employees, 24 per cent, of which 16 per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the social pooling fund and eight per cent goes to the personal account. This compares to enterprise employees' total rate of contribution of 22 per cent of which 14 per cent are paid by employers and eight per cent by employees. Nevertheless, national uniformity of contribution rates will be

gradually realized by 2022. The basic employee pension pays 1% of the average of the indexed individual wage and the province-wide average earnings for each year of coverage, subject to a minimum of 15 years of contributions.

Different from the basic pension in the employee scheme, **the basic pension in the resident scheme is a flat amount prescribed by the State and funded from government local and national revenue.** The central government determines the minimum basic pension standard and makes annual adjustments to that standard. Local governments can raise the basic pension above that standard according to the local situation. Residents contribute individually to the personal pension account based on multiple levels set locally, which are voluntarily selected by the insured.

4.3 Situation analysis

There is currently no official publicly available national statistical data on the social security of workers in DFE in China. The following content and conclusions are based on surveys implemented for this study.¹⁴ This section analyses the current situation, perceptions, and expectations of workers in DFE and DPE regarding their social security.

4.3.1 Participation in pension insurance

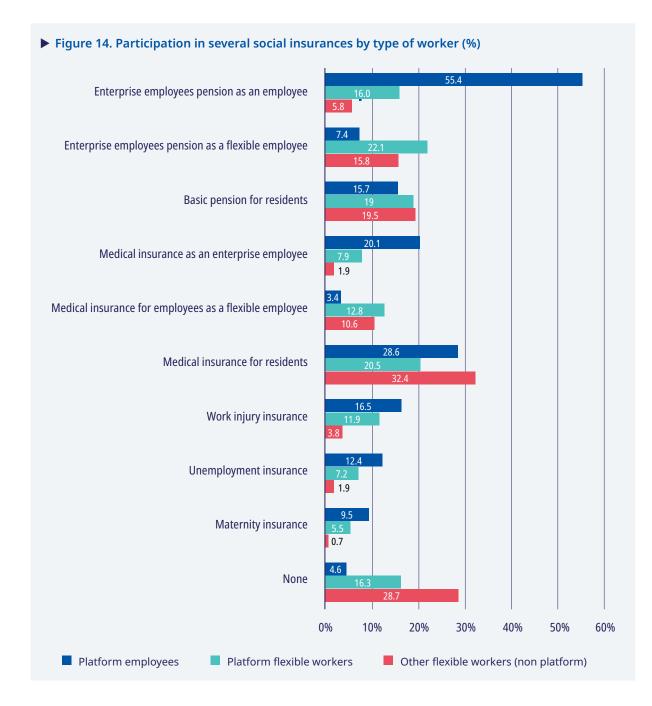
Participation in pension insurance in comparison to other branches of social insurance

The respondents do not participate equally to all branches of social insurance. Overall, they contribute mostly to pension insurance, then to medical insurance, followed by work injury, unemployment, and lastly maternity insurance. Slightly less than a third of non-platform flexible workers do not contribute to any social insurance (28.7 per cent) compared to less than a fifth of platform flexible workers (16.3 per cent).

More than half, 55.4 per cent of platform employees declare being enrolled in employees' pensions as employees compared to only 20.1 per cent declare being enrolled in medical insurance as employees. Instead, almost a third (28.6 per cent) of platform employees declare contributing to medical insurance for residents. In comparison, platform flexible workers' highest participation rate is to urban employee pensions as flexible workers, whereas non platform flexible workers prefer to contribute to resident pensions. The latter give highest priority to participation in the case of medical insurance for residents than to pension schemes.

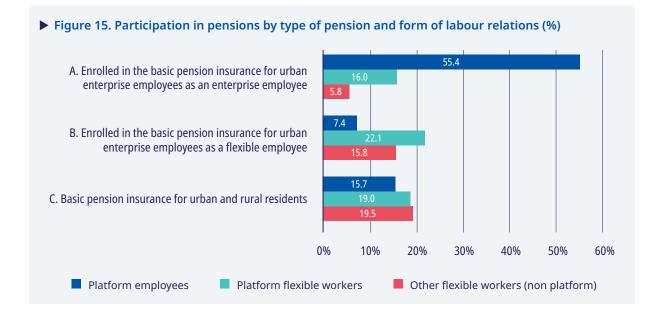
14 The data used in this section is from the survey unless otherwise stated.





Participation of workers in pension schemes by form of employment relationship

Most platform employees (55.4 per cent) contribute to pension insurance as employees. Platform flexible workers contribute mostly to pension insurance for employees as flexible workers (22.1 per cent) followed by their participation to residents' pension insurance (19 per cent). Other non-platform flexible workers contribute first to a basic pension insurance for residents (19.5 per cent) and then as flexible employees in employee pension schemes (15.8 per cent).



Participation in pension schemes by nature of occupation

Workers have different levels and forms of participating in pension schemes depending on the nature of their occupations in the platform economy (see Figure 16).

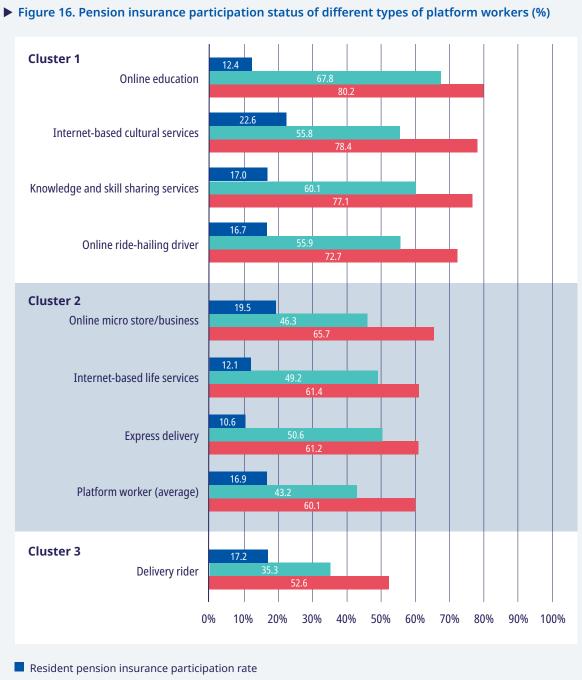
Three different clusters can be observed:

Cluster 1 comprises activities in **online education**, **cultural services (for example game anchoring, live streaming)**, **skill sharing (design, software development, coding, translation)**, **and car hailing industries**. The total pension insurance participation rate of platform workers in these occupations is over 70 per cent. Among them, platform workers in the online education sector declare the highest levels of participation in pension insurance. Their total participation in a pension scheme is close to 80 per cent and in the employee pension insurance only is 67.9 per cent. The total pension participation rate of platform workers in online cultural services ranks second at 78.5 per cent. The pension insurance participation rate of online car-hailing drivers in employee pension insurance is roughly the same as that of online cultural services (56 per cent) but workers in cultural services have higher participation in the resident insurance (22.6 per cent), which is the highest in the cluster.

Cluster 2 comprises activities in **online stores**, **online mediation of sales from micro-businesses**, **life services (housekeeping, nail art, car washing, removals) and express delivery.** The total pension insurance participation rate of those platform workers ranks between 61-65 per cent. Among these three types of platform workers, online micro-stores and businesses have the highest declared total insurance participation rate but have the lowest participation rate for employee pension insurance (46.3 per cent), and the highest participation rate for resident insurance (19.5 per cent).

Cluster 3 is composed exclusively of **delivery riders**. They have the lowest total participation rates for pension insurance and for employee pension insurance, respectively at 52.6 per cent and 35.4 per cent. The numbers of platform workers who are delivery riders drive down the average pension insurance participation rates for all platform workers.

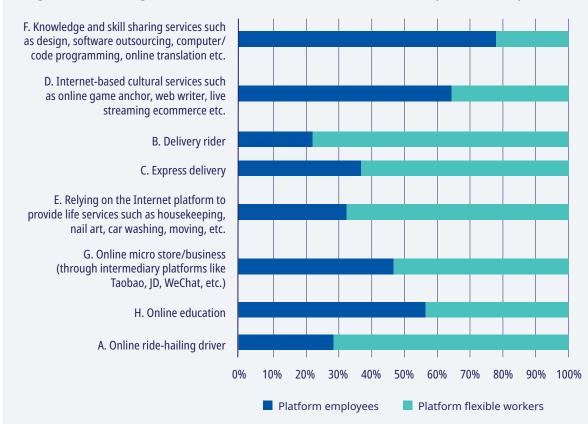
Numbers of platform workers who are delivery riders drive down the average pension insurance participation rates for all platform workers.



Employee pension insurance participation rate

Pension insurance participation rate

The employment relationship of platform workers partly explains the level and nature of participation in pension schemes according to their occupation. As shown in Figure 17, knowledge and skill sharing services, cultural services are composed mostly of platform employees, which explains the high-level participation in urban employee pension schemes. Workers in online education and ride hailing industries, also show high levels of participation to pension schemes and notably pension employee insurance, despite a great majority of them being platform flexible workers. Delivery riders in the sample, are in majority flexible workers, and their level of participation in pension schemes is low.



▶ Figure 17. Percentage of flexible and non-flexible workers in different platform occupations

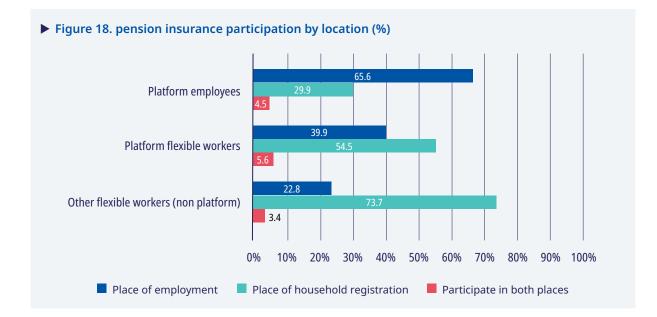
Participation of internal migrant workers

It is possible to assess the access to social security of workers in DFE and platform workers and the problems and obstacles they face by comparing their social insurance participation by the location of their pension schemes, whether they are based at the place of employment or at the place of household registration – Hukou.



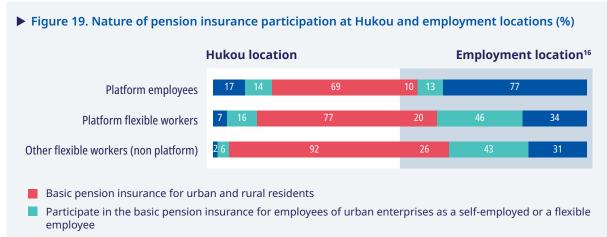
Location of pension schemes

Platform employees contribute to pensions in majority in their place of employment whereas flexible platform workers and other flexible workers contribute mostly to pension schemes in their place of household registration (Hukou). Only a minority of workers contribute to both locations.



Nature and duration of insurance participation at the places of employment and of Hukou

Platform employees contribute mostly to pension employee schemes at the place of employment and to basic pensions for residents in their place of Hukou. Both platform flexible workers and other flexible workers who contribute at the place of employment participate mostly to pension employee scheme as flexible workers.¹⁵

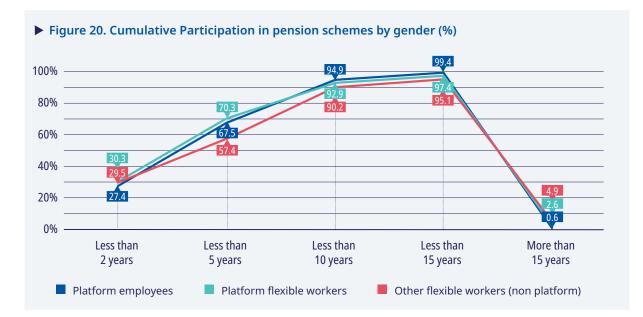


Participate in the basic pension insurance for urban enterprise employees as an enterprise employee

¹⁵ Some declare participating as employees. This could be because some are part-time workers. It could also be due to errors in understanding the differences between participating as an employee or as a flexible worker in the employee schemes.

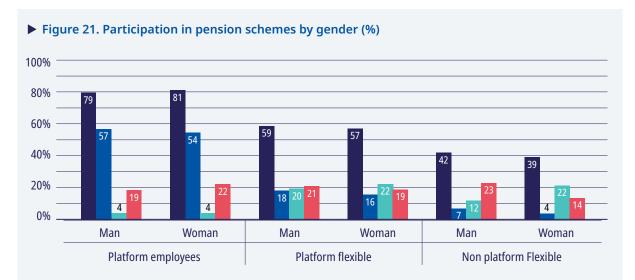
¹⁶ According to the policy, people can only participate in the resident scheme at their place of Hukou. Some respondents may not have the correct understanding of the pension schemes and indicated they participated in resident scheme at the place of employment.

Platform workers have participated in pension schemes in place of employment for shorter durations than non-platform flexible workers. This could be because platform workers in the sampled population are younger than non-platform workers.



Participation of women in pension schemes

The level of participation of women platform workers in pension schemes is not significantly different from those of men platform workers. Women platform employees have a slightly higher participation rate due to a higher participation in residential pensions that compensate for their lower participation in employee pensions. Women flexible workers tend to have lower participation rates than men flexible workers, whether they are working through platforms or not. Women who are non-platform flexible workers tend to contribute more than men to employee pensions as flexible workers.



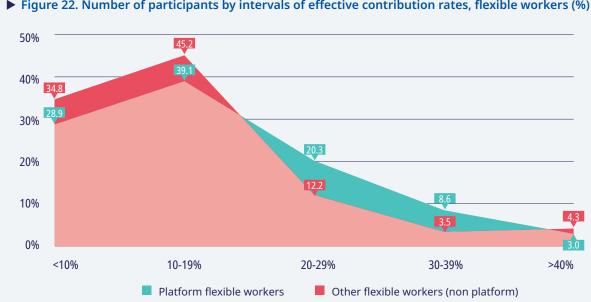
- Total participation rate
- Participate in the basic old-age insurance for urban workers as an employee
- Participate in the basic old-age insurance for urban workers as a flexible worker
- Participate in urban and rural residential pension

4.3.2 Level of contributions

This section presents the levels of contributions to different pension schemes of workers who participated in the employee pension insurance as enterprise employees and as flexible workers, as well as workers who participated in resident pension insurance. The data results show that the contribution levels of these three types of insured persons are generally low, but there are some differences between different categories of workers.

Pensionable contribution base of workers participating in the employee pension insurance as flexible workers

According to the pension policy, flexible workers can voluntarily choose the pension insurance payment standard between the upper and lower limits of payment and use this as the base to pay at the rate of 20 per cent. The results of the survey showed that about 70 per cent of platform flexible workers and more than 80 per cent of non-platform flexible workers contribute effectively below 20 per cent of their income. It also means that a great majority decide to contribute at an income below their actual income to reduce the effective contribution rate on their wages. The rate is inferior to the total contribution rate of employer + employees (28 per cent) but remains significantly higher than the contribution of workers as employees (eight per cent).

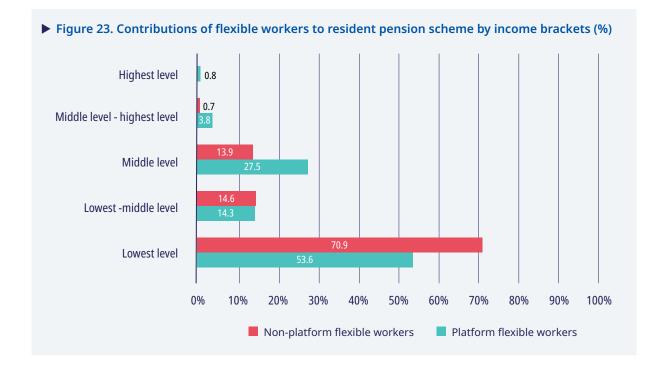






Contribution by workers participating in the resident pension insurance

A higher proportion of non-platform flexible workers (70.9 per cent) contribute at the lowest bracket compared to platform flexible workers (53.6 per cent). Still, there are a majority of platform flexible workers contributing at the lowest level bracket.



Contribution of platform workers by occupation

The payment levels of different types of platform workers participating in resident pension insurance can be divided into four categories:

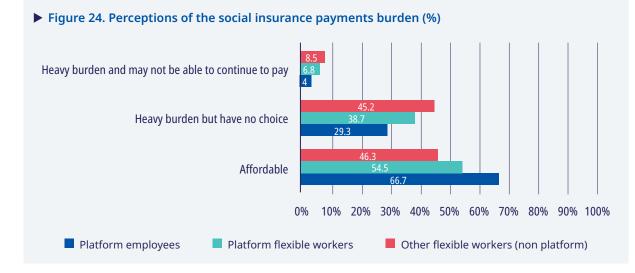
- 1. The levels of contributions of platform workers of online cultural services, education, and knowledge and skill sharing platforms are the highest. Approximately half of them choose to pay at "the middle level" contribution bracket, and 15.8 per cent choose the lowest level.
- 2. Workers in online stores/micro-businesses are the second bigger group to contribute to "the middle level" contribution bracket (42.2 per cent) but many people (32.8 per cent) choose "the lowest level" contribution bracket.
- 3. Online car-hailing drivers and life-service platform workers present an inverted situation from the first group. More than half of them choose to contribute to "the lowest level" contribution bracket, but many people choose to pay at "the middle level" contribution bracket, with an average of 32.8 per cent.
- 4. Delivery riders and express delivery show the lowest levels of contributions. The proportion of workers in "the lowest level" contribution bracket is the highest among all platform workers, with an average of 60 per cent, while the proportion of "the middle level" contribution bracket payers is the lowest among all platform workers, with an average of 18.8 per cent.

4.3.3 Perceptions of workers about social security

The survey interrogated the perceptions of workers regarding their payment burden and their willingness to participate in social security in the future.

Payment burden

Close to 67 per cent of platform employees consider payment burden to pensions affordable (see the Figure 24). Almost half of platform flexible workers consider pension contributions a heavy burden, although many contribute to employee pension schemes as flexible workers and can opt to contribute at low pensionable wage brackets. Most non-platform flexible workers believe that contributions to social security are not affordable, even though many of them contribute to resident pension schemes, most at the lowest levels of contributions (see Figure 24).

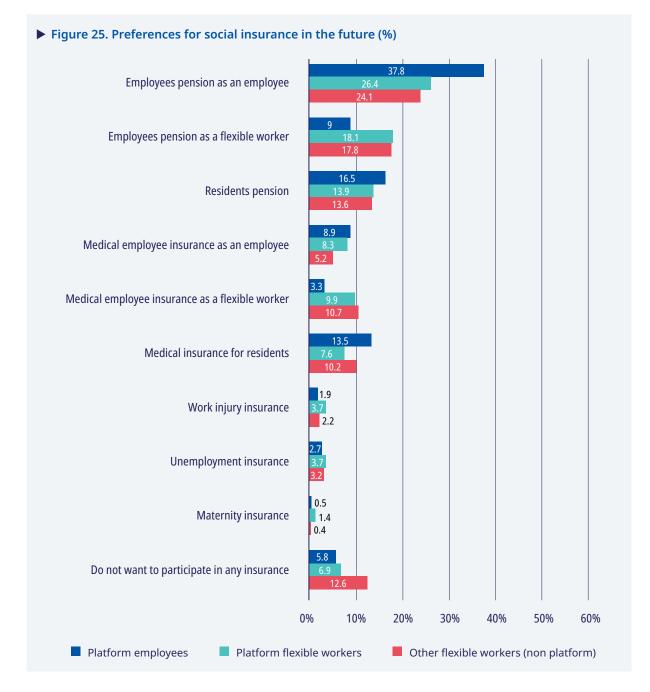


Online ride-hailing drivers that have the proportion of "heavy payment burden" perceptions exceeding 50 per cent. It is followed by riders, express delivery and life service workers, the proportion is again close to 50 per cent. Workers engaged in online cultural services, online education and knowledge and skill sharing platforms mostly believe that the social insurance burden is "not heavy and affordable", accounting for more than 75 per cent.

Preference for pension scheme

Respondents who lacked any form of social insurance were asked to indicate their priority needs for social insurance coverage in the future. Most workers indicated a preference to contribute to a pension scheme as an employee as their first choice. The second option of flexible workers (both platform and non-platform) was to contribute to an employee pension scheme as flexible workers.

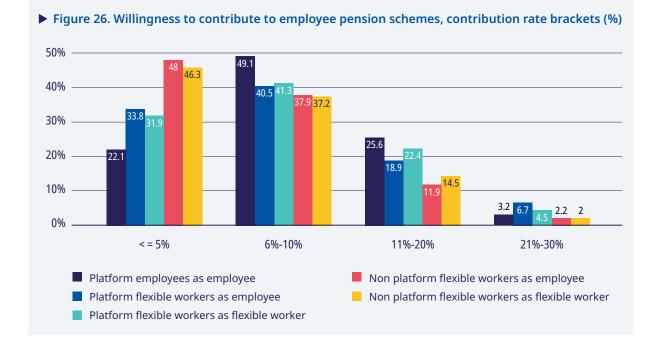




73.5 per cent of workers in online education indicated the willingness to participate in old-age insurance and 42.5 per cent wished to participate in the basic old-age insurance for urban employees as employees. These were the highest proportions of workers indicating this preference as a first option, among all types of occupations. Workers in online car hailing, express delivery, life services and online education preferred the "participating in basic old-age insurance for urban employees as flexible workers" as the first choice, while delivery riders, online cultural service workers and online stores and micro businesses preferred "participating in old-age insurance for urban and rural residents."

Willingness to pay for social security

49 per cent of platform employees declare they would be willing to pay between six to ten per cent of their wages to employee pensions as employees in the future. A higher proportion of flexible workers who are not in platform employment prefer contributions lower than five per cent of wages than flexible platform workers.



4.3.4 Summary

The pension insurance participation of platform workers and workers in DFE has the following characteristics:

First, the levels of participation in different social insurance branches vary. Platform workers contribute mostly to pension insurance compared with other social risks, whereas non-platform flexible workers contribute primarily to medical insurance. A significant part of non-platform flexible workers does not contribute to any social insurance (28.7 per cent) compared to some platform flexible workers (16.3 per cent).

Second, the level of contributions is low. Companies and employees choose to pay at the local minimum levels instead of the actual income of their employees. Workers who participate to pensions as flexible workers often choose to pay at the local minimum payment for pension insurance. Very few resident pension insurance participants, choose payment beyond minimum levels.

Third, the majority of migrant platform and non-platform flexible workers are insured at the place of Hukou, whereas migrant platform employees are mainly insured in their place of employment. Participants at the place of employment mostly participate in employee pension insurance, but the period of participation is generally short. Nearly 70 per cent of platform workers (employees and flexible workers) have participated less than five years. At the place of Hukou, they mainly participate in the resident pension insurance.

Fourth, the level of participation of female platform workers in pension schemes is not significantly different from those of male platform workers. However, women platform employees tend to be more represented in residential pensions and less in employee pensions.

Fifth, almost half of platform flexible workers consider pension contributions a heavy burden, although many contribute to employee pension schemes as flexible workers and can opt to contribute at low pensionable wage brackets. Non-platform flexible workers consider in the majority that contributions to social security are not affordable, even though many of them contribute to resident pension schemes, most at the lowest levels of contributions.

Sixth, pension insurance is the most preferred type of insurance for uninsured persons in the future, but the expected payment level is low.

Seventh, compared with non-platform workers, the pension insurance participation status of platform workers is relatively better. For example, they enjoy higher pension insurance participation rates, more participants in employee pension insurance (especially a relatively higher proportion of participants as enterprise employees), higher contribution levels, a lighter payment burden, a higher proportion of participants at the place of employment and most of them are participating in the employee pension insurance, etc. Among the various platform workers, the three categories of workers in online cultural services, knowledge and skill sharing, and online education are relatively better insured. Riders fare the worst in terms of participation to pension schemes and amounts of contributions.

4.4 Problems and causes of inadequate participation in pension insurance by platform and workers in DFE

This section describes the problems with low pension coverage and low levels of protection in old age amongst platform workers and workers in DFE. Then, it analyses the underlying causes, which pertain to the forms of employment relationships, the implementation of the pension insurance policy, the ability to pay and the willingness of workers to participate in pension insurance.

4.4.1 Main problems

As indicated before, the participation rate of platform workers in pension insurance is the highest in comparison to their rates of participation to the other four social insurance branches. This section shows the challenges regarding the universal coverage of this group of workers, types of pension insurance that they participate in, and levels of payment.

The pension insurance participation rate is low

At present, China's pension insurance system has achieved full legal coverage by providing basic pension insurance for all urban and rural employed groups and non-employed residents over 16 years old and under the legal retirement age. As of the end of 2020, the number of people participating in basic pension insurance has reached nearly one billion, among which nearly 400 million people are participating in basic pension insurance for urban employees and 540 million people are participating in basic pension insurance for urban employees and 540 million people are participating in basic pension insurance for urban and rural residents.¹⁷

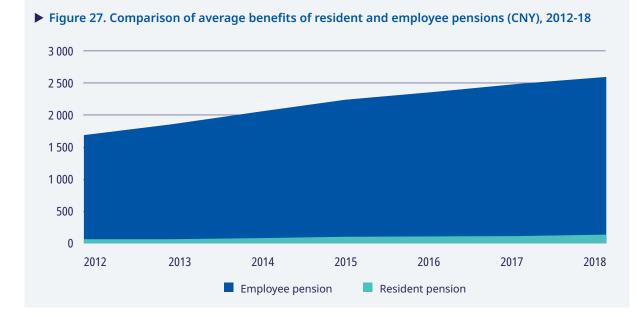
In practice, however, the results of the survey show that nearly 40 per cent of respondents were outside the coverage of China's pension insurance system and did not participate in any pension insurance scheme. 45 per cent of platform and non-platform flexible workers did not participate in any type of pension insurance. Among platform workers, riders have the lowest participation rate with, 44.6 per cent of riders were not insured. According to China's pension insurance policy, these workers are eligible for (voluntary) insurance coverage.

Low levels of protection

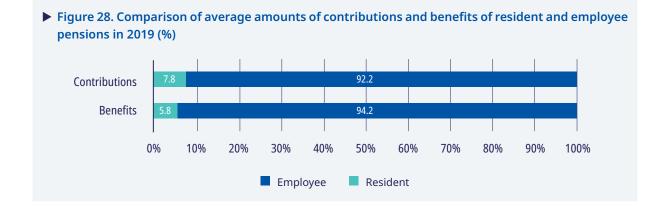
Platform flexible workers contribute mostly to pension insurance for employees as flexible workers (22.1 per cent) followed by their participation to residents' pension insurance (19 per cent). Other non-platform flexible workers contribute first to a basic pension insurance for residents (19.5 per cent) and then as flexible employees in employee pension schemes (15.8 per cent). Non-platform workers and some platform workers such as online car-hailing drivers have relatively higher proportions of participation in pension insurance as flexible workers or to resident pensions. Compared with those who participate in employee pension insurance as enterprise employees, these workers have comparatively lower levels of benefits.

¹⁷ Human Resources and Social Security Statistics Bulletin, 2020.

The study does not provide evidence of the low benefits because the sample comprised only the active population. However, the data obtained shows that future benefits for platform workers and flexible workers can be anticipated to be low for two reasons. Firstly, according to the calculation formula of the basic pension insurance for enterprise employees, pension benefits are related to the average monthly contributions of the insured, the duration of contribution and local average wages. Platform workers tend to participate in pensions for short periods (perhaps due to their age profile), their contributions tend to be interrupted after 15 years, and contributions are done at the minimum payment base, so their level of benefits will tend to be low. Secondly, the resident pension insurance is a combination of government subsidies and individual voluntary pension savings accounts and does not have the risk sharing function of social insurance. As shown in Figures 27 and 28 for the resident pension participants, the contribution level and benefit level are much lower than those of the employee pension participants.



In 2019, the per capita monthly contribution level and per capita monthly pension benefit level of the resident pension in China was 7.8 per cent and 5.8 per cent those of the employee pension, respectively.¹⁸



¹⁸ Social Insurance Administration of the Ministry of Human Resources and Social Security of China. Social Insurance Operation Report 2019.

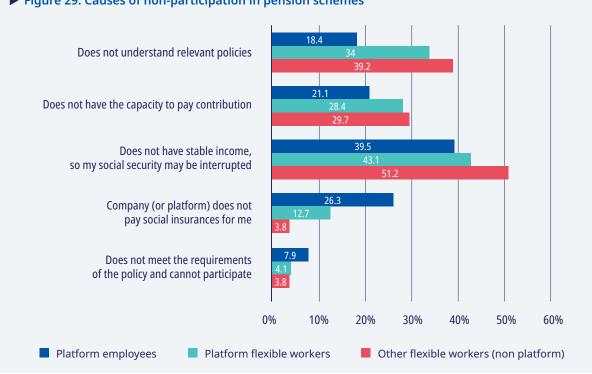
4.4.2 Causes

Although China's pension insurance system has achieved full legal pension coverage, the results of this survey show that there is still room for improving the participation of platform workers and workers in DFE in pension schemes.

General causes of non-participation in pension schemes

Figure 29 shows that according to the survey, the main cause for all respondents not participating in pension schemes is the absence of a stable income. Interestingly, this also applies to employees. China's pension insurance policy requires that the affiliation of an employee to an employee pension insurance be based on formal labour relations with the employer. The worker and the employer need to accept the relationship and the related responsibilities. This suggests that either the self-declared employee is misrepresenting his labour relation and does not have formal labour relationships, or despite this, they do not contribute to social security, for example because of short term contracts and the fear of discontinuity in those contracts, generally in agreement with the employer.

Workers in DFE may participate in the employee pension insurance as flexible workers and or to the resident pension insurance, both situations being voluntary. In the case of flexible workers, non-participation in pension schemes is attributed secondly to the lack of understanding of policies, and the lack of capacity to pay contributions. Whether to participate or not and the level of contributions both rely on personal choices. Therefore, whether there are institutional barriers for enrolment and contribution payments, whether the policies are sufficiently attractive as well as the individual's ability and willingness to pay contributions are key factors for the participation of workers in DFE in pension schemes.

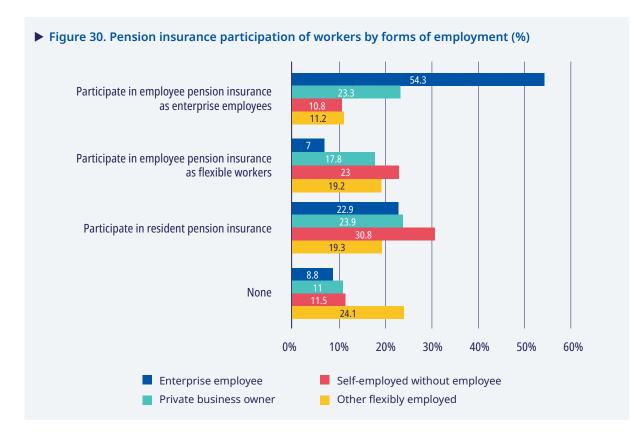


▶ Figure 29. Causes of non-participation in pension schemes

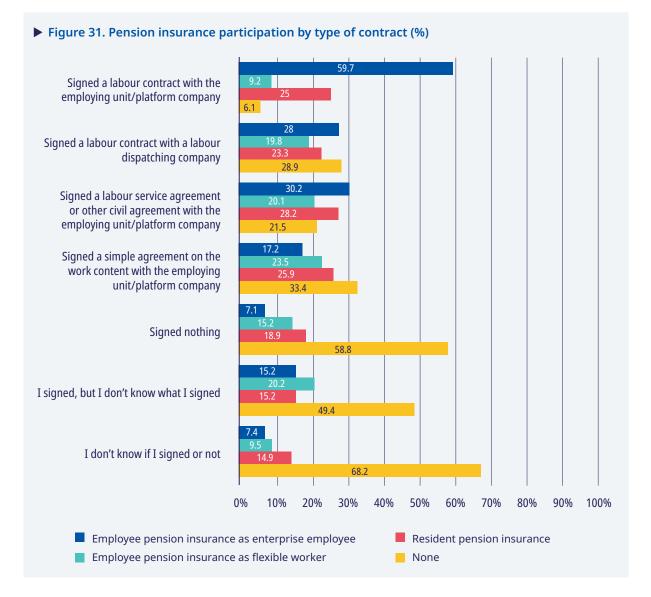
The following sections describe the above matters in more detail.

Pension insurance participation and employment relationship

The results of the survey show in Figure 30 that there is a significant correspondence between the nature of pension insurance participation of workers and their current employment relationship. Enterprise employees contribute mostly to enterprise employee schemes. The self-employed are more represented in resident pension insurance schemes. Finally, above one fifth of flexibly employed who are not private business owners nor self-employed do not have any pension coverage.



