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ILO Flagship Report

The value of essential work

World Employment and Social Outlook

2023

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Preface

At the beginning of the COVID-19 pandemic, the city I was living in was placed under strict lockdown. Needing bread and other food, I ventured out to the small store near my home to buy these items. The shop was packed with customers, and the owner and her fellow worker were desperately trying to create some order among them to minimize the risk of contagion. They had placed empty crates in front of the cash register to impose distance between themselves and the customers, a makeshift form of protection at a time when face masks and hand sanitizing gel were not readily available.

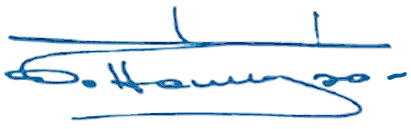
This scene has stayed with me throughout the pandemic. It has served as an important reminder of the different degrees of risk that people were exposed to during the pandemic, and how much of that risk depended on the type of work one performed. For the key workers who had to leave the safety of their homes to fulfil their duties, the risk was aggravated by every physical encounter with a colleague, customer or patient.

The COVID-19 crisis has served to remind us of the importance of key workers, how our economies and societies would grind to a halt if these workers did not come to work, or if the enterprises and organizations that they worked for were to shut down.

But, as this report shows, the pandemic has also brought to light the disparity between the contribution of key work and its valuation in regard to earnings and other working conditions. The report documents these disparities across the world and provides policy guidance for addressing them.

Properly valuing key work is central to renewing the social contract. It is at the core of strengthening social justice based on the principle that every individual should earn a dignified and decent living from their work. Doing so will make societies and economies function better and reduce poverty, inequalities and social tensions.

It will also better prepare us for future crises. A crucial first step in improving the resilience of economies and societies in this age of crisis is to strengthen the institutions of work and increase investment in key sectors. The Global Coalition for Social Justice, which the ILO will launch later this year, is aimed at reinforcing global solidarity and improving policy coherence in support of decent work and social justice. Recognizing the value of key work, as recommended in this report, will be fully part of its agenda.



Gilbert F. Houngbo
ILO Director-General

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The report benefited immensely from a series of background studies on the experience of key workers during the pandemic, many of which have been published as ILO working papers. We would like to thank the following authors for their contributions: Rodolfo Elbert, Paula Boniolo, Pablo Dalle (Argentina), Leah F. Vosko, Tanya Basok, Cynthia Spring, Guillermo Candiz, Glynis George (Canada), Akosua K. Darkwah (Ghana), Dev Nathan, S. Rahul (India, rural), Dipa Sinha (India, urban), Dorice Agol (Kenya), Lim Lin Lean (Malaysia), Carlos Salas Páez (Mexico), Omar Manky, César Ponce, Adriana Portocarrero, Isaí Silva, Adriana García (Peru), Amelita King-Dejardin (Philippines), Sophia Seung-yoon Lee, Seung-ho Baek, Tai-eun Ko, Ma-um Ko, Gyu-hye Kim (Republic of Korea), Margareet Visser (South Africa) and Z. Nurdan Atalay (Türkiye).

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Abbreviations

ASHA	Accredited Social Health Activist (India)
CAP	Common Agricultural Policy (European Union)
CBR-LRI	Centre for Business Research Labour Regulation Index
CDC	Centers for Disease Control and Prevention (United States)
CFA	Committee on Freedom of Association (ILO)
CFPS	China Family Panel Studies
COVID-19	coronavirus disease
CPS	Current Population Survey (United States)
ENESI	Enquête Nationale sur l'Emploi et le Secteur Informel
ERIESI	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel
EU	European Union
GDP	gross domestic product
HIES	Household Income and Expenditure Survey
ICD	International Classification of Diseases
ILC	International Labour Conference
IMO	International Maritime Organization
IOM	International Organization for Migration
ISIC	International Standard Industrial Classification of All Economic Activities
ISCO	International Standard Classification of Occupations
IT	information technology
LFS	Labour Force Survey
LTCW	long-term care worker
MSMEs	micro, small and medium-sized enterprises
NHS	National Health Service (United Kingdom)
NVSS	National Vital Statistics System (United States)
OECD	Organisation for Economic Co-operation and Development
OSH	occupational safety and health
OSS	one-stop-shop
PLFS	Periodic Labour Force Survey (India)
PPE	personal protective equipment

R&D	research and development
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
SDG(s)	Sustainable Development Goal(s)
SETAs	Sector Education and Training Authorities (South Africa)
SMEs	small and medium-sized enterprises
SRO	social return on investment
TETA	Transport Education Training Authority (South Africa)
TLM	temporary labour migration
TVET	technical and vocational education and training
UNCTAD	United Nations Conference on Trade and Development
UNICEF	United Nations Children's Fund
USPS	United States Postal Service
WAEMU	West African Economic and Monetary Union
WBES	World Bank Enterprise Surveys
WHO	World Health Organization
WIEGO	Women in Informal Employment: Globalizing and Organizing

Executive summary

The COVID-19 pandemic has made evident the extent to which societies need key workers – in both good times and bad – but also how undervalued most key jobs are

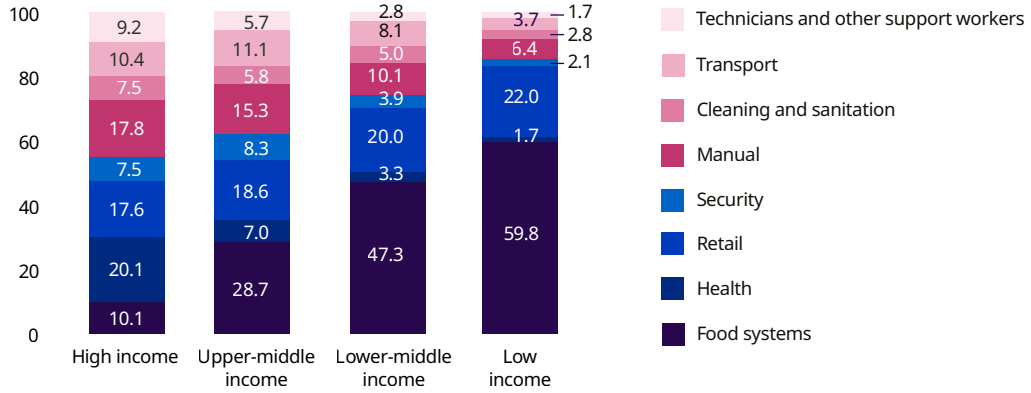
At the end of March 2020, 80 per cent of the world's population lived in countries with required workplace closures. But among the hushed streets of cities and towns throughout the world, key workers left the safety of their homes to go to work. These workers produced, distributed and sold food, cleaned streets and buses to minimize the spread of the pandemic, ensured public safety, transported essential goods and workers, and cared for and healed the ill. These are the "key workers".

The COVID-19 pandemic has made evident the extent to which societies need key workers – in both good times and bad – but also how undervalued most key jobs are, raising concerns about the sustainability of these essential activities, especially given the likelihood of future shocks. This report calls for a revaluation of the work of key workers and greater investment in key sectors in order to more fully reflect their economic and social contributions. This is one of the most important public policy lessons to be drawn from the COVID-19 pandemic, as every country has an inherent interest in strengthening its resilience to major disruptions and crises irrespective of their nature.

Key workers provide essential goods and services that enable societies to function…

Key workers can be found among eight main occupational groups: food systems workers; health workers; retail workers; security workers; manual workers; cleaning and sanitation workers; transport workers; and technicians and clerical workers. Across the 90 countries with available data, key workers make up 52 per cent of the workforce, though the share is lower in high-income countries (34 per cent), where economic activities are more diversified (see figure ES1).

Figure ES1. Distribution of occupations among key workers by country income group (percentage)



Note: Due to data limitation, the "technicians and other support workers" category includes key personal service workers (ISCO code 51), including those that fall under other occupational groups (for example, food systems workers, such as cooks).
Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Women account for 38 per cent of all key workers globally, which is lower than their share in non-key work (42 per cent). Women constitute two thirds of key health workers and more than half of key retail workers, but they are grossly under-represented in security and transport. High-income countries rely heavily on international migrants to perform key services in occupations like agriculture and cleaning and sanitation.

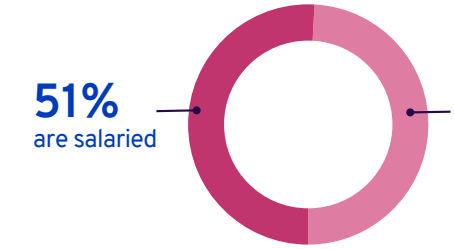
… but faced elevated health risks and job strain while working during the pandemic

Key workers suffered higher mortality rates from COVID-19 than non-key workers, as a result of their greater exposure to the virus. However, mortality rates varied among key workers: while health workers had high levels of contact with infected patients, their mortality rates were lower than those of transport workers, who suffered the highest mortality rates. The findings reveal the importance of occupational safety and health (OSH) protections – to which transport workers had less access – but also the benefits of working in formal workplaces with collective representation. Both in terms of health risks from COVID-19 and job strain, formally employed workers with job security and union representation were better able to accommodate the increased demands and risks of working during the pandemic than workers on informal and insecure contracts or without collective representation.

Key enterprises struggled to maintain operations and sales during the pandemic

Key enterprises that provided goods and services deemed essential by governments at the start of the COVID-19 pandemic faced many challenges. These included managing disrupted supply chains, financial uncertainty, declines in investment, problems with staffing, and implementing emergency OSH guidelines. These issues were more acute for micro and small enterprises.

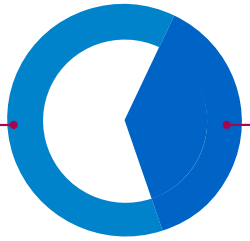
Key workers



51% are salaried

49% are self-employed

87.3% Self-employment is highest in low-income countries

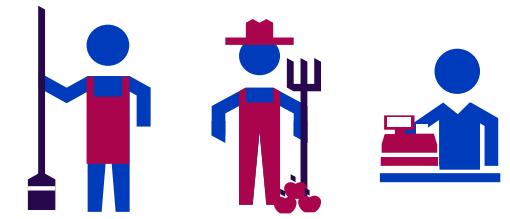


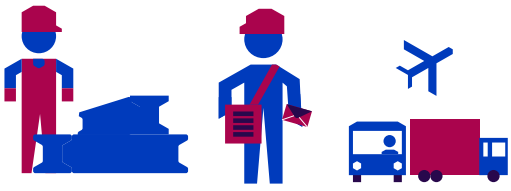
62% Men

38% Women

Dominant type of work

Dominant type of work





1 in 5 key workers in high-income countries is an international migrant

Deficiencies in working conditions reflect the undervaluation of key workers

The valuation of key workers is reflected in their pay and other working conditions. Deficiencies in any of these areas typically reverberate across other areas.

Elevated OSH risks

Physical and biological hazards, as well as psychosocial risks, more commonly affected key workers even before the pandemic. During the pandemic, the incidence of verbal abuse and threats increased sharply for all key workers (and more than for non-key workers), with particularly sharp increases in threats recorded for retail workers. Key workers faced additional health risks during the COVID-19 pandemic owing to their physical presence at workplaces and contact with clients. This was especially true for workers in transportation, security and cleaning, which is probably a reflection of lax OSH controls and more limited access to healthcare and paid sick leave among these occupations.

See sections 2.1 and 3.1

Over-reliance on temporary contracts

Nearly one in three key employees is on a temporary contract, though there are considerable country and sectoral differences. In food systems, key employees have a higher incidence of temporary work, at 46 per cent worldwide. But temporary employment is also prevalent in cleaning and sanitation, and manual occupations, with one in three employees holding a temporary contract.

See section 3.3

Long and irregular working hours

More than 46 per cent of key employees in low-income countries work long hours, while a substantial share of key workers around the world have irregular schedules or short hours. Long working hours are more common in transport, where nearly 42 per cent of key workers across the globe work for more than 48 hours a week.

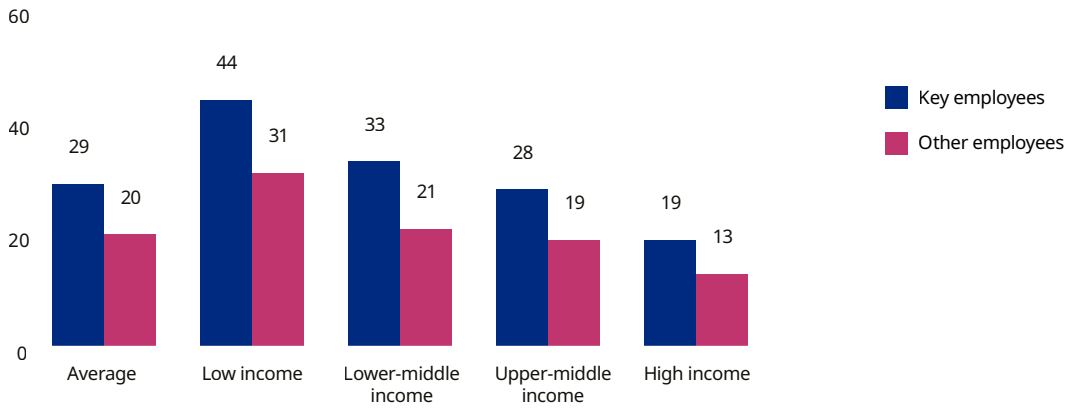
See section 3.4

Low pay

On average, 29 per cent of key employees are low-paid, regardless of countries' level of development (see figure ES2). Key employees earn 26 per cent less than other employees, with only two thirds of this gap being accounted for by education and experience. In food systems, the share of low-paid key employees is particularly high, at 47 per cent. The share of low-paid employees is also high among other key occupations, such as cleaning and sanitation (31 per cent). These sectors, especially in high-income countries, employ a large share of international migrants.

See section 3.5

Figure ES2. Share of low-paid workers among key and other wage employees, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Under-representation, especially in a few key sectors

While unionization and collective bargaining coverage are limited for many workers, the available data indicate that unionization rates in several key sectors – including food systems (9 per cent), cleaning and sanitation (13 per cent) and retail (6 per cent) – are significantly lower than average rates in developed and developing countries alike.

See section 3.2

Deficits in social protection, including paid sick leave

Nearly 60 per cent of key workers in low- and middle-income countries lack some form of social protection. In low-income countries, social protection is minimal, only reaching 17 per cent of key workers. The picture is even bleaker for self-employed key workers in most developing countries, as they are almost entirely left out of social protection.

See section 3.6

Insufficient training

Fewer than 3 per cent of key workers in low- and lower-middle-income countries received training during the preceding 12 months, and this share is as low as 1.3 per cent among self-employed key workers.

See section 3.7

Key recommendations

To build resilience, countries should invest in the institutions of work and key sectors

The undervaluation of key work has implications beyond the individual worker. When difficult working conditions and low pay are systemic, labour shortages, high turnover and, ultimately, an inadequate provision of key services result. Thus, the resilience of key services in the face of future pandemics or other crises is dependent on investments made in these key sectors, as well as in working conditions of those who perform critical work.

Investing in the institutions of work improves working conditions

While decent work is a universal objective, it is particularly critical for key workers, given the importance of their work for the basic functioning of economies and societies as well as the widespread deficits in their working conditions. Regulation, either through statute or collective bargaining agreements, in concert with other institutions of work – workers' and employers' organizations, labour administration and inspection systems, and courts and tribunals – is needed to achieve the following objectives:

- *Safe and healthy workplaces for all.* The pandemic showed that a safe and healthy working environment is not just a benefit to the individual worker, but also to the organization for which they work, as well as to society at large. OSH systems are most effective when they are coherent, meaning that there exists a solid foundation for all regulatory interventions relating to OSH. Such a system should be developed through tripartite collaboration, with clear duties and rights specified; it should apply to all branches of economic activity and all workers, regardless of their employment status; and it should prioritize prevention by undertaking risk assessments at regular intervals.

- *Equality of treatment and other safeguards for all contractual arrangements.* The legal framework determines whether part-time, temporary, and agency employment, as well as subcontracting, is a source of insecurity and labour market disadvantage or not. Where legal frameworks mandate equal treatment and impose other safeguards, these work arrangements are more likely to be used for the flexibility they provide in organizing production than as a means to lower labour costs. The principle of equal treatment implies that workers in these arrangements receive the same rights as those accorded to comparable full-time or bilaterally employed workers, with wages and social benefits equivalent, though proportional, to hours of work. Because of higher OSH risks in

hazardous work, some countries restrict the use of private employment agencies and subcontracting in specific occupations or branches of economic activity.

- *Safe and predictable working hours.* Working hours are closely related to job quality, with too few, too many and erratic hours each generating specific problems. Given the detrimental impacts on workers' health and safety of working excessive hours, countries should strive to reduce working hours through regulation, including collective bargaining. As the self-employed are not covered by working time regulation, additional policy interventions are needed to address the low levels of productivity and low incomes that lead to lengthened working hours.

- *Wage policies that support the valuation of key work.* Two labour institutions can lessen the wage gap between key and non-key employees and ensure that the wages of key workers better reflect their social contribution:

  - *Collective bargaining.* The key worker pay gap is smaller where collective bargaining systems are inclusive and widespread. Collective bargaining systems should be strengthened and their scope made more inclusive, thus allowing a broader population of employees to benefit from collective bargaining agreements.

  - *Statutory minimum wages* are another effective instrument for addressing the undervaluation of key work, given that key workers are over-represented at the bottom of the wage distribution. A first means of redressing their lower earnings is to ensure that all workers are covered by the minimum wage – agricultural and domestic work are sometimes excluded, for example. When setting minimum wages, governments and social partners should be mindful of the social contribution of key workers. Finally, compliance with minimum wages should be improved through stricter enforcement.

- *Extending social protection for a resilient workforce.* The COVID-19 pandemic made clear the importance of access to adequate social protection, especially paid sick leave and sickness benefits. Countries should adapt legal frameworks so that all workers, regardless of their employment status and contractual arrangement, are covered by social protection. Tailoring payment schedules and contribution levels to the circumstances of self-employed, part-time and temporary workers makes social protection systems more inclusive.

- *Training for an adaptive and responsive key workforce.* Training is a means of preparing workers for the tasks they perform, so that they can carry out their work effectively and safely, and for preparing workers for crisis situations. Training cannot be the sole responsibility of the worker; effective training systems require the active involvement of both workers' and employers' organizations, in addition to governments.

- *Turning law into practice through compliance and enforcement.* Policies, systems and programmes designed to promote labour, OSH, and social security laws, are undermined if adequate enforcement systems are not in place. Inspectors should be given wide evidence-gathering and enforcement powers, including to prohibit activities and order improvements or, if necessary, close facilities. Broad enforcement powers can more effectively address OSH hazards or labour violations.

Sectoral investments support key workers and enterprises

Investments in physical and social infrastructure in key sectors are a necessary condition for improving working conditions and strengthening business continuity. Such investments lay the foundation for creating resilient economies and societies with the capacity to withstand, adapt to and transform in the face of shocks and crises.

- *Investing in health and long-term care.* The negative effects of infectious diseases and associated health crises can be mitigated if health systems are well-resourced and adequately staffed. Unfortunately, shortfalls in access to adequate healthcare and health expenditures plague many parts of the world, especially low- and middle-income countries, which have the lowest service coverage rates and the highest shares of out-of-pocket expenditures. Adequate investments in health and long-term care are costly but pay off. The ILO estimates that increased spending to meet the United Nations Sustainable Development Goal targets on health would generate 173 million jobs. While the funding gaps in low-income countries are most acute, not addressing them is even more costly: during the 2014–16 Ebola pandemic, for example, international aid to combat the pandemic was greater than the sum required to establish universal healthcare in the most affected countries.

- *Investing in resilient food systems.* Recent crises have increased the vulnerability of food supply chains, affecting the availability and affordability of food, as well as the livelihoods of those in agricultural work. Agricultural workers are highly susceptible to income fluctuations, because of seasonality in production and the worsening of climate risks, but also because of food price volatility, which has increased since 2005. Counterbalancing measures include minimum guaranteed prices and insurance systems, including tailored actions to promote take-up by farmers. There is a need to adopt and strengthen insurance mechanisms, including social protection, while considering the specificities of this sector, such as a high prevalence of self-employment and contributing family work. Infrastructure investments would further support the productivity and sustainability of food systems. In addition to general investments in road, electrical, telecommunications and other infrastructure in rural areas, the private sector and governments have an important role to play in investing in midstream segments of food systems chains, such as processing, storage, and transport, which can increase access to markets and improve productivity.

- *Investing in sustainable enterprises.* Eighty-five per cent of key workers are in the private sector. Ensuring that enterprises have adequate resources and capacities is thus a prerequisite for attaining decent work for key workers, as well as for reinforcing the capacity of economies to maintain the delivery of key products and services during a crisis. During the COVID-19 pandemic, micro and small businesses, which are often informal, suffered due to their limited financial and human resources and access to credit and government support. These enterprises should be supported in transitioning to formalization. Strengthened investments in infrastructure, human resources and innovation are additional enabling factors that can improve productivity. Given the increasing risk of crises, enterprises should be included as active participants in government disaster management planning, as well as in the design of their own or their sectors' business continuity plans.

Social dialogue is needed to build resilience

Just as markets do not internalize environmental externalities, markets on their own have not been internalizing the fundamental economic and social contribution of key work. A deliberate process of shared assessment and planning through social dialogue is needed to strengthen the institutions of work and increase investment in key sectors in order to address underlying resilience risks within them. These strategic resilience dialogues could be organized at the national level as well as within specific sectors.

Governments and employers' and workers' organizations would benefit from coming together to institute an actionable road map for identifying and addressing specific deficits that can impede the delivery of key goods and services, whether in good times or bad. Like an insurance policy, such a strategy would more than pay for itself when the next crisis hits. This is one of the most important policy lessons to be drawn from the COVID-19 pandemic.

1

Who are the key workers?

Credit: © xavierarnau

Main findings

Credit: © KB Mpofu / ILO

Key workers are needed for societies to function. They work in food systems, healthcare, retail, security, manual trades, cleaning and sanitation, transportation, and as technicians and clerks.

The COVID-19 pandemic showed how much societies undervalue most key jobs, raising concerns about the sustainability of these essential activities, especially in the light of future shocks.

Key workers make up 52 per cent of the workforce. The share is lower in high-income countries (34 per cent), where economic activities are more diversified.

Women account for 38 per cent of all key workers globally, though they are the majority in health and retail.

We live in an age of crisis. Less than 15 years after the global financial crisis, the world suffered a global health pandemic that closed borders, brought financial despair and led to the loss of at least 7 million lives. While the consequences of the COVID-19 pandemic have been unprecedented, the frequency of crises we are experiencing is not. Global warming, political polarization, war, and the continued blights of poverty and inequality mark our every day.

But amidst the many hazards the world faces, societies must continue to function. The 8 billion people who inhabit the earth must be fed, clothed and housed. To do this, certain activities – "essential" activities – must go on. At the end of March 2020, 80 per cent of the world's population lived in countries with required workplace closures. These closures were a necessary restriction for inhibiting the spread of the virus, particularly at that early stage when there was still much to be learned about its transmission and severity. But among the hushed streets of cities and towns throughout the world, key workers left the safety of their homes to go to work. These workers produced, distributed and sold food, cleaned streets and buses to minimize the spread of the pandemic, ensured public safety, transported essential goods and workers, and cared for and healed the ill. These are the "key workers".

This report is about these key workers: their experiences of working during the COVID-19 pandemic, the health risks that they endured, both physical and mental, and their working conditions overall. But it is also broader. It is about raising awareness of the long-standing relevance of this key workforce in the light of the numerous crises – both present and future – that the world faces. It is about encouraging governments, employers' and workers' organizations, and broader society to take the steps necessary to prevent, prepare for and mitigate crises by valuing these workers for their contribution to society, by investing in the infrastructure, both physical and social, that the world needs, and by creating an enabling environment for the private sector and its workers, who account for much key activity, to thrive.

Improving the working conditions of key workers is central to these efforts. Working conditions – such as safety and health, collective voice and representation, job security, working time, earnings, social protection and access to training – are interconnected. Deficiencies in one domain lead to deficiencies in others. The COVID-19 pandemic brought to the fore the importance of occupational safety and health (OSH), and the centrality of the workplace to public health. In a world of recurring shocks, where essential activities cannot stop functioning, it is evident that workplace safety and health is not just a benefit to the individual, but to the organization for which they work, as well as to society at large. Recognizing this, the International Labour Conference declared in June 2022 that the Occupational Safety and Health Convention, 1981 (No. 155), and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), would be considered as fundamental Conventions, meaning that ILO Member States, regardless of the status of ratification of those Conventions, would henceforth be obliged to uphold the principles related to a safe and healthy working environment.

The COVID-19 pandemic demonstrated the importance of workplace safety and health … not just for the individual, but to the organization for which they work, and to society at large.

The objective of OSH – to prevent work-related injuries and diseases, and protect and promote the health of workers – has gained renewed importance on account of the pandemic, but also other challenges facing the world of work, such as heat stress[1] and the effects of climate change more broadly. Modern-day OSH regulation places prevention through risk elimination or mitigation at the centre of its efforts. But prevention is not limited to OSH; it applies to other working conditions that form the pillars of decent work. Preventing low wages, excessive hours, job insecurity, lack of voice, insufficient training and career paths through robust institutions of work prevents economic hardship, labour market segmentation, industrial strife and other social ills.

The ILO's Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205), recognizes that "decent work is essential to the resilience of societies" as it not only mitigates the impact of disasters, but also ensures the conditions for a successful recovery.[2] This has been true during the COVID-19 pandemic, as countries with stronger institutions of work – robust systems of

The **Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205)**, "provides guidance to Members on the measures to be taken to generate employment and decent work for the purposes of prevention, recovery, peace and resilience with respect to crisis situations arising from conflicts and disasters.

... the term 'resilience' means the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner ..."

social dialogue, labour administration, labour and social protection – could more readily attenuate the harmful effects of the pandemic, including better ensuring the continuity and quality of key services. Recommendation No. 205 calls for moving beyond humanitarian relief in disasters or conflicts so that countries make the broader investments in decent work necessary for resilient societies.

Unfortunately, as this report will show, key workers are, overall, in a more vulnerable position in the labour market. Despite delivering key goods and services that societies need for their everyday functioning, key workers face many decent work deficits, and these deficits are more pronounced than those faced by non-key workers. Consequently, this report calls for a revaluation of key work that reflects its social contribution, both as a matter of justice, but also to ensure the delivery of quality key services that are critical to society.

Revaluing key work to reflect its social contribution

> ***So often we overlook the work and the significance of those who are not in professional jobs, of those who are not in the so-called big jobs. ... [W]henever you are engaged in work that serves humanity and is for the building of humanity, it has dignity, and it has worth. One day our society must come to see this. One day our society will come to respect the sanitation worker if it is to survive, for the person who picks up our garbage, in the final analysis, is as significant as the physician, for if he doesn't do his job, diseases are rampant.***
>
> *Martin Luther King, Jr*[3]

Poor pay, unsafe working conditions and low social prestige characterize many key occupations. Despite their critical role in the functioning of economies and societies, as evidenced during the COVID-19 pandemic, key work is typically undervalued and not reflective of its social contribution. Wage-setting is a complex process that reflects demand for the good or service being provided, and the supply of labour, but also long-established social norms about occupational prestige and hierarchy.[4] As a result, the pay of many occupations is influenced by their social status, with some jobs degraded despite their social value. This can be seen clearly in the case of cleaning and sanitation work, which routinely scores at the bottom of indices of occupational prestige.[5] It is also the case in highly feminized occupations, particularly in care, which suffer from well-documented "care penalties" in terms of earnings.[6]

Basing wages on market-based calculations of the marginal productivity of labour eschews society's responsibility to value key work through better pay and other working conditions, quite apart from the near-impossibility of measuring marginal productivity, especially in services.[7] Indeed, "meeting market demand is not necessarily the same thing as making a truly valuable contribution to society".[8] In the early

months of the pandemic, in cities across the world, key workers were applauded nightly and extolled as heroes for the services they were providing, increasing the prestige of the work they do.[9] Turning this new-found appreciation of their fundamental value to economies and societies into better working conditions is the task that lies ahead.

Structure of the report

This introductory chapter begins by explaining the definition of key worker used in the report as well as the use of the term "essential" worker, both legally and during previous crises. It then provides a descriptive analysis of the socio-demographic profile of key workers. Though the profiles and working conditions of key workers have been the focus of numerous studies since the onset of the pandemic, most of these have been country- or region-specific, and often limited to selected occupations. Being global, this report presents findings from a more diverse set of workers, from countries at vastly different levels of economic development, and thus with different economic, social and demographic profiles.

Chapter 2 addresses the challenges of working during the pandemic, both for key workers and enterprises providing key goods and services. It begins with an empirical analysis of excess mortality between key and non-key workers, and among the different categories of key workers, and demonstrates the importance of OSH protocols in mitigating workplace safety and health risks. The second and third sections of the chapter draw on interviews conducted for this report with workers and small business owners in Argentina, Canada, Ghana, India, Kenya, Malaysia, Mexico, Peru, the Philippines, the Republic of Korea, South Africa and Türkiye, as well as secondary literature. The objective of the qualitative analysis is to draw insights from the lived experience of key workers and business owners during the pandemic by giving them a voice to explain the different demands they faced. It documents the physical and mental stress experienced by key workers during the pandemic, and how their experiences differed depending on their working conditions. The analysis of enterprises distinguishes between those firms that did well and those that did not, and the challenges they encountered in instituting OSH protocols.

Chapters 3 and 4 analyse the working conditions of key workers, focusing on seven domains that frame job quality: safety and health, the right to freedom of association and collective bargaining, contractual arrangements, working hours, wages, social protection, and training. The analysis is based on representative and harmonized labour force and household survey data from 90 countries. These surveys allow the identification of key workers, following the definition put forth in this chapter. Chapter 3 explains the importance of each of the domains and assesses the extent of deficits in these domains for key workers. As job quality is highly influenced by the work one performs, Chapter 4 details the working conditions in the eight broadly defined key occupational groups analysed in the report, highlighting the particular risks of specific key occupations. It shows that many key workers entered the pandemic already experiencing difficulties, which were heightened by the strain of working in the pandemic.

Chapters 5 and 6 turn to policy, providing guidance on how to ensure that the vital contribution of key workers to the essential functioning of economies and people's daily lives is recognized and valued accordingly, to support a more resilient world of work. Chapter 5 addresses the principal labour institutions – OSH, employment contracts, working hours, wage policies, social protection, training and labour inspection – that need to be strengthened to revalue key work, drawing on ILO standards and national practices. Chapter 6 explains how, in addition to strengthened labour institutions, a necessary condition for a more resilient world of work is investing in physical and social infrastructure in key sectors, especially in low-income countries where shortfalls are acute. The chapter looks specifically at the case of health-care, including long-term care, food systems and private enterprises. These investments ensure that the organizations – whether public or private – that supply these key services and goods have the means to fulfil their mission. Moreover, such investments yield significant economic and social returns.

Chapter 7 returns to the central argument that it is time for a revaluation of key work, through improvements in working conditions. It argues that the investments advocated in the preceding chapters are necessary and summarizes the policies needed to build resilience.

***

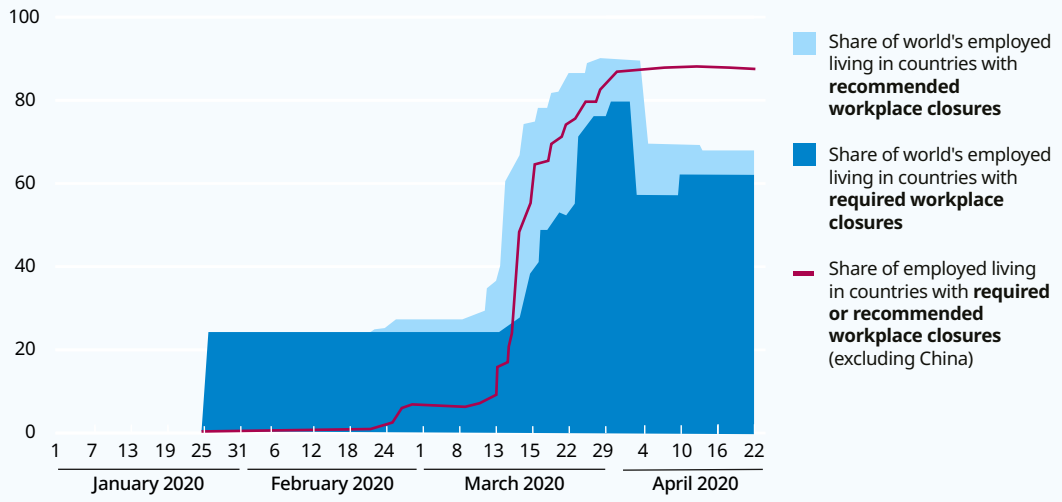
At the time of finalizing the report (autumn 2022), the pandemic had subsided to the extent that most restrictions around the world had been lifted. Thus, although the repercussions of the pandemic continue to be felt and there continue to be new cases of COVID-19 – and the risk of a reimposition of restrictions remains – the report refers to the pandemic in the past tense.

1.1. Defining key workers

At the start of the COVID-19 pandemic, countries cancelled large events or gatherings and tried to mitigate unnecessary human contact as much as possible to stymie the spread of the virus. At its peak in April 2020, nearly 80 per cent of the world's employed lived in countries with mandatory workplace closures and an additional 10 per cent lived in countries with recommended workplace closures (see figure 1.1). During the first year of the pandemic, more than 108,000 COVID-19-related international travel restrictions were put in place by countries, together with internal movement restrictions within countries.[10] The COVID-19 pandemic also interrupted international migration, slowing the growth in the stock of international migrants by around 2 million by mid-2020, or 27 per cent less than the expected growth.[11]

Despite these disturbances, some activities had to continue in order to meet societies' basic needs and functions. Therefore, most countries issued official lists that exempted certain workers who performed critical services from stay-at-home mandates, or that prioritized these workers for testing and eventually for vaccine access. These workers, commonly referred to as "essential", "frontline" or "key" workers, are the subject of this report. They cover a wide range of professions – from emergency medical technicians, to postal workers, to food vendors – including both wage workers and the self-employed, and with highly divergent working conditions. But they share the common attribute of engaging in a profession that serves the fundamental needs of societies and facing a greater risk during the pandemic of exposure to and illness from the virus by the mere action of leaving the safety of their home to perform their work.

Figure 1.1. Employment in countries with recommended or required workplace closures, January–April 2020 (percentage)



Note: The share of employed in countries with recommended workplace closures is stacked with those in countries with required workplace closures.

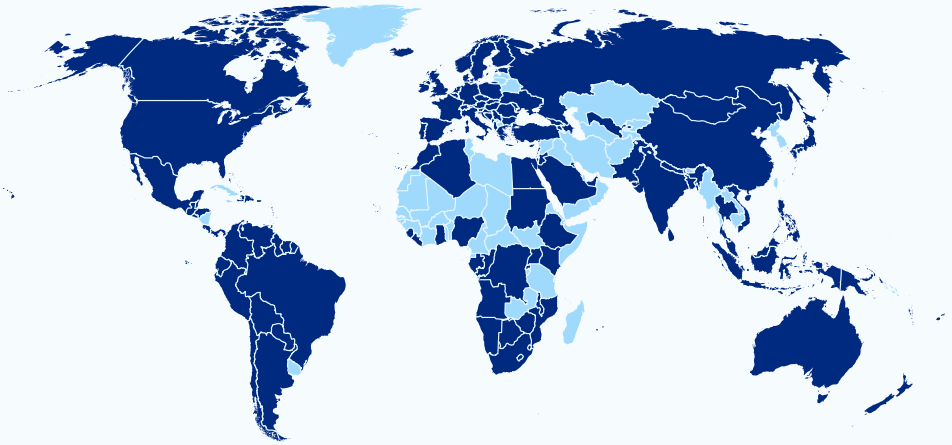
Source: "ILO Monitor: COVID-19 and the World of Work. Third edition", 2020.

Key workers in the COVID-19 pandemic

The definition of key workers in this report is derived from the lists issued by countries across the world at the beginning of the pandemic. In total, 126 countries issued lists in March–April 2020 designating those activities or services that had to continue to operate in spite of the pandemic (see figure 1.2).[12] While the lists varied in purpose, scope, and detail, there were important similarities across countries as to which services or activities were considered essential. This was true of countries in different regions of the world – Africa, the Americas, the Arab States, Asia or Europe – as well as between high-income, middle-income and low-income countries. Nevertheless, there were also differences, reflecting the structure of individual economies and geographies as well as political pressure by certain sectors to continue operations, particularly during subsequent waves of the pandemic.[13]

Most countries provided detailed lists of services that needed to continue operating, though in a few countries the lists were general, and in six countries the lists were limited to activities that were not permitted. In general, there was substantial overlap in the identified activities, which was not surprising given the need to guarantee that basic services and goods continued to be provided. Consequently, most countries included activities safeguarding access to food, water, electricity, sanitation and healthcare, and ensuring public order. The provision of such goods and services, however, implied that other activities came into the fold given their involvement in such provision. Thus, for example, no country denied the cruciality of food and agricultural production. But, in addition to the farmers who cultivate the land, ensuring adequate food provision also meant incorporating transport (to deliver the food to market), certain manufacturing activities (the factories that prepare processed food items), some retail sectors (the stores and street vendors that sell food, both fresh and processed), restaurants that prepare food for take-out, as well as delivery services (including platform workers) that deliver the food to consumers. Similar networks of production and exchange apply to healthcare. In addition to these services, most governments extended their list of essential services to include information and communication activities, financial activities, legal services and public administration. These services were necessary for the continuation of economic activity and indeed ensured that the basic needs listed above could be met. In all, there were 13 broad sectors that provide services considered essential in most countries (see table 1.1; see also the Appendix for further details on the methodology used to map the country lists).

Figure 1.2. Countries that issued lists in March–April 2020 designating "essential" activities



Note: The countries in dark blue are those that issued lists, those in pale blue are those that did not or for which information is not available.

Source: ILO compilation based on data from countries' lists of key activities during the pandemic.

Table 1.1. Sectors associated with essential services

Agriculture; forestry and fishing	Information and communication
Mining and quarrying	Financial and insurance activities
Manufacturing	Professional, scientific and technical activities
Electricity; gas, steam and air conditioning supply	Administrative and support service activities
Water supply; sewerage, waste management and remediation activities	Public administration and defence; compulsory social security
Wholesale and retail trade; repair of motor vehicles and motorcycles	Human health and social work activities
Transportation and storage	

Using the compiled sectoral lists (at the two-digit ISIC level), the next step was to identify the occupations in each of those sectors using the International Standard Classification of Occupations (ISCO-08). There were 40 such occupations at the two-digit ISCO level, 15 of which were considered teleworkable in most parts of the world. While many teleworkable occupations are critical to the functioning of economies and societies, the ability to work from home meant that the workers concerned were not exposed to the same health risks emanating from the pandemic as those whose jobs required physical presence. As the focus of the report is to derive lessons from the COVID-19 experience for Member States wishing to strengthen the resilience of their economies and societies to future shocks, the report concentrates on those workers who had to leave their homes to perform their work. Therefore, teleworkable occupations are excluded from the analysis,[14] and "key workers" are considered to be those working in the 25 non-teleworkable occupations in the sectors associated with essential services (table 1.1). These occupations are categorized into the following eight broad occupational groups: food systems workers; health workers; retail workers; security workers; manual workers (includes plant operators and warehouse workers); cleaning and sanitation workers; transport workers; and technicians and clerical workers (see figure 1.3).[15]

Figure 1.3. Non-teleworkable key occupations by broad occupational category

Note: See Appendix for details of the methodology.

The eight main occupational groups cover the principal services needed to maintain the basic functions of an economy and society, with one notable exception: education.[16] Quality education is the fourth United Nations Sustainable Development Goal and, like health, has long been considered necessary for the fulfilment of "basic needs" as it is a means for full participation in the social, cultural and political life of a community.[17] But in response to concerns from public health experts that schools were a primary source of community transmission of the COVID-19 virus, 188 countries instituted school closures in April 2020.[18] Likely as a result, only 19 countries designated educational services as "essential" during the early months of the pandemic. Most countries (90 per cent) adopted alternative means of providing continuous education using technologies such as the internet, television and radio, with teachers and students shifting to remote learning.[19] As education was designated as "essential" only by a small share of countries, and because there was a shift to remote learning in many countries, educational professions are not included in the definition of key workers for purposes of this report, notwithstanding wide recognition of their essential function in societies and economies.

The concept of key or essential work over time

The term "essential", "frontline" or "key" worker appeared in the daily lexicon at the onset of the COVID-19 pandemic and the resulting lockdowns which restricted or discouraged the movement of all but those considered vital for the core functions of the economy and society, namely "essential workers". While the concept of "essential work" was new to many, it had been used in the past, in reference to the requirement that certain tasks be carried out, either by permitting or, at times, compelling specific types of labour. In addition, it is used juridically with reference to restrictions on the right to strike for workers performing specific activities.

Though the concept of "essential work" is associated with the modern, industrial state, there are nonetheless examples of its use in pre-industrial times, reflecting the realization that specific services need to be delivered even in times of crisis. During the various iterations of the black plague in Europe between the fourteenth and seventeenth centuries, various city governments implemented quarantines, shut down economic activities, and granted exemptions only to residents who conducted critical work. Plague-era essential services included gravediggers to bury the dead, guards to enforce quarantine, nurses to serve at pesthouses and "searchers of the dead".[20] As with modern-day key services, the riskiest jobs were carried out by individuals who were economically vulnerable and desperately needed an income, such as widows and parish pensioners. During the bubonic plague in London (1665–66), many physicians, who were exclusively male at the time, did not risk examining contagious corpses and fled the disease-ridden city, which left the essential job of searching for the dead to women under economic duress.[21] In some cases, authorities took even less desirable steps, forcing some groups to undertake critical tasks that were extremely dangerous during plague outbreaks. City health officials in Marseille at the beginning of the eighteenth century, for example, purchased slaves from a quarantined ship to cart and bury corpses.[22] Similar "essential activities" were protected during the 1918–20 Spanish flu pandemic. In Java, the Dutch colonial government redirected workers from sugar cane and tobacco cultivation to rice production, in response to labour shortages and the heightened risk of famine.[23]

The concept of "essential work" was new to many during the COVID-19 pandemic, but it has been used in the past in reference to certain tasks that need to be carried out even in times of crisis, such as plagues or wars.

The designation of essential services was used more explicitly during the two world wars of the twentieth century. In the First World War, the British Government passed the National Registration Act to identify all occupations that "produce the necessary goods for civilian and military use", and people employed in these jobs were exempted from military service.[24] Among the industries that were deemed as essential were metals, mining, textiles, footwear, transport, agriculture, cement and brick production, chemicals, leather, flour milling and baking, public utilities and local government. The United Kingdom reintroduced laws regarding essential work during the Second World War with the Essential Work Order, which

Credit: © Carlos R Caballero

became law in 1941. According to this law, employers were forbidden to lay off workers whose jobs were considered essential for the war effort. Moreover, various skilled employees were exempted from military service if they held key occupations. Given the labour shortages, it became compulsory in 1941 for women to register for war work, and unmarried females were able to choose between working in the service sector or industry.[25]

In Germany, during the Second World War, various industries were declared essential to the war economy including the production of oil and non-ferrous metals, railway wagon construction, the chemical industry, and the manufacture of gunpowder and explosives.[26] Certain native workers, often in managerial positions and often skilled specialists, were considered indispensable for the economy and were thus exempted from military service.[27] In the United States, the Government distinguished between people who needed to be employed in key industries and those who should be recruited for military service. The Selective Training and Service Act of 1940 established the rules for exemption from military service based on occupation.[28] People working in the defence industry and labourers employed in factories providing necessary supplies as well as workers in industries that served national interests and public health were considered to be key.[29] Because of the high number of men called to serve in the war effort, there were labour shortages in key jobs, especially in ship-building, ammunition storage and machine-building factories. Subsequently, people of colour, women and persons with disabilities were encouraged to join the workforce and perform these critical tasks.[30]

One week following the Russian invasion of Ukraine in February 2022, the Ukrainian Ministry of Economy issued several decrees that reserved certain key workers from being mobilized into military operations for a period of six months to meet the needs of the Government and its defence operations, as well as the population at large. Among the categories of reserved workers were those in the military-industrial complex, the public sector (including state enterprises), agriculture, utilities, information and communications technologies, banks, trade, handicrafts, food processing of necessities (such as bread), and the pharmaceutical industry, as well as health professionals, drivers and railway workers.[31]

Legal definition of essential work

The other known use of the term "essential workers" is juridical, in reference to legal limitations imposed by many countries on the right to strike of workers performing essential services. Although the ILO's Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87), establishes the right of workers' and employers' organizations to "organize their administration and activities and to formulate their programmes" (Article 3), with a view to "furthering and defending the interests of workers or of employers" (Article 10),[32] countries have nonetheless restricted the right to strike for certain categories of "essential" workers. According to the ILO's Committee on Freedom of Association (CFA), such restrictions are valid only "for public servants exercising authority in the name of the State", "in the event of an acute national emergency for a limited period of time", or if the interruption of service "could endanger the life, personal safety or health of the whole or part of the population".[33]

The CFA "has called attention to the abuses that might arise out of an excessively wide definition in the law of the term 'essential services' and suggested that the prohibition of strikes should be confined to services which are essential in the strict sense of the term",[34] defined as "services whose interruption could endanger the life, personal safety or health of the whole or part of the population".[35] Typically this is associated with the provision of services that meet basic needs including utilities (water, electricity, gas, telephone),

public safety (fire, police, armed forces, prisons) or health. The Committee has acknowledged that "a non-essential service may become essential if a strike lasts beyond a certain time or extends beyond a certain scope",[36] as could be the case for sanitation services, for example.

On several occasions, the CFA has issued positions critical of overly broad definitions of essential services employed by ILO Member States, including in reference to radio and television services, the metal and mining sectors, computer services for the collection of excise duties and taxes, government printing services, state monopolies on alcohol, salt and tobacco, airline pilots, hotel services, auto manufacturing, as well as agricultural activities, including the supply and distribution of foodstuffs.[37]

During the COVID-19 pandemic, some countries distinguished between the concept of essential services in reference to limitations on the right to strike and "essential services" in the pandemic. For example, when the Malaysian Government instituted its first Movement Control Order in March 2020, it clarified that the list of "essential" sectors and services was different from that under the First Schedule of Malaysia's Industrial Relations Act, 1967, which relates to restrictions for lockouts and strikes. Instead, the pandemic list of essential sectors and services allowed to operate during the lockdown was gazetted in the Prevention and Control of Infectious Diseases (Measures within the Infected Local Areas) Regulations 2020.[38]

During the COVID-19 pandemic, some countries enacted broad emergency measures to restrict the right to speech, assembly and association, including the right to strike.

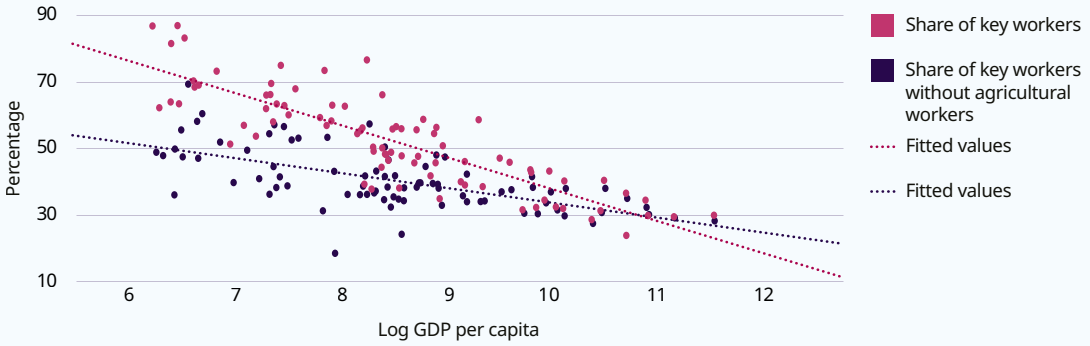
Nevertheless, some countries enacted broad emergency measures to restrict the right to speech, assembly and association, including the right to strike, during the COVID-19 pandemic. In March 2020, Portugal ordered striking port workers back to work, arguing that the ports were vital to the production and supply of essential goods and services to the population.[39] In February 2022, following a series of strikes in the health and electricity sectors in Sri Lanka amid a severe economic crisis, the President invoked a 1979 law prohibiting stoppages in the two sectors, declaring all related work "essential public services".[40] Some countries have formally registered derogations from their treaty obligations to respect freedom of association, including Ecuador and Estonia (to Article 22 of the International Covenant on Civil and Political Rights) and Albania (to Article 11 of the European Convention on Human Rights).[41]

Because of the association of "essential services" with restrictions on the right to strike, this report uses the nomenclature "key workers".

1.2. How many key workers are there and what are their characteristics?

Key workers account for a large share of the world's labour force. For the 90 countries for which there are data, the share of key workers ranges from a high of 87 per cent in Mozambique to a low of 24 per cent in Israel, with an average of 52 per cent across all the countries.[42] As figure 1.4 demonstrates, in general, the higher the level of income of a country, the lower the percentage of workers in key occupations. This is not surprising given that, in many low- and middle-income countries, agriculture continues to be an important part of economic activity and a dominant occupation. Nonetheless, as can be seen from figure 1.4, the negative relationship holds even after agricultural workers are excluded. With economic development, the structure of economic activities diversifies, with more people employed in non-key sectors – such as finance, insurance and real estate or arts, entertainment and recreation – that do not fall under the categorization of key work. As a result, with increases in income, there is an overall decline in the share of key workers (see figure 1.5), which holds even when agriculture is excluded.

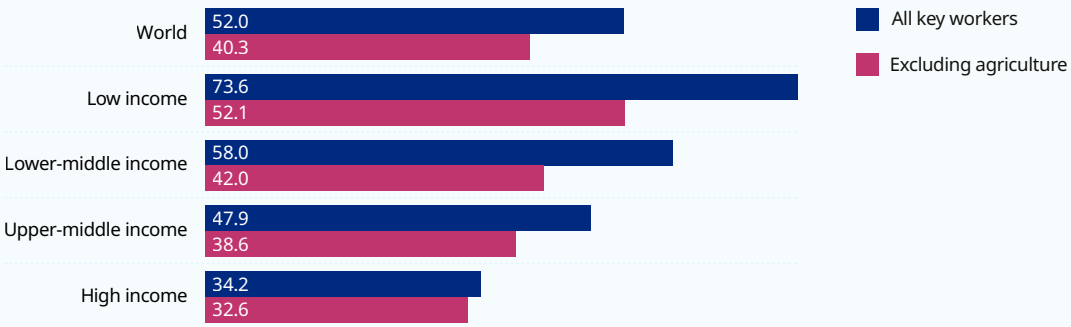
Figure 1.4. An inverse relationship between level of income and share of key workers



Note: The figure is based on a bivariate regression between key employment share and gross domestic product (GDP) per capita (constant 2015 US dollars).

Source: ILO calculations based on surveys listed in the Appendix.

Figure 1.5. Key workers among employed population by country income group, with and without agriculture (percentage)

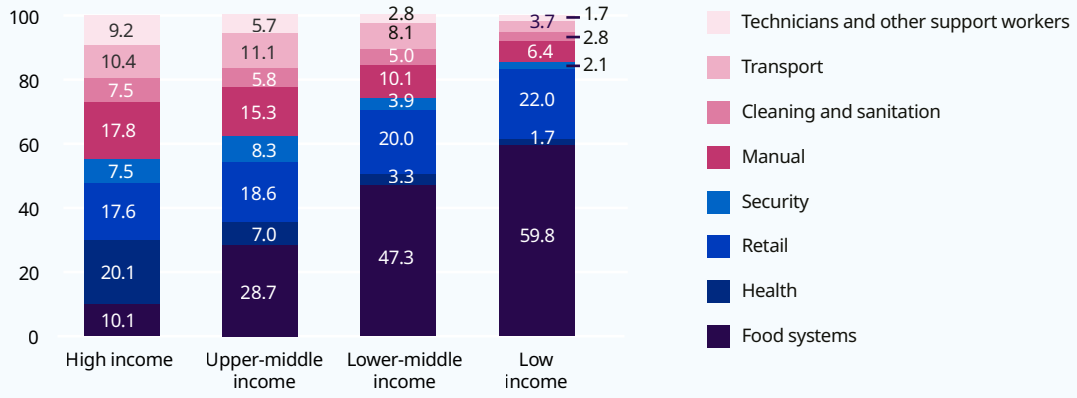


Source: ILO calculations based on surveys listed in the Appendix.

In addition, there is a shift in the types of occupations that become most prevalent in key work, particularly towards healthcare, cleaning and sanitation, manual work (manufacturing and warehouses), and work as technicians and clerks. Whereas less than 2 per cent of key workers are engaged in healthcare in low-income countries, the share jumps to nearly 20 per cent for high-income countries (see figure 1.6). But even within occupational groups, there is a shift in occupations. For example, the food systems category includes the value chain of food production from subsistence farmers, fishers, hunters and gatherers (ISCO 63), to market-oriented skilled agricultural, forestry, fishery and hunting workers (ISCO 61 and 62) and labourers (ISCO 92), to food preparation assistants (ISCO 94). Nearly 40 per cent of key food systems workers in low-income countries are classified as subsistence farmers (ISCO 63), with the share of subsistence farmers among key workers highest in Angola, Ethiopia, Mozambique and Nigeria. In contrast, in high- and upper-middle-income countries, the share is just over 10 per cent. Similarly, food preparation assistants account for 7 per cent of food systems workers in high-income countries, whereas their presence in low-income countries is negligible (0.1 per cent).[43]

While subsistence farming may seem outside the scope of key work as it concerns family provision, it is important to bear in mind that, in practice, workers classified statistically as "subsistence farmers" often engage in market activities, particularly during harvest time when they sell excess produce, in addition to recurringly performing work as agricultural labourers or as homeworkers in goods production.[44]

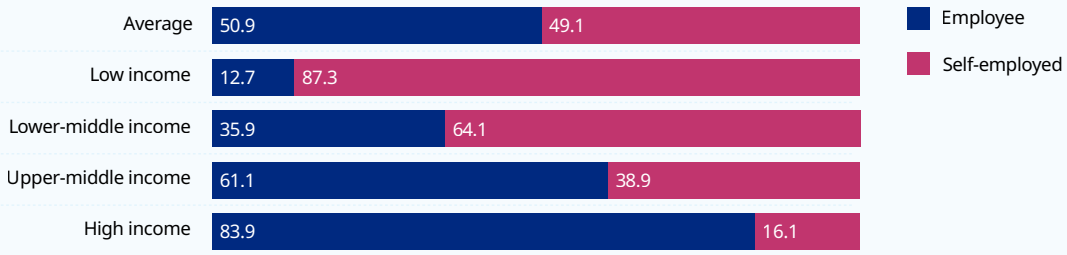
Figure 1.6. Distribution of occupations among key workers by country income group (percentage)



Note: Due to data limitation, the "technicians and other support workers" category includes key personal service workers (ISCO code 51), including those who fall under other occupational groups (for example, food systems workers, such as cooks).

Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Figure 1.7. Employment status of key workers by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Indeed, studies from Ethiopia and Nigeria demonstrate that these other economic activities are critical for securing their livelihoods.[45] Thus subsistence farmers typically blur the lines between agricultural production for self-consumption and market orientation.

Moreover, subsistence farmers and agricultural labourers can grow in number during times of economic downturn as the sector often acts as a refuge for return migrants. This has been the case in India, where more than 11 million urban migrants returned to the countryside following the imposition of a strict lock-down at the end of March 2020.[46] While not all of these workers turned to agricultural work, many did, given the need to maintain their livelihoods in the absence of robust social protection systems.[47] A similar outcome could be found among street vendors (retail), as many workers who lost their jobs during the pandemic turned to street vending as a means of earning a living. Consequently, some key occupations, particularly in the global South, play a double role in both contributing to the provision of society's basic needs and helping to support the livelihoods of individual workers and their families.

On average, 51 per cent of key workers are wage and salaried while the rest are self-employed (see figure 1.7). Nonetheless, there are crucial differences across income groups: in high-income countries, most key workers are employees (84 per cent), whereas the opposite is true for low-income countries,

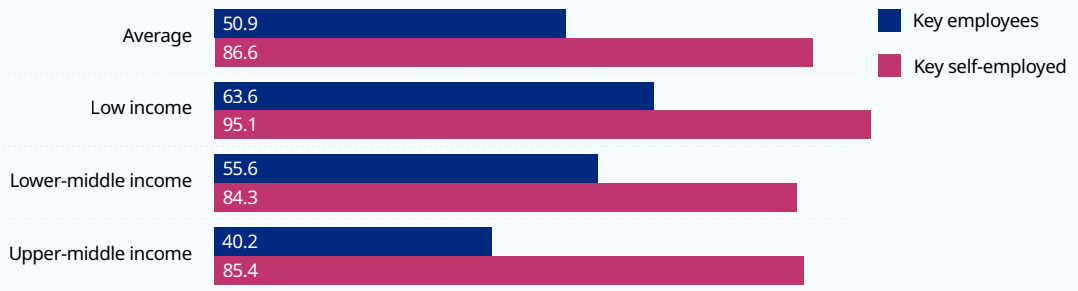
Many of the rights and benefits bestowed on workers are absent when a worker is self-employed.

where more than 87 per cent of key workers are self-employed. In high-income countries, agriculture and, to a lesser extent, transportation are the two main economic activities in which self-employment is common. In contrast, in low-income countries, self-employment is the dominant type of employment among key workers in all occupational groups except health and security.

The distinction in employment status – employees versus self-employed workers – is critical, as the employment relationship remains the gateway to employment, labour and social protection in most legal systems of the world.[48] Many of the rights and benefits bestowed on workers are absent when a worker is self-employed. Workers who are self-employed (or own-account) are not covered by protections on working hours or minimum wages, and generally do not benefit from OSH protections, access to training or social protection. The right to freedom of association and collective bargaining, while recognized by the CFA as applying to all workers regardless of their status, is also not universally applied.[49] It is for this reason that there are concerns about the growth in disguised employment relationships, which can nullify or attenuate the protection afforded to workers by law.[50] The distinction between employment statuses had important consequences during the COVID-19 pandemic, as it determined the amount of protections that workers could rely on to mitigate the strain of working as a key worker.

In developing countries, informality is a common feature of key workers, especially among the self-employed. Informality, as defined by the ILO, includes employees holding informal jobs, contributing family workers, and own-account workers, employers and cooperative members operating in the informal sector.[51] On average, in developing countries, nearly 87 per cent of key self-employed workers have informal status; in low-income countries, 95 per cent are informal. For key employees, the distribution is less skewed but nonetheless worrisome, as 51 per cent work informally. Once again, low-income countries have high rates of informality, with 64 per cent of key employees working informally; in upper-middle-income countries, the share falls to 40 per cent, which is still high (see figure 1.8). It is important to note that, while agriculture is highly informal, excluding it from the analysis only reduces the rate of informality among key employees to 46 per cent on average, suggesting the pervasiveness and challenge of informality in developing countries. Yet, despite its pervasiveness, some informal workers faced difficulties with the authorities when they continued working during the pandemic lockdowns. As countries' lists concerned the essential goods and services that needed to be provided – rather than the occupations that performed them – in countries with substantial shares of informal workers, there was at times a grey area as to whether informal workers would be allowed to work (see box 1.1).

▶ **Figure 1.8. Informality of key workers (employees and self-employed), developing countries (percentage)**



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Box 1.1. Lack of recognition of some informal workers as key workers

Informal workers make up around 60 per cent of the global workforce, and in some parts of the developing world the percentage is even higher.[1] Many informal workers provide goods and services that were classified as "essential" during the pandemic, such as in food, sanitation, care and transport, which should have allowed all workers in these sectors to perform their jobs despite the restrictions imposed. Nonetheless, compared to their formal counterparts in the same sectors, informal workers faced extensive obstacles, exacerbating the challenges they had already faced before the pandemic.

The lists of key sectors across different countries varied in their levels of specificity. Due to the informal nature of their work, informal workers often fell into a grey area that COVID-19 mandates overlooked. For example, while informal workers such as street vendors were explicitly classified as key workers in many African countries, in many Latin American countries the rules were ambiguous. Their recognition as key workers also varied across different sectors. As a result, some informal workers had to organize and lobby for the official codification of their status as key workers in order to guarantee their right to work during the pandemic. While some eventually received that recognition, by 2022 waste pickers in India still had not been recognized as key workers.

Even when they were recognized as key, informal workers could still face trouble working, as implementation relied on the discretion of the local authorities. A WIEGO study across 11 major cities worldwide during the pandemic found that some informal workers needed to obtain additional permits, which often involved extensive interaction with the local authority. Moreover, permission to perform the job did not explicitly include other activities needed to do so, such as obtaining ingredients, leading at times to confrontation with the police. As a result, the study found, for example, that 95 per cent of respondents who were food vendors in South Africa could not continue working in April 2020 due to market closures or restrictions on travel.[2]

Even prior to the pandemic, informal workers were less likely to be protected than others and often faced eviction and confiscation of their property. The pandemic restrictions exacerbated existing tensions, escalating the harassment they routinely encounter from security and police. The pandemic also aggravated other existing difficulties faced by informal workers. Since incomes declined during the pandemic, there was less demand for goods and services provided by informal workers. The restrictions on travel also limited the movement of customers and increased the costs for informal workers to operate. The decrease in daily cash flow had a more detrimental impact on informal workers as they have less access to formal sources of credit, including government support.

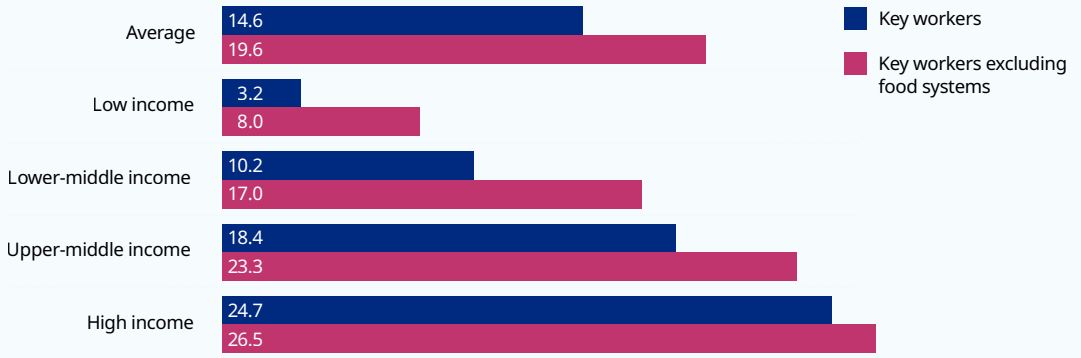
[1] Bonnet, Vanek and Chen, 2019.

[2] Alfers et al., 2022.

Source: Orleans Reed, 2022.

Lastly, key workers are employed predominantly in the private sector. On average, just under 15 per cent are employed in the public sector, compared with 24 per cent for non-key workers (figure 1.9). Nevertheless, public employment of key workers varies greatly between countries, with a mere 3 per cent of key workers employed in the public sector in low-income countries, compared with 25 per cent in high-income countries. This situation reflects both the small size of the public sector in low-income countries (which in turn reflects significant differences in the share of tax revenues as a percentage of national income), as well as the dominance of agriculture in low-income countries (food production and distribution being almost entirely private). Even when food systems workers are excluded, however, the share of public employment among key workers in low-income countries rises to only 8 per cent,

Figure 1.9. Share of public employment among key workers by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

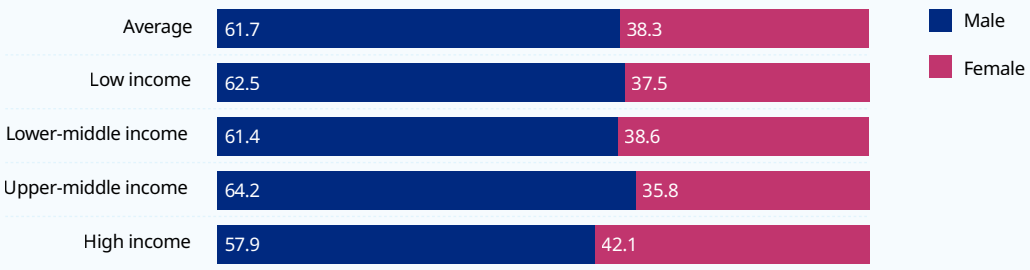
which is well below the world average of 19.6 per cent. Low levels of public investment in healthcare in many low-income countries (see section 6.1) translate into low shares of key health workers. Indeed, key health workers constitute just 2 per cent of all key workers in low-income countries, compared with 20 per cent in high-income countries.

Socio-demographic characteristics of key workers

Because key workers constitute a sizeable proportion of the labour market, especially in low-income countries, there are similarities between the demographic profile of key workers as a whole and the overall working population – though also some distinctions, especially when disaggregated by occupational group or country income level.[52]

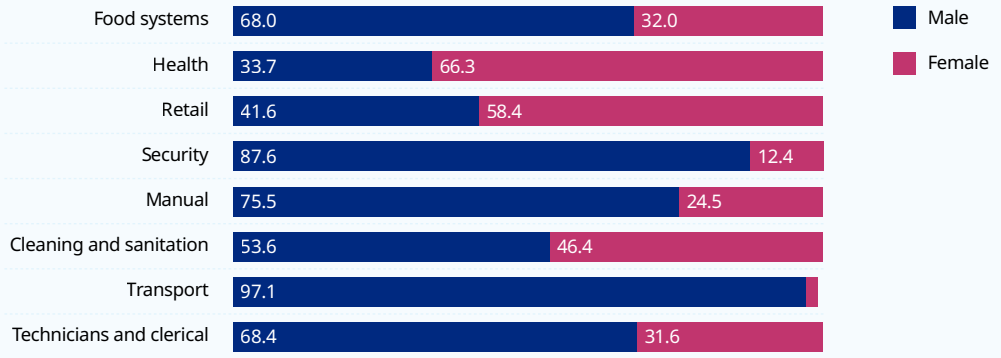
Globally, women are under-represented among key workers, comprising 38.3 per cent of all key workers, while they account for 42 per cent of non-key workers. This figure includes contributing family workers, but not other types of unpaid work undertaken by women. Nevertheless, women's representation in key work in the 90 countries for which there are data is lower, overall, than that of men's, reflecting the lower shares of female participation in some regions as well as their scant representation in some key occupations. High-income countries have relatively higher shares of female key workers, at roughly

Figure 1.10. Sex of key workers by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Figure 1.11. Sex of key workers by occupational group, percentage average across countries



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Figure 1.12. Age distribution of key workers by country income group (percentage)

Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

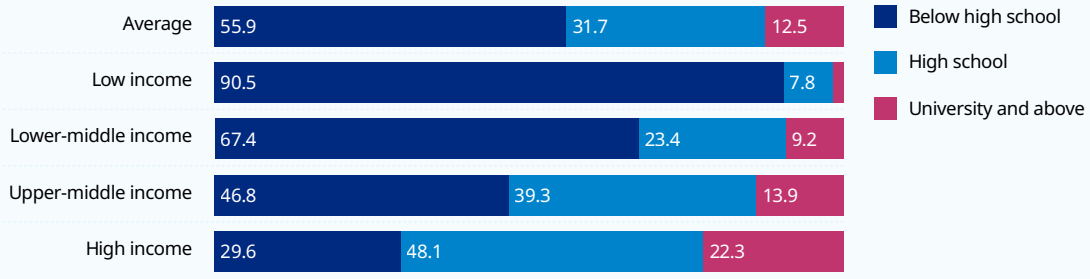
42 per cent, compared with upper-middle-income and low-income countries, where women's employment as key workers is 4 to 5 percentage points lower (see figure 1.10). Because occupational and industrial sex segregation continues to be an important feature of labour markets around the world, the relative importance of occupations that are male- or female-dominated in a country's employment structure affects the percentage of women in key employment.[53] In health and retail, women constitute the majority of key workers, at 66 and 58 per cent, respectively, whereas in occupational groups such as security and transport there are few women (see figure 1.11).

The age distribution of key workers reflects the age distribution of labour markets around the world. On average, more than 71 per cent of key workers are between the ages of 25 and 54 (figure 1.12). While key workers in low-income countries have a slightly higher share of youth, the opposite holds for high-income countries, where the proportion of older workers is above the average. Moreover, the same pattern is observable for non-key workers, reflecting the demographic structure of these countries. For example, in Ethiopia and Guatemala, where the median age of the population is 20 and 23 years old, respectively, more than 31 per cent of all key workers are aged 15 to 24. In contrast, in Greece and Slovakia, the share is below 5 per cent, with the median age in these countries at 46 and 41 years old, respectively.[54]

Average educational qualifications of key workers across the sample of 90 countries are below those of their non-key counterparts at every level of economic development. On average, 12.5 per cent of key workers have at least some tertiary education, compared with nearly 28 per cent of non-key workers (figure 1.13). As the logit analysis in box 1.2 shows, less-educated workers have a greater chance of being a key worker, independent of their country's income level. Nevertheless, there are important distinctions in educational attainment between countries. In low-income countries, 91 per cent of key workers have an education level below high school, compared with just 30 per cent in high-income countries; the ratio of tertiary education follows a similar pattern. However, the data also show that, even in occupational groups such as retail, transportation, cleaning and sanitation, and manual labour – that generally do not require advanced skills[55] – between 6 and 11 per cent of key workers have a university degree. According to the ILO, 258 million people around the world are overeducated for the jobs they are performing.[56] The incidence of education mismatches differs from country to country, but there are negative impacts of such mismatch in terms of earnings, job satisfaction and lost investment, both in developed and developing countries.[57]

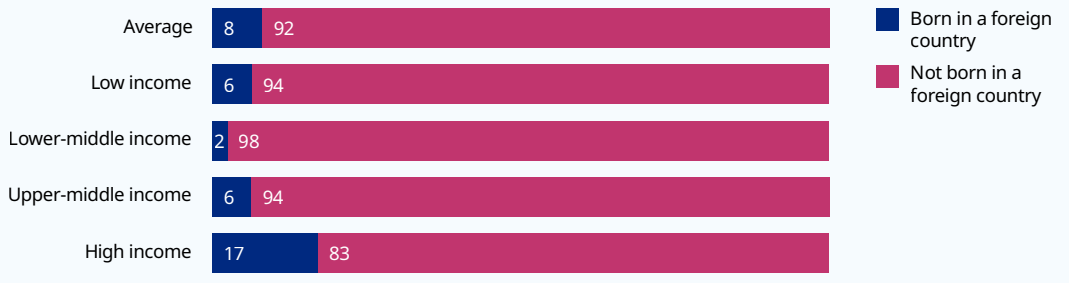
The pandemic highlighted the important role of international migrants in delivering key services. As figure 1.14 shows, nearly one in five key workers in high-income countries was an international migrant. Migration status is derived from the responses in household surveys on whether the individual is foreign-born; although an imperfect measure, it allows standardization across many countries. As the figure shows, on average, the share of foreign-born key workers is 8 per cent, though it is much smaller in lower-middle-income countries, at 2 per cent. There are also important distinctions by locality. In Europe, for example, the share of migrant workers is around 14 per cent, but in certain capital cities, like Brussels, it can reach 50 per cent.[58] The presence of international migrants across occupational groups differs as well. While in security, on average, less than 5 per cent of individuals employed in key sectors are migrants, in cleaning and sanitation their share exceeds 10 per cent on average. In high-income economies, the proportion of migrant key workers in cleaning and sanitation reaches 26 per cent.

Figure 1.13. Educational level of key workers by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Figure 1.14. Share of international migrants in key work by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Box 1.2. Socio-demographics and likelihood of employment in key jobs

Table B.1 demonstrates the likelihood of working in key occupation and sectors by sex, age, education, and migrant status. The results are based on a pooled sample of 49 countries.

Sex has a statistically insignificant relationship to being a key worker for the total sample, yet the effects are diverse across countries. In high- and low-income countries, being a woman increases the likelihood of employment as a key worker, whereas in middle-income countries the correlation is negative but insignificant. The diverse findings can be largely attributed to differences in female labour force participation and the occupational structure across countries. With respect to age, being prime-aged increases the probability of employment in key jobs only in low-income countries, while being older has the same effect in low- and middle-income countries. Less-educated workers, as opposed to individuals with high-school or university qualifications, have a greater chance of being a key worker, with the relationship holding independent of country income level. Migrant status is positively associated with being a key worker in high-income countries, whereas the association is negative in upper-middle-income countries.

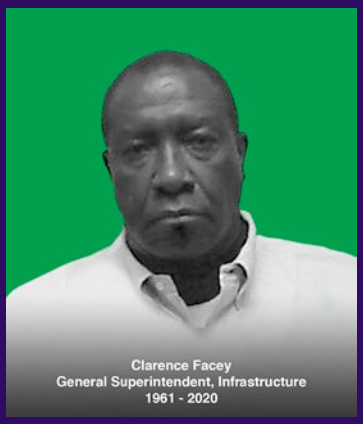
▶ **Table B.1. Relation between employment in key jobs and socio-demographic characteristics by country income group** (result from logistic regressions)

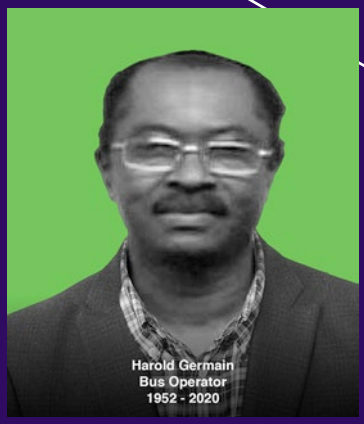
	All	High income	Upper-middle income	Lower-middle income	Low
Female	–0.1	0.13**	–0.26	–0.3	0.28*
	(0.14)	(0.01)	(0.22)	(0.26)	(0.08)
Male	Ref.	Ref.	Ref.	Ref.	Ref.
Young	Ref.	Ref.	Ref.	Ref.	Ref.
Prime	0.08	0.03	–0.03	0.22	0.18*
	(0.1)	(0.02)	(0.03)	(0.22)	(0.08)
Older	0.24	0.03	0.28*	0.6*	0.5**
	(0.14)	(0.04)	(0.12)	(0.28)	(0.14)
Below high school	Ref.	Ref.	Ref.	Ref.	Ref.
High school	–0.59**	–0.28**	–0.36**	–0.75**	–1.41**
	(0.07)	(0.07)	(0.03)	(0.11)	(0.19)
University and above	–1.36**	–1.01**	–1.3**	–1.74**	–2.22**
	(0.12)	(0.15)	(0.07)	(0.12)	(0.19)
Migrant status	0.02	0.08*	–0.5**	0.44	–0.4
	(0.05)	(0.04)	(0.16)	(0.19)	(0.3)
Non-migrant	Ref.	Ref.	Ref.	Ref.	Ref.
Country dummy	Yes	Yes	Yes	Yes	Yes
Year dummy	Yes	Yes	Yes	Yes	Yes
N	2435976	1395768	613022	395125	32061

Note: "All" includes pooled logit results from 49 countries with clustered standard errors. "High income" includes 14 countries, "upper-middle income" includes 15 countries, "lower-middle income" includes 17 countries, and "low income" includes 3 countries. Standard errors are shown in parentheses. * $p<0.05$, ** $p<0.01$

Notes

1 ILO, 2019f.
2 La Hovary, 2022.
3 Martin Luther King, Jr., "All labor has dignity", Memphis, TN, 18 March 1968.
4 Grimshaw and Rubery, 2007.
5 Van Drie and Reeves, 2020.
6 ILO, 2018a; Folbre, Gautham and Smith, 2021.
7 Grimshaw and Rubery, 2007.
8 Sandel, 2020.
9 De Camargo and Whiley, 2020.
10 IOM, 2021.
11 UNDESA, 2021.
12 Many countries revised their lists, issuing new versions during different waves of the pandemic. This analysis considers activities specified in the first lists issued in March–April 2020.
13 Many countries introduced exemptions to established mobility restrictions to allow the international movement of workers in specific sectors in the light of food security concerns.
14 ILO, 2021r, addresses teleworkers in the COVID-19 pandemic.
15 The Appendix gives the two-digit occupations in these eight broad categories.
16 Except for education, all other services for the community at large identified for the fulfilment of basic needs, such as safe drinking water, sanitation, public transport and health, were included. See ILO, 1976.
17 ILO, 1976.
18 By September 2020, the extent of school closures, especially in Europe and Asia, had decreased, and teaching professionals who needed to commute to work were exempt from movement restrictions. See UNICEF, n.d.
19 Through remote tools, educational institutions were able to reach nearly 70 per cent of students across the world, though arguably not at the same level of quality as in-person classes (UNICEF, n.d.).
20 Siena, 2020.
21 Munkhoff, 1999.
22 Bradley, 2011.
23 Gallardo-Albarrán and de Zwart, 2021.
24 Dewey, 1984.
25 Wagner, Osborne and Reyburn, 2007.
26 Milward, 2015.
27 Echternkamp, 2015.
28 In addition to occupation, the other criteria for exemption were dependency and being unfit for military service.
29 Gropman, 1996.
30 Graves, 2020.
31 Ministry of Economy of Ukraine, n.d.
32 ILO, 1996.
33 ILO, 2015.
34 ILO, 1973, para. 109.
35 ILO, 2018c, para. 779.
36 ILO, 2018c, para. 837.
37 Knäbe, 2019.
38 Lean, 2022.
39 Subansinghe and Vogt, 2020.
40 Al Jazeera, 2022.
41 Subansinghe and Vogt, 2020.
42 Global estimates are obtained from a sample of 90 countries that have detailed ISIC and ISCO codes in their labour force, or equivalent surveys, between 2012 and 2019.
43 These estimates at the detailed ISCO code level are based on the national data sources listed in table A6 in the Appendix, with the exception of Australia, China, India, the Russian Federation and Ukraine.
44 ILO, 2021r.
45 Sibhatu and Qaim, 2017; Babatunde and Qaim, 2010.
46 Pasricha, 2021.
47 Dev and Rahul, 2022.
48 De Stefano et al., 2021.
49 ILO, 2018c.
50 ILO, 2016c; Vermeylen et al., 2017.
51 For more details on the definition of informality and how it is measured in labour force surveys, see ILO, n.d.(d).
52 The results in the analysis that follows also hold when food systems workers are excluded from the descriptive analysis. Hence, the socio-demographic characteristics of key workers are not driven by a single occupational group.
53 ILO, 2016d.
54 Worldometers, n.d.
55 For an overview of skill requirements by occupation, see ILO, n.d.(c).
56 ILO, 2020t.
57 Cultrera et al., 2022; Darko and Abrokwa, 2020.
58 OECD, 2020a.



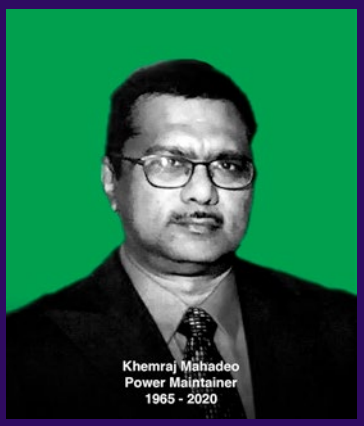


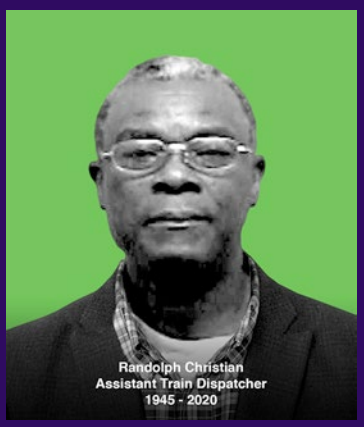
TRAVELS FAR

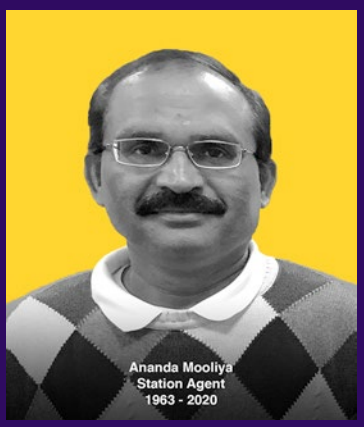
What you gave—
brief tokens of regard,
soft words uttered
barely heard,
the smile glimpsed
from a passing car.

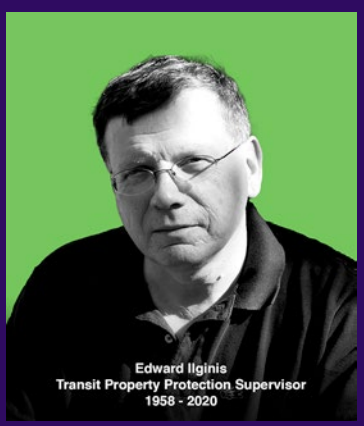
Through stations
and years, through
the veined chambers
of a stranger's heart—
what you gave
travels far.

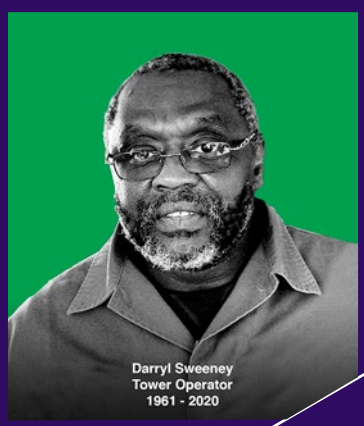
—Tracy K. Smith











2

The risk and strain of working during the COVID-19 pandemic

TRAVELS FAR (2020) © MTA Arts & Design. A Memorial Honoring MTA Employees Lost to COVID-19. Sandra Bloodworth, Artist; Tracy K. Smith, Poet; Chris Thompson, Composer.

Main findings


Credit: © volkerpreusser

Key workers suffered higher mortality rates from COVID-19 than non-key workers.

Among key workers, transport workers had the highest rates of excess mortality from COVID-19.

Formally employed workers with job security and union representation were better able to accommodate the increased demands and risks of working during the pandemic.

Key enterprises encountered difficulties in operating during the pandemic due to disrupted supply chains, financial uncertainty and the challenges of complying with emergency safety and health guidelines.

At the onset of the COVID-19 pandemic, the workplace was identified as a critical potential vector of transmission of the COVID-19 virus, leading most countries across the world to recommend remote work whenever possible.[1] Key workplaces that had to continue operating were often identified as sources of transmission.[2] In the meat packing industry alone, there were documented outbreaks in the early months of the pandemic in Australia, Argentina, Brazil, Canada, China, Denmark, France, Germany, Ireland, Italy, the Netherlands, Poland, Spain, the United Kingdom and the United States. It thus became clear that safe and healthy work was not just of concern to employers and workers, but to public health in general.

This chapter analyses the impact of the COVID-19 pandemic on workers' safety and health, both physical and mental, as well as the challenges enterprises faced in operating during the pandemic. Working during the pandemic was fraught with challenges. While the most obvious challenge was the increased likelihood of exposure to the COVID-19 virus, and thus greater risk of illness or death, there were few aspects of people's daily working lives that were not upended by the pandemic. This chapter probes the different sources of job strain faced by workers – physical risks, social isolation, work intensity, adverse social behaviour – as well as the organizational pressures that enterprises endured, including financial distress and uncertainty. Understanding the effects of the COVID-19 pandemic on key workers and enterprises is an important first step in designing and strengthening workplace health and safety programmes and other supportive policies and institutions that can assist workers and employers, whether in good times or bad.

2.1. Illness and morbidity among key workers in 2020

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2 virus) is transmitted directly through respiratory droplets and airborne aerosols, and indirectly through contact via contaminated surfaces. Although much remains to be learned about the mechanisms of transmission, the evidence indicates that avoiding contact with other human beings inhibits the spread of the infection.[3] However, most key workers cannot avoid contact with other human beings as they must continue their day-to-day activities so that society can be fed, cared for, live in security and go from place to place when needed (even during lockdowns). As a result, key workers were more exposed to COVID-19 than those who could telework, or otherwise stay at home, in relative safety from the pandemic.

Figure 2.1 provides evidence demonstrating the greater degree of exposure to disease or infection among key workers in the United States. Using O*NET data, a database of occupational characteristics for the US economy, the figure shows potential exposure to disease or infection by two-digit ISCO occupation codes in relation to workers' physical proximity to others during work activities. The size of the bubbles is proportional to the number of workers in each two-digit occupation. The figure shows clearly that key occupations (dark blue) are those most exposed to disease and working in closest proximity to others.[4] Health professionals, health associate professionals, personal care workers and protective service workers dominate all other occupations in the sense that they are more exposed to disease and work in closer proximity to people than any other occupational category. These four occupational categories are almost exclusively composed of key workers.

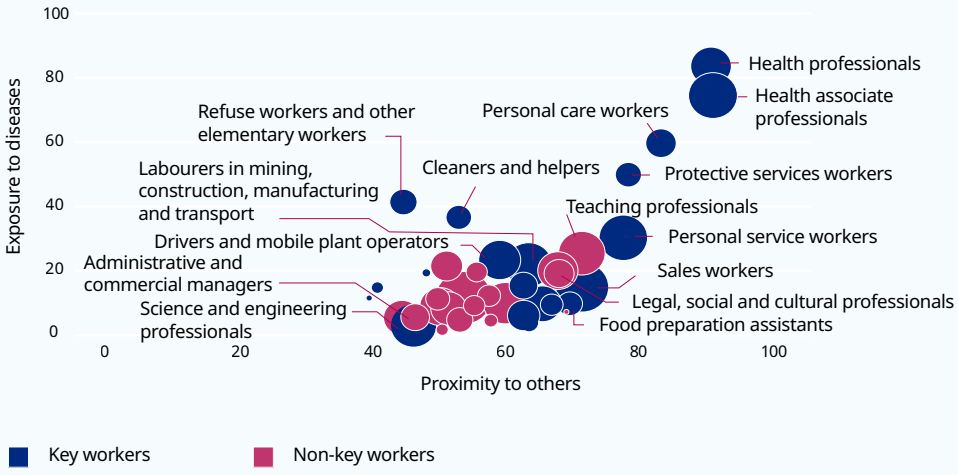
Nevertheless, greater exposure may not necessarily translate into worse health outcomes – particularly mortality. Whether the higher exposure intrinsic to each occupational category was counterbalanced by stricter security protocols and the use of protective equipment is an empirical question, to be answered by looking at mortality data.

Large-scale data on mortality from COVID-19 often rely on the concept of excess death rate, defined as the difference between the observed numbers of deaths in specific time periods and expected numbers

of deaths in the same time periods. This measure avoids problems of misdiagnosis and misreporting of COVID-19 deaths, which were particularly prevalent at the beginning of the pandemic.[5]

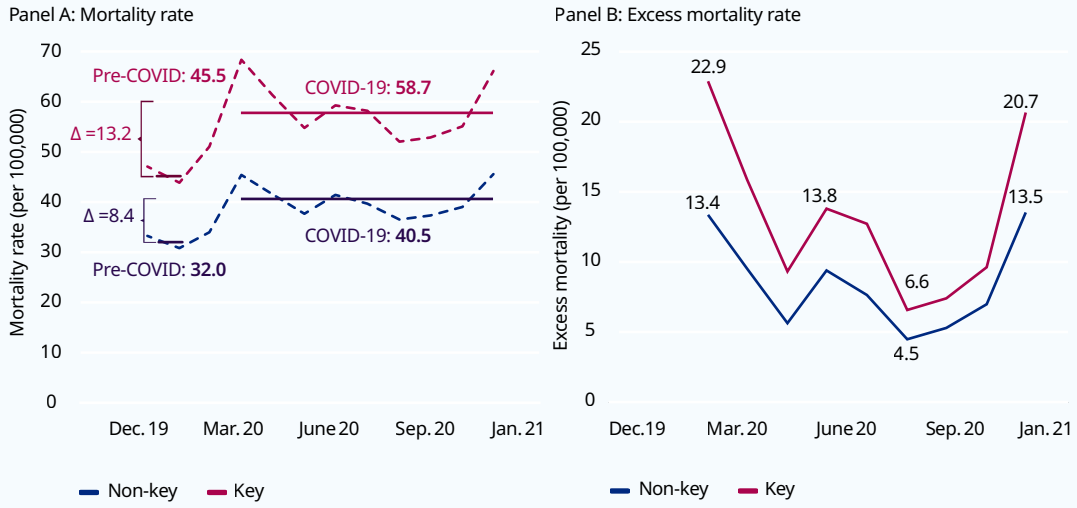
Panel A of figure 2.2 shows the mortality rate per 100,000 people, from all causes, for workers aged 18 to 62 years in the United States, by month, in 2020. The excess death rate is the death rate during the period under scrutiny (the COVID-19 pandemic, for instance) minus the death rate of an appropriate baseline in which the event under study was not happening. No COVID-19 deaths were reported in the first two months of the year, so these are used as the baseline. The last nine months are those for which excess mortality is calculated.[6] The excess death rate of a given month is that month's total mortality rate minus the average mortality rate of the first two months.

Figure 2.1. Exposure to disease and physical proximity to others, by occupation, United States



Source: ILOSTAT and O*NET.

Figure 2.2. Total mortality for key and non-key workers, United States, 2020



Note: A two-month baseline is far from ideal, but the National Vital Statistics System (NVSS) Public Use Microdata Sample (PUMS) data do not provide occupation data prior to 2020.

Source: Current Population Survey (CPS) and NVSS microdata.

Excess mortality during the COVID-19 pandemic was higher for key workers than for non-key ones.

Baseline mortality in the United States is higher for key workers than for non-key workers: 45.5 monthly deaths against 32.0 per 100,000, respectively. This means that, prior to the COVID-19 pandemic, key workers suffered higher mortality.[7] This may be a result of key workers having jobs that are intrinsically more dangerous, but it also likely reflects greater susceptibility to death from underlying health conditions, including comorbidities, such as obesity and hypertension, as well as age and tobacco use. Nevertheless, as will be argued in this section, some of the features that make certain jobs "intrinsically more dangerous" are also the result of lack of, or insufficient, protective procedures and equipment to deal with heightened risks.

In addition to higher baseline mortality, the increase in mortality was also greater for key workers (13.4 per 100,000) than for non-key ones (8.4 per 100,000). Panel B of figure 2.2 shows that excess mortality during the COVID-19 pandemic was higher for key workers than for non-key ones. This is not a surprise since key workers continued to leave their homes to go to work, and thus to be exposed to the virus, whereas other workers turned to telework or were furloughed.

Both panels of figure 2.2 show raw mortality data, and thus do not consider sex, age or other characteristics that could influence outcomes. Taking sex, age and education into account, and subtracting non-key mortality from key mortality, gives the "controlled excess mortality" difference shown in column (B) of table 2.1.[8,9] The table also shows raw excess mortality differences (column (A)) as well as pure COVID-19 mortality[10] (column (C)).

A pattern appears: excess mortality for key workers (relative to non-key) was high during the first three months and then fell. By the last quarter of 2020, it was in the low single digits, before picking up again slightly in December during the peak of the second wave in the United States (August 2020 to February 2021).

Table 2.1. Different measures of differential mortality (key vs non-key), United States, 2020

Month	Mortality (per 100,000 workers)		
	Difference in excess mortality		(C) Difference in pure COVID-19 mortality
	(A) Uncontrolled (raw)	(B) Controlled	
Apr. 2020	9.5	14.5	6.4
May 2020	6.3	16.4	3.6
June 2020	3.7	10.6	1.7
July 2020	4.4	8.6	2.8
Aug. 2020	5.1	10.5	2.6
Sep. 2020	2.1	12.0	1.6
Oct. 2020	2.1	5.9	1.6
Nov. 2020	2.6	2.2	2.7
Dec. 2020	7.1	3.7	5.8
Mean	4.8	9.4	3.2

Note: The uncontrolled (raw) difference in excess mortality is the difference in excess mortality between key and non-key workers. The controlled difference is the result of logit model controlling for education, sex and age, in which key worker is also a variable (see note 6). The difference in COVID-19 mortality is the raw difference in per 100,000 mortality due to COVID-19 (it is not considered excess mortality since COVID-19 baseline deaths are zero) between key and non-key workers. The three statistics measure the same thing in different ways.

Source: CPS and NVSS microdata.

The most lethal occupational group was that of transport workers: truck, subway, bus, taxi and ride-hailing-platform drivers suffered higher mortality than workers in any other occupation.

The pattern of key workers' mortality is maintained in the three measures. The controlled difference in excess mortality was higher than the uncontrolled difference for all months, with the exception of November and December. This mostly reflects the fact that, in the United States, key workers are younger and more likely to be female than non-key workers. Women represent 48.4 per cent of key workers as opposed to 46.7 per cent of non-key workers, and the young (18–24 years old) make up 14.3 per cent of key workers versus 12.6 per cent of non-key workers. Table 2.1 also shows that the directly measured COVID-19 mortality is lower than the difference in excess deaths, which could be due to mismeasurement of COVID-19 deaths.

Table 2.2 gives results for the eight occupational groups of key workers in the United States. Both in terms of excess mortality and specific mortality from COVID-19, there were wide variations by occupational group. The most lethal occupational group was that of transport workers: truck, subway, bus, taxi and ride-hailing-platform drivers suffered higher mortality than workers in any other occupation. Health workers, despite their intense exposure to infected patients, fared no worse than the average key worker, probably because they had procedures and equipment which protected them from the virus, as well as greater access to healthcare and sick leave. Nevertheless, their excess mortality was still higher than that of the average non-key worker.

While NVSS microdata only provide information on occupation and industry from 2020 onwards, the data from the California Department of Public Health have done so for much longer. A study of excess mortality among California's workers by occupation corroborates the above findings: transportation workers were most at risk (excess monthly mortality of 10 per 100,000) and health workers once again fared no worse than other key workers (excess monthly mortality of 3 per 100,000), in spite of their constant exposure to the virus.[11] Health workers' excess mortality per capita was in general lower than the rates above, which likely reflects its baseline period of three years instead of two months.

▶ **Table 2.2. Monthly excess and COVID-19 mortality by occupation group, United States, April to December 2020**

Industry	Mortality (per 100,000)	
	Excess	COVID-19
Transport	22.9	11.9
Cleaning	14.8	8.7
Manual	14.4	6.9
Technical	14.3	7.3
Health	12.1	7.4
Retail	9.4	3.9
Food systems	7.5	6.7
Security	7.0	6.2
All	13.2	7.2

Note: Excess deaths are calculated using the methodology described above, using the first two months of the year as a baseline. COVID-19 deaths are those identified as such by the International Classification of Diseases (ICD) code in the NVSS data.

Source: CPS and NVSS microdata.

Table 2.3. Excess mortality by occupation category, England and Wales (UK), 2020

Worker category	Excess deaths (%)
All occupations	–1.1
Non-essential	–3.0
Healthcare	13.3
Social and education	4.3
Other key workers	6.1

Source: Matz et al., 2022.

The study also finds that food and agriculture workers were among those with the highest mortality. This is perhaps surprising given that agricultural work is usually done outdoors with workers assumed to work far from one another. However, many agricultural workers in California are migrants who, in addition to working in the fields, work closely together in packhouses and live in overcrowded accommodation, which likely led to greater COVID-19 contagion and, ultimately, higher death rates.[12] Once again, this illustrates that protective measures (or the lack thereof in this case) are as important as the dangers inherent in the work itself. The same study also analyses excess mortality by race and occupation. It finds that even though occupation explains some of the racial gaps in mortality, significant racial differences remain even after controlling for occupation.

Another study of key workers, this time in England and Wales (United Kingdom),[13] using the excess mortality methodology broken down by occupation finds that the risk of death from COVID-19 faced by "essential" workers was considerably higher than that faced by "non-essential" ones (see table 2.3).[14] While the pandemic was actually protective of non-key workers in England and Wales – likely because the lock-downs were more stringent than in most of the United States – it was quite dangerous for key workers, most of all those in healthcare. Most of the danger arose in the early months of the pandemic when people did not yet know what was effective and what was not in terms of keeping safe from COVID-19 while working. From September onwards excess deaths fell, and by December 2020 excess deaths for all key workers were below levels reported in the previous five years.

Another study using the same matched data for England employed proportional hazard models to investigate hazard ratios of key and non-key workers during the first year of the pandemic in England.[15] It found that the ratios for men ranged from 1.45 to 1.22, and for women, from 1.16 to 1.06.[16] Taxi drivers and chauffeurs, support staff, bus and coach drivers, sanitation workers, social care workers and van drivers were the most lethal occupations for both men and women. Moreover, the hazard rates were similar between men and women in individual occupations, which suggests that the difference in aggregate mortality rates between working men and women responded more to differences in occupation than to biological differences in susceptibility to the disease (although these biological differences undoubtably exist).[17]

Both in the United States and in England, health workers, who were continuously and massively exposed to the virus, suffered lower excess mortality than transportation workers, whose exposure was significant but lower than that of health workers. This apparently counterintuitive finding may be due to workplace safety and health measures – healthcare was more likely to have workplace safety and health protocols in place and enforced, and workers were more informed of the risks. Health workers were among the first to receive protective equipment and are generally more likely to have access to paid sick leave and medical care. Transportation workers, on the other hand, are often self-employed or working for small enterprises in which safety protocols were more of a personal responsibility than company policy. They often did not know how to protect themselves, only had access to protective equipment after a lag, had limited access to paid sick leave because of self-employment and, in the United States, were less likely to have health insurance. The wider conclusion is that while key workers may work in jobs that are intrinsically

A small but growing body of evidence shows that unionization was protective of workers during the pandemic.

more dangerous, preventative procedures, protective equipment and access to labour and social protection can help to keep them (relatively) safe even under adverse circumstances.

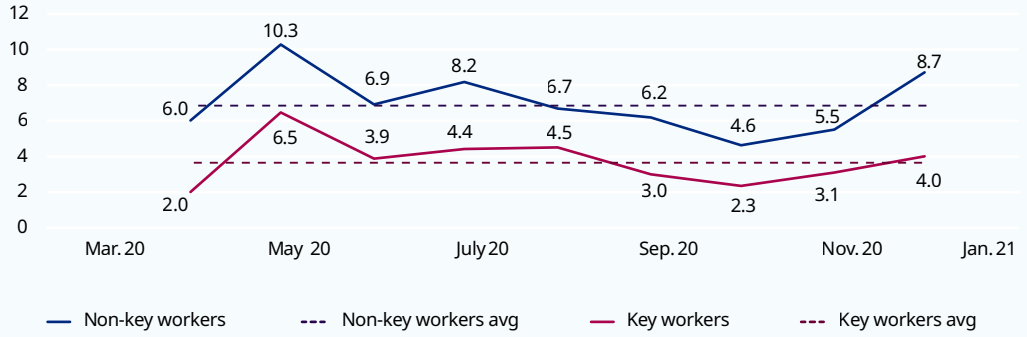
In France, a COVID-19 survey undertaken in January 2021 found that, while 18 per cent of employees as a whole had at some point been diagnosed with COVID-19 or had clear COVID-19 symptoms, the percentages were higher for transportation workers (29 per cent), nurses and midwives (29 per cent), health aides (28 per cent), and police and firefighters (28 per cent).[18] The French results corroborate for the most part the American and English data vis-à-vis the most lethal occupations, though the French occupational differences in contagion appear to be smaller in amplitude than differences in mortality in the United States, perhaps reflecting universal access to health and sick leave.

Other studies on illness from COVID-19 also find significant occupational differences. In Spain,[19] excess sick leave in March 2020 was higher among all occupations than during the baseline period, including healthcare, but it was highest for construction workers. In Qatar,[20] construction and retail trade workers were most likely to test positive for COVID-19. Retail trade is expected to entail greater risk since it implies contact with customers, but it may be less clear for construction. The authors of the study point to over-crowded accommodation of migrant construction workers as the likely culprit, highlighting once again that, often, it is not intrinsic characteristics of occupation per se that lead to higher mortality, but the policies and procedures taken or not taken to ensure workers' safety.

One final result worth mentioning is that there is a small but growing body of evidence that shows that unionization was protective of workers – all workers, not just key workers – during the pandemic.[21] In the United States, unionized workplaces were more likely to address environmental hazards[22] and to be visited by health inspectors.[23] Moreover, unionized workers were more likely to have health insurance and access to paid sick leave.[24] Consequently, it is hardly surprising that higher union densities slowed the spread of the pandemic[25] and that unionized workers are less likely to die from COVID-19 than non-unionized ones.[26] While the above studies refer to the United States, it stands to reason that these results would hold in other countries as well.

The above studies have all been on high-income countries. Figure 2.3 shows that, in contrast with what happened in the United States and in England and Wales, excess mortality in Brazil was lower for key workers than for non-key ones. The difference between key and non-key is not huge, mostly between three and four deaths per 100,000 workers, but it contradicts the findings from high-income countries.

Figure 2.3. Excess mortality for key and non-key workers, Brazil, 2020 (per 100,000 workers)



Note: The baseline in the case of Brazil is the previous three years (2017, 2018, 2019), which is a much better baseline than that used for the United States (the first two months of 2020).

Source: Sistema de Informações sobre Mortalidade (SIM) and Pesquisa Nacional por Amostragem Domicliar Continua (PNADC), microdata.

Table 2.4. Variations in deaths from 2019 to 2020 of workers aged 30 to 60, Brazil and Colombia, selected categories (percentage)

Brazil		Colombia	
Worker category	**Δ deaths**	**Worker category**	**Δ deaths**
Funeral workers	35.8	Postal workers	62.0
Postal workers	34.8	Police and firefighters	60.4
Nurses and other hospital workers	30.1	Drivers	47.3
Drivers	27.2	Nurses and other hospital workers	40.7
Police and firefighters	27.0	Private security	32.1
Other workers	20.0	Street vendors	31.2
Public cleaners	19.6	Other workers	26.9
Street vendors	15.2	Public cleaners	13.3
Agricultural workers	**7.5**	Agricultural workers	**12.9**

Note: Agricultural workers in bold and occupations in which there were fewer than 300 deaths in 2019 in light grey. The data come from Vital Statistics Systems, which is a census, so there is no sampling error. Nevertheless, narrowly defined occupations with relatively few deaths are less subject to the law of large numbers and thus still show large swings from one year to another. Note also that these are only a few selected occupations and do not account for all employed workers.

Source: Vital Statistics Systems for Brazil and Colombia. Microdata.

Yet, key workers in middle- and low-income countries differ from those in high-income countries both in terms of the greater share of workers in agriculture and the higher incidence of informality, where the application of OSH measures is likely to be weaker or absent.

Agricultural workers were relatively protected from COVID-19 as a result of the distances linked to lower population density in rural life. Table 2.4 shows the variation in deaths from 2019 to 2020 for select key occupations in Brazil and Colombia, including agricultural workers. Owing to different occupational classifications in labour force surveys and vital statistics, it is not possible to calculate the variations in mortality, only in the number of deaths. Thus, it is not possible to disentangle the variations in deaths due to the number of workers in each occupation from those in the mortality rate of each occupation. Nevertheless, given the magnitude of the variations in the number of deaths, it is likely that the results are overwhelmingly driven by underlying mortality changes.

The data show that, both in Brazil and Colombia, agricultural occupations are those in which the number of deaths increased the least. For the non-agricultural occupations, the variations in the number of deaths align with those in mortality from the literature on France and the United States, as well as on England. Drivers and nurses were among the most dangerous occupations. Postal workers and, in Brazil, funeral workers, in spite of small numbers, faced the largest increase in deaths.

Table 2.5 shows the variations in deaths for Mexico and Costa Rica from 2019 to 2020. In contrast to table 2.4, table 2.5 shows deaths by broad categories that, in principle, account for all workers. The categories used in Costa Rica and Mexico are not the same but, in both cases, they account for the entire labour force, broken down into one-digit occupation categories.

Whereas in Costa Rica agricultural workers were in the upper half of occupations with the highest increase in total deaths, in Mexico agriculture is the category in which the increase in deaths was the smallest. The high agricultural mortality in Costa Rica may reflect large numbers[27] of temporary migrant workers (56 per cent of coffee workers were temporary Nicaraguan workers),[28] mirroring the situation in California.[29] There are migrant workers also in Mexican agriculture, of course, but the numbers are

Table 2.5. Variations in deaths from 2019 to 2020 of workers aged 30 to 60, broad occupational categories, Costa Rica and Mexico (percentage)

Costa Rica		Mexico	
Occupational category	**Δ deaths**	**Occupational category**	**Δ deaths**
Managers	25.0	Managers	116.6
Administrative support	17.4	Professional and technical	96.2
Agricultural workers	**16.2**	Machine operators	95.5
Unemployed	15.5	Auxiliary and administrative	95.4
Scientific and intellectual	7.3	Sales	85.0
Technicians and associate professionals	4.1	Personal services	79.1
		Artisans	45.0
Sales and services	4.0	Elementary occupations	26.4
Machine operators	3.9	Agricultural workers	**16.2**
Homemakers	0.8	All workers	63.2
Elementary occupations	–2.1		
Artisans	–10.5		
All workers	3.1		

Source: Vital Statistics Systems for Costa Rica and Mexico. Microdata.

smaller: less than 10 per cent of all agricultural workers, as opposed to more than half in Costa Rica and the vast majority in California.

It should be noted that agricultural workers and food systems workers are not one and the same. While agricultural workers are food systems workers, the latter category also includes industrial workers, such as meat packers, whose mortality during the pandemic was very elevated, both in high-income[30] and in middle-income countries.[31] Also, note the discrepancy between the results for Brazil, Colombia and Mexico, and those for food and agriculture workers in California, and to a lesser extent, Costa Rica. The likely reason is that, while agricultural employment in California is dominated by larger farms using migrant workers,[32] in Brazil, Colombia and Mexico, most agricultural employment is in small-scale farms, and even larger farms can draw upon locally available labour. Finally, agricultural employment is much smaller in high-income countries. While, in high-income countries, a mere 3 per cent of the total workforce is employed in agriculture, in middle-income countries this share rises to 29 per cent and jumps to 59 per cent[33] in low-income countries.

The conclusion is that the combination of a higher share of agriculture in middle-income-country employment and a lower COVID-19 relative mortality of those workers drove down the overall mortality rate of key workers as a whole in these countries. Nevertheless, even in countries with many agricultural workers and low agricultural mortality, many other key occupations were badly hit, such as transport and security workers. Many of these other workers were informal workers, meaning that they likely had less access to OSH protections.

Table 2.6. Excess monthly mortality per 1,000 formal workers, Brazil, 2020

Category	Excess mortality	Category	Excess mortality
Van driver	2.94	Gas station attendant	0.42
Truck driver	2.77	Maintenance technician	0.42
Bus driver	2.26	Other warehouse workers	0.39
Interstate bus driver	1.85	Administrative supervisor	0.39
Night security guard	1.05	Production line worker	0.38
Motorcycle driver	1.03	Caretaker	0.38
Porter	1.02	Cleaner	0.36
Storage worker	0.73	Cook	0.34
Nurse technician	0.66	Manager	0.29
Meat packer	0.58	Building maintenance technician	0.25
Hand packer	0.42	Car mechanic	0.24

Note: Occupations are *Classificação Brasileira de Ocupações* (CBO), which is largely based upon ISCO.

Source: Pereira Galindo, Pereira Silva and Pedreira Júnior, 2020.

Indeed, analysing just private-sector formal employment in Brazil, using data from a labour registry that records deaths,[34] reveals similar mortality rates by occupation to the findings for high-income countries.[35] Table 2.6 shows the 22 most lethal occupations by three-digit occupation code (out of 196) for 2020. As expected, drivers dominate the excess mortality realm. Doctors are not found among the 22 most dangerous professions, although nurses are in ninth place. Police officers and firefighters are not reflected in the numbers as they are employed under a different legal status not included in this database, but the occupation of night security guard remains among the more dangerous.

What conclusions can be drawn from the results? The most important conclusion is clear: policies matter and can save lives. In the United States, France and England, health workers, despite their intense exposure to the virus, were in relative terms better protected than transportation workers. Unionized workers were better protected than non-unionized ones. In Brazil, the most lethal occupations were the same as in high-income countries, but the overall mortality of key workers was lower because of the inclusion of agricultural workers. Everywhere, drivers, security guards and nursing staff experienced the highest COVID-19 mortality rates.

These results point to the importance of policy: workers in workplaces in which adequate procedures were put in place, who had access to protective equipment and who were entitled to sick leave and medical treatment were more protected in relative terms from death from COVID-19. These procedures can come through formality, higher union density or even professional knowledge (health professionals), but irrespective of how they come to the workplace, they save lives.

The same logic must also apply to other aspects of OSH. Are key workers sometimes exposed to risks that are inherent in their work? Yes, they are, but these risks can be mitigated or even eliminated outright with effective workplace safety and health policies.

2.2. The strain of working during the pandemic

Being a key worker during the COVID-19 pandemic entailed a range of increased strains placed on workers, all of which had consequences for their health and well-being. These varied from the physical risk of getting sick from the virus – as discussed above – and the fear of transmission to household members, to increased work intensity from having to incorporate safety and health protocols and other new tasks into one's daily work; a challenging social environment from dealing with unruly customers and not being able to interact with colleagues; and concerns over earnings loss. But the experience could also be motivating at times, increasing some workers' engagement and reward from work, particularly when there was strong social, managerial and community support, and recognition of their contribution to society.

The analysis in this section takes inspiration from the job strain literature as originally developed by Karasek in his model on demand control, subsequently refined and expanded by Seigrist's effort–reward imbalance model, and Bakker and Demeritous's job demands–resources framework.[36] The job strain literature recognizes the interaction between the demands placed on the worker and the resources available to them to meet or mitigate such demands, and the overall implications on mental health, as well as overall job quality. Resources refer to the physical, psychological, social or organizational aspects of a job that help to achieve work goals, reduce job demands or stimulate personal growth, learning and development. Although performing excessively demanding work can increase the risk of ill health, including greater risk of cardiovascular disease, musculoskeletal disease and depression,[37] if a worker with a demanding job also has latitude for decision-making and enjoys a supportive working environment, then the risks of the demanding job can be mitigated. Yet if high work demands are combined with limited latitude in decision-making and scant job support, then risks are heightened. Notwithstanding the different models of job strain, the guiding principle is the assessment of the balance between demands and resources in the workplace.

An important determinant of the demands and resources available to a worker is the person's employment arrangement. A formally employed worker with job security and a union representing their interests has more resources to either minimize demands or adjust their work to address them, than an informally employed worker without job security or union representation. Managerial and collegial support are known to be valued resources to the worker and critical for workers' sense of well-being and job satisfaction. There are exceptions, of course, but, in general, the contractual relationship, and the rights and benefits it bestows, influence workers' scope for mitigating job strain. Own-account workers also experience job strain and, though the autonomy and flexibility of being one's own boss is an important resource, it can nonetheless be tested by the pressure of having to derive sufficient income from one's labour, the physical risks of the work, and the general lack of collective support. Working informally aggravates risks, while also limiting potential resources.

Credit: © palinchakjr

Another significant source of support – and potential strain – is the family or household. While personal resources are not explicitly included in the job demands–resources framework as it focuses specifically on the working environment, the framework does acknowledge that personal resources (or demands) are a mediator or antecedent to job demands and resources.[38] Workers are part of households, and the implications of being a key worker during

the COVID-19 pandemic affected families, potentially with consequences for workers' internal resilience. Changes at the household level due to the closing of schools, childcare centres and other restrictions meant that many dependants were at home and needed care, adding pressures for unpaid care work on key workers, especially women.[39] For migrant workers and seafarers, the added geographical distance between workplaces and homes is likely to have increased demands and lessened resources.[40] Pandemic-related travel restrictions extended their separation from their families. Moreover, dormitory living, which is common among migrant workers, was a prominent source of reported outbreaks and clusters, and also imposed increased psychological strain due to movement restrictions. The high rates of job loss and return migration constituted additional pressure for many households, even for those where some members continued to operate as key workers.

This section and section 2.3 draw on qualitative research commissioned by the ILO as well as secondary sources to provide a picture of the lived experience of key workers and business owners during the pandemic. The more than 500 individuals interviewed in Argentina, Canada, Ghana, India, Kenya, Malaysia, Mexico, Peru, the Philippines, the Republic of Korea, South Africa and Türkiye all perform key services (see Appendix for more details). The objective of the qualitative analysis that follows is not to enumerate frequency but rather to draw insights into the lived experience of key workers during the pandemic by allowing them to explain the different demands placed on them, as well as any resources that were available. Each section begins with an explanation of the relevance of the topic for job quality, in light of the COVID-19 pandemic. Where pertinent, the discussion draws on other sources of evidence, both primary and secondary. While common experiences and themes emerge, there are substantial differences depending on occupation and sector, employment status and contractual arrangement, citizenship and residency status, and the country in which the individual works, including its industrial relations system.

Physical environment: risk of illness

The most obvious strain of being a key worker in the pandemic stemmed from the heightened physical risk of exposure and illness from COVID-19, as documented in section 2.1. Workers were aware of this risk, both for themselves and their families. With few exceptions, study participants expressed their fear of contracting COVID-19 as a result of going to work, on account of their interactions with patients, customers and colleagues, but also in their travel between home and the workplace.

Fear was greatest at the beginning of the pandemic, when there was much uncertainty about the virus – its modes of transmission, its severity, or what measures needed to be put in place. Román, a supermarket cashier in Argentina, explained that working in the pandemic was *"horrible, horrible from the first moment. I saw that nothing was known about the virus, and you didn't go to work, you were forced to go to work, it was crazy. One had to go to work in the first period when nothing was known, and it was not clear how contagion happened or how you had to take care of yourself"*.

But even with time, concerns remained with workers, especially those who had continuous interaction with the public. As a postal worker in the Republic of Korea explained: *"Our post office alone has 120 employees. In some branches, there are even more. When a person is on outside duty, he or she comes into contact with more than 50 strangers. We're in a position to become super spreaders in that sense"*. Others worried about the consequences of getting ill in the workplace, such as this cleaner at a hospital in the Republic of Korea: *"The most mentally draining thing during this pandemic is the stress of knowing that if we get infected, then the entire hospital is at risk"*.

In Ghana and Kenya, hospital staff explained how the lack of adequate resources in their hospitals for COVID-19 testing heightened their risks. Eli, a hospital orderly in Ghana, explained: *"We were cautious approaching patients in the ward because we didn't know who had COVID-19 and who didn't. If someone coughs in the ward, then there is tension, nobody wants to stay around"*.

Others expressed frustration over the risks they were taking for meagre wages, as this nanny in Argentina recounted: *"I travelled by public transportation. For me, that was the worst thing. I had to risk my life to take care of a kid that wasn't mine, and for a few pesos"*.

Nevertheless, the duty to continue working was a strong impulse for many, allowing them to brave the risk. Carlos, a nurse in Argentina, explained:

> *At some point, I remember that I began to doubt: "What if I catch it?" I was afraid of infecting others, my family ... I started to have that fear and ... my defences were going down, like I was getting a feeling of being on my guard at that moment. I always remember my colleague telling me: "Well, that's why we studied, that's why we chose this career; in fact, we are here because we like to help people. These people need us and that's why we are here. Now it's our turn. We just have to be here". I didn't forget because that's what gave me the strength to continue at that moment.*

Many of the key workers interviewed did fall ill or had colleagues that did, and even died. The excess mortality data presented in section 2.1 show that it was workers in transport who had the highest rates of fatality. While the interviews were not undertaken to measure incidence, but rather to understand the experience of key workers in the pandemic, interviews with transport workers in Argentina attest to the high level of infection among these workers: a subway worker spoke of how 15 of her colleagues had died from COVID-19, prompting her and her colleagues to insist on priority access to vaccines; similarly, a bus driver recounted how three of his colleagues had died, which he attributed to insufficient measures taken to control the risks associated with the pandemic.[41]

Infection was also rife among the migrant community. In Malaysia, interviews with migrant workers revealed that almost all of the workers and their "housemates" had caught COVID-19 – most likely because of the overcrowded apartments or dormitories where they slept in shifts in the same beds. A Nepalese security guard working in Malaysia recounted how he had contracted COVID-19 and that 16 out of his 20 housemates had tested positive.[42] Among migrant agricultural workers in Canada, the risk of spreading the virus among co-workers was aggravated by the practice of working on different farms.[43]

Safety and health: implementation of protective measures, including provision of personal protective equipment

One of the principal concerns of key workers has been proper and sufficient implementation of safety and health measures at the workplace, including issues such as ventilation, physical barriers, implementation of social distancing, cleaning and disinfection, screening as well as provision of personal protective equipment (PPE). The interviews reveal a range of responses with respect to the implementation and rigour of OSH protocols. In general, a pattern emerges of stricter adherence to protocols in large, formal organizations, particularly in the health sector, where biological risks are constant and where COVID-19 patients were being treated, but also in other sectors, such as aviation, mining and ports, where safety and health standards are, by law, more rigorous. A port worker in Peru commented that his company carried out *"periodic tests and every day they renew our masks and [hydroalcoholic] gel. There is a concern for the worker"*. Similarly, a Kenyan flight attendant explained that:

> *The company medical team were always at hand before every flight to offer information on how to handle COVID-19-related cases on board. In-flight service was reduced to a minimum so that there was less interaction between crew and passengers. The company also discontinued in-flight service on domestic flights, considering that it wasn't a*

> *requirement to have domestic passengers tested prior to their travel … Crew were planned to work on rotation and [the] same team members also planned to operate the same flights together.*

But even within sectors with higher OSH standards, there were distinctions between countries, with health workers in some developing countries receiving insufficient PPE within their hospitals, reflecting difficulties at the national level (and globally) in procurement, especially at the beginning of the pandemic. In Mexico, but also in Ghana, India and Peru, workers recounted insufficient provision of PPE, like this nurse in a public hospital in Mexico:

> *… At the beginning they only wanted to give them … one piece of equipment, so how could they expect them to work an eight-hour day with one piece of protective equipment, so they didn't eat, they didn't drink water or go to the bathroom? … they told you literally, you only had the right, at the beginning, to one piece of equipment.*

There were also considerable variations between workers within health institutions – doctors, nurses, orderlies, cleaners – likely reflecting their status in the organizations and perceived risk of exposure. Hospital cleaners in the Republic of Korea reported having to purchase masks at their own expense, as they were not provided in sufficient quantities, which was a source of concern especially to those cleaning the wards that held COVID-19 patients.[44] Health workers active outside institutions, such as community health workers in Ghana and India, also reported insufficient PPE provision. Bright, a mortuary worker in Ghana, lamented how they worked regularly with insufficient protection:

> *We need PPE badly but at our place, apron and gloves is all we wear to work. It is not good. We have a big exposure here and should there be an outbreak here, we will all be affected. You see mortuary staff in other countries wear PPE from head to toe. Consequently, their skin is protected as the water they use in cleaning the bodies doesn't seep through the PPE. We don't have it like that here. At times, we enter the cold room without wearing any PPE.*[45]

For migrant farm workers living in dormitories in Canada, overcrowded houses with shared bedrooms, bathrooms and kitchen made distancing difficult. Only one of the 30 interviewed workers stated that their employer had rented additional housing to divide up the workers and so reduce overcrowding. And while, in two cases, fewer workers than usual were expected to share housing during the pandemic, this was not common. The interviews reveal that the main strategy used to contain the spread of the virus during the pandemic was to keep workers confined to their house.[46] Yet, despite the quarantining of their workers, the practice of hiring additional undocumented workers, who often moved from farm to farm, was still common. Concern over the potential spreading of the virus by itinerant farm workers led Ricardo and his co-workers, who were employed at a greenhouse in Leamington, Ontario, to approach their farm owner. As he explained:

> *We were given an opportunity to talk to the farm owners. And we told them that if they are making restrictions for us, they too should make sure that they do not hire [undocumented] workers from contractors.*

> *We respect company rules, but the workers sent to the company by contractors, they are free to go wherever they want after work. And that, we said, is not fair. They would go anywhere they want while we are being cautious, and then these persons would just come and infect us. So, we did not see it as something that was fair.*

Out of concern for their safety, many key workers instituted their own measures or, for those who were unionized, appealed to their union to demand greater protection. A postal worker in Mexico recounted how he and his colleagues took the initiative to make changes in the workplace, including to their schedules, to keep their work environment safe:

> *We made changes ourselves … we changed … into two teams, so that we wouldn't all get together … [Q. Was it a company directive or did you carry it out?] We carried it out, and the bosses also had to agree.*

At a food-processing factory in Argentina, outsourced workers did not benefit from the same safety and health measures, as there was a policy of "first" and "second" care, depending on one's contractual arrangements. Under the policy, the company did not guarantee transportation services for outsourced workers. The outsourced cleaning and maintenance workers were able to organize to demand that the company also provide them with transportation services. With the help of the union and several meetings with the management, they were able to obtain the same right as the other workers.[47] In general, across the case studies, the presence of unions, especially internal union committees, was an important resource for securing additional protections in addition to those proposed by the companies.

In the Philippines, in the absence of formal regulations governing home-based caregiving, the measures taken to ensure health and safety depended on the patient's family, as well as the minimum health guidelines that caregivers had received in their training. As a rule, caregivers shower and change into their uniform before attending to their patients and wear face masks in the workplace. Josie, a home-based caregiver to chronically ill and older patients, explained how one employer required her to take a monthly COVID-19 antigen test at the employer's expense, while her subsequent employer required that she test negative on a PCR test, but at her own expense. Social distancing in home settings was not easily enforced, but households generally restricted the presence of outsiders and used online platforms to communicate with the patients' doctors.[48]

Informal own-account workers mentioned learning what to do from public channels. As Akosua, a street trader in Ghana, explained: *"We got public education on both TV and radio. Also, some of our customers were cautioning us to be careful each time they came to the market to buy from us".* Similarly, Linda, a shopkeeper, noted: *"Nobody officially came to my shop to teach me, but I learned it from the news on television and the radio"*. John, the owner of a delivery service business, learned what precautions to take from his daughter, who had been taught what to do at school.[49]

Separation from family and social isolation

Another measure taken by employers – and sometimes workers on their own initiative – was to reside separately from family members to prevent spreading the virus. While such separation mitigated the risk of contagion to family members, it nonetheless severed an important resource of social support for workers during a difficult time. For some workers, being separated was preferable to risking contamination; others had no choice and thus resented the arrangement. Yet, with the financial need to support their families, and the near impossibility of finding alternative employment during the pandemic, their sole option was to accept the separation.

Some of the workers interviewed relayed how they chose to isolate from their families to minimize risk. Lucrecia, a nurse at a public hospital in Mexico, explained how normally she lived with her sister and mother but that, for over a year during the pandemic, she lived separately from them, along with another colleague who was isolating from her family. As they were both working extensive hours, their family members would bring them food and pass it through the gate.[50] A nurse in Türkiye mentioned how he sent his wife and children to their home village for a month and a half to avoid contamination. Similarly, a Turkish café owner decided to *"completely separate for 42 days without even seeing my children and my family, even though I was not sick ... We were afraid to even go home"*.[51]

In other instances, workers were required to remain on company premises or in company-provided housing. In the mining sector in Peru, mandatory quarantines required that the workers be separated from their families for several weeks to avoid contagion. This point was strongly criticized by several unions, given the arbitrariness in the scheduling policy, and the retention of workers was even denounced as illegal.[52] In the Philippines, business process outsourcing firms were allowed to continue operating only if they provided appropriate temporary accommodation to their employees or allowed them to transition to remote work. Some hospital staff were also required to stay in temporary accommodation. Ida, a nurse in a private hospital in the Philippines, relayed how she and other nursing staff were required to stay in hospital-provided lodgings for almost six months. She spoke of suffering from her "separation from family" (two siblings, mother and grandmother) and "loneliness" during those months.[53]

Many domestic workers were obligated to stay at their employer's premises once quarantines were imposed, essentially shifting to being live-in domestic staff. A domestic worker interviewed in Peru stated how "it shocked me, I even cried". She did not return to her home for four months because of the restrictions imposed by her employer. Along with the separation and social isolation that the shift to live-in status entailed, there was also an increase in working hours and work intensity as many of the families that they worked for had the parents and children working from home.[54]

Migrant farm workers were already separated from their families but the quarantine measures further increased their social isolation. Virtually all workers interviewed in Windsor-Essex, Canada, were not allowed to leave the farm during the COVID-19 pandemic, in some cases for up to a year and a half, and even after the regional health authority had lifted most restrictions. On one farm, each week, three people from the workers' house were allowed to purchase food for the rest. There were some farms on which workers were not allowed to leave at all. Instead, they filled out shopping lists; their food was ordered for them by their employer and delivered to their doorstep. Yet, many workers accepted these restrictions. As one of them, Daniel, put it: *"It was as if we were in prison, but for our own good, right? Well, we didn't have the right to leave because, if we were to leave, we would endanger the company and other co-workers, and who knows how many other families"*. Not everyone could tolerate the isolation but, if these rules were violated, workers were disciplined, as Matías explained: *"If someone went into town to do shopping or something, they were sent to do quarantine, and they were not paid while they were not working"*. Similarly, Abel commented: *"During the pandemic, you couldn't leave the house to go anywhere. It was prohibited. And if you were to leave, he [the employer] got angry and reprimanded you"*.[55]

Work intensity: more work demands

Work intensity concerns work demands on the job – the amount of work an individual has to carry out and whether that work requires large amounts of mental and physical energy. Although work that asks too little of a worker can leave their potential unfulfilled ("underload"), research has found that excessively demanding work ("overload") is associated with an increased risk of serious ill health.[56] Intense work is a key component of job strain models, as numerous epidemiological studies have demonstrated the negative health consequences of high work demands, especially when combined with limited autonomy and a negative social environment.[57] From an organizational perspective, work intensity is not necessarily linked to better performance, especially if overload leads to working in haste, or if it is due to staff shortages. High work intensity, even if at times perceived as exciting and rewarding, is considered a negative contribution to job quality.[58]

Most key workers saw and felt their work intensity increase. This was due, in part, to the addition of more tasks, usually related to carrying out OSH protocols, but it was also due to increases in absences at the workplace, as many workers with comorbidities were either prevented from coming to work or left their jobs out of fear of contagion. As a result, there were fewer staff carrying out the work that needed to be done, and greater demands placed on the remaining workers. Given substantial media attention in many parts of the world, the pressure placed on healthcare systems throughout the world is well known. Nonetheless, interviewees from a diverse array of key services – delivery, security, mining, retail and others – recounted the greater work intensity and work reorganization that occurred when the pandemic struck.