Some platform employees also declared that they participate in residence pension schemes or as flexible workers. As already said, this could be in part because some respondents see themselves as employees but, are in fact flexible workers. Figure 31 considers the nature of the labour or employment relationship. It shows that some workers may not differentiate well between a service agreement and a labour contract, and some do not know what they have signed. Unsurprisingly, the pension insurance participation of workers who have not signed labour contracts, do not know what they signed, or do not know if they have signed or not, is inferior to that of those who declare having signed labour contracts.



For those who have signed labour contracts or signed a commercial agreement, two situations are possible regarding their participation to pension schemes:

There are de facto labour relations between the worker and the enterprise, but the enterprise fails to sign a labour contract, proposes a commercial agreement, and does not pay for the insurance in accordance with the laws and regulations.

For example, the enterprise does not pay for the insurance contributions or does not pay contributions based on the actual income but uses the lower limit of the local payment base; or the two parties have signed a private agreement to waive the insurance; the employer considers workers as service providers rather than employees and refuses to contribute to pension employee insurance or the employee participates in the insurance as a flexible worker and the enterprise reimburses the insurance contributions.

According to the results of the enterprise survey conducted by this study, among the reasons for a company not to participate in social insurance for all employees is that, "employees voluntarily proposed not to participate in insurance" (36.7%). This is despite social insurance being mandatory.

According to current laws and regulations, it is difficult to clearly define labour relations for certain workers. The current laws and policies make it difficult to clarify their responsibilities. Under this situation, enterprises may not take the initiative to contribute to the insurance and can actively circumvent the identification of labour relations through various methods.

Example of undefined labour relations: The crowdsourced riders' case

The survey showed that among the respondents who are riders, 86.8 per cent selected that this is their "main job", and 62.1 per cent chose "only work for one platform company". In terms of working hours and income, 55.3 per cent riders spent 80 per cent and more of their monthly working time on platform work, and 50.9 per cent riders obtained 90 per cent and more of monthly income from the platform work. On the one hand, riders enjoyed a certain degree of flexibility and autonomy in self-determination on whether and when to take orders and the platform does not perform labour management for these workers. On the other hand, using information systems and Big Data, the platform affects working conditions by formulating market rules, such as billing rules, scoring mechanisms, reward and punishment rules. These rules directly affect the work intensity and actual income of the riders. Faced with a platform with extensive market resources and rule-making power, riders seem to have the right to choose, but in fact they have a high degree of dependence on the platform, thus flexible employment is not really "flexible."

Policy barriers for flexible workers to participate in pension insurance

Preference for participating in place of residence (Hukou).

As mentioned earlier, more than half of migrant workers in DFE participate in pension schemes at the place of Hukou. More than 60 per cent of platform flexible workers and more than 80 per cent of non-platform flexible workers participate in resident pension insurance instead of choosing to participate in the employee pension insurance as flexible workers based on their employment status. As analyzed above, the resident pension scheme requires lower contributions but also provides more limited benefits.

Practical barriers to transfer pensions to places of origin.

The field investigations showed that there are policies that restrict in practice the transfer of social security rights of flexible workers between localities. As a consequence workers might have made contributions but might not meet the 15 year requirement in practice (because of practical impediments for the recognition of those rights). This affects their choice of insurance participation and their willingness to participate.

Restrictions for flexible workers to participate in pension insurance at the place of employment.

Some flexible workers without local Hukou cannot participate in pension insurance at the place of employment due to local policy restrictions. They must return to the place of Hukou to participate in local pension schemes, which causes inconveniences in terms of the enrolment, contribution payments and their enjoyment of pension benefits.

At present, urban, and rural household registration restrictions on the employee pension insurance participation of flexible workers within the province have been completely cancelled nationwide.¹⁹ Persons with either urban or rural Hukou within the province can participate in the employee pension insurance as flexible workers in the province. The remaining policy obstacles are mainly for cross-region participation in employee pension insurance. This mainly include two types of restrictions:

¹⁹ The removal of the household registration restrictions in the province is the first step taken by most regions to relax the household registration restrictions and expand the coverage of pension insurance. During the COVID-19 pandemic in 2020, the national level issued the policy of "removing the urban and rural household registration restrictions in the province for flexible workers to participate in employee pension insurance," which has been implemented in all provinces.

- Hukou restrictions are yet to be removed, that is, participation in employee pension insurance as flexible workers is limited to workers with local Hukou. These mainly exist in some mega and first-tier cities, such as Beijing, Shanghai or Shenzhen.
- Workers without local Hukou can participate in employee pension insurance as flexible workers if they meet certain conditions. These mainly exist in some developed provinces with higher levels of pension benefits.

Regarding the latter, there are usually two types of conditions: (i) the worker has participated and contributed (to the employee pension insurance) for more than ten years in the province, such as Zhejiang, Jiangsu, etc. (ii) the worker has to meet certain employment characteristics. For example, Hangzhou City allows non-local workers who hold a valid Hangzhou Passenger Transport Taxi Service Certificate and non-local workers who hold online Entrepreneurship and Employment Certificates to enrol in Hangzhou as flexible workers.

Differences in restriction policies for different types of flexible workers.

The types of flexible workers participating in the employee basic pension insurance are roughly divided into three categories, namely, self-employed individuals without employees, part-time employees who have not participated in the employee basic pension insurance, and other flexible workers. There are differences in the restriction policies on Hukou of these three groups in different regions:

- Individual industrial and commercial households with non-local Hukou and no employees can enrol at the place of industrial and commercial registration. Most provinces have liberalized Hukou restrictions for such groups, including many developed provinces that still have Hukou restrictions on other flexible workers, such as Jiangsu. Field investigations have found that this type of insured person accounts for a relatively small percentage;
- ▶ For the latter two types of flexible employment, some places only allow enrolment for workers with the Hukou of the province (city), such as Tianjin, Shanghai, Jiangxi; and
- Some places only apply restrictions to the third category (other flexible workers), such as Jilin.

In recent years, with the continuous increase in the number of workers in new forms of employment, in particular employment based on the Internet + platform, some regions have introduced employment and social security policies for workers in new forms of business. For example, Zhejiang province in January 2019 issued the "Guiding Opinions on Optimizing Labour and Employment Services in New Business Forms" (Zhe Ren She Fa [2019] No. 63); Chengdu City in August 2019 issued "Opinions on (Trial) Implementation of Promoting Workers in the New Economy and New Business Forms to Participate in Social Insurance" (Cheng ban han [2019] No. 80); Guangdong Province promulgated the " Measures on Services and Administration for Flexible Workers (Trial)" (Yue Ren She Gui [2020] No. 30) in July 2020. These policies have generated useful insights on issues such as labour relations of workers in DFE, especially platform workers, but there are still no breakthroughs or innovations in terms of pension insurance policies for such workers.

Contribution burden

The survey data showed that the burden of contributions to pension schemes is a major challenge for those who participate in the employee pension insurance as flexible workers. For enterprise employees and flexible workers who participate in the employee pension insurance, both follow the same benefit rules, same formula for the benefit calculation and benefit adjustment policy. However, the survey results on the burden of payment confirm that the flexible workers' effective personal contribution rate is higher than that of enterprise employees, so flexible workers bear a heavier burden of payment.

Workers' willingness and ability to participate in insurance are low

The survey found that some workers in DFE are unwilling to participate in insurance. According to the survey, the reasons for workers' reluctance to participate in insurance, include the low- or unstable-income level limiting their ability to pay, and the short-sightedness and problems with personal knowledge about social insurance or their understanding of its benefits and requirements.

Low or unstable income.

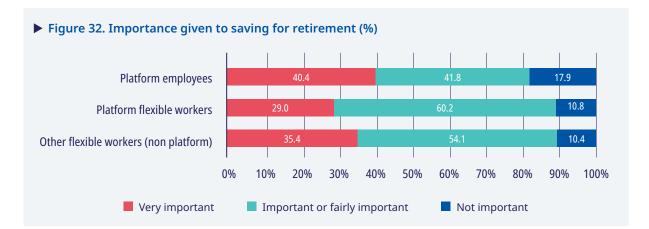
The actual income level and stability of income have a significant impact on the individual's willingness, ability, and choice to participate in pension insurance. The results of the survey showed that among the reasons for not participating in insurance, *"I do not have stable income, and my social insurance contributions may be interrupted"* and *"I do not have the capacity to pay for the social insurance contributions"* ranked first and third respectively, accounting for 47.3 per cent and 30.7 per cent respectively. According to China's pension insurance policy, the insured must reach the legal retirement age and meet the minimum payment period of 15 years to receive pension benefits. However, the suspension of insurance contributions or even the frequent suspension of insurance contributions may affect the total cumulative payment period, which may not be sufficient to reach the total minimum payment period. As a result, the insured person would not be able to enjoy the pension benefits later. Although individuals can get a refund for the individual payments, many interviewed thought that it would not be cost-effective.

Inadequate or incorrect understanding of pension insurance policies.

The results of the survey showed that *"I do not understand the relevant policies"* ranked second among the reasons for flexible workers who were not insured, accounting for 37.9 per cent. This is particularly prominent among individual platform workers. 83.3 per cent workers engaged in knowledge and skill sharing selected this reason. A high percentage of riders and express delivery workers also presented this reason. Field investigations found that due to factors such as inadequate policy publicity, many workers do not understand the pension insurance policy and have little knowledge of which types of insurance to participate in, how to participate, which types of insurance they have participated in previously, and which benefits they can receive. According to some interviewees, there is misleading social media coverage on social security. For example, according to field investigations and interviews, most people do not understand the policies and procedures for transferring social insurance rights and benefits. Individuals are concerned that procedures are cumbersome and costly, and their contributions will be lost if they change jobs several times.

Short-sighted choices of young people.

As seen in the descriptive statistics of the sample, young people under the age of 35 account for most workers in DFE. The survey found that platform flexible workers are less concerned than either platform employees or other flexible workers about saving for retirement.



There is a clear association of these results with the age group of platform flexible workers (see figure 1) compared to other flexible workers. Platform employees contribute in greater numbers to mandatory savings.

The results of the survey showed that "I want to earn higher current income" ranks fifth among the reasons for workers in DFE not to be insured. This problem is more prominent among some platform workers, such as those in online stores/micro-businesses, Internet-based cultural services, and express delivery (one third selected this option). The survey found that young people's willingness to invest in pensions and savings is significantly lower than for other age groups. Less than 60 per cent of workers in DFE aged 20-34, think investment in pensions is "important" and nearly 20 per cent think it is "not important"; while workers in DFE aged over 35 and 45, the proportion selecting "important" rose to 70 per cent and the proportion selecting "not important" dropped to about ten per cent.

4.5 International principles and practices

Since the emergence of new forms of employment in the platform economy, employment relations have become increasingly diversified in the world of work. This has brought challenges to the application of labour and social security law across the world. The explorations in other countries to regulate and protect workers in DFE provide useful references for China. This section discusses the innovative practices, experiences and lessons drawn from OECD countries in terms of the definition and classification of labour relations for platform workers and the design of pension systems that are applicable to workers in new forms of employment.

4.5.1 The coverage of the pension system depends on the employment relation

To date, no country has established a separate social security system specifically for platform workers. Whether platform workers have been protected in old age, which system they are included in, and the level of benefits they receive, depend on several factors specific to each country's legal framework. In countries where there is a difference between the pension system applicable to employees and to the self-employed, the classification of platform workers in one or the other category affects their entitlement to pensions. For example, in France and Italy, the social security system is fragmented and the pension coverage and benefit level for the self-employed are lower than for employees. Historically, some countries have initially classified platform workers as self-employed workers. The classification has also depended in practice on the specific content of agreements between the worker and the platform, and on national regulations and national legal interpretations. For example, when judging whether the worker is in a position of subordination to the "employer" in France, the court must look at the factual conditions under which the business is carried out. Like most countries, Canada also classifies workers as platform employees or self-employed workers based on the terms and conditions of the contract concluded between the worker and the platform. However, its courts will further examine the control of the work, ownership of the tools, chance of profit and risk of loss, and integration into the business. Different from this historical trend, there has recently been a tendency in some countries to classify some platform workers (such as ride hailing services, food delivery workers) as employees or to extend their employment rights, such as France, Italy, and the United Kingdom. However, these court cases are very recent. It is too early to see if they will have an impact on the classification of platform workers under social protection law.

4.5.2 International comparison of pensions insurance systems for selfemployed workers

In many OECD countries, platform workers are classified as self-employed and are subject to related pension insurance policies. This section therefore focuses on international principles for extending the pension coverage and the main practices of pension insurance coverage for self-employed workers. The pension coverage of self-employed workers depends on country specific regulations. Some countries established a single design of the pension system covering all types of occupational groups. But in practice, most countries have introduced adaptations to the design of pensions for the self-employed.²⁰

Coverage and scope

Although most OECD countries require the self-employed workers to join the earnings-related pension system, it is difficult to achieve the same level of coverage as employees. The practices are quite different across OECD countries, and can be divided into four categories (see Table 5):

- First, compulsory contribution for employee-like workers. The pension system for self-employed workers is the same as or equivalent to that of employees. Both follow the same contribution rate and the upper and lower limits of contribution, and the contribution is based on actual income. There are ten OECD countries in this category (Table 5 first column). However, even in these countries, self-employed workers often are not adequately covered due to the insufficient compliance with pension rules. For example, in the Republic of Korea, although the law requires self-employed workers to participate in the public pension scheme, in fact the majority are not covered.
- Secondly, self-employed workers are mandatorily covered but with a lower level of contribution. Self-employed workers are required to participate in earnings-related schemes, but they are allowed to contribute less than employees. 18 OECD countries are in this category, sub-divided into three categories.
 - ▶ Reduced contribution rates for self-employed workers, as shown in the second column of Table 5;
 - Discretion in setting their income base, which often results in minimum contributions, as shown in the third column of Table 5; andMinimum income thresholds below which self-employed workers are exempt from contribution obligations, as shown in the fourth column of Table 5. The minimum income set by most countries is approximately equivalent to 10-20 per cent of the average salary, and as high as about 50 per cent in some countries.
- Thirdly, only mandatory participation in a first-tier pension scheme, not mandatory participation in second tier earnings-related pension scheme. For example, in Ireland and the United Kingdom, self-employed workers are required to participate in basic contributory schemes on similar terms as employees, while earnings-related pension schemes are voluntary for all types of workers.
- Fourthly, there is no mandatory contribution requirement. In these countries, employees are required to make mandatory contributions to earnings-related pension schemes, while for self-employed workers it is voluntary, as shown in the sixth column of Table 5.

Mandatory or quasi-mandatory contributions to earnings-related schemes				Mandatory	No mandatory
Employee-like	Reduced contribution rate	Only flat-rate contributions mandatory	Regular contributions mandatory only above income threshold	contributions to basic pensions only	pension contributions
Canada	Austria	Poland	Austria	Ireland	Australia
Czech Republic	Belgium	Spain	▶ Chile	🕨 Japan	Denmark
Estonia	▶ France	Turkey	▶ Finland	Netherlands	Germany
▶ Greece	▶ Chile		Latvia	United Kingdom	Mexico
Hungary	Iceland		Slovak Republic		
Republic of Korea	Israel		▶ Turkey		
🕨 Lithuania	Italy				
Luxembourg	Latvia				
Slovenia	Norway				
United States	Portugal				
	Sweden				
	Switzerland				

► Table 5. Self-employed workers do not fully contribute to mandatory pensions in OECD countries

Source: OECD, Pensions at a Glance, 2019; OECD and G20 Indicators, 2019.

Pension contribution base

Because it is difficult to obtain data on the earnings of self-employed workers, most countries adopt specific income-related measures for the contribution base of these workers.

There are three main practices:

- Set a minimum contribution base for self-employed workers. It varies and can be as low as less than ten per cent of the average salary for Canada, and Republic of Korea; and as high as 60 per cent of the average salary for Italy, Slovenia, and Poland.
- Allow self-employed workers to contribute based on a fraction of their income. This ratio varies from country to country, such as 50 per cent in the Czech Republic and 90 per cent in Lithuania; and
- Set a minimum income threshold as mentioned above, and income below this threshold is not included in the contribution base. The self-employed workers only contribute based on the part of the income that is higher than the threshold.

Contribution rates

In OECD countries, the vast majority (30) differentiate pension insurance contribution rates for self-employed workers. There are two types of practices:

- Self-employed workers pay a contribution rate that corresponds to the total contribution rate of employees, i.e. the rate is equivalent to the sum of the employee and employer contributions. 15 countries have adopted this approach, including Canada, United States, Luxembourg, Finland, Greece, Hungary, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, Turkey, Republic of Korea, etc.
- The pension insurance contribution rates are lower for self-employed workers. 15 countries have adopted this approach.

Only five OECD countries apply a total contribution rate for the self-employed, i.e. pension contributions are collected together with other social security contributions. For the self-employed, i.e. types of social insurance contributions. In this case, pension insurance contributions cannot be singled out. These five countries are Ireland, the United Kingdom, Spain, Portugal and Belgium. In the four countries other than Spain, the total contribution rates of the self-employed are much lower than that of employees. One of the reasons is that the contributions do not include unemployment insurance (except in Portugal).



Pension entitlements

OECD research shows that the level of public pensions available to the self-employed after retirement is generally lower than that of employees, approximately equal to 79 per cent of the theoretical gross pension of average-wage worker in the OECD. Due to differences in pension insurance systems and contribution policies for the self-employed, the relative levels of the self-employed workers' pensions vary significantly across countries.

- First, for countries where the self-employed are not required to contribute to earnings-related pension schemes, the relative theoretical pension of the self-employed is the lowest, about half the pension of employees, such as Germany, Denmark, and the Netherlands, and even much lower in Mexico (21 per cent) and Japan (33 per cent).
- Second, for countries that only require the self-employed to pay a flat rate, as well as countries that set a lower contribution base or contribution rate for the self-employed, the relative levels of their theoretical pensions of the self-employed are also relatively low, about 50-80 per cent.
- Third, for countries which pay only flat benefits in mandatory pension schemes for employees, they provide the self-employed and employees with the same benefits such as the United Kingdom, New Zealand and Ireland.
- Fourth, countries that mandatorily require the self-employed to contribute total contribution rate as employees or require a higher contribution base for the self-employed, the self-employed have the highest theoretical pension level, such as Hungary, Luxembourg, Greece, Austria and the United States, etc.

Reform trends in the administration of pensions for platform workers and in DFE

Over the past 20 years, more than half of OECD countries have reformed their pension systems for workers in DFE. The reform objective in many countries is to expand the coverage of self-employed and part-time workers. For example, some countries have adjusted the pension rules for the self-employed who depend on a few major clients to increase their pension protection. As mentioned above, Germany does not require the self-employed to pay mandatory contributions. However, since 1999, the self-employed with only one single client and no employee are mandatorily covered in the pension system. In Portugal, for the self-employed who has only one single client, the client must pay social insurance contributions. The contribution rate varies according to the degree of dependence of the self-employed on the client. To expand the social security coverage of platform workers, some countries have carried out a series of targeted measures. The main practices are as follows:

Firstly, tax and social security administrations improve their knowledge on platform activities. For example, in France, digital platforms have the obligation to send income information to the tax authorities for platform workers who have received more than 3,000 euros from the platform or completed more than 20 transactions in the previous year. The tax authority must transmit this information to the social security organizations. Some platform workers can opt to allow the platform to deduct contributions and pay them directly to the authorities.

Secondly, social security contributions are collected at the source. For example, in Chile, the government collects ten per cent out of any electronic invoice for social security contributions and directs it to the selected pension fund. In France, Switzerland, Singapore and Indonesia, the contributions are collected through the platform (often voluntary) and transferred to the social security administration.

Thirdly, in some countries, platform workers must register with private firms that act as employers and ensure the payment to social security. This could also be by mandating the platforms to register with an intermediary. In both cases the platform worker would be considered an employee. For example, in Sweden, platform workers are required to register with an umbrella (private) firm. These firms process the invoices by the workers for a small fee. They administer gig workers' social insurance contributions and payroll taxes and pay out a wage to the worker. This approach grants platform workers access to a broad range of public social protection schemes.

4.5.3 Summary lessons from international experience

Some platform workers have been classified in OECD countries as self-employed. But legislators and the judicial system have increasingly considered, the factual conditions under which the business is carried out, to classify workers as either employees or self-employed. The control of the work and the ownership of the tools are some of the elements that help classify whether platform workers are employees or self-employed. The more recent trend is to classify some platform workers (such as ride hailing services, food delivery workers) as employees. Even when platform workers are categorized as self-employed, in most OECD countries pension coverage is mandatory. The contribution rates applicable are the same as for employees in half the countries whereas the other half applies reduced contribution rates. There are specific measures to define the contribution base of self-employed workers generally involving a minimum contribution base. There is also consideration not to harm the self-employed by not considering part of their income in the pensionable income base. However, despite these measures, the social security coverage of the self-employed is lower than that of employees and benefits are on average 79 per cent lower than benefits accruing to employees in the OECD.

4.6 Options for increasing the participation of workers in the platform economy and in DFE in pension insurance

From a global perspective, with the continuous enhancement of employment flexibility, especially the continuous emergence of new forms of employment, it is increasingly difficult to distinguish between dependent employment and self-employment. The continuous increase in the number of workers in this "grey zone" has created challenges to social security policies, especially pension insurance policies. As mentioned above, some challenges of workers in DFE participating in pension insurance that China is facing are universal, such as low contribution and benefit levels, and some are specific challenges for China, such as restrictions on household registration. From policy practices and theoretic discussions in China and internationally, there are no uniform standards to address these challenges, and each policy or practice option has its own advantages and disadvantages. This report compares and discusses different solutions to the core issues analysed in the previous chapters and makes policy recommendations that are applicable to China at the end of the report.

4.6.1 Institutional arrangements

There is no universally applicable pension system model, and no single best insurance system for workers in the platform economy or DFE. Most solutions are country specific. If a country adopts a universal pension system based on residence, it is relatively easy to include workers in DFE, but benefits may be low; if a system is based on employment, it may not be fully adapted to workers in DFE. If the parameters of the system are adapted to workers in DFE (for example the pensionable income base and contribution rates are lowered), the resulting pension benefits may be low in comparison to employees. If a separated model is established for workers in DFE, the whole social security system will continue to be fragmented.

There are two main options to include workers in DFE into China's current basic pension insurance system with different advantages and disadvantages.

The first option is to preserve and strengthen the universal nature of the current pension system and to avoid fragmentation. The advantage lies in the ability to form a large pension pool and risk sharing across different workers and economic units, which is in line with the basic principles of the social insurance model and is conducive to enhancing the fairness of the system and making it easier for different occupations. The main issues and challenges are how to integrate workers in DFE into a unified institutional arrangement widely and effectively, especially how to solve the financing challenge and the application of laws and regulations based on labour relations.

The second option, according to some stakeholders is to introduce a specifically adapted and portable personal account pension insurance system. The presumed advantage lies in the stronger adaptation of the system to the characteristics of everyone, such as the choice of a lower level of payment and the expected higher portability. However, the challenges are also high, such as the lack of redistribution in the personal account system. This would result in lower pension for workers in DFE as they are often relatively disadvantaged groups in the labour market. A large social insurance pool can also ensure high portability of benefits. On the contrary, a fragmented system is not conducive to the transfer of pension rights and benefits when workers move between schemes and may reduce the fairness of the system.

From the perspective of the development trend of China's basic pension insurance system, full coverage and fairness have always been the main objectives. Therefore, this report believes that for the pension insurance system that assumes the role of "basic protection", when facing the challenge of insufficient coverage and inadequate protection, the solution should be how to improve the regulation and policy so that it can gradually expand the coverage and improve the level of protection. It should aim to incorporate all types of groups into a unified basic pension system, instead of building separate systems for different target groups.

4.6.2 Compulsory or voluntary participation in pension insurance

The policy options for insurance participation of workers in DFE and platform work include their compulsory participation in pension schemes or their voluntary participation. This section discusses the pros and cons of the two options.

Option 1. Compulsion to participate in social insurance

The basic pension insurance system emphasizes the compulsory nature of social security coverage, for the following reasons:

- First, people's prevalent short-sighted behaviours will lead to insufficient reserves for retirement. They are more inclined to obtain higher current income even it is at the expense of reducing future pensions. This is especially the case for young people, which is the case of platform workers.
- Second, to provide effective protection against the income risks of the elderly, through vertical (income related) and horizontal (occupational or gender) related redistribution requires as large a risk sharing pool as possible. This means the need for insured persons is as many as possible with long, uninterrupted contribution periods. The data has shown that platform work and work in DFE represent highly heterogeneous social groups with differences in income, age, occupations, and gender. The most vulnerable workers would tend to save less for old age.
- Third, to avoid distortions in the labour market, because employers have a strong incentive to hire low-cost labour. On the opposite, international practice recommends that social security policies be labour neutral, i.e. they do not affect labour market decisions and arbitrations to hire more or less certain groups of workers.

In practice, the requirements for insurance participation and contributions are often relaxed due to various constraints and policy considerations and to avoid harming workers when compulsory social security is introduced. As seen in the previous chapter, although most OECD countries require the compulsory participation of self-employed persons in pension insurance, their social security systems have explicit or implicit policies to reduce the contribution levels of the self-employed. In a small number of countries, which require the self-employed to follow the same payment policy as employees, they also have difficulties in implementing those policies due to challenges in obtaining the accurate payment base of the self-employed and implementing administrative supervision.

Option 2. Voluntary coverage

The voluntary participation and lower contribution levels have caused limited coverage, and distortions in the labour market, by encouraging evasion of social security coverage, low contributions, and low pension benefits. Ultimately, this represents a cost to the state when people are not adequately protected in old age. Some countries, like Chile, have implemented mandatory coverage for the self-employed by introducing first voluntary coverage and making progressive steps before the implementation of a mandated environment.

This report sustains that in the current development stage in China, the policy of insurance participation and contribution payments for workers in DFE should continue to adhere to the principle of prudence and progressive adaptation, and to further improve the policy in terms of enhancing flexibility and adapting to mobility, guiding, and encouraging workers in DFE to pay more and longer.

4.6.3 Adaptation of rules of contribution to pension schemes

The contribution rates for flexible workers have been progressively made uniform in China up to 2022. The international experience showed a wide range of policy options for contributions for workers in DFE. They include maintaining a uniform payment policy or formulating a reduced payment policy for workers in DFE, including adaptations to the contribution base and rate. As demonstrated in the results of the survey, workers in DFE and in the platform economy have a heavy burden of payment, and it is difficult to pay in accordance with the same rules as employees. In a mandated environment, the main objective is to avoid any harm to workers by imposing a too heavy burden. The objective is also to avoid evasion of contributions or underreporting incomes.

An important reason for the adaptation of contribution rules is that workers in DFE and workers in platform employment do not share the burden of contribution with employers. Therefore, faced with income constraints, individuals have a strong incentive to reduce their levels of payments, especially in the voluntary insurance systems. Therefore, in a voluntary environment, the objective of reducing contributions is to encourage workers to affiliate to pension schemes at the lowest possible cost for them, and to incentivize their payment of higher levels of contributions and for more continuous and longer durations.

The important downside of adaptations to contribution rules is the distribution of the costs of lower revenue to pension schemes, in terms of lower benefits for workers or lower financial sustainability for the pension funds. Some countries have sought novel ideas by considering whether more actors could be added to share the responsibility for contributions. Two aspects can be considered:

- First, the clients can act as "employers" of the self-employed and pay for contributions. This has been the practice in some countries, such as Germany and Chile. In Chile, the government deducts ten per cent of the gross amount of each electronic invoice of self-employed persons regardless of whether this is for a platform-based activity or not and directs it to a pension account for the self-employed individual. The contributions are transferred by the commercial customers.
- Second, the government assumes part of the payment responsibilities through subsidies and other methods, especially in countries that have in place policy measures to promote flexible employment, funded by other sources than pay roll taxes.

Similarly, this report proposes that the stakeholders benefiting from the transactions, including the platform companies, the consumers, and the government, should share part of the responsibilities of paying contributions to pension schemes through a combination of contributions and taxes.

4.6.4 Removal of participation constraints based on Hukou

There are two main reasons for the existence of Hukou restrictions for the participation in pension insurance. The first that benefits differ between various regions; the other is that the funding pool is at the regional level. This situation creates opportunities for moral hazard as flexible workers with non-local Hukou are likely to obtain a relatively higher level of pension benefits through low-level and short duration of contributions in some localities. While the national pooling of pension funds is yet to be realized, regions with higher pension benefits face more challenges for balancing fund revenue and expenditure.

As mentioned earlier, in recent years, various regions have explored the gradual relaxation of the Hukou restrictions on insurance participation. This is directly related to the progressive achievement of a national pension pool system and the implementation of a central adjustment fund that helps to correct financial imbalances in pension funds between localities.

There are two main views on the future direction of the Hukou restriction policy:

- Hukou restrictions should be completely removed, allowing flexible workers with non-local Hukou to participate in the basic pension insurance for urban employees as flexible workers in the place of employment. Eliminating policy barriers for insurance participation will promote full coverage, enhance institutional fairness, and enable those workers to also share in the fruits of economic and social developments.
- 2. An alternative point of view is that at the current stage, the removal of Hukou restrictions will still face some risks and challenges, the following three issues require attention:
 - First, the issue of selective insurance. Considering the differences between the levels of benefits between various regions, there could be a risk of selective enrolment in the provinces offering better social security packages with the consequence of increasing the administrative costs in those localities (such as supervision and law enforcement costs).
 - Second, the issue of dual participation. In the current context that the insurance information data has not yet been shared and integrated nationally, there may be occurrences of dual participation of insurance or dual receipt of benefits.
 - Third, coordination with local Hukou policies and social public policies. At present, many regions link the continuous insurance payment to the purchase of houses, cars, and children's education for non-local Hukou people, which makes the social security system carry many rights and interests beyond its own functions. Therefore, for a small number of regions in China, it is not possible to consider the removal of Hukou only in the pension insurance system, without considering the overall coordination with the urban development plan, population policy, Hukou policy, and social public service policies of the region.



4.6.5 Benefit levels

Affected by factors such as the low levels of contributions and the interruption of payments, workers in DFE have relatively low pension rights and benefits accumulated during their working life, often resulting in an overall low level of pension benefits.

The institution of a minimum non-contributory protection in old age that allows life in dignity and its effective connection with contributory pension systems is particularly important for workers in DFE, especially in a non-compulsory pension environment. The realisation of these two principles of a minimum floor of protection and higher levels of protection according to the capacity to contribute are a common practice in the world. There are mainly three options:

- Establish a universal pension system with uniform rates and benefits, such as New Zealand and the Netherlands.
- Establish a linkage between the minimum pension benefits and earnings-related pension, such as Chile, Norway, Sweden.
- A mixture of the above two methods to provide a basic pension insurance system composed of a universal pension and a minimum pension benefit, such as Canada, Denmark, and Iceland.

This report proposes that in formulating policies to cover workers in newer forms of employment, minimum levels of income in old age for all in need of protection, should remain a primary concern. Such basic levels of protection should be available to old age residents and be instituted at levels corresponding to the monetary value of necessary goods and services to lift people above national poverty lines and allowing life in dignity. In addition, this report showed evidence that platform workers and some flexible workers wish to contribute to obtain better income maintenance in old age. They should be encouraged to participate in earnings-related pension system, which should not be restricted to employees, to accumulate more adequate pension benefits.

4.7 Policy recommendations to improve the pension coverage of workers in DFE

For the employee pension system, how to include workers in DFE into the coverage is a common challenge. Issues related to insurance participation of platform workers do not only have commonalities with traditional flexible workers, but also put forward new issues arising from the new forms of employment, which has brought new challenges to countries around the world. This report draws on international practices, considers China's relevant laws and policies, actual situation of employment and insurance participation of workers in DFE in China, and makes the following recommendations.

4.7.1 Motivation and principles

Policy differences between groups can cause distortions in the labour market and are not conducive to social equity and fairness. In terms of labour costs of enterprises, labour relations are higher than labour outsourcing, franchise collaboration and other cooperative relations. With the support of the Internet, Internet of Things, Big Databig data, artificial intelligence, and other rapidly developing information technology, and realizing the fact that labour costs are more impacted by the minimum wage and social insurance policies, companies have enough motivation and incentives to adjust their employment practices. This may involve transition from close employment relationship into a loose non-employment relationship to avoid taxes and fees. If more and more companies make similar choices, it will not only impact the job market and make it more unstable, but also reduce the current revenue of the basic pension insurance fund. Therefore, when studying and formulating pension insurance policies for workers in DFE, it is necessary to avoid overemphasizing particularity while ignoring universality and fairness, which will lead to the adverse selection by enterprises from employment with labour relations to without labour relations, to escape their employers' responsibility.