In the Philippines, medical staff explained how hospitals were already suffering from a shortage of nurses due to the emigration of experienced nurses overseas for better-paying jobs. During the pandemic, these shortages were compounded as some staff left hospital jobs for less risky environments, such as vaccination centres.[59] In addition, when a healthcare worker caught the virus, a whole ward or unit could be paralysed. In the hospital employing some of the study participants, two nurse stations were shut down because there were not enough nurses available to work. The Health Department provided extra-budgetary funds to public hospitals to hire contractual employees to fill shortages, but the demand was unmet. The shortages were aggravated by the intense amount of care required by COVID-19 patients. As explained, typically a nurse could attend to 4–5 ICU patients but would have difficulty caring for two COVID-19 critical or severe cases. A hospital that aims to double its operational capacity for COVID-19 would ideally need to double its staff. One nurse explained how she routinely worked extra hours in order to earn overtime but that, during the pandemic, overfatigue was so great that she eventually learned to refuse overtime.[60]

The rise in demand in hospitals was not limited to medical staff. The Republic of Korea's quarantine guidelines, known as K-Quarantine, increased the workload of cleaning workers. For some cleaning workers, their work area was expanded to include the COVID-19 screening stations in operation both inside and outside medical institutions. Even in cases where their work areas did not change, the workload increased substantially because of the stricter cleaning protocols and the shift to disposable protective gear by medical staff. As one cleaner remarked: *"More than 1,000 people visit the COVID-19 screening station daily for testing. How are we to deal with the medical waste that results from their visits?"*[61]

In India, the work of the community health workers known as Accredited Social Health Activists (ASHAs) also increased substantially. Serving on the front line, ASHAs were responsible for tracing, testing, delivering medicine and sometimes food, and answering distress calls. Once the immunization programme began, they were responsible for keeping records of those who had received the vaccines and motivating people to get vaccinated. Through this period, ASHAs also continued with their routine tasks of following antenatal and postnatal care, monitoring infant health and so on. As Sneha, an ASHA from Hyderabad, explained:

> ***There has been no rest from the time the pandemic began. We have to visit the homes of those who are positive, ensure that they isolate, give them medicines. They also call us any time of the day or night if they have any problem. If any patient calls, we have to give them advice. People didn't know much about it – they would tell us their symptoms. We would then assess and help them go to the hospital if we felt that they needed to go. For this, we would go to their house, coordinate with the hospital and arrange for the ambulance, and ensure that they went properly. We would also inform our Sir in the hospital and he would guide us on how we should handle the case.***

A food service worker in the United States recounted how safety protocols, such as disinfecting and using hand sanitizer, while important, made their work slower and more difficult to carry out:

> *I was in the drive thru and my hands were burning after two hours, because I'm trying to hand-sanitize between each car, and there's hundreds of cars. And it slows you down when you're taking these basic measures with fewer and fewer people at work. So I think most people are trying to minimize stress by not really changing how we do things. Which is really dangerous.*[62]

The work intensity of security guards also increased. Throughout the world, many retail establishments hired extra security personnel to help implement government-mandated protocols. The President of the Security Industry Association of Malaysia reported that an estimated 70,000 guards were deployed at shopping malls, retail outlets, banks, other commercial places and residential complexes while another 50,000 guarded hospitals, schools and government-linked agencies. He described the security guards as "unsung heroes ... They are among the earliest frontliners to be exposed to the risk of COVID-19". They are in direct contact with many people, especially if they work in busy places; they perform tasks such as registration and individual temperature screening, as well as ensuring that people comply with physical distancing in premises.[63] A security guard in the Philippines explained how she accepted the additional working hours as she was the only one in her family with an income, but that eventually she fell ill from overfatigue.[64]

Social environment: from support to adversity

The social environment at work concerns the relationships that workers have with their colleagues and managers as well as their interactions with customers or patients. Given the many hours that most people spend working, such social interactions are critical for the individual well-being of workers and strongly influence feelings of job satisfaction.[65] A positive social environment can improve workers' engagement, organizational commitment and, ultimately, productivity.[66] It is also a critical resource in mitigating work demands, whereas an unsupportive or, at worst, negative social environment can be an impediment to one's work, with negative consequences for mental health at the individual level and for job quits at the organizational level.

Most of the key workers interviewed emphasized positive peer relations. Across countries and occupations, workers spoke fondly about having lunch together, travelling to work together and supporting each other in carrying out their duties. In India, community health workers (ASHAs) operated as a team if they encountered any difficulty with members of the community and filled in for each other during periods of leave. Similarly, security guards and nurses made informal arrangements with colleagues to exchange shifts in case they had an emergency.[67] For bus drivers in the Republic of Korea, collegial relations were a critical social and psychological resource, particularly since their long and asocial hours made it hard for them to maintain other social relationships. Bus drivers on the same shift shared hobbies and regularly socialized together after work.

The COVID-19 pandemic greatly limited social interactions with colleagues, both in and outside the workplace. For bus drivers, their regular social interactions with other drivers who would get off work late at night were severed, as there was no place to talk or spend time after work. As one Korean bus driver explained:

> *We used to go for a drink after, but now that's not possible. We go straight home. If I want a beer, then I get a couple of canned beers and take it home, and drink it in silence, watching TV, because everybody is sleeping.*

Similarly, a cleaning worker in a hospital in the Republic of Korea remarked how, prior to the pandemic:

> *All of us cleaning ladies would go to the (break) room and talk. We would always be laughing. I was so happy, being with them was so much fun. But ever since COVID-19, we can't use the break room anymore. We all just eat lunch in our assigned spots and just go home from there and come back to the same spot in the morning, get changed and start working. There's no more communication.*

Colleagues were also a source of emotional and financial support. One manufacturing plant supervisor in Peru related how, when he was sick, he received calls from his colleagues to see how he was doing. These same workers displayed other forms of solidarity among themselves:

> *We made family baskets to take to our colleagues. If there was a little money, those who could collaborate gave it … People are very supportive.*[68]

Key workers were also restricted in their interactions with patients or customers; at times this affected their ability to perform effectively, especially in care work. A social worker in a Mexican hospital remarked that she and her colleagues were limited in how they could support grieving family members:

> *You leave the family member alone and, well, the poor thing, because he is in pain, he is crying. And you can't even go near him because if he is positive, he can infect me, and I have a family.*[69]

Other workers felt compelled to ignore OSH protocols despite the risks, as it prevented them from performing their job in a manner that they were comfortable with. Marieke, a care assistant in a Belgian nursing home for dementia patients, explained:

> *When residents cry, I normally give them a hug. I help residents in bed. I could do this the cold way: "Here's your blanket, do it yourself." In such situations, I don't follow the 1.5-metre rule. I still hug and help residents in bed – it would be inhumane not to do so.*[70]

Managerial support is a critical determinant of the social environment at the workplace. A positive organizational culture keeps workers committed, improving collective performance at work.[71] Given the added pressures of being a key worker during the pandemic, having such support from managers proved to be a valuable resource for workers:

> *Our superiors gave us a lot of support and explained to us that we have to do this work. We were able to continue because they encouraged us. Not all Sir/Madam are as supportive as ours. We know that ASHAs in other areas had a very difficult time.*
>
> *ASHA worker, Hyderabad, India*

> *We feel comfortable talking to the boss. Whatever we need, we just tell him, and he is there to do it. He even asks us if we have any questions or if we want anything, what we think, and he encourages us to tell him. It's different here compared to other farms. Here, the boss never gets angry. He greets us and asks us how we are. And this makes us want to work better.*
>
> *Mexican farm worker, Canada*

There were also instances of workers who felt gratitude and appreciation for their work from patients, customers and the public at large. While health workers were the source of most public displays of gratitude, it did at times extend to other key workers, giving them an important sense of accomplishment and encouragement, especially as many of these professions have often been viewed with disdain.[72] A street cleaner in Peru recounted how, prior to the pandemic, she was treated poorly by the public, but this had changed and now she felt appreciated:

> *[Before] they would scream at us, "you do your job poorly, that is what you are paid for, this is what I pay my taxes for", but during the pandemic they applauded us … sometimes from their cars they would give us water … just like they gave to the police … This made us happy, it made us feel important … I felt like a heroine, and that is what made me feel like I needed to move forward and not give up.*[73]

Similarly, a Mexican farm worker in Canada explained:

> *A few times, a bakery … brought us a basket of bread because we were not allowed to leave during the pandemic. And it's not so much the products but … the way of showing to us that we mattered to them. That's how I saw this support … that they were interested in us as human beings in addition to recognizing the important work that we do.*[74]

A community health worker (ASHA) in the Indian city of Hyderabad recounted similar feelings of appreciation:

> *The families where people got [COVID-19] positive really appreciated us and blessed us. When we would go to give them medicines or help them go to the hospital, they would really thank us. Some even said we were like angels who came to help at a time even extended family and friends were not coming forward. When they said these things, we felt very happy.*[75]

The above examples illustrate the appreciation felt by the public or individual patients or customers to a particular worker. But gratitude can also come from within. Some workers came to realize the importance of their work and their contribution to society, as this Peruvian nurse explained:

> *I am proud to be a nurse … not to belittle the work of the doctors who are also on the front line, but they are not with the patient, they are not with the patient as we nurses are.*[76]

Such experiences demonstrate the important resources that gratitude and pride can give workers, allowing them to forge ahead despite the daily struggles in their work. Research on the effects of felt public gratitude on key workers in Canada, the United Kingdom and the United States found that key workers that felt appreciated were more likely to engage in healthy ("adaptive") recovery activities to relieve stress – exercise, spending time outside, seeking support from friends or loved ones, meditation, expressing gratitude, reading, watching or listening to something that "lifts one's spirits" – as opposed to "maladaptive" activities. Maladaptive activities include overconsumption of alcoholic beverages, tobacco or food, shouting at others, venting frustrations or misusing prescription drugs. The study includes a survey of 186 corrections officers in the north-eastern United States, an "essential" but invisible occupation. The survey found that corrections officers experienced "low levels of public gratitude", which were associated with maladaptive recovery activities. As one corrections officer reported: *"This job is thankless ... we believe that [people] feel that our lives are not as valuable as* other *first responders"* (emphasis added).[77]

But worse than a lack of gratitude was the stigma, harassment and violence that some key workers endured because of their occupations on the front line. Adverse social behaviour – a severe form of job strain – includes stigma, bullying and harassment and, at its worst, physical, psychological or sexual violence. It is associated with decreased work motivation, absenteeism and resignations, and is a risk factor for mental depression. The pandemic and the fears it caused among the public were often directed at key workers, either because of their association as potential carriers of the virus or simply because their frontline role made them an easy target for the public's frustrations.

Migrant workers have notoriously been subject to stigma by host communities, but the pandemic and fears that migrants were carriers of the disease heightened xenophobic sentiments, as well as making the return to their place of origin more difficult.[78] Accounts of stigma were also common among health professionals, as members of the public believed they would be likely to spread the virus because of their close contacts with those infected. A July 2020 article in *The Lancet* recounted cases of healthcare workers being denied access to public transportation as well as physical assault.[79] As a health professional in Malaysia put it: *"They view us like a COVID emoji"*.[80] In Hyderabad, India, an ASHA recounted the stigma that she and her colleagues endured from the public:

> ***During COVID-19 times, even neighbours would also say all kinds of things. That this woman goes all over, she will bring COVID-19. Some of the ASHAs who were renting [their home] had a lot of problems as the owners pressured them to vacate. Our house is our own so I didn't have that problem. I know ASHAs who had to vacate and didn't have anywhere to go. They stayed in the hospital till they could find a place.***[81]

In some instances, the stigma of being a frontline worker led to uncivil behaviour. Joyce, a food vendor in Ghana, recalled:

> ***[Some of] the customers who had cars ... will not even hand over money to me but would rather throw it to me. Some of them were throwing the money on the floor for me to pick it up.***[82]

Witnessing and managing uncivil, and at times violent, behaviour was great source of job stress. It also increased the amount of "emotional labour" that the worker was required to perform. The concept of emotional labour was developed by American sociologist Arlie Russell Hochschild in the 1980s to characterize those occupations where a worker is required to not only manage their emotional expressions and interactions with customers or patients, but where their emotional displays are also monitored and subject to control and discipline.[83] As such, interactions with customers and patients, when

negative, increase the emotional labour of frontline workers, adding to job strain.[84] Jay, a supermarket worker in the United Kingdom, recounted the incivility and violence he witnessed from customers during the first days of the pandemic and the toll it took on his colleagues:

> *It was like a war zone; customers were fighting over food and toilet paper ... I saw customers pushing, shoving and barging. I saw a customer grabbing another customer's collar. A colleague was crying because the customers were angry. She told me that she couldn't handle the pressure. Her manager was crying too ... My friend was working on the checkout and one customer had way more than the [maximum] three items. My friend was trying to do his job, saying "Sir, you can't buy more than three items of the same type". The customer said, "I'm going to f*** you up when I see you outside". Security came immediately and took the customer out of the store. Security was all over the place. We had to hire more security, the ones we had weren't enough to handle all the situations. It's shocking.*[85]

As mentioned earlier, in addition to their regular duties, many security guards were tasked with enforcing health safety protocols on customers and clients – complying with contact-tracing forms, taking customers' body temperature, ensuring the proper wearing of face masks and social distancing. Security guards interviewed in the Philippines reported how this task was stressful, how they had been shouted at and insulted by customers, as well as scolded by management if they were caught not enforcing the protocols.[86]

Street food vendors in Argentina, Ghana, India, Kenya and Peru recounted harassment and violence by the police despite their official recognition as "essential workers" in government decrees.[87] In Ghana, food vendors had curfew passes and were allowed to work but were nonetheless harassed by police. As a result, they would go to the wholesale market in the middle of the night to get their supplies for the next day as they were less likely to be stopped by police at that time.[88] Interviewees in Bihar, India, recounted how some farmers who had gone to their fields during the first lockdown to harvest their wheat and maize crops, were beaten up by the police, as well as the difficulties they had with the police in transporting their goods to market.[89]

Of particular concern are health professionals who, prior to the pandemic, were already experiencing elevated levels of violence and harassment. In a 2019 meta-study covering 332,000 healthcare professionals (235 separate studies), 43 per cent reported exposure to non-physical violence (verbal abuse and threats) and 24 per cent reported experiencing physical violence in the preceding year. Incidences were highest in Asia and North America.[90] In Italy, in just one year, 50 per cent of nurses were verbally assaulted in the workplace, 11 per cent experienced physical violence and 4 per cent were threatened with a weapon.[91] And this was before the pandemic.

Between February and July 2020, the International Committee of the Red Cross recorded 611 violent incidents across 40 countries against healthcare workers, patients and medical infrastructure associated with the COVID-19 response, about 50 per cent higher than average.[92] In May 2020, it issued a declaration along with 12 other medical and humanitarian organizations calling on "governments, communities and weapon bearers to respect and protect healthcare at all times, and to contribute to creating a protective environment in which healthcare can be provided safely".[93]

Voice and collective action as a resource for key workers

The ability to exercise voice with respect to work tasks and organization, as well as working conditions more generally, is an important resource for improving job quality.[94] This was particularly the case during

the pandemic, given the multiple demands placed on key workers. While a positive social environment at work with supportive management lends itself to voicing one's individual concerns, workers with union representation have formal channels to more easily, and often more successfully, voice collective concerns that effectuate change.

The qualitative interviews from the country case studies document instances of workers voicing their concerns about safety and health, as well as other issues such as unpaid wages (a concern among ASHAs in India and bus drivers in the Republic of Korea), and low pay. Unionized workers relayed their concerns through their union, which negotiated with management to address the issues or, in the absence of a favourable response, sometimes resorted to strikes or less formalized work stoppages. Other instances of collective action occurred among non-unionized workers, including informal workers, both employees and own-account workers.

Unionization rates among key workers differed depending on their employment and contractual status, as well as the degree of unionization in the specific country and the industry in which they worked (see Chapter 3). Among the countries studied, there is a wide divergence in unionization rates, with fewer than 10 per cent of employees unionized in Kenya, Malaysia, Peru, Philippines and Türkiye. However, these rates differ dramatically across economic sectors, with health, mining and some transport workers often unionized, even in countries with low unionization, whereas retail and agriculture tend not to be.

In Malaysia in July 2020, medical doctors on temporary contracts (known as contract workers) went on strike to demand the same rights and benefits as doctors on permanent contracts. As they explained: *"Our strike is not about resistance, we only want the government to give us the same rights and benefits that permanent doctors get. All of us here have been helping treat COVID-19 patients"*. Hospital cleaners came into the media spotlight in June 2020 when some union activists picketed for them to be paid decent wages and to be provided proper PPE for their work.[95]

In Peru, workers in unionized sectors, such as ports, mining and healthcare, assessed positively the support they received from their union in demanding health and safety improvements, but also highlighted the need to engage in collective action to effectively voice their concerns. A cleaner at a port in Peru recounted: *"We had to take forceful measures so that they would do the [COVID-19] tests … We had to stop working, it was like a strike … It was a negotiation so that the company would agree to test some of our colleagues"*. Similarly, unionized workers in a hospital in Peru mentioned how the union successfully negotiated for the workers to receive masks and oximeters.[96]

In the Republic of Korea, there was a clear dividing line among workers who were union members, and who could more easily voice their concerns during the pandemic, and those that were not. Unionized cleaning members recounted getting their demand for more masks met when their union argued for it, and bus drivers explained how their minority union was able to resolve the problem of delayed payment of their wages by pressuring the local government and filing complaints to the labour office. Similarly, the union of postal workers was able to negotiate so that the postal workers – who have a high degree of face-to-face contact with the public – would be given priority access to the vaccines. In contrast, hospital cleaning workers that were not unionized explained that they did not have a means to voice their opinions on such matters as mask provisions or the difficulties stemming from excessive workload.[97]

In Argentina, nearly half of all employees are covered by collective bargaining agreements and close to 30 per cent are members of a trade union. The formal employees interviewed for the case study all had union representation and some practice of organizing in the workplace. This gave them a voice in organizing work tasks in the context of the pandemic, including re-organizing shifts as well as demanding strengthened health and safety measures. Informal employees, on the other hand, lacked such means. An informal employee in a restaurant recounted how he and his co-workers prepared and signed a letter that they presented to the owner outlining their concerns over safety and health as they lacked representation.[98]

In Ghana, the union for nurses was able to negotiate with the government for six months of tax relief as a means to compensate the nurses for their contribution as key workers. An ASHA worker in Delhi, India, explained how their union needed to *"create a huge ruckus"* in order to receive back pay. *"We gave letters*

repeatedly, no one was listening, we picketed at the district office. After that, we got our payment. We got our payment for 2020 now recently [July 2021] after all the protesting".

Unions also made efforts to extend safety and health protections to non-union members. In Ghana, for example, food vendors recounted how the Ghanian transport union provided Veronica buckets in the food market where they worked so they could wash their hands. In India, a security guard mentioned how a union had led the vaccination campaign and how he was vaccinated at the union's office.

Informal, own-account workers also turned to collective action as a means to voice their demands. Sometimes this was through their associations, as in the case of motorcycle taxis in Lima, Peru; other times, it was the result of impromptu collective action. In Jharkhand, India, petty food traders protested the closure of a weekly market until they received consent from the municipal administration that it could re-open.[99]

Data on labour protest during the COVID-19 pandemic support findings from the case studies showing there was a significant reliance on strikes as well as other forms of collective action undertaken to channel workers' claims, including demonstrations, boycotts and social media campaigning. According to the Leeds Index of Social Protests, which covers labour protests in 90 countries as documented in media reports, between March 2020 and December 2021 there were 5,341 documented protests in health-care and 698 documented protests in retail (see box 2.1).

Box 2.1. Incidence and reasons for labour unrest across 90 countries

Data on labour protests in 90 countries between 2019 and 2021 reveal that collective action changed in two important ways during the COVID-19 pandemic: its frequency increased and the underlying causes of protest changed.

Global increases in collective action with variation by sector and region

Figure B2.1.1 shows that, in the health and retail sectors, the number of protests increased substantially at the onset of the pandemic, between April and May 2020. While the trends in protest are similar between the two sectors over time, significant differences emerge with respect to their frequency. In particular, levels of protest were much higher in the healthcare sector; this is likely attributable to the higher levels of unionization in the sector. A second trend that emerges is variation in the frequency of protest by region. Figure B2.1.2 shows that levels of protest were much higher in the health sector in Europe. While this is partially explained by higher rates of unionization among healthcare workers in that particular region, it is also explained by regional differences in response to COVID-19. For example, in Asia and Oceania, following the initial peak of infection in 2020, several countries adopted zero-tolerance policies through much of 2020 and 2021, attenuating the pandemic's impact on the healthcare sector.

Figure B2.1.1. Number of protests in healthcare and retail, 90 countries, Sep. 2019–Dec. 2021

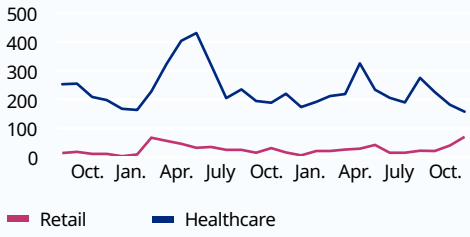
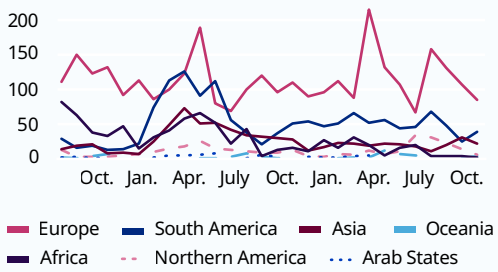
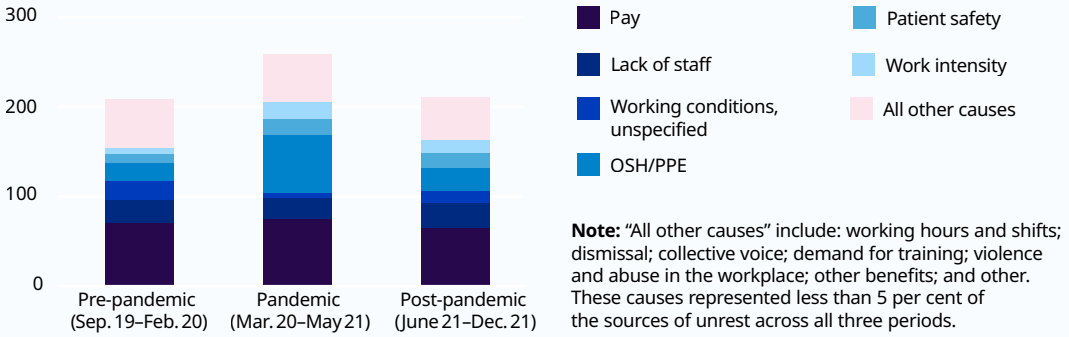


Figure B2.1.2. Number of protests in healthcare by region, Sep. 2019–Dec. 2021



Box 2.1. ***(cont'd)***

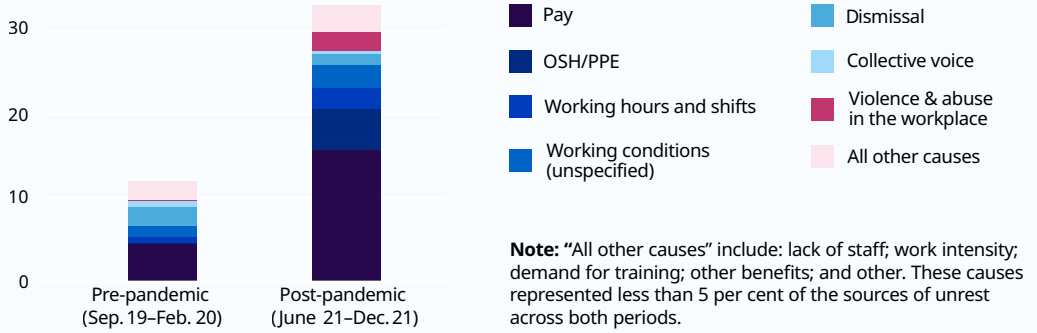
▶ **Figure B2.1.3. Average monthly protests in the healthcare sector by source of labour unrest, Sep. 2019–Dec. 2021**



Note: "All other causes" include: working hours and shifts; dismissal; collective voice; demand for training; violence and abuse in the workplace; other benefits; and other. These causes represented less than 5 per cent of the sources of unrest across all three periods.

Source: Trappmann et al., 2022.

▶ **Figure B2.1.4. Average monthly protests in the retail sector by source of labour unrest, Sep. 2019–Dec. 2021**



Note: "All other causes" include: lack of staff; work intensity; demand for training; other benefits; and other. These causes represented less than 5 per cent of the sources of unrest across both periods.

Source: Trappmann et al., 2022.

Non-pay-related aspects emerge as important causes of labour protest

Non-pay-related aspects of employment assumed greater importance both during and following the pandemic in the health (figure B2.1.3) and retail sectors (figure B2.1.4). Figure B2.1.3 shows that, while the average number of protests in the healthcare sector had returned to pre-pandemic levels by 2021, there was a shift in their underlying causes. In particular, there was a decline in the share of protests related to pay (from 34 to 31 per cent); this was offset by a rise in protests related to OSH, especially around the provision of PPE (from 9 to 12 per cent), patient safety (from 5 to 8 per cent) and work intensity (from 3 to 7 per cent).

Unlike the health sector, the average number of monthly protests in the retail sector increased substantially in the post-pandemic period. Some similar trends emerge, however, with respect to the change in the causes of protest. For example, while the importance of pay actually increased in this sector, the share of protests attributable to complaints about OSH, including PPE provision, also jumped from about 1 per cent to close to 15 per cent. Violence and abuse in the workplace was also particularly important to the retail sector, increasing from about 1 per cent of sources of protest prior to the pandemic to about 7 per cent in the post-pandemic period (second half of 2021).

Excess strain: worsened mental health among key workers

> *To see the patient asking you for oxygen like that and you not being able to give him more, it was a great shock ... there were days when I finished my shift and I started to cry ... it was a tremendous stress.*
>
> *Medical doctor of COVID-19 patients, Peru*

> *[My] insurance (ART) together with my personal doctor advised me to have an interview with a psychologist and so I did and now I am in treatment ... I collapsed mentally.*
>
> *Subway worker, Argentina*

Working during the pandemic placed multiple demands on key workers, including risk and fear of contagion, heightened work intensity, family separation, restricted social interaction, adverse social environment and, for some, especially informal workers, financial stress. Moreover, important resources, such as social interaction with colleagues, were compromised on account of safety and health protocols. Many key workers lacked the support of a union and felt the need to turn to protest to voice their concerns. Given the heightened and potentially severe job strain, it is not surprising that many key workers experienced increased levels of anxiety and depression as well as burnout.

Since 2020, there has been a growing literature evaluating the mental health of key workers.[100] Most of the studies have focused on health workers, but other key workers have also become a subject of research. With respect to healthcare workers, studies from the first weeks of the pandemic document how the fear of getting sick, insufficient PPE and high work intensity negatively affected workers' mental health. A study of 326 Italian healthcare workers undertaken just five weeks after the start of the COVID-19 pandemic found that nearly 40 per cent of healthcare professionals were suffering from high emotional exhaustion.[101,102] Six months into the pandemic, a survey of 342 hospital workers in the Islamic Republic of Iran found that job stress and burnout were high among all staff, with 49.5 per cent of hospital workers who were in direct contact with COVID-19 patients reporting burnout, followed closely by 45 per cent of second-line hospital workers. The lack of support in the workplace and the lack of transparency in job responsibilities were reported as the predominant causes of stress and burnout. In addition, the lack of adequate PPE and the risk of transmitting the disease to their family aggravated the psychological problems of employees.[103] Similar studies of healthcare workers have documented elevated levels of burnout among healthcare personnel in Argentina,[104] India,[105] Morocco,[106] the Republic of Korea[107] and elsewhere. A 2021 meta-review of 30 articles covering 32,000 healthcare professionals working during the COVID-19 pandemic found that nearly half of them were experiencing burnout.[108]

There has also been a series of studies looking specifically at non-health key workers, comparing different types of key workers, or comparing key workers with non-key workers or the general population. In the United States, several studies have been undertaken on grocery store workers on account of their high degree of contact with the public and social media coverage of incidents of adverse social behaviour. A survey of 3,344 supermarket workers in the state of Arizona found that the fear that customers might initiate negative interpersonal interactions led to increased anxiety and depression, whereas the strongest mitigator of perceived stress was feeling safe at work.[109] A similar study of 842 grocery store workers in California found that the fear of contracting COVID-19 was significantly and positively related to anxiety, while fear of COVID-19 and the perception of workplace threat (retaliation from customers for imposing OSH protocols) were positively related to depression and post-traumatic stress symptoms. A total of 40 per cent of respondents requested increased safety protections in the workplace.[110]

In the United Kingdom, a representative survey of 1,281 adult key workers by the Royal Society for Arts (RSA) reported that, in July 2020, 58 per cent of all key workers, 64 per cent of National Health Service (NHS) staff and 61 per cent of supermarket workers reported that they were finding it more difficult to maintain their mental health. As the pandemic dragged on, later waves of the survey revealed that the percentage of key workers reporting such difficulty had increased to 65 per cent overall in March 2021, and to 73 per cent among NHS staff specifically.[111]

In Wuhan, China, a study undertaken between February and March 2020 of 191 non-health key workers – security guards, transport staff and cooks providing services for medical workers and patients – found that 50.3 per cent of participants had clinically significant symptoms of depression. The authors explain that the government had sent psychologists to treat medical personnel and argue that non-medical frontline workers also need psychological support.

A study of mental health in the general population in 11 countries (Brazil, Bulgaria, China, India, Ireland, North Macedonia, Malaysia, Singapore, Spain, Türkiye, United States) between June and August 2020 found that, while there was substantial variation across countries in anxiety and depression, the biggest risk overall was greater personal exposure to COVID-19.[112] The literature thus demonstrates that the obligation to leave one's home to work on the front lines in the pandemic – whether in health or other key services – heightened feelings of stress and anxiety, which, if not properly addressed, risked developing into depression and burnout.

2.3. COVID-19 and the challenges for key enterprises

Just like with key workers, there was an important distinction between enterprises that could continue operating because they produced key products and services ("key enterprises") and those that could not. Allowed to continue operating, key enterprises nonetheless faced substantial impediments to their operations: lockdowns or restricted hours, lower demand, disrupted supply chains, financial uncertainty, declines in investment, as well as managing staff who were concerned for their safety, sick or unavailable because of transport restrictions or care responsibilities, not to mention unruly customers. Enterprises were also obligated to adapt their operations to comply with emergency OSH guidelines that could be erratic, complicated and costly to implement.

While there were some commonalities among the experiences of key enterprises, there were also stark differences depending on the goods or services they produced, their position in the domestic or global supply chain, the severity of restrictions in the locality in which they operated, whether they benefited from government assistance, the adeptness and experience of their owners or managers, and, most importantly, whether they were a large, well-financed and diversified enterprise or a microenterprise with no employees, no capital and no financial cushion for hard times.

Similarly to the previous section, which narrates the challenges for key workers of working during the COVID-19 pandemic, this section provides an overview of the challenges faced by key enterprises, based on qualitative interviews. The analysis is structured along the following main themes: the effects of the pandemic on their operation and sales, the adaptation strategies implemented to face these challenges, and the difficulties in complying with OSH protocols. With 85 per cent of key workers employed in the private sector, it is important to understand the struggles – and opportunities – of key enterprises during this time of crisis.

As mentioned, key enterprises are those enterprises offering goods and services that were deemed essential during the pandemic. According to data from the World Bank Enterprise Surveys (WBES) for

27 countries,[113] approximately 53 per cent of enterprises in the sample were designated as key enterprises during the COVID-19 pandemic.[114] By firm size, around 45 per cent of these key enterprises were small (5–19 employees), 32 per cent were medium-sized (20–99 employees) and 22 per cent were large (100+ employees).

Effects of the pandemic on the operation and sales of key enterprises

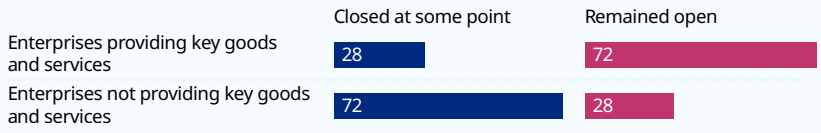
Being classified as a key enterprise allowed firms to continue operating, which indisputably gave these firms an advantage vis-à-vis other enterprises that were not considered key and whose operations were restricted during periods of lockdown. Indeed, 72 per cent of key enterprises in the WBES sample were able to remain open throughout lockdowns, compared with 28 per cent of firms not providing key goods and services. Yet, being permitted to stay open did not necessarily mean that the key firms would actually stay open or continue to operate. A total of 28 per cent of the firms providing key goods and services still closed at some point (figure 2.4), according to the WBES sample.

The ability to continue operating did not mean, however, that key enterprises were immune to disruption. In agriculture and fishing – which were designated as key economic sectors in all countries – shifts in consumption, transport impediments and problems with staffing reverberated across the industry. The closing of restaurants and the cancellation of weddings and other events, accompanied by a shift in demand for food that could be cooked at home, meant that farmers, fishers and meat packers had to adjust product offerings, where possible.

In meat packing, this meant shifting production from products prepared for the wholesale market, such as prime rib, to the lower-quality cuts of meat, such as chuck and ground beef, that are sold to retail outlets for purchase by households in supermarkets. Added to this challenge were the many COVID-19 outbreaks in meat packing facilities stemming, in part, from the production process, which is organized as an assembly line with workers in close proximity performing repetitive movements in a cold environment.[115] Combined, the effects wreaked havoc on upstream and downstream supply chains, resulting in a surplus of livestock that could not be processed and a shortage of meat products available for purchase by households in grocery stores.[116] A similar experience occurred in aquaculture, as demand fell for fresh fish products, but rose for canned, frozen and processed fish. In addition, border closures impeded fish exports, forcing aquaculture farmers to maintain significant live stocks in production facilities, incurring additional feed and monitoring costs, and increasing fish mortality risks.[117]

Further up the supply chain, farmers of some crops were negatively affected by declining prices. Cardamom farmers in Kerala, India, reported a dramatic drop in price from 3,000–4,000 Indian rupees per kilogram to 1,000–1,500 rupees per kilogram beginning in April 2020, as a result of lack of demand on the international market, shutdowns and an overabundance of stock due to a good harvest. At the same time, the prices of fertilizers and pesticides used in the production of cardamom rose by 25 per cent. As a result, farmers reported falls of 30 per cent in their income, which caused many to exhaust their savings

Figure 2.4. Operational status, by provision of key goods and services (percentage)



Note: The sample consists of 9,169 firms. Sampling weights applied.
Source: Analysis based on WBES. See Appendix for more details.

and take out loans.[118] The farmers also reported problems with finding labourers as migrants from the state of Tamil Nadu were unable to cross state borders, and even local labourers had difficulty reporting to work during the first lockdown in March 2020.

In addition, transportation and other bottlenecks heavily disrupted supply chains, both international and domestic. According to the WBES data, a total of 43.7 per cent of enterprises providing key goods and services experienced negative impacts around the supply of inputs – lower than the 65.4 per cent reported by non-key enterprises but nonetheless substantial. In India, data from one of the largest online grocery retailers found that online product availability of vegetables, fruits and edible oils fell by 10 per cent in the three weeks following the imposition of a strict lockdown on 25 March 2020. The effect at primary agricultural markets, known as Mandis, was even more pronounced, with the quantity of vegetables and fruits arriving for sale to intermediaries falling by 20 per cent in Delhi and Kolkata as a result of freight disruptions.[119] Other key goods and services were also affected by transport disruptions. The pharmaceutical industry, for instance, faced difficulty in shipping products internationally as commercial flights were drastically reduced.[120]

Small businesses were similarly affected by supply chain problems. In Kenya, limited transport services and the closure of borders, including with Uganda and the United Republic of Tanzania, complicated procurement, especially in remote areas, with ripple effects on the prices of goods and services.[121] Similar experiences were observed in Malawi; traders who travel to neighbouring countries to buy merchandise to supply the city centres and marketplaces were unable to replenish their stocks.[122]

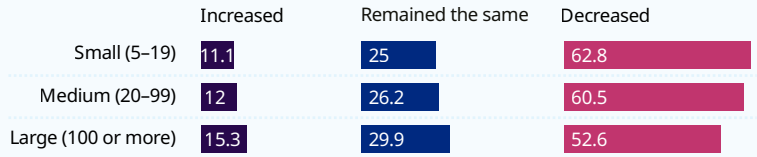
While supply problems caused disruptions in operations, the greatest impact was on the demand side, especially for micro and small businesses, which rely on foot traffic that was hampered by movement restrictions. In Accra, Ghana, a survey of informal workers found that, in July 2020, the earnings of market traders and food vendors stood at only one third of pre-pandemic levels.[123] The experience of Adele, a street trader, confirmed such findings: *"There are days when we sit here all day and make no sales ... that is how bad it has become"*.[124] Another food vendor recalled how *"we were closing by 4 p.m. instead of the usual 6 p.m. because there were no customers to buy the food we prepared. The place was very quiet and it was difficult to believe that we were in Accra"*.[125] As the pandemic continued, the negative effects in some instances multiplied, given that the customers of the food vendors had reduced their consumption because of income loss. From the beginning of the pandemic, there was a drop in food expenditure across developing countries due to reduced incomes. Compounding the financial troubles of food vendors was the entrance of displaced workers into food vending during the crisis, a phenomenon experienced across countries. An advantage of informality – ease of entrance – becomes a disadvantage when the activity serves as a refuge for workers who have no robust social protection system to depend on during hard times. New entrants increased competition among vendors, lowering the income of all vendors. By mid-2021, more than 60 per cent of the street vendors in 11 major cities in the global South reported their earnings were a mere quarter of what they made prior to the pandemic.[126]

While supply problems caused disruptions in operations, the greatest impact was on the demand side, especially for micro and small businesses.

Thus, even though key enterprises were able to continue operating, many experienced declines in sales and income. According to WBES data, which do not include agriculture or microenterprises but do include food processing and retail, 62 per cent of key enterprises experienced a drop in sales (compared with 81 per cent of non-key enterprises) during the pandemic. Among key enterprises, there was some variation by firm size. Just over half of large firms experienced a drop in sales, but the outcome was worse for medium-sized (60.5 per cent) and small firms (62.8 per cent). Some enterprises prospered but, here again, it was larger firms that did better, with 15.3 per cent reporting an increase in sales, compared with 11.1 per cent among small firms (see figure 2.5).

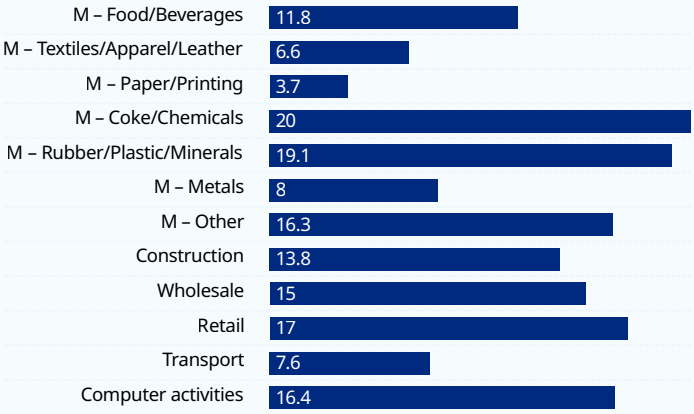
Nevertheless, as the data show, some enterprises prospered in the pandemic. Disaggregating further the enterprises that reported growth in sales, there is a clear distinction by sector, which is not surprising given the demand for specific products as a result of the COVID-19 pandemic. One in five enterprises engaged

Figure 2.5. Impact on sales, by size of enterprise, among key enterprises (percentage)



Source: Analysis based on WBES. See Appendix for more details.

Figure 2.6. Key firms reporting increased sales during the pandemic, by sector (percentage)



Note: M = manufacturing. The sample of enterprises producing key goods and services consists of 4,480 firms. Sectors with small sample size (≤30) were excluded.

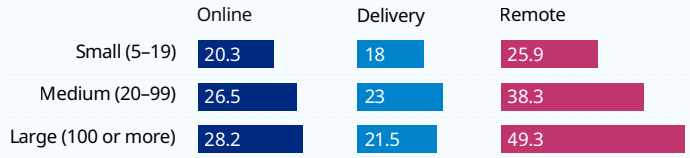
Source: Analysis based on WBES. See Appendix for more details.

in "Coke/Chemicals" and "Rubber/Plastic/Minerals" reported increased sales; enterprises in "Wholesale" and "Retail" trade and "Computer activities" also did relatively well, with 15–17 per cent reporting positive sales (see figure 2.6). In contrast, few enterprises in the "Paper/Printing" sectors did well, likely because of the marked shift to working from home.[127]

The impact on sales was driven by demand but was also determined by the ability of enterprises to innovate and adapt in response to the business disruption. Adaptations by enterprises include restaurants shifting to take-out, garment manufacturers switching to the production of face masks,[128] or paint and beverage manufacturers producing hand sanitizer and disinfectants.[129] Digitalization and the shift to e-commerce provided a means for enterprises to reach customers despite lockdowns, curfews and social distancing rules and preferences, with remote work facilitating continuity in business operations.

Among key enterprises, there were differences in terms of responses and adjustments according to firm size. Large enterprises were more likely to implement remote working – 49.3 per cent compared with 38.3 per cent of medium-sized enterprises and 25.9 per cent of small firms (see figure 2.7). The same differences by size were less marked, but still evident, for those that started or increased their online presence (20.3 per cent of small firms compared with 28.2 per cent among large firms). Regarding delivery, medium-sized firms turned to this option the most (23 per cent), with 18 per cent of small firms also starting or increasing this option, likely reflecting the smaller size of most restaurants and retailers. In all cases, however, small enterprises were least able to adapt.

Figure 2.7. Key enterprises that started or increased online sales, delivery or remote work during the pandemic (percentage)



Source: Analysis based on WBES. See Appendix for more details.

> *People had to stay at home, but they needed services, they needed articles, they needed many things, and we had to bring them to them. So that has changed a lot, we have become very visible.*
>
> *Owner, international package delivery business, Mexico*[130]

Moving to online sales and delivery required adjustments in operations. Restaurant owners in Malaysia explained how the shift involved adapting their menus, investing in appropriate packaging and setting up delivery services. The enterprises also had to rely more on advertising and develop systems to take orders online.[131] Elsewhere, restaurants and non-food retailers opted to use intermediary platforms that provided the services of online ordering and delivery, either because they did not have the means to develop their own infrastructure, or because the important market position of the platforms meant that, if the enterprises did not use their services, sales would be insufficient.[132] However, the high fees and commissions charged by e-commerce and food delivery intermediaries – typically amounting to close to one third of the sale price – risked compromising the financial viability of small enterprises.[133] In view of this, it is not surprising that some of the biggest winners from the pandemic have been e-commerce firms. In 2021, Amazon posted a 44 per cent rise in global sales and record profits of US$8.1 billion, an increase of 220 per cent,[134] and Flipkart, India's second-largest e-commerce retailer, posted a 25 per cent increase in revenue for fiscal year 2021.[135]

Complying with OSH protocols

While most enterprises producing key goods and services were allowed to continue operating, they were nonetheless obligated to comply with workplace safety and health protocols to both ensure the safety of their staff and clientele and mitigate the potential spread of the virus in the community. At the outbreak of the COVID-19 pandemic, WHO released guidance on workplace safety and health measures,[136] as did most countries. While many of these guidelines were applicable universally, some of them were more suited to developed country settings, particularly formal workplaces. For instance, the guidelines suggest to "make clear to employees [isolating themselves at home] that they will be able to count this time off as sick leave" – something that is not universally available, either in law or in practice. Informal enterprises in low-income countries were also less likely to have access to water and sanitation facilities, making it harder to comply with the guidelines.

As the nature of COVID-19 was not fully understood until several months into the pandemic, advice could also be confusing as well as difficult and costly to implement, especially for smaller firms that lacked experience with workplace safety and health measures.[137] A restaurant owner in Peru explained how *"[we] did not have the resources to implement, supervise and monitor the protocols … we tried to implement it as much as possible, but it is impossible to do it 100 per cent … the fear was, more than getting infected, the municipality and its fines"*.[138] For larger firms, the measures could still be

cumbersome and costly to implement but were recognized as a means to ensure business continuity, as the experience of citrus growers in the Western Cape of South Africa demonstrates (see box 2.2).

At the outbreak of the pandemic, some enterprises experienced difficulties in convincing workers to report to work. An owner of a coffin-making workshop in Peru explained that there was concern among the staff about continuing operations, and that *"we thought about closing it, but I was saying how we … cannot close, there is a demand, there is a need, there is a great need for coffins, how can we close if it is our line of business, it is our work, it would be irresponsible to close, then we talked with everyone and so we agreed [to remain open]"*.[139] The owner commented that precautions were taken so that funeral parlour staff could no longer enter the workshop and how they required the use of masks and hydroalcoholic gel.

Quarantine measures could also affect workplace staffing.[140] A central protocol in virus mitigation was having staff who tested positive, had symptoms, or who were in contact with infected persons to self-isolate or quarantine.[141] As part of the self-isolation or quarantine enforcement, a number of countries introduced contact tracing, often enforced by phone calls or use of apps.[142] In the United Kingdom, the NHS Test and Trace programme, a contact-tracing initiative, was launched in response to the pandemic to help curb the spread of COVID-19 by tracking users in different institutions and notifying them if they had been in close contact with a person who had tested positive for the virus. The Test and Trace scheme was widely implemented and resulted in reductions in the spread of COVID-19.[143] Nonetheless, it posed challenges for employers as it intensified workplace shortages, particularly in occupations that required close in-person contact. In the United Kingdom, the workforce impacts were so acute that the situation was dubbed a "pingdemic".[144]

After the rollout of the COVID-19 vaccines, many countries instituted rules requiring cooperation from employers to help monitor their employees' vaccination status. For example, in the United States, any business with over 100 employees needed to show proof of vaccination for their employees or undergo regular testing.[145] In Italy, when the Green Pass was in effect, unvaccinated employees were sent home without pay.

Despite the difficulties and cost of compliance with certain COVID-19-related protocols, these protocols did allow for business continuity. In Canada, for instance, the measures implemented, including those to facilitate distancing, were found to be appreciated by Canadian shoppers.[146]

Box 2.2. Safety and health measures among large citrus growers and packhouses in the Western Cape, South Africa

The experience of large citrus growers and packhouses in the Cederberg region in the Western Cape province of South Africa gives an indication of the extent of workplace safety and health measures taken to limit infection and ensure their businesses could continue operating. As in other parts of South Africa, the growers and packhouses in Cederberg are part of the global value chain of fresh fruits, with a variety of citrus and other produce exported primarily to Europe but also to other parts of the world. Production is organized in large plantations and packhouses, employing at peak harvest times between several hundred and several thousand workers, depending on the producer. Workers are predominantly internal migrants, but also include migrants from Lesotho and Zimbabwe. While some workers live in on-farm hostels, most reside in informal settlements and are transported daily to the plantations and packhouses on farm trucks provided by the employer.

Given the State's warning that key businesses would be shut down if they did not comply with COVID-19 health and safety protocols, the Citrus Growers' Association (CGA), the commodity organization representing citrus producers, formed a COVID-19 Response Committee (CRC) in order to advise its members on compliance. From 15 April to 27 August 2020, the CRC met weekly to discuss the industry's response to COVID-19. The risk of workers falling ill and

Box 2.2. ***(cont'd)***

jeopardizing entire harvesting teams, packhouses, cold stores and shipping terminals was identified as a major risk. Another was that the State might restrict the movement of migrants, preventing them from reaching farms and packhouses.[1]

The CRC consulted widely to collect best practices on implementing COVID-19 regulations, including with the Department of Agriculture, Land Reform and Rural Development (DALRRD) and with fruit industry representatives from Australia, New Zealand and Spain. It asked its members to share tips and experiences of coping with COVID-19 in the workplace. It eventually developed two best practices guidelines for producers: one for workplaces and one for transporting workers. It also sent newly published government directives to its members and updated its own guidance based on the evolving information and directives. Between April and July 2020, the CGA distributed 44 memos containing guidelines to its members and also distributed posters and pamphlets that producers could display in workplaces.

While the activities of the CRC were put on hold after the first wave, it was reconvened to deal with the Delta variant of the virus. This time representatives of the DALRRD, the Fresh Produce Exporters Forum, the Perishable Produce Export Control Board and AgBIZ were invited to join the CRC, leading to closer cooperation between agriculture and government institutions. Most other commodity organizations as well as the national farmers' organization, AgriSA, and ethical trade organizations, such as the Sustainability Initiative of South Africa and the Wine and Agricultural Ethical Trade Association, supported their members in similar ways. In addition, in the Cederberg region, various local WhatsApp groups were established, linked to AgriSA, community policing forums and the Cederberg's medical manager (who conveyed guidelines via the Department of Health). In short, large exporting producers received substantial information and guidance on how to deal with the pandemic.

Despite having access to the same information, producer responses to the pandemic sometimes differed markedly, ranging from extreme caution to dismissal. One producer (P6) recounted how he locked the gates to his farm after ending up in hospital with COVID-19, while another (P4) "realized that COVID was no joke" following the death of one of his senior managers. P4 developed a contact-tracing app to be able to quickly quarantine all contacts, hired a consultant to ensure that COVID-19 risk prevention strategies were implemented on his farm and conducted a detailed COVID-19-specific risk analysis of his workplace. Another producer, P3, in addition to conducting a COVID-19-specific risk analysis, appointed a COVID-19 management team (including senior management, HR, the packhouse quality controller and the shop steward) and instructed its industrial nurse to monitor high-risk areas on an ongoing basis. At P2, workers who did not wear masks in the packhouse received disciplinary warnings. At the other end of the spectrum was P1, who recounted: "I told the workers it is nonsense – if your spit stays behind your mask, it cannot influence anybody"; he also did not implement social distancing protocols.

Once vaccinations became available, all of the producers – with the exception of P1, who was sceptical – embraced the opportunity to vaccinate themselves and their workers. In the Citrusdal area, the largest producers organized a vaccination drive in cooperation with the Department of Health, with all producers in the area invited to participate in the drive. On the farms of producers interviewed, vaccination rates were above 90 per cent immediately after the drive, with P5 boasting the highest vaccination rate, at 99 per cent. He not only provided free transport to workers to vaccination sites, but he also launched an extensive vaccination campaign over cell phones, messaging workers throughout the epidemic about how to avoid COVID-19 and, later, extolling the benefits of vaccination. The workers interviewed confirmed that they were encouraged to get vaccinated and were provided with free transport to vaccination sites.

Box 2.2. ***(cont'd)***

While two producers (P1 and P5) described the impact of the pandemic on their businesses as "negligible", all producers remarked that their transport costs had doubled as a result of implementing social distancing guidelines. P4 reported that the costs of implementing the different measures came to approximately 1.1 million South African rand (around US$61,000) on additional transportation; appointing a consultant to monitor the implementation of COVID-19 regulations; fumigating and sanitizing indoor spaces; appointing a contractor to clean and sanitize hostels on a daily basis; purchasing masks and sanitizers; and buying food hampers for ill workers. P3 spent approximately 1.5 million rand (around US$83,000) on sanitation, masks, fumigating the packhouse and appointing ten extra cleaners to sanitize the packhouse. While the measures were extensive and costly, these large producers had the requisite information and financial means to implement the safety protocols, allowing them to continue their operations.

[1] CGA, 2021, 22.

[2] CGA, 2021.

Source: M. Visser, 2023.

Notes

1 ILO, 2020r.

2 Murti et al., 2021.

3 WHO, n.d.(a).

4 According to the methodology used in this report, key workers are those who are in a key occupation working in a key industrial sector. Unfortunately, owing to lack of data, the analysis in this section could not incorporate the sectoral dimension. As a result, the occupational categories used in this section are broader than in the rest of the report.

5 Calculating mortality of key workers is not easy because of data limitations, given that such calculations require publicly available timely data on both the labour force and mortality by detailed occupation and/or industry. The three countries whose data satisfied all these conditions were Brazil, England (United Kingdom) and the United States (United States National Vital Statistics System (NVSS) data have information on occupation and industry only for 2020 and onwards). England provides linked data sets in which deceased workers are matched to census data, but there are no linked data for Brazil and the United States. Lack of linked data is not particularly serious as the mortality rate can be calculated as the ratio between deceased workers from the mortality data and living workers from labour force surveys.

6 Data for mortality come from the US NVSS, provided by the Centers for Disease Control and Prevention (CDC); data for the population (number of key workers, or workers in a given occupation) come from the Current Population Survey (CPS) conducted by the US Census Bureau. Using the first two months of a given year as a baseline for calculating excess mortality is far from ideal. Two months is not long enough and deaths in January and February suffer from seasonal variation. Nevertheless, it is the best that can be done because NVSS data previous to 2020 do not publish occupation and industry.

7 Hummer, Rogers and Eberstein, 1998.

8 The controls are undertaken through a logistic regression in which mortality is the result, key worker is the explanatory variable, and the controls are age, sex and a composite for education.

9 Controlled excess mortality is the difference in mortality associated with the key worker coefficients. The increase in mortality associated to a logistic regression coefficient is the change in probability of death, given by the logistic function evaluated at the average probability of death:

$$\Delta p = \frac{1}{1+e^{(x_0+\beta_{key})}} - \frac{1}{1+e^{(x_0)}}$$

where b_{key} is the coefficient associated with key workers and x_0 is the argument which yields average mortality for all workers.

10 Pure COVID-19 mortality is calculated as deaths having as their first International Statistical Classification of Diseases and Related Health Problems (ICD) code U071, B342 or U049, divided by the relevant population. This is an underestimate of actual COVID-19 mortality due to misdiagnosis or the code above being listed as the secondary or tertiary cause of death.

11 Chen et al., 2021.

12 Chen et al., 2021.

13 Matz et al., 2022. The data for England are the only data in which decedents are actually merged with labour market data from the census.

14 The authors use the term "essential workers" in their study. Since they identify these essential workers in a way different from the one in which this report identifies key workers, "key" was not changed to "essential" when presenting their results.

15 Nafilyan et al., 2021.

16 A hazard ratio of 1.45 means that the mortality rates of key workers are 45 per cent higher than those of non-key ones (not 45 percentage points, but 45 per cent higher).

17 Mortality from COVID-19 is also a function of underlying health conditions that vary according to the occupation. In some occupations, smoking and obesity are more prevalent than in others. The studies analysed here have not been able to take these differences into account because of data limitations.

18 DARES, 2021.

19 Calvo-Bonacho et al., 2020.

20 Al-Kuwari et al., 2021.

21 Dean, Venkataramani and Kimmel, 2020; Firouzi Naeim and Rahimzadeh, 2022; Soares and Berg, forthcoming.

22 Leigh, 1981.

23 Weil, 1991.

24 Mishel, 2012.

25 Firouzi Naeim and Rahimzadeh, 2022.

26 Soares and Berg, forthcoming.

27 El Colegio de la Frontera Norte, 2020.

28 Baumelster, 2021.

29 The per cent difference in incomes between Costa Rica and Nicaragua is about the same as that between the United States and Mexico.

30 Douglas and Marema, 2020.

31 Mano, 2020.

32 State of California, n.d.

33 Source: ILOSTAT.

34 In Brazil, all workers with a labour card are registered in the Cadastro Geral de Empregados e Desempregados (CAGED). Specifically, whenever an employment link is made or broken, it is registered and the reason given, including death of the worker.

35 Pereira Galindo, Pereira Silva and Pedreira Júnior, 2022.

36 See Karasek, 1979; Karasek and Theorell, 1990; Siegrist, 1996; Bakker and Demerouti, 2007.

37 Eurofound and ILO, 2019.

38 Schaufeli and Taris, 2014.

39 ILO, 2021c.

40 Qin et al., 2021.

41 Elbert, Boniolo and Dalle, 2022.

42 Lim, 2022.

43 Vosko et al., 2022.

44 Unpublished background study prepared for the ILO.

45 Darkwah, 2022.

46 Vosko et al., 2022.

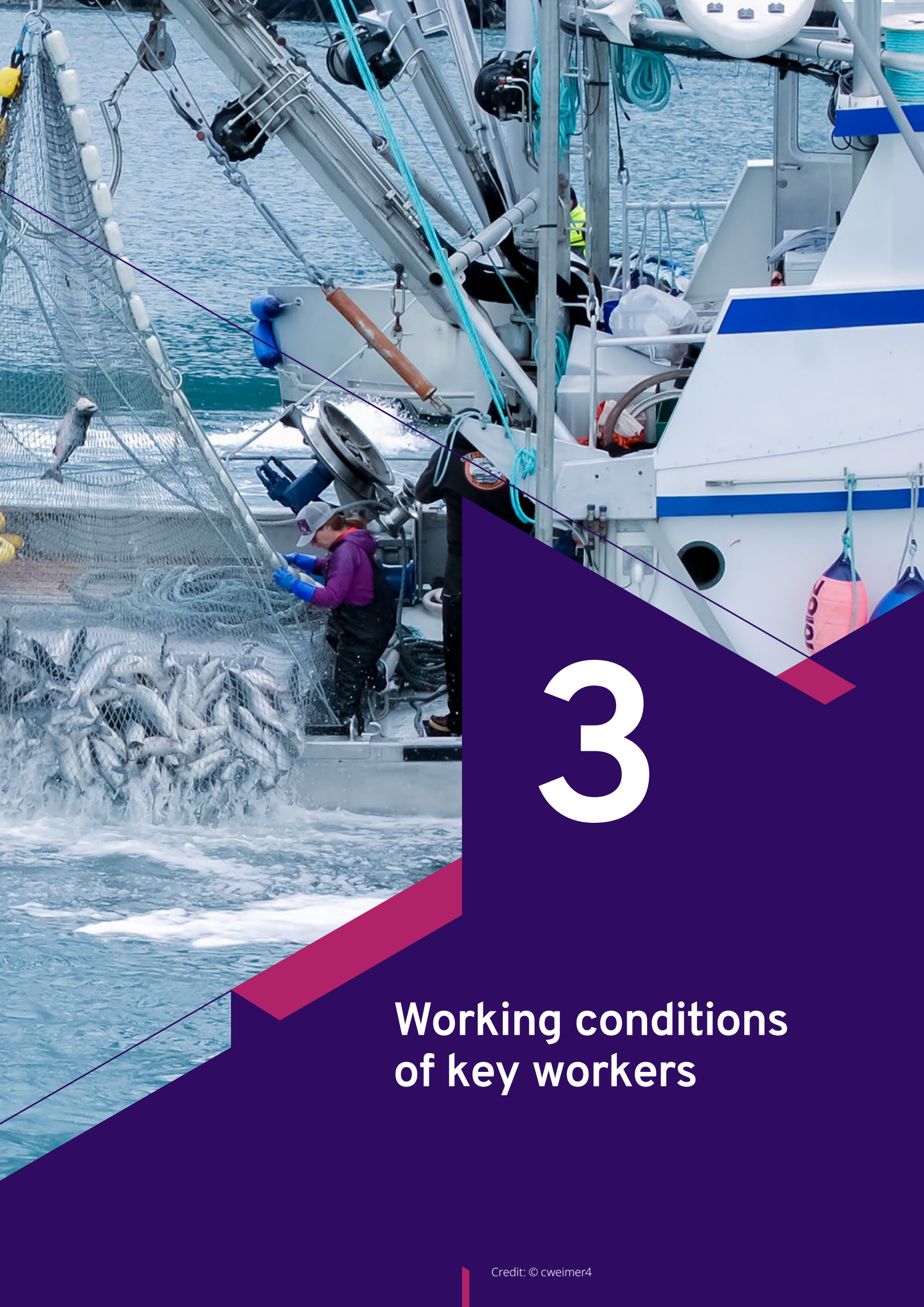
47 Elbert, Boniolo and Dalle, 2022.

48 Unpublished background study prepared for the ILO.

49 Darkwah, 2022.

50 Interview with Lucrecia, Mexican nurse, on 24 August 2021.

51 Unpublished background study prepared for the ILO.
52 Manky et al., 2022.
53 Unpublished background study prepared for the ILO.
54 Manky et al., 2022.
55 Vosko et al., 2022.
56 Eurofound and ILO, 2019.
57 Eurofound and ILO, 2019.
58 Eurofound and ILO, 2019.
59 Unpublished background study prepared for the ILO.
60 Unpublished background study prepared for the ILO.
61 Unpublished background study prepared for the ILO.
62 Loustaunau et al., 2021.
63 Lim, 2022.
64 Unpublished background study prepared for the ILO.
65 Indeed, job satisfaction indicators are more likely to reflect an individual's feelings about their social environment at work as opposed to workers' evaluations of their contractual conditions (Rose, 2003).
66 Seppälä and Cameron, 2015.
67 D. Singh, forthcoming.
68 Manky et al., 2022.
69 Unpublished background study prepared for the ILO.
70 Vermeerbergen et al., 2021.
71 Eurofound and ILO, 2019.
72 Hughes, 1958; Press, 2021.
73 Manky et al., 2022.
74 Vosko et al., 2022.
75 D. Singh, forthcoming.
76 Manky et al., 2022.
77 H. Kim et al., 2022.
78 Jones, Mudaliar and Piper, 2021.
79 Bagcchi, 2020.
80 Lim, 2022.
81 D. Singh, forthcoming.
82 Darkwah, 2022.
83 Hochschild, 2012.
84 Joo and Rhie, 2017.
85 Cai et al., 2021.
86 Unpublished background study prepared for the ILO.
87 WIEGO, 2021.
88 Darkwah, 2022.
89 Dev and Rahul, 2022.
90 J. Liu et al., 2019.
91 Vento, Cainelli and Vallone, 2020.
92 ICRC, 2020.
93 Healthcare in Danger, n.d.
94 Bryson and Green, 2015.
95 Lim, 2022.
96 Manky et al., 2022.
97 Unpublished background study prepared for the ILO.
98 Elbert, Boniolo and Dalle, 2022.
99 Dev and Rahul, 2022.
100 Barello, Palamenghi and Graffigna, 2020.
101 Emotional exhaustion is defined as having one's emotional resources depleted with no source of replenishment.
102 Barello, Palamenghi and Graffigna, 2020.
103 Sadeghipour, Aghdam and Kabiri, 2021.
104 Scatularo et al., 2021.
105 Khasne et al., 2020.
106 Kapasa et al., 2021.
107 M. Kim et al., 2022.
108 Ghahramani et al., 2021.
109 Janson, Sharkey and del Cid, 2021.
110 Mayer et al., 2022.
111 Jooshandeh, 2021.
112 Ding et al., 2021.
113 The WBES cover registered firms in the private sector with five employees or more. The data set excludes agriculture and the health sectors; information was available for 27 countries. See Appendix for more details.
114 Unlike the analysis for workers, which is based on a global definition of "key", the designation of key enterprises is based on the specific list for each of the 27 countries analysed in the WBES data set, as an enterprise's ability to continue operating was determined at the country level. See Appendix for more details.
115 In the early months of the pandemic, there were outbreaks in the meat packing industry in Australia, Argentina, Brazil, Canada, China, Denmark, France, Germany, Ireland, Italy, the Netherlands, Poland, Spain, the United Kingdom and the United States.
116 ILO, 2021i.
117 FAO, 2020.
118 Based on interviews with farmers in Kerala, India, in September 2021.
119 Mahajan and Tomar, 2021.
120 Flynn et al., 2021.
121 Unpublished background study prepared for the ILO.
122 Background note.
123 WIEGO, 2021.
124 Darkwah, 2022.
125 Darkwah, 2022.
126 Alfers et al., 2022.
127 ILO, 2021d.
128 Manolova et al., 2020.
129 Laato et al., 2020.
130 Unpublished background study prepared for the ILO.
131 Lim, 2022.
132 Popper, 2020.
133 Mitchell, 2021.
134 Weise, 2021.
135 Statista, n.d.
136 WHO, 2020b.
137 Shaw et al., 2020.
138 Manky et al., 2022.
139 Manky et al., 2022.
140 Koren and Pető, 2020.
141 WHO, 2021.
142 Scarpetti, Webb and Hernandez-Quevedo, 2020.
143 Wymant et al., 2021.
144 Hipwell and Shepherd, 2021.
145 United States Chamber of Commerce, n.d.
146 Ellen Goddard, "The Impact of COVID-19 on Food Retail and Food Service in Canada: A Second Assessment", *Canadian Journal of Agricultural Economics/Revue Canadienne d'Agroéconomie* 69, No. 2 (2021): 167–175.



3

Working conditions of key workers

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Main findings

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During the pandemic, the incidence of verbal abuse and threats increased sharply for all key workers, especially in health, retail and security.

Key wage employees earn, on average, 26 per cent less than other employees. Only two thirds of the gap can be explained by differences in education and experience.

Less than half of the key workers in low- and middle-income countries are covered by social protection.

Unionization rates in several key sectors are significantly lower than average in both developed and developing countries.

Key workers were vital to our lives long before the pandemic. But it took lockdowns across the world to make apparent our reliance on the essential services they provide. The pandemic also brought to the fore the discrepancy between the value of the work performed by key workers for society and their working conditions – in other words, their undervaluation. The undervaluation of key work has implications beyond the individual worker. When difficult working conditions and low pay are systemic, labour shortages, high turnover and, ultimately, an inadequate provision of key services result. Thus, the resilience of key workers in the face of future pandemics or other crises is dependent on investments made in essential services, including investments in improving the working conditions of those who perform critical work.

With this in mind, this chapter analyses the working conditions of key workers with a view to identifying possible deficits to be remedied. It focuses on seven principal working conditions that frame job quality: safety and health, the right to freedom of association and collective bargaining, contractual arrangements, working hours, wages, social protection and training. As will be shown in the analysis, these seven dimensions support each other, such that deficiencies in one dimension typically result in deficiencies in other dimensions. The seven dimensions represent the main enabling rights and working conditions that include both monetary and non-pecuniary aspects of decent work.

This chapter presents each of the seven dimensions, explaining its relevance for job quality and its significance during the COVID-19 pandemic. It provides global data on the degree of protection for key and non-key workers, analysing key workers as a whole. It thus lays the groundwork for the more in-depth discussion of the working conditions of specific occupational groups in Chapter 4. Because of the important distinctions across countries at different levels of economic development, the analysis is disaggregated by country income levels. Since wage employment and self-employment are often associated with substantially different outcomes in terms of working conditions, the results are also disaggregated by status of employment whenever relevant and possible.

Self-employed workers are not covered by labour laws associated with the employment relationship, such as minimum wages or limits on working hours. In many cases, especially in developing countries, they have informal status, typically defined as not registered or not contributing to the social security system. Yet as the analysis will show, having employee status does not resolve deficiencies in working conditions. Unfortunately, many key employees have deficits in their working conditions, sometimes because of the nature of their work, but more often because of gaps or lack of application of existing labour and social protections.

3.1. Occupational safety and health

> *We are exposed [to risks] – in addition to the incandescent sun of Ica, we have contact with chemical products … many of the workers have arthritis, vitiligo and fleshy eyesight … we do not have risk insurance, life insurance.*
>
> *Day labourer, agro-export firm, Ica, Peru*

Section 2.1 on morbidity and illness from COVID-19 showed (for the limited number of countries for which data are available) that key workers were more likely to die from COVID-19 than non-key workers. But it also revealed that, while health workers had the greatest exposure to the virus, their morbidity rate was lower than that of other key workers, especially those in transport. This puzzling result is partly explained by the greater adherence to health and safety measures in the health sector, which, in turn, reflects the design and coverage of OSH systems as well as compliance at different workplaces.

The elevated risk of key workers becoming infected with COVID-19 has made apparent the importance of OSH, understood as "the prevention of work-related injuries and diseases as well as the protection and promotion of the health of workers through the improvement of working conditions and environment".[1] As mentioned in Chapter 1, in June 2022 the International Labour Conference amended the ILO Declaration on Fundamental Principles and Rights at Work (1998) to include the Occupational Safety and Health Convention, 1981 (No. 155), and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), making a safe and healthy working environment a fundamental right that all ILO Member States, regardless of the status of ratification of such Conventions, are henceforth obliged to uphold.

There have been significant advances in workplace safety and health across the world. Since the beginning of this century, rates of fatal injury have substantially fallen in European Union countries, Australia, China, Japan and the United States, among others (although, in recent years, progress appears to have slowed). Nonetheless, worldwide, eliminating hazards at the workplace continues to be a pressing challenge. Prior to the pandemic, 1.9 million people died annually of work-related injuries and diseases, based on the calculation of workers' exposure to 19 occupational risk factors.[2] Among these, non-communicable diseases, particularly respiratory and cardiovascular, were responsible for 81 per cent of deaths, with occupational injuries causing the rest.[3] Recurrent exposure to working hours greater than 55 hours per week is associated with 40 per cent of overall deaths.[4] In addition, over 313 million workers are involved in non-fatal occupational accidents per year, causing serious injuries and absences from work, and there are an additional 160 million annual cases of non-fatal work-related diseases.[5] Deficiencies in OSH have negative consequences for workers and enterprises, decreasing productivity and placing a heavy burden on social security and healthcare systems, as well as families. It is estimated that the societal costs of work-related illnesses and injuries amounts to 3.9 per cent of global GDP.[6] On top of these sobering figures, workplace safety and health challenges continue to mount due to the introduction of novel materials and chemicals in production, along with increased psychosocial hazards and changes in work organization that leave many workers without, or with insufficient, safety and health protection.

Key workers are particularly at risk, given their greater likelihood of working in hazardous occupations and high-risk working environments, and of being in contractual arrangements (specifically informal, subcontracted and temporary employment) associated with less safety and health training, inadequate oversight and a higher incidence of workplace injuries.[7] While some countries have updated their OSH systems to better reflect and manage the contemporary world of work, other countries continue with "command and control" OSH systems that are suitable for addressing a narrow subset of risks in specific high-risk industries (such as mining or aviation) but are grossly inadequate for the wide-ranging health and safety challenges of today's workplaces (see box 3.1). Long-standing lacunae in OSH coverage, insufficient enforcement and low levels of compliance plague many workplaces across the world, especially micro, small and informal enterprises.

Box 3.1. The evolution of safety and health regulation

Modern OSH regulation began to emerge in the early nineteenth century, with the advent of industrialization. Early statutes, such as the Factory Acts of the United Kingdom, combined specific prohibitions or mandates together with a penalty system enforced by inspectors. The first statutes addressed working hours and child labour, with other safety measures being progressively introduced.

Factory Acts and similar statutes in other sectors, such as docks and mines, were adopted throughout the world in the nineteenth and twentieth centuries through colonization. The statutes targeted specific issues in specific industries, but they failed to instil a comprehensive, collaborative, proactive approach to work safety. Rather, managers, workers and their representatives were enjoined to passively implement directives emanating from the State.

Box 3.1. ***(cont'd)***

A profusion of these increasingly intricate "command and control" laws have left a lasting legacy in many jurisdictions, with several maintaining this type of regulation well into the twenty-first century. Nevertheless, from the 1970s, a new approach to work safety and health emerged which imposed extensive obligations on workplace actors to take responsibility themselves for deciding how to eliminate or reduce risks. This new approach is commonly dated to the reforms introduced in the United Kingdom following a major review led by Lord Robens.[1]

The "Robens model" involved imposing general duties on employers to maintain a safe and healthy workplace. This was complemented by extensive co-regulation requirements so that employees, and sometimes other parties, had a role in establishing, monitoring and enforcing workplace standards and processes. While specific government-imposed rules remained (for example, on matters such as ventilation or asbestos), these were generally located in subsidiary instruments so that they could be rapidly updated without requiring statutory amendment. This also meant that the primary law was not congested with detailed rules. Instead, its purpose was to set out the fundamental structure and obligations of the system. This division between general duties and detailed rules has meant that work safety and health laws can be comprehensive and comprehensible – extending basic principles to all industries and workplaces rather than separating out factories, mines, docks and so on. Furthermore, with the Robens models, sectors which were previously unregulated – often feminized and emergent industries – were subject to OSH principles.

Robens model systems have spread around the world and the Robens approach to OSH underpins the ILO's fundamental safety and health Conventions. However, shifts in labour market structures have increasingly exposed its limitations. It was conceived in response to a form of industrial organization prevalent in developed countries in the mid- to late twentieth century: large vertically integrated manufacturing undertakings with a predominantly male, full-time, regular, local and unionized workforce. It has worked relatively well for such undertakings, where work arrangements are structured around direct and often stable employment relationships between parties, to which clear legal obligations can be attached and on which clear legal rights can be conferred.

The Robens model is under greater pressure now, as societies are confronted with home-based, platform-based and contractually fragmented working arrangements ("fissured workplaces"[2]), in which work is often performed by migrant and non-unionized women and men, sometimes on contracts that are temporary, multi-party or informal. In the context of these work arrangements, assigning rights and responsibilities is far more challenging. Although the original Robens report recommended the wide application of OSH legislation, including to self-employed workers,[3] legislation based on the Robens model has tended to use the standard employment relationship as the central touchstone for statutory duties, leaving the position of own-account workers, as well as agency, platform and casual workers, less clear.[4] Further, its tendency to focus on industrial workplaces leaves work performed in public spaces, online or in homes less protected. Again, questions of representation which are comparatively straightforward in unionized undertakings become problematic where workers cannot readily associate, whether because their work is dispersed or because they lack the association rights accorded to employees.

[1] Simpson, 1973.

[2] Weil, 2014.

[3] Simpson, 1973, 173–177.

[4] Although see decisions such as: *United Kingdom House of Lords, Regina v. Associated Octel Ltd*, 14 November 1996.

In the OSH literature, sectoral differences with respect to physical, biological and psychosocial hazards are well known. In agriculture, known risks include machinery- and equipment-related accidents on industrial farms as well as the occurrence of lung disease, noise-induced hearing loss, skin disease and cancers related to pesticide use or prolonged sun exposure. Mining has safety and health risks that are unique to the sector, such as geological instability, blasting, thermal environments, ionizing radiation and respiratory health problems, such as black lung. In healthcare, workers are routinely exposed to infectious material.[8] Healthcare workers also suffer from musculoskeletal disorders due to awkward postures used especially in the handling of patients. As a result, nurses commonly experience back injuries and shoulder strain.[9] For road transport drivers, traffic accidents are the primary cause of death and disability. Transportation workers also spend long hours in cramped spaces and are subject to constant noise and vibration. These are just some of the most prominent occupational hazards and diseases across key workers and sectors. Table 3.1 provides a more detailed list for agriculture, to give an indication of the wide-ranging hazards and diseases that key agricultural workers may encounter.

▶ Table 3.1. Examples of hazards and possible health outcomes in agriculture

Key service	Examples of hazards	Examples of health outcomes
Agriculture	**Agrochemical hazards:** pesticides, fungicides, herbicides, insecticides, larvicides, miticides, molluscicides, nematicides, ovicides, piscicides, rodenticides, attractants, chemosterilants, defoliants, desiccants, disinfectants, growth regulators, fertilizers, pheromones, feed attractants and repellents, dusts[1] **Biological hazards:** bacteria, fungi, mites and viruses transmitted from animals, parasites and ticks; microorganisms and mites in organic dusts, bites, stings, venom, and antimicrobial-resistant pathogens[2] **Physical hazards:** machinery and work equipment, noise, vibration, fire, ambient air temperature, humidity, wind, dust storms, precipitation and solar radiation[2] **Ergonomic hazards:** repetitive lifting and carrying of heavy loads, stooped work, repetitive hand work, (intensive) tasking rates[3]	**Vector-borne diseases and parasitic infections** such as chikungunya, dengue, malaria, yellow fever, Zika virus, Lyme disease,[1] West Nile virus, Rift Valley fever, encephalitis, Rocky Mountain spotted fever, tularaemia, Q fever, trypanosoma, leishmaniasis, Chagas disease[3] **Allergic diseases** such as farmer's lung and bird breeder's lung, bronchial asthma, allergic alveolitis, allergic rhinitis and allergic conjunctivitis and dermatitis[3] **Musculoskeletal disorders and injuries** such as cumulative trauma disorders, neck and upper extremity impairment, lower back impairment, muscle cramps and/or musculoskeletal injury, disorders in the blood vessels, nerves, muscles, and bones and joints of the upper limbs, diseases of the peripheral nerves, prostatitis, and both acute and chronic back injury, osteoarthritis[3] **Cancers** such as leukaemia, non-Hodgkin's lymphoma and multiple myeloma, skin cancer[3] **Others** such as organic dust toxic syndrome,[4] green tobacco sickness, monkey fever[2]

[1] WHO, 2020d. [2] ILO, 2022e. [3] ILO, 2011. [4] Żukiewicz-Sobczak et al., 2013.

Table 3.2. Exposure to posture-related risks and heavy loads, Europe, 2015 and 2021 (percentage)

Uncomfortable position	2015		2021	
	Key	Other	Key	Other
Never	45.8	58.9	38.4	58.5
Sometimes	35.7	27.7	27.1	21.2
Always	18.5	13.4	34.5	20.3
Heavy load	**2015**		**2021**	
	Key	Other	Key	Other
Never	55.3	75.4	48.4	73.3
Sometimes	35.9	18.3	20.3	13.3
Always	11.8	6.3	31.3	13.4

Source: Analysis based on the European Working Conditions Survey (2015 and 2021). See Appendix for more details.

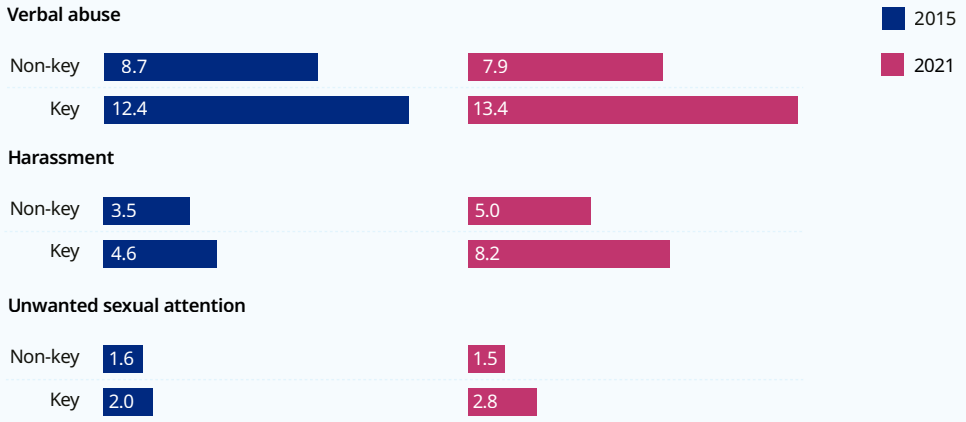
Table 3.2 gives data for Europe on the share of workers whose main job involves tiring or painful positions and carrying or moving heavy loads. While many workers are subject to physical strain in their jobs, 54.2 per cent of key workers sometimes or always experience uncomfortable positions compared with 41.1 per cent of non-key workers. During the pandemic, the share of key workers experiencing physical strain in their jobs increased to 61.6 per cent while the overall ratio remained the same (41 per cent) for other workers. Similarly, nearly 45 per cent of key workers reported sometimes or always carrying or moving heavy loads, which is nearly double the 24.6 per cent reported by non-key workers. Once again, for key workers the situation worsened during the pandemic, with 51.6 per cent stating that they were carrying or moving heavy loads, compared with 44.7 per cent in 2015. For other workers, there has only been a slight increase to 26.7 per cent from 24.6 per cent.

> *... "violence and harassment" in the world of work refers to a range of unacceptable behaviours and practices, or threats thereof, whether a single occurrence or repeated, that aim at, result in, or are likely to result in physical, psychological, sexual or economic harm, and includes gender-based violence and harassment ...*
>
> *Violence and Harassment Convention, 2019 (No. 190)*

In addition to the physical and biological hazards that key workers experience, psychosocial risks are more common among key workers. Psychosocial risks occur when job demands outweigh resources available to workers, as discussed in Chapter 2. These risks arise from poor work design, organization and management, as well as a poor social context of work, and may result in negative psychological, physical and social outcomes, such as work-related stress, burnout or depression.[10] Psychological forms of violence, such as harassment, including sexual harassment, bullying and mobbing, are severe forms of psychosocial risks at the workplace.[11]

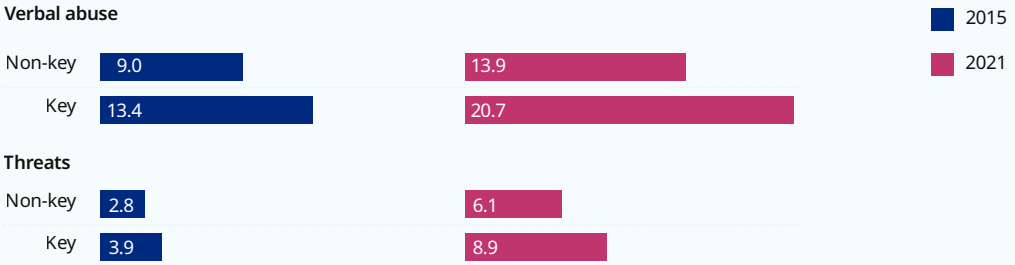
Figure 3.1 gives European data from 2015 and 2021 on the share of key and non-key workers who experienced violence and harassment at work during the month preceding the survey. Violence and harassment at work can be from colleagues or managers, but also from customers, patients or other individuals with whom the person engages in the course of their work. Among key workers, nearly 12.4 per cent stated that they were subject to verbal abuse while performing their jobs, compared with 8.7 per cent of non-key workers. Disaggregating by occupational group reveals starker differences:

Figure 3.1. Percentage of key and non-key workers reporting verbal abuse, harassment or unwanted sexual attention during the past month, Europe, 2015 and 2021



Source: Analysis based on the European Working Conditions Survey (2015 and 2021). See Appendix for more details.

Figure 3.2. Percentage of key workers who experienced verbal abuse and threats during the preceding month, United States, 2015 and 2021

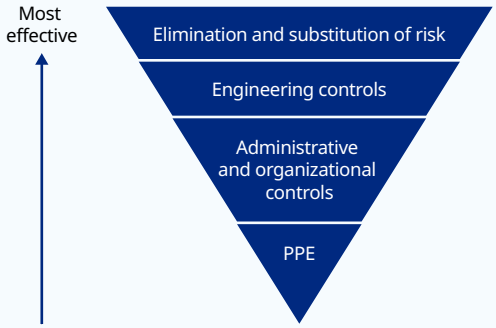


Source: Analysis based on the American Working Conditions Survey, 2015, and follow-up questions on American Life Panel, 2021. See Appendix for more details.

in security, 27.1 per cent were subject to verbal abuse in 2015, whereas in health the share was 19.1 per cent. More worrisome is that, during the pandemic, the overall incidence in Europe of verbal abuse, harassment and unwanted sexual attention at the workplace increased for key workers; for non-key workers, there was little change.

Data from the United States on verbal abuse and threats show a similar pattern of higher incidence among key workers than others prior to the pandemic and sharp increases during the pandemic. In 2015, 13.4 per cent of key workers reported being subject to verbal abuse at work in the month preceding the survey compared with 9 per cent of non-key workers (see figure 3.2). During the pandemic, one out of every five key workers reported being subject to verbal abuse at work. As in Europe, certain occupations report higher levels of verbal abuse, such as healthcare and security. However, the uptick during the pandemic was most pronounced for sales and related workers, with 26.5 per cent reporting verbal abuse in the month preceding the 2021 survey compared with 14.6 per cent in 2015. Even more disturbing is the pronounced increase in threats towards sales and related workers, which jumped to an astonishing 11.7 per cent in 2021, from 1.6 per cent in 2015.

Figure 3.3. Hierarchy of controls in occupational risk management



Source: ILO, 2021b.

Addressing workplace injury and disease

How do modern OSH systems reduce these physical and psychosocial harms? The concept of risk assessment and management is central. Under Convention No. 155, "employers" are to "ensure, so far as is reasonably practicable" that a range of matters "under their control" are "safe and without risk to health".[12] An undertaking should set out in writing an OSH policy and allocate responsibility, accountability and authority for the development, implementation and performance of the OSH management system and the achievement of the relevant OSH objectives.[13] An OSH programme should be established and preventive measures should be taken to eliminate, or if that is not possible, to minimize hazards. In evaluating the available measures to control risks, the concept of *hierarchy of controls* is frequently employed;[14] it involves prioritizing preventive and protective controls by order of effectiveness.

Figure 3.3 illustrates the hierarchy of controls, beginning with the most effective control – *eliminating or substituting the hazard*. With COVID-19, it was not possible to completely eliminate the virus but, for those occupations that could be performed remotely, exposure could be reduced by working from home. The second most effective measure is to implement *engineering controls*, which reduce exposure to hazards; these can be the most cost-effective solutions. For COVID-19, engineering controls have included improving ventilation, installing high-efficiency air filters or physical barriers, or using drive-through windows for customer service. The third level is *administrative and organizational controls*, which involve changes in work policy or procedures to reduce or minimize exposure to a hazard. For COVID-19, these have included ensuring physical distancing by introducing extra shifts or having workers present on alternate days, promoting good hygiene practices directed at both workers and the workplace (for example, instituting routine cleaning and disinfecting), implementing infection control practices (for example, policies on health surveillance, workplace monitoring, screening processes and response measures for sick or potentially infected workers). The final measure is personal protective equipment (PPE). While PPE is generally considered a measure of last resort, it has nonetheless been necessary during the COVID-19 pandemic for preventing certain types of exposure, especially for frontline occupations. PPE, however, cannot be used as a substitute for other OSH measures.[15] In many instances, including during the COVID-19 pandemic, the different measures have been used in combination.

In conducting risk assessments pursuant to these duties, undertakings are not left to their own devices. As mentioned above, in a well-functioning OSH system, the general duties are complemented by detailed delegated rules – such as regulations and guidance materials issued by agencies authorized under general OSH statutes. These rules are frequently industry- or activity-specific. Thus, an undertaking needs to consider not only the general duty but specific regulations on noise, lead or silica, for example, if they are relevant to its activities. During the COVID-19 pandemic, delegated rules provided a potential means of directing undertakings to systematically address the threat of COVID-19 and, since rules are easier to update than statutes, they were able to evolve as knowledge about combating the spread of the virus deepened. Unfortunately, many jurisdictions developed ad hoc temporary measures to deal with COVID-19 and have not as yet developed robust and stable delegated rules or guidance on matters such as airborne diseases.

Together with more detailed rules and guidance, the primary duty to provide a safe and healthy working environment as far as is reasonably practicable is complemented by the obligation to *cooperate*. This means working together with other businesses which influence the workplace, as well as collaborating

Incomplete scope of responsibility is at the core of the challenge facing contemporary OSH systems

with workers and their representatives.[16] In many workplaces, there is not just one undertaking with overall control. On a major construction site, for example, there are often many subcontractors carrying out work; a pattern that is found increasingly in a myriad of industries. Article 17 of Convention No. 155 stipulates that: "whenever two or more undertakings engage in activities simultaneously at one workplace, they shall collaborate in applying the requirements of this Convention".[17] Article 19 of the Convention requires there to be arrangements within undertakings to ensure that workers and their representatives participate in the fulfilment of OSH obligations at the workplace; this includes arrangements for sharing information, for providing appropriate training and for workplace consultation.

In principle, these cooperation obligations should ensure that all undertakings and workers engaged at a workplace are actively involved in making the working environment safe and healthy. Unfortunately, many systems continue to construe these cooperation obligations narrowly. They continue to limit the scope to "employers" and "employees", and to exclude certain categories of workers who may be present in the workplace (for example, temporary agency workers and self-employed workers). This issue of incomplete scope of responsibility is at the core of the challenge facing contemporary OSH systems, with the COVID-19 pandemic accentuating these shortcomings.

For instance, in Brazil, OSH law is generally tied to the employment relationship, as are social security payments. Moreover, the law stipulates that regular and casual workers must be accorded equal rights[18] and that agency workers are covered.[19] Non-employees, such as self-employed workers, must provide their own safety equipment and take out their own accident insurance.[20] Around 40 per cent of the workforce is informal, and works outside the protection of OSH and social security systems.[21]

In the United States, some employees are not covered by OSH law at all, namely state and local employees in those states without their own OSH law, of which there are more than 20.[22] Many key workers are engaged by states or local governments, and these workers have no OSH protection unless they are covered by a collective bargaining agreement. Furthermore, self-employed workers, students and volunteers are not covered at all, and the position of temporary agency workers is uncertain.[23] Small farms are explicitly excluded from OSH inspection programmes, and inspection authority over small undertakings is limited.

Another source of concern is the dissonance between the technical scope of the law and its coverage in practice. Informality means precisely that such workers are outside the effective scope of the law. For example, in Rwanda, the scope of the OSH chapter in the country's labour law is broad, covering self-employed workers, interns and apprentices.[24] Yet three quarters of the workforce is informal and not included in OSH statistics;[25] particularly vulnerable informal workers include those who are mostly migrant, illiterate and seasonal. Data from Rwanda also show that observation of OSH law varies from sector to sector, from high compliance in the service sector (76 per cent) to low compliance in construction (42 per cent).[26] This industry variation (often combined with regional variation within countries) is common across jurisdictions.[27]

Many key workers are thus outside the scope of OSH protections. Drivers, cleaners and protective service workers are often engaged through complex subcontracting chains that diminish the legal responsibilities of end users. Personal care and street workers are often self-employed and located outside industrial workplaces. Even for those key workers engaged in traditional industrial jobs, modes of organization and representation were disrupted by lockdowns and other restrictions on access to workplaces. In addition, many workers, especially those on insecure contracts, are not comfortable denouncing safety violations out of fear of reprisal. This is especially true for migrant workers without legal status, or who are charged high fees by recruitment agencies.[28]

A further limitation in the way many OSH systems have worked in practice – again exposed by the COVID-19 pandemic – has been a tendency to focus on physical infrastructure rather than psychosocial risks and mental health, even though mental health is covered in Convention No. 155,[29] as well

as Convention No. 190 (which deals with violence and harassment at work). While the focus on physical harm is historically understandable since mines, construction sites and manufacturing installations presented obvious dangers to physical well-being, increases in mental stress at work and mounting incidences of workplace violence and harassment, especially in the public-facing healthcare, security and retail sectors, are a pressing concern. Indeed, a review of national legislation in 132 countries over 2018–19 found that two thirds of them did not include psychosocial risk assessment and prevention in their national OSH legislation. Moreover, in many countries, workplace violence was prohibited only if it involved an offence to moral or religious customs.[30]

The emphasis on physical infrastructure has also tended to overshadow responses to occupational diseases, although these have still received greater attention than psychosocial risks. Whereas harm from dangerous machinery, for example, can be immediate and dramatic, occupational diseases often develop gradually, and a causal link between a disease and a workplace may be harder to establish, as the history of asbestos regulation demonstrates.[31] Nonetheless, ILO instruments have long recognized many kinds of occupational diseases[32] and the obligation of nation States to address them.[33] The ILO's List of Occupational Diseases Recommendation, 2002 (No. 194), which was last updated in 2010, provides a basis for a systematic classification of potential hazards to health, including biological agents and infectious diseases. COVID-19 is obviously a potential express addition to this list. However, most Member States have not yet recognized it as an occupational disease other than on a case-by-case basis or limited to health professionals.[34] Besides, as mentioned above, many systems have not yet developed appropriate standards on airborne diseases.

3.2. Freedom of association and collective bargaining

> *In the past, when there was no union, people were fired and hired at will. Today, thanks to unions, at least we have employment stability. In the past, [if the subcontractor changed] you were done. There was nowhere to go, legally, to plead or make complaints. But now, the times have changed ... you can still work here even if the subcontractor changes.*
>
> *Hospital cleaner, Republic of Korea*

Unionization and collective bargaining were an important resource for workers during the pandemic. As demonstrated in Chapter 2, workers who were union members had formal channels to present their concerns to management and to negotiate solutions to improve the safety of their work environment as well as other issues of concern. Freedom of association and collective bargaining are enabling rights. Through collective bargaining, trade unions and one or more employers (or an employers' organization) can voice their respective demands, share information and conclude a collective bargaining agreement that regulates working conditions and terms of employment. As such, freedom of association and collective bargaining are critical for establishing working conditions, which influence overall job quality.

Freedom of association – the right of workers to join a union and of employers to join an organization – and collective bargaining – voluntary negotiation between trade unions and one or more employers (or their organization) – are fundamental principles and rights at work. As such, all Member States, by virtue of their membership in the ILO, must respect, promote and universally fulfil these principles, irrespective

of whether they have ratified the Conventions concerned. Collective bargaining, by creating a framework for ongoing collective labour relations, enables parties to tailor rules to particular circumstances and adapt those rules when the circumstances change.[35] Moreover, the existence and implementation of a collective agreement also improves compliance with labour regulation, making unionization an important support for regulatory compliance.[36]

Across the world, approximately one in every six employees is a trade union member and, among the employed population (which includes own-account workers), one in nine workers has joined a union. This represents roughly 250 million workers in the public and private sectors. The unionization of own-account workers, while critical for addressing their collective concerns, remains low at just 2.2 per cent.[37] Unionization rates vary tremendously across countries, reflecting the industrial relations system in place as well as the country's industrial composition. Unionization rates range from below 5 per cent in Colombia, Pakistan, Peru, Thailand and the Bolivarian Republic of Venezuela to more than 60 per cent in Cuba, Denmark and Sweden, reaching 92 per cent in Iceland.

According to ILO data, over a third of employees in 98 countries have their pay and working conditions regulated by one or more collective agreements (weighted average).[38] There is, however, considerable variation in the collective bargaining coverage rate across countries, ranging from over 75 per cent in many European countries and Uruguay, to below 25 per cent in around half of the countries for which data are available. This variation is due to the design of the industrial relations system, particularly whether bargaining is limited to the enterprise level or multi-employer bargaining covers sectors and occupations; whether workers are included in the scope of collective agreements, irrespective of whether they belong to signatory trade union or are employed in non-signatory firms (administrative extension mechanism); and whether public servants have the right to collective bargaining (prohibited in 17 countries). In countries where bargaining is limited to the enterprise level, an average of 15.8 per cent of employees are covered by collective agreements; where it takes place in multi-employer settings, the average coverage rate of employees is 71.7 per cent.[39]

As a form of regulation, collective bargaining influences multiple dimensions of working conditions, including wages, job security and contractual arrangements, working hours and leave policies, access to training, social protection, safety and health, as well as other issues of concern to the bargaining parties. Although unionization and collective bargaining are typically analysed in relation to their effect on earnings (a topic covered in Chapter 5), an often-overlooked but critical bargaining issue is safety and health at the workplace, which was a major concern for key workers during the pandemic.[40] Data on collective negotiation and compliance at the workplace demonstrate the importance of collective bargaining as a tool for responding to the challenges of the COVID-19 pandemic. An ILO analysis of collective bargaining agreements negotiated during the pandemic in the healthcare, social care, education, food retail and transport sectors found that most included commitments to ensuring the adequate provision of PPE and protocols for its correct use, other protective measures such as barriers and cashless transactions, paid time off and additional compensation (see box 3.2).[41] Moreover, bipartite OSH committees played a critical role in designing, instituting and monitoring compliance with COVID-19 protocols. In some instances, collective agreements expanded the mandate of existing OSH committees within pre-existing OSH management systems. In others, bargaining parties set up dedicated crisis committees to oversee the implementation of safety and health measures related to COVID-19.

Box 3.2. Collective bargaining for key workers during the pandemic

Collective bargaining agreements proved a useful tool for addressing concerns of key workers during the COVID-19 pandemic, with agreements clustering around five key areas: the protection of health and safety, paid leave entitlements, social protection, work organization, and additional compensation.[1]

Protection of health and safety. Collective agreements for key workers focused on reducing workers' exposure to the virus by ensuring their health and safety and, in the event of infection, supporting workers through their recovery with medical care and paid leave. In various sectors, access to protective equipment, negotiated via collective agreement, helped reduce workers' exposure to the virus. For example, in the healthcare sector in the Republic of Korea, a collective agreement ensured that PPE would be stockpiled and allocated to healthcare workers. Similar agreements regulating workers' access to PPE were also in place in Austria, Chile, Colombia, Costa Rica, Italy, Kenya, Spain and the United States. In other sectors, such as retail and transport, collective agreements resulted in the installation of physical barriers separating workers from customers. In Norway, collective agreements helped reduce the exposure of public transport workers through the introduction of cash-free payments and the closure of front doors on public vehicles. Similarly, in Chile and Norway, physical barriers were installed at cash registers to minimize retail workers' contact with customers. Various countries introduced new protective safeguards in the meat packing industry as well. The Irish meat industry association and trade unions agreed to a safety protocol for workers.

Paid leave entitlements. Paid time off, either preventive or in case of exposure or infection, was also the subject of some collective agreements for key workers during the pandemic. In Czechia and Finland, paid time off was allocated for workers to get vaccinated. In other cases, it was related to virus detection. For example, in Italy, the collective agreement ensured access to frequent COVID-19 testing for those regularly exposed to the virus. In Argentina and Sri Lanka, collective agreements permitted extraordinary sick leave measures for healthcare workers in case of infection, ensuring their access to medical care without a reduction in wages. Additional sick leave entitlements were also accorded to key workers in parts of the retail sector in Australia and the United States, and to care workers in Ireland and Scotland. In case of exposure to COVID-19 (but not necessarily infection) in the United Kingdom, some employers paid for workers' periods of self-isolation, while other employers extended statutory sick pay provisions to employees who would not have been eligible prior to the pandemic. Similar agreements were introduced in Austria and Chile. Full payment of wages during periods of quarantine was also enacted via collective agreement for some healthcare workers in Australia, Norway, the Republic of Korea and the United States.

Social protection. In addition to recognizing COVID-19 as an occupational disease, collective agreements in several countries introduced non-pay-related entitlements and protections for workers in the healthcare sector. Free hospital care for workers who contracted COVID-19 was introduced in the Philippines and Sri Lanka. Free shuttle transport was also introduced for healthcare workers in the Philippines. In 2020, nurses were included in national health and injury insurance in Kenya. Clauses on psychosocial support, such as mental health treatment and support, were introduced in the healthcare sector in Finland, Italy and the Republic of Korea.

Work organization. Changes in work organization, introduced via collective agreement in several countries, aimed to protect vulnerable workers and respond quickly to evolving circumstances. In the retail sector in Austria, for example, a sectoral agreement ensured that at-risk workers, such as pregnant women, could be reassigned tasks that did not require contact with customers; alternatively, they could be exempted from work on full pay. Similarly, in

Box 3.2. ***(cont'd)***

Colombia, at the height of the pandemic, a collective agreement among 320 banana plantations ensured that workers especially vulnerable to infection, such as those over the age of 65, and those with high-risk pregnancies or pre-existing medical conditions, did not have to work and were given paid leave.[2] In the health sector in Ireland and Norway, collective agreements permitted a reduction in overtime working restrictions, as well as a loosening of regulations governing worker redeployment and rescheduling, with a view to ensuring the resilience of health services. These measures were enacted temporarily with the intention of ending them once the pandemic eased.[3]

Additional compensation. In many countries additional one-off, bonus or hazard payments were enacted for key workers via collective agreements in the healthcare, transport, food, retail and elder care sectors; Coles[4] in Australia, Kaufland[5] in Romania and ShopRite[6] in South Africa are three companies that did so. In some cases, collective agreements raised the pay of key workers over several periods. For example, collective agreements in Germany[7] and Sweden[8] ensured pay rises for two years and bonuses for nurses. Following a national strike by healthcare workers in Kenya in December 2020, several county-level collective agreements ensured the workers' right to back-pay of wages, the provision of PPE and defrayal of medical costs for those who contracted COVID-19.[9] In other countries, particularly in sectors financed by public funds, such as healthcare or security, deteriorating public finances precluded additional compensation for key workers. For instance, pre-negotiated wage increases were deferred for public sector workers in Croatia.[10]

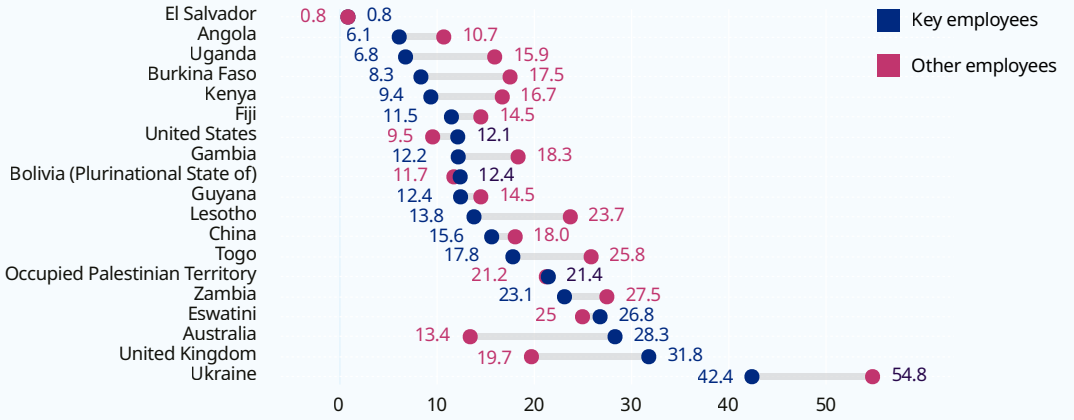
[1] The examples given, unless otherwise indicated, are reported in ILO, 2022g.
[2] ILO, 2020b.
[3] Seip, 2020; ILO, 2022g.
[4] Ranosa, 2020.
[5] Marica, 2020.
[6] Times Live, 2020.
[7] European Public Service Union, 2021.
[8] European Public Service Union, 2021.
[9] Rubery et al., 2021.
[10] ILO, 2022g.

Source: ILO, 2022g.

Yet despite these positive outcomes, many workers – including many key workers – are neither members of a trade union nor covered by a collective bargaining agreement. Figure 3.4 provides data on union membership for key and non-key employees in 19 countries and territories. Figure 3.5 focuses on unionization rates across the same countries by key occupational group. Combined, the figures reveal one key finding: unionization rates vary widely between key and non-key employees both across and within countries. Across countries, unionization rates span from almost zero per cent in El Salvador for key and non-key employees, to about 42 and 55 per cent, respectively, in Ukraine.

Within countries, large differences in unionization rates between key and non-key employees emerge. While unionization rates among non-key employees are higher than among key employees in most countries, in 5 of the 19 countries and territories (Plurinational State of Bolivia, Eswatini, Occupied Palestinian Territory, United Kingdom, United States) the unionization rate of key workers is higher. This is partly driven by the higher rates of unionization in the public sector, and among those working in healthcare and security (including police officers). In the United Kingdom, for instance, 47 per cent of employees in healthcare are members of a trade union, while for the other seven occupational categories it is lower than 25 per cent. Similarly, in the United States, key security employees, especially police officers and firefighters, are comparatively more unionized (37 per cent) than the rest of key wage workers (11 per cent).

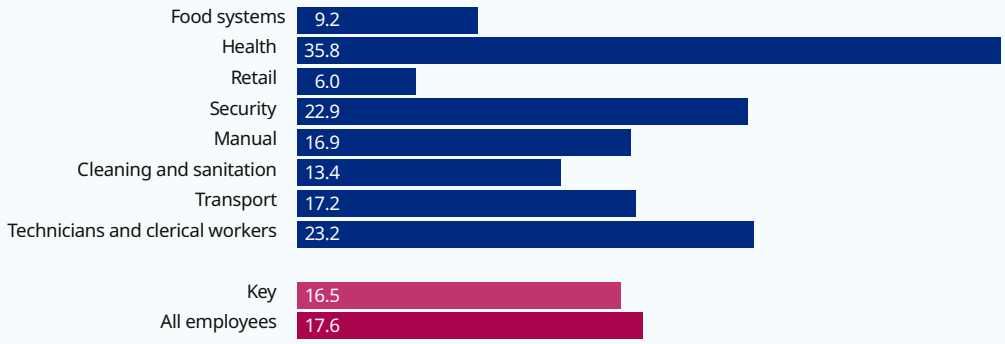
Figure 3.4. Share of key and other employees belonging to a union (percentage)



Note: Calculations are based on labour force surveys that permit the identification of key workers and trade union membership. In most of these countries and territories, collective bargaining is at the enterprise level; in a few (Kenya, Togo, Uganda), it is mixed with some sectoral bargaining along with enterprise-level bargaining.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.5. Union membership among key employees by occupational group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.5 further illustrates the stark differences in unionization rates between key occupations. Unionization among health employees is 35.8 per cent, followed by roughly 23 per cent for technicians and clerical workers, and security personnel. In contrast, unionization rates in the cleaning and sanitation, food systems and retail sectors are lower than average. Barely 6 per cent of key employees in retail and 9 per cent in food systems belong to a trade union, significantly below the average of 17.6 per cent for all employees.

The low unionization rates in the food systems and retail sectors are not surprising given the many impediments that exist to organization for these workers. Certain countries continue to exclude agricultural workers from general labour legislation, which thus excludes them from the right to associate.[42] In addition to the high degree of self-employment, many employees in agriculture are employed informally, often on casual contracts, making unionization difficult to carry out in practice: this is a result both of the fact that the labour force is itinerant and also because the lack of employment

security makes workers fearful of potential retaliation for unionization.[43] For international migrants employed as farm workers through temporary migration schemes, the problem is exacerbated as their temporary residence in the host country is tied to their employment contract.[44]

Unlike farm workers, there are no legal prohibitions on the unionization and collective bargaining of retail workers, though there are constraints, especially in countries that are limited to enterprise-level collective bargaining. While in high-income countries there has been a consolidation of retail stores with the growth of chains, including big-box stores, under enterprise-level bargaining, in some countries, each branch needs to run a separate union campaign and election, and, if successful, the results of the collective bargaining agreement may only apply to that one branch. Given the high degree of turnover in retail and the extensive use of part-time and temporary contracts, it is difficult for retail workers to have the meaningful interactions with their co-workers or union representatives needed to succeed in an organizing drive.[45] These constraints manifest in the unionization rate of key retail workers, which stood at a mere 3.8 per cent for in the United States in 2019. In lower-income countries, much retail work is informal and in micro or small enterprises, making unionization difficult. Some countries[46] have also set a minimum threshold for the share of unionized employees needed in order to be recognized as an exclusive bargaining agent.

Evidence on collective bargaining during the pandemic suggests that recourse to collective negotiation often depended on the extent to which a country, industry or company relied on it prior to COVID-19. When leveraged, collective bargaining could successfully respond to and improve conditions of work and employment for key workers during the pandemic.

3.3. Contractual arrangement

> *I am just a contract medical officer. The fact that we are still on contract, that we could just be without a job once this pandemic is over, it is not a very positive thing to have on your mind when you step in to work and see this horrific scene before you every day.*
>
> *Medical officer, Malaysia*

Whether an individual's contractual arrangement is part-time, temporary or multi-party (private employment agency or labour broker) can have important consequences for the wage and non-wage benefits that a person receives, and thus the degree of labour protection that they enjoy. Key workers are more likely to be employed on part-time, temporary or multi-party contractual arrangements, regardless of whether they work for the private or the public sector. Migrant workers, in particular, often work on temporary contracts, especially when recruited through temporary labour migration schemes that are, by definition, temporary. In principle, there does not need to be a difference in labour protections between workers in these non-standard or diverse contractual arrangements and those who are employed on standard contracts, especially if the regulation mandates equal treatment. In practice, however, non-standard contractual arrangements are associated with wage penalties, weaker social protection coverage, lower unionization rates, less access to training, greater risks to safety and health, as well as employment insecurity.[47] In addition, studies have found a relationship between non-standard employment and poorer health outcomes,[48] including elevated risk of infection from COVID-19.[49]

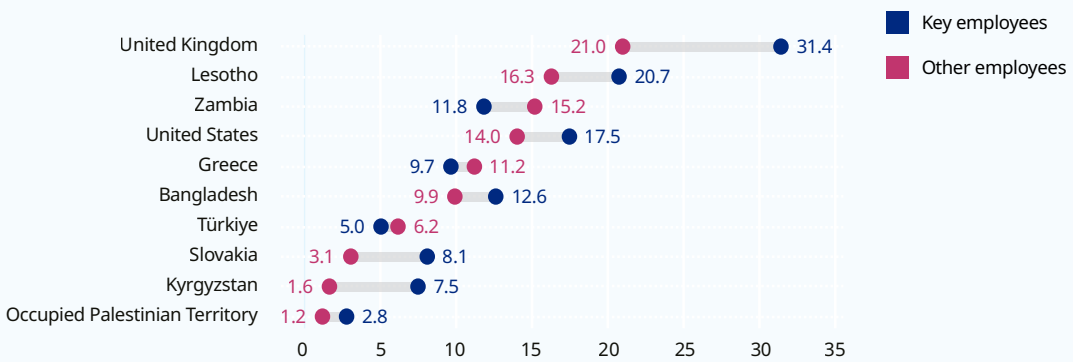
Part-time employment

Part-time employment can be useful for reconciling work and personal life, thereby facilitating the attachment of people who would otherwise not work at all to the labour market. Given that most care duties are undertaken by women, part-time employment, in this respect, reduces gender inequalities.[50] During the COVID-19 pandemic, the burden of care responsibilities became heavier as a result of the closing of schools and day care centres, thereby increasing for many the number of hours devoted to family responsibilities. However, in some cases part-time employment does not provide healthcare, sick leave, and other rights and benefits. Thus, the advantages of part-time work are not realized unless there is equal treatment for both part-time and full-time workers (see section 4.2).[51]

Figure 3.6 shows the share of key part-time employees for countries and territories that have data on self-reported part-time status (rather than reported working hours, which is sometimes used as a proxy). In all countries and territories, except Greece, Türkiye and Zambia, part-time employment is more prevalent among key employees than non-key employees. In Kyrgyzstan, almost 8 per cent of key employees have part-time jobs whereas fewer than 2 per cent of non-key employees are part-timers. In countries such as Lesotho and the United Kingdom, where part-time work is more common, key employees are over-represented in such work. One out of every three key wage workers is a part-timer in the United Kingdom and, in Zambia, one out of every five is. As with part-time work in general, there is a greater representation among women than men. While on average nearly 12 per cent of women work part-time in key sectors and occupations, this share reaches 34 per cent in the United Kingdom and more than 19 per cent in the United States. Given the over-representation of women in part-time employment, the legal framework has important implications for gender equality. In the absence of equal treatment, it meant that during the COVID-19 pandemic, key part-time employees, who happen to be mostly women, were not only affected by greater care responsibilities but became more vulnerable in the absence of protections such as paid sick leave.

For employers in various sectors, such as food systems, retail, and cleaning and sanitation, there are several reasons for offering part-time employment. In retail, just-in-time inventory management systems and long opening hours encourage employers to hire part-time workers to cover different shifts and reduce excess labour in times of low demand.[52] Additionally, for some repetitive tasks that are common in retail and cleaning, part-time workers have been shown to have higher productivity rates.[53] Lastly, depending on the regulatory system, employers might be able to find loopholes to evade legal or collective bargaining standards for compensation, fringe benefits and social insurance through the use of part-time employment.[54]

Figure 3.6. Part-time employment among key and other employees (percentage)



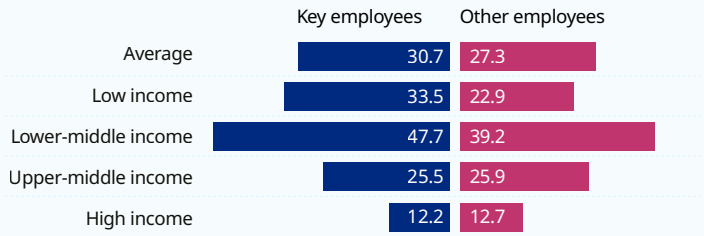
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Temporary employment

Like part-time employment, the potential for temporary employment to be a source of insecurity and labour market disadvantage depends on the legal framework. Temporary employment, whereby workers are engaged only for a specific period of time, includes fixed-term, project- or task-based contracts, as well as seasonal or casual work, including day labour.[55] While many countries offer equal treatment between different forms of employment, in countries without equal treatment temporary workers are more likely to be devoid of social benefits and earnings that could shield them against the risks of COVID-19, including paid sick leave.

While temporary employment has become common both in developing and developed countries,[56] there are still major differences across and within regions. In the Dominican Republic and the United Kingdom, the share of temporary contracts is low (2.3 per cent and 5.4 per cent, respectively) while it reaches 77 per cent in Pakistan and 87 per cent in Nepal. For the countries with available data, overall, temporary contracts among key employees are widespread, with one in every three employees in key economic activities having a non-permanent contract (see figure 3.7). The proportion of temporary employment is highest for key employees in lower-middle-income countries, reaching nearly 48 per cent, though temporary contracts are also prevalent among non-key employees in these countries. In upper-middle-income and high-income countries, key and non-key employees have similar rates of temporary contracts. By occupational category, key employees in healthcare have the lowest incidence of temporary contracts at 16 per cent, whereas key employees in food systems have the highest incidence at 46 per cent, which is to be expected given the seasonal nature of the work. Many high-income countries rely on migrant labour to perform agricultural work, often employing workers through temporary labour migration programmes (see box 3.3).

▶ **Figure 3.7. Temporary employment among key and other employees (percentage)**



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Box 3.3. Temporary labour migration: contractual relationships and challenges to protection

Temporary labour migration (TLM) schemes aim to attract a particular migrant population for a determined period of time and, in some cases, for certain sectors (for example, agriculture) to perform work. Classic examples include the Canadian Seasonal Agriculture Worker Programme, the New Zealand Recognized Seasonal Employer scheme and the Pacific Australia Labour Mobility scheme. Policy and academic debates lack a common definition of "temporary labour migration" and legal practices create a multiplicity of statuses, often temporary, which determine not only the right to enter a territory, but also the nature of the employment arrangement. What is certain, however, is that, while TLM schemes continue to be used and even extended, the labour force needs of particular sectors are permanent, as the COVID-19 pandemic revealed.

Box 3.3. ***(cont'd)***

International migrant workers are subject to two spheres of regulation, with important consequences for labour protection. The first sphere refers to admission policies through (im)migration regulation that conditions the duration of stay and shapes the employment contract and the terms and conditions of work.[1] The second sphere is labour law in the host country, which determines labour protections in general and in a given sector. Gaps in protection for migrant workers emerge as a result of a dissonance between these two spheres, especially as many countries restrict coverage of migrant workers by labour laws.

When migration and residency statuses are considered in discussions on "temporary contractual relationships", a variety of forms of status coexist. Migrant workers can be long-standing migrants under temporary contracts (with residency permits sometimes valid in wider mobility areas, such as in the EU) or temporary migrant workers subject to temporary schemes. These distinctions are not superficial, as the pandemic showed how various contractual relationships conditioned access to social protection and other support from governments to mitigate the financial hardships imposed by the pandemic.

[1] The literature distinguishes between "migration control", which regulates entry and duration of stay, and "migration policy", which is also concerned with the integration of migrants into host societies.

Source: ILO, 2022f.

Multi-party employment arrangements

When workers are not directly employed by the organization to which they provide their services, their contractual arrangement is considered multi-party or triangular. The two prominent forms of multi-party arrangements are temporary agency work and subcontracted work. In temporary agency work, workers are hired by an entity – the temporary work or employment agency – and then hired out or assigned to perform their work at (and under the supervision of) a user firm, typically on a temporary contract. Subcontracted, or outsourced, work differs from temporary agency work in that subcontractors do not merely hire out workers, but rather execute work that provides goods or a service, and are thus responsible for the supervision of the work. While the legal frameworks of some jurisdictions delineate clearly between the two types, in other jurisdictions the differences may be blurred.[57]

Cleaning and security are commonly outsourced, and other key occupations are routinely staffed with agency workers, especially in warehousing, but also increasingly in healthcare. While highly skilled agency workers, such as health professionals, can command a premium for their services when employed through an agency, existing studies[58] indicate that agency and subcontracted workers in other occupations have more limited career prospects, fewer benefits[59] and suffer wage penalties.[60] Also, by not being employed by the user firm, they are less able to make their voices heard in the workplace and are not covered by the collective bargaining agreements of the user firm.

Working on a multi-party, and often temporary, contract during the pandemic posed particular challenges. The country case studies revealed specific concerns with respect to entitlements to paid leave and social protection in case of illness, but also to a reduced ability to voice concerns with management in the user firm. For example, outsourced security guards in the Philippines reported that they did not have job security, minimum income security or entitlement to paid leave, and were thus concerned about the consequences of close interaction with the public when performing temperature checks.[61] Similarly, temporary delivery workers in both the public and private sectors in the Republic of Korea reported being excluded from receiving occupational accident insurance.[62] In India, nurses employed through agencies did not feel that they could be as vocal with their demands as nurses employed with permanent and bilateral employment arrangements.[63]

3.4. Hours

> *Our normal compulsory working hours is 40 hours a week, but generally we work 56 hours or so.*
>
> *Nurse, Türkiye*

Working hours are closely related to job quality, as too few, too many and erratic hours each generate different problems. Individuals who work fewer hours than they would like are exposed to the risk of not earning enough, especially in occupations where hourly wages are low. At the other end of the spectrum, hours that are too long have a deleterious impact on workers' safety and health, and their ability to reconcile work and personal life. In countries across the world, working excessive hours is associated with an increased probability of suffering from heart disease and stroke, through stress, and the biological and behavioural responses to such stress.[64] Finally, irregular and unpredictable working hours – specifically when these are not decided jointly by workers and employers – lead to significant work–life conflicts and cause earnings insecurity. This, too, has repercussions for safety and health, by causing psychological stress and affecting sleep quality and overall well-being among other effects.[65] Irregular and unpredictable working times can also reduce interactions between workers and unions, which makes it harder to organize and collectively represent workers' interests.

While the exact definition of standard working hours varies from country to country, typically fewer than 20 hours is accepted as short[66] and more than 48 hours is considered excessive.[67] Beginning in the 1950s, average working hours decreased across many industrialized countries,[68] but this trend was reversed by the 2000s. A global study covering 194 countries found that exposure to long working hours – in this case, defined as working 55 hours per week or more – increased by nearly 10 per cent between 2000 and 2016, to reach a level of 8.9 per cent.[69] At the same time, a significant share of the global workforce is underemployed, working fewer hours than they would like. Meanwhile, working time arrangements such as on-call work, telework and zero-hour contracts have become more common, especially with the growth of the platform economy, adding to the irregularity of schedules.[70]

The COVID-19 pandemic had a marked impact on global working hours. Lockdowns meant that many workers, even when they kept their employment, had to reduce their working hours and faced economic hardship, especially in contexts with limited social protection.[71] In contrast, for many key workers the workload and associated working hours increased. This is especially true of healthcare workers, who had to respond to increased pressures on the healthcare system, as well as warehouse workers, who were confronted with a sharp increase in demand in e-commerce (see section 4.5).

In line with this situation, a recurring theme in many of the interviews detailed in Chapter 2 is the description by key workers of long working hours, both in general and during the pandemic. This was associated with limited time for their family and friends, leisure activities and sometimes even breaks to eat meals during the working day. In some cases, respondents reported feelings of severe exhaustion. Key workers who spoke about long working hours were employed in a wide range of countries and occupations. They include cashiers in Argentina, farmworkers in Canada, security guards in India, nurses in Kenya, taxi drivers in Malaysia, paediatricians in Peru, cleaners in the Republic of Korea and small business owners in Türkiye.

Unpredictable working hours were another theme that several respondents highlighted. A nurse from Kenya, for example, recalled how in the context of understaffing in her hospital the nurses "work full-time up to Sunday … during the day … for almost 11 hours and at night [they] are always woken up to attend to patients. … [They] work all [the] time as long as the patients are there". Work schedules are especially unpredictable for key (and other) workers with zero-hours working arrangements, whereby the hours of work are not formally determined in a work contract. In the United Kingdom,

> *I come here at 5 a.m. and set up the stall. I am here till about 10 p.m.*
>
> *Street vendor, India*

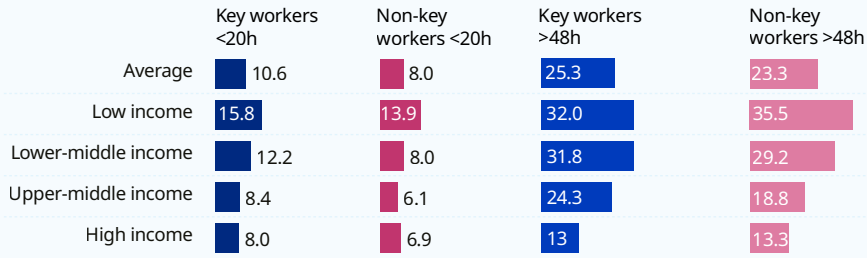
more than half of all home-based personal care workers have zero-hours contracts; a practice that is associated with significant underfunding in this sector.[72] Unpredictable working hours thus add to other labour market insecurities that many healthcare workers face (see section 4.2).[73] Retail, as discussed in section 4.3, is another sector with widespread irregular schedules.

Cross-country quantitative evidence on short and excessive weekly working hours shows that key workers are slightly more likely than non-key workers to be affected by either of the two phenomena (figure 3.8). Globally, 10.6 per cent of key workers work fewer than 20 hours per week, compared with 8.0 per cent of non-key workers. This difference is largest in lower-middle-income countries, where 12.2 per cent of all key workers work short hours. This share is around 4 percentage points lower for non-key workers. In general, the share of individuals working fewer than 20 hours per week increases as countries' income levels decrease.[74] This suggests that these workers and their families have comparatively low monthly incomes. This issue disproportionately concerns key workers, as they also tend to earn lower hourly wages, and thus might not have decent living standards.

At the other extreme is the problem of long working weeks. Across countries, 25.3 per cent of key workers and 23.3 per cent of non-key workers have working weeks of more than 48 hours. Again, this share tends to increase as a country's income level declines, suggesting that many workers make up for low-productivity employment – and hence low hourly wages – by increasing the number of hours they work. Looking at the gap between key workers and non-key workers, it is negligible in high-income countries. In middle-income countries, on the other hand, key workers work excessive hours more often than non-key workers, while the opposite is true in low-income countries. Finally, key workers in some occupations are particularly affected by long working hours. Globally, 33.7 per cent of key workers in retail work more than 48 hours per week, and for key workers in security and transport these shares are even higher at 35.4 per cent and 41.9 per cent, respectively.

That many key workers work more than 48 hours per week cumulates with the other insecurities presented in this chapter. As argued before, working long hours is necessary for some workers to partly offset low wages. For example, in Côte d'Ivoire, the hourly wage for key wage employees is 31 per cent lower than the wage of non-key employees. Key wage employees work on average two hours more per week, which leads to a smaller gap in monthly wages, at 24 per cent. In the Dominican

Figure 3.8. Share of short and long working hours, key versus non-key workers, by country income group (percentage)



Note: Short working hours are defined as less than 20 hours per week, while working more than 48 hours per week is considered excessive.

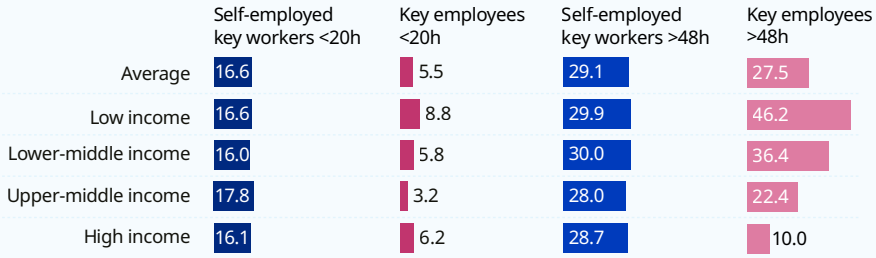
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Republic, key wage employees work nearly three hours more than other employees and earn monthly and hourly wages that are 20 and 25 per cent lower, respectively, than those received by non-key employees.

Besides low hourly wages, another factor that shapes key workers' working hours is whether they are employees or self-employed. On average, key wage employees work 44.8 hours per week, which is around six hours more than the average working time of self-employed workers. This gap is particularly large in low-income countries, where the average weekly working time is 49.6 hours for key employees and 39.9 hours for self-employed key workers.[75] Indeed, key employees are likely to work excessive hours (46.2 per cent) and comparatively less likely to work short hours (8.9 per cent). The same shares are 29.9 per cent (excessive hours) and 16.6 per cent (short hours) for key self-employed workers in low-income countries (see figure 3.9). This partly reflects differences in the occupational distribution between employees and self-employed workers. In low-income countries, self-employed workers are over-represented among food systems workers. This occupation has comparatively low average working hours and a high proportion of key workers with short working hours (16.3 per cent in low-income countries), reflecting issues of labour underutilization.[76]

In contrast, in high-income countries key employees and self-employed workers work on average the same number of hours per week. The lower limits stipulated in working time regulations in developed countries frame these trends. National laws tend to limit weekly working hours for employees in many high-income countries, while this is less often the case for employees in lower- and middle-income countries, partly because of higher legal thresholds, but also because of a lack of compliance with the legal limits.[77] Self-employed workers, in contrast, are not subject to working time regulations. As a result, they are more likely to work more than 48 hours per week in high-income countries (28.7 per cent compared with 10.0 per cent for employees), and to work less than 20 hours (16.1 per cent compared with 6.2 per cent for employees; see figure 3.9).

Figure 3.9. Share of self-employed key workers versus key employees with short and long working hours, by country income group (percentage)



Note: Short working hours are defined as less than 20 hours per week, while working more than 48 hours per week is considered excessive. Note that this figure is not directly comparable with figure 3.7, which uses country-level weights and then presents unweighted averages across countries.

Source: Analysis based on ILO Microdata Repository and ILO Harmonized Microdata (ILOSTAT), 2019 or latest year. See Appendix for more details.

3.5. Wages

Earnings constitute one of the main components of working conditions and determine in important ways the living standards of workers and their families. Whereas key workers play a decisive role in keeping necessary services functioning in periods of crisis, the previous sections have made explicit that their work is often undervalued. The lower value attributed to key work is also likely to be reflected in the earnings received. The following thus provides information on the wages earned by key employees.

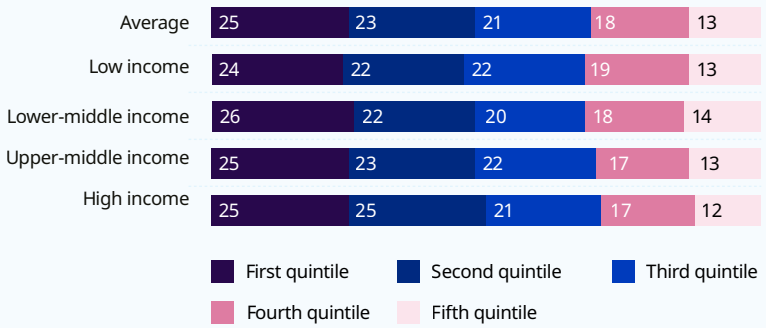
The focus on paid employment (that is, employees) is guided by data considerations, as labour force and household surveys typically do not collect information on income from self-employment, or the information is not reliable (box 3.4 nonetheless highlights income trends for key self-employed workers, based on three countries with suitable data). Of the 90 national surveys used for the analysis of key workers, only half permitted an analysis of the wages of key employees. Yet these surveys cover all regions and country income groups (see Appendix for further details of the methodology used). The estimates presented are based on gross hourly earnings to eliminate variation due to differences in working time.

Existing empirical analyses reveal that paid employees working in activities deemed key during the COVID-19 pandemic often received lower wages than other workers. Available studies, however, often focus on a subset of occupations, generally in high-income countries.[78] By contrast, this analysis considers the impact of the COVID-19 crisis on key workers' wages across the globe, with a range of levels of development. In addition, it uses the comprehensive definition of key occupations defined in the report, rather than a narrow subset of specific occupations.

Most key paid employees are located at the bottom of the wage distribution. Globally, 48 per cent of key employees were in the first two quintiles of the wage distribution, meaning that their hourly wages were less than the wages earned by 60 per cent of all employees (figure 3.10). Across country income groups, the pattern is similar and ranges between 46 and 50 per cent.

The concentration of key employees at the bottom of the wage distribution puts them at risk of low pay, a relative measure defined by the ILO as pay that is less than two thirds of the hourly median wage.[79] On average, across countries, 29 per cent of key employees are low-paid, compared to 20 per cent of other employees (figure 3.11). Though key employees are more likely to be low-paid than other employees at

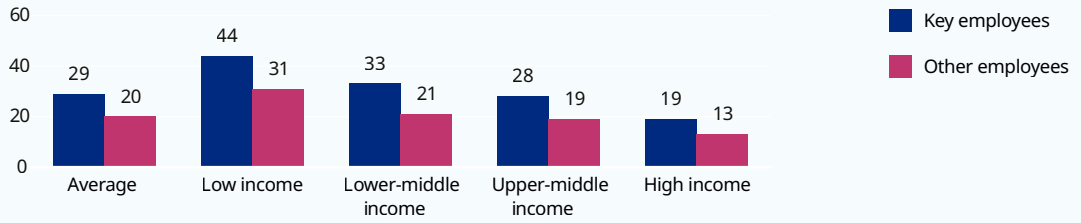
Figure 3.10. Share of key paid employees in each quintile of the distribution of hourly wages (percentage)



Note: For each country, the quintiles of the distribution of hourly wages are estimated for the whole population of paid employees (key and other employees).