4.7.2 Regulation of social security of workers in DPE and DFE

First, for those workers in DFE who fall de facto in the regulatory scope of labour relations, platform and non-platform corporations should act in accordance with normal employers' legal responsibilities, sign labour contracts with employees, and comply with social insurance obligations in accordance with laws and regulations. If they fail to participate in insurance or not participate to a full extent as obligatorily required, as well as deliberately evade signing labour contracts and fulfilling social insurance payment responsibilities through disguised self-employment, etc., two measures can be adopted:

- 1. To further improve the monitoring and control system and increase punishment. Use information technology, Big Data comparison, joint law enforcement and other methods to strengthen supervision, such as targeted audits and inspections jointly with taxation, auditing and other departments; and
- 2. To strengthen guidance for defining labour relations in new forms of employment in accordance with relevant precedents and guidance opinions of courts and arbitration institutions. More emphasis should be placed on investigation and evidence collection as basis for defining factual labour relations.

Second, for those workers whose labour relations are difficult to define clearly, there should be research on applicability of labour laws and policies for these workers. The regulations and policies need to be adjusted based on national practice, possibly supported by international experience, to provide a clearer legal basis for clarifying employment relationships and insurance policy for those workers. If it is difficult to provide clear definitions in the labour law in the short term, the applicability and inclusiveness of the current pension insurance policy, should be further improved, based on the basic characteristics of employment and income uncertainty of this group of workers.

Third, workers whose job nature is clearly in DFE, and there is no legal requirement to establish labour relations with the enterprise. Although there are no institutional barriers for insurance participation, from the perspective of improving the level of protection, those workers who can pay and are willing to participate in the employee pension insurance as flexible workers should be encouraged and guided through information and sensitization instead of participating in the resident pension insurance with low-level benefits. The next section provides further recommendations on this matter.

4.7.3 Clarifying the responsibilities of platforms

In China and in other countries, it is difficult to classify workers performing crowdsourced DPE as platform employees. However, some countries have started to gradually strengthen the responsibility of platforms in labour protection, by means of legal regulations and technical supervision. Likewise, China is strengthening the supervision of platform-based employment and exploring and discussing the labour rightsright protection of platform workers. A number of policy documents have been issued by the State, which propose to "clarify the platform's corresponding responsibilities for the protection of workers' rights and interests" (e.g. Guobanfa [2019] No. 38, etc.). Although it is difficult to determine the existence of labour relations between platform companies and some platform workers based on the current laws and policies, whether platforms should also bear certain responsibilities for pension insurance remains to be discussed. In fact, on the one hand, platform companies' revenue and market expansion depend on the work of the platform workers; on the other hand, platform companies use advanced technologies such as Big Databig data and algorithms to form actual constraints on the work process and platform related income of platform workers. Therefore, a careful study of the dependence of current workers on the platforms, on a case- by- case basis, or by nature of the economic sector, should not rule out the possibility of platform companies fulfilling certain responsibilities of contribution payment, especially for those workers that are highly dependent on a single client (platform) to earn income with long working hours. For example, in Portugal, even under the classification as self-employed the enterprise can be responsible to pay the contributions if responsible for a certain share of the self-employed earnings. This is one way of reducing incentives for companies to use disguised self-employment.

4.7.4 Strengthening the basic pension insurance policy

This report recommends that the pension insurance policy for workers in DFE strive for more people to be included in the employee pension insurance system, with the resident pension insurance system as a basic guarantee. Considering China's current basic old-age insurance system, and based on the analysis, it is proposed to:

First, consider a strategy to improve the levels of protection of workers in DFE and in DPE:

- China's basic pension insurance system has always aimed at full coverage and fairness. In this context, this report recommends that the pension insurance system, based on social solidarity, assume an important role to provide "basic protection" for all workers. The efforts should be therefore to continue to incorporate all workers into a progressively unified basic pension system, instead of building separate systems for different target groups.
- As many workers in DFE and DPE have the capacity to contribute more to improve their levels of benefits, and they currently have the option to contribute to resident pension schemes or employee pension schemes, greater efforts should be devoted to move workers in DFE and in DPE to employee pension schemes. Therefore, in accordance with the priorities of the 14th Five-Year Plan period (2021-25) clear higher priority should be given to expand the coverage of the employee pensions to workers in DFE and DPE.
- 3. This higher priority requires adapting the regulations and policy to gradually improve the level of protection of these workers. The regulations on the participation of workers in DFE and in DPE to pension schemes, should be progressively harmonized nationally, to ensure clarity and consistency of rules. They need to be adapted to the socio-economic and employment situation of workers in DFE and in DPE.
- 4. According to the survey of workers in this study, workers do not participate equally to all branches of social insurance. Many do not contribute to any social insurance. Regulations should allow DFE workers to better fulfil the **rules of contribution**.
 - reduce the minimum income threshold to allow workers to contribute from the first CNY and not to shoulder a high burden due to high minimum contributions.
 - regarding the contribution base, it will remain difficult to identify the income of flexible workers, and presumptive contribution levels may have to remain in place. However, there could be better communication between platform companies and social security administration to monitor the levels of contributions of workers.
 - Iow and fluctuating incomes may lead to suboptimum levels of contributions. Mechanisms could be devised to ensure stable levels of contributions (for example contributing a given percentage of income). The income bands for contribution should be broad and allow low and high levels of contributions. Contributions could be levied at the source and transferred by platform companies. The frequency of contributions (contribution collection schedule) could be adapted to variability of incomes, depending on the nature of occupations.
 - liminate instances of dual contributions to residence and employee pension schemes.
 - making sure that interruption of contributions does not affect the record of contributions.
 - all stakeholders benefiting from online and location-based platform transactions including the platform companies, the consumers, and the government, should share the responsibilities of paying contributions to pension schemes to reduce the weight, especially on those with limited contributory capacity.

- 5. In some cases, workers in DFE face difficulties regarding **pension eligibility**:
 - Workers in DFE find it more difficult than standard employees to complete the full requirement of 15 years contributions due to changes in employer and location of work. They sometimes must spend their time to reconstitute their working careers. It is imperative for workers in DFE to instantaneously, and on an ongoing basis, be able to justify, aggregate and monitor the contributions made to multiple employers and under different work status (full time, temporary, part-time work, or self-employed work).
- 6. In some cases, workers in DFE face lower benefits than standard employees:
 - Shorter working careers result in significantly lower benefits in retirement. It is important to avoid situations where platform companies do not contribute according to local rules because they are not registered locally. This introduces inequalities between workers with the same occupation in any given locality.
 - The self-employed may decide to underreport income resulting in less accruement of benefits. It is important to encourage effective contributions to remain stable at a target percentage of the real and actual income.
 - The study singled out some categories and occupations as more vulnerable than others. Delivery riders and express delivery show the lowest levels of contributions.
- **7.** Administrative procedures notably based on digital technologies can assist to resolve some of the above operational problems. For example, encouraging digital contracts and digital money transactions, using online social insurance registration embedded in platform Apps. Social insurance administration could encourage behaviour-data informed techniques to motivate flexible workers to pay early, more, and longer. For example, providing simulations of future benefits.

Second, further improve the resident pension insurance, and provide minimum pension benefits for flexible workers.

This report proposes that in formulating policies to cover workers in newer forms of employment, minimum levels of income in old age for all in need of protection, should remain a primary concern. Such basic levels of protection should be available to old age residents and be instituted at levels corresponding to the monetary value of necessary goods and services to lift people above national poverty lines and allowing life in dignity.

The resident pension insurance provides a low benefit level. To constitute a floor of income security, it should be progressively set at a level commensurate with Dibao. Given that provinces support most of the costs with resident pensions and the provinces with most poor elderly are the ones that will likely most struggle with funding a minimum floor, a wider social pooling and risk sharing could be explored.

Effective connections should be established between the resident pension insurance, the Dibao (basic social assistance) and the employee pension insurance. Within a multi-tier system, options should be explored to establish either a universal pension system with uniform rates and benefits, to link higher level of minimum pension benefits with earnings-related pensions or a mixture of the two methods to provide a basic pension insurance system composed of a universal pension and a minimum pension benefit.

Third, explore the removal of Hukou restrictions for workers in DFE.

This report recommends guiding all regions to remove the Hukou restrictions for flexible workers in the place of employment. For a few mega cities, such as Beijing and Shanghai, restrictions to housing and employment conditions should be set reasonably and be dissociated from social insurance participation requirements, to actively promote insurance participation of platform workers.

4.7.5 Gender equality in pensions for DFE and DPE

The study has shown that platform work is gendered, with women working in lower pay sectors as they tend to join platforms in the areas of domestic/housekeeping work and care services. Women workers in DPE have a slightly higher participation rate in pensions but their pensions are generally lower (they contribute more to residential pensions than men). Women flexible workers tend to have lower pension participation rates than men flexible workers, whether they are working through platforms or not.

In this context it is important to highlight the following:

- On-location services dominated by women, such as housekeeping and care services, have traditionally been characterised by high levels of informality in the offline economy. There is international evidence that platforms that provide housekeeping services perpetuate the invisibility of women in traditional sectors²¹. It is important to consider specifically sectors where women are more prevalent to ensure that regulations of platform economy are not gender blind.
- Platform work performed at home perpetuates a double burden for women whereby they add household chores and care obligations to work. Many platform workers have family responsibilities. Yet, often perform platform work is carried out during evenings and/or weekends.
- The fragmented nature of platform work may mean that platform workers lack the continuity needed to satisfy job tenure requirements. It is important the continuity requirements to justify contribution careers do not harm the intermittent nature of women's work.
- Pension systems can compensate for lower life-long earnings due to unpaid work and care of women. One way to help women, is also to offer caregiver credits (available in the United Kingdom, Sweden and Germany).²² It is therefore essential, especially for women in DFE and in DPE that pension systems involve solidarity systems that allow different forms of horizontal redistribution.
- The implementation of convenient administration systems is particularly important for women in DFE and DPE due to the difficulties in work life balance. Improving transparency and information on entitlements is critical. Women are better able to make decisions on their retirement income and contributory careers with timelier and up to date information.

The importance of opening nontraditional economic sectors to women thanks to new technologies and taking the advantage of these technologies to also improve the social protection for women platform workers engaged in sectors where women are more prevalent, should not be underestimated, given the increased reliance on external care services due to looming demographic changes, such as an aging population and increased life expectancy. It will be increasingly important to systematically use sex-disaggregated data in social security pension policy analysis as the current lack of such comparative data makes it difficult to gauge the extent to which women and men workers access social security differently.

²¹ For example, in some countries platforms operating in sectors such as personal transportation services require a proof of social insurance but the same requirements do not exist in housekeeping services. Barbieri et al, *Artificial Intelligence, Platform Work and Gender Equality*, European Institute for Gender Equality, 2021.

²² CNBC, 2021. Available at: https://www.cnbc.com/2021/07/30/as-women-leave-workforce-how-that-affects-social-securitybenefits.html

4.7.6 Policy publicity and awareness

Regarding the **lack of knowledge of workers in DFE and their misunderstanding of pension insurance policies**, policy publicity should be increased to guide them to correctly understand the principles and basic functions of pension insurance policies, the payment responsibilities of individuals and the employers, and the expected pension benefits in the future, in a simple and easy-to-understand manner. This would lead more and more people to change from "knowing what it is" to "knowing why", from "I am asked to participate" to "I want to participate" and guide them to have a correct understanding of retirement savings. For those who have a certain ability to pay, encourage and guide them to participate in employee pension insurance and choose a payment level with a moderate level of protection. Even those who choose to participate in the resident pension insurance, should also be encouraged to choose a medium-to-high payment level to improve the pension benefits.

In terms of **policy publicity methods**, on the one hand, we should make full use of the development of Internet technology, using multiple channels such as the local government service network, WeChat official accounts, SMS platforms, Weibo, Internet + corporate business platforms and other emerging social network channels, so that it is easy to reach the target groups. The policy publicity should be carried out in the manner of easy-to-understand, clear scenarios, so that many platform workers can clarify their rights and obligations, participation and payment methods, and social insurance benefits, etc. Online consulting platforms can be set up to answer workers' questions about social security issues, which will increase their awareness of policies and insurance participation.

On the other hand, publicity can be carried out through **government-enterprise cooperation**. Regularly carry out training and policy announcements to the corporate pension insurance business managers through online or offline methods to improve the managers' understanding of policies and management capabilities, to facilitate them to answer questions for employees in a more timely and accurate manner. At the same time, authorities can also collaborate with platform companies to produce policy promotional videos or training courses and embed these to the platform system for easy access, so that more workers in DFE can correctly understand the pension insurance policy.

Counter negative perceptions about social security. Regarding the negative and false media coverage on pension insurance on the Internet, the official response and policy interpretation should be strengthened. It can also be combined with case presentations and other methods to dispel the worries of workers about participating in insurance and eliminate the negative impact on social harmony and stability caused by incorrect information.





Employment injury protection of workers in diverse forms of employment

5.1 Introduction

In China, the existence of labour relations (including de facto labour relations) is a core prerequisite for registering and benefiting from work injury insurance. The focus of this chapter is on the work injury protection of platform employees and workers in DFE or flexible workers who do not have labour relations or whose labour relations have not yet been determined.

The expression of flexible employment is adopted because it is the one used in national and local policies and regulations. Because work injury insurance relies on the existence of labour relations, flexible workers

lack protection in case of occupational injuries or diseases from work.²³ However, the emergence of new forms of employment in the platform economy in recent years, has caused this gap in social security coverage to receive more attention.

National policy in China has promoted the launch of pilots at the local level to experiment the design of work injury schemes adapted for flexible workers and workers in the platform economy. This report uses the term occupational injury insurance to differentiate these experimentations with work injury insurance according to national regulations. The chapter reviews the domestic and international policies and practices and makes recommendations for the design of work injury schemes for flexible workers.

5.2 Occupational injury risks of flexible workers

Flexible workers face occupational injury risks as any worker, and in some instances may face more. However, this reality is not sufficiently visible because it is difficult to collect data on occupational injuries of workers in flexible employment and such data is not usually available in regular employment statistics. In recent years, China's platform economy has developed rapidly. Some platforms such as food and express delivery have a higher risk of occupational injury due to the nature of these occupations and the mechanisms platform companies use to determine workers' incomes. This has attracted more attention from the society.

As an illustration, according to provincial level data²⁴, there were a total of 325 road traffic accidents involving the express delivery and food delivery industries in Shanghai, in the first half of 2019, resulting in five5 deaths and 324 injuries. The companies that had more traffic accidents were Ele.me, Meituan, Hema and SF Express. According to data from the Shenzhen traffic control department²⁵, express, take-away riders were involved in a total of 84,000 traffic violations, accounting for 11.89 per cent of the city's illegal non-motor vehicles which killed five people, as of the end of September 2019, in the city of Shenzhen. From January to November 2020, traffic accidents involving food delivery personnel in the city increased by 22.22 per cent year-on-year; the number of injured increased by 8.57 per cent year-on-year; the number of deaths increased by 133.33 per cent year-on-year.

Rural migrant labour is the main source of flexible employment, including in the platform economy. Although compared with pension and medical insurance, occupational injury risk is a small probability risk, once it occurs, it will cause temporary or long-term damage to their work ability, affect family livelihoods, and easily lead to poverty due to injury. Therefore, the occupational injury risk of this part of the population cannot be ignored. Providing protection will play a unique and important role in fighting poverty and maintaining social harmony and stability.

5.3 Work injury protection policy

China's work injury insurance system takes labour relations as the prerequisite for participation. In April 2021, the number of people participating in work injury insurance nationwide was 269.9 million and the country's urban employees (excluding self-employed) were 328.53 million. This means that an estimated 82 per cent of the workers with stable labour relations were covered. The figure in this study's sample is much lower, as only 16.5 per cent of platform employees declared to be covered by work injury compared to 79 per cent in pension schemes. In addition, workers in flexible employment have very diverse ways of employment – full-time and part-time; platform work and non-platform work; among platform work, there are workers with labour relations and those without. Consequently, the protection of workers in flexible employment, in the platform economy or not, in case of occupational injuries is often lacking. Workers can only partially rely on commercial accident insurance, and this provides limited protection: For example, it seldom provides periodic long term invalidity cover. This contributes to higher risks of labour disputes and social instability.

²³ Among part-time workers, there are some with labour relations, some without. For those with labour relations, it is mandatory for employers to provide EII. Pension and health insurance can be provided on a voluntary basis.

²⁴ http://www.cnr.cn/shanghai/shzx/ms/20190707/t20190707_524682255.shtml

²⁵ https://www.sohu.com/a/346962321_161795

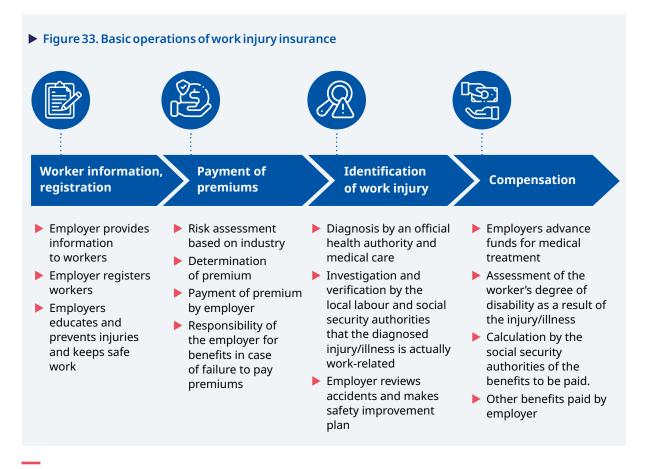
The following are some key features of current work injury policy in China:

Part time employment

According to existing laws and regulations, employers who use part-time employment to form a labour relationship must pay work-related injury insurance premiums, but they do not have to pay other social insurance expenses such as pensions and medical care. When there is multiple employment, the regulations stipulate that "employees (including workers in part-time employment) where two or more employers are employed at the same time, each employer shall pay work-related injury insurance premiums for the employees separately."²⁶ Furthermore, "in the event of an employee's work-related injury, the work unit that worked at the time of the employee's injury shall bear the work-related injury insurance liability in accordance with the law." Therefore, there are no policy barriers for part-time workers.²⁷

Other flexible workers

Except for part-time employees, most flexible workers do not have labour relations, and it is difficult for them to benefit from work-related injury protection. Unlike pension insurance and medical insurance, flexible workers cannot participate in work injury insurance as an individual. However, to overcome this situation, it is not sufficient to amend the "Work Injury Insurance Regulations" to expand the coverage of the population. The design of the work-related injury insurance system also needs to be reviewed as it currently does not match the employment mode of workers in flexible employment. The basic operations of employment injury for regular employees are the following.



²⁶ MOHRSS. "Provisions on the Implementation of the Social Insurance Law of the People's Republic of China." MOHRSS Order No. 13, 2021.

²⁷ The survey company (Horizon) was commissioned by the research team to carry out a survey of 79 platform and non-platform companies. According to the survey results, 53.2 per cent of surveyed companies purchased work-related injury insurance for part-time employees. Among companies that did not provide part-time employees with work-related injury insurance, more than 70 per cent said "it was not necessary because part-time employees have a short labour cycle". Unless otherwise specified, the survey data in this chapter comes from the survey carried out by Horizon.

The six main problems in the case of flexible workers:

- 1. **Difficulty of paying premiums.** In work injury insurance the employer bears the payment of premiums, and the individual does not pay. The payment base is the total monthly salary, and the floating rate method is adopted. If flexible workers participate in work-related injury insurance, and flexible workers do not have employers, the person who is liable to pay, the payment base and the rate level need to be clarified.
- 2. **Failure of the employer to contribute to work injury insurance.** In China, if the employer fails to pay the work-related injury insurance premiums in full and on time, once a work-related injury occurs, all work-related injury benefits are borne by the employer. If the same rule was applied in the case of flexible workers, there would be no entity to pay the benefits in case of failure to pay the premiums.
- 3. **Employer liabilities.** The special feature of China's industrial injury insurance system and some other countries is that the liability for industrial injury insurance benefits is shared by the industrial injury insurance fund and the employer.
 - a. Although the employer has already assumed the payment of premiums, once a work-related accident occurs, he still must bear part of the benefits, which mainly include **wages and benefits during the work-related injury medical treatment period, and nursing expenses.**²⁸
 - b. After the labour ability assessment determines the level of disability, workers are entitled to a corresponding level of benefits depending on the level of disability as follows:
 - i. Workers with disabilities of grade 1 to 4, the worker and employer retain labour relations, the employment injury insurance pays the disability allowance. The employer continues to pay the employee's basic medical insurance premiums.
 - ii. Workers with disabilities of grade 5 to 6, their **employers arrange appropriate work adaptations.** If the arrangements for work are not possible, the employer pays the disability allowance monthly.
 - iii. For workers with disabilities of grade 5 to 10, if the contract is terminated, the employer pays a **one-time employment subsidy**.

It should be noted that in respect to medical expenses, there is also a **requirement for employers to advance the funds for medical treatment** until the injury is ascertained. The medical expenses for the treatment of work-related injuries are handled as follows: Before the work-related injury is ascertained, the employer or the individual pays the medical expenses in advance; once the work-related injury is ascertained, the advance part will be reimbursed by the work-related injury insurance fund. The medical expenses after the ascertainment of work injury are settled directly by the fund handling agency and the hospital, and no advance payment is required.

If flexible workers participate in work injury insurance, regulations need to define how to deal with the benefits borne by the employer.

4. Work injury identification. The prerequisite for enjoying work-related injury insurance benefits is the identification of work-related injuries. In the case of employers, they contribute to the investigation and collection of evidence for identification of work-related injuries and to ensure the authenticity of work-related accidents. Even so, due to the uncertainties involved in the circumstances of some work-related injuries, labour disputes and lawsuits on work-related injury have become more frequent. Flexible workers do not have fixed working hours or workplaces. Because of the lack of the employer, it is more difficult to judge whether workers have been effectively performing their job duties. Once an accident occurs, it is difficult to prove that the injury is caused by work. If flexible workers participate in the current work-related injury insurance, there will be great difficulties in the identification of work-related injuries, leading to more disputes.

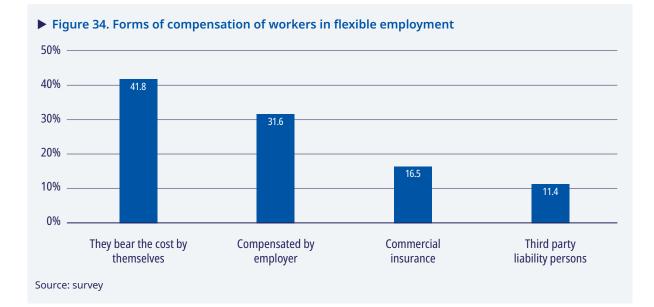
²⁸ Aftercare that the worker may need as a result of the injury.

- 5. Administrative challenges. The current work injury insurance system management and handling are all based on activities performed by employers, including handling documentation with the employment injury insurance administration for workers' insurance enrolment, the employers' payment of premiums, identification of the work injury, and identification of labour ability. If flexible workers participate in insurance as individuals, it will pose a challenge to the current work-related injury insurance administration management model and handling methods, including increased handling workload, information systems, handling efficiency, and supervision methods.
- 6. **Cross border operations.** Generally, the place of registration of the enterprise is the place of participation according to work injury insurance. Platform companies often have cross-regional operations and may not necessarily have local entities. This means that workers may not be covered because they lack an employer in that locality.

5.4 Forms of protection for flexible workers in case of employment injury

5.4.1 Nature of protection available

Flexible workers cannot participate directly in work-related injury insurance without a labour contract. Workers may be protected if they have a labour contract with a dispatch company. Otherwise, they often must individually bear the costs for the absence from work and for medical treatment in case of injury caused by accidents during work. They may receive employer compensation when it is foreseen in the commercial service agreements that they sign with their clients or the online platforms in case of platform workers. Employers may contract commercial insurance. In some cases, third-party compensation may be available. According to this research survey, among the people who have had work-related accidents, the highest proportion of people who chose "bear the costs of lost wages and treatment by themselves" is the highest, accounting for 41.8 per cent. 31.6 per cent of the respondents said they were compensated by employers. 16.5 per cent of the respondents were compensated by commercial insurance companies. 11.4 per cent had medical costs paid by third-party accident liability persons.²⁹

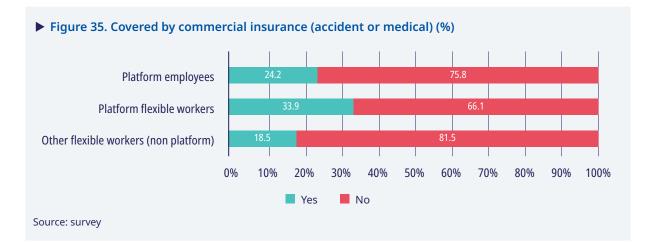


²⁹ Considering that work-related injuries are a small probability risk, only 79 people have had work-related accidents out of the 3,145 people surveyed. This is a small sample, however, field interviews indicated that relatively small accidental injuries are generally borne by workers themselves, avoiding cumbersome compensation procedures.

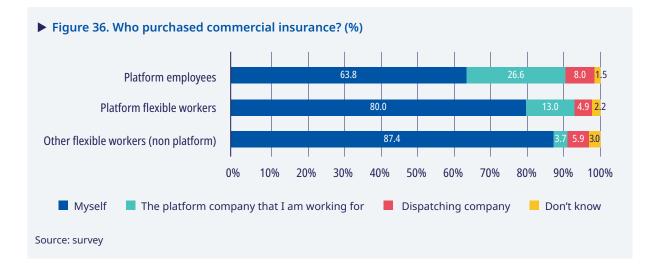
5.4.2 The role of commercial insurance

A few platform companies, especially large platforms, cooperate with insurance companies as a form of corporate social responsibility and to reduce operating risks. They either purchase commercial insurance for platform practitioners, or uniformly require practitioners to purchase commercial insurance. Commercial insurance generally collects premiums on a per-order or daily basis, and is usually a comprehensive insurance, which includes both personal injury accident insurance for workers and other protections such as third-party liability insurance. For example, in August 2021, the platform company Meituan paid daily commercial insurance of three yuan (US\$ 0.46) per rider, on behalf of each food delivery rider. The cost was deducted from the rider's commission. The insurance included death and disability insurance up to a maximum of 600,000 yuan and medical expenses of 50,000 yuan.³⁰

The survey for this study shows that the purchase of commercial insurance was not high. More than 75 per cent of platform employees did not have commercial accident insurance or commercial medical insurance. 66.1 per cent of platform flexible workers and 81.5 per cent of non-platform workers did not have commercial insurance.



From those who were covered by commercial insurance, 80 per cent platform flexible workers and 87.4 per cent non-platform flexible workers purchased commercial insurance by themselves.



³⁰ Pandaily, 2020. Available at: https://pandaily.com/meituan-to-pay-social-security-for-food-delivery-riders-as-required-by-chinesegovernment-share-price-plummets

The protection provided by commercial insurance is often insufficient compared to work injury insurance. Commercial insurance is generally characterised by high premiums, narrow scope, low protection, and sometimes additional barriers for claim settlement.³¹ Commercial insurance often restricts compensation to one-off payments which can only meet temporary needs whereas long-term compensation in the form of periodic payments are the most important means to protect the disabled or survivors in work injury insurance. Once a one-time compensation is spent, the protection of the disabled or survivors remains a problem for the individual and for the community. In addition, commercial insurance also fails to provide compensation in case of occupational diseases and offers hardly any rehabilitation services.

Work injury for domestic workers

The "Opinions on Promoting the Quality and Capacity Expansion of the Domestic Service Industry" (Guobanfa [2019] No. 30) of the General Office of the State Council supported the development of commercial insurance for domestic workers and encouraged qualified regions to organize domestic enterprises and employees to take out insurance and carry out unified insurance. According to the official website of the China Insurance Regulatory Commission, in 2017, there were 23 insurance companies in China, that implemented domestic service insurance business, with a total of 56 insurance products, and liability insurance as the main type of insurance. Some local governments encourage domestic service agencies to purchase commercial accident insurance for domestic workers through financial subsidies. For example, Shandong and other places have introduced subsidy policies.

5.4.3 Benefits

Near 30 per cent of the respondents questioned had never enjoyed medical benefits. Among the platform workers, 39 per cent had have been hospitalized due to illness in the place of employment. 29 per cent of them paid for all their hospitalization expenses by themselves. It is learned from the interviews that platform workers paid little attention to occupational diseases and chronic diseases, few had a comprehensive physical examination within three years, poor attention to physical and mental health.

The proportion of respondents who obtained work-related injury benefit is relatively low. Among the platform workers, 14 per cent have had work-related accidents. Among them, 38.5 per cent was compensated by the employer, and the proportion of compensation from the work injury insurance fund is only 10.4 per cent, which is lower than that of commercial insurance. In addition, 15.6 per cent did not receive any compensation and had to bear it by themselves.

There was little difference in the satisfaction with commercial insurance and work injury insurance fund.³² Asked about whether the compensation process of the work injury insurance fund was smooth, 71 per cent responded yes. For those reporting unsmooth process of the work injury insurance fund, the main reasons were related to the long duration (36 per cent), complexity (36 per cent) and poor staff attitude (12 per cent).

³¹ The speed of operations is usually not a problem but the verification of many "small clauses".

³² These results are drawn from a separate survey conducted by CALSS in November, 2020 which was conducted through offline individual interviews and collective interviews with 2,016 platform employees in Beijing, Shanghai, Jiangsu, Henan, Hubei and Guangdong.

5.4.4 Willingness to pay for occupation injury insurance

According to the survey, for those who considered participating in work-related injury insurance, 34.1 per cent were willing to pay at the level of 10-20 yuan, 32.9 per cent for ten10 yuan and below, and 21.2 per cent for 20-30 yuan. This is close to the current payment level of commercial insurance.³³ In 2019, annual per capita payment for work injury insurance was 300 yuan i.e. 25 yuan per month.

5.5 Local pilot policies and projects on occupational injury protection for flexible workers

In response to the lack of occupational injury protection policies for flexible workers, some localities have launched pilot projects to experiment with new forms of protection for workers in new forms of employment and in the platform economy. The following table summarizes the pilot areas and policy documents in various regions.

33 The platforms usually charge a premium of three yuan per day for the first order, which is generally higher than the payment level of work-related injury insurance. In fact, platform companies charge the three-yuan premium but the insurance company receives less than two yuan in premium.



▶ Table 6. Policies for occupational injury protection for flexible workers in various regions

Province/city		Policy document name and date		
Jiangsu	Nantong city	"Notice on Participation of Work Injury Insurance for Flexible Workers (2006), "Interim Measures on Work Injury Insurance for Flexible workers" (2015).		
	Suzhou Taicang	"Implementation Opinions on the Implementation of Employee Injury Insurance for Flexible Employers (Trial)" (2010), "Interim Measures for Occupational Injury Insurance for Flexible Employers" (2015).		
	Wujiang District, Suzhou	"Measures on Occupational Injury Insurance for Flexible workers (Trial)" (2018).		
	Changzhou	"The Trial Measures for the Priority of Participation in Work Injury Insurance for Employees of New Business Types at the Level of Changzhou City" (2019).		
	Taizhou	"Notice on Issuing Taizhou Supplementary Work Injury Insurance Measures (Trial)" (2020).		
Shandong	Weifang	"Notice on the Participation of Work Injury Insurance for Flexible workers" (2009).		
Jiangxi	Jiujiang "Jiujiang City's Occupational Injury Insurance Measures for Flexible Employment (Trial)" (2019).			
Zhejiang		"Guiding Opinions on Optimizing Labour and Employment Services in New Business Forms" (2019).		
Sichuan	Chengdu	Opinions on the Trial Implementation of Promoting the Participation of Social Insurance by Employees of New Economy and New Business Forms (2019).		
Guangdong		"Measures on the Participation of Work Injury Insurance for Specific Persons in Non-labour Relations Engaged in Units (Trial)" (2020).		

5.5.1 Comparison of pilot policies in various regions

The policies can be classified in the following categories:

- The new regulations applying to Chengdu, Sichuan do not provide policy breakthroughs. They are meant to clarify the existing insurance policies. Similarly, the policy of Changzhou, Jiangsu targets employees onlyin new forms of business, not all flexible workers. In essence, some enterprises can prioritize employment injury insurance if the enterprise cannot participate in all the five insurances.
- 2. Jiujiang City, Jiangxi Province and Taizhou City, Jiangsu Province, based on the experience of Wujiang District in Suzhou and the supplementary work-related injury insurance system, adopted a form of commercial insurance to solve the occupational injury protection for flexible workers.
- 3. Nantong City, Weifang City, Suzhou Wujiang District, Suzhou Taicang City, Zhejiang Province and Guangdong Province provide some innovations.

In terms of a system model, Nantong City, Weifang City, Zhejiang Province and Guangdong province apply essentially the existing work-related injury insurance system. Suzhou Wujiang District and Suzhou Taicang City have newly built systems. Wujiang District follows a commercial insurance model and Taicang adopts a welfare (social assistance) system (completely government subsidised).

Some regions cover all workers in flexible employment (Nantong City, Suzhou Taicang City, Suzhou Wujiang District, Weifang City), and some regions only cover workers in new forms of employment such as e-commerce, online car-hailing, online food delivery, express logistics, etc. (Zhejiang, Guangdong province). However, even in the four places, workers must be enrolled in pension and medical insurance. Because the pre-condition for participation in pension and medical insurance in the pilot cities is to have local hukou, therefore the EII protection for workers in flexible employment is also limited to those with local Hukou. Zhejiang and Guangdong mainly target workers in new forms of employment, and there are no restrictions on household registration.