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.11. Share of low-paid workers among key and other wage employees, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

all levels of development, low-paid employees represent a smaller share of key paid employees in high-income countries, compared to low- and middle-income countries (19 versus 32 per cent on average).

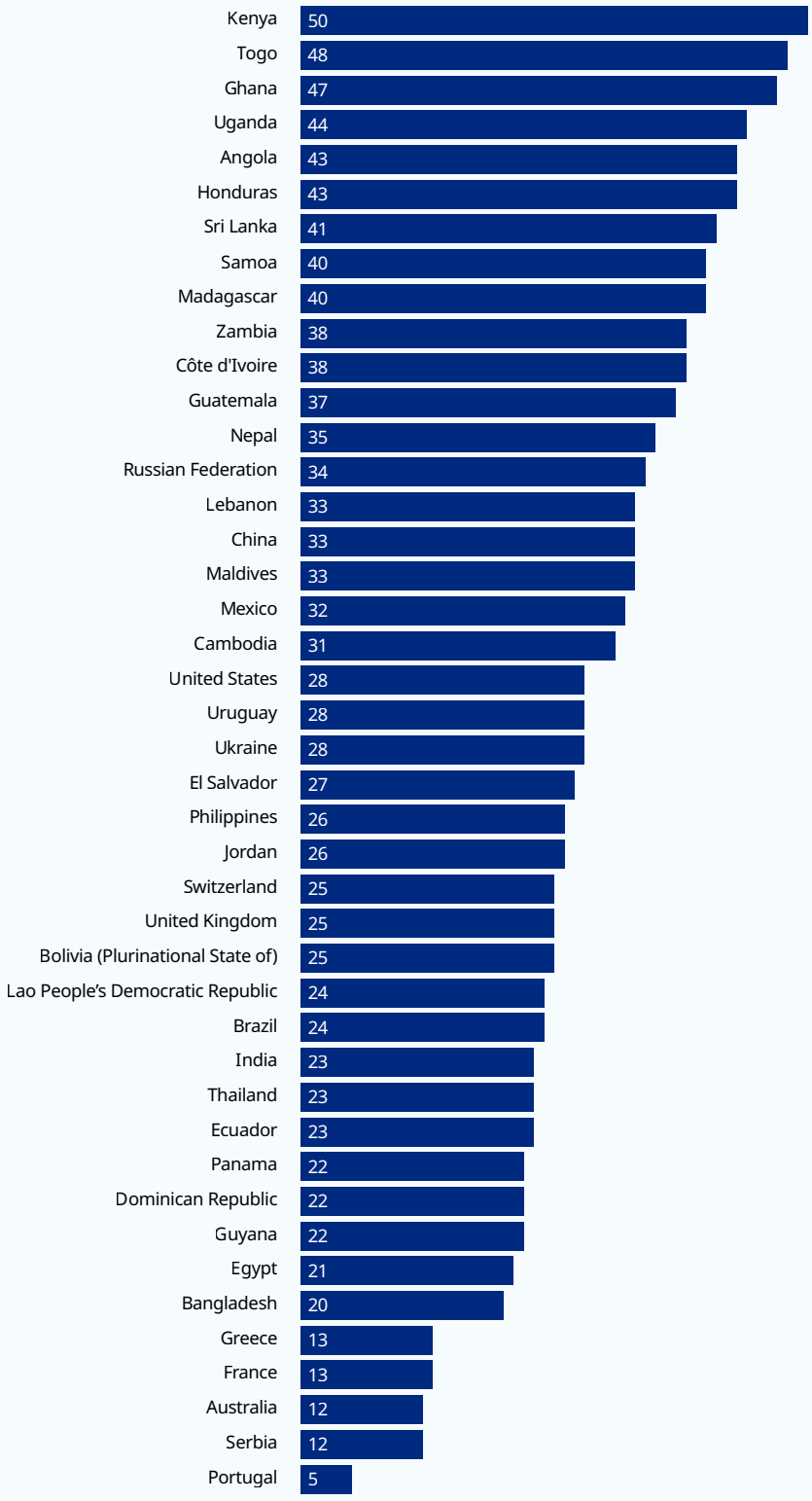
The proportion of key employees in receipt of low pay varies greatly across countries. Among those in the sample, the proportion ranges from 5 per cent in Portugal to 50 per cent in Kenya (figure 3.12). Countries such as Ukraine, the United States and Uruguay are in the median position (28 per cent). Cross-country differences reflect, in part, differences in labour market and wage-setting institutions. High levels of enforcement and compliance with policies, such as minimum wages, can help protect the remuneration of employees at the bottom of the wage distribution. A recent review of minimum wage systems across the world highlighted the range of practices used to design minimum wages, the varying degrees of effective enforcement and the uneven coverage of categories of employees.[80,81] Along with minimum wage systems, other dimensions of wage determination, such as the prominence of collective bargaining, also play an important role.

As highlighted in earlier sections, key workers have specific characteristics that may be critical in the determination of their income from employment. Factors that may affect earnings include educational attainment, job experience and working hours. Within the population of wage employees, key employees have significantly lower educational levels. Half of key employees have yet to attain the equivalent of a high school level, compared to only about one third of other employees (figure 3.13(a)). A slightly larger share of key employees work longer hours than other employees, with 58 per cent working more than 40 hours a week, compared to 52 per cent of other employees (figure 3.13(c)). This contrasts with the findings observed for the overall population of key workers and suggests a disproportionate concentration of key employees in occupations with long working hours.[82] Finally, key employees and other employees have similar age distributions (figure 3.13(b)).

Given that education and experience affect wages, estimating the extent of the pay gap attributable to these dimensions is necessary to identify the policies required to tackle the lower pay of key wage employees. Using educational attainment, age and working hours to measure education and experience,[83] an econometric decomposition of the gap is estimated for each country using a Blinder-Oaxaca methodology. This technique decomposes the wage gap into a component attributable to differences in education and experience between key and other employees, and a component due to other factors (see section 4 of the Appendix).

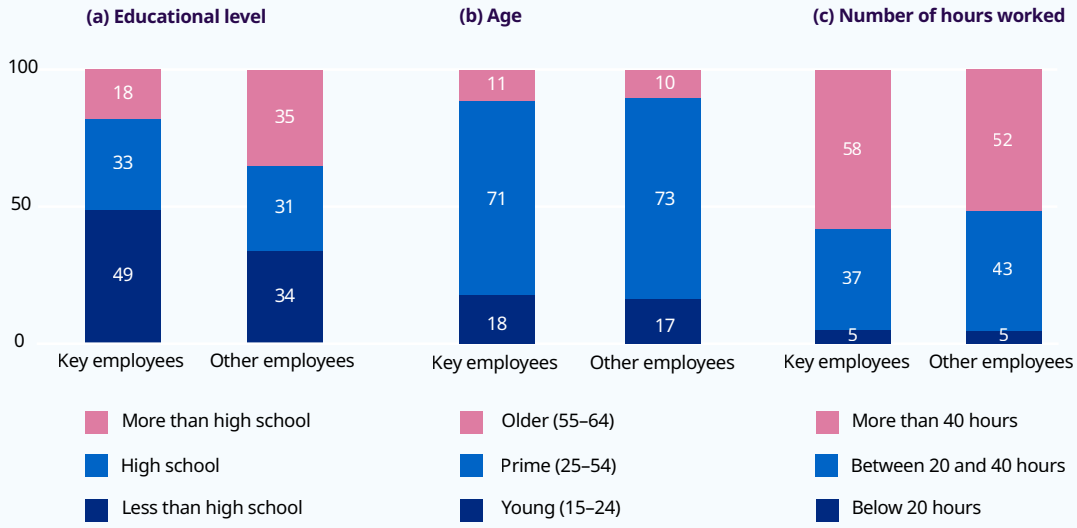
Across countries, key wage employees earn, on average, 26 per cent less than other employees, of which about two thirds (17 percentage points) is explained by differences in observable characteristics between the two groups, while the remaining third is unexplained (figure 3.14). However, beyond this overall picture, important differences are visible between countries. For instance, in Cambodia the gap in pay between key and other employees is relatively small (10 per cent) and does not seem to be explained by differences in human capital between the two categories of workers. In Madagascar, on the other

Figure 3.12. Share of low-paid workers among key employees (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.13. Distribution of key and other employees according to:



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

hand, the gap in pay is almost five times larger (48 per cent) than in Cambodia, and almost entirely reflects the observable gap in education and experience (44 percentage points).

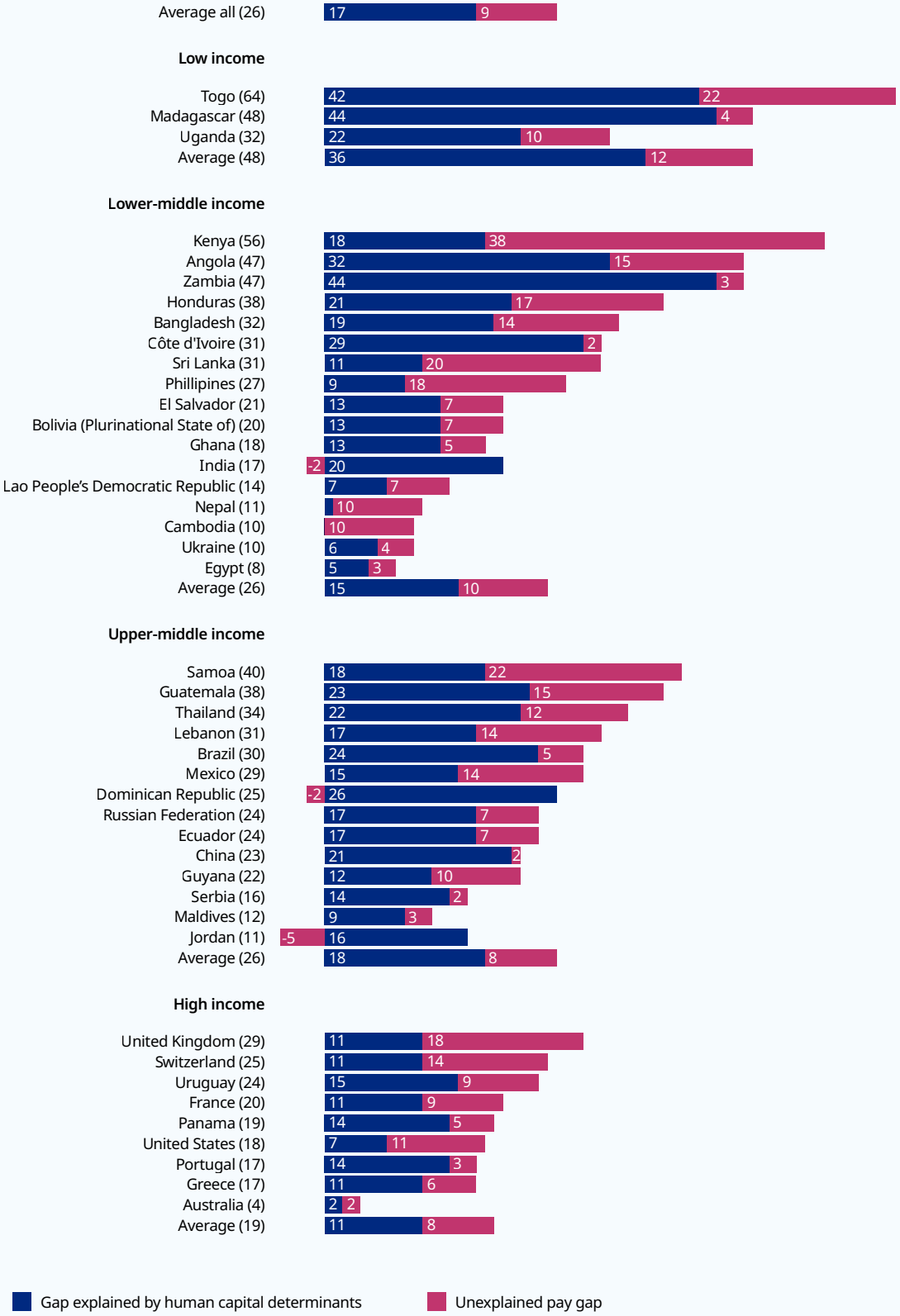
A pattern nonetheless emerges across countries' levels of development. The "explained" pay gap appears to be lower on average in high-income countries (11 per cent) than in middle- and low-income countries. It is comparable in upper-middle-income and lower-middle-income countries (18 and 15 per cent, respectively) and increases to 36 per cent across the three low-income countries included in the sample.

These findings are consistent with existing empirical evidence which highlights the fact that the pay-offs to education are greatest in developing countries.[84] In this context, key employees' lower educational levels lead to much lower wages, particularly in middle- and low-income countries. By contrast, the unexplained pay gap is on average relatively stable across country income groups (between 8 and 12 per cent on average), suggesting that lower remuneration is partly due to factors which are not linked to employees' education and experience. In three countries (Dominican Republic, India and Jordan) the unexplained gap is negative, meaning that factors other than the human capital actually *reduce* (rather than increase) the wage gap between key and other employees. In absolute terms, however, the unexplained gap is quite small in these three countries (2 percentage points in India and the Dominican Republic, and 5 percentage points in Jordan).

The extent of the unexplained gap in pay between key and other employees hence appears to reflect various factors that are only partially related to countries' levels of development. For instance, the institutional framework for wage determination, such as the negotiation of wages and working conditions through collective bargaining processes, may substantially shape the wages of key and other employees. Strengthening wage-setting institutions, along with other labour institutions, therefore has the ability to improve the relative conditions of key employees (for more on this topic, see Chapter 5).

Among key employees, pay inequalities may also concern various sub-groups of workers. Specifically, in many countries, key female employees earn less than their male counterparts, as evidenced by the gender wage gap (figure 3.15). Across all countries, key female employees earn, on average, about 4 per cent less than male key employees. However, the gender wage gap for key employees ranges from 8 per cent in high-income countries to –1 per cent in upper-middle-income countries. Closer analysis

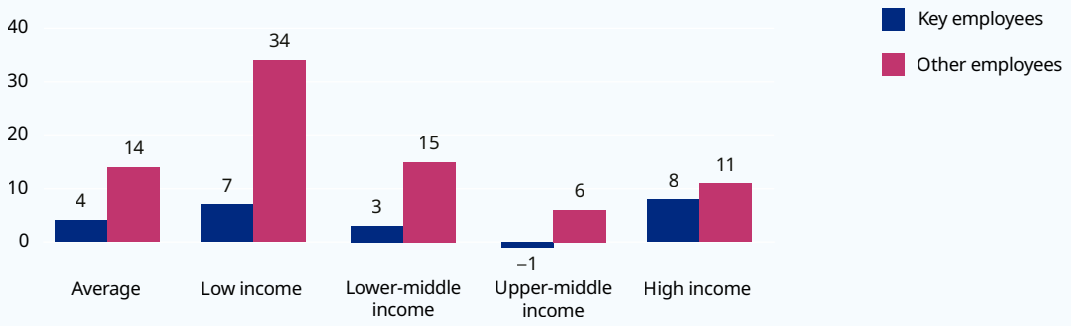
Figure 3.14. Average pay gaps between key and other employees, by country, decomposed (percentage)



Note: For each country, the unexplained and explained components of the average gap are estimated using the Blinder-Oaxaca decomposition methodology presented in the Appendix.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.15. Gender pay gap among key and other employees, in proportion to males' average wage (percentage)



Note: The gender pay gap corresponds to the gap between the average wage of female employees and the average wage of male employees, expressed as a percentage of the average male wage.

Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

at the country level reveals that the gender pay gap is negative in half of developing countries, meaning that key female employees, on average, earn more than key male employees in those countries.

A negative gender wage gap could indicate that women disproportionately work in occupations that are more highly remunerated. Previous research highlighted the fact that "selective" female labour market participation, especially in low- and middle-income countries, could explain the small or negative gender pay gap observed among employees in some countries.[85] In line with this, in 17 countries where the gender pay gap is negative (see also section 1.2), key female employees tend to be better educated than key male employees. For instance, while 65 per cent of key male employees have an educational attainment below the high school level, 49 per cent of women have an education level corresponding to high school. In comparison, the educational attainment of other employees is more homogeneous; 52 per cent of men and 57 per cent of women have at least a high school level.

The estimates presented above analyse the earnings of key workers prior to the COVID-19 crisis and do not consider the wage policies for key employees enacted during the pandemic. At the onset of the pandemic, as the working environment and conditions of key employees evolved, specific wage policies were implemented to reflect increases in work intensity and higher health risks. In particular, bonuses were often awarded, especially in large, formal and unionized organizations, including public organizations such as hospitals.

Health workers interviewed in Ghana, India, Kenya, Peru, the Philippines and Türkiye reported receiving such payments. Eligibility for a bonus often varied by type of work, such as whether an employee worked directly with COVID-19 patients, or whether they had a standard or temporary employment contract. In Ghana, for example, a casually employed orderly at a public hospital mentioned that he did not receive the financial bonus, while his co-workers with regular contracts did.[86] As a result, workers performing the same work were not always equally entitled to bonus compensation. While the complementary payments were appreciated by those who received them, in many instances, it led to further consternation; the attribution of additional pay was not transparent and many felt that it was insufficient and short-lived.

Distinctions were also sometimes made among health workers. In Peru, for example, there was a special bonus for workers in recognition of their efforts during the pandemic, which ranged from approximately US$250 to US$750.[87] Some interviewees noted that, after a few months, the bonus was restricted to physicians working with COVID-19 cases, even though it was difficult to differentiate between those who did and those who did not. One interviewee commented that he had been given the bonus, but had retroactively been deemed ineligible since he worked in paediatrics; the bonus was deducted from his salary.

Beyond jobs in the health sector, several countries or local governments implemented pay premium arrangements that targeted a broader range of occupations held by key workers. This was the case in several states in Canada (for example, Ontario and Quebec) and the United States (for example, Louisiana, Pennsylvania and Vermont), as well as in France and Argentina. In Ontario, eligible employees included social service workers, and those working in care or in correctional facilities.[88] In Pennsylvania, eligible industries included food manufacturing, food retail facilities, and transit and ground passenger transportation. In Vermont, the list included work in grocery stores, trash collection and waste management.[89] In Argentina, a premium was provided to security forces, while in France an extraordinary bonus aimed at supporting employees' purchasing power and implemented in 2019 was modified to enable employers to adjust it in accordance with the working conditions of employees during the COVID-19 pandemic.[90]

In countries that adopted wage premium payments, these were usually provided as a one-off payment to employees and, in most cases, subsidized by the government. For example, some US states managed to leverage federal funding to fund the bonus payments, such as those passed through the Coronavirus Aid, Relief and Economic Security Act. In Ontario, temporary pandemic pay was provided to eligible workers through transfers by the state to employers. In France, the extraordinary bonus supporting employees' purchasing power was exempt from income tax and social contributions.

Some of these measures were described as "hazard pay" premiums, accounting for the increased risk key workers faced during the COVID-19 pandemic. From an OSH management perspective, international standards require employers to eliminate workplace hazards or control them when elimination is not possible.[91] Thus a financial allowance or hazard pay cannot exempt an employer from their obligations or compensate workers for their failure to comply with legislation. Hazard pay can, nevertheless, be given as an extra benefit, additional to the OSH measures and overtime legislation required under national laws. In this respect, hazard pay policies introduced during the pandemic served as a tool to compensate for some of the prevailing undervaluation experienced by key workers.

Nevertheless, in some countries the earnings of key workers during the pandemic were impeded by economic circumstances. For instance, an analysis of the evolution of minimum wage levels in the course of 2020 suggests that the pandemic led some countries to postpone potential adjustments that year.[92] Countries such as the Plurinational State of Bolivia, Mozambique and Myanmar, which were supposed to adjust their minimum wages in the second quarter, opted for a delay or a freeze. Since key employees are over-represented in low-paid jobs, they were likely to be among the categories of workers that were most affected by these postponements.

Box 3.4. Monthly labour incomes of self-employed key workers in Angola, Brazil and Jordan

In Angola, Brazil and Jordan, the high-quality of the survey data on the income of self-employed workers permits a comparison of the income of self-employed key workers relative to other self-employed workers. Though the findings presented in this box may not be directly applicable to other countries, they are illustrative of trends in some middle-income countries.

Self-employed workers account for a relatively large share of key workers. In Angola, Brazil and Jordan, 91, 45 and 46 per cent of key workers, respectively, are self-employed. The earnings of self-employed key workers also tend to be at the bottom of the distribution of income from self-employment. For instance, 43 and 44 per cent of self-employed key workers earned less than the second quintile in Angola and Jordan, while in Brazil the share was 51 per cent. In comparison, relatively few self-employed key workers are represented at the upper end of the distribution. In Angola, Brazil and Jordan, only 14, 12 and 17 per cent of self-employed key workers, respectively, earned income in the top 20 per cent of the distribution of the income from self-employment (see figure B3.4.1).

Box 3.4. ***(cont'd)***

Figure B3.4.1. Share of key self-employed workers in each quintile of the distribution of income from employment (percentage)

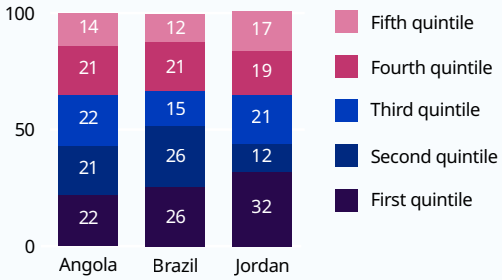
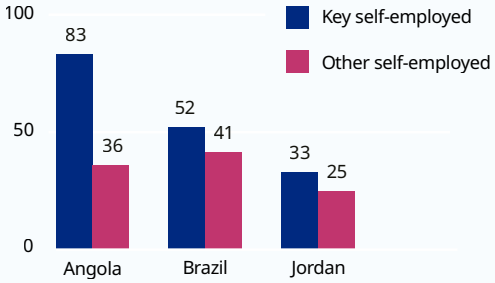


Figure B3.4.2. Share of self-employed workers earning a monthly income from employment below or at the minimum wage level (percentage)



Note: For each country, the quintiles of the distribution of monthly income from employment are estimated for the whole population of self-employed (that is, key and other self-employed workers).

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Though self-employed workers are not subject to legislation that only covers employees, it is nevertheless useful to compare income from self-employment to the minimum wage level. When adequately set in line with international standards, a minimum wage reflects the balance between various parameters, such as the needs of the workers and their families as well as economic factors.[1] It provides an informative benchmark for income from employment. In addition, minimum wages provide a reference point (often referred to as the "lighthouse effect") that guides self-employed workers in the determination of the price to be paid for their products or services.[2]

Since self-employed key workers are disproportionately represented at the bottom of the distribution, the share earning the minimum wage level or less is also quite high across the three countries. One third of key self-employed workers in Jordan and half in Brazil earn monthly incomes that are equal to or less than the minimum wage. In Angola, just one in five key self-employed workers earn more than the minimum wage. In contrast, the proportion of other self-employed workers earning the minimum wage level or below varies between 25 and 41 per cent in the three countries. In Angola, the relatively high share of self-employed key workers paid at or below the minimum wage level reflects the low incomes of food systems workers, an occupational category representing 71 per cent of self-employed key workers (versus only 29 and 8 per cent in Brazil and Jordan) (see figure B3.4.2).

Like female wage employees, female self-employed workers earn less than their male counterparts. Among self-employed key workers, women in Brazil and Jordan earn 16 and 14 per cent less than men, respectively (see figure B3.4.3). In Angola, the gap is more than twice as large, reaching 38 per cent; this is partly explained by women's lower educational attainment. For instance, 90 per cent of female key self-employed workers attained less than a high school level of education, compared to 85 per cent of male key self-employed workers (see figure B3.4.4). By contrast, in Brazil and Jordan, female self-employed key workers are more highly educated than male self-employed key workers; 52 and 70 per cent of men have less than a high school level of education in Brazil and Jordan, respectively, versus 35 and 62 per cent for women. These gender imbalances are also reflected in the occupations held by workers. For example, unlike in

Box 3.4. ***(cont'd)***

Figure B3.4.3. Gender labour income gap among self-employed key and other workers, as a proportion of men's average monthly income from employment (percentage)

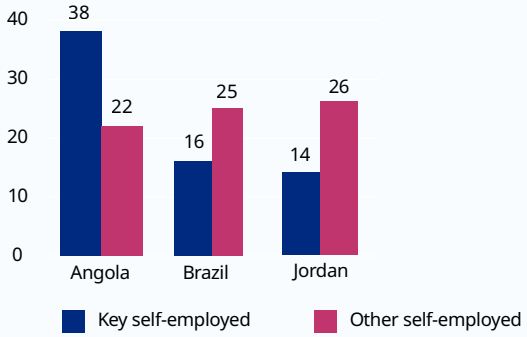
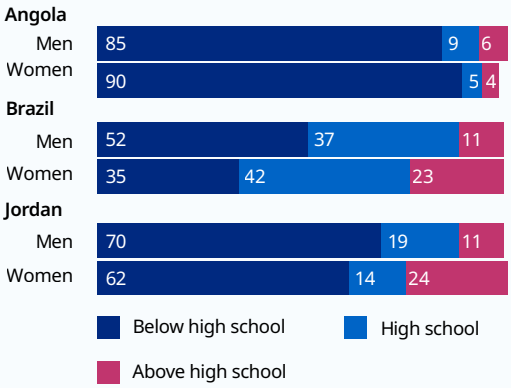
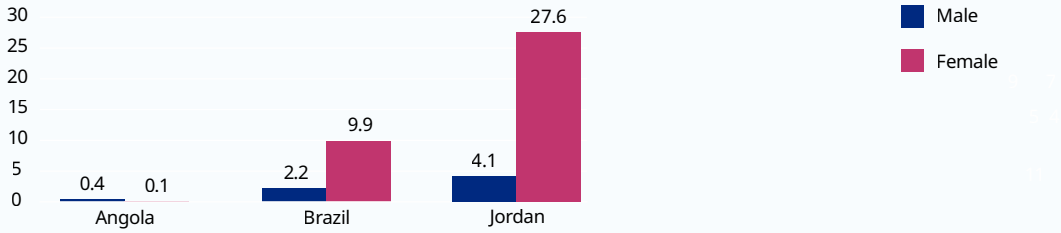


Figure B3.4.4. Distribution of self-employed key workers according to their educational level (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure B3.4.5. Share of health workers among key self-employed, by sex (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Angola, key female self-employed workers in Brazil and Jordan are over-represented in health jobs, where workers usually fare better than the average self-employed job in terms of pay (see figure B3.4.5).[3] By contrast, for other self-employed workers, the gender pay gap is relatively similar across the three countries, ranging between 22 and 26 per cent (see figure B3.4.3).

[1] According to the ILO's Minimum Wage Fixing Convention, 1970 (No. 131), the elements to be taken into consideration in determining the level of minimum wages shall, so far as possible and appropriate in relation to national practice and conditions, include: (a) the needs of workers and their families, taking into account the general level of wages in the country, the cost of living, social security benefits, and the relative living standards of other social groups; and (b) economic factors, including the requirements of economic development, levels of productivity and the desirability of attaining and maintaining a high level of employment.

[2] Souza and Baltar, 1979; Neri and Gonzaga, 2001.

[3] In Angola, Brazil and Jordan, respectively 44, 89 and 90 per cent of key self-employed health workers are paid above the minimum wage level.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

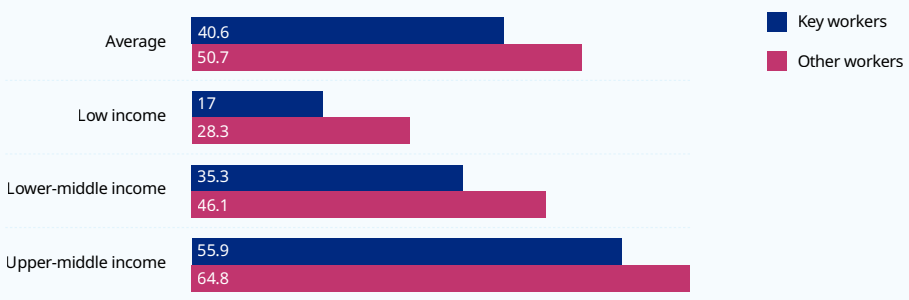
3.6. Social protection

Social protection includes policies and programmes that aim to mitigate and prevent poverty by providing access to healthcare and income security throughout people's lives in cases of unemployment, work injury, disability, maternity, illness, old age and loss of a breadwinner. In addition, it includes social assistance such as child and family benefits, and other forms of income support.[93] For workers who lost their job or were furloughed due to the COVID-19 pandemic, income support measures were a critical means of sustaining livelihoods.[94] For key workers – but also society at large – paid leave and related benefits in case of sickness or parental duties, and access to healthcare were critical.[95] Health agencies across the globe recommended that people stay at home if they were sick, displayed symptoms or had been in contact with infected persons, but such a policy was only realistic if workers could afford isolation. Workers in low-paid and insecure employment were less likely to take sick leave because of concerns over lost wages or fear of dismissal.[96] As a result, workers without adequate social protection and access to paid sick leave and sickness benefits, especially informal workers, were often obliged to continue working despite being ill in order to provide necessities for themselves and their households.[97]

In addition to the employment and income stability that paid sick leave and sickness benefits ensure, individual workers, enterprises and societies also benefit if unwell workers remain at home. These benefits prevent co-workers and customers or patients from becoming infected with contagious disease and minimize productivity losses. Studies have shown that productivity losses due to attending work while sick can be as much as three times higher than productivity losses associated with sickness-related absenteeism.[98] In Japan, it is estimated that presenteeism makes up nearly 64 per cent of all indirect healthcare costs.[99] During the pandemic, paid sick leave and sickness benefits had another function: allowing workers to self-isolate, thereby lowering the spread of the virus and contributing to a faster recovery.[100] These benefits can also reduce the pressure on unemployment benefits and other job-retention schemes by maintaining jobs for workers who need to be temporarily absent from work.[101] For example, states lacking statutory paid sick leave policies in the United States recorded higher job losses during the first months of the pandemic in 2020.[102] Hence, social security systems are crucial for stabilizing labour markets and supporting economic recovery. Yet nearly 53 per cent of the global population, or 4.1 billion people, are not covered by any type of social protection, including contributory and non-contributory programmes; fewer than two thirds of the population is covered by a social health protection scheme.[103]

The deficiencies are worse for key workers. In this report, social security coverage is proxied by eligibility and access to two types of entitlements: pensions and paid sick leave. As shown in figure 3.16, on average in 54 low- and middle-income countries only 41 per cent of key workers have some

Figure 3.16. Share of key and other workers with social protection, low- and middle-income countries (percentage)



Note: Social protection is proxied by two types of entitlement: eligibility and access to either pensions or paid sick leave. Data on social protection are not available in the labour force surveys of most high-income countries.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

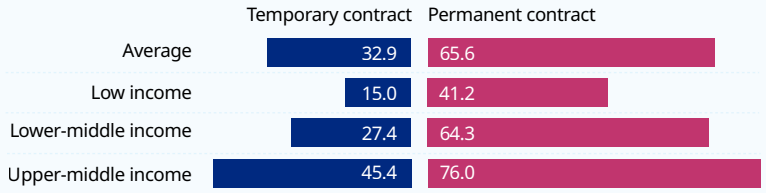
form of social protection, 10 percentage points lower than the ratio of non-key workers. Coverage is associated with level of development such that, in low-income countries, only 17 per cent of key workers and 28 per cent of workers undertaking non-key jobs benefit from social protection. In upper-middle-income countries, the share of key and other workers entitled to at least one type of social benefit increases to 56 per cent and 65 per cent, respectively, but the gap between the two groups remains significant. Unfortunately, in most of the labour force and equivalent surveys conducted in most high-income countries, questions on social security entitlements are not posed, making comparison impossible. However, for the countries where data are available,[104] while a much higher portion of key (73 per cent) and other workers (78 per cent) have social protection there is nonetheless a gap between the two groups.

In the few countries where micro-level data are available on paid sick leave, key workers have lower coverage than other workers. For example, in Serbia, nearly 82 per cent of non-key workers have paid sick leave compared with 67.3 per cent of key workers. Similarly, in Bangladesh, the proportion of key workers who are eligible for paid sick days is 4.3 per cent compared with 28 per cent for non-key workers. While 177 countries around the world offer legislative guarantees of paid leave for personal illness, there are major differences in coverage with respect to self-employed and part-time workers.[105] In 58 per cent of these countries, self-employed workers do not receive any type of sickness benefit, whereas in 65 per cent this is the case for part-time employment.[106] In future health crises, supporting workers with paid sick leave and sickness benefits will be fundamental to mitigating the spread of infection and maintaining productivity.

Deficiencies in social protection occur if there are exemptions in coverage or if strict eligibility criteria preclude certain workers, such as those on temporary contracts, from becoming eligible. As mentioned, many social security benefits such as pensions, paid leave and unemployment insurance, are organized as contributory schemes. Key workers in temporary and part-time employment may have insufficient contributions to become eligible or, if they are eligible, their benefit levels are often insufficient. This can arise when the duration of a contract is too short, the working hours too few or when career interruptions are frequent. For example, in Colombia, Peru, Switzerland and the United Kingdom, the share of persons in temporary employment who contribute to a social insurance scheme is lower than that of people with permanent contracts.[107] Similarly, in Bulgaria, Hungary and Slovakia, where pensions are largely determined by contributions, people in temporary, part-time and self-employment are more likely to have lower retirement incomes.[108]

Figure 3.17 presents the share of key employees who are eligible for social benefits by contractual status. At every level of economic development, temporary key employees have lower social protection coverage relative to their permanent, key employee counterparts. For example, while 76 per cent of key employees in standard employment have social protection coverage in upper-middle-income countries, only 45 per cent of key employees with temporary contracts are entitled to pensions or paid sick leave. Similarly large gaps occur in low-income countries, where 15 per cent of key employees with temporary contracts have social protection coverage, compared with 41 per cent in permanent positions.

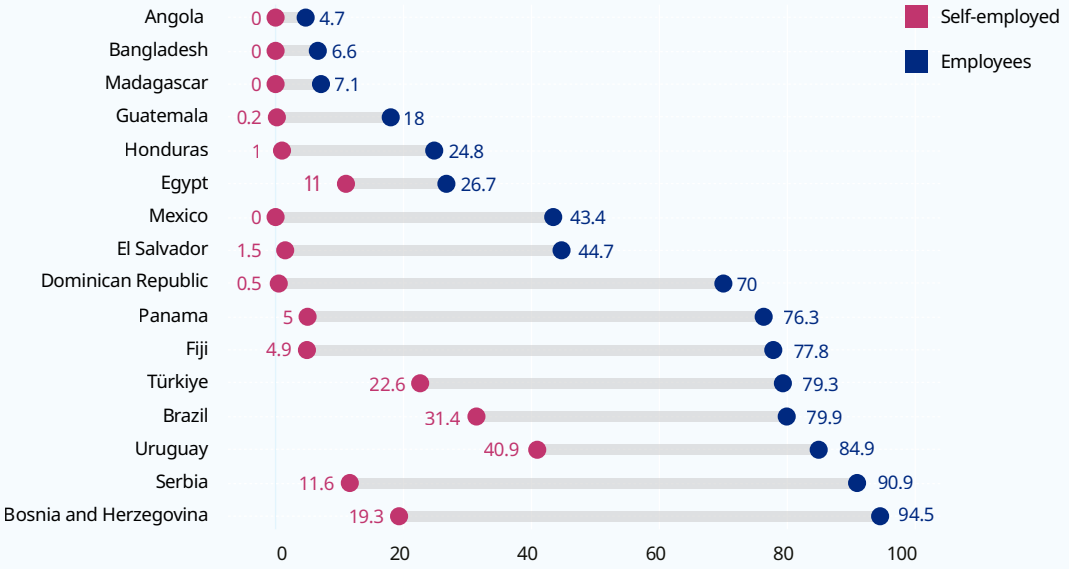
Figure 3.17. Share of key employees with permanent and temporary contracts covered by social protection, low- and middle-income countries (percentage)



Note: Social protection is proxied by two types of entitlement: eligibility and access to either pensions or paid sick leave. Data on social protection are not available in the labour force surveys for most high-income countries.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.18. Share of key employees and self-employed key workers with social protection (percentage)



Note: Social protection is proxied by two types of entitlement: eligibility and access to either pensions or paid sick leave. Data on social protection are not available in the labour force surveys of most high-income countries.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 3.18 shows the rate of social protection coverage among key employees and self-employed workers across selected countries. In every country, social security coverage is more limited for self-employed workers. On average, for the 16 countries, nearly 39 per cent of key employees have social security coverage compared with less than 10 per cent of key self-employed workers. In some countries, such as Angola and Mexico, self-employed workers are excluded from the social security system. In other countries, even if they are technically not excluded, there are nonetheless major gaps between social security protection for employees versus self-employed workers. For example, in Serbia, more than 90 per cent of employees are entitled to pension, sickness, paid leave or parental leave benefits, whereas this is true for only 12 per cent of self-employed workers. Similarly, in Türkiye, almost 80 per cent of key employees are registered with social security, but among key self-employed workers registration amounts to less than 23 per cent.

Another factor influencing social protection of key workers is the institutional sector of employment, as key workers in the public sector often enjoy other benefits, such as more generous pensions, regular work schedules, paid sick and parental leave, and stronger protection against dismissal. Research on pension and health benefits in the United States finds that that there are clear advantages to public over private sector employment.[109] In Ghana and Türkiye, public sector employees were able to receive their salaries even when their working time was reduced due to lockdowns and COVID-19-induced regulations.[110] Moreover, these workers benefit from more regular hours, job security and access to social protection, which not only increases their material well-being but also raises motivation and morale. Nevertheless, with the rise of outsourcing in the public sector, typically only those who are employed directly by the government, statutory bodies and local authorities receive full compensation packages. In India, for example, nurses at public hospitals employed through contractors do not receive the same wages and paid leave entitlements.[111] Hence, not only sector of employment but also contractual arrangements determine the working conditions of key workers.

The problems associated with the lack of social protection afforded to workers in temporary, part-time or self-employment were exacerbated during the COVID-19 pandemic. In Czechia, Estonia, Latvia, Portugal and

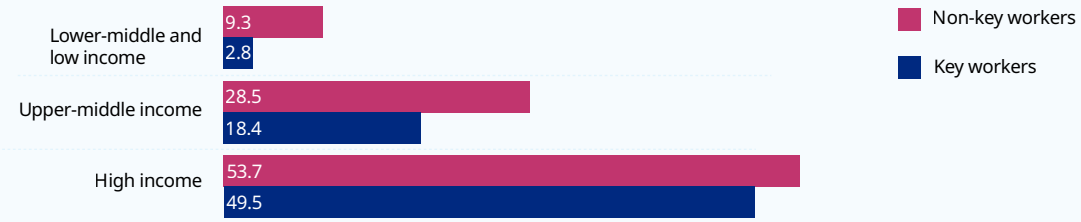
Slovakia, workers in temporary, part-time or self-employment were 40 to 50 per cent less likely to receive any income assistance during unemployment or childcare-related leave than workers in standard employment.[112] Sickness benefit entitlements are generally shorter for temporary workers since they depend on the end date of the contract, whereas part-time employees may be excluded because they do not meet minimum earnings thresholds.[113] In the United States, where paid sick leave is not federally mandated, many employers limit employer-provided paid sick leave to their full-time employees. As a result, full-time workers in the United States have nearly twice the sick pay coverage that part-time workers have.[114] Not surprisingly, one in five workers in the United States reported going to work ill since the start of the pandemic, due to a lack of sick leave, fear of losing their jobs or fear of employer anger.[115]

3.7. Training

Training enables individuals to do their work more effectively, to adapt to change and to prepare for the future. For enterprises, training can improve employee retention as well as improve productivity. During times of crisis, training can help workers to better adapt to new realities. The COVID-19 pandemic, however, disrupted training delivery with only 20 per cent of training providers reporting, in a 2020 survey conducted by the ILO, UNESCO and the World Bank, that they had modified their offers to respond to the needs induced by the pandemic. Still, these providers were able to adapt their training to raise awareness of the health risks stemming from the pandemic and how to properly employ occupational safety and health measures.[116] Training such as this was especially important for key workers, as they were most exposed to the work-related hazards emanating from the COVID-19 pandemic. Indeed, the evidence presented in section 2.1 showed that individuals working in the health sector – where safety and health knowledge related to the risks of infection was higher – tended to experience smaller adverse health effects than individuals employed in sectors where safety and health protocols and awareness were lacking initially, such as transportation. Section 2.2 also highlighted how training for retail workers on how best handle angry customers would have been helpful for improving the day-to-day work experience of key workers.[117]

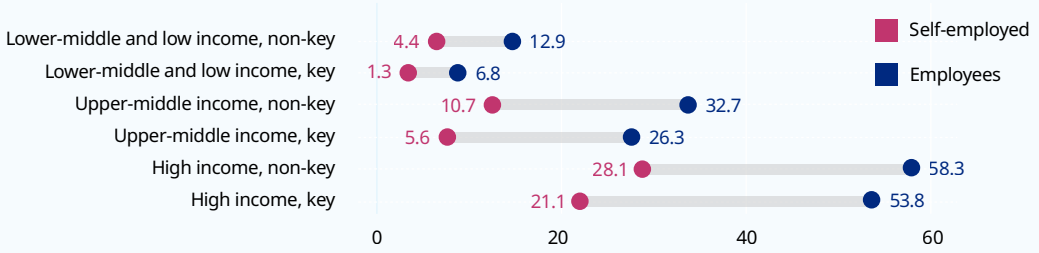
But how many employed individuals have access to training? Evidence from the European Working Conditions Survey shows that the share in high-income countries is comparatively high. Looking at pre-pandemic data, 53.7 per cent of non-key workers and 49.5 per cent of key workers had participated in some training in the previous 12 months while at work (figure 3.19). Key workers are disadvantaged compared to non-key workers, but the gap is not substantial. This, however, changes for countries with lower income levels. In selected upper-middle-income countries, only 18.4 per cent of key workers had participated in training, which is 10 percentage points lower than the share of non-key workers. In selected

Figure 3.19. Share of employed workers who received some training in the past 12 months, key workers versus non-key workers by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year, and European Working Conditions Survey, 2015. See Appendix for more details.

Figure 3.20. Share of employed workers who received some training in the past 12 months, key workers versus non-key workers by employment status and country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year, and the European Working Conditions Survey (2015). See Appendix for more details.

lower-middle-income and low-income countries, a mere 2.8 per cent of key workers had participated in training, compared to 9.3 per cent of non-key workers. This raises doubts as to whether training schemes are sufficiently robust to achieve the required changes in awareness and behaviours during crises, especially among key workers.

Type of employment is another dimension that shapes workers' access to training. Self-employed workers are significantly less likely to have access to training than employees (figure 3.20). Self-employed key workers have the lowest training rates, ranging from 21.1 per cent in high-income countries to 5.6 per cent in upper-middle-income countries and only 1.3 per cent in lower-middle-income and low-income countries. With self-employment being the dominant form of employment among key workers in poorer countries (except for those employed in health and security; see section 1.1), these extremely low training rates are reason for concern. In part, the low rates are associated with decent work deficits in the agricultural sector, in particular training on OSH. However, the exclusion of food systems workers improves only slightly the low training rates for self-employed workers in low- and middle-income countries.[118] Therefore, the training deficits are a labour market feature that extends beyond agriculture.

In addition, having a temporary employment contract tends to negatively affect workers' access to training.[119] In some countries, temporary employment is prevalent and there is a clear dividing line between workers with temporary and permanent contracts. This is the case in the Andean countries. In Ecuador, for example, 43.6 per cent of salaried employees had temporary contracts in 2015 and these employees were, when abstracting from observable characteristics, 8.7 percentage points less likely to have access to training than other employees.[120] A study from Chile, a country which has an intermediate level of temporary employment, also found that temporary employment is negatively associated with access to training.[121]

Another example is Spain, where a large majority of young workers currently hold temporary contracts,[122] again with negative consequences for their access to training.[123] After accounting for personal characteristics, Spanish workers with a temporary contract are an estimated 6.5 percentage points less likely to attend training than others. In contrast, temporary workers and workers with permanent contracts have similar access to training in labour markets that are less segmented and that have a smaller gap in employment protection legislation between temporary and permanent employees (for example, Sweden and the United Kingdom). In the case of Ireland and the Netherlands, the training gap was even reversed in favour of temporary workers.[124]

Among the possible training options available, work-based training plays a key role. Learning and training in firms is well suited to enabling workers and firms to adapt to changed realities, including the OSH implications that arise during a pandemic. In comparison, learning and training that takes place entirely outside firms may be less flexible and thus less able to account for such changes in working requirements. Additionally, in-firm learning and training reaches individuals of all ages. This includes individuals at later stages of their working lives, who are less likely to leave their jobs for a certain period to receive training.[125]

A specific, formalized type of work-based training is technical and vocational education and training (TVET). At the lower end of the wage distribution, where key workers are disproportionately located, technical and vocational skills are important. Investments in enhancing these skills improve the labour market prospects of workers, but also the productivity of the firms employing them. TVET encompasses different forms of school-based and work-based learning, and combines occupation-specific and general knowledge. It is most relevant for young people who have not yet entered the labour market, but TVET can also be a means for older workers who retrain or upskill to improve their situations in their current jobs or to find better jobs.[126]

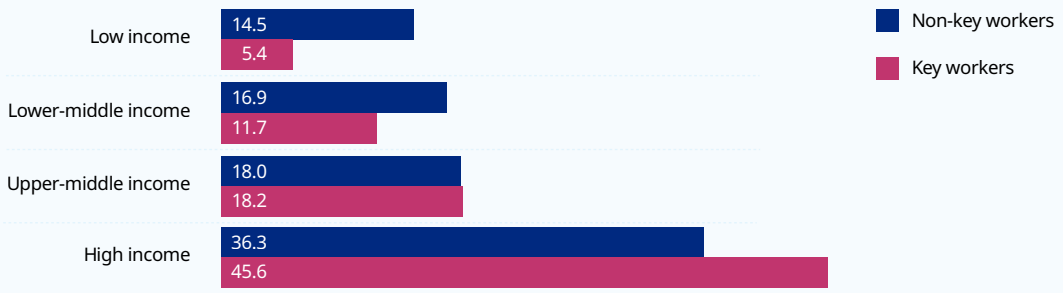
During crises, TVET programmes can help respond to fundamental shifts in skills demand, although this requires longer planning horizons than other forms of work-based learning that can be implemented in an ad hoc fashion to respond to immediate needs. During the COVID-19 pandemic, some TVET programmes were adapted to upskill workers providing essential services and to reskill others to meet labour shortages in essential sectors. TVET can also be useful during the COVID-19 socio-economic recovery to meet lasting changes in labour demand, such as the increased emphasis on digital skills.[127]

Despite the relevance of TVET during crises, key workers' access to TVET differs across the world. In countries with higher income levels, TVET is more prevalent in general. More key workers (45.6 per cent) than non-key workers (36.3 per cent) have attended TVET at some point in their working lives in France, Switzerland and the United Kingdom, the three high-income countries included in the analysis used to produce figure 3.21. In these countries, many of the jobs performed by key workers formally require TVET. Bus drivers in Switzerland, for example, attend up to 12 months of theoretical and practical training, while nurses complete a three-year apprenticeship that includes school-based learning and workplace training.[128] However, this does not mean that non-key workers have lower formal qualification levels on average, since many of them obtain university degrees.

Among countries with lower income levels, fewer key workers have attended TVET at some point in their working lives and the gap with non-key workers in fact reverses. In selected upper-middle-income countries, an equal share of key workers and non-key workers have attended TVET (around 18.0 per cent). In lower-middle-income countries, the same is true for 16.9 per cent of non-key workers, compared with only 11.7 per cent of key workers. This discrepancy becomes more pronounced in low-income countries, where only 5.4 per cent of key workers have attended TVET, while 14.5 per cent of non-key workers have done so.

Therefore, many key workers merely learn on the job, with limited possibilities to enhance their skills and working conditions. An example of a specific occupation which received increased attention during the COVID-19 pandemic is that of mortuary attendants. A study in Ghana revealed that mortuary attendants are trained on the job. For a duration ranging from three months to two years, they learn from their

Figure 3.21. Share of workers who have attended TVET at some point in their working lives, key workers versus non-key workers by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT) and supplementary surveys; 2019 or latest year.
See Appendix for more details.

more senior colleagues. The lack of a more structured, rigorous apprenticeship training exposes these workers to OSH hazards, especially when they are in contact with infectious diseases or chemical products. Structured training would also be beneficial for improving the quality of the services delivered by mortuary attendants and their working conditions. Those working conditions currently entail a high incidence of casual employment and low wages that do not suffice to meet workers' basic needs despite them working long hours and performing hazardous and demanding tasks.[129]

Notes

1 ILO, n.d.(e).
2 WHO and ILO, 2021.
3 WHO and ILO, 2021.
4 WHO and ILO, 2021.
5 ILO, 2015d.
6 European Agency for Safety and Health Work, n.d.(a).
7 ILO, 2015e.
8 Eurofound and ILO, 2019.
9 European Agency for Safety and Health Work, 2008.
10 Forastieri, 2016.
11 Chappel and Di Martino, 2006.
12 Occupational Safety and Health Convention, 1981 (No. 155), Art. 16(1) and (2).
13 ILO, 2001.
14 See ILO, 2022d; CDC, 2022.
15 ILO, 2021b.
16 C.155, Art. 20.
17 See also the Occupational Safety and Health Recommendation, 1981 (No. 164), Para. 11.
18 Brazil, Federal Constitution, art. 7 item XXXIV. This is despite the fact that there are specific laws on rural work, domestic work and temporary work.
19 Brazil, Law No. 6019 of 3 January 1974, art. 4-C.
20 Loschi, 2020.
21 Feliciano and de Quintana Figueiredo Pasqualeto, 2019.
22 See United States Department of Labor, n.d.(b).
23 United States Congress, Public Law 91-596 (OSH Act) of 29 December 1970 as amended through 1 January 2004, Section 3, Definitions, 29 U.S.C. para. 652. See also United States Department of Labor, n.d.(a).
24 See Rwanda, Labour Law, art. 2. See also Rwanda, Ministerial Order N°02 of 17 May 2012, art. 2. There is a separate law covering certain public servants.
25 National Institute of Statistics of Rwanda, 2018; Rwanda, Ministry of Public Service and Labour, 2019. "Informal sector employee" is defined in art. 3(22) to mean "an employee working for an enterprise or an individual for an employment that is not registered in the register of companies or with a public authority".
26 Rwanda Labour Inspectors Compliance Audit Report 2015–2018.
27 See, for example, Australia, Productivity Commission, 2010.
28 Sargeant and Tucker, 2009.
29 C.155, Art. 3(e).
30 Chirico et al., 2019.
31 McCulloch and Tweedale, 2008.
32 See the Employment Injury Benefits Convention, 1964 (No. 121).
33 C.155, Art. 11(c) (d) and (f).
34 For a detailed list of countries, see ILO, 2021p.
35 ILO, 2022g.
36 Lupo and Verma, 2020.
37 Based on data for 142 countries. ILO, 2022g.
38 ILO, 2022g.
39 ILO, 2022g.
40 ILO, 2002.
41 ILO, 2022g.
42 ILO, 2015f.
43 ILO, 2016c.
44 Vosko, 2018.
45 Franco, 2019.
46 Belize, Dominican Republic, Ecuador, El Salvador, Lesotho, Romania, Trinidad and Tobago, and Türkiye set the threshold at 50 per cent of employees.
47 ILO, 2016c.
48 Mariko Inoue et al., 2011.
49 McNamara, McKee and Stuckler, 2021.
50 Blázquez Cuesta and Moral Carcedo, 2014.
51 ILO, 2016c.
52 Jany-Catrice and Lehndorff, 2005.
53 Künn-Nelen, De Grip and Fouarge, 2013.
54 Carré et al., 2013.
55 ILO, 2016c.
56 Duman, 2019; Emmons Allison et al., 2018.
57 ILO, 2016c.
58 For a review of the literature, see ILO, 2016c.
59 For example, in 2017, only 12.8 per cent of agency workers in the United States had employer-provided health insurance compared, with 53.4 per cent among employees with "traditional arrangements". See United States Bureau of Labor Statistics, n.d.(a).
60 Cassim and Casale, 2018.
61 Unpublished background study prepared for the ILO.
62 Unpublished background study prepared for the ILO.
63 Dev and Rahul, 2022.
64 Pega et al., 2021.
65 Schneider and Harknett, 2019; ILO, 2016c.
66 The limit of 20 hours pertains to part-time employment with short working hours; see Messenger and Wallot, 2015. This is different from statistical definitions of part-time work as such, where the limit is often set at 35 hours, see ILO, 2016d.
67 ILO, 2018g.
68 Lee, McCann and Messenger, 2007.
69 Pega et al., 2021.
70 Messenger, 2018.
71 ILO, 2021h.
72 Adams and Prassl, 2018.
73 See also Burri, Heeger-Hertter and Rossetti, 2018.
74 Short hours disproportionately affect women, and reflect the greater number of hours that they devote to unpaid care responsibilities. Short working hours are often a result of involuntary underemployment. See Messenger, 2018.
75 Analysis based on ILO Microdata Repository (ILOSTAT). See Appendix for more details.
76 See also Breza, Kaur and Shamdasani, 2021.

77 Messenger, 2018.
78 Amossé et al., 2021; Folbre, Gautham and Smith, 2021.
79 ILO, 2012.
80 ILO, 2020i.
81 This mapping carried out in the ILO does not cover Arab States for which insufficient data are available to generate reliable estimates.
82 For example, wage employees are under-represented among food systems workers. Only 38 per cent of food systems workers work more than 40 hours a week, whereas for the other seven occupational categories of key workers (health, retail, security, manual, cleaning and sanitation, transport, and technicians and other support workers), similar estimates range from 39 per cent (health and cleaning and sanitation workers) to 61 per cent (transport workers).
83 Job experience is not always available across the surveys used for this analysis and is proxied here by the age of the respondents. More working hours and time spent at work can, in theory, have a positive impact on productivity through increased experience and on-the-job training. On the other hand, fatigue due to longer working hours could also have a negative impact on workers' outputs per hour worked (see, for instance, Collewet and Sauermann, 2017).
84 Psacharopoulos and Patrinos, 2018.
85 ILO, 2019c.
86 Darkwah, 2022.
87 Manky et al., 2022.
88 Government of Ontario, n.d.
89 Vermont Agency of Human Services and Department of Financial Regulation, n.d.
90 France, Ministère des Solidarités et de la Santé, 2020.
91 See, in particular, C.155, Part IV.
92 ILO, 2020i.
93 ILO, 2021t.
94 ILO, 2021t.
95 ILO, 2020n.
96 ILO, 2010; ILO, 2020m.
97 ILO, 2021t.
98 Sandner and Scheil-Adlung, 2010.
99 Nagata et al., 2018.
100 ILO, 2010; OECD, 2020b.
101 OECD, 2020b.
102 Chen et al., 2020.
103 ILO, 2021t.
104 These countries are Brunei, Cook Islands, Panama, Seychelles and Uruguay.
105 Heymann et al., 2020.
106 Heymann et al., 2020.
107 ILO, 2021t.
108 Matsaganis et al., 2016.
109 Biggs and Richwine, 2011.
110 Darkwah, 2022; Unpublished background study prepared for the ILO.
111 Singh, forthcoming.
112 OECD, 2019a.
113 OECD, 2020b.
114 United States Bureau of Labor Statistics, n.d.(b).
115 JUST Capital, n.d.
116 ILO, World Bank, and UNESCO, 2021.
117 Mayer et al., 2022.
118 Without food systems workers, the same training rates for self-employed key workers are 1.7 per cent in low- and lower-middle-income countries and 8.8 per cent in upper-middle-income countries (authors' calculations based on ILO Microdata Repository (ILOSTAT) and the European Working Conditions Survey (2015)).
119 ILO, 2016c.
120 Jaramillo, Almonacid and de la Flor, 2019; Maurizio, 2019.
121 Carpio et al., 2011.
122 Verd, Barranco and Bolíbar, 2019; García-Pérez, Marinescu and Vall Castello, 2019.
123 Albert, García-Serrano and Hernanz, 2005; Cabrales, Dolado and Mora, 2017.
124 Cabrales, Dolado and Mora, 2017.
125 ILO, 2017b; Kis and Windisch, 2018.
126 ILO, 2021a.
127 Enfield, 2021; Escudero and Liepmann, 2020; Hoftjitzer et al., 2020; ILO, World Bank and UNESCO, 2021.
128 Berufsberatung.ch, n.d.
129 Dartey et al., 2021.

4

Specific challenges faced by the eight key occupational groups

Credit: © vlad_karavaev

Main findings


Credit: © Joseph Sorrentino

Food systems workers regularly face high levels of working poverty, endure OSH risks, and are poorly covered by labour and social protection, both in law and in practice.

Care work is characterized by gender segregation, low remuneration and pay gaps.

Most key retail workers in developing countries are self-employed, and they often lack social protection coverage and work long or irregular hours.

Security workers face elevated risks of violence and harassment, and more than a third of them work excessive hours.

The broad global assessment of the working conditions of key workers given in Chapter 3 demonstrated an undervaluation of these workers, both in terms of earnings and with respect to other working conditions. Key workers have lower rates of unionization overall, higher incidence of temporary and multi-party employment arrangements that at times aggravate deficits in other working conditions, long and irregular working hours and, on average, lower wages, even after accounting for differences in educational attainment and other observable characteristics between key and other employees. Key workers tend to also have more limited social protection coverage, especially in low-income countries. In addition, relatively few key employees receive training, a problem that is again more acute in low-income countries. Overall, the analysis revealed strong interconnections between working conditions, with deficiencies in one area reverberating across other areas. The problems are most acute among self-employed and informal workers who do not benefit from any form of labour and social protection in many parts of the world.

While these conclusions apply to key workers in general, who as a group share common features, including exposure to hazards such as those arising from their work during the COVID-19 pandemic, some of the insecurities are particularly worrisome for specific categories of key workers. This chapter thus analyses the working realities of key workers in the eight broadly defined key occupational groups: food systems, health, retail, security, manual, cleaning and sanitation, transport, and technicians and clerical support. Within these categories, a zoom on selected, more detailed key occupations is undertaken to illustrate the challenges that specific jobs faced during the pandemic. These case studies investigate the pandemic-related experiences of agricultural workers, community health workers, street vendors, warehouse workers, waste pickers, seafarers and postal workers. They help identify policy conclusions for improving general working conditions, but also with a view to making workers, and hence societies, more resilient during future crises.

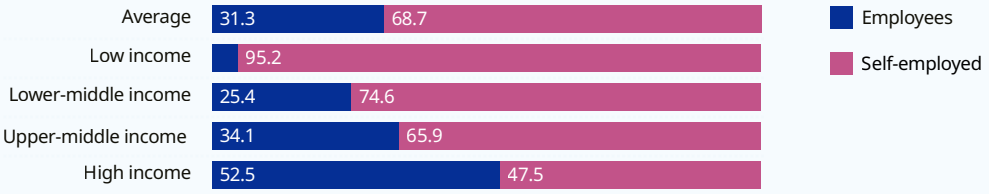
4.1. Food systems workers: Unprotected and low-paid

Food production, distribution and delivery are economic activities that must continue even during extraordinary times, such as wars, pandemics and natural disasters. Given the importance of agriculture and global food chains for the survival of societies, it is no surprise that key food systems workers make up a very large part of all key workers (35 per cent). This share ranges from 13.2 per cent in high-income countries to 60.4 per cent in low-income countries. In low-income countries, agriculture is a dominant sector and source of employment, and although subsistence farmers account for nearly 40 per cent of agricultural employment in these countries, the share excluding subsistence farmers is 44 per cent. On average, more than 68 per cent of key food systems workers are self-employed and the share increases to 95 per cent in low-income countries, while in high-income countries employment status is more evenly distributed (see figure 4.1).

Another distinguishing feature of key food systems workers is the high share of migrant workers (see figure 4.2). On average, 7.3 per cent of key food systems workers are born abroad but this proportion reaches 63 per cent in Jordan and more than 41 per cent in Brunei Darussalam. In countries where agriculture makes up a small share of the workforce, such as Switzerland and the United States, migrant workers constitute an important source of labour (36.3 per cent of food systems workers in the United States and 19 per cent in Switzerland). Yet despite the importance of foreign workers for agriculture in many countries, international migrant workers faced mobility restrictions as a result of the pandemic, in addition to a deterioration in their working conditions (see box 4.1).[1]

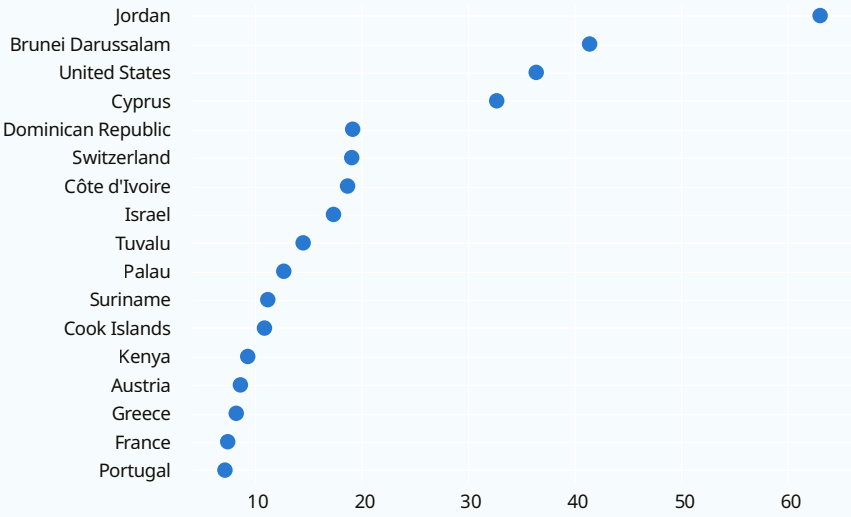
Key food systems workers make up 35 per cent of all key workers worldwide.

Figure 4.1. Employment status of key food systems workers, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 4.2. Share of migrant key food systems workers (percentage)



Note: Migration status is based on being born in a foreign country.
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Box 4.1. Key workers in agriculture: A migration lens

In many parts of the world, and especially in industrialized countries, the agriculture sector is dependent on migrant workers, both international and national.[1] Border closures, mobility restrictions and the suspension of economic activities as a result of the COVID-19 pandemic had significant consequences for primary production worldwide, but also for the movement of migrant agricultural workers, many of whom have unstable residency and citizenship status. In countries such as China and India, where internal migration is an important feature of the sector, local restrictions on mobility created disruptions that affected workers' livelihoods. The recession induced by the COVID-19 pandemic in India forced the mass return of millions of circular migrants who, in the absence of social protection, were supported by rural households of women who acted as safety nets during the pandemic.[2] In the case of international agricultural migrants to OECD countries, concerns arose over potential labour shortages as a result of mobility restrictions that impeded the entrance of foreign agricultural workers, triggering exceptions to allow their entrance under calls for food security.

In Spain, border restrictions had serious implications for short-term contracted migrant workers from Morocco. The Moroccan government banned the return of the (mostly female) workers

Box 4.1. ***(cont'd)***

who consequently remained "immobilized" in the Spanish fields with no means of subsistence. In addition, the pandemic meant an intensification of work in Spain as more hours were needed to cover larger harvests per person, resulting in overtime and reported abusive practices.[3] The Spanish government encouraged the recruitment of young, third-country nationals in the agri-food sector through the Royal Law Decree No. 13/2020 of April 2020, which extended the validity of migrants' residence permits due to expire during the lockdown period. In addition, young third-country nationals were allowed to work in agriculture and, through two-year extensions of residence and work permits, they could potentially access long-term residence.[4]

In Canada, the challenges faced by migrant workers in agriculture under temporary labour migration programmes were further strained by the pandemic.[5] One of the characteristics of such programmes is their "embedded deportability", meaning that migrant workers are subject to short-term contracts that determine their duration of stay in the host country, and limit the workers' potential to raise concerns over working conditions out of fear of not being selected for future seasons. Yet, working conditions became more difficult due to the pandemic for many reasons. First, in seeking to mitigate the risks of contagion, the use of masks, disinfectants, gloves and physical distancing made work more difficult to perform on the one hand, while the enforcement of measures was not always guaranteed on the other hand. Second, fears of deportation for medical reasons and loss of income made workers avoid testing and monitoring. Third, confinement to employer-provided housing made the costs of isolation higher, with mental health implications, Finally, access to the community was limited, exacerbating feelings of isolation and exclusion (see discussion in section 2.2). The case of Canada also shows how gaps in labour protection emerge because of jurisdictional differences: the federal government has primacy over immigration and negotiations of Memoranda of Understanding and standard employment contracts with countries of origin, while provinces have the power to enact and enforce labour laws (except for workers falling under the federal jurisdiction). The provinces are also responsible for the regulation and the provision of health insurance, while housing and public health measures are within the jurisdictional domain of municipalities.[6]

Another important dimension revealed by the pandemic is the situation of housing for migrant agriculture workers, in particular those subject to temporary schemes who are dependent on their employers for accommodation. As was the case in many countries, the agriculture sector in Israel was designated as "essential" during the pandemic. Around 32,000 workers in the sector in Israel, mostly from Thailand, continued working during this period. Most employers house workers on farms but owing to land use regulation in the country, structures on farms are only built for agricultural use, such as sheds and haylofts. Thus, migrant workers usually reside in temporary structures not well suited for long-term housing, and especially problematic with regard to the fulfilment of quarantine measures. Upon border closures, the "shortage of workers" triggered the agriculture employer sector to demand special entry into the country for these workers; various problems emerged regarding where to house workers in order to comply with quarantine requirements. Hotels were expensive and no one wanted to face the costs. After various negotiations, Thailand was removed from the list of countries requiring quarantine. At some point, consideration was given to hosting workers in a remote detention facility, though the idea was dropped due to human rights concerns.[7]

The experience from various countries shows the persistent challenges that migrant workers face in securing labour protection under temporary schemes and divergent migration statuses, as well as the recurring insecurities and vulnerabilities that migrant farm workers endure.

[1] Bauer, Rodrigues and Leichsenring, 2018.
[2] Rapp, Ronchetti and Sicsic, 2021.
[3] Banerjee et al., 2008.
[4] Braedley et al., 2018.
[5] ILO, 2020c.
[6] Trapmann et al., 2022.
[7] Buchan, Catton and Shaffer, 2022.

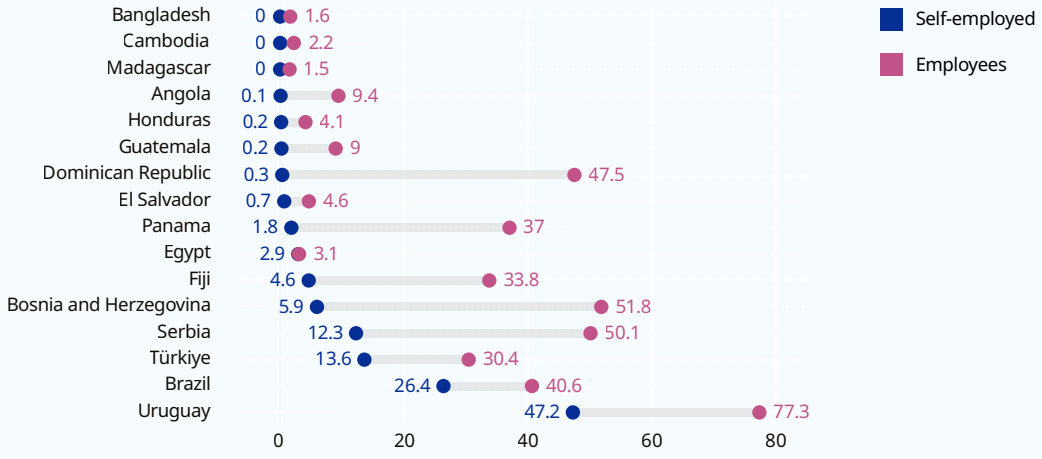
In most countries where data are available, both key employees and self-employed workers in food systems often lack any form of social protection.

Social protection coverage is extremely low among key food systems workers. As can be observed from figure 4.3, in most countries where data are available, both key employees and self-employed workers in food systems frequently lack any form of social protection. The low coverage rate for employees is distinct from other occupational groups, and makes evident the elevated use of informal, casual work in agriculture. For example, in El Salvador, nearly 45 per cent of all key employees have social protection whereas only 4.6 per cent of key food systems employees have such protection. While the coverage is better in a few high- and upper-middle-income countries like Bosnia and Herzegovina, Brazil, Panama, Serbia, Türkiye and Uruguay, key food systems wage workers are nonetheless protected at lower rates than all other key workers. For instance, in Uruguay, more than 90 per cent of key employees have access to either pension or paid sick leave. However, for key food systems employees, this share is 77 per cent.

There are multiple barriers to including food systems workers in social protection systems. To begin with, agricultural workers are sometimes legally excluded from social security systems. In Lebanon, for example, labour legislation excludes agricultural, forestry and fishery workers from social insurance schemes.[2] In other cases, administrative constraints and difficulties with registration and monitoring in rural areas prevent workers from accessing benefits.[3] Additionally, informational and organizational obstacles are greater for food systems workers as they work and live in remote places and are less aware of policies or benefits. In the case of migrant workers under temporary labour migration schemes, even if some provisions to secure social security benefits are reflected in bilateral agreements (for example, Canada–Mexico under the Seasonal Agricultural Worker Program), in practice, the temporary nature of seasonal work prevents migrants from effectively accessing comprehensive social protection coverage.[4] To overcome some of the impediments described, several countries, such as Algeria and Brazil, have developed special social security legislation for rural workers. In other cases, such as Ecuador, the main social security institution oversees the Peasants' Social Insurance Scheme, which is directed at rural farm workers and subsidized by the State.[5]

A high share of key employees working in food systems are low-paid, meaning that their wage is below two thirds of the median of the wages in the country. Across countries where data are available,

▶ Figure 4.3. Share of key food systems workers with social security, selected countries (percentage)



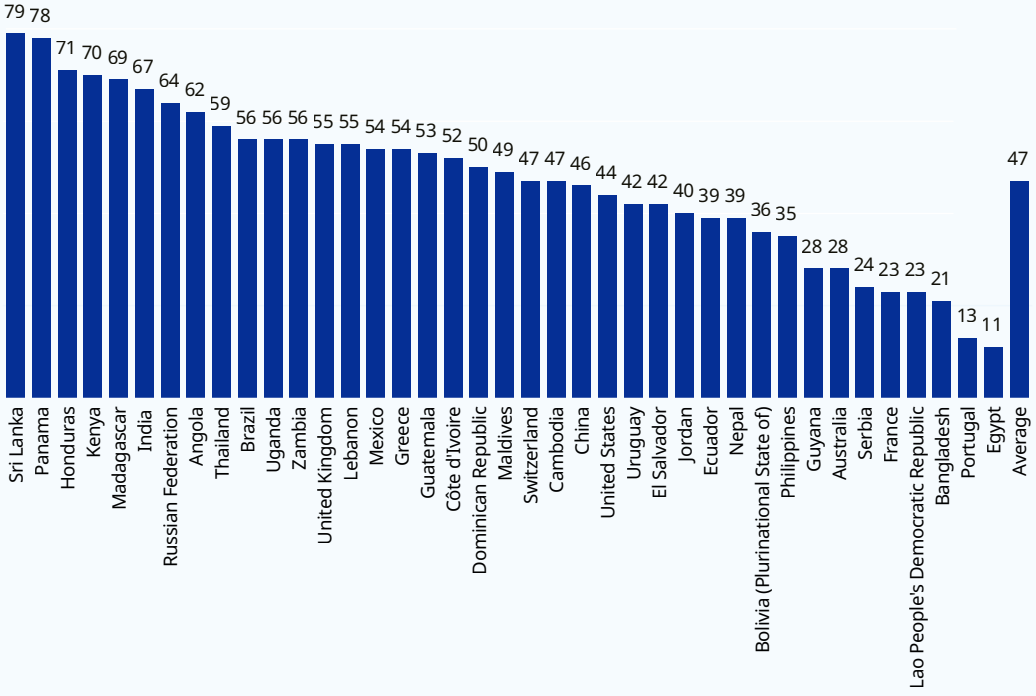
Note: Social protection is proxied by two types of entitlement: eligibility and access to either pensions or paid sick leave.
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

on average half the key wage employees are paid below this threshold (figure 4.4). However, the share varies considerably across countries, reaching for instance 79 and 78 per cent in Sri Lanka and Panama, respectively, whereas it is only 13 and 11 per cent in Portugal and Egypt, respectively.

The low wages received by key food systems employees in many countries may partly reflect the lower productivity in the agricultural sector, especially in those areas where agriculture is a principal source of employment. A global study finds a substantial agricultural productivity gap in comparison to the non-agricultural sector, even after taking into account various measurement issues.[6] More specifically, for low- and middle-income economies in Asia, recent evidence has also shown that non-agricultural and agricultural labour productivity do not grow at the same pace; the former has grown faster over the five studied years, causing the gap to increase significantly over time.[7] In this context, key wage employees in the food systems industry are at risk of receiving lower wages than those paid to other employees. Policies that support productivity gains in agriculture can help mitigate this risk.

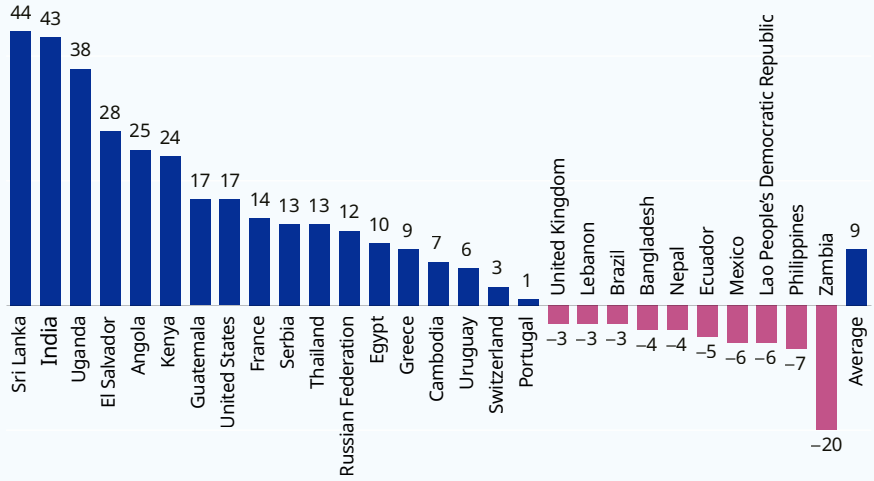
Yet the low wages of key food systems employees cannot only be attributed to productivity. Institutional deficits in wage-setting processes also help explain them. For instance, key food systems employees are largely excluded from the legal coverage of the minimum wage in many countries. A global review of minimum wage policies found that, in 2020, 29 countries had a statutory minimum wage that excluded agricultural or domestic workers, or both, from minimum wage regulations.[8] Twelve countries excluded all or some agricultural workers, while possibly including domestic workers. When not excluded, these categories of wage earners may nonetheless be subject to specific minimum wage rates, which are often lower than those applied to other workers. Poor enforcement of minimum wage regulations, especially in remote rural areas, also helps to explain the low earnings of food systems workers. Inadequately regulated piece rates systems may also increase the risk of workers being paid unfair wages, sometimes below the existing minimum wage level.[9] Overall, the

Figure 4.4. Share of low-paid workers among key food systems wage employees (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 4.5. Gender pay gap among key food systems wage employees, selected countries (percentage)



Note: Positive values indicate that the pay gap favours men; negative values indicate the pay gap favours women.
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

share of food systems employees paid below the minimum wage testifies to the low protection of minimum wages for this group of workers. Across countries where a minimum wage is implemented, on average 52 per cent of key food systems employees are paid below that wage.

Finally, the variation across countries is in part due to differences in employment status of agricultural workers. In some countries, large shares of agricultural workers are classified as self-employed or contributing family workers and are thus not included in the calculation of wages, which concerns only employees. In Egypt, for instance, 15 per cent of key food systems workers are self-employed and 30 per cent are contributing family workers. In Bangladesh, more than half of key food systems workers are self-employed.

In most cases, the lower wages earned by key food systems workers are received by women. The gender gap in pay among key food systems wage employees reaches 9 per cent on average across countries for which this indicator can be estimated (figure 4.5). However, key female food systems employees receive wages that are higher on average than those paid to their male counterparts in a few countries, such as Ecuador, Mexico, the Philippines or Zambia. Nonetheless, as highlighted earlier, an average gender pay gap in favour of women does not necessarily preclude the existence of pay discrepancies in favour of men when looking more specifically at the level of occupations or activities. For instance, a study carried out in 2018 specifically on the population of agricultural workers in four major crops (palay, corn, coconut and sugar cane) in the Philippines confirmed the presence of wage differences for workers performing the same agricultural activity, with a wage bias against women of 21 per cent.[10]

Women often contribute to agricultural work in addition to performing unpaid domestic tasks that ensure the productivity of the rest of the household.

In addition, in many instances, women working in the food systems sector are unpaid. In India, unpaid work on family agricultural enterprises accounts for one third of women's informal employment, and in Egypt, it accounts for an astonishing 85 per cent.[11] Though not reflected in the figures presented here, women often contribute to agricultural work in addition to performing unpaid domestic tasks that ensure the productivity of the rest of the household.

4.2. Health workers: Risking safety and health with limited collective representation

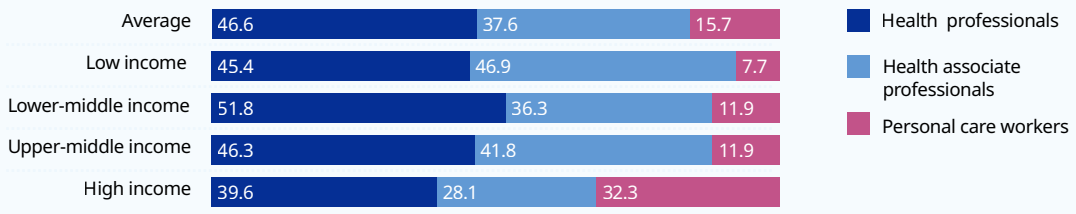
> *There were infectious diseases before COVID, we had that risk. Apart from that, we are going to the houses. No one knows what kind of psychology patients at home have. Some are living in desperate conditions, some are very irritable, some are very agitated... These risks are normal to our job.*
>
> *Elderly care unit worker, Türkiye*[12]

In the first months of the pandemic, across the world, the public applauded health workers in recognition of their contribution to society's health and well-being, and in gratitude of the risks they were taking. But while this gesture was appreciated by health workers, it did not address the multitude of long-standing challenges that they face. Though ensuring healthy lives is one of the United Nations (UN) Sustainable Development Goals, and access to quality healthcare is a basic human right,[13] healthcare is underfunded, especially in middle- and low-income countries, with significant consequences for the share of employment in the sector as well as working conditions. In high-income countries, one out of every five key workers is a health worker. However, in low-income countries, this ratio falls to less than one in 50.

In many parts of the world, there is rampant underinvestment in healthcare. For example, in 2017 public expenditure on health in India as a percentage of GDP was only 1 per cent, while in the same year the proportion was nearly 14 per cent in the United States and 9.6 per cent in Germany.[14] Even when all expenditures (including the private sector and out-of-pocket) are considered, there is still a big gap between low- and high-income countries. While section 6.1 discusses in greater detail the underinvestment in healthcare, this section focuses on working conditions that are related to underinvestment.

In addition to differences in the budget allocated to healthcare, there is also variation with respect to the vocational composition of key health workers across countries. As can be seen in figure 4.6, on average more than 46 per cent of key health workers are health professionals, such as doctors, nurse and midwifery professionals, paramedical professionals and veterinarians, while almost 38 per cent are technicians and associates in the same occupations. The remaining 15.7 per cent are personal care workers (ISCO category 53), which includes healthcare assistants and home-based health workers, in addition to childcare

Figure 4.6. Composition of key health workers, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

workers and teachers' aides. Personal care workers comprise a small proportion of key health workers in low-income countries (less than 8 per cent), a proportion which rises to 32.3 per cent in high-income economies, reflecting the growing demand for care work in these countries. In particular, due to social and demographic changes, the demand for the services of long-term care workers (LTCWs) – including formal and informal paid personal health carers, both in institutionalized settings and in private homes, who look after people with limited abilities to manage their daily life – is increasing in both middle- and high-income countries.[15] For example, in Japan, for every 100 people aged over 65 at home in 2000 there was 1 LTCW, rising to 3.2 LTCWs in 2019.[16] LTCWs (also commonly referred to as home health aides or social care workers) work in one of the most feminized occupations. In the OECD, for example, 90 per cent are women (see box 4.2 for information on the conditions of employment of personal care workers).[17]

As discussed in section 3.1, health workers are subject to physical and psychosocial risks due to their exposure to infectious materials, carrying heavy loads, work in strenuous positions, and emotional burdens. These risks are aggravated by long and irregular working hours as well as disproportionate incidences of violence and harassment on the job. Since health workers form the backbone of any health system, addressing these deficits is critical.

LTCWs, in particular, face significant occupational safety and health (OSH) challenges. For example, in European Union countries, 33 per cent report that they have been subject to adverse behaviour (such as verbal abuse, humiliating behaviour, physical violence and threats), whereas this number among all other occupations is 16 per cent.[18] In Austria, 68 per cent of residential care workers and 41 per cent of home care workers report that they experience constant physical exhaustion.[19] In Germany, formal LTCW workers are likely to report more negative health compared to workers in other sectors.[20] In Canada, LTCWs are subject to high levels of violence and racial discrimination by the elderly, in addition to often working long hours with a heavy workload.[21] The situation is worse among Canadian LTCWs on temporary and multi-party contracts, who, in addition, report higher levels of stress.[22] The initial phases of the pandemic intensified OSH risks among LTCWs with many experiencing a lack of access to testing and personal protective equipment (PPE).[23]

As highlighted in section 2.2, during the pandemic there were multiple protests by healthcare workers across the world to raise concerns about lack of staff and insufficient measures to ensure the safety of workers and patients.[24] The high turnover rates of nurses – a concern for many countries' healthcare systems prior to the pandemic – intensified during the pandemic.[25] Evidence across countries, such as Egypt, Peru and the Republic of Korea, suggest that nurses who had to work in more intense conditions during the pandemic were more likely to indicate an intention to quit their job.[26] Increases in nurse turnover are costly for healthcare systems and can jeopardize the quality of health services.[27] According to a 2020 estimate for the United States, a 1 per cent increase in nurse turnover costs an average hospital in the country approximately US$328,400.[28] Thus, the well-being of nurses and other key health workers not only benefits the individual workers, but the healthcare system overall.

In many developing countries, the working conditions of key health workers are especially poor, with low pay, job insecurity and high workplace safety and health risks.

These issues have an important gender dimension. First, given the highly gendered nature of long-term care and nursing, the working conditions of key workers in these professions to a large extent reflect the situation faced by women workers generally around the world, which is characterized by gender segregation and segmentation, low remuneration and gender pay gaps.[29] Second, these issues have broader implications for society and economic efficiency, since the services of LTCWs are decisive in allowing the family members – particularly women – of older persons or persons with disabilities to participate in the labour market.[30]

In many developing countries, the working conditions of key health workers are especially poor, with low pay, job insecurity and high workplace safety and health risks. In India, the situation of Accredited Social Health Activists (ASHAs) is of particular concern (see box 4.3). ASHAs are female community health workers appointed under the National Health Mission, a programme that

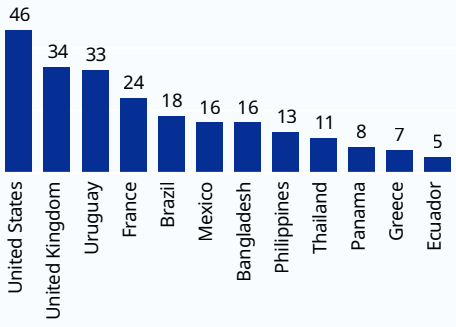
Box 4.2. Conditions of employment of key personal care workers

Personal care occupations, which include personal care in health services and childcare, are highly feminized, with women accounting for 76 per cent on average across countries, and an even higher proportion in high-income countries (85 per cent on average).

The working conditions of personal care workers are highly uneven across countries. In low- and middle-income countries, personal care workers have, on average, slightly better conditions in terms of contractual security and social protection coverage than other key workers. For example, while the share of personal care employees with a temporary contract is similar across countries to that observed for other key workers, 34 per cent of personal care employees are on temporary contracts in lower-middle-income countries, which is 16 percentage points less than the average for the whole population of key employees.[1] In addition, personal care employees appear to be better covered by social protection schemes than other key workers in developing countries. On average across low-, lower-middle- and upper-middle-income countries, 54 per cent of personal care employees have some form of social protection, whereas the social protection coverage rate for the population of key workers in these countries is 43 per cent.[2]

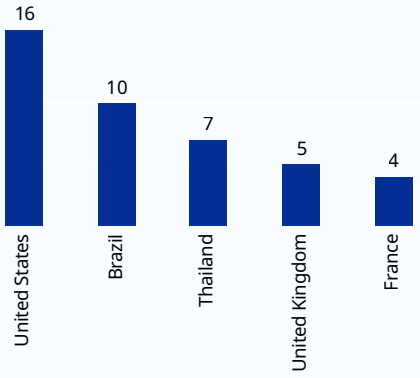
The situation is less positive in high-income countries, as exemplified by the data on relative earnings of personal care employees in 12 selected countries with available data (figure B4.2.1). Across high-income countries, the share of low-paid employees ranges from 7 per cent in Greece to 34 per cent in the United Kingdom and 46 per cent in the United States. Furthermore, though women hold most of the jobs in this occupation, female personal workers seem to fare worse than their male counterparts. In a sub-selection of countries for which this indicator can be estimated (figure B4.2.2), the gender pay gap ranges from 4 per cent (France) to 16 per cent (United States).

Figure B4.2.1. Share of low-paid personal care employees (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT). See Appendix for more details.

Figure B4.2.2. Gender pay gap, personal care employees (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT). See Appendix for more details.

[1] The share of personal care workers on temporary contracts is estimated for the same set of countries as in section 3.3, except the following: Egypt, El Salvador, Fiji, Gambia, Georgia, Ghana, Islamic Republic of Iran, Mozambique, Russian Federation, Samoa, Ukraine.

[2] The share of personal care workers covered by social protection is estimated for the same set of countries as in section 3.6, except the following: Egypt, El Salvador, Fiji, Gambia, Georgia, Ghana, Kenya, Lao People's Democratic Republic, Liberia, Madagascar, Maldives, Mozambique, Nepal, Samoa, Sierra Leone, Timor-Leste.

Box 4.3. ASHA workers in India

ASHAs are female community healthcare workers appointed and trained by the National Rural Health Mission of India.[1] Workers are selected among women in the community, aged 25–45, with completed secondary studies.[2] They carry out various tasks, including providing first-contact healthcare and information on diseases and infections, and bringing patients to hospitals if necessary.[3] Even though ASHAs are appointed by the government they are not recognized as employees and are only paid "incentives" that are linked to achieving certain targets. Following protests by these workers, several states introduced a fixed wage component and the central government also increased the incentives that it contributes.[4] The average pay of ASHAs amounts to 10,000 Indian rupees a month (approximately US$120),[5] and ASHAs report that they sometimes pay the transportation costs of the patients they bring to hospitals from their own income,[6] so even the little money they make sometimes goes to job-related costs. Furthermore, many ASHA workers report that they receive their payments with delays.[7]

ASHAs face other occupational challenges besides low and delayed payments. One of them is a heavy workload. For example, more than a third of community workers in rural areas are responsible for more than 2,000 people.[8] Reaching this many people in rural areas is also logistically challenging, especially as many report a lack of buses and rickshaws in the areas in which they work.[9] ASHAs also face violence and harassment, with many reporting verbal and physical assaults.[10] The lack of cooperation from the communities they work in and the scarcity of resources, such as waiting areas or photocopy machines, are some of the other problems ASHA workers highlight.[11] Additionally, these workers do not have formal communication channels and access to supervisors to raise their concerns and seek solutions.[12] It has been argued that many of these problems are linked to the ambiguous status of ASHA workers, who are seen as voluntary workers or *bahus* (daughters-in-law) rather than employees.[13]

During the COVID-19 crisis, the workload of ASHAs increased considerably. ASHAs played a decisive role, taking care of contact tracing, testing and isolation, conducting door-to-door surveys, distributing medicines and sometimes bringing food to patients in isolation, answering distress calls and organizing hospital transfers. They were also in charge of keeping records of vaccination progress and motivating people to get vaccinated. In parallel with these demanding new tasks, ASHAs continued to undertake their usual antenatal and postnatal care duties, including monitoring infant health. While most ASHAs were provided with masks and sanitizers, these were often insufficient in terms of quantity and quality, with many reporting that they had to purchase PPE at their own expense.[14]

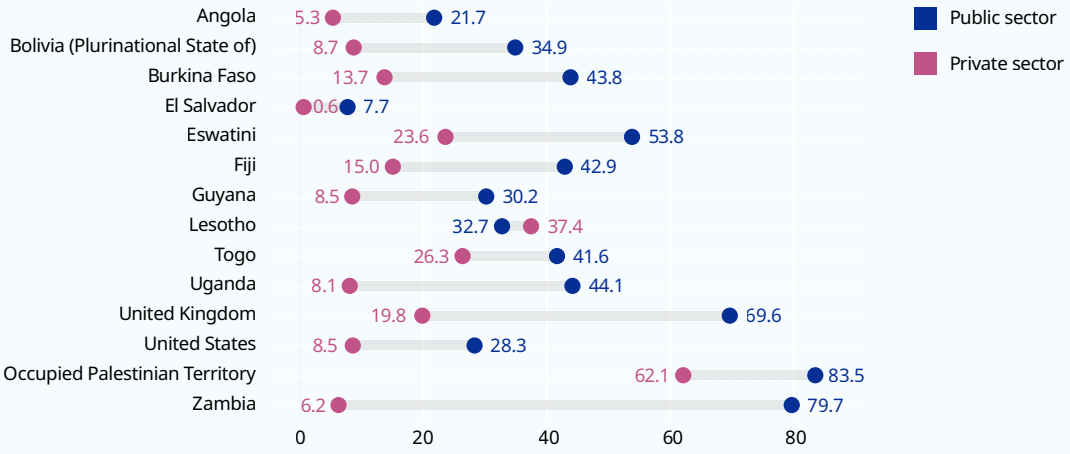
[1] Government of India, Ministry of Health and Family Welfare, n.d.
[2] Government of India, Ministry of Health and Family Welfare, n.d.
[3] Government of India, National Health Mission, 2019.
[4] Sinha, Gupta and Shriyan, 2021.
[5] Siddharth, 2022.
[6] Sarin et al., 2016.
[7] Sinha, Gupta and Shriyan, 2015.
[8] Gohel et al., 2015.
[9] Brahmbhatt and Sheth, 2017.
[10] The Pioneer, 2021; Brahmbhatt and Sheth, 2017, 188.
[11] Bhardwaj, 2017.
[12] Sinha, Gupta and Shriyan, 2021.
[13] Pandey, 2021.
[14] D. Singh, forthcoming.

was introduced in 2005. Over a million women across the country work as ASHAs, bridging the gap between the community and the health system. They are responsible for a range of public healthcare services addressing maternal and child health, and communicable and non-communicable diseases.[31] The important role of ASHAs is documented by their positive impact on communities: in the localities where they work, immunization rates are higher and mortality rates have declined.[32] During the COVID-19 pandemic, ASHA workers raised awareness about the virus and safety protocols, tracked positive cases and assisted with vaccinations in addition to their usual responsibilities of providing maternal care, immunization for children and community healthcare. In 2022, the WHO Director-General awarded ASHAs the title of Global Health Leaders.

In addition to OSH risks, a growing concern is the increase in the use of alternative contractual arrangements, temporary contracts, or agency workers, who often have different conditions of employment. In the United Kingdom in 2016, 17 per cent of all zero-hour contracts were found in the "care assistants and personal care workers" occupation, making it the largest occupation with this form of employment arrangement,[33] much of it delivered through private agencies.[34] In the OECD, approximately 20 per cent of LTCWs have temporary contracts, compared to 11 per cent of healthcare workers in hospitals. Close to 45 per cent of LTCWs work part-time, twice the average rate of other occupations.[35]

Healthcare is a relatively unionized sector (as discussed in section 3.2), with 35 per cent of key health workers belonging to a trade union in those countries and territories for which data are available. Nonetheless, there are major differences between the private and public sectors (see figure 4.7), and among different occupations within healthcare. For example, in Angola, a little over 5 per cent of key health employees in the private sector have collective representation through unions, compared to almost 22 per cent of public sector workers. With the exception of Lesotho, key health employees in the private sector are much less unionized than their public sector counterparts. Given the high shares of private sector employment in many countries (ranging from 50 per cent in high-income countries to 38 per cent in lower-middle-income countries), low unionization affects the working conditions of a substantial number of key health workers. Moreover, in most countries, including EU countries like Germany and Portugal, workers who work for private care providers are often not unionized or covered by collective agreements.[36] In some countries, such as Poland, LTCWs can engage in collective bargaining only at the firm level,[37] and the coverage of collective agreements varies substantially across EU countries, with nearly 100 per cent of LTCWs in Denmark and Spain covered by such agreements as opposed to 5 per cent in Greece.[38] In many countries, such as Estonia and the United Kingdom, the coverage of collective agreements is lower for LTCWs than for hospital workers.[39]

Figure 4.7. Share of unionized key health employees by public and private sector employment, selected countries and territories (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

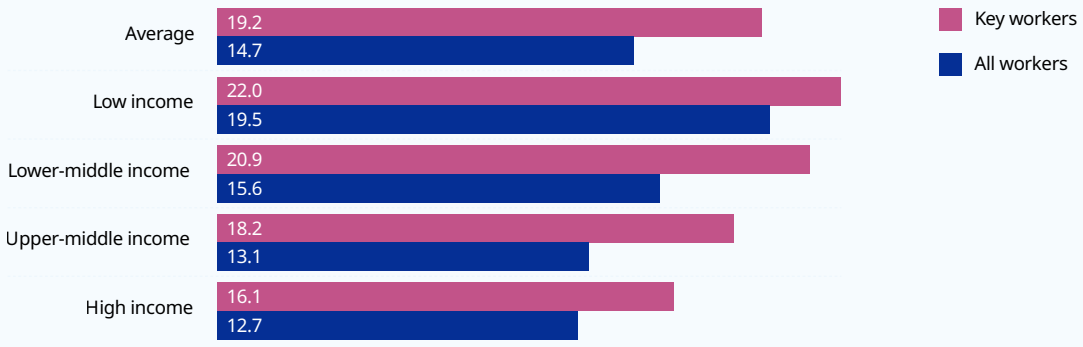
The above findings suggest that, on average, the bargaining mechanisms of key health workers in the private sector are relatively weak given the low rates of unionization, especially among LTCWs. A major reason is that many key health workers, especially in the private sector, are in non-standard employment arrangements, making it more difficult for them to bargain collectively.[40] In addition, some are employed as independent contractors, which, in most jurisdictions, means they are not entitled to the right to unionize and bargain collectively. Further reasons for the low rates of collective organization and lower bargaining power of LTCWs are the highly competitive nature of the long-term care market and its relatively low profit margins, as well as high fragmentation, and a lack of coordination and of a comprehensive regulatory framework.[41]

When workers are organized, however, working conditions clearly improve. Unionized nursing home workers in the United States demonstrated both higher wages and higher productivity, making it a win–win situation for employees and employers.[42] Unionization also had a positive effect during the pandemic as the mortality rate among patients in unionized nursing homes was approximately 30 per cent lower than in non-unionized nursing homes.[43] This is likely because of the better opportunities for voice and participation, which are fundamental in enabling workers, employers and other stakeholders to adequately respond to crisis situations such as the COVID-19 outbreak.[44] As discussed in Chapter 2, unionized workers were able to convey their work problems through unions, who bargained with the management to address issues, especially as related to OSH, in a more timely and effective manner.

4.3. Key retail workers: Minimal protection and irregular schedules

Throughout the pandemic, key retail workers continued to work behind the counters at pharmacies, stocking shelves in grocery store aisles, operating the cash register at local convenience shops or chain stores, and selling food on the street. This chapter defines a key retail worker as a worker in sales and related services occupations across industries that continued to operate during the pandemic. Hence, both workers employed in retail establishments and own-account workers selling food on the street are included.[45] As can be seen in figure 4.8, almost 15 per cent of all workers globally are employed in

Figure 4.8. Share of retail workers among all workers and key workers, by country income group (percentage)

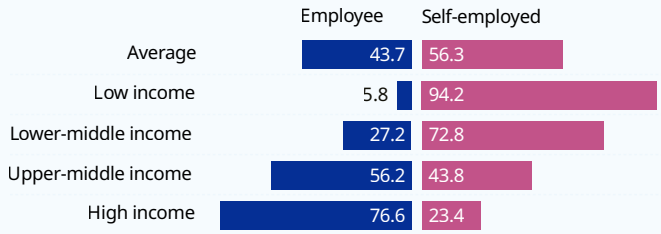


Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

retail, with an even higher share in lower-income countries. Furthermore, nearly one out of every five key workers is in retail, performing functions necessary for society's daily existence, which makes retail the second-largest key occupational group in all income categories.

Even though the overall proportion of key retail workers is similar across countries, significant differences exist with regard to the employment status of individuals in these jobs. Figure 4.9 shows the share of employees and self-employed workers among key retail workers. As can be seen, in low-income countries, they are almost exclusively self-employed. On average, 94 per cent of all key retail workers are self-employed

Figure 4.9. Employment status of retail workers, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Box 4.4. Street vending

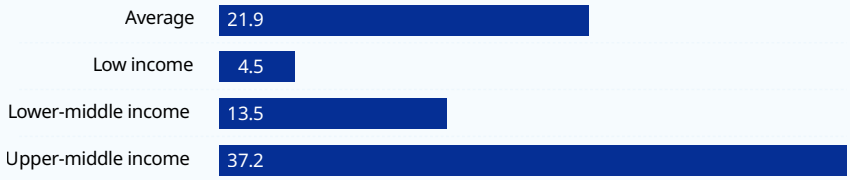
Economic downturns are difficult for street vendors as such downturns typically raise the cost of inputs, decrease consumer spending and push newly unemployed people to take up street vending, intensifying competition among sellers.[1] During the COVID-19 pandemic, in addition to these risks, government-mandated restrictions further worsened the conditions for street vendors. As a result of lockdowns, the demand for their goods fell precipitously and, at the same time, they suffered from higher transport costs as well as shortages in raw materials.[2] Inevitably, their already low earnings further deteriorated.

Street vendors' working conditions are characterized by low incomes, low levels of social protection, long working hours, and OSH risks. For example, two out of three street food vendors in Dhaka, Bangladesh, are estimated to live below the poverty line.[3] Being largely informal, most street vendors cannot access formal financial markets and rely on informal loans with high interest rates. It is thus not surprising that, in Colombia, street vendors who earn above-average incomes are not able to improve their living conditions due to high levels of indebtedness.[4] Additional concerns for street vendors are their exposure to outdoor pollution, extreme weather events, physical risks from lifting and transporting heavy merchandise, as well as violence.[5] Street vendors also routinely lack access to hygiene facilities.

Abuse by authorities is another common problem. Evidence from several cities, including Accra (Ghana), Lima (Peru), Mumbai (India) and Nakuru (Kenya), shows that many workers are compelled to pay informal fees to local officers or police in order to continue operating.[6] During COVID-19 lockdowns, street vendors were sometimes subject to harassment by the police, despite being classified as key workers.[7]

[1] Roever, 2014; WIEGO, n.d.(a).
[2] Singh, forthcoming.
[3] Etzold, 2014.
[4] Martinez and Rivera-Acevedo, 2018.
[5] Ko Ko et al., 2020.
[6] Rosales, 2020.
[7] Roever and Skinner, 2016; Saha, 2011.
[8] Dev and Rahul, 2022.

Figure 4.10. Percentage of key retail workers with social protection coverage, low- and middle-income country income groups



Note: Social protection is proxied by two types of entitlement: eligibility and access to either pensions or paid sick leave. Data are limited to low- and middle-income countries.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

in low-income countries, ranging from 89 per cent in Uganda to 99 per cent in Sierra Leone. In contrast, wage employees in various retail establishments make up more than 76 per cent of all key retail workers in high-income countries. In the United States, for example, 95 per cent of key retail workers are wage employees.

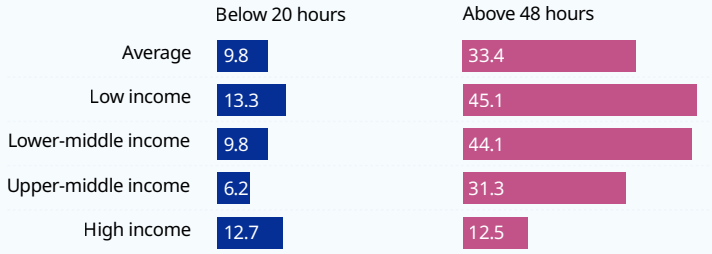
The importance of self-employment among key retail workers in developing countries is a reflection of the lack of formal employment opportunities and the ease of entry into the occupation. In Angola, more than 32 per cent of key retail workers are street vendors selling food and various other items, and they are exclusively self-employed. Survey evidence indicates that street vendors are often primary household income providers, with work as their only means of survival.[46] This type of economic activity is vital for maintaining livelihoods in developing countries, especially among rural immigrants.[47] Informal street vending has also been an important buffer during times of economic crisis – a pattern that re-emerged during the COVID-19 pandemic, as food vendors across countries experienced greater competition from new entrants as many people turned to street vending as a means of survival (see box 4.4).

Among the working conditions analysed in Chapter 3, key retail workers suffer the most from lack of social protection and from long and unpredictable working hours. Figure 4.10 displays the share of key retail workers with social security entitlements like pensions and paid sick leave. On average, just 22 per cent of key retail workers enjoy such coverage. While only 37 per cent of the key retail workforce benefits from social protection in upper-middle-income countries, in low-income countries the share is extremely low, at just 5 per cent. This is due to the high levels of self-employment, as discussed above, which means that in most cases these workers would have to voluntarily contribute to the system, which is often an unrealistic burden given their generally low-income levels. Countries have been slow to develop more comprehensive systems that can include self-employed workers. Even in countries such as Brazil and Türkiye, where social protection systems have made efforts to include self-employed workers, 41 per cent and 33 per cent of key retail workers, respectively, still do not have social protection coverage.

Most key retail workers around the globe have very long working weeks, with an average of one third working more than 48 hours a week.

Unfortunately, the lack of social protection among key retail workers is not unique to developing countries. In the United States, in 2020, nearly 50 per cent of service workers, including in retail, did not have access to paid sick leave,[48] less than half of low-wage service workers had employer-based health insurance and 21 per cent had no health insurance.[49] These numbers indicate that many key retail workers cannot afford to take sick leave, and thus continue to work when they are ill or injured, with consequences for their own recovery and, during the COVID-19 pandemic, for spreading the virus.

Figure 4.11. Percentage of key retail workers with short or long hours, by country income group



Note: Short working hours are defined as less than 20 hours per week, while more than 48 hours per week is considered excessive.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Long and unpredictable work schedules are another major source of insecurity for key retail workers. Except in high-income countries, key retail workers around the globe have very long working weeks, with an average of one third working more than 48 hours a week, whereas the share is nearly 45 per cent in lower-middle- and low-income countries (see figure 4.11). Street vendors in developing countries often work 10–12 hours a day, as their earnings depend on the number of hours they work. Many do not take days off and rely on family members to contribute when they are obliged to be absent.[50] Long hours are not, however, limited to self-employed workers, with many employees in developing countries also working long hours. In Bangladesh, for example, 81 per cent of wage workers and almost 76 per cent of self-employed workers in key retail occupations have working weeks longer than 48 hours.

In contrast to long working hours for key retail workers in low-income countries, in some high-income countries, irregular scheduling is the main concern of retail workers. On average, almost 10 per cent of key retail workers work short hours, defined as fewer than 20 hours per week, with nearly 13 per cent reporting short hours in high-income countries. While these short hours are sometimes voluntary and can accommodate students or persons with care responsibilities, the practice is, in general, a reflection of the industry trend towards shift work and de-standardization of working times.[51] In the United States, just-in-time scheduling is a common practice, with most of the flexibility in working schedules borne by employees. Total labour hours are closely monitored by the retailers who try to match labour "on the floor" with real-time customer flow and shelf-stocking requirements.[52] Similarly, irregular or non-standard schedules are common practices in service work in the United States, pushing key retail workers to be present in the evenings and at weekends.[53] For instance, a survey among service workers in New Jersey estimates that 28 per cent of them work in varying shifts, 21 per cent in rotating shifts, and 18 per cent in night and evening shifts.[54] The expansion of evening and weekend opening hours has resulted in permanent changes to shopping patterns and consumer attitudes, and increased expectations that retail workers should be at work at all times.[55] This flexible way of assigning shifts makes it hard for workers to balance family demands as well as education or training.

In Europe, just-in-time shift schedules are not as common due to fewer financial incentives surrounding the use of part-time work given the principle of equality of treatment embedded into national legislation, as well as stricter regulation of shift patterns and contracts. Nevertheless, irregular work schedules are still prevalent in some European countries. According to the European Working Conditions Survey, more than 15 per cent of key retail workers state that their work schedules change either on the same day or the day before the work is undertaken. Nevertheless, there is significant variation across countries. While in Ireland, more than 28 per cent of respondents report that their work schedules are changeable at the last moment (on the same day or the day before), the proportion is less than 2 per cent in Italy.

4.4. Key security workers: Long and risky hours

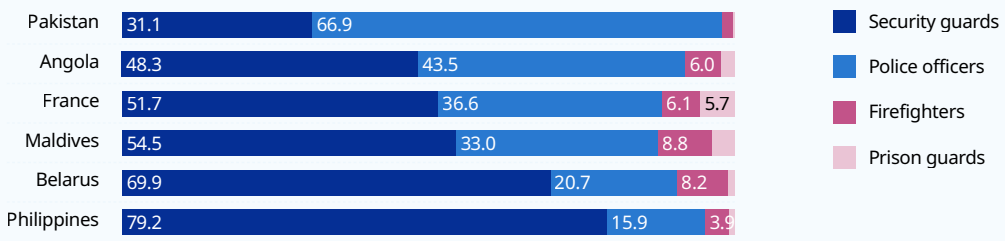
Security workers help to maintain order and public safety. During the COVID-19 pandemic, they assumed another important role: enforcing pandemic-related regulations. Globally, security workers constitute almost 6.5 per cent of all key workers, though the proportion is slightly higher in upper middle-income countries (8.8 per cent) and high-income countries (7.7 per cent). Among key security workers, police officers account for the greatest share of key security workers, followed by private security guards. The share of security guards ranges from 31.1 per cent in Pakistan to 79.2 per cent in the Philippines. Conversely, the share of police officers ranges from 15.9 per cent in the Philippines to 66.9 per cent in Pakistan (figure 4.12).

There are important distinctions between the working conditions of security guards, police officers and firefighters. A main distinguishing feature is the higher rate of unionization among police officers,[56] whereas security guards – who are often employed privately through subcontractors and dispersed throughout establishments – are generally not unionized. Police officers and firefighters are almost exclusively employed in the public sector and typically have favourable job security. Police unions tend to have high membership rates and are largely successful in negotiating improved training and equipment.[57] For example, during the COVID-19 pandemic, police unions successfully pushed for enhanced OSH protections and access to PPE.[58]

Regarding the working conditions of security guards, in contrast, subcontracting is common, and there is high flexibility with respect to the number of employees, working time and the activities they perform.[59] A study in South Africa finds low unionization rates in addition to a high prevalence of temporary contracts, low wages, long hours of work, difficulties of reconciling work and personal life, and limited access to social protection. Moreover, South African security guards reported a lack of recognition for their work and a feeling of being stigmatized.[60] A study in China similarly mentions the stigma associated with the work of security guards, and describes how the occupation disproportionately employs male rural-to-urban migrants and former soldiers, who tend to work for low pay.[61] In Zimbabwe, private security workers face long working hours, poor remuneration, under- and non-payment, illegal dismissals, unhealthy working conditions and sexual harassment. There has also been a growth in fly-by-night security operators acting as labour brokers, which provide insufficient training and may not be fully compliant in respecting workers' rights and entitlements.[62]

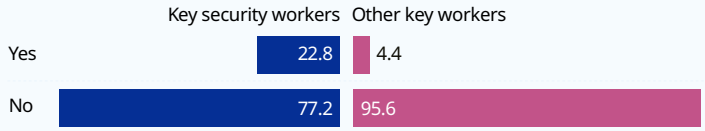
Even though public and private security workers have different collective representation, they do share some common insecurities, especially the possibility of high-risk and stressful situations while performing their jobs. As can be seen in figure 4.13, many key security workers experience physical violence during

Figure 4.12. Distribution of key security workers across more detailed occupations, selected countries with available data (percentage)



Note: The graph shows countries with information on occupations at the four-digit level, excluding unclassified cases.
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 4.13. Share of workers who experienced physical violence during the course of their work in the past year, key security workers versus other key workers in 2015 (percentage)



Source: Analysis based on the European Working Conditions Survey (2015). See Appendix for more details.

Figure 4.14. Share of key security workers with excessive hours, by country income group (percentage)

Note: Excessive hours are defined as more than 48 hours per week.

Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

the course of their work. For example, compared with fewer than 5 per cent of other key workers who were subject to physical violence while doing their jobs in the preceding year, almost 23 per cent of key security workers suffered from such violence in 2015, according to data from the European Working Conditions Survey.

Besides these OSH issues, which are common in normal times, key security workers faced even greater risks during the COVID-19 pandemic. In many countries, private security guards were used to quarantine refugees and overseas travellers in secure facilities and to maintain order in COVID-19 testing centres.[63] Security personnel working at hospitals had to interact with patients infected with the virus. Key security workers stationed at residential and commercial buildings were also directly in contact with many people and were given the responsibility of ensuring that government-mandated social distancing protocols were adhered to as much as possible. This sometimes led to tensions, and security guards became the target of attacks over mask and other protocols related to COVID-19.[64]

In addition to exposure to the above-mentioned risks, the other job-related stressors for security workers are long hours, asocial hours, a climate of fear, tension and constant pressure, abusive behaviour by superiors and work overload.[65] Besides these concerns, private security workers sometimes have to contend with an inadequate supply of protective equipment and uniforms, and non-payment of wages.[66] In Kenya, for example, security officers in Nairobi and Kiambu reported not having sufficient warm clothing at night and having to use unheated guard houses. Security officers in the country report that the work they do is highly risky, and they are not sufficiently equipped to feel safe at their jobs.[67]

As a result of the above-mentioned stressors, security workers are at risk of developing physical health issues. Various studies indicate that there is a relationship between the stressors experienced by the security workers and cardiovascular diseases,[68] high blood pressure, cholesterol and temporary work incapacity.[69] Key security workers are also more prone to having difficulties with mental well-being. Mental health problems, such as depression, post-traumatic stress disorder, generalized anxiety disorder, suicidal ideation, alcohol dependence and hazardous drinking, are more widespread among security personnel.[70]

Key security workers often work excessive hours (see figure 4.14), with, on average, 34.5 per cent working more than 48 hours per week. In low-income countries, the share is as high as 57.4 per cent. In

Bangladesh and Uganda, more than 73 per cent of key security work excessive hours. Even in high-income countries, where regulation is stricter and enforcement is more effective, more than 15 per cent of key security workers work longer than 48 hours. During the pandemic, working hours were further extended as a result of staff shortages and increased demand to ensure compliance with pandemic protocols.

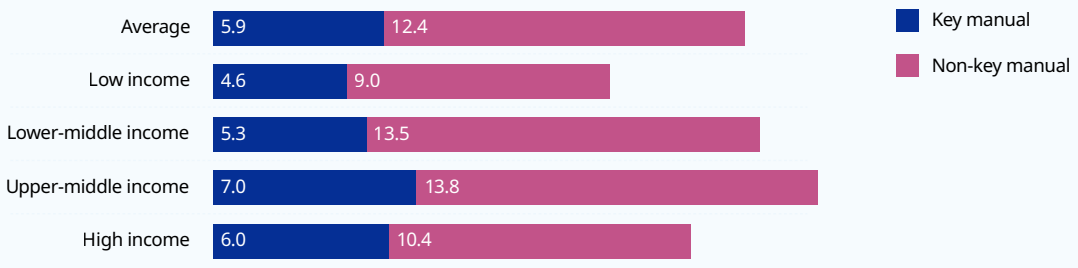
4.5. Manual workers: Non-standard forms of employment and a lack of training

Manual workers account for an estimated 18.3 per cent of all employment globally (figure 4.15). The bulk of manual workers are employed in the manufacturing and construction sectors. Within manufacturing, manual workers produce clothes and other textiles or handicrafts, process food, or work as manufacturing labourers. In construction, manual workers are employed as mining and construction labourers, in residential construction, or as house painters and electrical equipment installers and repairers. A third, and growing, sector is warehousing.

During the COVID-19 pandemic, containment measures significantly disrupted production in the industries that employ manual workers and negatively affected supply chains. This was especially the case in the earlier phases of the pandemic and led to a notable reduction in the hours worked by manual workers and outright job losses for this group. At the same time, as is the case for all other key workers, those manual workers who continued working were exposed to disproportionate health risks by interacting with others in their workplaces.[71]

Because of the inability of manual workers to telework, the criteria determining whether these were key or non-key workers depended on the goods they produced. Some industries were considered essential for the functioning of societies during the pandemic, such as the "manufacture of food products" or the "manufacture of pharmaceuticals, medicinal chemical and botanical products". These account for around one third of all manual workers globally (figure 4.15). In contrast, the other two thirds were, for the most part, not classified as producing essential goods and therefore did not fall under the key worker category. Examples include manual workers in "manufacture of textiles" or "manufacture of tobacco products".[72] Given the industries that employ key versus non-key manual workers, key manual workers do not necessarily have less favourable labour market outcomes and working conditions than non-key manual workers.

▶ **Figure 4.15. Share of key manual workers and non-key manual workers out of total employment, by country income group (percentages)**



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT) and supplementary surveys. See Appendix for more details.

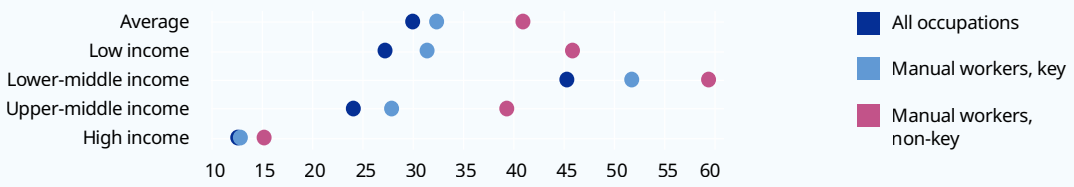
Low-income countries have the lowest share of manual workers (13.6 per cent in total), compared with 20.8 per cent in upper-middle-income countries and 18.8 per cent in lower-middle-income countries. The low share in low-income countries reflects their underdeveloped manufacturing sector, and results in workers shifting from agricultural employment into urban services that have a limited potential for stimulating sustainable economic growth.[73] Evidence from Ethiopia suggests that when there is a notable shift towards manufacturing, these transitions are often into small and informal firms, and imply a lack of labour and social protection. In contrast, larger and more productive firms in the formal sector rely more heavily on capital and labour-saving technologies that were initially developed in higher-income countries, which restricts the options of low-skilled Ethiopian workers to access better employment opportunities.[74]

At the other end of the spectrum, manual work in high-income countries has undergone systematic changes. Evidence from the United States, for example, shows that manufacturing employment has declined due to import competition.[75] Moreover, technological change has shifted the emphasis away from manual tasks that can be routinized and thus performed by machines, towards non-routine manual as well as cognitive and interactive activities, which require human labour. This transformation has negatively affected some traditionally middle-skilled jobs in production, as these disproportionately rely on routine manual activities.[76] However, despite these changes, manual work is still important in high-income countries, where it accounts for 16.4 per cent of total employment (figure 4.15).

The contractual status of manual workers has important implications for their working conditions, including their access to training. Manual workers are more likely than workers in other occupations to have temporary contracts. This is true for all manual workers, although non-key manual workers, especially in construction, tend to have higher rates of temporary contracts than key manual workers (figure 4.16). In Colombia, manufacturing workers experienced an increase in temporary contracts from 20 per cent in 2000 to 35 per cent in 2014, with temporary contracts especially widespread in apparel, leather and textiles production.[77]

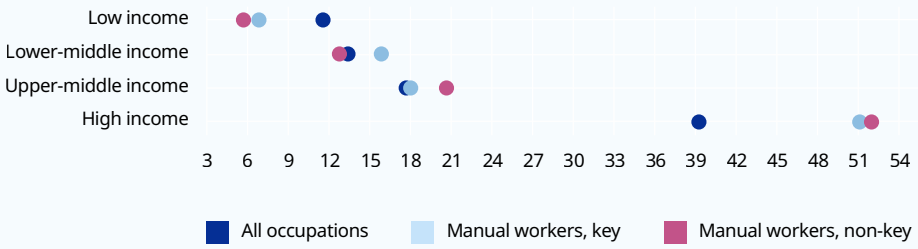
Another issue for manual workers is access to training. The question of how to best improve the skills of manual workers is important, given that some manual workers work in low-productivity employment and that technological change transforms the nature of certain areas of manual work. TVET and other forms of work-based learning are important for improving the skills of manual workers.[78] In high-income countries, more than half of all manual workers have attended TVET at some point in their lives. This is more than 10 percentage points above the TVET share of all occupations combined and there is little difference by key worker status (figure 4.17). Nevertheless, within high-income countries, there are other types of manual work, such as warehouse work, for which few formal skills are required. Warehouse workers prepare and gather delivery orders, load and unload the vehicles transporting such orders, and electronically collect and organize information on warehouse inventory. Even in a country like Switzerland, where dual apprenticeships have a long tradition, warehouse workers need to meet few formal requirements, except for specialized driving licences. They are expected to perform physically demanding tasks, communicate

Figure 4.16. Share of employees with temporary contracts for all occupations versus manual workers, by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

Figure 4.17. Share of workers who had attended technical and vocational education and training (TVET) at some point in their working lives, all occupations versus manual workers, by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT) and supplementary surveys. See Appendix for more details.

well and possess basic IT skills.[79] As a result, warehouse workers are easily replaceable and suffer from poor working conditions (see box 4.5).

In upper-middle-income countries, 20.7 per cent of key manual workers have attended TVET, compared with 12.8 per cent in lower-middle-income countries (the corresponding shares for non-key manual workers are 18.0 and 15.9 per cent, respectively). This shows that there is still significant room for increasing the relevance of TVET in middle-income countries. This conclusion is even more important in low-income countries, where only 5.7 (key workers) and 6.8 per cent (non-key workers) of individuals employed in manual occupations have attended TVET. These shares are significantly below the TVET attendance rate across occupations, which suggests that manual workers in low-income countries are falling behind in terms of their qualifications and labour market opportunities.

Box 4.5. Warehouse workers and the COVID-19 pandemic

The lockdowns imposed to mitigate the COVID-19 pandemic resulted in the closure of shops over an extended period. These closures, coupled with customers' fears of infection from in-person contact, intensified the already ongoing shift towards e-commerce.

China, for example, had seen a significant growth of e-commerce before the pandemic, and a strategic focus on efficient logistics and delivery which had been associated with strong competition between companies. During the pandemic, e-commerce platforms took on the additional role of distributing essential products, such as medical supplies and food. From the end of January to mid-February 2020, home delivery by the major Chinese platform JD increased by 450 per cent overall, and even more so for the categories of meat products and vegetables.[1] As part of the Xi'An and Shanghai lockdowns, many e-commerce platforms became the only way for residents to purchase food and other necessities. In addition to the increased consumer demand, the restrictions on movement affected warehousing and delivery. According to a survey conducted by the China Federation of Logistics and Purchasing, 74 per cent of the companies surveyed reported that they were facing major challenges because of the restrictions on transportation.[2] In short, policy changes and increased consumer demand during the COVID-19 pandemic translated into increased unpredictability and pressure on warehousing and warehouse workers.

Across the world, the working conditions of warehouse workers tend to be poor. Evidence from France and the United Kingdom shows that warehouse work typically entails comparatively low pay, a high prevalence of temporary contracts, high worker turnover, few prospects

Box 4.5. ***(cont'd)***

for training and career progression, workplaces located in remote areas that are difficult to reach, and deficits in OSH conditions. As a result, some employers are confronted with labour shortages and ageing workforces.[3] In China, the e-commerce industry increasingly relies on external companies that employ day labourers.[4] Warehouse workers on online forums reported that they worked long hours, with rotation between day and night shifts, lifting heavy products throughout, and sometimes not receiving their pay.[5] During the Xi'an and Shanghai lockdowns, the official communication channel of a major logistics and supply chain company praised its warehouse workers who needed to live on warehouse premises to guarantee the smooth operation of logistics and distribution of all essential goods. For their daily PCR tests, these workers had to wait in line for long hours during winter.[6]

In some cases, technological innovations make the situation of warehouse workers more precarious. A study in the United States portrays warehousing as an industry with low profit margins and a resulting reluctance to invest in new technologies.[7] Therefore, in the short and medium term, no massive job losses among warehouse workers are expected and fully automated warehouses – such as those developed by the Chinese logistics and supply chain company Cainiao[8] – are still the exception. Nevertheless, "just-in-time" product delivery of many smaller goods is already associated with automated picking processes and other attempts to reduce the demand for labour. Technology is likewise used to simplify the more complex tasks so far performed by workers, implying that their activities become more routine, and hence less well remunerated.[9] Technology is also employed to monitor and sanction workers. Large international employers in e-commerce are criticized for constantly measuring the speed of their warehouse workers and recording any error that they make. This electronic information is then used for standardized performance management, thereby creating a work atmosphere of pressure and alienation.[10]

Investments in skills are one way to improve the situation of warehouse workers. Modern technology requires workers who can employ such technology, and this, in turn, necessitates cognitive and socio-emotional skills in addition to manual skills. Such skills demand could be associated with possibilities for warehouse workers to attend additional training and thus access higher-skilled and better-protected jobs. At the same time, there are various examples of technology in warehousing being used to reduce labour and deskill work requirements. The monitoring and maintenance of robots is often performed remotely and not by the warehouse workers themselves.[11] If warehouse workers were better organized to defend their collective interests, they could bargain for more employer-provided investments in their skills. In Denmark, for example, the Collective Agreement on Warehouse Work for 2020 to 2023 fosters skills development and training with a view to improving the skills of warehouse workers and the competitiveness of their employers. Employers contribute a yearly fee for each full-time worker to a fund that finances such training activities.[12]

[1] LYW, 2020.

[2] China Federation of Logistics and Purchasing, 2020.

[3] Briken and Taylor, 2018; Hocquelet, 2020.

[4] Song et al., 2020.

[5] 李家阿华, 2021; Zhihu, 2020.

[6] Cainiao, 2021.

[7] Gutelius and Theodore, 2019.

[8] Yang, 2021.

[9] Gutelius and Theodore, 2019.

[10] Briken and Taylor, 2018.

[11] Gutelius and Theodore, 2019.

[12] Danish Chamber of Commerce Employers and the United Federation of Danish Workers Transport Group, 2020.

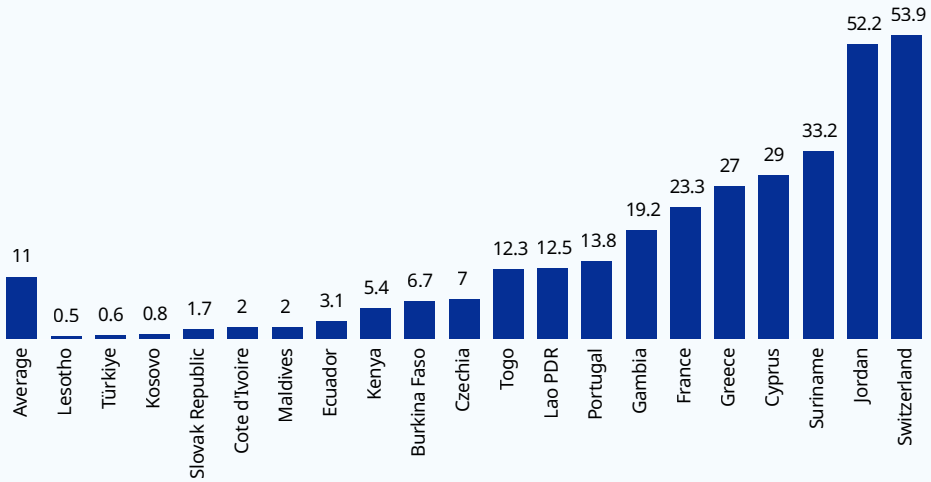
4.6. Cleaning and sanitation: Temporary and low-paid

Cleaning and sanitation workers keep streets, buildings and other common areas liveable and healthy. They include janitors, building cleaners, waste management operators, waste pickers and those who empty pits and septic tanks;[80] they may work formally or informally, as employees or as own-account workers. On average, cleaning and sanitation workers in key economic sectors represent 5.4 per cent of all key workers, with the proportion slightly greater in high-income countries (7.1 per cent). A distinguishing feature of this occupational group is the presence of international migrant workers. At nearly 11 per cent on average, the share of immigrants among key cleaning and sanitation workers was higher than in any other key occupation. However, there are major variations across countries and territories, with the share of international migrant workers among key cleaning and sanitation workers ranging from less than 1 per cent in Lesotho, Türkiye and Kosovo to more than 50 per cent in Switzerland and Austria (figure 4.18).