In terms of insurance payment, both workers from Weifang and Nantong need to pay through an agency. They cannot directly participate in the insurance. The premium is borne by the individual. Workers from Zhejiang and Guangdong need to participate in the insurance through the employer (or intermediary company such as a platform company), and the premium is borne by that company; in Wujiang District, Suzhou, it is the individual's own insurance. To participate in the insurance, the individual bears the premium without going through an agency or employer or intermediary company.

In terms of the payment level, two methods are mainly adopted: Rate and fixed amount.

Regarding the level of benefits, where the "Regulations on Work Injury Insurance" is implemented, the employer or intermediary company bears the regulations differently. In Nantong City and Weifang City the injured worker has to bear that part of costs. Zhejiang province's policy is that if the employer voluntarily participates in the work injury insurance, employers or intermediary companies bear this part of the benefits; Guangdong province's policy is that this part of the benefit is negotiated between the employers or intermediary companies and individuals, and the government does not mandate it. Wujiang District of Suzhou and Taicang City have completely innovated the benefit policies and regulations.

In terms of handling, there are mainly two ways that social security agencies handle it: They manage by themselves and they entrust a commercial insurance company to handle it. In terms of fund management, there are mainly two ways of merging into the existing work-related injury insurance fund and establishing an independent fund. Table 7 summarizes the pilot policies in those regions.

• Table 7. Occupational injury protection pilot policies in various regions

City	Institutional model	Coverage	Enrolment method	
Weifang City	Existing work injury system with no changes.	All flexible workers must participate in work injury and in the pension and medical insurance schemes.	Participation through an agency, and the individual bears the premium.	
Zhejiang Province	Existing work injury system with no changes.	Only for new forms of employment (including in platform economy).	Need to pay through the platform to participate in insurance, individuals do not pay.	
Guangdong Province	Existing work injury system with no changes.	New forms of employment (notably in platform economy) and domestic service industries, etc.	Need to pay through the employer/platform company to participate in insurance, individuals do not pay.	
Nantong City	Partial adjustment to the existing work injury insurance.	All flexible workers must participate in work injury and in the pension and medical insurance schemes.	Participation through an agency, and the individual bears the premium.	
Wujiang District, Suzhou City	New system	All flexible workers. Unlike the existing work injury there are no income threshold restrictions.	Individuals go to the social security agency to participate in the insurance by themselves, the individual bears the payment, and some people have subsidies.	
Taicang City, Suzhou	New system	All flexible employment workers must also participate in pension and medical insurance Some household registration restrictions apply.	Individuals go to the social security agency for registration alone. Individuals do not pay, and they are fully financially subsidised by a local special employment fund.	

City	Payment level	Benefit level	Management mode	Fund management
Weifang City	The premium rate is 1%. Payment base is same for pension and medical insurance. The contributions collected simultaneously.	Periodic benefits were changed to one- off payments. Individuals bear the costs borne by the employer.	Social Security Agency	Incorporated into the Work Injury Insurance Fund.
Zhejiang Province	The average monthly salary of employees in the province in the previous year is the base, and the premium corresponds to the second-category industry rate. ³⁴	In accordance with the "Work Injury Insurance Regulations". Employer's costs are encouraged to be borne through commercial insurance.	Social Security Agency	Incorporated into the Work Injury Insurance Fund.
Guangdong Province	Directly apply the work injury insurance payment rate standard of the main unit / platform.	In accordance with the "Work Injury Insurance Regulations". The benefits borne by the employer shall be negotiated between the company and the individual.	Social Security Agency	Incorporated into the Work Injury Insurance Fund.
Nantong City	The premium rate is 0.5%. Payment base is same for pension and medical insurance. The contributions collected simultaneously.	Periodic benefits were changed to one- off payments. Individuals bear the costs borne by the employer.	Social Security Agency	Incorporated into the Work Injury Insurance Fund.
Wujiang District, Suzhou City	Flat payment of 180 yuan per person per year. For those who contribute to employee pensions or employee medical insurance, the local government subsidises 120 yuan.	Policy different from the EII Regulation.	Commercial insurance company	After the social security agency collects the premium, it transfers it to the commercial insurance company.
Taicang City, Suzhou	The individual does not pay.	New benefits policy.	Social Security Agency	Independent Occupational Injury Insurance Fund.

³⁴ MOHRSS, 2015. Available at: http://www.mohrss.gov.cn/xxgk2020/fdzdgknr/zcfg/gfxwj/shbx/201507/t20150729_216271.html

5.5.2 Assessment of the pilot policy initiatives

The main features of the pilot policy initiatives are as follows. Firstly, they are not a unique design defined at the national level. The localities have carried out pilot projects based on their specific circumstances. This has led to a variety of models, including the use of the current work injury insurance model, government-led commercial insurance, and a government fully sponsored model. Secondly, all workers participate voluntarily for insurance without compulsory participation. Finally, the results of the pilot projects are not very satisfactory for different reasons. Analysis of each pilot is provided in this section.

The pilots in Weifang and Nantong mostly follow the work injury insurance model. In this model, the identification of injuries for flexible workers is the same as that of ordinary employees. But under this model, the working conditions of flexible workers make it difficult to investigate and obtain evidence for the identification of work injuries.³⁵ The work injury scheme is generally attractive compared to other schemes and it is prone to litigation. The difficulty in ascertaining injuries of flexible workers increases the propensity for labour conflicts and disputes, and to increase the expenditure of the work-related injury insurance fund. Although the certification materials that need to be submitted by flexible workers are stipulated, it is difficult for social security agencies to investigate the authenticity of commuting traffic accidents, whether injuries have taken place on or off work in a few instances, and death from sudden illnesses.

Zhejiang and Guangdong provinces also use the existing work injury system with no changes. Their policies only target employees of new forms of employment who are employed in work units, not all employees in flexible employment. In this model, the initiative of whether to participate in the insurance is in the hands of the employer or the company (platform) and workers cannot participate in the insurance as individuals. Therefore, the key is to look at the motivation of new companies/work units to take the initiative to participate in work-related injury insurance. At present, platform companies often cooperate with commercial insurance companies to protect employees' occupational injuries. Commercial insurance already includes occupational injury protection and third-party liability insurance for employees. Based on the current situation, it is difficult to encourage platform companies to participate in social security established by the government. Secondly, it is difficult to administer social security for flexible workers with the current work injury insurance. Workers in platforms such as food and express delivery, and online carhailing are generally paid on a single-order basis and workers can receive orders from multiple platforms. It is difficult to attribute an accident to work for a given company. Because their working hours are flexible, a worker cannot be presumed to be working for any given company at a fixed time schedule. It is difficult for employers or platform companies to follow the current regulations (payment base and payment rates) for premium payments. Platform companies and platform workers belong to different industries, and it is difficult to determine which rate shall be applied. For example, Didi is in the information technology service industry, and online car-hailing is in the transportation industry. If the contribution is paid by Didi for online car-hailing drivers, should industry-specific rate shall be applied? In addition, Zhejiang, and Guangdong both require insurance participation at the place of production and business operation but some platforms only provide information services locally, and may not necessarily have local entities who hire workers.

The Taicang city pilot model is difficult to promote and replicate. The scope of participation is limited to workers with local household registration, the source of financing is the employment special fund and the individual does not pay. This is a welfare system. As such, benefits tend to be comparatively lower than in a contributory scheme. The scheme does not cover the risk benefit of "death", which is not in line with the concept of the work injury insurance system. However, the innovation in the protection of occupational injuries and the guarantee of long-term protection in form of annuities for invalidity are worthy of recognition.

³⁵ For example, gig workers need to use order data on the app to prove that they were injured at work, but if they cannot access the app, they are unable to provide any evidence to back up their claims. However, Beijing Zhicheng Migrant Workers Legal Aid and Research Center found cases in January 2022 in which couriers' data disappeared after an accident involving a rider. Available at: https://mp.weixin.qq.com/s/KNLWPjHf6YzTMUNWUkZrUg

Wujiang District is also experimenting with a new model. The scheme is more inclusive than other models. Anyone who is flexibly employed in Wujiang District can participate in the insurance. It does make compulsory the participation to pension insurance and medical insurance. A worker can participate separately in the occupational injury insurance. The premium is a flat rate 180 yuan per person per year, which is not high compared to the average annual premium level of work-related injury insurance.³⁶ Occupational injury protection situations are more strictly defined as situations directly related to work , effectively reducing the difficulty of investigation and evidence collection. The specific handling uses contracts with commercial insurance companies to make up for the shortage of manpower in social insurance institutions. The insured worker can be compensated for medical expenses, and is provided a disability allowance, and disability subsidies or a death allowance in one lump sum according to the degree of injury. The compensation standard is about 50 per cent of the current work injury insurance compensation standard. A shortcoming of the Wujiang model is that it is based on commercial insurance, which only provides one-time benefits and no long-term benefits. The medical benefits of occupational injuries are tied to medical insurance.³⁷

The next section focuses on the international experience in injury protection for flexible workers, before the chapter considers core principles and main policy options for reform and recommendations for China.

5.6 International experience in employee injury protection for flexible workers

Historically and still today, in most social insurance schemes, work injury insurance is tied to labour relations. Therefore, work injury protection for workers in flexible employment is not widespread. In the context of the emergence of flexible employment, the issue of the injury protection of flexible workers has attracted worldwide interest. Considering specific practices in some countries and regions provides insights for the design of China's system of occupational injury for flexible workers. This section provides key considerations from the international experience.

Flexible workers have more limited participation in work injury insurance

Work injury insurance is an institutional arrangement to protect work-related injuries. The injury should be work-related, otherwise the scheme will evolve into generic accident insurance (including for example generic road insurance) with different focus, characteristics, and nature of benefits. Due to flexible working methods, it is relatively difficult to determine whether accident injuries of flexible workers are related to work. For that reason, many countries in the world still exclude flexible workers from the scope of the work-related injury insurance system. For example, in comparison to the coverage of pension and medical insurance, the work-related injury protection of flexible workers in EU member States is relatively limited compared to employees. Only 57 per cent of countries in the EU provide protection in case of employment injury to self-employed workers. 36 per cent of countries provide mandatory coverage and 21 per cent provide voluntary coverage to self-employed under national EII schemes.

Some countries adjust existing systems or build new systems for flexible workers

To protect the rights and interests of flexible workers, some countries have adjusted their policies and regulations on work injury insurance, and a few countries have established new systems to meet the needs of flexible workers. Several countries in Europe, all provinces in Canada, Australia, Japan, Republic of Korea, and Malaysia have instituted employment injury cover for the self-employed and all flexible workers, including in some cases specific mention to platform workers.

³⁶ In 2019, the annual per capita payment for work injury insurance was 300 yuan.

³⁷ The medical expenses are first reimbursed by the medical insurance and the balance is limited to 30,000 yuan and then by the occupational injury fund.

The main conclusions are as follows:

Most countries do not build new systems but instead incorporate unified injury insurance systems and funds. Appropriate adjustments will only be made where they are not suitable for flexible employment. This is facilitated by the fact that in developed countries, formal employment is the mainstay, and it is not cost-effective to establish a system for flexible workers alone. For example, Japan has allowed flexible workers to participate in insurance through a "special participation system."

Scope of coverage includes all workers in flexible employment or certain groups of workers in flexible employment. The composition of the group of workers in flexible employment protected by work injury insurance is diverse. Some countries do not make a distinction between different forms of employment and apply the work injury insurance system uniformly. However, some countries guarantee cover of injury insurance to some forms of flexible employment only, such as Italy, Spain, Germany, Republic of Korea. In these countries, although some flexible employment groups do not have a labour relationship with the employer, they have certain forms of subordination. Therefore, the law requires them to participate in work injury insurance.

With some exceptions, the source of financing is generally paid by individuals. Unlike the employee's payment, which is entirely borne by the employer, the employee injury insurance premium for flexible workers in most countries is borne by the individual, but for those with a certain affiliation, the employer must bear part of it, generally half of it. For example, flexible workers in Taiwan, China pay individual fees, but the government provides a 40 per cent subsidy.

The rules for the identification of work injuries are mostly the same as those for employees but some restrictions may apply for the entitlements. For example, in Japan and Taiwan, China, flexible workers need to be insured through organised groups or professional labour unions. Some situations such as commuting traffic accidents are excluded from the coverage. To ensure the objectivity and fairness of work-related injury investigations, Malaysia grants some powers to handling agencies, and at the same time imposes severe penalties on the parties who give false testimony. In OECD countries, labour inspections play a strong role in verification a posteriori of the effective occurrence of work-related injuries.

The benefits are usually aligned with those of employees but there can be differences with the compensation provided to employees. For example, there can be no cash benefit for flexible workers during the waiting period before the compensation, when this is assumed by the employer. To mitigate this fact, Swedish self-employed workers have shorter pay periods than employees. In the province of Quebec in Canada, there is no waiting period for self-employed whereas employees have a 14-day period reimbursed later by social insurance.

5.7 Policy considerations for occupational injury protection of workers in flexible employment

Work in flexible employment is playing an increasingly important role in China's labour market. In particular, the scale of platform employment is growing and has reached a sizable dimension. Flexible work has a prominent role in stabilizing employment and protecting people's livelihoods. However, the lack of protection of workers in flexible employment cannot be ignored. Based on practice at home and abroad, government departments should carry out the top-level design of the system, draft the law for an adapted work-related injury insurance system, and ensure its implementation.

Basic principles

Principle of social insurance

At present, some platforms require that workers who take orders on the platform must purchase commercial insurance. For example, the domestic service industry has relied in several provinces on commercial accident insurance.³⁸ But a government-led protection system using a commercial insurance model to provide occupational injury protection for workers in flexible employment cannot solve the problems related to commercial insurance (for example the one-time benefit payment for long term injuries). A salient feature of social insurance that distinguishes it from commercial insurance is that it provides long-term periodical payments instead of one-off payments. Commercial insurance often provides one-time (lump sum) payments in situations of workers' permanent incapacity, and it is difficult in this context, to provide a guarantee over long-term needs of workers and their families. One of the original intentions of the establishment of the modern social insurance system is to solve the short-sightedness of individuals and the failures in insurance markets (high premiums, high administration costs, low personal coverage, inadequate material coverage of some events). If employees and their families cannot properly manage one-off benefits, they tend to fall back into economic difficulties. In addition, to resist the erosion of inflation and to fully enjoy the fruits of economic development, the concept of long-term periodical payments guarantee must be adopted for disabled workers and their survivors.

Adapted policies for different types of flexible workers

Increasingly the use of flexible employment will be an important trend in the development of the future of the labour market. The number of workers in flexible employment is already large in China and the composition is diverse. The case of platform workers offers an opportunity to solve the problem of occupational injury protection of all workers in flexible employment.

Whether there is a labour relationship between workers in platform employment and the platform company is a subject of controversy, there is no final determination in most countries' national legal frameworks. Many believe that despite the labour relations disputes, employees' occupational injury risks should be protected, and it is reasonable that the platform, as the beneficiary of employees' labour services, undertakes the most basic occupational safety and health obligations.

The first option would be to protect all workers in platform employment under compulsory insurance, whereas other workers in flexible employment could adopt voluntary insurance. However, some platform workers such as micro business retailers in Taobao may not easily fall in a generic category of platform dependent worker. A second option could be listing a series of occupations and sectors such as riders, express deliverers, and e-taxi drivers that should be subject to compulsory protection. The third option could be to determine for all situations irrespective of being platform or non-platform whether there is a labour relation de facto by applying criteria of subordination.

In this report it is suggested to use a combination of the first and second options. The state would determine a list of platform occupations and sectors deemed to be compulsorily covered. The scope of mandated protection would be gradually expanded to other flexible workers after the trial.

³⁸ China Taiping Insurance, 2022. Examples available at: https://www.sg.cntaiping.com/en/personals/landing-protection/ protection/domestic-maid-insurance.html; Bank of China (Hong Kong), 2022. Available at: https://www.bochk.com/en/insurance/ family/helper.html; and China Construction Bank, 2022. Available at: https://www.asia.ccb.com/hongkong/personal/insurance/ domestic_helper_insurance.html

Public private partnerships in the management and operations of the scheme

A social insurance framework requires that government plays a leading role in both policy formulation and the administration of work injury protection schemes. Work injury insurance encompasses a well-established chain of operations, of which occupational injury identification and medical service appraisal are the most complex parts. If workers in flexible employment participate in occupational injury insurance, the workload of the administration will likely increase, possibly heightening the problems of manpower shortage. Social insurance administration cannot solely on its own strength to conduct accident site investigations and handling insurance operations due to existing constraints in staffing. Moreover, the identification of the cause of accidents is more complicated, in case of workers in flexible employment because they have flexible working hours, and their workplaces are not fixed. At the same time, the platform and its employees have higher requirements for efficiency than regular employees. Therefore, the public administration of work injury could be supported by contracting out of privately managed services under government supervision to assist with efficiently handling the operations of the new scheme. On the other hand, international evidence has shown that there are also aspects of public private partnerships in social security that may increase operational risks and costs with operations. For example, there must be caution that there may not be sufficient competition locally in delivery of social security services resulting in high administration fees and lower quality of services. Contracting must therefore be based on elements of service quality, not only on price. PPPs require strong government supervision and regulation. In case this option is followed, the different limitations must be adequately mitigated under a credible operational risk management framework. The following table summarizes some of these risks.

- **•** Risks of public-private partnerships in the delivery of social insurance
- Cross selling products without transparency, client information and consent.
- Marketization of individual data.
- Disruptions in service delivery due to loss of experience, professionalism and institutional memory with change in providers from time to time.
- Without sufficient public oversight, members' trust on privately provided employment injury insurance can be affected by unlawfulness and maladministration affecting their willingness to contribute.
- Reach-out to most vulnerable people may be compromised (low efforts for inclusion due to cream skimming because of higher delivery costs of social insurance to harder to reach populations).
- Local monopolies in delivery of social security and lack of local competition may arise when only few suppliers bid in a specific location. This results in high administration fees and a lower quality of services.
- Contracting must be based on elements of trust and quality not only price.

Dedicated fund for occupational injury insurance for flexible workers

The management of occupational injury insurance can follow two models: The first option is to integrate the occupational injury scheme for flexible workers into the existing work injury insurance fund, and the second option is to establish a dedicated occupational injury insurance fund. Both models have advantages and disadvantages.

Option 1. Integrating the occupational injury fund for flexible workers into the current work injury insurance fund

This consists in fully and equitably applying the same EII policy and the current EII regulation for all workers under one single social pool and fund. The advantage of including the occupational injury scheme for flexible workers in the current work injury fund is that the system is unified and simpler to understand for all workers. The solution tends to be equitable for all workers. All workers are covered under a single system with equivalent rules, with the level of contributions to the scheme, the scope and the level of benefits are aligned. This supposes high levels of social solidarity through risk sharing across different forms of employment. The arrangement is also conducive to labour mobility and labour neutrality, as employers will not choose between workers based on the total level of contributions.

The counter arguments for this option are the following. Firstly, the existing national work injury insurance system is quite complex. The scheme encompasses ten categories of work injuries. It generates labour disputes related to traffic accidents on the way to and from work, travelling due to work, and death from sudden illness. The application of the same rules to flexible workers could further aggravate the disputes in this area. Indeed, flexible workers have diverse working hours and changing workplaces, and often work alone. Once an accident occurs; it is difficult to determine whether it is because of work or out of work. For example, in 2019, among all work-related deaths in China, 42 per cent of the cases fell within the scope of work injury insurance. This means that the workers "died from sudden illness during working hours and at the workplace or died within 48 hours after ineffective rescue". This clause of the existing regulations is not adapted to workers in flexible employment because it emphasizes fixed working hours and workplace, and does not mention responsibilities for work (or work subordination).

A second counter argument is that work injury insurance provides relatively high levels of protection compared to other social insurance schemes in China. The introduction of flexible workers into existing work injury insurance schemes may increase the opportunities for misuse of the fund due to difficulties in investigating work injuries in the case of flexible workers. As a complement to the reform of state-owned enterprises, the work-related injury insurance system started with coverage of employees from stateowned enterprises and then gradually expanded to other groups of people. The package was relatively comprehensive, and the level of benefits was high compared to other social security branches. For example, medical insurance has reimbursement ratios and ceiling restrictions, while work-related injury insurance does not have out-of-pocket requirements and ceiling restrictions. Old-age insurance does not provide invalidity benefits, only the work injury scheme. Some elements of the design were elaborated having in mind employees of state-owned enterprises with lifetime benefits. For example, the disabled employees of grades 1-4 (the most serious disability where the employee no longer has any ability to work) are required to quit their jobs but they retain their labour relations and employers must continue to provide certain labour rights such as payment of workers' health insurance. As China offers a relatively high level of protection in work injury insurance, and the current policies for work-related injury identification are difficult to apply for flexible workers, there is heightened risk of moral hazard (workers and employers may mislead the fund in order to receive compensation) and of further intensifying labour disputes.

Dedicated occupational injury insurance system

The design of occupational injury insurance can be adapted to solve the problems of access of flexible workers to protection in case of injury, whilst preserving the principle of social solidarity and risk sharing amongst members of the adapted fund. The advantage of this model is that it has no impact on the existing system by building on the existing regulations but reconsidering them in line with the needs of flexible workers. The design can be adapted in terms of the scope protection, the level of benefits, the modalities of operations handling and management without being subject to the constraints under the "Work Injury Insurance Regulations.". The social insurance model can be preserved, the level of benefits is higher, and long-term benefits can be adopted, which will provide better protection compared to commercial insurance. At the same time, the applicability of the system is stronger. Regardless of whether there is a platform as the main body of employment, all workers in flexible employment have a way to participate in insurance, that is, compulsory insurance for platform employees and voluntary insurance for general flexible workers.

The disadvantage of this system of having a distinct occupational injury protection scheme, is that there will be some fragmentation in terms of different personal coverage, scope, and level of protection. The administration models will differ, and it will increase the complexity of fund management. At the same time, the number of insured vary from province to province and may be limited in some cases, which may limit the risk sharing and the financial stability of social solidarity fund.

This report believes nevertheless, that due to the operational difficulties involved in the inclusion of workrelated injury insurance, the **newly built occupational injury insurance scheme**, **included in social security**, is more feasible in the short term, is more adapted for workers in flexible employment, and is more conducive to the development of the work-related injury protection system in the long term. In the immediate future, the occupational injury insurance system may run parallel to the work injury insurance system in the pilot regions. But over time the two may be merged into one system.

The negative effects of the temporary fragmentation of the two schemes must be carefully minimized. The fund may inadvertently contribute to employers' decisions to convert employees to flexible workers because they incur less employer liability costs with occupational injury insurance and the premium is not likely to be much higher than the existing work injury insurance. It is therefore important to consider revisions in the existing legislation concerning regular employees in that regard. It is not unprecedented to first attempt the introduction of a dedicated scheme to learn the financial and operational risks involved with the new fund but, it is also important consider reforms in the broader employment injury protection, especially in terms of reducing the existing employer injury liabilities so that there are no negative incentives for informalisation.

5.8 Policy recommendations for occupational injury insurance

The occupational injury insurance system is a system parallel to the work injury insurance scheme and within the social insurance system. It shares broadly similar scope and level of protection of occupational risks with injury and disease. It must be aligned with the provisions of the "Work Injury Insurance Regulations" and link up with the work injury insurance scheme. However, it must innovate in specific aspects of design. In addition, policies for participating in insurance should be issued at the national level, after experimentation, and basic policies should avoid a variety of different local system models and policies. Based on the analysis in this chapter, the following key features are recommended.

Personal coverage of the occupational injury fund

The defining feature of the personal coverage by the occupational injury insurance scheme is that workers covered by the new scheme do not have established labour relationships. Flexible workers who meet this requirement can be insured. Access would be simplified and made easier. There would be no minimum income contribution thresholds, local household registration (local Hukou) would not be required and there would be no restrictions on prior physical conditions (unlike in some commercial insurance policies). It would not be mandatory to also contribute to retirement and medical insurance as well. There would be a distinction between compulsory insurance for flexible platform workers where some form of subordination can be established with a platform company, and voluntary insurance for other flexible workers. The state would establish the list of occupations in platform economy who would be mandatorily covered.

Adapt the premium payment method

Platform workers take similar measures to participate in insurance according to the project, and the platform pays the contributions. The platform company pays the occupational injury insurance fee according to the total number of orders received the previous month. A floating markup is adopted for administration expenditures and other eventual contingencies. After the platform company pays the fees, all workers who do not have labour relations who take orders on the platform are included in the protection. If the platform company fails to pay the fees, the platform employees will be paid by the platform company in accordance with the standards of the occupational injury insurance system.

For other flexible workers to participate in the insurance, the fee can be a fixed fee, paid by the individual, and the government can provide appropriate subsidies. For example, some places have subsidized domestic service personnel to participate in accidental injury insurance. The payment level of flexible workers is not high, and the annual cost is more than 100 yuan. The annual per capita payment for work-related injury insurance in 2019 is only about 300 yuan, and the payment level for flexible workers should be lower than this level. For people who are employed in the main job plus side jobs, multiple part-time jobs, etc., they should participate in the corresponding security system in accordance with the legal nature of the work relationship, and each professional activity can receive work-related injury protection.

Contingencies covered and qualifying conditions

The new occupational injury insurance system should provide protection in three situations, in line with the Regulation on Work-related Injury Insurance Art.14: Injury from an accident within the **working hours, in the working place and due to work.** The expressions "working hours and at work" do not apply to workers in flexible employment because they refer to fixed working hours and workplace. In the case of flexible platform workers, the protection must focus on work tasks because of the absence of regular working hours and place. It is suggested to limit the time eligible for protection to the period of implementing the orders, excluding the period after completion of the order and the period of waiting for orders. The identification of occupational injury can use evidence from the platform's order record.

In current work injury insurance regulations, the qualifying conditions for **sudden illness and death** require that workers "died from sudden illness during working hours and at workplace or died within 48 hours after ineffective rescue". This clause is also not adapted to workers in flexible employment because it emphasizes again fixed working hours and workplace and does not mention responsibilities for work (or work subordination). To ensure fairness with regular employees, the sudden illness and death of platform practitioners should be strictly limited. The scope of protection in situation of death should be limited to death on the spot or direct transfer to hospital.

For flexible workers, since they cover a wide range of occupations, how to define the three "work-related" conditions depends on their employment specific features. They should be required to provide detailed employment related information at the time of insurance participation.

Benefits package

A comprehensive package of medical care is included in the benefits package, like the one envisaged under Art. 30 and Art. 32 of current work injury regulations. This includes a package according to a list of injuries and diseases, at a list of facilities accredited by the fund. It also includes food subsidies for a worker who is hospitalized for a work-related injury and the travel, lodging and board expenses required for his treatment, medical treatment during rehabilitation, artificial limb, orthopaedic device, artificial eye, false tooth or equipped with a wheelchair or other auxiliary devices.

Long term disability and work-related death benefits for dependents are included. Long-term benefits are a distinct feature of social insurance and are critically important to protect people with a high level of disability. Long-term benefits include nursing fees, disability allowances, and dependent pensions benefits. One-time benefits should be restricted to short-term compensation and people with low levels of disability. By international experience, long term benefits do not represent a high burden on work injury insurance, but for practical administrative reasons it may be difficult to implement them at the onset of the pilot. Therefore, at the beginning of the pilot occupation injury program, when the system is not administratively mature, long-term benefits maty be temporarily paid at one time.

The level of benefits corresponds to the level of financing. Long-term benefits should rely on a stable and reasonable compensation growth mechanism to share the fruits of economic and social development and resist the impact of inflation.

No direct employer liability. All benefits are paid directly by the fund. Thus, for example, the current cover of employment injury for employees relies on employer direct compensation until the work capacity of the employee is assessed. It can be a maximum of 12 months. Thereafter the fund pays a monthly disability allowance according to the grade of disability (Art. 34 and 35). For platform workers, the allowance would be paid directly from the fund from day one. On the one hand, most flexible workers do not have employers and cannot bear the economic responsibilities after occupational injuries occur. On the other hand, allowing platform companies to bear the economic responsibilities after occupational injuries is likely to increase to create disputes and uncertainty in the compensation. The responsibility of the platform enterprise is mainly reflected in the payment of premiums, as well assisting with investigations with the accident and injury, and to provide records related to the platform's orders. To enhance the platform's work-related injury prevention responsibilities, a system of floating rates could be considered as well as further regulating work specifications, such as the time limit for delivery orders.

Innovations in fund management and administration

The work-related injury insurance fund has achieved provincial-level overall planning and will gradually implement the unified premium collection and expenditure model. In view of this, the occupational injury insurance system could establish an independent fund account, and at the same time, to adapt to the current situation of platform companies operating across regions and lack of local entities and considering the relatively limited number of workers in flexible employment in some provinces, the new fund should also adopt a provincial level overall planning to stabilise fund revenue. To ensure the financial stability of the fund, a risk equalisation fund could be established with the work injury insurance fund. When the occupational injury insurance fund is in deficit in one year, the work injury insurance fund can be borrowed and returned in the second year.

Existing social insurance institutions should play a leading role in the management and handling of the new fund. Social insurance institutions shall establish an information system to monitor information about insured persons and the operations of occupational injury insurance funds. They use existing arrangements to provide occupational injury insurance participants with various services such as medical treatment, rehabilitation, and payment of benefits. Work injury identification and work injury medical service management are the two most difficult areas of work injury insurance, and commercial insurance functions, the problem of shortage of work-related injury insurance handling staff has become prominent. All regions should be encouraged to use extend their services by contracting out commercial insurance institutions according to their own conditions and contexts.

However, commercial insurance services would only provide supplementary and auxiliary work and would not challenge the main responsibility of the social insurance system to administer the new fund. Should a dispute arise in relation to occupational injury determination or benefits, the insured person should first report to the social security agency and conduct a review and evaluation. If the person is not satisfied with the evaluation result, they could apply for administrative reconsideration or file a lawsuit in the people's court according to law. The subjects of administrative review or litigation would be social insurance institutions, not commercial insurance institutions. Social security administration and services

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6.1 Introduction

The Ministry of Human Resources and Social Security in China launched the "Universal Participation Plan" in 2015 aimed at the effective extension of social insurance coverage by 2020 to all workers statutorily entitled.³⁹ The plan achieved the near universal coverage of basic urban and rural residence pensions and residence medical insurance to all uncovered by other statutory social insurance schemes. As a result of the rapid development of the platform economy, the enrolment in social insurance of workers in new forms of employment in the urban employee pension and medical schemes and in occupational injury schemes has become a new policy concern. Over the recent years, all localities improved their service delivery platforms and extended the territorial footprint of social insurance services. They modernized social insurance operations and services, notably through the integration of information systems and the fast incorporation of digital technologies in service delivery. Workers in DFE benefit first-hand from a series of administrative reform measures, such as "one visit at most", whereby contacts with social security administration are reduced to one single visit for any given need (see glossary). Indeed, whereas the insured employees rely on their

employers for a large part of the interaction with social security, workers in DFE are more often and directly in contact with social security and tend to be more demanding of convenient, efficient, and accessible services.

Although China has taken a variety of reform measures to modernize social security in recent years, the current services still cannot fully meet the needs of workers in DFE. This report will introduce the organizational structure, the management system and recent reforms and innovations of China's social insurance administration at the central and local levels. It will also analyse the main problems faced by the current social insurance administration to meet the demands of workers in DFE. Finally, it will propose countermeasures and recommendations to solve these problems.

6.2 The principles of social insurance administration and services

Several policies, regulations and official administrative guidance documents have promoted the standardisation of services across the country whilst preserving room for innovation at the local level. Although the principles of sound administration and services of social security have not been compiled in a single official document, this report contends that the following underlying principles underpin the development of social security administration in China. These principles have been highlighted in various official documents, have been implemented in national and local initiatives and have gained wide acceptance in the Chinese context⁴⁰.

6.2.1 Principles of administration of social security

According to existing official documents, the administration of social security has been guided by some overarching objectives and principles.⁴¹

Universality: The modalities of service delivery and service requirements of social insurance administration shall be applicable not only to workers in standard forms of employment who have stable labour relations with employers, but also to workers in DFE who have not established stable labour relations with employers.

Accessibility: Regardless of the form or location of employment, or the nature of social insurance business, the insured persons can access social insurance services whenever needed.

Unity: Regardless of the form or location of employment, or the nature of the social insurance business, the social insurance administration and service processes and standards are progressively unified throughout the country.

Efficiency: Social insurance administrations can provide social insurance services in the shortest time, through the most convenient channels, adopting the fastest processes and requiring the least possible provision of support documentation.

Transparency: Ensure that all parties understand their respective rights and responsibilities fully and at any time. Ensure that the service process is easy to understand, simple and clear; and ensure the security of personal information.