A distinguishing characteristic of the cleaning and sanitation sector is the elevated use of temporary contracts, including by public institutions such as municipalities.[81] Figure 4.19 shows the proportion of key cleaning and sanitation employees with temporary contracts. On average, one out of every three cleaning and sanitation employees in key economic activities has a temporary contract, and in many cases they are hired though a subcontractor. The share of temporary work is lower in high-income countries at 17 per cent, but in lower-middle-income economies, the share of temporary contracts among key cleaning and sanitation employees reaches 41 per cent. There are significant differences across countries with regard to the proportion of temporary employment. For example, it is less than 2 per cent in Georgia, whereas it is around 82 per cent in Botswana.[82]

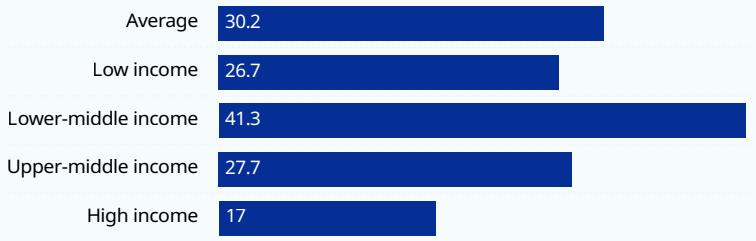
While the conditions of temporary employment vary across countries, in most cases temporary contracts, especially for activities that are continuous in nature, are used as a means of lowering labour costs since temporary workers often do not receive the same level of pay and benefits as workers on open-ended

Figure 4.18. Share of international migrant workers among key cleaning and sanitation workers (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Figure 4.19. Share of key cleaning and sanitation employees with temporary contracts, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

contracts.[83] As mentioned, temporary employment in cleaning and sanitation often occurs through subcontracting, with contractors in turn relying on temporary labour. For example, in Greece and India, municipalities hire sanitation workers through subcontractors, use temporary contracts and keep renewing temporary contracts after each contract ends instead of giving permanent jobs to workers.[84] In India, although there are several court decrees which state that municipalities should give permanent jobs to sanitation workers instead of renewing their temporary contracts,[85] the problem has not been fully addressed.[86]

While temporary contracts do not necessarily imply bad working conditions and the contracts can serve as a stepping-stone into the labour market,[87] there are several negative outcomes, as discussed in Chapter 3. Typically, temporary employment is associated with wage penalties, and these penalties are greater for low-paid workers.[88] In the cleaning and sanitation occupations, India is a prototypical example of wage inequalities between temporary and permanent workers. It is estimated that the wages of cleaning workers with a temporary contract in India are less than half those of their permanent counterparts, and below levels that can sustain their basic needs.[89] Similarly, in Malaysia, hospital cleaners are contract workers hired by companies subcontracted by the government. As contract workers, the cleaners usually receive only the minimum monthly wage and are not entitled to employment benefits such as an annual pay raise, paid public holidays, bonuses and severance pay.[90]

In general, workers in temporary positions tend to face greater health and work accident risks than employees on permanent contracts.[91] This is also true in the cleaning and sanitation sector, due to a lack of training as well as the high-risk working environment.[92] Cleaning workers suffer industrial accidents from handling chemical substances, such as cleaning agents, and exposure to contamination by pathogens, dust and gas during their work. Owing to their working environment – in which they use cleaning chemicals, and frequently enter into contact with the secretions of an unspecified number of people, such as in bathrooms – cleaning workers are also more likely to suffer from respiratory diseases. In India, numerous work accidents happen among temporary workers in the sanitation sector, especially in manual sanitation work.[93] During an outbreak of COVID-19 in a Chinese airport, cleaning staff who were employed by subcontractors on temporary contracts were the initial sufferers and transmitters of the virus. They experienced OSH vulnerability on both individual and contextual levels, including workplace hazards and insufficient training on appropriate protocols.[94]

Cleaning and sanitation workers are at risk of industrial accidents and exposure to contamination from handling chemical substances during their work.

Evidence across developing countries suggests that work insecurities are especially high for waste pickers, who empty and collect refuse and discarded items.[95] Waste pickers are one of the main sources of recycling in the developing world.[96] It is estimated that waste pickers constitute 0.7 per cent of urban employment in South Africa and 0.1 per cent in India.[97] While the share of waste pickers in

Box 4.6. Waste pickers

Informal waste pickers suffer from poor working conditions. In Nakuru, Kenya, 72 per cent of the waste pickers interviewed for a study indicated that the lack of access to a formal market affected their work negatively.[1] Even in countries where waste pickers are mostly registered, such as South Africa, their incomes are much lower than the average income in the country.[2] Consequently, many waste pickers report that they rely on their social networks to sustain their basic needs, including food consumption.[3] Furthermore, workers collecting solid waste are subject to numerous disease and viral infections, including COVID-19. The lack of education and training, limited access to sanitation and hygiene, and high exposure to contaminated refuse increase the health risks of waste pickers.[4]

In addition, waste pickers are, in some instances, exposed to discrimination and violence, especially when they belong to religious or ethnic minorities or certain castes. For example, responses to a recent survey carried out in Ahmedabad, India, highlighted that social exclusion and violence tend to affect women waste pickers when working in areas occupied by residents and businesses perceived to be of higher castes and class statuses.[5]

Organizing can be a means of improving the working conditions of waste pickers.[6] In Belo Horizonte, Brazil, waste pickers are highly organized and have relatively greater earnings than other workers with informal sector jobs, as they receive a share of the recycling bonuses (*Bolsa Reciclagem*) given to each cooperative based on the number of recyclables they collect.[7] In Bogotá, Colombia, the municipal government officially recognized waste pickers as legal workers, granting them the right to bid on municipal contracts.[8] In contrast, in Türkiye, where waste pickers are not allowed to incorporate formally into waste collection and recycling services, waste pickers face highly difficult working conditions and those with migrant status risk deportation.[9]

[1] Dias and Samson, 2016.
[2] Yu, Blaauw and Schenck, 2020.
[3] Schenck and Blaauw, 2011.
[4] Alvarado-Esquivel et al., 2008.
[5] Wittmer, 2021.
[6] WIEGO, n.d.(c).
[7] Dias, 2016; Centre For Public Impact, 2016; Dias, 2011.
[8] Parra, 2020.
[9] Bouscaren, 2022.

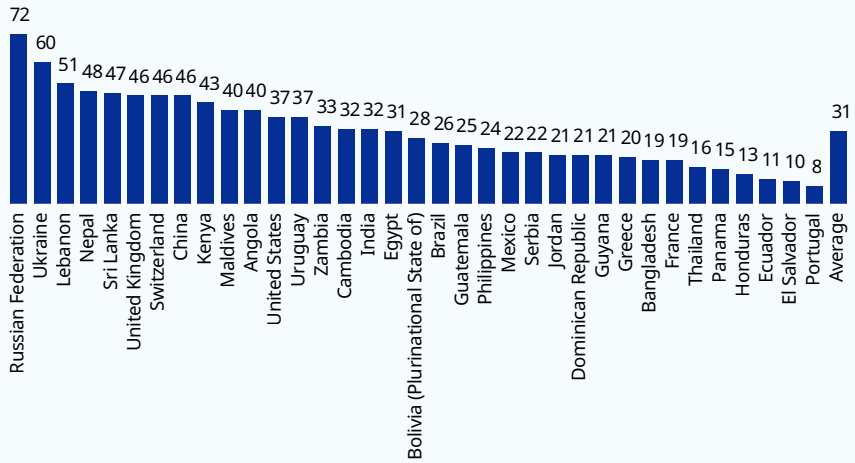
total employment is small, they nonetheless represent large numbers of people, especially in populous countries. In India, it is estimated that there were 2.2 million waste pickers in 2018–19, and this number is likely a lower bound given the difficulties of gathering data.[98]

In some developing countries, waste picking is the dominant form of solid waste collection, playing a critical role in ensuring public health and safety as well as environmental sustainability. Nevertheless, waste pickers have poor working conditions and low social status, and receive little support from governments (see box 4.6).

In terms of earnings, a substantial number of key cleaning and sanitation wage employees are low-paid, meaning that their earnings are less than two thirds of the median hourly wage. Across the subsample of countries for which information on hourly earnings is available, 32 per cent of key cleaning and sanitation employees are low-paid. This share varies little across the countries' income per capita groups, as 29 per cent of key cleaning and sanitation employees in high- and upper-middle-income countries are low-paid workers, as are 33 per cent in lower-middle-income countries.[99] However, looking at the situation of individual countries, important geographical disparities can be observed. The share of low-paid key cleaning and sanitation employees reaches 72 per cent in the Russian Federation and 60 per cent in Ukraine, whereas it is only 10 and 8 per cent in El Salvador and Portugal, respectively (figure 4.20).

In the Latin American and Caribbean countries for which information is available, only 22 per cent of key cleaning and sanitation employees, on average, are low-paid. This relatively low level may be partly explained by the recent attention in the region to the working conditions of domestic workers,

Figure 4.20. Share of low-paid workers among key cleaning and sanitation wage employees, selected countries (percentage)



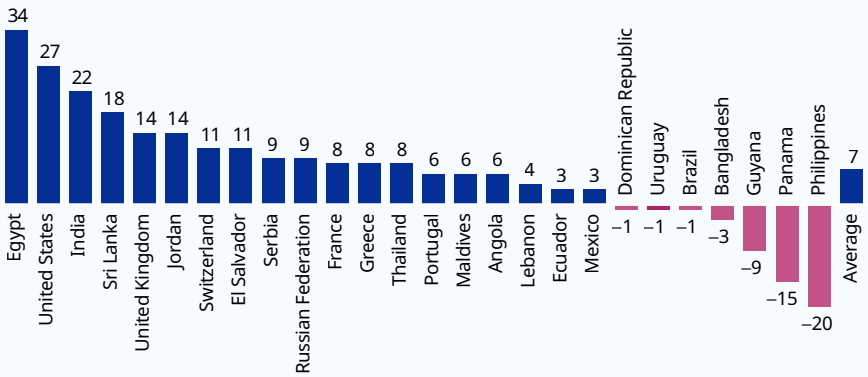
Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

which in turn possibly contributed to raising the standards for the whole occupational category of cleaners and helpers, even when the workplace is not a household.[100] In 2019, among the 32 countries that had ratified the ILO Domestic Workers Convention, 2011 (No. 189), 18 were from Latin America and the Caribbean. The Convention provides guidance on guaranteeing rights and social protection for domestic workers, including ensuring "that domestic workers enjoy minimum wage coverage, where such coverage exists, and that remuneration is established without discrimination based on sex" (Article 11). In this context, several countries in the region have implemented reforms in their labour legislation to bring it into compliance with the principles set out in the Convention.[101] For instance, in the Plurinational State of Bolivia, Brazil, Ecuador and Guatemala, the existing laws equate the minimum wage for paid domestic workers to the national minimum wage. In these countries, their maximum working hours are also equal to those of other paid employees. Finally, the wages of Latin American cleaning and sanitation employees might also have been supported by a higher demand for these workers in the labour market. Indeed, cleaning and maintenance personnel is the job category in which employment increased the most between 2000 and 2015 in Latin America and the Caribbean, in a context of decreasing employment in manual occupations that can be automated and increasing demand for low-skill service sector jobs.[102]

Within countries, key cleaning and sanitation wage employees may experience different situations with regard to earnings, including across gender. Though women account for nearly half of key cleaning and sanitation paid employees (46 per cent on average in the subsample of countries with available information on the earnings of this occupational group), their hourly wages are generally below those received by their male counterparts. Among countries with data that allow estimates to be made of the difference in pay between male and female key cleaning and sanitation employees, the gender pay gap favours women in only a few countries (figure 4.21). The Philippines is one of the exceptions, with key female cleaning and sanitation employees earning on average 20 per cent more than key male employees in the same occupational category. In Guyana and Panama, the pay gap is respectively 9 and 15 per cent, also in favour of women. At the other extreme, men fare better than women on average in Egypt and the United States, where the pay gap amounts to 34 and 27 per cent, respectively.

Though women account for nearly half of key cleaning and sanitation paid employees, their hourly wages are generally below those received by their male counterparts.

Figure 4.21. Gender pay gap among key cleaning and sanitation employees, selected countries (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

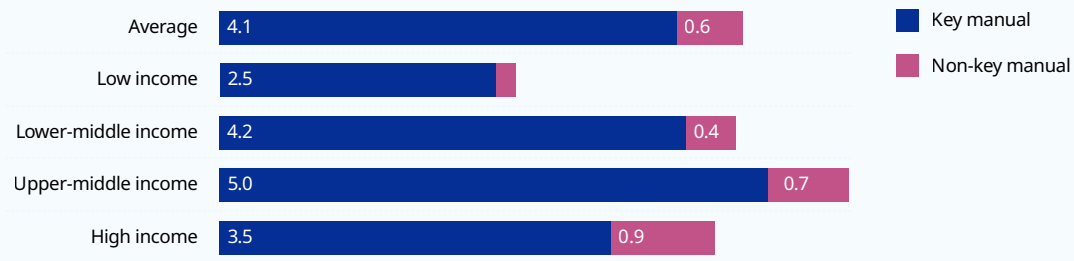
4.7. Transport workers: Long working hours and poor occupational health and safety

> *I heard nothing mentioned about truck drivers getting the vaccine. I'm like, wow, we're frontline, front and center. If it wasn't for us, you wouldn't even have the vaccine.*
>
> *Truck driver, United States*[103]

Transport workers are essential to society as they ensure the daily transport of goods and people. Although it is hard to generalize transport work as one type of labour, broadly speaking transport workers include all drivers and operators who are involved in the transport of goods, persons or animals, such as railway workers, truck drivers, seafarers, bus drivers, subway workers, motorcycle, car, taxi and van drivers, mobile plant operators and those carrying out other forms of urban transport. Globally, the average employment share of transport workers is 4.7 per cent (figure 4.22). Most transport workers were considered key workers during the pandemic.

The share of transport workers is largest in upper-middle-income countries (at 5.7 per cent), followed by lower-middle-income countries (at 4.6 per cent). This is because there is strong demand for transport services in middle-income countries, especially in large cities, and because it is relatively easy for workers to enter the sector. Urban transportation, often informally provided, has traditionally been an important source of employment, especially for young men and internal migrants from rural areas.[104] In low-income countries, the employment share of transportation is lower, at 2.7 per cent (figure 4.22).[105] In these countries, working relationships are varied, including both informal employees and informal own-account workers,[106] with urban transport comprising nearly 90 per cent of urban transport in many African cities.[107]

Figure 4.22. Share of key transport workers and non-key transport workers out of total employment, by country income group (percentage)



Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

In Uganda, bicycle and motorcycle taxi transport is the second largest source of employment after agriculture.[108] In contrast, for high-income countries, where on average 4.1 per cent of all workers are employed in transportation, most transport workers are bus and heavy truck drivers.[109]

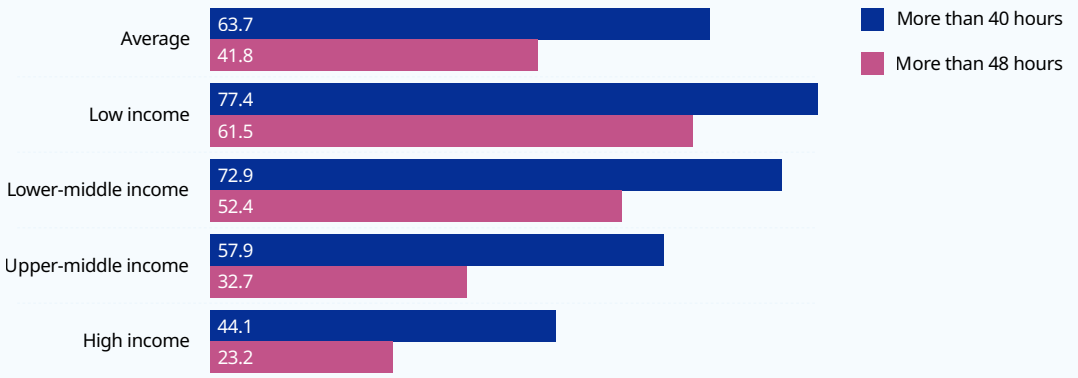
A distinguishing feature of the transportation sector is the high level of sex segregation. Only 2.7 per cent of key transport workers are women, which is well below any of the other categories analysed in this report. The closest is security with 12.6 per cent of key workers being female. There are slightly more women working in this sector in high-income countries, but even there the share remains low at 5.3 per cent. Various factors deter employers from hiring women, ranging from additional hygiene facilities required to underlying gender stereotypes. For example, companies with relatively large shares of female transport workers in the Republic of Korea nonetheless had to institute training on gender sensitivity in the workplace to overcome severe gender bias.[110] Another concern is the elevated level of violence and sexual harassment in the sector, with women at greater risk.[111]

Long working hours are a common problem in both formal and informal forms of transportation.[112] Globally, 63.7 per cent of transport workers work more than 40 hours per week and 41.8 per cent work more than 48 hours (the official definition of excessive hours[113]). This phenomenon is most prevalent in low-income countries, where 61.5 per cent of transport workers work excessive hours, and in lower-middle-income countries, where this is true for 52.4 per cent of transport workers (figure 4.23). Even in high-income countries, 23.2 per cent of transport workers work more than 48 hours weekly. When looking at mean working hours for key transport workers, these are also particularly long in countries with low income levels. For example, they amount to 63.4 hours per week in Gambia and approximately 61 hours in both Liberia and Uganda. Even more worrisome, informal taxi and minibus drivers usually work between 60 and 80 hours per week in developing countries.[114] For example, minibus drivers in Luanda, Angola, have reported that they start working around 5 a.m. without any fixed hours or limit.[115]

What are the reasons behind the long working hours of key transport workers? One of them is the nature of transportation work in poorer countries. The lack of social protection measures and low incomes often force these workers to work long hours.[116] In Africa, most informal transport workers rent their vehicles from an owner. These own-account workers work long hours to make sufficient income to cover the high leasing rates and other operating costs.[117] Even rickshaw drivers in Nepal who own their vehicle usually have to borrow money to buy the vehicle and thus work long hours to be able to pay their debts, cover fuel costs and still make a profit.[118]

Similar industry dynamics can be found in some high-income countries. One example is long-haul trucking in the United States, which has seen a trend over recent decades of shifting workers to independent contractor status. This practice means that the drivers commonly work the equivalent of two full-time jobs to cover leasing costs and additional operating costs, while their earnings remain below the minimum wage level. Not surprisingly, the sector suffers from high turnover and chronic labour shortages.[119]

Figure 4.23. Share of key transport workers with more than 40 and more than 48 working hours per week, by country income group (percentage)



Source: Analysis based on ILO Microdata Repository (ILOSTAT), 2019 or latest year. See Appendix for more details.

Key workers employed in app-based transportation also work long hours. Evidence from online forums of app-based drivers suggests that once the drivers log in to the system, they cannot reject customers, as they risk being blocked from the platform if they do. The technology is designed to keep drivers working as long as there are customers, thus encouraging long hours.[120] ILO survey data from India show that app-based taxi drivers work on average 82 hours per week, with 41 per cent working seven days per week.[121] In Indonesia, app-based motorcycle taxi drivers report that they work for very long hours due to their low income. These financial pressures are exacerbated by their need to cover the costs of private insurance as a result of their self-employed status.[122] Worldwide, most app-based drivers are in similar situations.

Almost all transport workers face several health and safety risks. For example, truck drivers are subject to accidents, potentially due to long working hours. In 2019, there were 123,000 crashes with heavy truck involvement in the United States, and 5,000 of these were fatal.[123] Additionally, evidence from US truck drivers suggests that workers who drive for longer hours have a higher probability of having cardiovascular diseases.[124] Similarly, findings from Colombia indicate that transport workers who experience job-related stress are more likely to be involved in an accident.[125] Not surprisingly, health and safety issues are even worse for key transport workers in the developing world, where these workers frequently have to drive unsafe vehicles on unsafe roads without having received any formal training. Such work environments lead to high accident rates[126] and are associated with a high exposure to heat, dust and noise.[127] Evidence from India indicates that many rickshaw drivers report constant headaches, injuries and eye problems as a result of exposure to unhealthy working conditions.[128]

In the developing world, key transport workers frequently have to drive unsafe vehicles on unsafe roads without having received any formal training.

In this regard, seafarers are worth highlighting, as they tend to face fatigue-related diseases and accidents, chronic diseases like metabolic disorders, and higher morbidity.[129] Seafarers work in confined spaces for 10 to 12 hours a day, where they are often exposed to high levels of stress. They tend to have contracts that last between four and six months, followed by a period of leave.[130] It is common for shift work to be organized based on a watch system, with either two four-hour shifts per day or two six-hour shifts per day, to ensure that vessels are continually crewed. As a result, workplace fatigue is common. Data from the United Kingdom suggest that there were 1,192 accidents in 2019 involving UK ships alone.[131] These accidents can potentially be traced back to fatigue caused by long working hours;

Box 4.7. Working conditions of seafarers and the COVID-19 pandemic

With more than 90 per cent of global trade moved by sea, the world's 2 million seafarers played a critical role during the pandemic. Their work ensured the smooth and uninterrupted operation of supply chains, including the transport of food, medicines and vital medical supplies.

Yet the COVID-19 pandemic upended the lives of seafarers. The inability to socially distance on ships and the shortage of PPE increased seafarers' likelihood of exposure to the virus. Seafarers were also at the mercy of the ever-changing policy decisions made by a multitude of jurisdictions that governed their access to repatriation, medical attention and shore leave. As a result, protections of seafarers governed by the Maritime Labour Convention, 2006, as amended (MLC, 2006) regarding repatriation, access to medical care ashore and shore leave were not respected. Under the MLC, 2006, the maximum period of service on board is limited, in principle, to 11 months, to ensure that seafarers' well-being is protected. The MLC, 2006, also establishes minimum standards regarding pay, working hours and other working conditions.

When the pandemic began, immediate needs concerned managing active cases on board; this included the use of PPE and the implementation of social distancing to reduce the spread of the virus. At the time, however, access to PPE was limited and advice on its use conflicting. For example, a seafarer on a cruise ship recalled how the sales crew asked to wear masks, but the company did not allow it for two reasons. First, the company was adhering to the Centers for Disease Control and Prevention (CDC) advice, which did not recommend the use of masks at the time. Second, the use of masks would "affect [sales workers'] smile service".[1] Shortages of PPE were also reported among seafarers, alongside failure to use PPE by onshore staff during visits onboard the ship.[2] The contagious nature of the virus, coupled with the limited ability to socially distance manifested most publicly on cruise ships. For example, of the 3,711 passengers and crew on the *Diamond Princess*, which arrived in Japan in February 2020, 712 (19 per cent) contracted the virus and 13 people died.[3] On the MS *Artania*, which arrived in Western Australia in March 2020, of 1,335 crew and passengers, 85 (6 per cent) contracted COVID-19 and 4 people died.[4]

Access to medical attention was an additional factor compounding the impact of the pandemic on seafarers' lives. While infected seafarers with mild cases could recover onboard, those with more serious conditions often faced difficulties accessing medical care ashore.[5] Numerous seafarers in need of urgent assistance as a result of other illnesses or dental problems were also denied medical care. At the peak of the crisis, 400,000 seafarers were unable to leave their ships.[6] By July 2021, this number had declined to about 250,000.[7] Over the course of the pandemic, some seafarers remained on ships for more than 18 months.[8]

From the beginning of the pandemic, the ILO, together with the International Maritime Organization (IMO) and the International Civil Aviation Organization called on governments to facilitate crew changes and designate seafarers as key workers providing essential services.[9] This call was later echoed by the UN Secretary-General and stated in important resolutions adopted by the UN General Assembly,[10] the ILO Governing Body[11] and several IMO bodies.[12] Similarly, the ILO Committee of Experts on the Application of Conventions and Recommendations strongly encouraged governments to recognize seafarers as key workers and to put in practice the consequences of such a qualification, in order to restore the respect of their rights as provided for in the MLC, 2006.[13] Nevertheless, by May 2022, only 68 of the 178 IMO Member States and Associate Members had recognized seafarers as key workers. This lack of recognition across the globe severely hampered the ability of ships to effect crew changes, resulting in an increase in the number of seafarers required to stay on board for long periods following the conclusion of their contracts.[14]

[1] Shan, 2021.
[2] Shan, 2021.
[3] Codreanu et al., 2021.
[4] Codreanu et al., 2021.
[5] ILO, 2020d.
[6] Tang, 2022.
[7] IMO, n.d.
[8] Shan, 2021.
[9] See IMO, ILO and ICAO, 2020. See also ILO, 2021j.
[10] See United Nations General Assembly resolution 75/17 on International cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to support global supply chains.
[11] See 2020k.
[12] See IMO, 2020.
[13] See ILO, 2020h.
[14] BIMCO and International Chamber of Shipping, 2021.

it has been estimated that one in four seafarers falls asleep on duty because of exhaustion.[132] There are studies which have linked long-term fatigue to many diseases, including cancer.[133] The sector also makes regular use of temporary contracts and third-party recruiting agencies. These trends have become more pronounced over time as the employment of workers from developing countries has surpassed that of seafarers from developed economies.[134] Because the lives of seafarers were upended by the COVID-19 pandemic, a more detailed discussion of their situation is given in box 4.7.

But being a key transport worker does not have to be synonymous with health and safety risks, as there are intensifying or mitigating mechanisms. Job-related stress can be mitigated with regulations on working time and schedules. For example, EU laws put a nine-hour limit on the maximum hours a transport worker can drive per day to minimize the accident risk.[135] Moreover, regulatory interventions can mitigate the adverse effects of transportation on OSH. With regard to violence, for instance, it is argued that safety training can minimize the violence transport workers face, or at least teach them how to deal with violent actions.[136] Companies and countries can also reduce the negative health consequences of the work for key transport workers. For example, a company in Belgium provides training and brochures to its new truck drivers to help them avoid various types of muscular diseases while driving.[137]

4.8. Technicians and clerical support workers: The challenges of postal work

The eighth and final occupational group consists of two remaining occupations that employ a small share of key workers: "science and engineering associate professionals" and "other clerical support workers". Many of these workers perform essential activities during crises and were thus considered to be key workers during the COVID-19 pandemic.

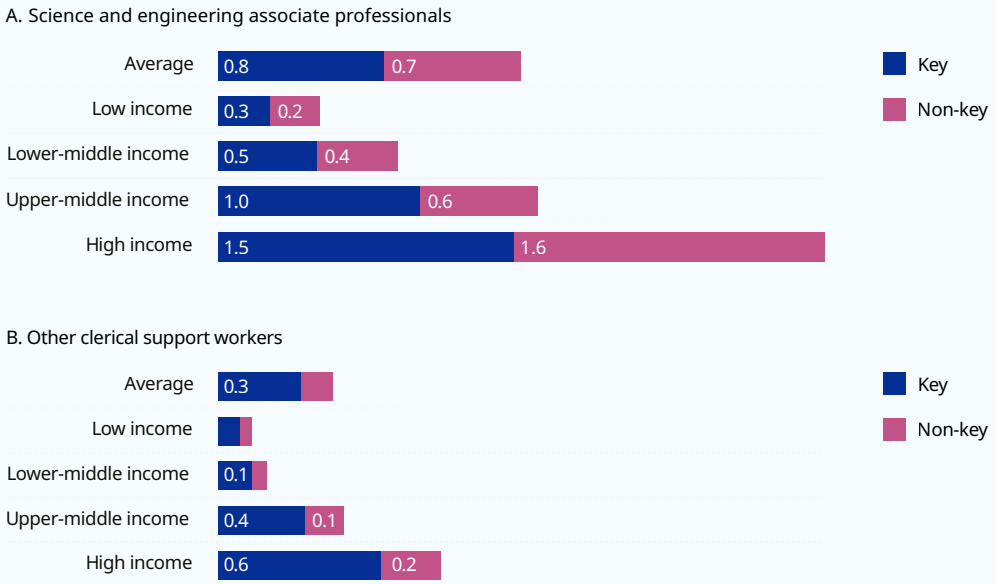
Science and engineering professionals account for 1.5 per cent of all employed persons across countries. This share declines with countries' income levels, ranging from 3.1 per cent in high-income countries to 0.5 per cent in low-income countries (figure 4.24). Globally, 54.8 per cent of all science and engineering professionals are key workers. Similarly to manual workers, the key worker status of these technicians depends on whether their industry provides services that were deemed essential during the pandemic. This was the case, for example, if they were responsible for overseeing essential work activities or repairing basic utilities as manufacturing supervisors and electrical or civil engineering technicians.

Science and engineering professionals have higher formal educational levels than the average. Across countries of all income levels, 44.2 per cent have completed secondary education and 28.1 per cent hold a university degree (that is, a bachelor's degree or higher). Not surprisingly, these shares are highest in high-income countries, in which 72.9 per cent of science and engineering associate professionals hold a university degree, and lowest in low-income countries, where the university completion rate is only 4.5 per cent.[138]


Credit: © kjophoto

The category "Other clerical support workers" includes 0.4 per cent of all employment on average across

Figure 4.24. Share of selected technicians and clerical support workers out of total employment, key versus non-key workers by country income group (percentage)



Note: The two occupational groups with the two-digit ISCO-08 occupations "31 – Science and engineering associate professionals" and "44 – Other clerical support workers" were selected because they include a meaningful share of key workers.

Source: Analysis based on ILO Harmonized Microdata (ILOSTAT). See Appendix for more details.

countries. Again, this figure tends to be higher in countries with higher income levels. Most clerical support workers (72.6 per cent) were considered to be key workers during the pandemic. This is largely because postal workers fall under this category. Given their experience and importance to society during the COVID-19 pandemic, postal workers are the focus of the remainder of this section.

The experience of postal workers during the pandemic

During the COVID-19 pandemic, postal workers were limited in their ability to socially distance, given their roles in sorting mail, interacting directly with the public at postal offices and delivering mail to individuals' homes. The treatment of postal workers during the pandemic, however, varied across countries, influencing both the degree of disruption of postal services and workers' exposure to the virus.

Some countries, such as Australia, Canada, Germany, India, Italy, the United Kingdom and the United States, moderately changed operations during the pandemic.[139] In these countries, additional safety precautions were introduced to protect workers and minimize exposure, but only limited restrictions were imposed on the provision of postal services. In Australia, split shifts and protective screens were introduced in post offices.[140] The United States Postal Service (USPS) supplied protective equipment and required staff members to wear face masks when they could not socially distance. In Mexico, while some offices closed, for those which remained open hand sanitizer and masks were provided to employees.[141] In contrast, in countries such as France, Spain and New Zealand, postal operations were more substantively interrupted. At the beginning of the pandemic, France closed most post offices and reduced deliveries from six to three days per week. Spain also cut its postal workforce to a quarter the size of normal levels.[142] New Zealand closed all postal outlets for three weeks in March 2020.[143]

The COVID-19 pandemic underscored the importance of postal networks as well as the role of postal workers in society.

Irrespective of a country's approach, however, the pandemic expanded the remit of services provided by postal workers, underscoring the importance of postal networks as well as the role of postal workers in society. In Mexico, for example, a postal worker described how people on his route valued his work during the pandemic and how he was satisfied because he and his colleagues had managed to maintain their services despite the challenges the pandemic had imposed.[144] In Argentina, Italy and Uruguay, postal workers ensured COVID-19 vaccine distribution.[145] The delivery of home-school materials and laptops for students was carried out by postal workers in Argentina, France, Georgia and the United States. In Australia, Colombia and El Salvador, postal workers delivered food parcels to households in need. In India, to minimize the exposure of older persons to the virus, postal workers delivered social payments (normally distributed in bank accounts) directly to individuals. While this was also done prior to COVID-19 outbreaks, it increased tenfold once the pandemic began.[146]

Data have yet to reveal the pandemic's overall health impact on postal workers, but news reports and qualitative evidence suggest that they have been adversely affected. In the above-mentioned interview, for example, the Mexican postal worker explained that distancing was not possible on his way to work. While his employer was supportive when it came to sanitary measures at his workplace (that is, providing the required equipment), initiatives to work in shifts were only suggested by the workers themselves and could have been introduced more systematically. Also, infected workers isolated at home (and continued to be paid), but their colleagues who had been in contact with them continued to go to work. The overall situation implied an increase in psychological stress.[147]

Limited – or, in some cases, virtual – labour inspections also seem to have contributed to postal workers' concerns over insufficient protection. In the United States, for example, following the outbreak of the pandemic, USPS employees filed more than 1,000 complaints alleging hazards related to COVID-19. Following those complaints, as of July 2021 the Occupational Safety and Health Administration had issued citations for four violations, all of which the USPS contested.[148] Meanwhile, many countries introduced contactless deliveries that changed signature requirements, minimizing workers' exposure to the virus.[149] Other countries, such as Japan, introduced new technologies, including robots to perform some tasks of postal workers, in response to increased demand for contactless deliveries and to address labour shortages.[150]

The pandemic also affected postal workers by accelerating already ongoing structural changes to the sector. With lockdowns imposed, consumers and businesses increased their use of e-commerce. The number of parcels to be delivered thus skyrocketed and this changed the composition of mail to larger and heavier parcels (see also the previous discussion on warehouse workers). This drastic change presented logistic challenges for postal operators since heavy parcels required new and more costly transport options.[151] Similar developments were identified by a country study on the Republic of Korea (see box 4.8). The Korean case further demonstrates how the working conditions of postal workers are affected by their contractual arrangements, indicating a deterioration of workers' rights.

Box 4.8. Postal workers in the Republic of Korea

The delivery industry in the Republic of Korea operates across the public and private sectors with a segmented labour force composed of three types of workers: employees with standard and permanent contracts; employees with non-standard fixed-term contracts; and workers in "special employment types under consignment contracts". As the delivery industry expanded alongside the growth in e-commerce, so did the share of workers hired under a consignment contract. These workers, employed as independent contractors – often on daily contracts – lack access to social security, accident insurance and other employment protection to which their employee counterparts are entitled.

The pandemic exacerbated existing inequalities across the different groups of workers as the demand for parcel delivery skyrocketed. Parcel delivery not only requires larger vehicles for transport, but also additional time to load and unload parcels at distribution centres, post offices and delivery addresses. For employees, the additional hours of work required to meet the increased demand for deliveries went unpaid, since their wage-setting arrangements lacked contractual entitlements to overtime pay. The increased demand for parcel delivery resulted in at least 16 workers' deaths due to overwork, and this led an eight-day strike.

For consignment contract workers, who are often paid on a per-delivery basis, the pandemic reduced their income in two ways. First, delivery fees for such contract workers are partially set as a function of labour supply. As many workers became unemployed during the pandemic, they turned to consignment contract work in the delivery industry as a source of revenue. This boosted labour supply in the sector, reducing the unit delivery fee. Second, the increase in labour supply resulted in a smaller allocation of packages to each driver. As a result, these workers' incomes decreased during the period of greatest financial difficulty.

The pandemic also increased postal workers' exposure to the virus. Without a mechanism to identify households in self-quarantine and inform postal workers, the delivery of registered mail and parcels to individuals in quarantine increased the likelihood of exposure to the virus. At the onset of the pandemic, the exclusion of postal workers from priority vaccination groups, as well as limited supplies and distribution of masks, also contributed to heightened exposure. Staff shortages due to COVID-19 exposure and the absence of additional paid sick leave to compensate workers for their heightened occupational risks, added insult to injury by requiring workers to take unpaid sick leave (reducing their pay further) if they had exhausted all paid leave.

In response to the adverse working conditions faced by postal workers, labour unions in the public sector agitated for change, which eventually led to the introduction of measures reducing face-to-face contact for registered deliveries and granting priority vaccination for the occupation. The Government also introduced various worker protection and support measures, with mixed impacts. For example, occupational accident and insurance coverage was extended to include delivery workers in online and offline distribution industries. Another measure aimed at limiting late-night deliveries by blocking apps at night. This latter measure, however, resulted in unintended consequences, with workers bypassing the late-night delivery prohibition. Finally, the Life Logistic Delivery Service Industry Development Act was introduced to fill legislative gaps that had existed since 1997. However, since the law defined delivery workers as those engaged in "cargo collection and delivery", it excluded the often unpaid labour undertaken by postal workers who sort and classify letters and parcels prior to delivery.

[1] Seung-yoon Lee et al., 2022.

[2] McGrath, 2021.

Source: Seung-yoon Lee et al., 2022.

Notes

1 ILO, 2020f.
2 Sato, 2021.
3 ILO and FAO, 2021.
4 See Van Panhuys, Kazi-Aoul and Binette, 2017.
5 ILO and FAO, 2021.
6 Gollin, Lagakos and Waugh, 2014.
7 Imai, Gaiha and Bresciani, 2019.
8 ILO, 2020i.
9 ILO, 2016b.
10 Briones, 2018.
11 ILO, FAO and IFAD, 2010.
12 Unpublished background study on key workers in Türkiye.
13 United Nations, n.d.; OHCHR, n.d.
14 OECD, n.d.(a), accessed 7 November 2022.
15 Addati, Cattaneo and Pozzan, 2022.
16 WHO, n.d.(b), accessed 7 November 2022.
17 OECD, n.d.(b), accessed 21 May 2022.
18 Eurofound, 2020.
19 Bauer, Rodrigues and Leichsenring, 2018.
20 Rapp, Ronchetti and Sicsic, 2021.
21 Banerjee et al., 2008.
22 Braedley et al., 2018.
23 ILO, 2020c.
24 Trapmann et al., 2022.
25 Buchan, Catton and Shaffer, 2022.
26 Falatah, 2021.
27 Buchan, Catton and Shaffer, 2022.
28 Shaffer and Curtin, 2020.
29 Shaffer and Curtin, 2020.
30 Addati, Cattaneo and Pozzan, 2022.
31 D. Singh, forthcoming.
32 Mane Abhay and Khandekar Sanjay, 2014.
33 Koumenta and Williams, 2019.
34 Rubery and Urwin, 2010.
35 OECD, 2020e.
36 OECD, 2020e: 11.
37 OECD, 2020e: 11.
38 Eurofound, 2020: 51–53.
39 Eurofound, 2020: 54.
40 ILO and OECD, 2019; ILO, 2016c.
41 Sojourner et al., 2010.
42 Sojourner et al., 2015.
43 Dean et al., 2022.
44 ILO, 2020e.
45 These occupations are 52: sales workers, and 95: street and related sales and services workers, based on ISCO-08 2-digit classification. For methodological details, see Appendix.
46 WIEGO, n.d.(a).
47 Bhowmik, 2019.
48 Schneider and Harknett, 2020.
49 Loustaunau et al., 2021.
50 Darkwah, 2022.
51 Carré and Tilly, 2017.
52 McCrate, 2018.
53 Henly and Lambert, 2014.
54 Schneider, Harknett and Collins, 2020.
55 Smith and Elliott, 2012.
56 Note, however, that the ILO Right to Organize and Collective Bargaining Convention, 1949 (No. 98), mentions the police as one of the few groups that a country may exclude from the right to collective bargaining (see ILO, 2022l).
57 Berry et al., 2008.
58 ILO, 2022l.
59 Munar Suard and Lebeer, 2004.
60 Sefalafala and Webster, 2013.
61 Choi and Li, 2021.
62 Mariwo, 2008.
63 White, 2022.
64 Mosendz, Bhasin and Melin, 2021.
65 Paese et al., 2014; Schneider, Signorelli and Gomes Pereira, 2017.
66 Paese, 2014.
67 Unpublished background study prepared for the ILO.
68 Shaidah, 2016.
69 Jovanović et al., 2020.
70 Syed et al., 2020.
71 ILO, 2020s; Okorie et al., 2020; Vyas, 2022.
72 Some countries, however, classified apparel production as essential. This includes countries with important garment industries, like China, India and Indonesia.
73 Rodrik, 2022.
74 Diao et al., 2021; see also Kruse et al., 2021.
75 Autor, Dorn and Hanson, 2021.
76 Autor, 2022; Atalay et al., 2020.
77 Castellani, Lotti and Obando, 2020.
78 Bennett et al., 2022.
79 Berufsberatung.ch, n.d.
80 World Bank et al., 2019; United States Bureau of Labor Statistics, 2022.
81 Eichhorst and Marx, 2015.
82 There are many more key workers in this occupational group in Botswana, with nearly 20 per cent working in cleaning and sanitation jobs.
83 ILO, 2016c.
84 *Agencia EFE*, 2017; Johari, 2014.
85 TNN, 2020.
86 Tirodkar, 2021.
87 Gebel, 2013.
88 Duman, 2019; Cirillo and Ricci, 2022.
89 Mhaskar, 2019.

90 Lim, 2022.
91 Virtanen et al., 2005; Pirani and Salvini, 2015; Kompier et al., 2009.
92 Bruno Fabiano et al., 2008.
93 Johari, 2014.
94 Liu et al., 2021.
95 Wittmer, 2021; Schenck, Viljoen and Blaauw, 2021.
96 WIEGO, n.d.(b).
97 Dias and Samson, 2016.
98 WIEGO, n.d.(c).
99 The subsample of countries with available information on the wages of key cleaning and sanitation employees does not include any low-income country.
100 On average, cleaners and helpers (with "91" as ISCO code) account for 52 per cent of the key cleaning and sanitation wage employees across the Latin American and Caribbean countries in the subsample.
101 Salvador and Cossani, 2020.
102 Altamirano et al., 2019.
103 Sperry et al., 2022.
104 Cervero and Golub, 2011.
105 Malhotra et al., "2021; Poumanyvong, Kaneko and Dhakal, 2012.
106 UITP, 2021.
107 UITP, 2021.
108 ITF, 2017.
109 ITF, 2017.
110 Unpublished background study prepared for the ILO.
111 Spooner, 2011.
112 ILO, 2021l.
113 ILO, 2018g.
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115 ITF, 2017: 19.
116 Spooner, 2011.
117 Kumar, Zimmerman and Arroyo-Arroyo, 2021.
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121 ILO, 2021s.
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123 NSC, n.d.
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126 Spooner, 2011: 8.
127 Sinha and Kumar, 2018.
128 Nag, Vyas and Nag, 2016.
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131 Marine Accident Investigation Branch, 2020.
132 Schneider and Irastorza, 2011.
133 Jepsen, Zhao and van Leeuwen, 2015: 108.
134 Gekara and Sampson, eds., 2021.
135 EU, n.d.
136 Health and Safety Executive, n.d.
137 Copsey, 2011.
138 Calculations based on the main sample, see Appendix.
139 EUI Florence School of Regulation, n.d.
140 Parliament of Australia, "Submissions".
141 Interview with Cesar, Mexican postal worker, 8 November 2021.
142 Abboud, Dombey and Johnson, 2020.
143 Parliament of Australia, n.d.
144 Interview with Cesar, Mexican postal worker, 8 November 2021.
145 UPU, n.d.
146 Agarwal and Bellman, 2020.
147 Interview with Cesar, Mexican postal worker, 8 November 2021.
148 Jameel, 2021.
149 EUI Florence School of Regulation, n.d.
150 Hermosín Gandul, 2020.
151 Parliament of Australia, n.d.

5

How to strengthen the institutions of work

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Main findings

Effective safety and health regulations should cover all branches of economic activity and all workers, with clear duties and rights specified.

Equality of treatment of workers under different contractual arrangements limits discrimination based on occupational status and supports decent work and fair competition.

In countries with high collective bargaining coverage, the pay gap between key and other employees tends to be lower.

Ensuring that key workers receive the minimum wage can be an effective tool for increasing their earnings.

Extending social protection to all workers, including access to paid sick leave, will make workers and economies more resilient to future crises and pandemics.

Valuing key workers means ensuring that they receive adequate pay and work in conditions that correspond with decent work. While decent work is an objective for all work, it is particularly critical for key workers, who provide vital necessities and services in both good times and bad. Strengthening the institutions of work, along with investing in key sectors (see Chapter 6), is central for building a more resilient world of work.

This chapter draws on ILO standards as well as examples of good practice from regional and national legislation and collective bargaining agreements to provide guidance on how to improve working conditions and social protection for key workers. While many of the recommended regulations and policies apply to all workers, given the relative weaknesses in key work identified in earlier chapters such efforts are a necessary step forward in attaining decent work for key workers.

Comprehensive and robust institutions of work ensure that labour is not treated as a mere commodity. The institutions of work include the laws and collective bargaining agreements that regulate the labour market in areas such as OSH, employment contracts, working hours, wages, training and social security, as well as the institutions – workers' and employers' organizations, labour administration and inspection systems, and courts and tribunals – that design and institute workplace governance. Well-functioning labour institutions address the asymmetry between capital and labour and enhance labour market and economic performance.[1]

Over the last hundred years, the employment relationship has been at the heart of labour market governance.[2] The definition of employment and the classification of a work relationship as an "employment relationship" is central to the provision of labour protection. Many aspects of labour protection – minimum wages, limits on working hours, protection against dismissal – apply to the employment relationship. Others, such as the right to freedom of association and collective bargaining, anti-discrimination, OSH and social protection, are recognized internationally as applying to all workers, though often still restricted at the national level.

The shortfalls in labour and social protection identified among key workers stem from: (1) the failure to provide coverage to workers because they fall outside the scope of the law, as is often the case in self-employment but also among subsets of workers, such as agricultural or domestic workers, or workers in small enterprises; (2) weak enforcement of the law, even for enterprises covered by it, and thus its non-application, as in the case of informally employed workers; or (3) the unequal treatment of employment contracts in the law, as is the case for some contractual arrangements, including certain temporary labour migration schemes.

Shortfalls in labour and social protection among key workers stem from failure to provide them with coverage, weak enforcement of the law, or unequal treatment of employment contracts in the law.

Improving labour and social protection among key workers thus requires multifaceted actions, depending on the cause of the shortfall. For workers in a recognized employment relationship, this includes ensuring equal treatment among workers in diverse contractual arrangements, so that they can enjoy the full benefits of labour and social protection (section 5.2), as well as improving compliance in order to mitigate informality among employees (section 5.7). In some instances, workers should be recognized as being in an employment relationship but have been misclassified as self-employed ("bogus self-employment" or "disguised employment"). For these situations, the Employment Relationship Recommendation, 2006 (No. 198), contains a series of principles that can guide governments on devising policies to address employment misclassification.[3]

For workers who are currently out of the scope of the law, policies include broadening the definition of coverage to include those workers who are in historically excluded occupations, such as agricultural work or domestic work, or "dependent self-employed" workers, who are legally independent but depend economically on a few clients. Broadening the scope can also be a means to cover workers in new forms of work, such as app-based delivery workers. For genuinely independent

self-employed workers, specific policies need to be tailored to provide protection, particularly with respect to social protection, OSH, anti-discrimination and the right to freedom of association and collective bargaining.

Another critical tool for strengthening the institutions of work is social dialogue. Freedom of association and collective bargaining are fundamental workers' rights that apply to all workers, regardless of their contractual and migrant status. In practice, however, many key workers are not able to exercise these rights, either for the reasons cited above or because of transformations in the world of work that have weakened employers' and workers' organizations.[4] This, in turn, has weakened the potential of unionization and collective bargaining to improve protection through negotiated regulation, but also the important role that bipartite consultation and workplace representation, including joint health and safety committees, can have for ensuring compliance. Social dialogue has shown its value during the COVID-19 pandemic as a flexible tool to respond to a crisis;[5] greater access to this tool strengthens the resilience of labour markets.

5.1. Safe and healthy workplaces for all

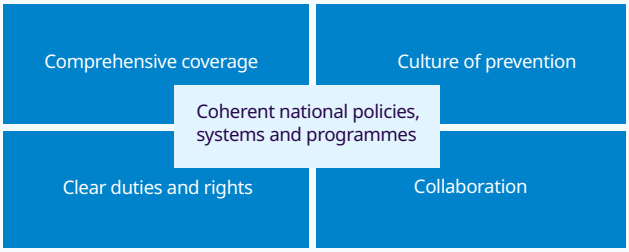
A safe and healthy workplace is an asset to workers, employers and society at large. For employers, a safe and healthy workplace not only protects workers from injury and illness, but it can also help prevent costly outlays from accidents, absenteeism or social security. For workers, a safe and healthy workplace means avoiding the detrimental consequences of workplace injury and illness, whether physical or mental. In addition to the pain and suffering that an accident or illness can cause, it can also have devastating effects on household finances and personal relationships, including by compromising workers' careers. For societies, workplace injury and illness can be costly to social security systems, as well as to social assistance programmes when families run into economic hardship.

As shown in the previous chapters, key workers had greater exposure to workplace hazards prior to the pandemic than non-key workers; and during the COVID-19 pandemic, physical and psychosocial risks were aggravated. The analysis showed that key workers had a higher incidence of morbidity during the pandemic. Health workers, who had the highest rates of exposure, were badly affected, but the evidence also suggests that, while there were country variations, retail, security and transport workers often fared worse. The analysis suggests that the institutional setting affected the probability of key workers becoming infected. Formal workers, especially in larger and unionized establishments, were engaged in work settings where more robust OSH systems were in place. As discussed in section 3.1, there are currently many gaps in coverage, as OSH systems are too often limited to workers in an employment relationship. Moreover, many such systems have not paid sufficient attention to psychosocial risks, especially violence and harassment.

The COVID-19 pandemic has provided an opportunity to improve OSH systems throughout the world. There are more than 40 ILO standards dealing with health and safety at work, of which 20 are up-to-date Conventions and Protocols. Most of them concern a specific danger (such as major industrial accidents, asbestos or chemicals) or a specific industry sector (such as mines, construction or agriculture). Nevertheless, four Conventions and one Protocol focus on system-wide issues, each with an accompanying Recommendation:

- the Occupational Safety and Health Convention, 1981 (No. 155);[6]
- the Protocol to the Occupational Safety and Health Convention, 2002 (No. 155);
- the Occupational Health Services Convention, 1985 (No. 161);[7]
- the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187);[8]
- the Violence and Harassment Convention, 2019 (No. 190).[9]

Figure 5.1. The five key dimensions of effective safety and health regulation



On 10 June 2022, the International Labour Conference declared that Conventions Nos 155 and 187 would be considered as fundamental Conventions within the meaning of the ILO Declaration on Fundamental Principles and Rights at Work (1998), as amended in 2022.

These Conventions provide sound criteria for guiding OSH reforms. They do not construct a static, rigid scaffold for regulating workplace safety and health; rather, they map out a dynamic framework.[10] The Conventions are concerned with designing policies, systems and programmes to improve safety and health in the world of work. They have been formulated in the light of the experience of Member States and are therefore grounded not only in the ILO's foundational values but also in practical knowledge. Synthesizing the four Conventions and, in particular, the two fundamental Conventions, there are five key dimensions of effective safety and health regulation (see figure 5.1). In addition to these five dimensions, there are two supporting pillars: (1) compliance (addressed in section 5.7); and (2) coordination with other regulatory systems pertaining to work, including labour and social security law and health regulation, so that objectives and methods are mutually reinforcing and supportive. This section addresses the five key dimensions with a view to providing policy guidance to ILO constituents on establishing more resilient institutions of work, for key and non-key workers alike.

Coherent national policies, systems and programmes

Coherent national policies, systems and programmes, as set out in Conventions Nos 155 and 187, underpin effective OSH regulation. A *coherent* overarching national framework whose constituent parts have been constructed in a methodical, mutually reinforcing way obviates a situation in which OSH measures are merely reactive, with governments responding to a specific salient crisis in a piecemeal, fragmented manner. The danger of such a reactive approach is that short-term fixes are adopted, leaving long-term and broad deficiencies in law and policy unaddressed. As explained in section 3.1, earlier forms of OSH regulation, which targeted specific dangers in specific industries, have become inadequate, obsolete or unwieldy. They have also created inequity because some workers were protected against hazards while workers in unregulated sectors were not.

This is not to say that emergency measures are never warranted. Sometimes an immediate, initial response is required in the face of an unanticipated disaster, as the COVID-19 pandemic made clear. But there is a need to move beyond the interim and make systemic adjustments so that future hazards are avoided or mitigated; hence the emphasis in the Conventions on formulating and regularly reviewing a coherent set of *policies, systems and programmes*. This is the starting point for effective OSH regulation.

How are national policies, systems and programmes distinguished from each other and why are all three necessary? A *national policy* here refers to a policy on "occupational safety, occupational health and the working environment"[11] whose aim is to: "prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment".[12]


Credit: © Dusan Stankovic

The policy should promote *basic OSH principles*.[13] It should also address the main *"spheres of action"*.[14] This means taking account of "the material elements" of work (workplaces, machinery, biological substances and so on); the work processes which connect these material elements to workers; training; communication and cooperation; and the protection of workers and their representatives from retaliation.[15] It should clarify the functions and responsibilities of the various stakeholders[16] and be regularly reviewed.[17] Furthermore, the national policy should extend to the provision of *occupational health services*, which advise stakeholders on how to prevent injuries and diseases.[18] The purpose of a national policy is thus to establish a solid foundation for all regulatory interventions relating to OSH, be they laws, strategies, educational measures or the creation of administrative and other OSH-related agencies.

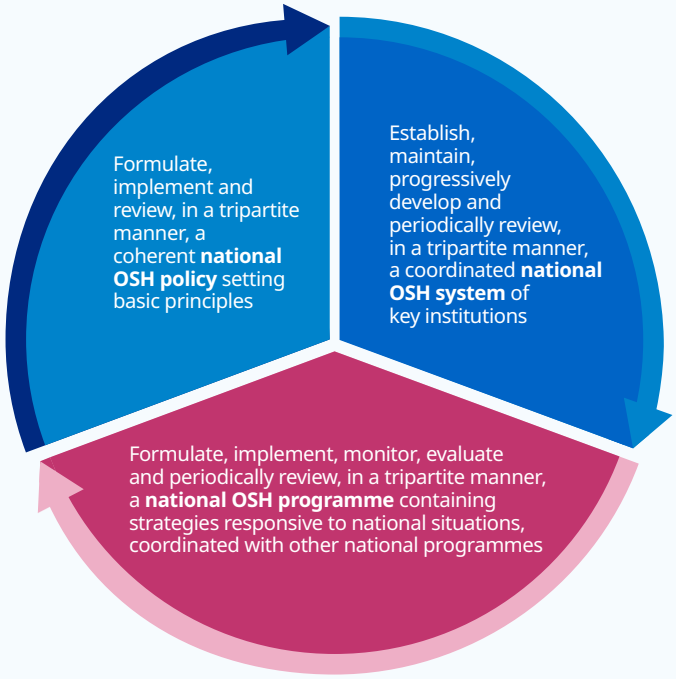
A *national system* refers to the "infrastructure … for implementing the national policy and national programmes on occupational safety and health".[19] In order to give practical effect to the national policy, Member States need to develop appropriate institutions and to regularly review them through tripartite mechanisms.[20]

Convention No. 187 refers to four essential elements of a national system:[21] *laws and other regulatory instruments* (which may include collective agreements); *a regulatory authority or authorities; compliance mechanisms;* and *arrangements to promote labour–management cooperation*. The Convention also refers to eight additional mechanisms pertaining to work health and safety which can complement these: a national tripartite body or bodies; information and advisory services;[22] training; health services (which are described in detail in Convention No. 161[23] and Recommendation No. 171); research; data collection and analysis;[24] collaboration with social security schemes; and support for micro, small and medium-sized enterprises and the informal economy.[25] The position of high-risk and vulnerable groups and the impact on workers of different genders should be taken into account in system design.[26] It is especially relevant to note that the national policy and system should address not only occupational accidents and diseases, but also the physical and mental well-being of workers.

A national system should be designed with regard to specific national circumstances,[27] so a wide range of institutional variation is to be expected. This variation will include in some jurisdictions – and especially those with federal constitutional structures – multiple laws and regulatory authorities. It will also include different administrative arrangements; for example, an OSH regulator may be located within a labour or health department or be a stand-alone statutory authority. Such multiplicity can be problematic if there is no underlying cohesion, especially if, as in the case of the COVID-19 pandemic, a crisis is experienced not merely at a subnational level but nationwide. At worst, OSH systems can be completely bypassed or relegated to an afterthought, as when temporary public health orders became the primary means of responding to the COVID-19 pandemic in the workplace. While this is understandable in an emergency situation, it undermines a long-term systemic response to what is an ongoing threat to workplace health. Thus, Convention No. 155 requires Member States, in consultation with the social partners and other appropriate actors, to "ensure the necessary coordination between various authorities and bodies" so as to ensure policy coherence.[28]

A *national programme* refers to programmes which include "objectives to be achieved in a predetermined time frame, priorities and means of action formulated to improve occupational safety and health", as well as methods of assessing progress".[29] Again, these should be formulated, implemented and reviewed in a tripartite manner.[30] These programmes should be directed at promoting a culture

Figure 5.2. Obligations of Member States in relation to national OSH policies, systems and programmes



of prevention and eliminating or minimizing risks.[31] They should be based on a review of the national situation and include objectives, targets, progress indicators and priorities.[32]

The purpose of a national programme is to ensure that the national system operates in a responsive and dynamic manner, promoting continuous improvement. The original intention was to promote the adoption of medium-term strategic plans, which provided a realistic time frame for significant improvements.[33] However, this approach to time frames was formulated prior to the pandemic, which initially necessitated a shorter horizon.

The interrelationship between national policies, systems and programmes is set out in figure 5.2. Once they are in place, they enable a Member State to approach OSH regulation in a methodical, rigorous way, reducing the potential for contradictory, chaotic, partial and ad hoc interventions. The substantive dimensions of this framework are explored in the following sections.

Some national systems explicitly enact this framework set out in ILO standards. In Japan, for example, the Industrial Safety and Health Act specifically mandates the formulation of a plan.[34] The most recent plan (13th Occupational Accident Prevention Plan), which commenced in 2018, has an increased focus on mental health and anti-harassment. It also promotes risk assessments, the appointment of industrial physicians as part of the in-house occupational health services and better health and safety management within firms.[35]

In response to the COVID-19 pandemic, countries have begun to develop a coherent framework to consolidate the lessons learned from temporary measures. In late 2021, the Republic of Korea enacted the Act on Designation of Essential Work and Protection and Support for Essential Workers. The new law creates a permanent system for assisting essential workers in a time of crisis. It includes a general definition of essential work[36] and a committee for determining precise categories, for conducting empirical research and for recommending support plans (which include a labour representative).[37] On the basis of deliberations by the Committee, the relevant ministry (the Ministry of Employment and Labour) formulates and evaluates a support plan.[38]

Comprehensive coverage

In many countries, the laws on health and safety at work are confined to employees only, and sometimes only to certain industries. But this is inconsistent with the goals of the OSH Conventions. The obligations in the key ILO Conventions apply to "all branches of economic activity".[39] While Convention No. 155, adopted in 1981, permits Member States to exclude some branches of economic activity because of "special problems of a substantial nature",[40] these exclusions are intended to be temporary and to require the provision of adequate protection for the relevant workers.[41] They must also be transparent, tripartite and accountable (reported to the ILO).[42]

The evolution of OSH understanding is apparent in Convention No. 190, in that no sector is excluded: it applies to "all sectors, whether private or public, both in the formal and informal economy, and whether in urban or rural areas", with no possibility of excluding certain branches of activity.[43] The Convention clearly articulates a comprehensive approach to coverage. It refers to protecting "workers and other persons in the world of work" and makes clear that not only employees are covered, but so are "persons working irrespective of their contractual status", persons in training, volunteers and so on, as well as "individuals exercising the authority, duties or responsibilities of an employer".[44] The obligations in the Convention that apply to the "world of work" are also broadly defined to include activities outside of, but related to, work, such as work-related travel and social events, work in private locations and online, and commuting.[45] In view of the broad scope of the Convention, which applies beyond the traditional workplace, the level of responsibility of business entities is determined commensurate with their *degree of control*.[46]

However, it does not follow from the requirement that all workers must be covered that stakeholders must be subject to identical detailed rules. As indicated in section 3.1, the Robens approach to regulation of safety and health at work distinguished between a statement of universally applicable *general principles, rights and obligations*, on the one hand, and *detailed rules* applicable to specific work contexts, on the other. Thus all workers, irrespective of their contractual status, should be covered by OSH policies, systems and programmes. For example, all entities should be required to ensure that, so far as is reasonably practicable, workplaces under their control are safe and without risk to health.[47] However, what this means in practical terms for transport workers will differ from what it means for health workers, and the responsibilities of direct sole employers may differ in degree from those who are one of a number of entities that can influence a worker's safety and health.

As discussed in Chapter 3, OSH laws in many jurisdictions exclude certain classes of workers, so that coverage is only partial, with some workers participating in OSH mechanisms working alongside others who are excluded. The fissuring of the employment relationship through the use of contractually fragmented working arrangements (whether or not involving an employment relationship), including platform-based, home-based and virtual work, has prompted some countries to reconsider the basis on which their OSH laws have been constructed. If OSH laws are based on the employment relationship only, then non-employees – such as self-employed workers, volunteers and interns – are not covered. Even those workers who are in an employment relationship and are technically covered by the law, if they work under non-regular arrangements – such as through temporary agencies or casually – may find that in practical terms they have little or no effective coverage.

In order to address this issue, Australian OSH law (which is now called "work health and safety law" to highlight its comprehensiveness) has been recast so as to replace terms such as "employer" and "employee" with wider terms such as "person conducting a business" and "worker" (see figure 5.3).[48]

In Italy, the term "worker" (*lavoratore*) is defined as "a person who, regardless of the type of the contract, carries out a work activity within the organization of a public or private employer, with or without pay, even for the sole purpose of training"[49] and "employer" (*datore di lavoro*) is given an extended meaning.[50]

China also avoids use of employer and employee terminology in its Work Safety Law. It refers to "entities engaged in production operations", *congshi shengchan jingying huodong de danwei* (从事生产 经营活动的单位),[51] and uses a broader term for worker, *congyerenyuan* (从业人员), instead of a less inclusive

Figure 5.3. Work Health and Safety Act 2011 (Australia)

Section 19, Primary duty of care

(1) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of:

(a) workers engaged, or caused to be engaged by the person; and
(b) workers whose activities in carrying out work are influenced or directed by the person;

while the workers are at work in the business or undertaking.

(2) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

term found in other labour statutes.[52] The Law specifically provides that a business entity is responsible for temporary agency workers[53] and platform workers,[54] and for entering into arrangements with subcontractors to protect the safety of workers who are contracted out.[55] However, this broad approach has not yet been adopted consistently across all health and safety legislation. The Law on Prevention and Control of Occupational Diseases continues to use the narrow "employment relationship" language of other labour statutes, so that the self-employed and subcontractors, for example, are excluded, although temporary agency workers are covered.[56]

In the Republic of Korea, the Occupational Health and Safety Act (KOSHAct), which was originally confined to employees in parallel with general labour law, has recently been extended to cover various forms of subcontracting arrangements, which are regulated in detail in the legislation, with the responsibility of business owners at various points in the contracting chain clarified.[57] These include arrangements at construction sites, in certain hazardous forms of manufacturing, in the delivery industry, and for certain forms of temporary agency work and franchise relationships.[58] While Japanese OSH law appears to cover principally employees,[59] it does, as in the Republic of Korea, extend to a range of contracting arrangements (including construction sites).[60]

Where, as in the examples cited above, laws are broadly drafted or specifically extended to non-employees, responsibilities are no longer tied to specific contractual classifications but rather to the capacity to influence safety and health in practice. Under this approach, a head contractor on a building site, for example, has obligations to all workers on that site, irrespective of whether they are direct employees, self-employed, or otherwise engaged through a succession of contracts. Further, representation rights may be extended to all workers, and workplaces are broadly defined to include any place where a worker is "at work". This kind of regulatory architecture stands a better chance of underpinning a broad, coherent, OSH response to events such as the COVID-19 pandemic, whose impact on the world of work is not differentiated according to contractual forms.

There are examples of the pandemic leading to a broadening of legislation through judicial interpretation. In the United Kingdom, the pandemic acted as a catalyst for an expansion of the main OSH law; the UK High Court found in a COVID-19-related case in 2020 that existing UK law did not comply with retained EU directives[61] and extended the right to remove oneself from work and to PPE to all dependent workers, not only employees.[62]

Where laws are broadly drafted or specifically extended to non-employees, responsibilities are no longer tied to specific contractual classifications but rather to the capacity to influence safety and health in practice.

Culture of prevention

Convention No. 187 provides that the principle of *prevention* should be accorded the highest priority.[63] The Convention mandates the development of a national preventive safety and health culture so that "individual and group values, attitudes, perceptions, competencies and behaviours ... contribute to health and safety management, and its development" in a dynamic and progressive way.[64]

In realizing the prevention principle, the concept and practical application of *risk assessments* is fundamental.[65] As explained in section 3.1, this involves a methodical process of identifying hazards at work, considering the risk of harm and then acting to eliminate or, if that is not reasonably practicable, minimize the risk. There are various formulations of how to conduct risk assessments developed by the ILO[66] and Member States.[67] They commonly involve evaluating and prioritizing risks by considering the likelihood of occurrence of a hazardous event, its potential severity and the available measures for eliminating or minimizing the risk.[68] They also involve specifying who is responsible for implementing the measures, the time frames and a review process.

One jurisdiction whose OSH arrangements foster a culture of prevention is Japan. Japan has a system of "industrial physicians" in enterprises and in the inspectorate.[69] These industrial physicians must be established in undertakings with more than 50 employees;[70] the physicians are members of health (or health and safety) committees[71] and play a central role in regular physical and mental health check-ups of workers.[72] During the COVID-19 pandemic, the industrial physicians provided preventive measures such as voluntary workplace vaccinations. They were also useful for providing a systematic response to the mental health challenges emanating from the pandemic.