⁴⁰ Jin, Jing and Hong. *Emphasizing Fairness, Clear Responsibilities and a Unified Policy Steady Progress* (UN, 2019). Available at: https:// www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2021/04/Research-on-Coordination-and-Implementationof-Social-Protection-Systems-in-China.pdf page 44. Also, Hua, Ronghui et al. (2019) who pointed out the basic principles to be followed for the future social security to adapt to changes in the labour market: Universality and accessibility of protection, adequacy of security, portability of security, gender equality and good governance.

⁴¹ MOHRSS, 2020 refers to the benefit principles of universal coverage, basic security, fairness, adaptation to mobility and sustainability.

6.2.2 Principles of service delivery

The local administrations of social security strive to adhere to common objectives and principles in terms of the modernization of service delivery.⁴²

First, the social security administrations follow two generic approaches:

People centricity: Provision of satisfactory service quality to meet the expectations of the masses, changes in organization with the delegation of decision-making authorities to lower levels of the administration, and empowerment of local staff, promotion of service-oriented behaviours and professional work styles.

Services convenience: Development of services available 24/7, through diverse channels, from everywhere, a reduction of the number of supporting documents and forms needed to complete a process, and the number of contacts needed to obtain the service, in short: *Allowing the insured people to run less errands and having more information and data shared and transmitted.* It involves initiatives such as "One visit at most", "One thing done with one visit", "One stop, one network, one service window" and "Express handling."

Some of the mechanisms to achieve those overarching principles include:

Services proximity: They aim to extend the network of social insurance services to sub-districts and communities (villages); the social insurance administrations aim to provide social insurance services closest to where the insured work or live.

Services online: 90 per cent of the social insurance services should be handled online, with the services online and offline progressively all synchronized.

Service across-regions: Whether (s)he is in her/his employment area, or in household registration area, or in the pooling area of her/his social security fund or not, the insured can access relevant social insurance services through interoperable services.

Diversified service channels: The insured can access social insurance services online or offline, and online channels include web page, mobile phone, and self-service terminals.

Diversified service networks: In addition to the current service network of social insurance administrations, postal outlets, banks, commercial insurance providers and enterprises can provide social insurance services, forming a wider network of services.

6.3 Overview of social insurance administration and services in China

This section presents an overview of the fragmented organization of China's social security administrative system: Its multi-level administrative systems, the horizontal fragmentation of benefits administration, the diversity in social insurance funding pools, and the different forms of integration of operations in each local organization. Each sub-section presents the challenges that the fragmentation of the social security system raises for the coverage of workers in DFE and in DPE.

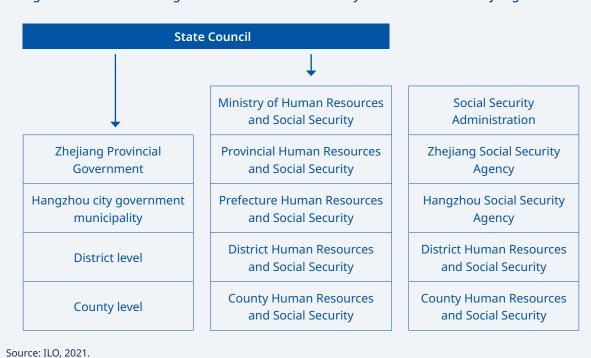
⁴² MOHRSS, 2020 mentions four principles of service delivery in social insurance administration: Legality, people-centeredness, sustainability and professionalism.

6.3.1 Multi-level organization⁴³

The mandate of social insurance administrations has been historically concentrated at prefecture-city level. This is due to the development of social insurance in the country from the bottom up. As a result, in 2017, there were 7,985 social insurance agencies at all levels in China, including 59 provincial level, 990 prefecture level and 6,936 county level social insurance agencies.⁴⁴

China's social security management system relies on vertical administration based simultaneously on a multi-layered and a dual hierarchical form of supervision to the social insurance administration and to the local governments, and a highly decentralised delivery system down to the grassroots (street or village) level. The Ministry of Human Resources and Social Security is the main governmental entity under the State Council, responsible for national social security polices, standards and regulations. The responsible policy body at the provincial level is the Social Security Bureau which interprets national guidance to reflect local circumstances and issues local regulations adapted to the local context.

The local social security departments in charge of implementation are at three levels: province, prefecture (city) and county (city). The county can establish representations at the district and street level. The local level organizations implement the decisions and instructions of higher authorities and implement the national laws and regulations. As shown in the Figure 37 local levels of social security administration are accountable to governments at the same level and to the social security administrative organs at higher levels.



▶ Figure 37. Dual vertical organization of the Social Security Administration in Zhejiang

 ⁴³ This section draws on data from the UN, 2021. Available at: https://www.un.org/development/desa/dspd/wp-content/uploads/ sites/22/2021/04/Research-on-Coordination-and-Implementation-of-Social-Protection-Systems-in-China.pdf
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The collection of contributions is divided between the local tax bureaus, social security administration and third parties (for example the banking network). Complaints from the insured about the entitlements or in relation to errors or fraud fall under the responsibility of the local government. Problems raised by the individuals regarding social security entitlements such as the verification of working years are the responsibility of the social insurance department; other problems such as the change of personal information, employer avoiding the responsibility of insurance payment for employees are the responsibility of the tax bureaus.

The local variations in the administration of social security have been necessary for a country as diverse as China. They have allowed the adaptation of rules and regulations and modes of service delivery to local circumstances. However, the steady rise in domestic migration and of corporations who maintain operations in multiple locations have made the coordination of social security increasingly important. The central government has given higher priority to national and provincial coordination of social insurance policy and administration through national pools and financial coordination, provincial regulatory supervision, standardized management at middle (city) level whilst reinforcing the decentralized local service delivery functions. In this context, migrant workers should benefit from a more legible policy and administration system.

6.3.2 Benefit schemes

A dual pension system was established in China. The employment-based pension scheme and the residencybased pension scheme coexist in every locality in China. The Chinese residency-based pension system is locally managed and supported in line with the hukou registration regime. But the central government subsidizes to ensure the benefit amounts are according to national defined standards.

Some regions establish separate administrations for each type of branch such as old-age, work-related injury, and unemployment insurance administration. Notably, medical, and maternity benefits have been merged and transferred to the National Healthcare Security Administration since 2018. For example, in the Province of Jilin, previously, work-related injury insurance, medical insurance and maternity insurance were managed by the Jilin Medical Insurance Centre. Following the reform in 2018, the work-related injury was transferred to social insurance.

The institutional fragmentation in the administration of different benefits contributes to some difficulties in realizing fully the synergies that could be possible through more joint operations and information sharing. For workers in DFE and in DPE, the concept of social security is already difficult to grasp. In addition, their affiliation to different schemes, contributions, operations and benefit payments should not require learning about different administrations and related processes. To some extent, the use of information systems tries to overcome some of these institutional barriers.

6.3.3 Social insurance pooling level and operation management

In some localities, the funds for all benefits or part of them are pooled at the city level, whilst for other localities, funds are pooled at provincial level. But, in some cases, irrespective of the level of social pooling, the management of social security has been centralized at the provincial level, whereas in other cases, local management systems are implemented at city and sub-city levels. This creates several layers of complexity.

	Provincial pooling	City and sub-city pooling
Centralized management	(6) Tianjin, Shanghai (all benefits). (5) Jilin, Shaanxi, Heilongjiang (old age and medical benefits).	(2) Shenzhen (all benefits).
Local management systems (city and sub-city levels)	(4) Beijing (all benefits). (3) 20 cities in Guangdong (old age and medical benefits).	(1) Original prevalent situation.

Table 8. Vertical levels of social insurance pools and their management

The original situation is city pooling and localized management systems (1). Then, some cities like Shenzhen have achieved city level social pooling but manage centrally all benefits (2).

In other cases, provincial level social insurance pooling has been achieved for some benefits, but the management remains decentralized (3). This is the case in Guangdong, Sichuan, Guangxi, and Henan. In the fourth situation (4), province-level pooling has been realized for all types of social insurance benefits, but the management remains decentralized. That is the case in Beijing, where the funding pool for all benefits is at the provincial level, but various districts have certain managerial autonomy, and therefore, there are differences in the internal organization of the various social insurance administrations, in their hardware equipment, and in service standards.

In the fifth case (5) there are provincial fund pools and the centralised management of benefits at the provincial level. This is the case in Jilin, Shaanxi, and Heilongjiang. For example, the Province of Jilin realized provincial pooling for the old-age benefit. Provincial, municipal, and county levels are interconnected, and the personnel, finance and equipment are managed by the Jilin Provincial Social Insurance Administration. However, unemployment insurance pooling remains at the prefecture level. In the last case (6) Tianjin and Shanghai, the provincial level pools together the funding for all benefits and centralizes their management.

Finally, to add to the complexity in the management of financial operations, the administration of collection of contributions may fall under a different branch of the local government (tax bureaus) or a different hierarchical level of the social insurance administration, than that of the regular operations of social security. For example, in Jilin, despite different hierarchical levels of pooling of the funds for old age (provincial) and unemployment benefits (prefecture level), contributions for work-related injury insurance, old-age insurance and unemployment insurance are collected jointly.

The capacity of local administrations to collect social security contributions and to manage pooled resources is essential to the effectiveness of solidarity-based mechanisms. The streamlining of the financial management function of social security is therefore critical to the sustainability of social security in the context of a highly mobile workforce characterized by fragmented work and social security contribution patterns.

6.3.4 Funding of social security administration

There are three sources of funding of China's social insurance administration and service system: Government fiscal funds at central, provincial, and local levels. The main source of funding are contributions raised in prefecture-level cities and districts /counties. Therefore, the general fiscal condition of local governments is crucial for handling a higher number of caseloads. The promotion of provincial pooling of old-age insurance, the financial support for the construction of the information system for provincial pooling is borne mainly by provincial government resources. But the capital expenses, including buildings and equipment, particularly the development of information systems and communication networks and data storage warehouses and the ongoing operational expenses such as the office expenses and the maintenance of social insurance administrations, as well as staff salaries and the salaries for sub-district and community administration staff

are borne by the prefecture-level cities and district or county fiscal resources.

The fiscal management of social insurance has been strengthened nationally with the transfer of the management of funds to special financial accounts as extra budgetary funds and have stricter requirements for social security-specific budget planning. But these refer only to funds for payment of benefits. The administration budgets do not have dedicated and earmarked multiyear allocations. They are yearly appropriations from local government budgets, subject to appreciation of value for money and efficiency of use of resources and the arbitration between competing other priorities of local governments. This limits the capacity to provide uniform investments across the entirety of social security administration in each region.

6.3.5 Social insurance information systems

In recent years, all localities have actively promoted the construction of provincial centralized information systems for old-age insurance, work-related injury insurance and unemployment insurance in line with the objective to achieve the goal of provincial pooling of the three benefits. Below are some illustrations of the current state of development and integration of the information systems in the Municipalities of Tianjin and Beijing and Provinces of Sichuan, Jilin and Guangdong.

The municipality of Tianjin and the Province of Sichuan have the most integrated information systems.

There is only one social insurance information system in Tianjin Municipality, including old-age, work-related injury and unemployment insurances for enterprise employees, old-age insurance for urban and rural residents as well as old-age insurance for government agencies and public institutions. As such there is real-time data sharing between the management systems of all these branches. At present, Sichuan Province has also one single provincial information system covering old-age insurance, work-related injury insurance and unemployment insurance for enterprise employees, old-age insurance for urban and rural residents as well as old-age insurance for enterprise and public institutions, with real-time sharing of information and data.

The municipality of Beijing has integrated all benefits under three information systems. There are three information systems in Beijing: The enterprise employee information system (comprising two separate sub-systems for old age and work injury benefits), the urban and rural residents' information system and the government agencies and public institutions information system. The enterprise employee information system aims to unify the three insurances of old-age insurance, unemployment insurance and work-related injury insurance but there are still differences between the systems for old age and work injury. Real-time data sharing between the three systems (for employees, residents, and public institutions) was not realized.

The Province of Guangdong has three information systems and Shenzhen maintains a separate system. Except for Shenzhen, Guangdong Province has three information systems: The centralized information system for enterprise employees, the old-age insurance system for urban and rural residents, the old-age insurance system for government agencies and public institutions. Shenzhen has a separate social insurance information system. The enterprise employee information system covers three types of insurance: Old-age insurance, work-related injury insurance and unemployment insurance. At present, it has achieved full coverage in 20 cities except Shenzhen. However, there is no real-time data sharing among the three provincial systems in Guangdong (enterprise employees, the old age urban and rural residents, old age for government agencies and public institutions).

The Province of Jilin has five information systems for different benefit schemes, namely: The enterprise employee old-age insurance information system, urban and rural resident old-age insurance information system, government agencies and public institutions old-age insurance information system, work-related injury insurance information system and the unemployment insurance information system. The old-age insurance for enterprise employees in Jilin province has realized provincial pooling and vertical management, and corresponding information systems are unified at the four levels i.e. province, city, district and sub-district. The old-age insurance for urban and rural residents in Jilin province has realized county-level pooling and the information is centralized at the provincial level. The unemployment insurance information system is centralized at the provincial level. The unemployment insurance information system originally relied on

the medical insurance system and is now being established separately. Real-time data sharing has not been realized between different information systems.

In conclusion, the fragmentation of funding for administration across various localities, discussed in the previous section tended to act as a barrier to projects aimed at streamlining the administration across various localities and some level of competition and overlapping of investments, for example in social insurance information systems. Provincial governments are playing a stronger role in building more standard information systems across regions. However, there is a mismatch between the funding and authority for the administration of operations, at the local level and the need to build stronger information systems and streamlined management processes across localities. Without a resolute push in that direction, individual workers, often the most vulnerable, may face the highest costs for the lack of coordination between different administrations.

6.3.6 Local level business organization

Provincial social insurance administrations are mostly responsible for guidance on policy and operations for the whole social insurance system in the province. Additionally, they implement operations directly handled at the provincial level (such as relations with provincial headquarters of certain corporations). The internal organization of the provincial level of administration does not vary greatly from province to province and is generally based on the managerial units for different benefits. For example, the internal organization of Guangdong Social Insurance Bureau includes a general office, social insurance service department, the benefits department, medical and work injury insurance department, department of old-age insurance for government agencies and public institutions, occupational pension management department, audit and internal control department and fund management department.

The organizational structure, business operating models and the allocation of staff are determined at the prefecture-city level. There are two models of social security organization at the prefecture-level cities and districts or counties. Some areas have realized the **comprehensive teller system** in which staff in one counter can handle the operations of different benefits. In these localities, the internal organization reflects the common stages of the entire **business cycle** of the delivery any given benefit. For example, social insurance in Shenzhen is composed of the collection and social insurance relationship department and the fund operation department, besides general services, personnel, planning, finance and audit departments. Where the comprehensive teller system has not been implemented, the internal organization is mainly set according to the branches of insurance. For example, the internal organization in Shaoguan City in Guangdong Province includes a general office, the pensions and unemployment department, relationship department, information and benefits department, work injury department and human resources department.

The implementation of the comprehensive teller system corresponds to localities that have achieved higher levels of informatization of their social insurance administration. This requires strong and visionary administrative leaderships at the local level who are willing to cooperate and engage their administrations in the streamlining of business processes across localities.

6.3.7 Risk prevention and fund management control

The handling of the high volume of individual cases in respect to migrant workers, increases the fiduciary and operational risks of fund management. The digital transformation of the social security administration can help reduce that risk. Some provinces have built novel risk prevention and ex-ante social insurance control systems by upgrading their business handling platforms thanks to modern information technology systems. Other provinces have not incorporated novel systems of risk prevention and management control and continue to rely on traditional systems of risk supervision ex-post, which carry greater risks for fund management.

Regions with a high degree of informatization such as Guangzhou and Shenzhen have realized a closer integration of business handling and risk prevention and control by upgrading their social insurance

information system. For example, the risk management system of Chengdu consists of three sub-systems: Pre-control, in-process audit, and post-supervision. By setting up a business supervision unit, risk points can be effectively controlled in the process of business handling, and risk analysis can be conducted on business responsibilities, business processes and business results. Moreover, a risk management information database is established in close combination with the business system to automatically prevent the handling of nonconforming business processes according to the pre-set rules. That way, real-time dynamic supervision, static analysis, and whole-process control of business risk can be realized. Through the interactive operation of the business system, Chengdu's risk prevention and control system integrates the social insurance fund data and information and personnel into the risk management, and carries out multi-angle and multi-level monitoring and analysis of the system operations, business handling and fund operations.

6.3.8 Summary

The complexity of social insurance administration represents a major hurdle for workers with little levels of education, limited understanding of the functioning of government, and little time for administration. At present, problems such as complicated procedures for participating in insurance, inconvenient modalities for payment of contributions, difficulty in cross-regional transfer of entitlements, are still relatively common. To a certain extent, this affects the willingness of workers in DFE to participate in social insurance. The next sections present the attempts to solve the existing problems and analyse the persisting challenges and opportunities that new modes of administration and the rapidly expanding use of digital technologies present to extending social insurance coverage for workers in DFE and in DPE.

6.4 Modernization of the social insurance administration and services in China in recent years

This section presents the improvement trends at the national and local level to expand the service delivery network, to upgrade information systems, to mainstream service standards, and to improve the quality of social security service delivery. The section is illustrated by several local level innovations.

6.4.1 General trends

Services delivery network

China's social insurance services originally covered urban employees only. They were then extended to implement the old-age insurance systems for urban and rural residents and for government agencies and public institutions. By 2015, China had established a social insurance administration and service system in urban and rural areas, focusing on basic old-age insurance, basic medical insurance, work-related injury insurance, unemployment insurance and maternity insurance.

To improve the convenience of services, all localities built a social security administration and service delivery system. The system involves **"three-level management"** comprising the province, city and county or district tiers, and a "five-level service" at the province, city, county (district), sub-district (township) and community tiers of government. The system is supported by social insurance administrations at all levels, banks and various designated service providers, and community-based labour and social security delivery platforms. At present, nearly 100,000 sub-districts/communities, accounting for 85 per cent of all sub-districts/communities, have established primary-level platforms for human resources and social security affairs. The service delivery network was gradually extended to townships and administrative villages.

The staff of the primary-level human resources and social security platform actively carry out social security policy consultation, facilitate insurance enrolment, social insurance benefits qualification certification, payment of old-age and unemployment benefits and reimbursement of medical expenses. In some villages or sub-district levels, the use of digital mobile service platforms allows staff to perform certain functions

remotely directly at the home of beneficiaries who cannot come to the agencies due for example to chronic and incapacitating invalidity.

Social insurance information system

Following the Eighteenth National Congress of the Communist Party of China, China has made progress on the informatization and modernization of social insurance services in line with the requirements of the reform "Internet+ government services". China's social insurance services benefit from core technical platforms interconnected at ministerial, provincial, and municipal levels through unified software applications and data resources and the development of smart social insurance services. The elements of such information systems are:

The "all-in-one" national social security card. By the end of October 2019, the number of social security card holders reached 1.299 billion, 45.62 million social security e-cards had been issued and its services were launched in 92 per cent of the prefecture-level cities.

The national social insurance service platform was developed with the goal of integrating the offline administration and service systems with the online information system and the social security card. These forms an "Internet+ government service" model which includes *"one registration, one service window, one network and one card"* for the enrolled entities and the insured people.

Big Data and cross-department information sharing. A "Big Data resource pool" was established and a Big Data application system was built. At present, the Social Insurance Administration of the Ministry of Human Resources and Social Security has realized the aggregation of basic information concerning the insurance participation information and employment information of all card holders. It has successively established a cross-department information sharing mechanism with the Poverty Alleviation Office of the State Council, the National Population Database, the Ministry of Education, the State Administration of Taxation and other departments. Various localities accelerated cross-provincial business collaboration by means of Big Data, Internet technology relying on PC terminals, self-service machines and the mobile phone WeChat platform.

Provincial information systems. Taking advantage of the opportunity of the objective to implement a national pool for old-age insurance and the provincial pool for work-related injury and unemployment insurance, the provincial information system has been upgraded in many regions. Provincial centralized information systems play a central role in the development of *"comprehensive and standard business handling based on one network and across various areas"* within each province.

Standards for administration and services

The absence of common standards for social insurance administration and service delivery across provinces creates high operational costs and inefficiencies for social insurance administration and transaction costs for companies and individuals interacting with social insurance, low portability of benefits, potential for loss of entitlements, risks of errors and opportunities for fraud. As a response, more than 20 national and sector standards were developed including the "General rules for the business process of social insurance administrations"⁴⁵ and a pilot program on work of social insurance standardization was implemented.⁴⁶

⁴⁵ These standards have been released successively in recent years since 2017. They are published by the National Standardization Administration or Sectoral Standardization Committees.

⁴⁶ At present, one municipality directly under the Central Government (Tianjin), 39 prefectures and 12 counties, a total of 52 cities and counties have carried out the pilot program.

People-centric administration and services

China promoted the transformation of social insurance administration and service delivery towards a people-centred public services model. Under this model, the administration and services were streamlined for greater efficiency, power was delegated to lower levels of the administration, and local staff were empowered. First, the campaign of "solving people's concerns and changing work style" was launched. The centralized certification of eligibility for social insurance benefits was cancelled, the service delivery process was optimized, and 35 supporting materials in 19 categories were no longer required.⁴⁷ Second, business collaboration and data sharing among departments was strengthened to form a large data network among multiple departments, cancelling unnecessary supporting materials, strengthening the analysis and application of social insurance data. Third, a "people-centred" development mentality and team building were encouraged.

Cross-region business handling

With the rapid development of industrialization and urbanization, the mobility of the labour force looking for employment across-regions has increased. The mobility of workers increased further with the development of the platform economy. As a result, the demand for cross-region social insurance has increased. China took two important measures to improve cross-region social insurance operations.

- The improvement of the cross-province maintenance of old-age insurance relationship and portability of benefits. The MOHRSS established a taskforce to resolve the problems in relationship transfer and continuation and to remove the bottleneck obstacles in the policy framework and in administration and service delivery systems.
- The cross-region certification of qualification of non-local residents to receive social insurance benefits was implemented. At the same time, all localities actively explore the use of the Internet, mobile phone app, face recognition, palm print, palm pulse and other technical means to enable non-local residents to complete the certification at home.

6.4.2 Digital transformation of services at the local level

In recent years, to improve the quality and efficiency of social insurance administration and services, all localities have implemented efforts to overcome administrative hurdles through digital technologies and have taken various measures to realize more coordinated business processes across government, online services, cross-region operations, and proximity social insurance service delivery.

The following describe some of these measures:

Smart city: "Instant handling" of cross-departmental business

In recent years, all provinces promoted the development of a "**smart city**" and "digital city" to adapt to the requirements of "**Internet plus government services**". They accelerated the sharing of information between government departments such as human resources and social security, health, poverty alleviation and public security departments, and set up a platform for sharing government information resources.

The case of Zhejiang Province

Zhejiang Province shared 33 items of basic social insurance information on the provincial government information resource sharing platform. Today, the human resources and social security department can obtain information on death and birth medical certificates from the Health Commission, information on the poor households and family members from the poverty alleviation department, and the criminal and

⁴⁷ All localities - prefectures, cities or districts, as long as they are local agencies, must implement this request.

penalty verdicts from the court and other information in real time.⁴⁸ The development and application of the government information sharing platform has reduced the need for certification materials and has promoted reform of the social insurance service delivery model. The reforms of *"One visit at most"* and *"One thing done with one visit"* were undertaken in Zhejiang Province.⁴⁹ In Hangzhou City of Zhejiang Province, the social insurance administration established data sharing with public security, transportation, market supervision, civil affairs and other departments to realize the *"Handling with one pass"* of insurance business for flexible workers, that is, they can process relevant businesses only by presenting their ID card. Owners of individual industrial and commercial households in Hangzhou City do not need to provide a business license when handling social security business. All these materials are accessed through data sharing and interaction. Thanks to cross-departmental information sharing, the Shenzhen Social Security Bureau cancelled the centralized certification of eligibility for social insurance benefits, cancelled the need for the submission of several supporting materials, and achieved instant approval for 29 business items without human intervention. Relying on measures such as face recognition certification and information sharing verification, Shenzhen has also achieved *"instant handling"* of 23 business items such as social insurance contribution collection and social insurance benefits delivery.

From "offline" to "online" administration

Relying on the transformation and upgrading of the social insurance administration and service model, the social insurance business has changed from "offline service" to "online service" with the "network" as the "main channel", creating a higher-quality social insurance administration and service environment for platform workers and providing more convenient social insurance services that can handle social insurance business well without the insurer needing to leave home.

The **"three in one" social insurance service platform** combines web pages, mobile phones, and self-service terminals, strengthening the *"Internet plus"* application in social insurance services and expanding online service channels. For example, a Guangdong old-age and work injury information inquiry can be accessed through the "Guangdong provincial affairs" mobile App allowing the *"fingertip handling of social insurance services."* Chengdu relies on the "social insurance administration and service" function of the App "Chengdu Citizens Cloud" and the WeChat Official Account "Chengdu Social Insurance". With this module the insured individuals can instantly engage seven major business items including first-time insurance enrolment, renewal and termination of insurance, change of old-age insurance contribution scales, contribution through bank deduction and change of basic data of the insured in an easy and fast way without second party examination and approval.

Improving and enriching **the online social insurance handling system.** Chengdu City added functional modules to the e-card related to supplementary pension insurance and medical insurance to facilitate the insurance enrolment and contribution payment for platform workers. Shenzhen City integrated social insurance services into the city services on the WeChat and Alipay platforms and launched a robot consultation service. At present, the social insurance business handled online in Shenzhen City accounts for more than 98 per cent of the total business volume.

Province-wide business service standardization via one network

With the continuous improvement of the provincial-level information system, more and more social insurance businesses can be handled in the identical manner in more and more areas within the province via one network.

Online and offline service integration. The Hangzhou City Social Insurance Administration provides online and offline service integration, all services accessible with one ID card, and identical standard services in

⁴⁸ Zhejiang Province can obtain data from other departments in real time, but provinces such as Guangdong, Sichuan and Beijing can only obtain data from other departments on a regular basis.

⁴⁹ Other initiatives include: The "One Stop, One Network, One Service Window" and "Express Handling" in Beijing, Guangdong, Sichuan and other provinces.

various areas. All the services are available online through the "Zhejiang Government Service Network" and the "Zheliban" App. For offline services, social insurance administrations sites are available at two levels (municipal and district), and at 300 bank outlets.

The easy window for social insurance services. The Hangzhou Social Insurance Administration has set up a smart service platform called "easy window for social insurance services" to realize miscellaneous services. This has facilitated handling insurance administration online, simplifying and facilitating the whole process. These services include smart consultations, interactive communication, and decision-making support. This has increased the flexibility, simplicity, and security of interactions with social insurance. In terms of smart consultation, it supports 24/7 online services via multiple channels including phone call and WeChat; in terms of interactive communication, manual customer service provides real-time interaction and tailored services; in terms of the online service window, mobile face recognition, digital signature and other technologies are introduced to realize the service at fingertips. It basically covers all kinds of business. Workers can quickly log in to the platform through WeChat, the website or via a SMS link. The online service staff to provide flexible workers with miscellaneous services including consultation, decision-making and insurance business handling.

Portability of old-age insurance

In many localities in China, workers only need to apply online once, reducing the number of interactions of a person with social insurance administration to one.⁵⁰ It effectively solved the business blocking point where the previous social insurance administration issued the portability voucher and the insured submitted an application to the local social insurance administration with the voucher, and the subsequent problems encountered could not be followed up and solved in time.

50 The measure is called transformation "from N to 1" where "N" means that in the past the insured needed to interact several times with the administration, and "1" means that after the reform, the insured only need to submit one application once, to complete the portability process.





> Table 9. Social security insurance administration status in various regions

Region	Administration model	Information system	Real-time information sharing between various systems	Risk prevention and control	Proximity services	Percentage of online handling	One common management platform in the province
Jilin Province	Vertical+ localized administration	Old-age insurance system, enterprise employee old- age insurance information system, urban and rural residents old-age insurance information system, government agencies and public institutions old-age insurance information system, work-related injury insurance information system and unemployment insurance information system.	Not realized yet	Unified in old- age insurance, not unified in other types of insurances	District/ county + sub-district	>80%	Not realized yet
Guangdong Province	Vertical+ localized administration	Enterprise employees "highly centralized" information system, urban and rural residents old- age insurance system, government agencies and public institutions old-age insurance system.	Not realized yet	Not unified	District/ county + sub-district	Difference from region to region	Not realized yet

Region	Administration model	Information system	Real-time information sharing between various systems	Risk prevention and control	Proximity services	Percentage of online handling	One common management platform in the province
Beijing Municipality	Localized administration	Enterprise employee's information system, urban and rural residents' information system, government agencies and public institutions information system.	Not realized yet	Not unified	Mainly at district level	20%-30%	Not realized yet
Tianjin Municipality	Vertical administration	Social insurance administration and service information system.	Realized	Unified	District + sub-district	>90%	Realized
Sichuan Province	Localized administration	Social insurance administration and service information system.	Realized	Unified	District + sub-district	>85%	Realized

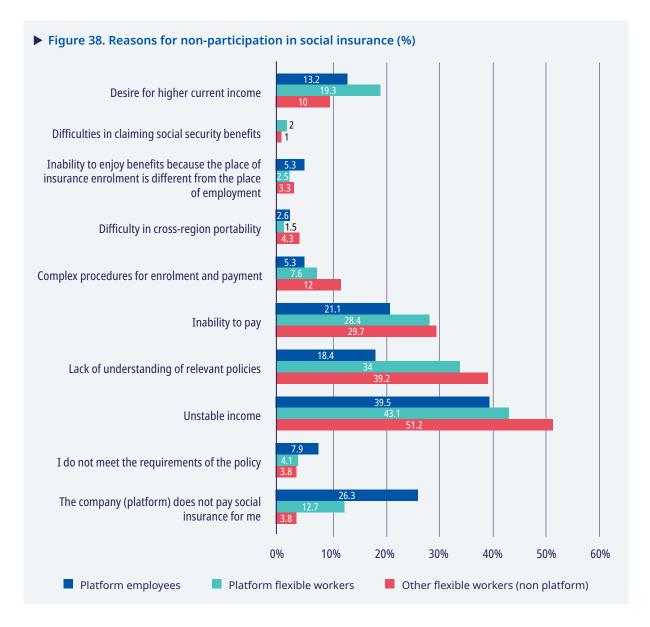
6.5 Reasons for non-participation of workers in social insurance in DFE and platform economy

Respondents to the survey who did not participate in any social insurance scheme, gave socio- economic, policy and operational explanations for the fact.

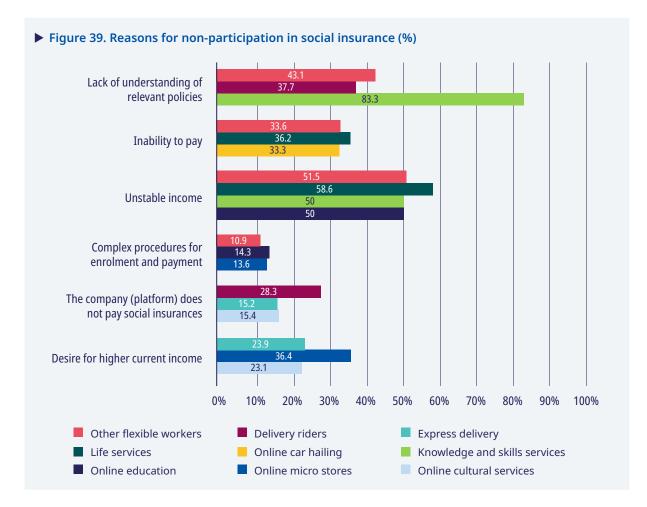
Some explanations were common between platform employees and flexible workers (platform and nonplatform). For example, all categories of workers mentioned that they had unstable incomes (39.5-51.2 per cent) and more flexible workers gave that reason than platform employees. Secondly, roughly the same proportions of respondents in the different categories of workers indicated they were not able to pay contributions (21.1-29.7 per cent).

There were also some differences between platform employees and flexible workers (platform and non-platform). More flexible workers (platform and non-platform workers) expressed that they did not understand relevant policies (39.2 per cent for non-platform flexible workers and 34 per cent for platform flexible workers) compared to platform employees (18.4 per cent). In turn, more platform employees indicated that the company (platform) did not pay social insurance for them (26.3 per cent) compared to platform flexible workers (12.7 per cent).

In comparison to platform employees, more flexible workers expressed problems with complex procedures for enrolment and payment of contributions, and with the difficulty in cross region portability of benefits.



Preoccupations with the instability of income, the inability to pay contributions and the desire for current income were expressed differently by occupations. Only 'other flexible workers' ranked twice amongst the major occupations expressing problems in these areas. The first three occupations who expressed unstable incomes were knowledge and skills services, online education, and other flexible workers. Inability to pay was mostly expressed by life services, online car hailing industries and other flexible workers. A higher proportion of online micro stores and online cultural services and express delivery workers also expressed higher preference for current income. Express delivery workers, delivery riders and other flexible workers ranked first between the different occupations in declaring the lack of understanding of relevant policies.



In summary, the results can be grouped in the following way:

Socio-economic reasons. The instability of incomes and the inability to pay were mentioned as the first problem faced by all categories of workers. This is aligned with findings shown in other chapters that workers tend to choose to pay social insurance at the lowest levels of contribution brackets. Instability in incomes was expressed mostly by workers in knowledge and skills services, online education, and other flexible workers.

Insufficient effectiveness of publicity on social insurance policies. The lack of understanding of relevant policies came second in the problems faced by platform and other flexible workers, but only in fourth place for platform employees. The differences between platform and other flexible workers recommends differentiated and targeted strategies for communication for flexible workers. This problem affects mostly delivery riders and express delivery workers.

Burdens with administration and access to services. More flexible workers expressed problems with complex procedures for enrolment and payment of contributions than platform employees. The lack of support of an employer entity, the flexible working hours and absence of fixed working localities probably contributes to the difficulties expressed by flexible workers in respect to administration and services.

Workers in online education and online micro stores expressed the most difficulties with interacting with the administration and services and other flexible workers.

Difficulty in cross region portability of benefits. Workers in online micro stores and other flexible workers expressed the most, difficulty in cross region portability of benefits.

6.6 Institutional and operational obstacles for participation to social insurance

Workers in DFE, including in the platform economy and other flexible employment do not have stable labour relations with an "employing unit" and rely on their own time and resources to comply with social insurance administration requirements. This requires social insurance administrations to adapt to serve workers in ways that meet their needs and reduce the potential costs and risks involved in interacting with a greater number of users. This section presents the challenges to increasing the participation of workers in DFE in social insurance, from the perspective of the needs of workers and of the constraints of social security administrations.

6.6.1 Flexible workers want to save more for retirement but tend to exhibit low levels of participation and contributions to social insurance

Insufficient knowledge of policies and regulations

In contrast to platform employees with an identified employer unit, workers in DFE stated they were insufficiently informed about policies and regulations to participate in social insurance. The categories of workers most ill-informed are those who are further from an identified employer. The survey showed that this was especially the case for delivery riders and express delivery workers, who often work under different layers of sub-contractors. Flexible workers are usually very mobile and need to constantly change their status and are compelled to interact with different agencies in different localities. The variety of policies, regulations and administrative processes between different localities contribute to confusions and uncertainties regarding the applicable policies. The problem is compounded by local staff of social insurance institutions sometimes providing inconsistent interpretations of the applicable policies due to problems of communication or updating the policies across the different levels of the administration.

Root causes

The priorities of the administration under the "Universal Social Insurance Plan" focused largely on the integration of flexible workers in urban and rural residence pension and medical benefits. The policy intention to promote the integration of workers in employee pension schemes and employee medical schemes has not been comprehensively disseminated. The contents, materials and channels of communication are not yet fully aligned to the objective of encouraging platform workers and workers in DFE to participate in employee pensions and medical insurance.

Low convenience in accessing important and frequent services

Workers in DFE have difficulty determining in advance their working hours and their place of work and therefore face difficulties accessing social security administrations onsite. Yet, in some localities, critical businesses operations for the insured cannot be handled directly by individuals through online or 24 hour self-service platforms and still need to be handled onsite, over the counter. For example, registration as new members and the payment of contributions often need to be conducted in person by filling in forms manually. Changes in the personal profile, such as updating the mobile phone number and address or place of employment, inquiries in real-time about the payment of social insurance contributions, obtaining extracts of records of individual entitlements and relationship transfers need to be handled on site and may not be accessible at a distance. Terminal services available 24 hours a day mainly focus on inquiries or printing of insurance certificates. There are difficulties in moving services to lower levels of the administration for closer to users.

Because information technology is not always up to date or is unevenly deployed across benefit schemes or localities, there are still heavy requirements for manual operations and the duplication of certain documentation requirements. The difficulties to move services downward result from a lack of staff at lower levels of the administration. In addition, constraints with IT security limit operations at the lower levels of administration to low-risk activities. Many administrative authorisations are kept at higher levels of the administration and are not fully decentralized (such as decisions for pension payments, retirement approvals, or work injury identification that need city or district level approvals).

High transaction and opportunity costs in accessing services

Regular employees have traditionally had the help of employers to interact with social security administrations but most workers in DFE can only participate in insurance as individuals. Time represents a high opportunity cost for these workers as their earnings are usually per task finalized. Sometimes, social security operations are not streamlined across several branches and require duplicate submissions of documents and forms to be filled in manually. There may be several tellers for different branches of social insurance within a social insurance service centre. This is normally associated with the absence of real time communication and data sharing between different branches of social insurance that forbids a comprehensive and integrated "one window" service. The development of city-wide data sharing is often limited to fast growing urban centres. Therefore, workers may have to multiply the contacts with different government departments and often the same information must be produced to different government entities. Finally, the administrative requirements of different localities are different for operations of registration, paying contributions and claiming benefits.

Root causes.

Within a locality, the real-time interconnection of insurance information sometimes is not fully realized, not only among the information systems of old-age insurance, work injury insurance and unemployment insurance, but also sometimes between the three systems of basic old-age insurance, i.e., for enterprise employees, urban and rural residents and government agencies and public institutions. Therefore, the insurance enrolment data cannot be shared in real time between different processes.

Workers do not anticipate high benefits, prefer current income and personal savings

Workers in DFE are highly mobile and frequently change jobs and regions of employment. Workers fear that the social security administration will fail to integrate their contributions to different employers and in different localities or that they may not be able to draw benefits from rights acquired in certain provinces because of the practical barriers for the transfer of the rights accumulated in those provinces.

Root causes

There can be insufficient timely information about workers contributions and the regular and transparent access to their contributions' records. Local social insurance administrations may not be able to aggregate the contributions from all different localities because of the absence of agreements between provinces to transfer the pension rights of flexible workers. This means that, workers anticipate that they will not be able to complete minimum duration requirements for a pension or their level of benefits may be low because they depend on the duration of contributions. Therefore, they tend to refrain from contributing.

Contribution regulations and payment operations not adapted to the income of flexible workers

The income levels of some platform flexible workers are unstable but they can be high: The survey showed that workers in DFE with monthly incomes of more than 4,000 yuan account for more than 70 per cent of the whole sub-group of DFE in the sampled population. Yet, their contribution levels tend to be low.

Root causes

The instability of incomes by itself may lead to the necessity to keep precautionary savings just in case there are lower income periods during the worker's contributory career, in other words, workers may expect to have low lifetime incomes, and base their contributions on their expected low lifetime incomes. Local level finances contribute to subsidies to contributions and benefits and for the administration of social security. The lower the local wages, the more support is needed to encourage lower income workers to contribute, and the lowest will need the capacity of local finances to establish these incentives and the administrative machinery to implement them.

6.6.2 Services are not adapted or available for flexible and migrant workers

Inefficient social security coverage beyond urban areas

With the end of the Hukou system, there are overlaps in social security coverage due to institutional inheritance of territorial based social insurance. For example, in the example below employee Y contributes to company Z affiliated to the urban employee pension scheme in City A. He decides to quit and go to company X in the same village. But company X contributes to the city B urban employee social Insurance scheme. When he retires, the two schemes must aggregate the contributions manually because the information systems are different and do not share data. The worker has never left his village but he needs to talk to different administrations to get his pension. There may even be two different service centres in the village. It is not efficient and it consumes time.



Root causes

There is no employee social insurance in certain parts of a province. With the possibility of working remotely, for example in e-commerce (ex. Taobao or Pinduoduo), the social insurance headquarters may be in city A or B. There needs to be provincial level planning of social insurance coverage.

Some city level social security administrations are not willing to open social insurance for employees to flexible workers

Social security administrations have traditionally relied on employers to assist with administrative processes. The direct handling of those operations by individuals represents an added number of individual contacts, therefore there is a higher workload for the social security administration (increased number of staff required in front and back offices) and costs (communication, maintenance, etc.). It also carries additional operational risks for social insurance agencies. Yet, the adoption of anticipatory and real time risk management requires higher levels of informatization than available in some localities.

Root causes

The efforts necessary for affiliating the mobile population with social insurance are greater than for registering the local stable working population. In addition, social insurance administrations will have to spend more time managing transfers of rights which are more labour-intensive operations than paying benefits. However, according to field research conducted under this study, the localities that show more resistance for affiliation of workers in flexible employment to local employee insurance are those who attract

such labour and whose economy not only benefits but depends largely on the labour of flexible workers. Although the floating population increases fiduciary and operational risks for these funds, they are also potentially contributors in large numbers. In addition, some flexible workers tend to end up deciding to retire in those localities.

Services not fully capable of integrating flexible workers

Some social insurance agencies operate with low administrative and service efficiency. Too many businesses are still handed manually. There is low sharing of data between different business processes which decreases the capacity to handle mass operations for individual workers. Business operating standards are not fully aligned across different branches of social insurance and across localities.

Root causes

There can sometimes be a misalignment between management systems and the institutional organization of social insurance administrations at the three levels of administration (provincial, city and county levels), leading to problems of communications between the different levels of the administration and to more work inefficiencies. The informatization of such processes cannot by itself resolve this misalignment.

Cross provincial services are rarely available for highly mobile flexible workers

Information interconnection between services in different provinces often relies on manual processes. Social insurance agencies in employment locations often count a large percentage of the local working population as flexible and migrant workers. They must therefore handle large volumes of data manually to transfer contributions of migrant flexible workers. There cannot be systematic ways of processing the transfer of acquired rights because the supporting documents, and the number and content of the forms may differ. For example, some regions require an "ID card or social security card", while some other regions require an "ID card, social security card and a household registration record". The contact letter, used for the acceptance of the transfer of basic old-age insurance may differ. Such problems also exist with other forms.

Root causes

There are inconsistent information system sharing standards between provinces which make it difficult to automatize the processes. There are inconsistent contents and processes for transfer of relationships between different provinces.

6.7 International experience

Social security organization and the mobile workforce⁵¹

The social insurance system in continental Europe consists of several institutions for different social security branches, economic sectors, or categories of workers (white collar/blue collar workers) (Austria, France, Netherlands). However, there has been a decisive effort to reduce fragmentation over the last decades. In addition, in certain countries, there are distinct institutions at sub-national levels (Germany). Some countries in Northern and Southern Europe, have opted for centralized schemes for the entire population (United Kingdom, Sweden, Portugal, Spain). Recently, the increased geographic mobility of workers and the fluidity of the labour market, characterised by worker mobility between jobs, shorter contract durations, and the rise in new forms of employment relationships, has led both to reasons to centralize and to decentralize the organization of social security.

⁵¹ Von and Schoukens. 2019. Devolution and Decentralisation in Social Security: A European Comparative Perspective.

In all countries in Europe, the national character of social insurance is marked by national laws and the unified supervision of social security under a central Ministerial Department. However, the management of social security can be decentralized to self-managed entities, with local representations. The German institutional tradition does not accept competition between sub-national levels and different social rights according to the regions people live in.⁵² Therefore, the national social security legislation is very detailed and there is little discretion for differences between individual social insurance schemes. The substance and the level of benefits, and the creation of insurance authorities are regulated by acts of Parliament. In pension insurance, the federal authority has been vested with the competence to coordinate all pension funds and a separate umbrella organization coordinates occupational injuries insurance funds.

While some countries like Germany have centralised the direction of social security by branches, France voted for a proposal in 2019 to unify different branches by creating a single social security regime for all workers to facilitate their mobility, especially the self-employed and micro entrepreneurs previously under a special scheme. However, like in the previous two attempts, the government decided in 2022 to halt the reform due to the opposition of members of the special schemes, who feared losing specific rights. Currently, there is only a single national agency, the Central Agency of the Social Security Organizations (ACOSS), tasked to plan and monitor the individual finances of each branch under different institutions. URSSAF, an affiliate of ACOSS collects contributions and distributes funds according to planning criteria to different social security organizations. Other countries, such as Canada and Australia, which are federal countries, successfully coordinate horizontally the delivery of most basic social security benefits through single national organizations.

Local governments are more directly in charge of the management of social security when they participate in the funding of benefits. Hybrid national/local level arrangements are reported in the Netherlands, where local authorities share one stop offices with the agency responsible for the administration of employee insurance schemes. In Denmark the government decided to decentralise and then recentralise social protection because of the costs with coordinating multi-level institutions. The advantages of decentralising lie in the ability to promote innovation and responsiveness to local needs, notably by favouring linkages with local labour markets and health systems. For example, in Nordic countries, the local governments have traditionally played a strong role in social protection. An explanation lied in the capacity of local governments to partner with private and local welfare institutions for innovation in service delivery (for example the development of eHealth solutions). The integration of local welfare with smart city innovations such as care and active employment functions are an important motivation for decentralisation.

However, decentralisation also presents risks of undermining national social solidarity and reducing funding where populations reside who most need social protection, be it in ageing rural areas or areas with the greatest social problems. Finally, the existence of various agencies contributes to institutional fragmentation which also reduces work mobility. In France, considering the institutional fragmentation of social security, the central government is taking steps to improve inter-agency information and data exchange. Central initiatives can encourage the development of collaborations at the local level. The French social security finance law in 2018 to promote the emergence of structures and practices that foster coordination and cooperation at the local level.⁵³

⁵² Ulrich Becker in Schoukens et al., 2019. p. 49.

⁵³ Assurance Maladie, 2021. Available at: https://assurance-maladie.ameli.fr/qui-sommes-nous/notre-fonctionnement/ financement/fonds-pour-l-innovation-du-systeme-de-sante-fiss

Information on social security policies and operations adapted to all workers

A lack of simple and transparent information reduces people's awareness of their social security rights and obligations and prevents them from taking informed decisions. According to an EU study a significant proportion of the self-employed and workers in DFE are unaware of their social security coverage in the EU (up to 20 per cent for some categories) much higher than in standard employment. OECD recommends that governments should make efforts to ensure that existing regulations are widely communicated and as clear as possible to the staff charged with implementing them to ensure that the interpretation of rights is consistent. The study noted that although generic information about social security schemes is provided in most member States of the EU, for instance via dedicated websites, this information is not always available broken down by employment status or contract. According to the publication, personalised information for at least one scheme is available only in about half of member States.

Some workers in new forms of employment have low education and literacy levels. Many who are migrant workers can fail to understand the language used in the administration. Moreover, social security is most critical for beneficiaries in times of want or with special needs (elderly, long term unemployed, chronically ill, or disabled people, etc.). ILO standards advocate that social security should strive to meet the principles of non-discrimination, gender equality and responsiveness to special needs.⁵⁴ Accordingly, social security laws and regulations regarding policies and operating procedures must be communicated through simple messages and channels that are accessed by the target audiences. The simplicity of the requirements to register and receive social security benefits can be compromised when the information is not available in simple plain language and in a way that can be accessed by intended recipients. Therefore, social security organizations are transiting from communication based on the legal and administrative language to more intuitive forms of language and displays of information. First, social security websites – often now accessible on mobile Apps - display a "baidu search" impression. Another trend is to use a life events perspective, where information is reachable based on the needs of the customers in relation to a particular life cycle (birth of a baby, search for a job, health assistance, etc.). Then, automated Q&A systems orient the clients by prompting questions related to their life circumstances and needs, before advising on the required documentation and processes adapted to the personal circumstances. Social security has also been using client data to personalize the digital platforms interfaces according to the type of company or individual age or occupation to highlight the services most used and relevant for the customers.

Example: Reducing the need for calls for information on Canada Child Benefits (CCB)

Nearly 3.7 million Canadian families receive Canada Child Benefit (CCB) payments each year. Between April and June, the Canada Revenue Agency (CRA) sees high call volumes from people trying to understand their CCB payments for the next year. In 2019, the Digital Transformation Office worked with CRA to make it easier for Canadians to access and understand important information on this program. The team reorganized content based on top call drivers and redesigned the content for mobile. The optimized content went live in early 2020. In Q1 2020, calls related to CCB benefit amounts **dropped by about 50 per cent** compared to previous years, while visits to the improved web content doubled. This project highlighted the significant impacts that can be realized when web pages become more than just a communications tool and are positioned as an important service delivery channel.

Finally, in Europe and Latin America, social security has developed agreements with other public bodies notably in the field of education and culture, to implement country wide information and education campaigns to promote a culture of social insurance, which helps to raise the knowledge, reputation, and public support for social security in the countries.^{55, 56}

55 ISSA, 2021. Available at: https://ww1.issa.int/analysis/education-and-culture-social-security-good-practices-latin-america

⁵⁴ ILO, 2021. Available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:3065524

⁵⁶ ILO, 2020. *Building a Culture of Social Protection*. Available at: https://www.bps.gub.uy/bps/file/11969/1/building-a-culture-of-social-protection-uruguay.pdf

People-centered service delivery

The transformation of public service delivery in most OECD countries has required the consistent pursuit of long-term vision and plans. For example, after years of implementing a transformation program, the UK Department of Work and Pensions Corporate Plan aimed to deliver in 2020/21 a "reliable, high-quality welfare and pensions system which customers have confidence in" (Outcome 4).⁵⁷ Similarly, the new social security agency in Scotland placed the twin objectives of "dignity, fairness and respect" and "tackling poverty and inequality" on the top of its pillars for its Digital and Technology Strategy 2018-21.



Source: Social Security Scotland, Digital and Technology Strategy 2018-21.

According to the International Social Security Association, service quality concerns first and foremost the assurance of the core protective elements of social security, namely:" delivering the right service to the right person at the right time". Secondly, it involves an emotional dimension "serving with courtesy, respect and empathy". It comprises the adaptation to the circumstances of users by "providing user-friendly, multi-channel and accessible social security benefits and services through appropriate, easy-to-use channels (e.g. online, telephone, mail, in-person)."

Equity refers to the attention to special needs (for example age, disability, gender, language or ethnic origin) in accessibility to social security services. This concern has become prominent with the development of robotic processing automations (RPA) and Artificial Intelligence assisted decision making.⁵⁸ To avoid the unfair or biased application of rules to certain groups of the population the assumptions about the users (their ethnicity, their age, their context – where they use services and their abilities) need to be used during service design and the development of algorithms.⁵⁹ The ILO Social Protection Floors Recommendation, 2012 (No. 202) specifically advocates for respect for the rights and **dignity of people** covered by the social security guarantees (Art. I).⁶⁰

⁵⁷ UK Department of Work and Pensions, 2021. Available at: https://www.gov.uk/government/publications/department-for-workand-pensions-outcome-delivery-plan/department-for-work-and-pensions-outcome-delivery-plan-2021-to-2022#e-our-equalityobjectives

⁵⁸ UX Summit, 2021. Equity-Centered Design: Challenges in Government.

⁵⁹ Stay Lean, 18F User Experience Design Guide.

⁶⁰ In some countries the Constitution or national laws establish a link between social security and the right to dignity. Page 66 of the Universal Social Protection for Human Dignity, Social Justice and Sustainable Development (ILO).

A fair and stable interpretation of the regulations contributes to human dignity by procuring a sense of personal control and autonomy of beneficiaries and trust vis a vis the administration. Many social security agencies are actively promoting continuous engagement, interactions, and connections with users. Social security can obtain 360-degree view of customers by aggregating data from the various touch points that a customer may use to contact the administration and receive service and support. Innovation labs and customer experience insight units are constantly engaging with members. User platforms attempt to engage with members in a more empathic, holistic way offering advice and even emotional support around life events, using innovative technologies and forms of engagement.⁶¹ Digital technology can help resolve service bottlenecks and pain points in customer interactions with social security. However, digitalization by itself does not automatically address the absence of empathy in the administration and its lack of consideration for human needs. The advent of digital administration comes with fundamental risks for social inclusion and human dignity (Park and Humphry, 2019). To address these concerns, the duty of care refers to the respect for user's circumstances and needs and real attention to their demands. This implies that, for example, front line staff are committed and are empowered to solving problems and have empathy to the needs of vulnerable people. Care requires impartial, transparent, simple, rapid, accessible, and inexpensive complaint and appeal procedures in case of an error or damage to users.

Digital enabled business processes

Prior to the introduction of digital solutions, institutions required in-person filing of applications and authentication of paper documents. In-person applications required attendance in person, sometimes more than once, requiring waiting before a meeting, queuing onsite, referrals to several counters, and multiple submissions of the same documents. People had to return for follow-up visits until the approval and release of benefits. In between people had to visit with other government services to obtain supporting documents. Manual procedures created backlogs and errors. Paper-driven processes made data and information sharing slow and required users to have multiple interactions with the administration. Staff worked in silos and made isolated decisions without considering the information available elsewhere in the administration. Today, consumers in the digital economy have become used to almost instantaneous satisfaction of their needs. This means that interactions with social security administrations need to take a reasonable amount of time to produce effects. A Digital-First Strategy (sometimes also called "Digital by Default") refers to prioritizing or giving preference to develop or to optimize content and communications for delivery via instantaneous, interactive and responsive digital channels (i.e., web, mobile, etc.) over print channels. The aim is to offer effortless (or "frictionless") access to social security services.

Digital technologies also allow social security to **anticipate people's needs** and take proactive actions to meet them. For example, since 2017 in Belgium, maternity benefits are granted semi-automatically, meaning self-employed women no longer need to apply for maternity benefits themselves. They are automatically contacted by the social insurance fund to ask if they would like to receive support. In Canada, the tax authorities managing national child benefits automatically pay beneficiaries once they receive the information from the health authorities that a birth has taken place. Workers in DFE tend to participate in schemes and suspend their participation more frequently. They combine different non sequential periods of employment. The use of biometric identification systems including fingerprints, face, iris, voice, and hand geometry can reduce the administrative burden associated with identification. They eliminate later, the need for an individual presence onsite for the proof of life required for continuation of payment of permanent injury or old age benefits. (Re) registration can also be simplified by pre-populating the information to the greatest extent possible, using available data from various data repositories. Electronic social security cards provide safe individual identifiers thereby reducing fraud in social security business handling.

⁶¹ Straits Times, 2021. Available at: https://www.straitstimes.com/business/invest/students-play-games-to-learn-more-about-cpf

Digitalization offers the possibility that most of the administrative processes be done online, allowing a seamless and immediately available social insurance administration virtually from anywhere, that fits the needs for flexibility of workers in platform companies. Simplifying procedures while improving service quality is a key factor for increasing registration rates and, therefore, formalization. User-friendly mobile money simplifies the payment of contributions. In Indonesia, the social security institution BPJS Ketenagakerjaan and the on-demand platform GoJek collaborate to facilitate the payment of social insurance contributions by means of a mobile application. The partner drivers are required to register online through a special website developed by BPJS Employment and GO-JEK. Every month a contribution is automatically withdrawn from their GO-JEK balance accounts to cover the work accident guarantee (JKK) and death insurance (JKM).⁶² Clients can check in real time that the employers or platform companies are making contributions on their behalf or that the social insurance organization is effectively registering their contributions. The U.S. social security system developed a mobile system to help workers declare their incomes and check their contributions called the SSI mobile wage reporting App.⁶³

The principle of 'once only' registration means that citizens and businesses should not have to provide the same basic information (e.g. address, ID number) to the public administration multiple times. After data is captured and registered once by one authority, it will not be requested again. Changes made in a programme become automatically available for another, for example a change of address or phone number. This saves time and costs for users and for the administration. For example, paperless government implies that parents undertake less administrative procedures to register their children. Information collected by the health system on the birth of a child is directly communicated to other parts of the administration and parents do not need to inform several parts of the administration (home affairs, etc.). Cross checking of data and internet-based patient records can improve the consistency of medical or disability assessments with the potential for accelerated treatment of claims and reductions in appeals. Claims can be examined by Artificial Intelligence to accelerate speed and reliability. Information sharing within government can help to reduce abuse of government subsidies. In Denmark, one can get a higher pension, if living alone. If ATP's Udbetaling (Denmark's benefits payment organization) receives the notification that somebody moved to the person's address, it uses that information to inform her or him about the consequences. It then gives them the opportunity to contest the decision. Without a reaction from the citizen the benefit payment is changed accordingly.⁶⁴ In this environment, trust in the administration and its systems are critical. Citizens need to feel the data is safe in the administration's hands; individual citizens know who has access and according to European regulations should determine who has access to it; they can take corrective action, if the data is felt to be incorrect or insecure. In Denmark, a **data ethics council** advises government on practices and standards on the subject.

Customer service journeys have been used by governments to redesign processes and services through a user-centric approach, to deliver services that are easy-to-use, seamless, and relevant. Digital technology can assist case management by providing more rapid coordination across departments to respond to the holistic needs and circumstances of the insured. For example, a disability insurance claim can lead to entitlements for rehabilitation benefits, vocational training allowances and the adaptation of the workplace, requiring the timely intervention of different departments.

⁶² ISSA, 2019. Social Security for the Digital Age. Available at: https://ww1.issa.int/sites/default/files/documents/events/2-Digital%20 economy-264063.pdf

⁶³ Forrester, 2015. Available at: https://www.forrester.com/blogs/15-06-25-how_the_social_security_administration_hit_a_cx_ trifecta_with_a_mobile_app/

⁶⁴ Study on data tools and technologies used in the public sector to gather, store, manage, process, get insights and share data (europa.eu).

More social security services are using the **life cycle approach** for service delivery. For example, Singapore's "First Moments of Life" App was developed using the **service journey approach** to proactively support families with young children by bundling streamlined services and information, such as birth registration and early childhood services. In August 2020, the App became LifeSG, and is transitioning to providing onestop and personalised access to government services for all citizens. Smart Start services in New Zealand is an online tool aimed at parents and caregivers about to have a baby. It gives people online access to integrated government information and support related to each phase of pregnancy and the first six months of early childhood development. Its 2020-21 corporate plan of the Department for Work and Pensions (DWP) in the UK plans to use customer insights to build connected services around bereavement. The U.S. Office of Management and Budget recommended federal agencies to identify "priority life events"—or priority life experiences— "that require members of the public to navigate a service (or services) across the boundaries of multiple federal programs, agencies or levels of government" and advised the agencies to re-engineering the business processes according to life events and the life cycle.^{65, 66}

A United Nations Human Rights Council (UNHRC) rapporteur has previously expressed the concern that digital first initiatives could result in reducing access of digital illiterate people or those without access to modern communications, to basic services. **Inclusive digital design** that is aware of diversity, equity and inclusion dimensions is also being regulated and promoted by governments. Furthermore, digital technologies can increase the resources available for offline services. They can automate the processes for workers who then need less assistance and can focus staff more on personalized assistance and case management for vulnerable workers.

Finally, Big Data analytics can be used to detect fraud in payments in benefits by checking, for example if people are taking up permanent invalidity benefits whilst making tax contributions as full-time workers. Big Data and AI can improve risk prevention and aid real time control of anti-fraud systems. In Spain, predictive analytics, simulations and data visualization of risk profiles of "fictitious companies" help target inspections. The French Family Benefits Administration (CNAF) has applied analytics on its own data and social security big data to detect organized fraud networks.

Empowered and aligned staff culture

The digitalization of social security requires changes in social security staff skills and work cultures. First, employees are an essential driver of customer satisfaction and therefore the same concern for empathic relationships are expressed towards interactions with and between employees. Services Australia intends to make the welfare system quicker and easier to navigate, providing seamless access to its face-to-face, phone and digital services. The level of information, skills and attitudes of the staff, require them to behave proactivity, with problem solving mindsets and respect as essential for the development of a culture of customer centricity.

⁶⁵ Accenture, 2014. Available at: https://ourpublicservice.org/wp-contentuploads/2014/09/809b0d873a2bebe10611a1c4a054e 5f0-1422459562.pdf

⁶⁶ U.S. Digital.Gov, 2015. Available at: https://digital.gov/2015/12/07/cx-data-in-action-series-case-study-1/



Secondly, because government agencies outsource the development of information technology, partnering with vendors requires in-house staff not necessarily to be technology experts but to understand the differences between project and product management, and how digital technologies link with business strategies. Social security staff need to be able to inform and guide vendors and interact with them to develop and upgrade new digital services on a continuous basis. They need to interpret the needs of customers and translate them in demands for digital solution providers. The United States OMB Circular No. A-11 of 2020 stated explicitly the intention to establish a customer experience mindful-culture across federal government services. It advises agencies to define acceptable behaviours that correspond to customer-centric values and to socialize them. It recommends talent management strategies to acquire, develop and retain the talent required to incorporate and improve those mind-sets and practices.

Data governance and interoperability

Interoperability allows the systems to work for users. With a modern technological solution for interoperability, the interconnection of systems can facilitate data exchange with increased confidentiality and security of data. To enable trustworthy data exchange, a data exchange or interoperability framework defines the rules of access, use, reuse, storage, and destruction of data and does not involve only technical processes and standards.

In Australia, a 2018 legislation on data governance made it mandatory for all government agencies to use open standards for interoperability. Services Australia planned to further collaborate across government jurisdictions to resolve common customer problems and to provide a seamless customer journey for shared customers. The U.S. has developed standards for high-impact Internet services,⁶⁸ standards for electronic identity, web accessibility, standards for usability, service design and unified digital experience across government, and seamless experience across government (see standards for accessibility of web sites and

⁶⁷ Services Australia, 2009. Available at: https://www.servicesaustralia.gov.au/sites/default/files/corporate-plan-20-21-12637-2009. pdf p-6.

⁶⁸ U.S. Congress, 2018. Available at: https://www.congress.gov/115/plaws/publ336/PLAW-115publ336.htm

mobile phone apps).⁶⁹ The UK has service standards for look and feel aspects of digital platforms. Estonia uses a data exchange platform run by the government to link information from local hosts. It serves as the main interoperability solution inside Estonia and is the mandatory solution for data exchange between public sector information systems.

In France, the existence of several institutions and public interfaces, and the costs this brings to users, especially the vulnerable, has prompted the objective to unify access to social rights and to provide all social security organisations a single view of the social security user. The Digital Social Rights Portal in France currently brings together information on insured persons about social protection and employment. Interoperability is based on agreements between institutions called commitment contracts that specify the institutions' expectations on quality of data, and its use. Social security has opted not to centralise data repositories. That way, the responsibility of quality data control remains at the source, and the problem of costs of stocking data and outsourcing are distributed.

Data protection is essential to create trust among social protection authorities, practitioners and data subjects. The lack of trust may restrain the access of vulnerable populations to social protection services and benefits, fearing that sharing their personal information will lead to more harm, discrimination, stigmatisation, surveillance, among other risks. Beneficiaries of social protection programmes should be able, without excessive delay, to rectify (correct, update, or modify) inaccurate personal data processed about themselves to ensure the data is accurate, complete and up to date. In Luxembourg, a legal framework defines and authorises the sharing of data for research and analytical applications in social security. That way the institutions that share data know there are procedures in place to be compliant with the General Data Protection Regulation (GDPR) and to protect privacy. Only relevant data is collected for specific usages and their storage is temporary.

Monitoring and learning

Improved customer satisfaction derives from reducing errors and increasing **customer confidence in the organizations' ability to deliver needed products and services.** The quality of services delivered to citizens and customers can be measured by performance management indicators (see Annex III). Some metrics may include universal accessibility, transparency, accountability, openness, responsiveness, quality, integrity, efficiency, and speed of delivery. The Client Experience Measurement Survey Model provides examples of metrics.⁷⁰

70 OPSI, 2016. Available at: https://oecd-opsi.org/innovations/development-and-implementation-of-a-client-experiencemeasurement-survey-model-as-part-of-a-specific-client-feedback-strategy/



⁶⁹ U.S. Digital.Gov, 2015, Available at: https://digital.gov/resources/mobile-user-experience-guidelines/

▶ Figure 42. Service Canada cx survey measurement model						
	Simplicity Service/information is easy to find / it is easy to figure out where to go Client tell story once/input personal info. only once			Client perception		
Ease	Clarity	 Information is easy to understand Process is easy to determine (e.g. how to get assistance, steps to follow, documents required.) 				
	Convenience	 Can get to the required information easily (in- person online) 				
	Access	 Receive relevant information without asking (e.g. proactive service, bundling) Able to get help when needed (for example, information available, agent available) Service in official language of choice / documents available in official language of choice Providing feedback is easy Process/stage/status are transparent 		Satisfaction with overall service experience		
Effectiveness	Timeliness	Reasonable amount of time to access the service, complete service task, wait to receive information and service/product, or resolve issue		Would speak positively		
Effec	Consistency	 Consistent information received from multiple Service Canada sources (e.g. two separate call centre agents) 		to others about service experience		
	Efficiency	 Process is easy to follow to complete task. (e.g. procedures are straight-forward) Able to get tasks completed/issues resolved with few contacts Clients know what to do if they run into a problem Move smoothly through the steps (not stuck, bounced around or caught in a loop) 				
u	Respectful treatment	 The interactive with service agents is respectful, courteous and helpful The service agents demonstrate understanding and ability to address client's concerns/urgency 				
Emotion	Confidence	 Client's personal information is protected Client confident that he/she is following the right steps (i.e. not concerned about the process) Client knows when information/decision will be received or the next step will be completed 				

Source: Service Canada.⁷¹

⁷¹ Library and Archives of Canada, 2017. Available at: https://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/employment_ social_development_canada/2018/092-16-e/Client_Experience_Survey2017-en.html#tc3

A fully integrated quality assurance process involves seeking information on how different groups perceive the way in which services are provided on a continuous basis. This involves investment in **customer experience research** from the development of customer insights along service journeys. This radically shifts the perspective from a product-centred organization to a customer- centric one, whereby customers are included in the developments of services. Service Australia's Centrelink uses voice recognition speech analytics software to collect data on claims and business intelligence on that data. This can then be applied to thousands of calls daily to identify the phrases and answers that result in the highest consistent levels of satisfaction.

Global bodies examine a number of these principles to measure e-services. The European Union e-Government Benchmark (2017) user-centric government indicator focuses on the availability, usability, ease, and speed of e-services. The OECD's Government at a Glance (2015) focuses on access, responsiveness, reliability, and quality. The ILO's R 202 recommends that countries should regularly 'collect, compile, analyse and publish an appropriate range of data statistics and indicators on social security'. The first objective of feedback and monitoring is to build a basis for the continuous improvement of the social security systems (improve policy/program design; solve problems in policy/program implementation; help prioritize, plan and budget). The second is to regularly inform public decision makers and the public about the impact of social security in terms of social objectives: extension of coverage, household financial insecurity, equity or social justice which go beyond the measurement of the immediate perceptions of individual experience of social security administration and service delivery.

6.8 Recommendations

Balancing standardization and innovation in social security administration

Local experimentation and adaptation of services is necessary for innovation. However, the lack of standardization makes job mobility difficult. Today, more consistent administration and service processes need to be created. For example, with the possibility of someone working remotely, it becomes necessary to provide harmonious social insurance cover over a province or region and avoid competition or inefficient service provision in rural areas.

- 1. The concepts of pension schemes as "urban" and "employee" based could be reviewed. The provincial level planning should be accelerated, and the concept of urban and employee insurance should be changed to consider the fact that the current urban social insurance for employees applies to rural areas too. In addition, it also applies to non-employees.
- 2. Some functions of social insurance organization should be centralized at national and provincial levels: Planning, management, information systems and funding. The establishment nationwide of a unified vertical management service platform should be promoted, to be managed at the city and district levels, with business handled at the city, district, sub-district/township and community levels. The city level and the district level would mainly undertake supervision functions.
- 3. The internal organization at the province, city and district/county levels could be unified to have more seamless coordination.
- 4. Service delivery could be further decentralized by promoting the integration of institutions for similar insurances.
- 5. Administrations at the district (county) level mainly undertake specific social insurance business and social insurance delivery mostly the primary level.

Envisage the support from **dedicated administrative funding**, for example an organizational and IT innovation fund from upper levels to upgrade local level administrations.

Strategic and tailored communication strategy to workers in DFE and in DPE, embedded in social security products and services

In the past few years, under the "Universal Social Participation" plan, social insurance administrations have focused their efforts on extending coverage of urban and rural pension and medical residence schemes. To improve the adequacy of pensions and medical coverage of workers in DFE it will be important to raise awareness of staff of social insurance administrations to the new policy goals and to develop a consistent plan to signal the policy change. The messages need to contribute to change and the perception that current social insurance for employees is also **applicable for non-employees**, and it is also now **available to workers in rural areas**. The current branding of existing pension schemes as "urban" and "employee" based could be reviewed.

The communications on the rights and obligations of workers need to be available through different channels in a clear and transparent way and be communicated through simple messages. A dedicated communication strategy for workers in DFE and in DPE should not rely only on generic awareness raising information programmes. The form and content of the communication should be **tailored to different occupational groups** and use the most compelling channels and ways of engaging workers, that are the most appropriate to their occupation (micro business entrepreneurs, domestic workers, or express delivery workers), age group, gender and their motivations and needs. For example, Finland's social insurance agency uses tailored messages and digital communication channels to inform diverse groups of people about the protection offered over the life cycle. The Central Provident Fund Board in Singapore uses gaming technologies to help change the perceptions of youth about social security, improve their engagement with CPFB services and to encourage their social security registration. It is important to understand that if the option is taken to promote the incorporation of workers in DFE in employees' schemes on a voluntary basis, as it is the current rule, even if temporarily, the communication strategy assumes a strategic role in increasing social insurance participation. The development of these **novel** tools for information and education is particularly important in countries like China, that need to encourage a youthful population of workers in the platform economy, many of whom are migrants and women, to participate in voluntary schemes notably, pensions and medical insurance.

The **communication needs to be continuous and systematic.** It must be embedded in the business cycle and be directed to change individual behaviour according to each stage of operations. For example, information messages could be directed to encourage contributions in specific moments, and to anticipate future benefits through online simulation tools. The incorporation of behaviour insights in communication to nudge behavioural change should follow certain **principles and governance modes** in accordance with international frameworks and standards. A communication plan should also be targeted at platform companies and include them as stakeholders in the process of communication. For example, France requires the digital platform to remind workers regularly of their responsibilities or options to pay social insurance contributions.

People-centered service delivery

Most of the efforts of the modernization of the administration have focused on increasing the convenience, efficiency, and security of operations. This brought benefits in terms of the ability to increase operations and bring down the unit costs of business. Several initiatives have benefited flexible workers directly. *The challenge with covering work in all forms of employment requires that social security learns to* **interact in more personalized ways** with its members and users in their context of work and life settings.

There is no unified official set of principles, processes and metrics on service quality in China. A **service delivery plan** could be developed, starting with the users in mind and aiming to create personalized user experiences over the life cycle. The plan would encourage social security to promote simplified, seamless, and integrated interaction of people across different departments. Users' hearings, appeals and redress would be guaranteed.

As part of the plan:

- Solve the problem of insufficient primary-level service staff by placing delivery agents in proximity services.
- Relying on the comprehensive teller systems and unified information systems, promote the integrated handling of multiple insurances.

Emphasize changes in social security staff skills and attitudes, build empathic staff-people relationships, embed a culture of problem solving and proactivity to implement people centric services.

Digital enabled business processes

The information needs to be oriented by the principles of service delivery and business needs, and contribute to objectives of people centricity and support to workers in DFE and in DPE:

1. Omnichannel and flexible contributions payment

Allow individuals to pay contributions according to their own choices: Referring to the payment methods for residents or flexible workers, multiple payment levels, and flexible payments can be made by month, quarter, half year or year; cancel the binding payment of insurances and let workers choose the insurance types for themselves.

2. Digital by default relationship management

High-frequency services such as insurance registration, contribution payments, information change, inquiries, relationship transfer and the printing of social security certificates can be handled online. Customers can be informed of the progress of their dealings with social security by receiving SMS information at different stages of operations.

3. Benefit information and cross border services standards

Enhance access to information about individual entitlements and enact measures to facilitate the portability of entitlements between different social security schemes and employment statuses. Standardize and make available, clear rules regarding individual rights and obligations.

4. Preventive internal control systems

Build a risk prevention and control system that emphasizes prevention and dynamic early alerts by embedding digital technologies in all business processes.





► Table 10. Institutional and operational challenges faced by flexible workers when engaging social insurance and possible opportunities for local governments

	Problems	Opportunities Some local responses	
Pain points for workers			
Identification of workers	 Individuals not adequately informed about policies in absence of employer. Burden with administration due to absence of employer. Burden with administration due to multiple employers. Burden with administration due to cross-region mobility. 	 Costs of handling of identifying individuals compared to batches of workers in employing units. Risks with opening multiple accounts for same individual in different locations. 	 Platform company produced videos explaining social insurance policies for flexible workers, in its APP (Sichuan). Consideration of making social security portal available in platform APP (Sichuan).
Enrolment and changes in worker profile	 Burden with administration due to geographical distances from work to social insurance agencies. Multiplication of trips to agencies for different benefits in some localities. 	 Insurance enrolment data is not shared in real time between benefit schemes in some localities. Extra-workload with high mobile workers requiring transfers. Linkage of local Hukou to other welfare policies means taking away restrictions would add other welfare costs for receiving localities. Low service efficiency due to manual procedures. 	 Human resource companies sign labour contracts with flexible workers (Sichuan). Customer services via WeChat during COVID-19 crisis (Zhejiang).

	Problems	Opportunities	
	Pain points for workers	Pain points for local governments and social insurance	Some local responses
Payment of contributions	 Higher charges assumed by the worker Instability of incomes lead to unpredictable and weak levels of contributions. Inability to pay contributions limit the willingness to contribute. Burden with administration due to geographical distances from work to social insurance agencies. 	 Insufficient number of businesses handled online including contribution payments. Aged information system in some poorer localities. 	
Claim entitlement and adjudications	 No employers to report occurrence of accidents or prepare for retirement. Burden with administration due to geographical distances from work to social insurance agencies. 	 The information interconnection between provinces relies on manual operations. The insurance data of a large number of cross- province employed persons cannot be shared in real time, so their insurance and employment status cannot be accurately tracked Traditional risk management systems are insufficient to protect against risks in claims of individuals without employers. 	
Payment of benefits	 Difficulty in aggregating contributory history Difficulty in receiving payments when workers return in their original locations. 		



The 14th Five-year Plan for Human Resources and Social Security Development (2021-25) established the objective to promote flexible employment through individual businesses, and part-time employment opportunities. The importance of flexible work has been intensified by the fast development of the platform digital economy which now contributes to over one-third of total GDP in China. The promotion of flexible work also became a central plank of employment policy over the past three years, as way to mitigate the impact of the COVID-19 crisis on the workforce.

The flexible workforce is predominantly rural migrant workers who constitute 36 per cent of the total workforce, about 285.6 million people. National statistical data show that migrant workers are increasingly old because fewer young people enter the workforce and older workers work longer due to low levels of retirement benefits in rural areas.⁷² The following section summarizes the findings and recommendations of this study based on the principles for strengthening social security for workers in all forms of employment proposed by Behrendt and Nguyen (2018: 9).

⁷² The average age of migrants in 2020 was 41.4 years compared to 34 years in 2008. See the National Bureau of Statistics *Migrant Workers Monitoring Survey Report* 2019. Available at: http://www.stats.gov.cn/tjsj/zxfb/202104/t20210430_1816933.html. Unfortunately, the work beyond 60 years of age does not improve the level of pensions that they will be able to draw.

7.1 Universality of protection

The principle entails the effective access for workers in all types of employment, adapted to their situation and needs.

- 1. According to the survey of workers in this study, workers do not participate equally to all branches of social insurance. Many do not contribute to any social insurance.
- 2. The social security system, originally fragmented along Hukou lines, now reflects essentially a divide along employment relationship lines. Migrant workers, including platform workers, obtain the same benefits as non-migrant workers wherever their location but only if they are regularly employed.
- 3. This report recalls that the state has a primary responsibility in the supervision and provision of social security benefits. Accordingly, the report indicates that central and provincial governments play leading roles in both policy formulation and the administration of pensions and work injury protection schemes.
- 4. The report recalled the principles of the construction of China's social security to progressively build a unitary national system, and to avoid institutional fragmentation. The pension insurance system has always aimed at full coverage and fairness. The efforts should be therefore to continue to incorporate all workers into a progressively unified basic pension system, instead of building separate systems for different target groups. In case of employment injury, a specific fund might be needed transitorily within the scope of a national social security system.
- 5. Regulations and policies should provide clearer guidelines to ensure the correct classification of employment relationships and to avoid misclassification. Concrete attempts should be made to avoid the misclassification of workers who are employees, in law and in practice and to enforce labour contracts. The approach could be inspired by following G20 principles.
 - **G20** principles for tackling false self-employment:
 - > Ensuring that employers and workers are aware of, and understand, existing regulations;
 - Strengthening the capacity of labour inspectorates to monitor and detect breaches;
 - Making it easier and less costly for workers to challenge their employment status by, for example, creating a presumption of employee status unless shown otherwise or placing the burden of proof on employers;
 - Increasing the penalties for firms misclassifying workers;
 - Reducing incentives for firms and workers to misclassify employment relationships as selfemployment in order to avoid/reduce taxes and regulations.

Source: wcms_742290.pdf (ilo.ch)

The study recommends improving the capacity of the administration to monitor and enforce social insurance obligations in those cases. For example, by using Big Data, data exchange and interdepartment collaboration to strengthen labour relations in new forms of employment.

- 6. For workers with no labour relations with the companies that intermediate their services, high priority should be given to expand the coverage of the employee pensions to them, in accordance with the priorities of the 14th Five-Year Plan period (2021-25).
- 7. This higher priority requires adapting the regulations and policy to gradually improve the level of protection of these workers. They need to be adapted to the socio-economic and employment situation of workers in DFE and in DPE.

Voluntary and compulsory participation

- 1. Voluntary participation may continue to be the norm in the case of pensions and employment injury for most workers in DFE for the near foreseeable future. However, the effectiveness of voluntary participation should be monitored and assessed regularly.
- 2. The State will determine some occupations that should be mandatorily covered by EI. A plan should be defined to progressively extended mandatory coverage to other occupations in the medium term.
- 3. There should be increased reliance on encouragement measures, including from the perspective of burden of payment of contributions but also in terms of benefit levels, attainable through voluntary schemes. Consideration should be given to the participation of platform companies and government (for pensions) in (matching) contributions.

Rules of contribution

- 1. Consideration should be given to reduce minimum income contributing thresholds to allow workers to contribute from the first CNY so that low-income workers need not to shoulder a disproportionately high level of contributions.
- 2. It is proposed to abolish minimum contribution thresholds for employment injury, with no other restrictions.
- 3. The frequency of contributions (contribution collection schedule) could be adapted to the variability of incomes, depending on the nature of occupations.
- 4. Instances of dual contributions to residence and employee pension schemes could be reduced to ensure higher pension outcomes.
- 5. Regarding the contribution base, it will remain difficult to identify the income of flexible workers, and presumptive contribution levels may have to remain in place. However, there could be better communication between platform companies and social security administration to monitor the levels of contributions of workers.
- 6. Contributions on behalf of workers who are not in disguise self-employment, and are genuinely self-employed, could be levied at the source and transferred by platform companies.

Entitlement to benefits

1. Workers in DFE find it more difficult than standard employees to complete the full requirement of 15 years contributions due to changes to the employer and the location of work. Making sure that interruption of contributions does not affect the record of contributions.

Funding

- 1. The income bands for contributions for pension schemes should be broad and allow low and high levels of contributions.
- 2. All stakeholders benefiting from online and location-based platform transactions including the platform companies, the consumers, and the government, should share the responsibilities of paying contributions.
- 3. The study proposes to innovate the payment base in EI (and base it on the value of orders received in each period by a company). Pension schemes could explore similar arrangements for pensions contribution base.
- 4. Low and fluctuating incomes may lead to suboptimum levels of contributions. Mechanisms could be devised to ensure stable and progressively higher levels of contributions (for example contributing a given percentage of income).

5. In all cases, ability to contribute should be assessed to avoid harming workers of low means. The study singled out some categories and occupations as more vulnerable than others. Delivery riders and express delivery workers show the lowest levels of contributions. Some categories such as occupations or age could be used by government as proxies of low income for stronger support.

Adequacy

This principle entails ensuring that social protection systems prevent poverty and provide appropriate income replacement, in an equitable and sustainable way.

- 1. According to the ILO Social Protection Floors Recommendation, 2012 (No. 202) the universality of protection can be achieved based on social solidarity. This report believes that pension insurance and employment injury systems based on social solidarity assume an important role of "basic protection" for all workers.
- 2. The report proposes that in formulating policies to cover workers in newer forms of employment, minimum levels of income in old age for all in need of protection, should remain a primary concern. Such basic levels of protection should be available to older residents and be instituted at levels corresponding to the monetary value of necessary goods and services to lift people above national poverty lines and allowing life in dignity. The resident pension insurance provides a low benefit level. To constitute a floor of income security, it should be progressively set at a level commensurate with Dibao.
- 3. ILO Recommendation R.202 puts emphasis on the progressive realization of the extension of social security coverage through national social security extension strategies. ILO R. 202 (Art. 17) indicates that members should aim to achieve the range and levels of benefits set out in the Social Security (Minimum Standards) Convention, 1952 (No. 102), or in other ILO social security Conventions and Recommendations setting out more advanced standards. The earnings of workers in DPE can be relatively high. Yet, the focus of the administration has been to include all flexible workers in residence pension schemes, offering lower benefit levels. The study proposes that the new priority to expand the employee pension schemes to flexible workers stated in the 14th Year Plan should be reflected in a new strategy to be widely communicated and appropriated to increase the level of benefits for rural migrant workers, in DFE.
- 4. Effective connections should be established between the resident pension insurance, the Dibao (basic social assistance) and the employee pension insurance. Within a multi-tier system, options should be explored to establish either a universal pension system with uniform rates and benefits, to link higher levels of minimum pension benefits with earnings-related pension or a mixture of the two methods to provide a basic pension insurance system.
- 5. The social solidarity system also forms the basis of the design of the proposed occupational injury fund. It is proposed that the fund eliminates existing employer liabilities of the existing employment injury fund. In accordance with a social insurance model, the fund will provide long term periodic benefits. This study recommends that a risk equalization fund be set up for the occupational injury schemes to mitigate excess risks in the new fund.

7.2 Gender equality

Social protection systems are sensitive to the realities that women and men face in the labour market, in employment and society, and that they promote gender equality.

1. Women represent a smaller percentage of migrants, but they tend to occupy more vulnerable economic sectors characterized by low pay. The report showed that migrant women tend to contribute to greater numbers than men to residence pension schemes, which afford lower benefits. The increase in the level of benefits in these schemes is particularly important for women.

- 2. Women are prevalent in housekeeping and care platform services, that risk perpetuating the levels of informality in the offline economy. These sectors will grow in the future with the ageing of the population. It is important to consider specifically such sectors where women are more prevalent to ensure that regulations of platform economy are gender-responsive and ensure adequate levels of protection for women.
- 3. It is essential for women in DFE and in DPE that pension systems maintain high levels of social solidarity and risk sharing that allow horizontal redistribution. For example, pension systems can compensate for lower life-long earnings due to unpaid work and care of women.⁷³
- 4. The existing provisions for death benefits in residence pensions and in employment injury are particularly important for surviving women.

7.3 Transferability of rights in accumulation and of benefits

This principle entails ensuring that social protection systems positively support labour market mobility, and account for the structural transformation of the labour market and the economy.

- 1. This report recommends guiding all regions to remove the Hukou restrictions for flexible workers in the place of employment.
- 2. Cross regional operations should continue to be simplified. For example, schemes designed to cover only rural residents require individuals to purchase insurance and claim compensation in their hometown. Such restrictions coupled with the lack of attractiveness of the policy of connecting with the employee scheme have affected the willingness of flexible workers to participate in the insurance. As a result, some flexible workers may lack any social insurance.
- 3. Local governments who receive migrant workers are responsible to fill social security funds' deficits by using local fiscal resources. Therefore, they have incentives to protect local funding pools. This creates incentives to bar workers in flexible employment from accessing voluntary coverage in their places of work, and to export their benefits to other provinces. National and provincial pools should eliminate this disincentive.
- 4. Workers often spend time to reconstitute their working careers by personally addressing different employers and social security institutions from time to time or before retirement. It is imperative for all workers, including those in DFE, to instantaneously, and on an ongoing basis, be able to justify, aggregate and monitor the contributions made to multiple employers and under different work status (full time, temporary, part-time work, or self-employed work).

7.4 Good governance

The principle requires sustainable financing and high-quality public services that enhance the delivery of social security systems. The principle also encompasses the respect for the dignity in access to services, efficiency and accessibility of complaint and appeal procedures.

1. To ensure that the message of the incorporation of flexible workers in urban employee schemes is well understood, it is suggested to re-brand the urban social insurance pension scheme for employees, by reducing the connotation with coverage of employees only. In addition, the report showed that the urban origin of the schemes does not apply anymore, and they are accessed beyond urban areas. The geographic coverage of pension schemes is provincial and sometimes inter-provincial. Therefore, the scheme should also reduce the connotation to urban areas only and simply become a social insurance pension scheme.

⁷³ CNBC, 2021. Available at: https://www.cnbc.com/2021/07/30/as-women-leave-workforce-how-that-affects-social-securitybenefits.html

- 2. The efforts necessary for affiliating the mobile and floating population with social insurance are greater than for registering the local stable working population. Digital technologies can assist resolving some of the potential operational problems. For example, encouraging digital contracts, individual identification systems and digital money transactions powered by blockchain technologies, using online social insurance registration embedded in platform APPS.
- 3. Digital technologies allow the implementation of more preventive risk management which facilitates the confidence of the administration in the incorporation of greater workload of individual contributors.
- 4. The modernisation of social security administration so far has aimed primarily at strengthening the efficiency, efficacy, and integrity of operations, irrespective of the nature of workers who benefit from the improvements. More work will need to be done in the future to further people-centric administration. This involves considering people's life cycle risks holistically and the personal characteristics of workers in diverse forms of employment in social security front offices.
- 5. Social security delivery systems decentralized at local levels offer the ability of social insurance to experiment, innovate and be responsive to local circumstances. Together with smart city developments, this constitutes an opportunity for the formalisation of flexible workers through integrated economic and social protection approaches.
- 6. The report proposed that public-private partnerships contribute to expanding the capacity to deliver employment injury services. To be successful, this requires the strong supervisory capacity of local governments and monitoring capacity.

7.5 Transparency

This entails ensuring that all actors are aware of their rights and responsibilities; legal frameworks provide for clear and predictable benefits. Administrative procedures are as simple and clear as possible, and fully harnessing the potential of digital technology while protecting personal data and respecting privacy.

- 1. The regulations on the participation of workers in DFE and in DPE in pension schemes, should be progressively harmonized nationally, to ensure clarity and consistency of rules.
- Improving transparency and information on contributions increases the confidence of individual contributors that their payments are considered and traceable. Women are better able to make decisions on their retirement income and contributory careers with timelier and up to date information. For example, being able to consult a simulation of future benefits could enhance their motivation to contribute.
- 3. The study showed that workers in DFE have a lack of basic knowledge about pension insurance policies. Targeted communication strategies should guide them to correctly understand pension insurance by making full use of Internet technology, through corporate business platforms and other emerging social network channels. Campaigns should also address negative and false media coverage on pension insurance on the Internet.
- 4. Digital technologies increasingly make use of individual data for automatic decision making to push the automatic qualification of benefits or to personalize interactions with customers. The social insurance administration can also make more use of behaviour-data informed techniques to motivate flexible workers to pay earlier, more, and longer. In accordance with ILO R. 202, the use of individual data and algorithms for decision making should be protected by governance processes and regulations, in alignment with international standards and best practice.
- 5. Public knowledge of the progress of the extension of social security for new forms of employment could help mobilize stakeholders around the strategy for universal coverage by furthering evidence based social dialogue. This requires setting targets and time frames (ILO R. 202 art 19). The European Union monitoring framework on social protection for all workers and the self-employed provides an interesting benchmark. The European Council adopted the Council Recommendation on Access to

Social Protection (2019) in which European member States are recommended to ensure that all workers and the self-employed can adhere to social protection schemes (closing formal coverage gaps), buildup and take-up entitlements, which can be preserved, accumulated or transferred across schemes (improving effective coverage), receive sufficient and timely benefits, contribute in a proportionate manner (adequacy) and are informed about their rights and obligations (transparency).

6. ILO R 202 (para. 21) recommends that countries regularly collect, compile, analyse and publish an appropriate range of social security data, statistics and indicators, disaggregated, in particular, by gender. The number of China's platform workers is growing, with diversified forms of employment and complex labour relations, but this report indicated that there is a lack of representative data on platform employment. The 14th Plan stated the objective to strengthen the analysis of employment dynamics of key groups such as college graduates, migrant workers and flexible workers. An ILO-EU-OECD Technical Expert Group on measuring platform work was created in September 2019 to provide international guidance on concepts and measurement approaches. Statistical instruments based on international comparative norms can help capture the diversity of statuses, measure the prevalence of categories such as casual work or dependent self-employment, and better understand working conditions and social security of platform workers on ongoing basis.

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Annex I

Survey of workers in DPE and in DFE

1. Sampling method

The research team implemented an online targeted survey. Targeted surveys can generate in-depth knowledge on characteristics and working conditions of digital platform workers (ILO, 2021c). Whilst the National Bureau of Statistics conducts a regular labour force survey in China, which includes questions to ascertain platform employment, the micro data were not available. In addition to the high cost and complexity of undertaking an original representative survey in a country with a vast labour force like China, representative surveys may yield low statistical power in the case of digital platform employment due to the low number of observations. In addition, they may not be suitable for a detailed inquiry about the nature and conditions of digital employment (ILO, 2021c).

2. Sampling

The data collection was commissioned to a surveying company called Dataway⁷⁴ specializing in offline and online survey methods. The nature of platform work captured is sensitive to the source of data. For example, data from workers on live broadcast platforms, e-commerce platforms, and life service platforms, is best captured by questionnaires through service platforms; to collect data about delivery riders and online ride-hailing drivers, WeChat peer communities are more efficient. The estimated response rate of workers in DFE was 0. 5 per cent. Based on this estimate, 150,000 questionnaires were applied through different sources. In total 3,145 valid questionnaires were received.

3. Filters

The study used a non-proportional stratified sampling of workers in DFE and platform workers. A series of filters were applied to constitute the sample. First, the sample excluded full-time standard workers who were not platform workers, as well as unemployed and retired people who did not undertake any platform mediated activity. Then, a minimum number of 70 per cent of platform workers, and quotas for gender and geographical representation were applied.

4. Questionnaire

The survey questions included the personal socio-demographic characteristics of workers, their employment status (number of jobs and the nature of primary and secondary activities, occupations, sector, income), their legal social security coverage, their effective affiliation and contributions to social security, the objective and subjective measures of the burden with payment of contributions, the scope and amount of benefits which workers were entitled to or had received, the experience with social security administration (including obstacles with the portability of benefits), and their aspiration and demand for social security.

⁷⁴ Dataway, 2021. Available at: https://www.idataway.com

Survey of employers

The questionnaire survey focused on small and micro enterprises and companies with flexible workers. The sampling method was judgement sampling. The researchers made full use of the known data to establish the key characteristics of the target samples, selected qualified enterprises and sent them questionnaires. This sampling method has the advantages of high cooperation of respondents, high return rate, and low implementation cost.

Two specific survey methods were used:

- Targeted push based on research judgment. Questionnaire links were pushed to target samples online. Enterprises were selected from different sectors and regions in the resource pool of the survey company, a sample of companies that the company has conducted other types of surveys in the past.
- Snowball sampling. Enterprises were invited to recommend target samples. More sample units were obtained through a small number of sample units.

Annex II

Social security policies for workers in DFE until 2015, RPC

▶ Table A1. Summary of general policies on social insurance for workers in DFE

Policy	Time	Contents
Circular of the CPCNovembCentral Committee and the State Council on further improving the reemployment of laid off and unemployed2002	November 2002	For the laid-off and unemployed who are employed in flexible forms such as part-time, temporary and flexible work, we should adapt to their characteristics, and speed up the formulation of supporting measures concerning labour relations, the way of wage payment and social insurance, so as to protect their legitimate rights and interests.
persons (Zhong Fa [2002] No.12)		When recruiting migrant workers, all kinds of enterprises should sign labour contracts and pay social insurance contributions according to law.
		Persons who are self-employed and subject to flexible employment can participate in old-age insurance by following the methods for individual industrial and commercial households.
		Social insurance agencies should set up special windows to facilitate laid-off and unemployed people to continue to participate in insurance and pay contributions, and actively explore social insurance methods suitable for laid-off and unemployed people to engage in self-employment and flexible employment.
Opinions of Ministry of Labour and Social Security on issues concerning part-time employment	May 2003	It defines the standard of part-time employment and stipulates the corresponding implementation measures of social insurance: Workers engaged in part-time work should participate in the basic old-age insurance by following in principle the insurance measures for individual industrial and commercial households.
(Lao She Bu Fa [2003] No.12)	Workers engaged in part-time work can participate in the basic medical insurance as individuals, and enjoy the corresponding basic medical insurance benefits according to the principle of linking the benefit level with the contribution level.	
		The employing unit shall, in accordance with the relevant provisions of the state, pay work-related injury insurance contributions for part-time workers who have established labour relations. Workers who are engaged in part-time work shall be entitled to work-related injury insurance benefits in accordance with the law in case of work-related injury; If the employee is identified as disability grade 5-10, the disability benefits and related expenses can be settled on a lump-sum basis through agreement between the employee and the employing unit.

Policy	Time	Contents
Circular of the State Council on Further Strengthening the work of employment and reemployment	November 2005	Following flexible employment, the "4050" employees holding the "reemployment preferential certificate" who declare employment and participate in social insurance after flexible employment will be given a certain amount of social insurance subsidies.
(Guo Fa [2005] No.36)		It is necessary to gradually unify the policy for urban individual businesses and flexible workers to participate in the old-age insurance, improve the method of basic pension calculation and payment, strengthen the incentive and restraint mechanism of contribution and benefit linkage, and form a positive interaction between promoting employment and improving the social insurance system. We should actively create conditions to provide necessary social security for rural workers working in cities.
Opinions of the State Council on solving the issues concerning migrant workers (Guo Fa [2006] No.5)	January 2006	Actively and steadily solve the social security problems of migrant workers. Attach great importance to the social security work of migrant workers. According to the most urgent social security needs, the social security of migrant workers should adapt to their characteristics of greater mobility, insurance relationships and benefits can be transferred and continued, so that the social security rights and interests of migrant workers in the mobile employment will not be damaged. We should take into account the actual situation of the low wages of migrant workers, implement low standard entry and gradual transition, and mobilize the enthusiasm of employing units and migrant workers to participate in the insurance.
		Migrant workers will be included in the scope of work-related injury insurance according to law. All employing units must go through the work-related injury insurance participation procedures for migrant workers in time and pay the work- related injury insurance contribution in full and on time.
		We should pay close attention to solving the problem of medical security for serious illness of migrant workers. In order to solve the problem of hospitalization medical security of migrant workers during the period of working in cities, all pooling regions should establish the fund of medical insurance for serious illness. According to the local reality, the reasonable contribution rate should be set and the contribution is mainly paid by the employing unit. We should improve the settlement method of medical insurance, and provide medical settlement service for the insured migrant workers who voluntarily return to their home places for treatment after suffering from serious illness. Where conditions permit, migrant workers with stable employment can be directly included in the basic medical insurance for urban employees. Migrant workers can also voluntarily participate in the new rural cooperative medical system in their place of household registration.

Policy	Time	Contents
Opinions of the State Council on solving the issues concerning migrant workers (Cont.)		To explore the old-age insurance methods suitable for the characteristics of migrant workers. We should pay close attention to the research on old-age insurance method for migrant workers with low contribution rate, wide coverage and portability that is linkable to current old-age insurance system. In regions where conditions permit, migrant workers in stable employment can be directly integrated into basic old-age insurance for urban employees. For migrant workers who have already participated in the old-age insurance for urban employees, the employing unit should continue paying contributions for them. Labour and social security department should seize time in formulating method for the cross-regional portability and continuation of old-age insurance for migrant workers.
Social Insurance Law October 2010	Individual industrial and commercial households without employees, part-time employees who do not participate in the basic old-age insurance in the employing unit and other flexible workers may participate in the basic old-age insurance, and the contributions shall be paid by individuals.	
	The regulations of basic medical insurance for employees are the same, and they all change from compulsory to voluntary. No specific provisions have been made on the work-related injury, unemployment and maternity insurances. Rural residents entering cities for employment follow the provisions in this law for social insurance participation.	
Opinions of the CPC Central Committee and the State Council on building harmonious labour relations	March 2015	The rights of employees to enjoy social insurance and receive vocational skills training should be guaranteed. We should conscientiously implement the social insurance law, continue to improve the portability and continuation methods of social insurance relations, strive to achieve full coverage of social insurance, and deliver on the social insurance rights and interests of workers, especially migrant workers and labour dispatch workers.

▶ Table A2. Summary of policies concerning participation of workers in DFE in old-age insurance

Policy	Time	Contents
Notice of the State Council on printing and distributing the pilot scheme for improving the urban social security system (Guo Fa [2000] No.42)	December 2000	Freelancers and urban individual industrial and commercial households should participate in the basic old-age insurance, and the specific measures shall be stipulated by the people's governments of all provinces (autonomous regions and municipalities directly under the central government).
Circular of the Ministry of labour and social security on improving the basic old-age insurance policy for urban workers (Lao She Bu Fa [2001] No.20)	December 2001	Specific provisions are made on the participation in and portability of old-age insurance for self-employed persons such as urban individual industrial and commercial households as well as those who are employed in various flexible ways and contract farmer workers.
Decision of the State Council on improving the basic old- age insurance system for enterprise employees (Guo Fa [2005] No.38)	December 2005	Unify the insurance participation and contribution payment policies for urban individual industrial and commercial households and flexible workers, and expand coverage. All kinds of enterprise employees, individual industrial and commercial households and flexible workers in cities and towns should participate in the basic old-age insurance for enterprise employees.
		At present and in the next period of time, we should focus on the insurance participation of non-public enterprises, urban individual industrial and commercial households and flexible workers, and expand the coverage of basic old-age insurance.
		It is necessary to further implement the relevant state policies on social insurance subsidies and help people with employment difficulties to participate in insurance participation and contribution payment.
		The contribution base of urban individual industrial and commercial households and flexible workers participating in the basic old-age insurance is the average salary of local employees in the previous year, and the contribution proportion is 20%, of which 8 per cent is recorded in the individual account. After retirement, the basic pension is calculated and delivered according to the basic pension calculation method for enterprise employees.

► Table A3. Summary of policies concerning participation of workers in DFE in medical insurance

Policy	Time	Contents
Guidelines of the General Office of the Ministry of Labour	May 2003	Actively bring flexible workers into the scope of basic medical insurance system.
and Social Security on the participation of urban flexible workers in basic medical insurance (Lao She Ting Fa [2003] No.10)		The participation of flexible workers in basic medical insurance should adhere to the principle of corresponding rights and obligations and linking contribution level and benefits level. In terms of insurance policies and management methods, it is necessary to link up with the basic medical insurance system for urban employees and adapt to the characteristics of flexible workers.
		Flexible workers who have established a clear labour relationship with the employing units should participate in and contribute for the basic medical insurance according to the method followed by employing units. Other flexible workers should participate and contribute for insurance as individuals.
		In response to the characteristics of flexible workers such as various forms of employment, irregular working place and time, we should improve the business management methods of medical insurance, and formulate corresponding methods of individual declaration and registration, individual contribution payment and qualification examination methods. Flexible workers are encouraged to participate in the insurance as a whole through labour and social security agencies or community labour and social security service agencies.
		The agencies should set up a special window to facilitate the direct payment of contribution and the settlement of medical expenses. It is necessary to further improve the level of social management and service, achieve the direct settlement between social insurance agencies and designated medical institutions and designated pharmacies, and reduce the transactional burden of flexible workers.
Opinions of the General Office of the Ministry of Labour and Social Security on promoting employees of mixed ownership enterprises and non-public economic organizations to participate in medical insurance (Lao She Ting Fa [2004] No.5)	May 2004	To promote the participation of employees in mixed ownership enterprises and non-public economic organizations in medical insurance, we should focus on rural migrant workers who have established labour relations with urban employing units, and actively explore effective ways and means for them to participate in medical insurance.

Policy	Time	Contents
Notice of the General Office of the Ministry of Labour and Social Security on the special expansion of migrant workers' participation in medical insurance (Lao She Ting Fa [2006] No.11)	May 2006	Focus on the serious illness medical security of migrant workers, and actively bring migrant workers into the scope of medical insurance system. We should do well in the management and service of migrant workers' participation in medical insurance.
Notice on printing and distributing the Interim Measures for the portability and continuation of the basic medical security relationship of mobile employees (Ren She Bu Fa [2009] No. 191)	December 2009	According to the current regulations, all kinds of mobile employees in urban and rural areas shall participate in the basic medical insurance for urban employees, the basic medical insurance for urban residents or the new rural cooperative medical system, and shall not participate in and enjoy the benefits repeatedly. All localities must not set up barriers to insurance participation such as household registration. For people with rural household registration who are employed in urban units with stable labour relations, the employing units shall conduct registration formalities in accordance with the provisions of the Interim Measures for the registration and administration of social insurance, and participate in the basic medical insurance for urban employees in the place of employment. Other mobile employees may voluntarily choose to participate in the new rural cooperative medical care in the place of household registration or the urban basic medical insurance in the place of employment, and conduct registration formalities in the new rural cooperative medical care agency or the social (medical) insurance agency in accordance with the relevant provisions.
Notice on delivery on measures for farmers settled down in cities concerning participation in basic medical insurance and portability and continuation of insurance relationship (Ren She Bu Fa [2015] No.80)	August 2015	The farmers who settle down in cities should participate in the corresponding urban basic medical insurance according to their actual situation. If they are employed in urban units and have stable labour relations, they shall participate in the basic medical insurance for employees with their units according to regulations. Those who are employed in flexible forms such as part-time and temporary jobs, they can participate in the medical insurance for employees in the place of employment as flexible workers according to regulations, and they can also choose to participate in the basic medical insurance for residents in their place of household registration. Other farmers who settle down in cities can participate in the residents' medical insurance in the places where they settle down according to the regulations, and follow the local unified policies. The farmers who have settled down in cities and participated in the residents' medical insurance will be given subsidies according to regulations, and the individuals will pay contributions according to regulations.

Policy	Time	Contents
Notice of the general office of the Ministry of Human Resources and Social Security on printing and distributing the handling procedures for the transfer and continuation of the basic medical insurance relationship of the mobile employees (Ren She Ting Fa [2016] No.94)	June 2016	Providing detailed provisions on the handling procedures for cross-system and cross-pooling-regional portability and continuation of basic medical insurance relationship in the case of mobile employment.

► Table A4. Summary of policies concerning participation of workers in DFE in work-related injury insurance

Policy	Time	Contents
Notice of the Ministry of labour and social security on implementing the "safety plan" for migrant workers and accelerating the participation of migrant workers in work- related injury insurance (Lao She Bu Fa [2006] No.19)	May 2006	In about three years, the migrant workers of high-risk enterprises such as those in mine and construction sectors will be covered in the work injury insurance system; Further implement and improve the policies related to migrant workers' participation in insurance, work-related injury identification, labour capacity appraisal and payment of benefits, so as to facilitate insurance participation and benefits reception for migrant workers.
Regulations on the implementation of the Social Insurance Law of the People's Republic of China	June 2011	Where an employee (including a part-time employee) is employed at the same time in two or more employing units, each employing unit shall pay the work injury insurance contribution for him respectively. In case of work injury, the employing unit where the employee is injured while working shall bear the work injury insurance liability according to law.

Summary of national and provincial policies concerning the insurance participation of workers in DFE (after 2015)

▶ Table A5. Summary of policies at the national level concerning insurance participation of workers in DFE

Policy	Time	Contents
Communique of the Fifth Plenary Session of the 18th CPC Central Committee	October 2015	Promote the dynamic development of new technologies, new industries and new forms of business. Promote employment and entrepreneurship, adhere to the strategy of giving priority to employment, implement more proactive employment policies, improve entrepreneurship support policies, strengthen support for flexible employment and new forms of employment, and improve the treatment of skilled workers. Establish a more equitable and sustainable social security
Ministry of transport and other ministries and commissions jointly issued the Interim Measures for the management of online taxi booking business services ([2016] No.60)	November 2016	system and implement the universal insurance program. Network-based car booking platform companies shall ensure that the drivers providing services have legal employment qualifications, sign various forms of labour contracts or agreements with drivers according to the characteristics of working hours and service frequency according to relevant laws and regulations, and clarify the rights and obligations of both parties.
Circular of the State Council on printing and distributing the "13th five-year plan" for promoting employment (Guo Fa [2017] No.10)	January 2017	Improve the employment and entrepreneurship service mechanism: Strengthen the construction of "Golden Insurance project", speed up the process of social insurance information interconnection, and further improve the ability of social insurance relationship portability and continuity service.
Opinions of the State Council on good delivery on employment and entrepreneurship at present and in the next period of time (Guo Fa [2017] No. 28)	April 2017	Improve the employment and social security system to adapt to the characteristics of the new forms of employment. Support workers to achieve diversified employment through new business forms. If the workers sign labour contracts with enterprises in new business forms, the enterprises should participate in social insurance for their employees according to law. Qualified enterprises can benefit from the support policies for employment absorption according to regulations. Other workers can participate in old-age insurance, medical insurance and housing provident fund as flexible workers. Explore the unemployment and work-related injury insurance security mode suitable for flexible workers and those who meet the conditions can benefit from support policies for flexible employment and independent entrepreneurship. Accelerate the construction of "online social security" to provide convenience for workers in new employment forms to participate in insurance and facilitate the portability of insurance. Establish a national housing provident fund transfer and continuation platform to provide transfer and continuation services for cross-regional employees.

Policy	Time	Contents
National Development and Reform Commission and other seven departments jointly issued the guiding opinions on promoting the development of sharing economy (Fa Gai Gao Ji [2017] No.1245)	July 2017	Give full play to the role of the sharing economy in promoting employment, study and improve the measures for the insurance participation and contribution payment of flexible workers that adapt to the characteristics of the sharing economy, and effectively strengthen the protection of workers' rights and interests. Strengthen publicity to enhance the self-protection awareness of workers. For platform enterprises that have signed labour contracts with workers, as well as those who rely on platform enterprises for flexible employment and independent entrepreneurship, relevant employment and entrepreneurship support policies shall be implemented according to regulations.
Notice of the State Council on several measures to support the deepening reform and innovation of the pilot Free Trade Zone (Guo Fa [2018] No.38)	November 2018	Support pilot FTZs to carry out labour employment management and service pilots under nonstandard forms of employment.
Guidance of the general office of the State Council on promoting the healthy development of platform economy (Guo Ban Fa [2019] No.38)	August 2019	To protect the rights and interests of the platform, operators within the platform and platform workers: pay close attention to studying and improving the social security policies for employees such as platform workers and flexible workers, carry out pilot work on occupational injury protection, actively promote the universal insurance plan, and guide more platform workers to participate in the insurance. Improve the relevant laws and regulations on platform Economy: timely promote the revision of relevant laws and regulations and policies that do not adapt to the development of platform economy, and accelerate the removal of systematic and institutional barriers restricting
Opinions on further promoting return to or entry into hometowns for entrepreneurship (Ren She Bu Fa [2019] No.129)	December 2019	the development of platform economy. Improve social insurance and social assistance mechanisms. Promote poverty alleviation workshops, satellite factories, small and micro enterprises returning to hometown to start businesses to participate in work-related injury insurance according to regulations. Carry out the pilot program of occupational injury protection for workers in new forms of business. For those who fail in starting up businesses in their hometowns, employment services, employment assistance and social assistance shall be provided in accordance with regulations.
Guidelines of the general office of the State Council on supporting the deepening of reform and innovation of national new zones and accelerating the promotion of high-quality development (Guo Ban Fa [2019] 58)	December 2019	Support qualified new zones to carry out pilot projects to optimize labour employment services in non-standard forms of employment.

Policy	Time	Contents
Opinions of the CPC Central Committee and the State Council on good performance in the key work in the field of "agriculture, rural areas and farmers" to ensure the realization of a well-off society in an all- round way on schedule	January 2020	Stabilize the employment of migrant workers: implement the supporting policies such as tax and fee reduction related to enterprises, increase the efforts to help enterprises stabilize their jobs, relax the application conditions for returning unemployment insurance contributions for job stabilization, and improve the subsidy standards for migrant workers who improve their skills. Following unemployment, migrant workers can conduct unemployment registration in their place of usual residence and enjoy equal public employment services. Carry out pilot programs of occupational injury protection for workers in new forms of business.
Opinions of the CPC Central Committee and the State Council on accelerating the improvement of the socialist market economic system in the new era	May 2020	Carry out pilot programs of occupational injury protection for workers in new forms of business.

▶ Table A6. Summary of policies in Beijing City on insurance participation of workers in DFE

Policy	Time	Contents
Beijing Municipal Bureau of Commerce, together with relevant departments, formulated several measures for Beijing Municipality on promoting the standardized and healthy development of express delivery industry	February 2019	Improve the labour security system of express delivery industry: open express service channels for express delivery service units and employees in line with legal labour relations, and ensure the service for enterprises and employees to participate in insurance and payment of benefits. Strengthen the publicity of laws and regulations and supervision and inspection of law enforcement, standardize the employment of employing units and abide by the laws and regulations of social security. Strengthen the management of industry norms. In accordance with relevant laws and regulations, the employer and express delivery employees shall be urged to establish stable labour relations, participate in basic medical insurance and work injury insurance as required, so as to protect the basic rights and interests of employees. At the same time, conduct research and development of special insurance items. According to the principle of market orientation and the characteristics of express delivery industry, actively promote support for commercial insurance companies to explore and develop special commercial insurance products and constantly meet the needs of industrial labour security.

Policy	Time	Contents
Notice on promoting the standardized development of express delivery industry and strengthening the protection of employees' rights and interests issued by Beijing Post Administration, Human Resources and Social Security Bureau and Medical Insurance Bureau	August 2019	Clarify the responsibilities of express delivery enterprises as employment entities. Express delivery enterprises shall conclude labour contracts with labourers in accordance with the law, pay social insurance contributions, and pay labour remuneration in full and on time. The use of part-time employment and labour dispatch employment shall comply with relevant laws and regulations. If the express business is operated by franchise, the franchiser shall strengthen the unified management, clearly require the franchisee to employ in accordance with the law in the written agreement, and urge the franchisee to effectively protect the legitimate rights and interests of workers. Optimize the social security operation service for the express
		delivery industry. Implement "online social security" with online processing for insurance participation of express delivery enterprise employees with immediate effectiveness. Implement "one window processing" for retirement benefits payment, and implement "one window processing" for express delivery employees from applying for retirement to payment of benefits, all solved with at most one visit. Promote the express delivery industry to participate in work-related injury insurance, open an express service channel for the identification of work- related injury of express delivery employees, and give priority to the processing of work-related injury identification cases with clear facts, clear rights and obligations, and no dispute between the parties, in order to achieve fast solution.
		To protect the medical rights and interests of express delivery employees. Express delivery enterprises should go through the registration procedures of basic medical insurance for urban employees for employees who have established labour relations with them. Following insurance participation and contribution payment, the outpatient, emergency and hospitalization expenses of the employees can be reimbursed according to the regulations. Express delivery enterprises are encouraged to actively participate in accidental personal injury insurance, major disease insurance and other special commercial insurances, to effectively protect the life and health rights of express delivery personnel. Enterprises are encouraged to establish mutual aid fund to help employees with major diseases, safety accidents and accidental injuries.
Report on the implementation of Beijing's 2019 national economic and social development plan and 2020 national economic and social development plan	January 2020	Improve policies on contribution payment and benefits calculation and payment under basic old-age insurance for employees. Focus on workers in new forms of business and further expand social security coverage to truly realize full coverage of all the eligible.

► Table A7. Summary of policies in Zhejiang province concerning insurance participation of flexible workers

Policy	Time	Contents
Opinions of the general office of Zhejiang provincial Party committee and the general office of Zhejiang Provincial People's Government on further promoting the high- quality development of private economy (Zhe Wei Ban Fa [2018] 83)	November 2018	Support private enterprises to stabilize workers in new forms of business. Adapt to the new characteristics of private enterprises in the new situation, such as the flexible employment relationship, fragmentation of work and the de-organization of work arrangements, conduct research on and improve the labour employment and social insurance policies under new forms of business, and realizes the concentration and stable employment of workers under new forms of business.
Notice of Zhejiang Medical Security Bureau on further reducing burden and fees of enterprises and supporting private enterprises to stabilize employment of workers in new forms of business	May 2019	Strengthen medical security for workers in new forms of business. Each pooling area should respect the requirements of Zhe Wei Ban Fa (2018) No. 83, and take into local realities, to do better in promoting insurance participation and contribution payment by private enterprises for workers in new forms of business and timely integrate them into the scope of basic medical security to realize full coverage of all the eligible.
Guiding opinions of human resources and Social Security Department of Zhejiang Province on stabilizing the employment in new forms of business (for consultation)	September 2019	To construct a multi-level social insurance system. Actively promote the universal insurance participation plan and guide more workers in new forms of business to participate in social insurance. The workers who have established labour relations with enterprises shall participate in social insurance in accordance with law. If the employees of the domestic services have already participated in the social insurance for urban employees or urban and rural residents, they shall be recognized as contributing for social insurance.
		Workers in new forms of business can first participate in work injury insurance according to provisions. For workers in new forms of business with multiple labour relations, each employing unit shall pay contribution to work injury insurance for them respectively.
		Workers in new forms of business subject to part-time employment or without labour contracts can participate in social insurance as flexible workers in accordance with provisions.
		Actively guide enterprises and workers in new forms of business to participate in commercial insurances to provide protection against accidents.

Policy	Time	Contents		
Guiding opinions of human resources and Social Security Department of Zhejiang Province on optimizing labour employment services for new forms of business (Zhe Ren She Fa [2019] 63)	November 2019	Constructing a multi-level social insurance system. Guide more workers in new forms of business to participate in social insurance. Those who have established labour relations with enterprises shall participate in social insurance according to law. Domestic service enterprises with employment system should sign labour contracts with the recruited domestic service personnel in accordance with the law, and pay the social insurance contributions in full monthly; If the domestic service personnel do not have labour contract, the domestic service enterprise should sign a service agreement with them. The domestic service personnel can voluntarily participate in the enterprise employee social insurance or urban and rural residents' social insurance as flexible workers.		
		Workers in new forms of business with part-time employment or without labour relations with enterprises can participate in social insurance as flexible workers according to provisions.		
		Actively explore occupational injury protection mechanisms for workers in new forms of business. They can first participate in work injury insurance according to provisions. For enterprises in new forms of business relying on platform for operation, the platform is encouraged to take initiative in playing the role of employment entity and strengthen employment management. Such platforms can participate in work injury insurance separately for workers on the basis of average monthly wage of employees of the entire province in the previous year, and the platform bear the work injury insurance liability bearable by employing units according to the law. The platform can transfer the liability to commercial insurance companies by purchasing commercial insurances. For workers with multiple labour relations, each employing unit shall pay contribution to work injury insurance for them respectively. Encourage the introduction of commercial insurances. Actively guide enterprises and workers in new forms of business to participate in commercial insurances to provide protection for the workers.		
Work Plan of provincial bureau of human resources and social security for the year of 2020	April 2020	Continuously expand the coverage of basic old-age insurance. Efforts are focused on full coverage of all eligible enterprise employees and insurance participation and coverage expansion of workers in new forms of business.		

Table A8. Summary of policies in Guangdong province concerning insurance participation of workers in DFE

Policy	Time	Contents
Opinions of Guangzhou Municipal People's Government on the implementation of employment and entrepreneurship at present and in the next period of time (Sui Fu [2017] 26)	December 2017	Support the development of new forms of employment. Refer to the mode for flexible workers and explore the employment registration mode of workers in new forms of employment, and those who meet the conditions can enjoy employment and entrepreneurship services according to the regulations. If a worker in new form of employment signs a labour contract according to regulations, the employing unit shall pay wages in full and on time and participate in social insurance according to law. Workers in new forms of employment who meet the conditions can participate in the basic old-age insurance and medical insurance for urban employees as flexible workers, and pay contribution for the basic old-age insurance and basic medical insurance.
Notice of Guangdong Provincial People's Government on printing and distributing several policies and measures for further promoting employment in Guangdong province (Yue Fu [2018] 114)	November 2018	Increase the support for those with difficulties. For those with difficulties in employment who rely on the Internet service platform and other new business forms and new modes to achieve flexible employment, social security subsidies not exceeding 2 / 3 of their actual social insurance contributions will be provided.
Notice of Guangdong Provincial People's Government on printing and distributing policies and measures for further stabilizing and promoting employment in Guangdong Province (Yue Fu [2020] 12)	February 2020	Strengthen the management of flexible employment services. Further relax the conditions for insurance participation of flexible workers. In Guangzhou, Shenzhen and Foshan, pilot projects of occupational injury protection for workers in new forms of employment were carried out. For college graduates within two years after graduation engaged in flexible employment and those with employment difficulties, social insurance subsidies for flexible employment will be delivered. For those who fail to achieve stable employment at the end of the subsidy period, the policy enjoyment period can be extended for one year, and the application period is until December 31, 2020. For those workers in new forms of employment who are not applicable to the current labour and social security laws and regulations, we should guide the labour demand side to negotiate and sign agreements with them, and reasonably determine the basic rights and interests such as labour remuneration, rest and vacation, safety protection, etc.

Policy	Time	Contents
Notice on Printing and Distributing "Several Measures of Guangdong Province to Support Multi-Channel Flexible Employment"	January 2021	Protect the legitimate rights and interests of part-time employees. Employers who use part-time employment are instructed to sign written labor contracts or oral agreements in accordance with the law, and to participate in work-related injury insurance in accordance with the law. Explore and study the method of participation in work-related injury insurance for non-labor-related specific persons employed in the unit.
		Implement the commitment-based employment and unemployment registration. Persons with flexible employment can go to the place of employment to apply for employment registration. After unemployment, they can apply for unemployment registration in the place of household registration, permanent residence, place of employment or insurance participation according to regulations. Flexible employment personnel only need to provide basic personal information and employment and unemployment information and make a written commitment to the authenticity of the information when registering for employment and unemployment at the public employment talent service agency, and do not need to provide employment certification materials.
		Lower the threshold for participating in pension insurance. Flexible employment personnel can participate in the basic endowment insurance for enterprise employees at the place of employment (or the place of residence) with a valid ID certificate and employment registration certificate. Flexible employees who participate in the basic endowment insurance for enterprise employees in their personal capacity, if it is really difficult to pay the basic endowment insurance in 2020, can voluntarily postpone the payment; they can continue to pay in 2021, and the payment period is calculated cumulatively; for the unpaid months in 2020, they can Make up the payment before the end of 2021, and choose the payment base within the upper and lower limits of the individual payment base in 2021.

▶ Table A9. Summary of policies in Sichuan province concerning insurance participation of workers in DFE

Policy	Time	Contents
Notice of the general office of the people's Government of Sichuan Province on printing and distributing the work plan for Sichuan Province to innovate management, optimize services, cultivate and expand new driving force for economic development, and accelerate the continuous transformation of new and old driving force (Chuan Ban Fa [2017] 84)	August 2017	Improve employment and social security policies for new forms of business. Improve the employment policy and employment statistics system, thoroughly implement social insurance registration with combination of five certificates in one and integration of three certificates, optimize the business process of social insurance registration, and reduce the number of proof materials. Abolish the social insurance registration certificate system for enterprises and individual businesses and adopt a unified social credit code. To explore the establishment of a unified online contribution payment system for urban and rural residents and flexible workers in the whole province, and to study and formulate the collection and management methods of supporting funds after online payment.
Opinions of Sichuan Provincial People's Government on the implementation of employment and entrepreneurship at present and in the next period of time (Chuan Fu Fa [2017] 53)	September 2017	Support new forms of employment. Support the development of new-type employment modes under new forms of business, improve employment and social security systems adaptable to the characteristics of new forms of employment, support workers to realize diversified employment through emerging forms of business. If workers and enterprises in emerging forms of business sign labour contracts or agreements, enterprises should participate in social insurance and contribute to housing provident fund for them according to laws and regulations. Eligible enterprises can benefit from supportive policies for employment absorption. Other workers can participate in old-age and medical insurances as flexible workers and contribute to housing provident fund. Eligible college graduates and people with difficulties in employment can receive social insurance subsidies according to provisions. Explore on unemployment insurance and work injury insurance protection modes suitable for flexible workers. Speed up the construction of "online social security" to facilitate insurance participation and portability for workers in new forms of employment.

Policy	Time	Contents
Opinions of the Office of the General Trade Union of Chengdu City on the implementation of trade union construction under new economy and new forms of business in a full scale	March 2019	Comprehensively push forward trade union organization in the tertiary industry dominated by modern service industry and the new economy and new forms of business based on internet technology as well as the entry into trade unions of new groups represented by truck drivers, delivery men, nursing service providers, domestic workers, shopping mall information providers, online food delivery men, real estate agents and security guards, in order to eliminate the "vacuum of trade union organization" and "blind spots of trade union entry", expand "the two coverage" and solidify the foundation of trade union work.
Opinions of the General Office of the People's Government of Chengdu City on the pilot implementation of promotion of insurance participation of workers in new economy and new forms of business (Cheng Ban Han [2019] No. 80)	July 2019	Regulate the labour relations of workers in the new economy.
		Establish a promotion mechanism for insurance participation of workers in the new economy: Adhere to the principle of lowering factor cost, reducing the burden of new economic organizations, and safeguarding the legitimate rights and interests of workers, and set up promotion mechanisms for insurance participation of various categories of workers in response to the various employment patterns of new economic organizations.
		Improve the promotion mechanism for insurance participation of workers in the new economy: according to the requirements for construction of international business environment, deepen the campaign of "benefiting, facilitating enterprises", and establish promotion mechanism for insurance participation of workers in the new economy, providing diversified and professional social security public services for new economic organizations.
		Establish cross-department coordination mechanisms for insurance participation of workers in the new economy: Improve the working patterns for promoting insurance participation of worker in the new economy with multi- department joint action and participation and close cooperation.

Annex III

Diagnostic questions about the administrative burden

The following table provides tools that public organizations can use to help identify where learning, compliance and psychological costs arise, and to set the stage for discussions of solutions. As such tools become more available and better understood, they promise to help the public sector to improve the experience of public services.⁷⁵

Diagnostic questions about administrative burdens

Take-up: What is the take-up rate for eligible beneficiaries?

Inequality: Does take-up rate vary across populations?

Learning costs: Is it easy for potential participants to:

- Find out about the program?
- Establish if they are eligible?
- Understand what benefits are provided?
- Learn about application processes?

Compliance costs:

- How many questions and forms are there to complete?
- How much documentation is needed?
- > Does the participant have to input the same information multiple times?
- Is the information sought already captured via administrative data?
- Is it possible to serve the person in a less intrusive way, e.g. phone rather than in-person interviews?
- Do applicants have easily accessible help?
- How frequent is re-enrollment?
- How much time must people commit to the process?
- What are the bottlenecks?
- How much financial costs must people commit?

Psychological costs:

- Are interactions stressful?
- Do people receive respectful treatment?
- Do people enjoy some autonomy in the interaction?

Source: Herd et Moynihan, 2018.

Measures of people-centricity of social security

Service effectiveness includes measures on service availability such as staff per number of clients, average distance, or time to reach the nearest onsite service per locality, opening hours of the different services (departments), the accuracy of payments and requests for reimbursement, service reliability measured by the number of complaints related to errors and percentage of corrective measures, measures of responsiveness of the system in times of crises (scalability of solutions). **Service efficiency** refers to cost of the services, the

⁷⁵ Ministère de l'Économie, des Finances et de la Relance of France, 2021. Available at: https://www.economie.gouv.fr/igpdeeditions-publications/comparative-analysis_n5

processing or waiting times. **Ease of access** refers to the simplicity of paper-based documentation, the respect of standards of usability of digital interfaces, the variety and choice of communication channels, the number of supporting documents needed to obtain a service, intuitive access and formatting of information written from the perspective of the customer, adequate signage of communication supports or the availability of self-help services. **Equity** refers to the attention to special needs (for example age, disability, gender, language or ethnic origin) in accessibility to social security services. This concern has become prominent with the development of robotic processing automations (RPA) and Artificial Intelligence assisted decision making.⁷⁶ To avoid unfair or biased application of rules to certain groups of the population the assumptions about the users (their ethnicity, their age, their context – where they use services and their abilities) need to be correctly used during service design and the development of algorithms.⁷⁷

The ILO Social Protection Floors Recommendation, 2012 (No. 202) specifically advocates for the respect for the rights and **dignity of people** covered by the social security guarantees (Art. I) Alinea 3f.⁷⁸ A fair and stable interpretation of the regulations contributes to human dignity by procuring a sense of personal control and autonomy of beneficiaries and trust vis-a-vis the administration. In that respect, service standards include reference to national laws and guidelines on the safety and security of their individual data, reference to norms for the use of biometric data and protection against cybercrime. Dignity also includes empowerment of beneficiaries instead of treating them only as recipients of social security benefits. A way to assess this is to measure the participation in activities conducted by social security administrations jointly with users to monitor their changing needs and the degree to which they are satisfied. Many social security agencies are actively promoting continuous engagement, interactions, and connections with users. Social security can obtain 360 degrees view of customers by aggregating data from the various touch points that a customer may use to contact the administration and receive service and support. Innovation labs and customer experience insight units are constantly engaging with members. User platforms attempt to engage with members in a more empathic, holistic way offering advice and even emotional support around life events, using innovative technologies and forms of engagement.⁷⁹ Unfortunately, there are sometimes legal, institutional, and operational limitations to the engagement of users in social security. For example, the administration of social security remains sometimes vertically organised and follows engagements protocols that limit customer participation in the design of services.

Care refers to the respect for user's circumstances and needs and real attention to their demands. This implies that for example front line staff are committed and are empowered to solving problems. At Services Australia, there are reports of high public satisfaction within professional staff but also frustration and anxiety caused by staff in call centres who are insufficiently trained, unaware of applicable rules and legislation and do not always demonstrate the necessary empathy to the needs of vulnerable people. To overcome this problem, the agency piloted in December 2020 a new service-by-appointment concept, the "Professional Service Model", which is supported by digital, video conferencing and telephony services. The approach allows Services Australia to spend more time with vulnerable customers and to determine a need for the support of a professional or a third-party organization.

Care requires impartial, transparent, simple, rapid, accessible, and inexpensive complaint and appeal procedures in case of an error or damage to users. As individual data becomes central in-service delivery, its adequate use is increasingly regulated, and its incorrect handling can be subject to complaints. The increased use of external providers in service delivery such as call centres sometimes denies speedy escalation and a resolution of customer complaints to social security administration. The use of massified tools such as Artificial Intelligence automation, machine learning and robotics calls for rapid and capable mechanisms to hear dissatisfied users. The anonymity of these processes and the lack of institutional capacity to apprehend them can lead to frustration and anxiety. Yet, speedy resolution of conflicts can also save financial resources and reputation costs to organisations. But social security administrations have not always been able to effectively handle these new complaints and to apply effective fast remedies.

⁷⁶ UX Summit 2021: Equity-Centered Design: Challenges in Government.

⁷⁷ Stay lean, 2021. 18F User Experience Design Guide.

⁷⁸ In some countries the constitution or national laws establish a link between social security and the right to dignity. Universal Social Protection for Human Dignity, Social Justice and Sustainable Development (ILO, 2020)

⁷⁹ Straits Times, 2019. Available at: https://www.straitstimes.com/business/invest/students-play-games-to-learn-more-about-cpf

Dimensions of people-centered services and their operational implications

Effectiveness	Ease	Efficiency	Dignity	Equity	Care
Availability of services. Accuracy of payments and requests for reimbursements. Reliability of services when people need them. Responsiveness of the systems in time of crisis (scalability of solutions).	Simplicity and usability of digital interfaces Variety and choice of communication channels. People can complete certain formalities without needing to present or seek extra documentation. Intuitive access and formatting of information written from the perspective of the customer. Adequate signage of communication supports (web sites). Self-help services when possible.	Speed of administrative responses. Achieving intended outcomes with the first interlocutor or at first touchpoint. Cost effective transactions. Anticipation of needs by automatic enrolment. 360 degrees view of the customer by pooling information collected by all touchpoints. Ability to rapidly change profile and administrative information, circumstances, needs, or mobility requirements.	Users have a sense of empowerment in their relationship with the administration. User respect, avoiding interventions or discourses that are disrespectful and dehumanizing. Participation in the design of products and services. Security of communication and data exchanges.	Stability and transparency of rules. Fairness and consistency in interpretation and application of rules. Assistance for digital illiterate users. Language, culture, age, gender, disability appropriate communication. Attention to special needs (for example disability) in the accessibility to social security centres. Transparency, including the availability of information concerning management responsibilities of the different services. Clarity on ways to lodge complaints and confidence to seek and obtain corrective measures	 Staff awareness and knowledge of rules and legislation. Courtesy, respect and empathy. Staff adopts a client focus and feels empowered by management to adopt a problem-solving attitude. Intelligibility and familiarity of language and interaction, avoiding misunderstandings and psychological barriers/distance with users. Staff effectively acts upon queries and customers can track progress of resolution. Help and guidance is available throughout the process until completion. Personalization of services to individual circumstances (360 view of the customer is available in the front office). Members participate and feel engaged through community platforms (web or social media) where they receive encouragement, information and training. Duty of care by refraining to exercising excessive administrative demands in times of need. Reducing or delaying administrative requirements for access to services for people in times of need.

Assessment of social security coverage of workers in diverse forms of employment and in platform employment in China

The growth of the digital platform economy has had a significant impact on labour markets and raises new challenges for social security coverage of workers in new forms of employment. This publication examines the access of workers to social security in various types of employment in China and provides recommendations to close the policy and implementation gaps. The study compares the social security situation of Chinese workers in digital platform employment, particularly women, and migrants, with workers in other diverse forms of employment.

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