Clear duties and rights

An effective culture of prevention requires assigning responsibilities to various actors in the workplace and also specifying rights.[73] Convention No. 155 requires employers to "ensure, so far as is reasonably practicable" that a range of matters "under their control" are "safe and without risk to health".[74] Those matters are the workplace in general, machinery, equipment, processes, as well as substances and agents. Where they cannot eliminate risk or otherwise control the risk to an acceptable level, employers need to provide "adequate PPE"[75] without cost to the worker.[76] These duties should focus on the capacity to influence OSH in a comprehensive way (rather than being based on contractual status) as espoused in Convention No. 190 and implemented in laws such as the Australian Work Health and Safety Act (2011).

While an undertaking may not be able to prevent every safety and health incident from occurring, it must undertake risk assessments at regular intervals in order to implement feasible measures to eliminate, or if that is not possible, to minimize hazards. For example, Chinese law provides for very extensive duties for persons with primary responsibility for health and safety in a business entity, such as establishing, improving and implementing internal safety and health systems, including risk assessments and training.[77] These systems involve the specification of clear responsibility within an undertaking[78] and a clear budget.[79]

An effective culture of prevention requires assigning responsibilities to various actors in the workplace and also specifying rights.

An additional point is that it is not only undertakings that have obligations in a well-designed OSH system. Workers and their representatives are required to cooperate with employers in relation to safety and health.[80] In order to do so, they need to be given appropriate information and training.[81] Alongside the cooperation obligation, workers have the right to remove themselves from a work situation which they have "reasonable justification to believe presents an imminent and serious danger to [their] life or health" without being subject to reprisals.[82] This means that if cooperation breaks down, such as where a manager refuses to acknowledge a serious danger that may lead to production being suspended, workers can nevertheless act to safeguard themselves. In

such cases, as well as situations where workers have complained in good faith about an undertaking's breach of its health and safety obligations, the law should protect them against reprisals.[83] Employees in Australia, China, the Republic of Korea, Spain and the United Kingdom, among others, have this right.

Tripartite collaboration

The ILO's OSH instruments, and in particular the fundamental Conventions Nos 155 and 187, provide that the national polices, systems and programmes referred to in those Conventions need to be formulated "in consultation with the most representative organizations of employers and workers".[84] Where appropriate, a standing national tripartite advisory body should be established to address OSH issues.[85] Many such bodies have been active in the formulation of national policies to address COVID-19.[86] To be sure, the tripartite nature of collaboration does not entail the exclusion of other interested parties (for example health professionals), who can also be involved in national consultations.[87]

Convention No. 155 also requires such consultation arrangements at the level of the undertaking.[88] Cooperation between management and workers is mandated as "an essential element" of action at that level.[89] Cooperation arrangements should include,[90] where appropriate and necessary, the appointment of worker safety delegates, and worker and/or joint safety and health committees with at least equal representation between workers and management.[91] Recommendation No. 164 sets out the functions, rights and protections of these representative bodies.[92] Recommendation No. 197 includes under the national OSH system a provision for the promotion, at the level of the workplace, of the establishment of safety and health policies and joint safety and health committees, and the designation of workers' OSH representatives, in accordance with national law and practice. The ILO Committee of Experts has reiterated in the two most recent General Surveys on OSH that without such cooperative arrangements between employers and workers "no tangible progress [...] can be achieved".[93]

One important reason for this at the level of the undertaking is compliance. As we will see in section 5.7, enforcement by an inspectorate is an important means of achieving compliance. But as the ILO's Committee of Experts explains:

> *No government would ever have the resources needed to carry out the necessary inspections that were really required to ensure, as far as possible, that people worked in a safe and healthy environment; cooperation between employers and workers in this area [is] essential.*[94]

There is compelling international evidence that the active involvement of worker representatives in the formulation and implementation of OSH measures generally leads to better health and safety outcomes,[95] a finding also observed during the pandemic. The presence of union representatives can encourage individuals or groups of workers to speak out when they encounter a breach of OSH rules.[96]

The importance of worker involvement at the level of the undertaking extends beyond compliance with existing laws to the formulation of new OSH policies, the active identification of hazards and the adoption of new measures to eliminate or mitigate the risk. Extensive worker involvement promotes dialogue not only on existing problems but also planned changes. It creates opportunities to investigate problems and communicate with staff, and facilitates the provision of training and information.[97]

Many jurisdictions provide extensively for consultation arrangements either in the main legislation or in delegated regulations.[98] At the national level, many jurisdictions have long-standing tripartite arrangements for OSH standard-setting. For example, the setting of regulatory norms in Brazil takes place with the involvement of the Permanent Tripartite Joint Committee.

At the workplace level, many countries require, depending on the size of the firm, the establishment of a labour–management committee whose remit is OSH;[99] they may coexist with other consultation

bodies relating to broader labour issues[100] and may also include representatives from several different legal entities operating in the one establishment. Several countries provide for elected health and safety representatives; in some jurisdictions, such as Australia and the United Kingdom, these have inspector-like powers to inspect the workplace and (in the case of Australia) to stop work or require improvements.[101] Unions also have the right in many jurisdictions to monitor compliance; for example, in Brazil[102] and in China (although this does not extend to mandatory powers).[103]

China's Law on Work Safety also provides for a work safety technical management body or dedicated expert personnel in larger enterprises (and in all enterprises in certain dangerous industries); these are responsible for formulating workplace rules and systems, implementing them, and preventing and correcting acts in violation of the rules.[104] There is a parallel structure for occupational diseases.[105] However, these are management bodies rather than a labour–management committee. Japan has similar arrangements involving technical experts[106] but it also mandates the inclusion of union or worker representatives on the safety committees and on the health committees (which can be consolidated into one comprehensive committee).[107]

Unfortunately, mechanisms for tripartite collaboration, especially at the workplace level, are not a universal feature of OSH systems. In some jurisdictions, there is no provision for labour–management consultation, let alone a compliance role for elected OSH worker representatives.

Even those systems with strong collaborative arrangements need to consider how they can be more inclusive of all categories of workers. The development of subcontracting and the use of temporary work, together with the prevalence of informal employment in many countries, have made consultation and cooperation arrangements more difficult to achieve. Traditional representative bodies for workers are relatively uncommon in these settings. Representative structures are also difficult to establish in micro and small enterprises, although several countries have devised innovative means of representing workers in such cases.[108]

The International Labour Conference's declaration that a safe and healthy working environment is a fundamental principle and right at work should encourage Member States to engage in a methodical review of their regulatory frameworks.

The COVID-19 pandemic, by accelerating developments such as virtual work, has exacerbated these difficulties at a time when representation is sorely needed. Innovative methods of ensuring that all workers' voices are heard in the formulation and implementation of OSH measures require development and diffusion. Yet while tripartite collaborative arrangements were severely disrupted by the COVID-19 pandemic, they began to re-emerge after the initial urgent promulgation of emergency measures. In Italy, national "anti-contagion" protocols were concluded between employer and worker organizations and the government in early 2020.[109] In Rwanda, worker organizations representing transportation workers, farmers and teachers negotiated with the Government over the extent of COVID-19 measures.[110] In the United Kingdom, the National Health Service Staff Council, which comprises both management and union representatives, issued extensive material on work relations during the pandemic, including on managing long COVID-19 with sick leave, flexible working hours, pay protection and progression, overtime payments and return to work.[111]

Workplace consultation arrangements were also used to implement COVID-19 measures. In Rwanda, some OSH committees contributed to assessing COVID-19 risk in workplaces, educating workers about the virus, altering work organization to avoid overcrowding, and permitting working from home. The Chinese Ministry of Human Resources and Social Security encouraged an active role for unions at the enterprise level on issues such as employee return to work and extended hours.[112] In Australia, the national industrial tribunal enforced workplace consultation requirements over issues such as vaccine mandates.[113]

The International Labour Conference's declaration that a safe and healthy working environment is a fundamental principle and right at work, and the inclusion of Conventions Nos 155 and 187 among the fundamental Conventions, should encourage Member States to engage in a methodical review of their regulatory frameworks. The lessons learned from the pandemic can inform such reviews, so that more robust policies, systems and programmes can be implemented. Not only will this help Member States to be better prepared for future infectious diseases, but it should also lead to better health and safety outcomes overall, underpinned by collaborative workplaces imbued with a culture of prevention.

5.2. Equality of treatment and other safeguards for all contractual arrangements

> *Non-standard forms of employment should meet the legitimate needs of workers and employers and should not be used to undermine labour rights and decent work.*
>
> *Conclusions of the ILO Meeting of Experts on Non-Standard Forms of Employment* [114]

Key workers are over-represented in part-time employment, temporary employment, agency work and other multi-party arrangements. While in principle such employment arrangements should not preclude access to decent work, there are significant insecurities in practice, as documented in Chapters 3 and 4. ILO constituents recognize the legitimate need of employers for temporary and part-time employment and outsourced workers, but also recognize that, unless workers under these contractual forms have the same rights and protections as those in "standard" employment, there will be deficits in decent work.[115] Such deficits can, in turn, lead to staff shortages, which is not a viable situation for ensuring the provision of key services. Thus there is a need to ensure equality of treatment regardless of contractual arrangement, in addition to other safeguards, as a means to avoid discrimination based on occupational status as well as to support fair competition for employers.

The discussion that follows provides guidance, based on international labour standards and current practice at the regional and national levels, on how to mitigate decent work deficits in part-time employment, temporary employment, agency work and other multi-party arrangements. It provides empirical information on legal protections around the world with a view to indicating shortcomings in protection that need to be addressed. While the guidance applies to all workers, the over-representation of key workers in these non-standard arrangements means that such regulatory changes will benefit key workers, as well as ultimately support the provision of key services.

Part-time employment

Part-time work can help workers enter or remain in the labour market by allowing them to combine paid work with care responsibilities, education, training, volunteer work or other personal endeavour. To be beneficial, part-time work should be a voluntary choice, with shifts between part-time and full-time work supported by regulation. A critical attribute to making part-time work of good quality is equal treatment, as required by the Part-Time Work Convention, 1994 (No. 175).

Convention No. 175 provides that part-time workers must receive the same protection as that accorded to comparable full-time workers in respect of freedom of association and collective bargaining, OSH and

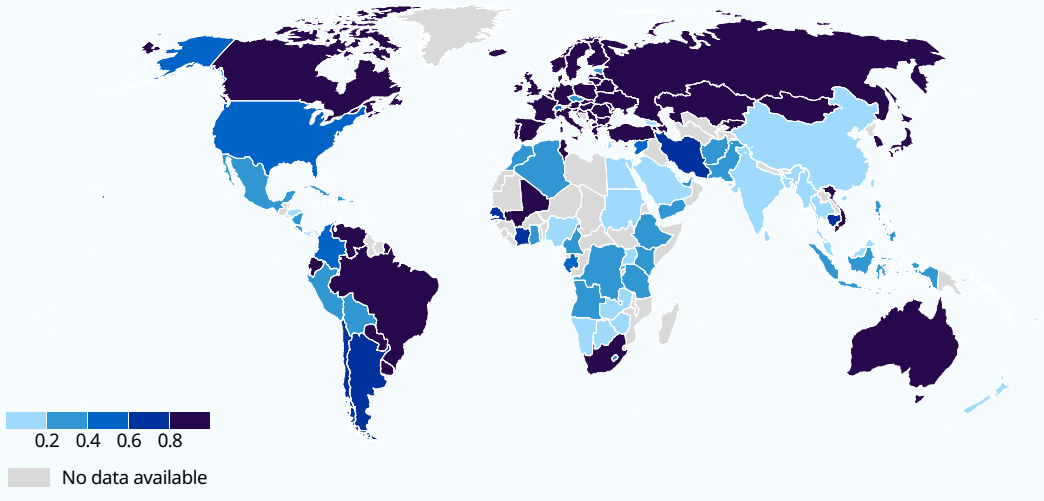
protection against discrimination in employment and occupation.[116] In addition, their basic wage must not be proportionally lower solely because they work part-time.[117] With regard to employment-based statutory social security schemes, maternity protection, termination of employment, paid annual leave and paid public holidays, and sick leave, part-time workers must enjoy conditions *equivalent* to those of comparable full-time workers. Pecuniary rights may be proportional to hours of work or earnings (the principle of pro rata temporis).[118] Certain exceptions are allowed for part-time workers whose hours of work or earnings are below specified thresholds, provided such thresholds are sufficiently low as not to exclude an unduly large percentage of part-time workers and are periodically reviewed. This exception is, however, subject to regular reporting to the ILO and consultation with the most representative organizations of employers and workers.[119]

Figure 5.4 presents the equality of treatment between part-time and full-time workers based on a legal indicator developed by scholars at Cambridge University (Centre for Business Research Labour Regulation Index data set, CBR–LRI).[120] Countries are scored at the highest level only when the legal system recognizes an absolute right of equal treatment; a more limited right to equal treatment receives a lower score. As depicted in the map, this indicator varies significantly. While most high-income countries score highly, Switzerland and the United States score lower. Among upper-middle-income countries, Brazil, the Russian Federation, South Africa and Türkiye have high scores, whereas most lower-income countries have low scores, with a few exceptions in Asia and sub-Saharan Africa.

Another means of ensuring good quality part-time employment is to allow employees to switch between part-time and full-time work, and vice versa, according to their needs.

The Netherlands is an example of good practice in regard to part-time work. In 2019, 50 per cent of the employed population aged 15–64 worked part-time (75 per cent of women and 28 per cent of men).[121] Most part-time employees are on permanent employment contracts, and the average hourly wage gap between full-timers and part-timers is negligible or non-existent.[122] Under the Flexible Working Act of 2015, employees with at least six months of service with an employer that has at least ten employees are entitled to request a reduction (or an increase) of their working hours, with employers only allowed to refuse such requests on the grounds of substantial business reasons.[123] This policy has supported the diffusion of part-time work into higher occupational levels and organizational hierarchies and, most importantly, prevented part-time employment from becoming a trap for workers. As women are over-represented in part-time employment, this policy is instrumental for promoting gender equality.

Figure 5.4. Equality of treatment between part-time and full-time workers



Source: CBR–LRI, 2019.

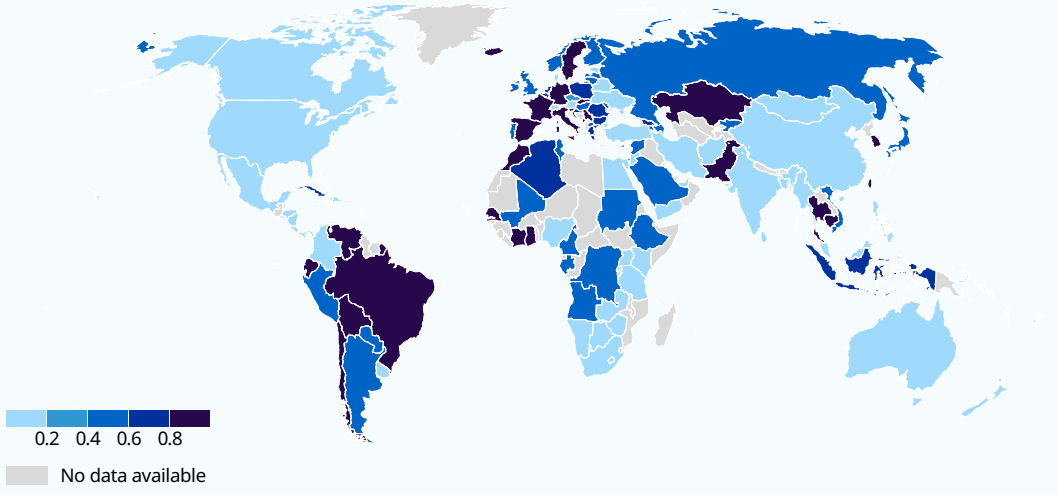
Temporary employment

Temporary employment is common in sectors providing essential goods and services, such as agriculture, retail and transport, due to seasonal fluctuations. Employers also use temporary employment to address specific short-term labour force needs, such as replacing an absent worker, meeting short-term spikes in demand or evaluating newly hired employees before offering them an open-ended contract. If properly managed, temporary employment can be a stepping stone into a more secure employment contract, or a means to engage in paid work while also meeting other personal commitments. However, when it is used solely as a means to reduce labour costs, it can contribute to labour market segmentation, whereby temporary workers cycle between temporary contracts and unemployment.[124] It can also lead to other deficiencies in working conditions as temporary workers are less likely to join a trade union out of fear of reprisal and have been shown to have greater OSH risks as a result of not receiving adequate training.[125]

Although there is no existing international standard on temporary employment, the Termination of Employment Convention, 1982 (No. 158), requires the adoption of adequate safeguards against recourse to fixed-term contracts which aim to avoid the protection resulting from its provisions.[126] The Termination of Employment Recommendation, 1982 (No. 166), provides examples of such measures, such as limiting recourse to fixed-term contracts to situations in which open-ended contracts cannot be entered into – owing either to the nature of the work to be effected or to the circumstances under which it is to be effected or to the interests of the worker – and identifying cases where fixed-term contracts are deemed to be open-ended ones.[127] European Directive 1999/70/EC on fixed-term work recognizes that "employment contracts of an indefinite duration are the general form of employment relationships and contribute to the quality of life of the workers concerned and improve performance"; it requires the adoption of measures to prevent abuses arising from the successive use of fixed-term contracts. Around half of the countries for which information is available limit the maximum cumulative duration of temporary contracts to between two and five years.[128] This is illustrated in figure 5.5, which measures the maximum cumulative duration of fixed-term contracts permitted by law before the employment is deemed to be permanent, based on the CBR–LRI.[129] Countries scoring zero (lightest shade) either have no legal limit or have a legal limit of 10 years or more.[130]

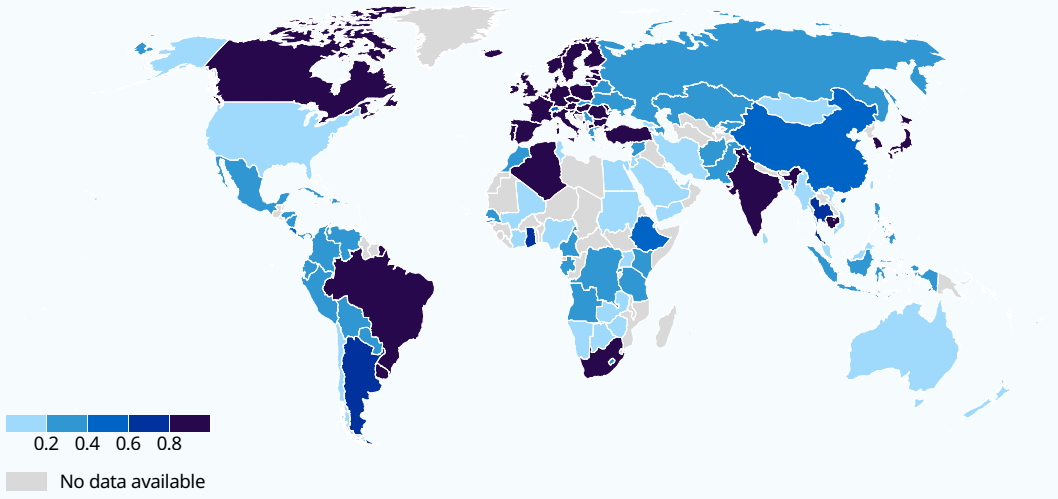
In addition to placing limits on its use, another critical supporting legislation for ensuring that recourse to temporary employment is not simply a means to reduce labour costs is the provision of equal treatment. Figure 5.6, based on the CBR–LRI data set, shows country variations on whether fixed-term workers have

Figure 5.5. Maximum duration of fixed-term contracts



Source: CBR–LRI, 2019.

Figure 5.6. Equality of treatment between fixed-term and permanent workers



Source: CBR–LRI, 2019.

the right to equal treatment with permanent workers, with a score of 1 indicating countries where the legal system recognizes an absolute right of equal treatment. A more limited right or a right against arbitrary treatment is scored lower. Western European countries and Canada, as well as Brazil, India, Japan, the Republic of Korea and South Africa all score high on this indicator. Low scores are reported from Australia, New Zealand and the United States, as well as from most of the Arab States and sub-Saharan Africa.

Reforming temporary labour migration schemes

As discussed in previous chapters, temporary labour migration schemes are used extensively in many parts of the world to attract migrant workers to particular sectors, particularly agriculture. Seasonal agriculture worker programmes are prevalent in North America, Western Europe and Israel. In regions such as the Arab States, temporary labour migration is the dominant form of migration, covering a wide array of sectors.[131] In general, the programmes entail graduated status for different kinds of temporary migrants, with varying degrees of rights attached to particular visa systems.[132] As a result, the workers are treated differently from native workers and there are important gaps in labour protection.

These gaps are most acute when the workers' visas are tied to a particular employer, which means that workers are unable to terminate employment, switch to a different employer, renew their work permit or leave the destination country without the approval of their employer.[133] The restrictions related to employer sponsorship should be abolished, as the freedom to choose one's employment is a basic tenet of national and international law. Yet in many countries, migrant workers under temporary visa arrangements can only work for the employer which has sponsored them. This is well documented in countries in Asia and in the Arab States,[134] but is also present in other parts of the world. However, internal labour market mobility can be achieved even in such cases. For example, during the COVID-19 pandemic, as an exceptional measure, the United States Department of Homeland Security allowed extensions to H-2A visas with new employers as part of the national emergency response, in order to secure a steady supply of agricultural workers and avoid disruptions in food supply chains.[135]

Consideration should also be given to decoupling the seasonality associated with agricultural migrant schemes, given the well-documented administrative costs and the impacts on the workers.[136] Although there is seasonality in agricultural production, in practice, many workers continue to be engaged in the

agricultural production of various crops, resulting in year-round work but not necessarily under secure employment. In South Africa, for example, migrant workers in Citrusdal and Clanwilliam migrate between citrus, apple and table grape farms in the Western Cape.[137] In some instances, workers end up in irregular situations after the expiration of their permits but continue to be employed. These situations should be avoided, for instance by following the Employment Policy Recommendation, 1964 (No. 122), which calls for measures to even out seasonal fluctuations in employment, including the training of workers in seasonal occupations in complementary occupations. Decoupling seasonality would support the transition towards more inclusive societies while resolving the issue of restricted mobility.

Agency work and other multi-party arrangements

Under multi-party employment arrangements, work arrangements do not correspond to the traditional "bilateral" structure of the standard employment relationship, as the functions and managerial prerogatives traditionally concentrated with a single employer are distributed among several entities. This is true of both private employment agencies, whereby agency workers are employed and paid by the agency but their work is directed by the user firms, as well as subcontracting or franchising.[138] When more than one party has a role in determining working conditions, workers may find it difficult to identify the party responsible for their rights or they may have difficulty exercising their rights.[139] As mentioned in Chapter 3, subcontracting is common among key workers in cleaning and security, whereas agency work is widespread in manual work, especially warehouse work, and increasingly in healthcare.

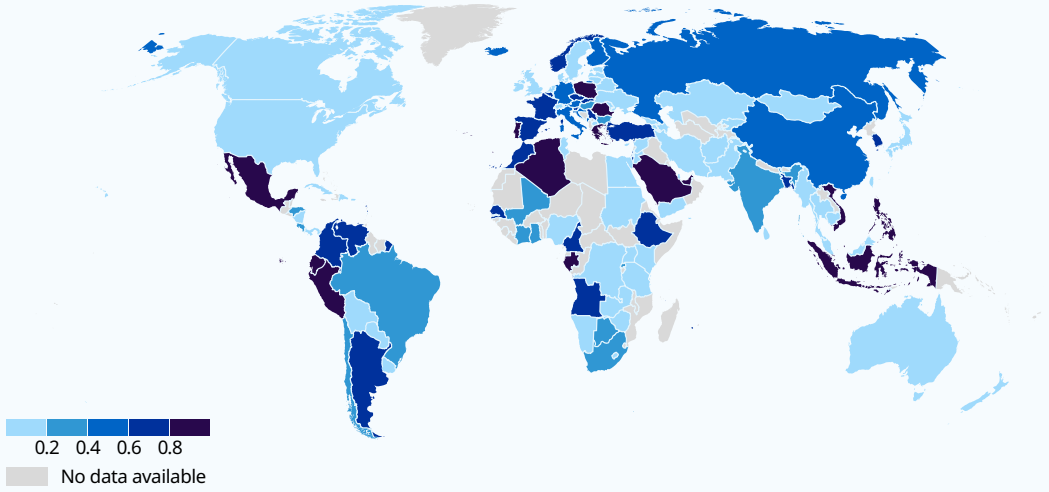
The Private Employment Agencies Convention, 1997 (No. 181), and its accompanying Recommendation, 1997 (No. 188), include several provisions on ensuring the rights and protection of agency workers. To begin with, in order to prevent abuses, Convention No. 181 requires the supervision of agencies through a system of licensing or certification, except when they are otherwise regulated.[140] In addition, measures must be taken to ensure that agency workers are not denied the right to freedom of association or collective bargaining, and that agencies treat workers without discrimination on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, and without any other form of discrimination covered by national law and practice, such as that based on age or disability.[141] It also prohibits deducting recruitment fees from the worker's remuneration.

The Convention allows ratifying States, after consulting the most representative organizations of employers and workers concerned, to prohibit private employment agencies from operating in respect of certain categories of workers or branches of economic activity. In this vein, several countries limit or prohibit agency work in specific sectors and also limit its use in hazardous work, given the higher OSH risks. Following outbreaks in the meat packing industry in Germany during the COVID-19 pandemic, the government severely restricted the use of temporary agency workers and subcontracting in that sector.[142]

In addition, the Private Employment Agencies Recommendation, 1997 (No. 188), provides that private employment agencies should not make workers available to a user enterprise to replace workers of that enterprise who are on strike.[143] Some national regulations also limit the use of agency work to cases where objective reasons exist for doing so, such as the need to replace an absent worker or to execute an activity that is not ordinarily carried out within the business. Agency work is also sometimes prohibited in the aftermath of dismissals for business reasons or collective dismissals, as a means to prevent standard jobs from being lost in favour of temporary agency work. Figure 5.7, based on the CBR–LRI, shows differences across countries in the restrictions on agency work, with 1 indicating that it is prohibited, 0.5 that there are substantive constraints on its use, and zero that there are no restrictions. As can be seen, there are fewer or no restrictions on agency work in North America, Eastern Europe, Australia and parts of South-east Asia and Africa.

The Private Employment Agencies Convention, 1997 (No. 181), and its accompanying Recommendation, 1997 (No. 188), include several provisions on ensuring the rights and protection of agency workers.

Figure 5.7. Agency work is prohibited or strictly controlled



Source: CBR–LRI, 2019.

Subcontracting can be an effective strategy for allowing firms to concentrate on their core activities.[144] In some cases, however, subcontracting arrangements may be set up with the specific aim of shedding responsibilities and circumventing regulation. Many jurisdictions put in place remedies against these "sham" arrangements, where subcontractors not registered as private employment agencies merely hire out labour instead of providing a particular kind of work or service.[145] However, other specific measures are needed, as subcontracting can make it difficult for workers to identify the entity responsible for ensuring that their working conditions comply with the law, and to take action against subjects who are legally not their employers.[146]

An important remedy is to establish shared liability in contractual arrangements involving multiple parties, as this gives principal firms the incentive to select reliable counterparts when entering into such arrangements. This is particularly critical with respect to OSH, as mentioned in section 5.1, and in accordance with the Occupational Safety and Health Convention, 1981 (No. 155). Convention No. 181 requires public authorities to allocate the respective responsibilities of private employment agencies and user firms in relation to OSH, but also to other areas, including collective bargaining, minimum wages, working time and other working conditions, statutory social security benefits, access to training, compensation in case of occupational accidents or diseases, compensation in case of insolvency and protection of workers' claims, maternity protection and benefits, and parental protection and benefits.[147]

Shared liability between the user firm and the private employment agency is stipulated in Argentina, Australia, France, India, Italy, Namibia, the Netherlands, Ontario (Canada) and South Africa.[148] Systems of shared liability can also work in tandem with incentives for principal firms to ensure that contractors comply with existing labour standards and thereby reduce their exposure to full joint and several liability. For instance, in Israel, the 2011 Act to Improve the Enforcement of Labor Laws helped to secure the rights of cleaning and security workers employed by contractors. The Act places "direct responsibility on the clients – not as employers but as guarantors – in cases of non-compliance by the contractor itself. So, for example, if the worker is not getting overtime payments required by law and a demand issued to the contractor did not yield results, the worker has an option to sue the client directly for the same amount".[149]

5.3. Safe and predictable working hours

The number of hours worked, the length and number of rest periods and how they are organized in a day, week or month have important consequences for the day-to-day lives of workers. With respect to working hours, Chapters 3 and 4 highlighted two main concerns among key workers: excessive working hours and unstable hours.

Excessive working hours (more than 48 hours per week) affect one out of every four key workers on average across countries, and are particularly prominent in security and transport as well as among the self-employed. As documented in the preceding chapters, working excessive hours negatively affects work–life balance and can also be detrimental to workers' health.

Since its foundation, working time has been at the heart of the ILO's mandate. The Preamble to the ILO Constitution calls for an improvement in working conditions by "the regulation of the hours of work, including the establishment of a maximum working day and week". Working hours were the subject of the first labour standard, the Hours of Work (Industry) Convention, 1919 (No. 1), which limits normal hours of work to eight hours per day and 48 hours per week in industry. Since then, there have been several Conventions and Recommendations, and one Protocol, addressing working hours and working time arrangements, including the adoption of the standard of the 40-hour week in the Forty-Hour Week Convention, 1935 (No. 47).[150] While the standards are foremost about total working hours, they also address other aspects of working time arrangements, including regulation on overtime (limits and compensation), maximum hours and rest periods.

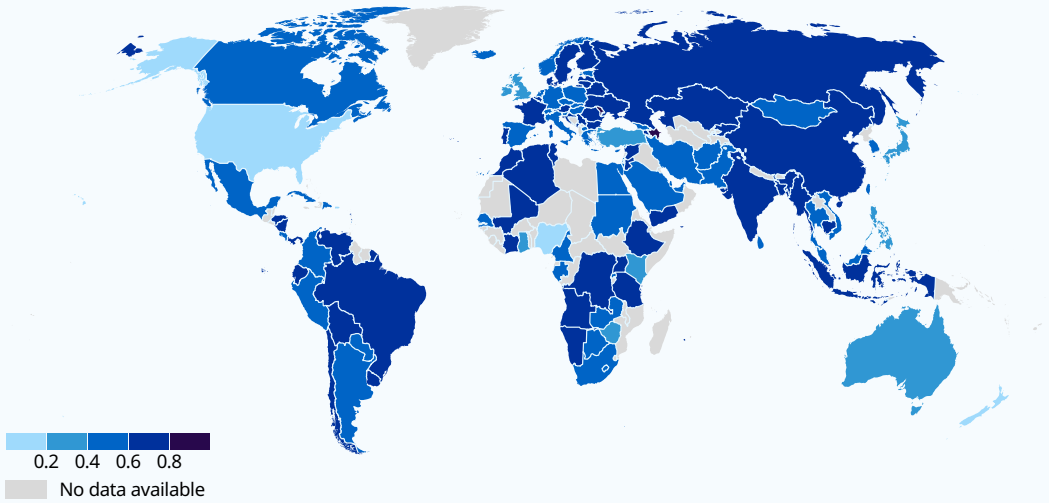
Figure 5.8 presents the CBR–LRI index of the regulation of working hours, which is a composite index of seven different indicators that assess how working hours are regulated in a particular legal system. The first two measures consider entitlements to annual leave and during public holidays. The next set of indicators look at whether the law mandates the payment of overtime premiums; one of these is focused on overtime during the working week and another on weekend working. The final three measures assess the legal limits placed on the total number of working hours. These include the maximum number of overtime hours permitted per week, the maximum duration of the normal working week exclusive of overtime, and the maximum number of permitted working hours in a day. As shown in the map, working time is a subject that is well regulated across most countries with scores largely falling in the 0.4–0.8 range. Nigeria and the United States are outliers in this area with exceptionally low levels of working time regulation. Australia, Japan, Kenya, the Philippines, Türkiye, the United Kingdom and Zimbabwe are also notable for their relatively low levels of regulation in this area.

Excessive working hours affect one out of every four key workers on average across countries, and are particularly prominent in security and transport as well as among the self-employed.

Thus, a first step in addressing excessive working hours is to review existing national regulation on working time to ensure it is in line with ILO standards, including the Reduction of Hours of Work Recommendation, 1962 (No. 116). Recommendation No. 116 provides practical measures for the progressive reduction of hours of work, with a view to attaining the standard of the 40-hour week without any corresponding reduction in workers' wages. But while regulation is an important step in curtailing excessive hours, it would only apply to workers in an employment relationship. Self-employed workers are not covered by working time regulation laid down in labour laws and given the low incomes associated with much own-account work in the global South – particularly in agriculture or food vending – additional policy interventions are needed to address the low levels of productivity and low incomes that lead to lengthened working hours (see Chapter 6).

In other cases, however, it is not low productivity that is causing long working hours, but rather the shift to self-employment, some of which is bogus.

Figure 5.8. Regulation of working time



Source: CBR–LRI, 2019.

In Europe and the United States, misclassification in the long-haul trucking industry is a concern; re-classifying these workers as employees is thus a first step to addressing the long hours in this industry.[151] Long working hours are also found in delivery work across the world, both traditional and app-based.[152] Given the boom in e-commerce, this is an area that merits special attention. The long hours among key security and transport employees documented in Chapter 3 also point to problems with compliance that could be remedied with strategic compliance initiatives in these sectors (see section 5.7).

The other issue of concern with respect to working hours is unstable and unpredictable schedules, a practice that affects employees in some parts of the world, particularly in retail. As discussed in Chapter 3, when workers can be called at the employer's discretion and are not guaranteed a minimum number of hours or payment, their income security and work–life balance suffer. These problems are exacerbated if workers fear they may not to be offered more work if they turn down an offer for a particular shift or task, or if they are called and report for work but their shift is cancelled at the last minute.

A first step in addressing excessive working hours is to review existing national regulation on working time to ensure it is in line with ILO standards.

Measures to provide workers with a minimum number of guaranteed hours and to give them a say in their work schedules, including by limiting the variability of working hours, are therefore important protective tools. Only a few countries, however, have established a minimum of working hours for part-time employees to ensure them a minimum level of earnings.[153] In Germany, Ghana, the Netherlands, Papua New Guinea and the United States (limited to eight cities and two states), regulations require employers to pay their workers for a minimum number of hours when they report to work for a scheduled shift or are called in to work, even if the work is cancelled or reduced in length. Predictable scheduling is commonly addressed in collective bargaining agreements. Thus, an expansion of unionization and collective bargaining among retail workers would likely support the practice.

5.4. Wage policies to support valuation of key work

Section 3.5 demonstrated that, on average, key employees earn lower wages relative to other employees. While the difference in earnings between the two groups can be partly explained by differences in education and experience, one third of the gap in earnings remains unexplained. These results suggest that education and training policies aimed at upskilling key employees, while important, are insufficient and that measures more directly targeted at lifting the pay of key employees are needed. Collective bargaining offers a unique mechanism for regulating working conditions, including pay.[154] It provides a mechanism for workers who, on an individual basis, have less negotiating power to collectively negotiate with their employer or the representative employers' organization "new standards or implement, tailor and enhance minimum statutory standards".[155] Statutory minimum wages are another tool that can be used to protect key workers against unduly low pay.

The ILO Centenary Declaration for the Future of Work, which lays out a road map for a human-centred future, underscored the role of these wage-setting institutions by calling for "an adequate minimum wage", either statutory or negotiated. ILO Member States adopted several instruments that provide guidance to governments and the social partners on the establishment of adequate minimum wages, including the Minimum Wage Fixing Convention, 1970 (No. 131), and the Collective Bargaining Convention, 1984 (No. 154). Convention No. 131 sets out the framework for a broad scope of application of minimum wages, full consultation with the social partners, levels that take into account the needs of workers and their families and economic factors, adjustments from time to time, and measures to ensure effective application.[156] Convention No. 154 and the accompanying Collective Bargaining Recommendation, 1981 (No. 163), define the parties to collective bargaining and the purpose of the negotiations, and specify measures that might be taken to promote collective bargaining.[157]

Wage-setting practices vary across countries, sectors and enterprises, depending on the level of economic development, the institutional setting and the relative negotiating position of the parties involved. Wages are the principal subject considered during collective bargaining, with a recent ILO global review finding that 95 per cent of collective agreements in the sample analysed included clauses on wages.[158] As collective bargaining agreements typically set the base wages for specific jobs or occupational categories, as well as wage differentials across groups of workers, collective bargaining is particularly appropriate for targeting wage inequities experienced by key employees in specific occupations. Beyond base wages, other components of remuneration can also be tackled by collective bargaining agreements, such as allowances and in-kind benefits, which constitute a significant share of the wage bill. Some collective agreements also include a variable component linked to productivity and performance.

In countries with higher collective bargaining coverage, key employees tend to receive similar wages to other employees. For a subsample of countries, for which both data on wages and collective bargaining coverage are available, the data show that the higher the coverage of collective bargaining in a country, the lower the average pay gap between key employees and other employees (figure 5.9).[159] This appears to be the case both for the average pay gap (figure 5.9, panel A) and its unexplained component, as defined in section 3.5. As such, it demonstrates the effectiveness of collective bargaining as an instrument for rectifying inequities in valuation of key work.

In countries with high collective bargaining coverage, the pay gap between key and other employees tends to be lower.

These results are in line with previous studies highlighting the link between collective bargaining and overall wage inequality. A recent assessment carried out by the ILO found that countries with higher bargaining coverage are also those with a lower ratio of the earnings at the top 10 per cent (ninth decile) to those at the bottom 10 per cent (first decile) of the earnings distribution.[160]

These findings are also consistent with empirical studies suggesting that collective bargaining positively impacts labour income and the sharing of productivity gains. Specifically, the characteristics of collective bargaining systems influence labour market outcomes. A study based on a taxonomy of collective bargaining systems within OECD countries showed, for instance, that coordinated bargaining systems are associated with higher employment, better integration of vulnerable groups and lower wage inequality than fully decentralized systems.[161]

The scope of collective bargaining outcomes can be made more inclusive through the use of extension, which allows a broader population of employees to benefit from collective bargaining agreements. Extension permits a collective agreement's coverage to be administratively extended, under certain conditions, to all wage workers of a sector, branch, profession or geographical area. Recent studies have highlighted the use of extension to facilitate high collective bargaining coverage and incentivize membership of employers' organizations.[162] Furthermore, collective bargaining outcomes may also have spillover effects in firms that are not legally covered by collective agreements. In South Africa, firms excluded from collective agreements tend to increase wages in line with those mandated by bargaining councils.[163]

The negative relationship between the unexplained pay gap and collective bargaining coverage, presented in figure 5.9 (panel B) suggests that collective bargaining may help reduce inequalities in pay between key and other employees that are unrelated to skills. This is in line with studies highlighting that collective bargaining helps redress "structural" wage inequalities, such as those observed between male and female employees, that arise from a systematic undervaluation of women's work.[164] The effectiveness of collective bargaining in tackling structural wage inequalities partially stems from its effectiveness in reducing overall wage inequality. In addition, collective agreements can specifically reduce pay gaps observed between groups of workers through measures, such as recruitment practices and contractual arrangements, transparency of information or pay increases, that target certain categories of workers.[165]

In particular, collective bargaining can help to close the wage gap between key and other employees when targeted at certain key occupations, such as feminized occupations. A case in point is the negotiations that resulted from a care worker's claim before the Employment Court of New Zealand on the motive that there was systemic undervaluation of care and support work because it was mainly performed by women. The government sought to resolve the case through out-of-court negotiations with trade unions, which resulted in a Care and Support Worker (Pay Equity) Settlement Act passed in June 2017. When the settlement was enacted on 1 July, workers received pay rises of between 15 and 50 per cent depending on their qualifications and experience.[166] Measures such as these are important for correcting the undervaluation of skills that is common in caring professions, but also other low-wage work (see box 5.1).

Box 5.1. Skill valuation: A contested terrain

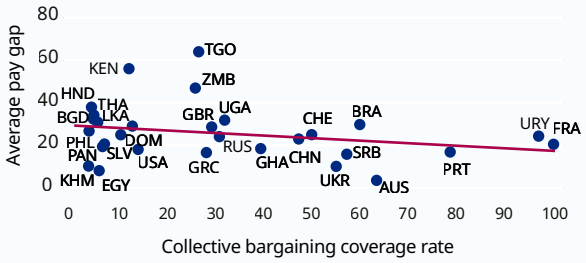
Skills are commonly defined with reference to the acquisition of formal qualifications, leaving many informal skills necessary for accomplishing work in a particular occupation unrecognized and undervalued.[1] Such a framework contributes to the misconception that skill is objectively measurable.[2] A uniform and neutral skill scale does not exist; rather, the valuation of skills is contested, as it often reflects biases with regard to gender and ethnicity, with the valuation of skills evolving depending on who is doing what job.[3] Much work involves "soft" skills, though these are often unrecognized despite their crucial role at work and in the quality of work delivered. Even at the peak of the COVID-19 pandemic, many key workers continued to provide services to customers and patients with patience, care and sympathy, while being under extreme strain.

Another anomaly is the discrepancy between existing skill indicators and income levels. For example, studies have found that skills such as critical thinking, problem solving and managerial competence are positively associated with wages, but the returns for such skills are less for workers in low-wage occupations even though many use these skills in their daily work.[4] Moreover, at the bottom end of the wage distribution, social skills including coordination, negotiation, active listening, perceptiveness and social orientation are found to be negatively related to pay,[5] despite the premium they command in professional and managerial occupations.[6]

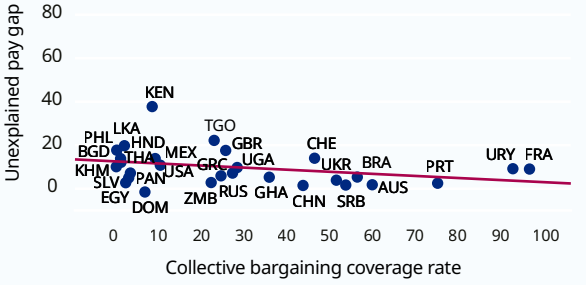
In general, labour market transformations over recent decades, in particular the shift to services, have heightened the problem of skill valuation, as service sector jobs require social skills and deliver intangibles that are difficult to measure. The rising importance of "soft skills" has therefore accentuated the existing biases in skill recognition and introduced further ambiguity into skill definitions.[7] The increasing appreciation of soft skills and emotional labour has not directly translated into valuation of these skills.

Figure 5.9. Average pay gap between key and other employees and its unexplained component, according to countries' collective bargaining coverage (percentage)

A. Average pay gap



B. Unexplained component of the average pay gap



Source: ILO estimates based on the list of surveys in the Appendix (table A5) and the ILO Industrial Relations database for the collective bargaining coverage rate (https://ilostat.ilo.org/topics/collective-bargaining/).

Box 5.1. ***(cont'd)***

Skill invisibility and devaluation is a pressing issue for a number of key occupations. Care is typically associated with women's labour and treated as an innate female ability, and in the care sector deeply rooted gender inequalities are reflected in skill recognition and remuneration.[8] Similarly, the inadequate recognition of migrants' qualifications feed into deskilling migrant workers' earnings, especially in agriculture but also in other sectors with a large presence of migrants, such as cleaning and sanitation.

[1] Payne, 2017.
[2] Osterman et al., 2022.
[3] Payne, 2017; Rigby and Sanchis, 2006.
[4] Pietrykowski, 2017.
[5] Pietrykowski, 2017.
[6] Deming, 2022.
[7] Findlay, 2019.
[8] ILO, 2018a.

Minimum wage policies can support key workers' wages

As key employees are more likely to be found at the lower end of the wage distribution, they are disproportionately affected by minimum wage policies. Indeed, across the countries that have established a minimum wage system for the private sector, the share of workers earning the minimum wage or less is estimated at 40 per cent on average for key employees, compared to 28 per cent for other employees (figure 5.10, panel A).[167] In these estimates, an employee who earns less than the minimum wage receives less than 95 per cent of the minimum wage value, while an employee paid at the minimum wage level earns between 95 and 105 per cent of the minimum wage value.[168] Among sampled countries, the proportion of key employees paid at or below the minimum wage is higher in middle- and low-income economies. On average, 42 per cent of key employees in middle-income countries (45 per cent in lower-middle-income countries and 39 per cent in upper-middle-income countries) and 53 per cent of key employees in low-income countries, earn the minimum wage or less. The exposure of key employees to minimum wages confirms that the minimum wage is an effective tool for raising the earnings of key workers.

At the same time, however, key employees disproportionately earn below the minimum wage level (figure 5.10, panel B). This may result from a lack of legal entitlements to the minimum wage or from higher rates of non-compliance with minimum wage regulations in regard to this population. Furthermore, the relative risk of exclusion from the scope of minimum wages for key employees is higher in countries with a lower level of development. The share of key employees paid below the existing minimum wage is indeed only 5 percentage points higher than for other employees in high-income countries, as against 11 and 28 percentage points differences in lower-middle-income and low-income countries, respectively (8 percentage points in upper-middle-income countries).

In middle- and lower-income countries, in particular, the higher shares of key employees paid below the minimum wage level may arise from their over-representation in industries or occupations that are legally excluded from these countries' minimum wages. For instance, along with domestic workers, agricultural workers are the group most frequently excluded from minimum wage systems.[169] On average across the sample used for analysis, food system workers account for 19 per cent of key employees, with many earning below the minimum wage. When covered by minimum wage systems, the rate for agricultural workers can be specific to the sector. This is the case, for instance, in Burkina Faso, Chad, Côte d'Ivoire, Madagascar, Mali, Morocco, Senegal and Togo, where the rate for agriculture (*salaire minimum agricole garanti*) is different from the rate in other sectors (*salaire minimum interprofessionnel garanti*). However, some of these countries, such as Morocco, have planned to reduce the gap between the two minimum wages.[170]

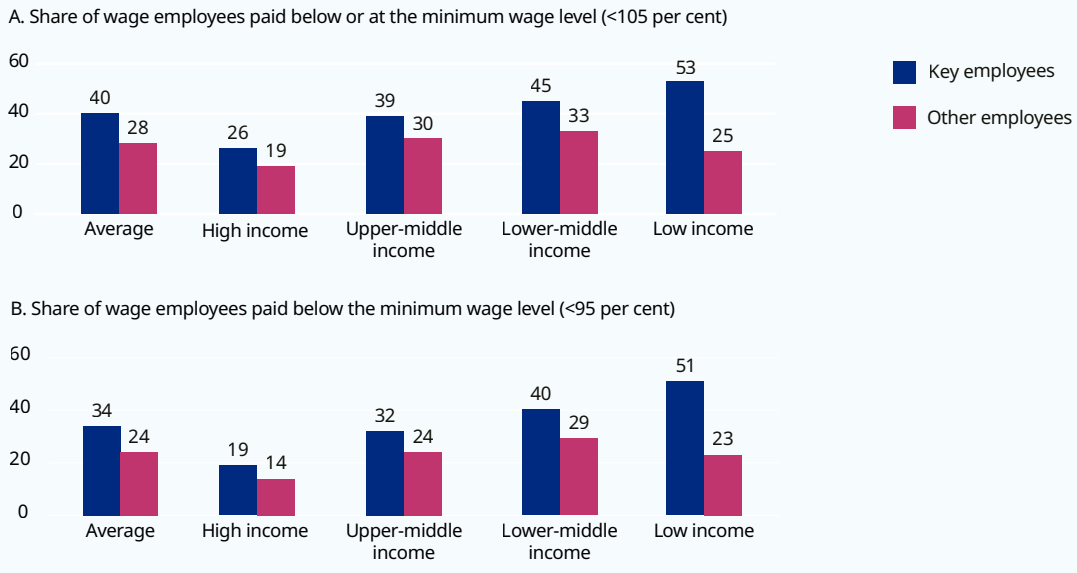
Even when key employees are covered by wage policies, high rates of non-compliance reduce the efficacy of minimum wages.

Even when key employees are covered by wage policies, high rates of non-compliance reduce the efficacy of minimum wages. Though all employees are covered by the law whether or not they have a formal employment contract, in practice oral contracts or non-registration of contracts – that is, not registering an employee in the social security system – are associated with non-compliance with labour protection, including the minimum wage. Working for an unregistered business also poses challenges for minimum wage enforcement.[171] The guidelines set out in the ILO Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204), on extending minimum wages to all workers in the informal economy can help to improve the earnings and working conditions of key workers.[172]

Nevertheless, there is some indication that, even when not registered, some informal employees do receive the minimum wage, a practice observed in Latin America and referred to as the "lighthouse effect".[173] The lighthouse effect is stronger when the minimum wage is set nationally for all sectors and occupations and there is a high degree of legal awareness among employers and workers.[174] In these circumstances, the minimum wage provides a benchmark for wage-setting in the informal economy. Through their impact at the bottom end of the wage distribution, minimum wages can also help reduce other earnings disparities. For instance, a recent analysis for Brazil shows that the increases in the minimum wage between 1999 and 2009 contributed to reductions in the racial earnings gap in Brazil.[175]

The available evidence shows that key self-employed workers tend to receive lower monthly earnings than other self-employed workers (see box 3.4). While self-employed workers are not subject to minimum wage policies, there are policies that can support their earnings, either indirectly through sectoral investments in physical and social infrastructure (see Chapter 6), or through guidelines that set minimum payment levels for self-employed workers and improve pay transparency. For the road transport sector, which has a high share of dependent self-employed workers, the ILO has issued a document ("Guidelines on the promotion of decent work and road safety in the transport sector") that calls for governments to establish mechanisms to improve the earnings of self-employed road transport drivers.

Figure 5.10. Share of wage employees paid below or at the minimum wage level (percentage)



These include making provisions to support the following: recovery of fixed and variable costs (for example, fuel and tyres according to kilometres travelled); "payment for personal labour at the national minimum-wage rate or higher"; return on investment; and remuneration for both driving and subsidiary non-driving work activities.[176]

Another important measure is to tackle "disguised employment", given that the employment relationship is the entry point for labour protection, including minimum wage coverage. As mentioned earlier, the Employment Relationship Recommendation, 2006 (No. 198), provides guidance on devising policies to address employment misclassification.

5.5. Extending social protection for a resilient workforce

The experience of key workers during the COVID-19 pandemic underscored the importance of access to adequate social protection, especially paid sick leave and sickness benefits. Just over 40 per cent of key workers in low- and middle-income countries, are entitled to some form of social protection, pointing to important gaps in coverage (see section 3.6). In addition, certain subgroups of key workers, such as self-employed workers and those employed under non-standard work arrangements, are even more susceptible to partial or full exclusion from social protection. In the absence of broader social protection, extended to key workers, the labour market and society will be ill-equipped to manage future crises. In addition, social protection acts as an automatic stabilizer, cushioning the effects of downturns by providing replacement income, and thus limiting the aggregate effects of a crisis. Extending social protection is thus an investment in making workers and economies resilient to future challenges and crises. To this end, countries have introduced a range of strategies to expand social protection.

Extending scope of coverage. Several countries introduced changes to legal frameworks to include non-standard forms of employment, such as platform work, or self-employment. In India, the Code on Social Security, adopted in 2020, amalgamated nine pre-existing social security legislations; changes to the Code represented the first step towards extending social protection to all workers, irrespective of their employment relationship.[177] Brazil and Indonesia extended mandatory social insurance coverage to self-employed workers.[178] The policy in Brazil increased the coverage of self-employed workers to 31 per cent, compared with 17 per cent in 2009. Mandatory employment injury insurance was also extended to workers in dependent employment relationships in Spain.[179]

The experience of key workers during the COVID-19 pandemic underscored the importance of access to adequate social protection, especially paid sick leave and sickness benefits.

Tailoring and simplifying administrative access. Other countries introduced legislative changes and new policies tailored to the circumstances of self-employed workers and those in non-standard employment arrangements. For example, Brazil and China adapted payment schedules and better aligned contribution levels with the earnings patterns of self-employed workers. Brazil and the Republic of Korea introduced broad contribution categories to improve the eligibility of self-employed workers with fluctuating incomes. These two countries and Argentina also created policies subsidizing the contributions of low-income self-employed workers.[180] Finally, Uruguay simplified contributions to social security for self-employed workers and micro and small enterprises by requiring workers to pay one flat rate that includes tax and social security contributions, thereby entitling them to the same benefits as employees.[181]

Paid sick leave is essential for safe, healthy and productive workplaces

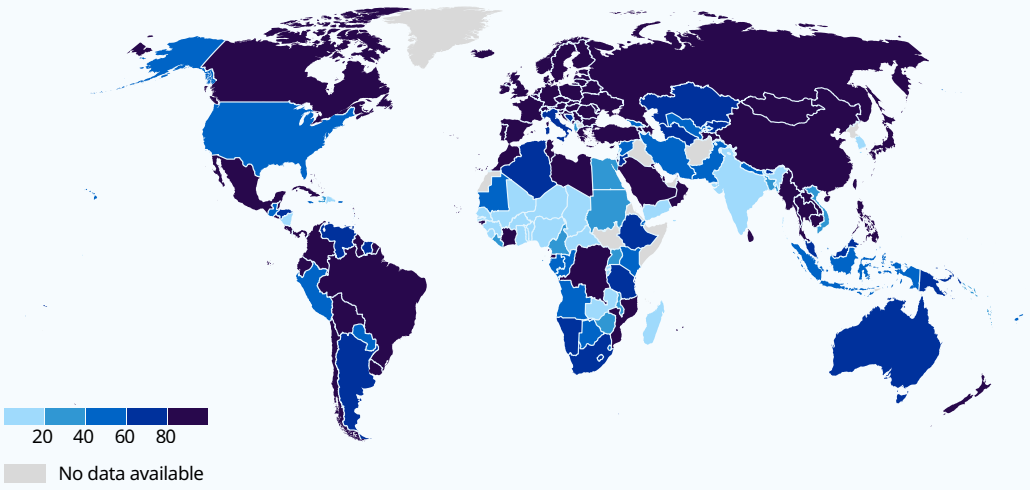
While access to comprehensive social protection is important, the pandemic highlighted the importance of paid sick leave and access to illness benefits for key workers.[182] In particular, their experience demonstrated the adverse consequences of gaps in legislative coverage for both workers and businesses. In the absence of adequate income protection and paid sick leave, unwell workers went to work, jeopardizing their own health while also exposing others in the workplace to infection, hindering business production and economic recovery. Around the globe, 62 per cent of the labour force is legally protected in case of loss of income during sickness. This ranges from about 45 per cent in Africa to 91 per cent in Europe and Central Asia (see figure 5.11). Gaps in protection arise for several reasons.[183] In some cases, duration and eligibility criteria (that is, waiting periods) restrict access. In other cases, some workers are excluded (such as self-employed workers, casual workers or those paid hourly wages). General lack of awareness can also contribute to implementation gaps, even if workers are legally covered.

Several ILO standards provide policy guidance that can be used to eliminate the shortfall in legal coverage of paid sick leave and sickness benefits: the Income Security Recommendation, 1944 (No. 67); the Social Security (Minimum Standards) Convention, 1952 (No. 102); the Medical Care and Sickness Benefits Convention, 1969 (No. 130); and the Medical Care and Sickness Benefits Recommendation, 1969 (No. 134). Recommendation No. 67, in particular, states that "social insurance should afford protection, in the contingencies to which they are exposed, to all employed and self-employed persons, together with their dependants, in respect of whom it is practicable".[184]

In addition to (and aligned with) ILO standards, several lessons emerged from the pandemic, related to sickness leave and benefits, that will help ensure a resilient recovery in the areas described below.

- *Extending sick leave and illness benefits to uncovered groups.* Some countries legally extended sickness benefits to workers who would not have been eligible prior to the pandemic (Germany, Ireland, Portugal and the United Kingdom).[185] Given the importance of paid sick leave and sickness benefits as a preventive measure for the entire workforce, including excluded groups is critical for building a resilient workforce. Including the right to sick leave in legislation and universalizing access to sickness benefits will help achieve this goal.

Figure 5.11. Legal coverage of voluntary and mandatory sickness benefits, as a share of the labour force



Source: ILO World Social Protection database.

- *Removing administrative barriers to reduce both legal and implementation gaps.* Several countries waived waiting periods (related to accessing earnings replacement) during the pandemic to expedite access (Australia, Canada, Denmark, Ireland and Sweden).[186] Eliminating or reducing waiting times in accordance with ILO standards (which specify that waiting periods for sickness benefits, where they exist, should not exceed three days[187]) would eliminate coverage gaps due to delays in access. The use of online and mobile technology can also improve timely access to income support entitlements, including sickness benefits. Various countries (Colombia, Malawi, Morocco, Thailand and Togo) used mobile technology to deliver payments during the pandemic; these proved especially useful for reaching workers in the informal economy without bank accounts.
- *Recognizing care responsibilities.* Key workers have care responsibilities. In response, some countries, such as France, expanded the scope of sickness benefits to include workers in self-isolation or caring for children. The Medical Care and Sickness Benefits Recommendation, 1969 (No. 134), also recognizes that "appropriate provision should be made to help a person protected [by sickness benefits] who is economically active and has to care for a sick dependent".[188]
- *Sickness benefit extensions may require a rethink of adequate levels and financing.* Employer-financed provision of sickness benefits places an enormous burden on individual enterprises. Systems in which employers are solely responsible for the cost can incentivize firms, especially small firms with more limited financial resources, to avoid complying with paid sickness benefits for their employees. Moving forward, to extend coverage fully and adequately to excluded workers, additional resources may be necessary, alongside a rethink of how those resources are generated.[189] ILO standards suggest that collective financing is the most equitable and sustainable source, based on broad risk-pooling and solidarity. The Social Security Convention, 1952 (No. 102), specifies that payments should amount to at least 45 per cent of previous earnings, while the Medical Care and Sickness Benefits Convention, 1969 (No. 130), specifies at least 60 per cent.

5.6. Training for an adaptive and responsive key workforce

The empirical evidence discussed in the previous chapters has highlighted the importance of training opportunities for key workers (see, for example, section 3.7). On-the-job-training is a means to prepare workers for the tasks they perform, and ideally covers how to carry out their work safely. As such, it can be helpful for mitigating or responding to crises, as in the context of the OSH risks engendered by the COVID-19 pandemic. Technical and vocational education and training also enable key workers and their employers to adapt to longer-term fundamental changes in the labour market, and thus better prepare workers for a changing world of work, including changes induced by crises (for example, a shift towards the use of more environmentally friendly technologies within an occupation). Overall, training has the potential to improve both individuals' shorter-term working conditions and their longer-term access to quality employment.

The importance of training during crises is echoed in the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205).[190] Most relevant to the context of the COVID-19 pandemic and the experience of key workers, the Recommendation states that, during crisis situations, curricula

should be adapted, and teachers and instructors should be trained to promote "disaster risk education, reduction, awareness and management for recovery, reconstruction and resilience". Similarly, "peaceful coexistence and reconciliation for peacebuilding and resilience" should be promoted through training, which may be more applicable in the context of other types of crises. In addition, individuals whose training was disrupted should be enabled to enter or resume and complete their education and training. Finally, during crises, training is recognized as relevant for addressing emerging skills needs in the labour market as well as the needs of those who lost their employment (Paragraph 19).

Four other ILO instruments are directly relevant when it comes to training:

- the Paid Educational Leave Convention (No. 140), and Recommendation (No. 148), 1974;
- the Human Resources Development Convention, 1975 (No. 142), and Recommendation, 2004 (No. 195).

The Human Resources Development Convention, 1975 (No. 142), requires "establish[ing] and develop[ing] open, flexible and complementary systems of general, technical and vocational education, educational and vocational guidance and vocational training, whether these activities take place within the system of formal education or outside it".[191] It encompasses a broadly defined range of education and training and calls for the extension of systems of information and guidance. The latter includes initiatives to make transparent to workers the training and education opportunities as well as the employment situations in different occupations, including "conditions of work, safety and hygiene at work" and "general aspects of collective agreements and of the rights and obligations of all concerned under labour law".[192] Thus, there is a direct link between the Convention and other aspects of working conditions that this report has emphasized as central for key workers.

Moreover, Convention No. 142 defines a multifaceted role of education and training. Not only shall such policies and programmes account for "employment needs, opportunities and problems", but also "improve the ability of the individual to understand and, individually or collectively, to influence the working and social environment".[193] Education and training are therefore placed in the context of economic and social development, and are seen as addressing employment needs, workers' interests and broader societal needs.[194] This emphasis on societal needs may be relevant during crises.

Likewise, the Human Resources Development Recommendation, 2004 (No. 195), follows a broad understanding of education and training, linking it to lifelong learning. Lifelong learning pertains to the development of competencies and qualifications by individuals of all ages.[195] The Recommendation states that national frameworks should "promote the development, implementation and financing of a transparent mechanism for the assessment, certification and recognition of skills", including those that were acquired in informal learning arrangements.[196] These measures would strengthen the labour market prospects of key workers by allowing for the portability of their skills across sectors, industries, enterprises and educational institutions.[197] This is especially relevant for migrant workers, whose skills are often not recognized or compensated accordingly.

Meanwhile, the Paid Educational Leave Convention (No. 140) and Recommendation (No. 148), 1974, focus on educational measures for individuals who have already entered the labour market. These instruments state that countries should promote the granting of paid education leave – "for a specific period during working hours, with adequate financial entitlements" – for training at any level; general, social and civic education; and trade union education. They thus underscore how training is relevant throughout one's working life, and that work-based training should be institutionalized for older workers.

Most recently, renewed attention has been paid to apprenticeships. Again, these are regarded as a means to facilitate the entry of young workers into the labour market, but also to allow older workers to retrain and upskill in contemporary labour markets.[198] Apprenticeships take various forms and differ in importance across regions and countries with varying degrees of economic development.

The "gold standard" typically combines systematic on-the-job training with classroom-based instruction, and has a long tradition in countries such as Austria, Denmark, Germany and Switzerland.[199]

A proposed instrument for quality apprenticeships is on the agenda of the 111th Session of the International Labour Conference in 2023.[200] The proposed instrument, among other things, details a regulatory apprenticeship framework, which covers areas such as OSH, the recognition of prior (formal, non-formal or informal) learning, learning outcomes and curricula, the balance between off- and on-the-job training, procedures for assessing and certifying competencies, and acquired qualifications. The proposal is also concerned with working conditions for apprentices, including remuneration, working hours, entitlement to paid leave and social security, training in respect of OSH, discrimination, violence and harassment, and access to effective complaint and dispute resolution mechanisms. The proposed instrument regards apprenticeships as a means to improve longer-term transitions and employment prospects by upgrading skills, enhancing employability, and helping to facilitate the transition to formalization and more secure employment arrangements. [201]

Against this background, it is disconcerting that many key workers lack access to training. As shown in section 3.7, this issue is most severe in low-income and lower-middle-income countries. Increasing key workers' access to training – especially in poorer countries – would be one means to enhance their ability to cope with economic shocks and improve their working conditions and labour market prospects. Training cannot be the sole responsibility of the worker with the mere expectation that workers improve their skills to remain competitive in contemporary labour markets. Rather, as reflected in the other sections of this chapter, it must be one component of a broader policy mix that strengthens the rights and working conditions of key and other workers.

The active involvement of both workers' and employers' organizations, in addition to governments, is also important. Employers can benefit from this involvement, given the potential of training to enhance productivity and help ensure that firms' skills demands are met.[202] South Africa is an interesting example, as its institutions demonstrate a commitment to tripartite dialogue and decision-making in skills development. At the sectoral level, unions, workers' organizations and, where relevant, the government are represented on the boards of various Sector Education and Training Authorities (SETAs). SETAs develop skills plans, including for apprenticeships. They are responsible for creating learning programmes, registering training agreements and providing training grants. SETAs also play a role in placing learners in firms and are involved in assuring training quality.[203]

Several SETAs cover sectors that are particularly relevant for key workers, such as agriculture, health and welfare, safety and security, food and beverage, manufacturing and transport.[204] For example, the Transport Education Training Authority (TETA) is concerned with various key occupations that faced challenges during the COVID-19 pandemic, including warehouse workers, seafarers and drivers of trucks, buses or taxis. To illustrate some of TETA's activities, in the taxi subsector, 620 individuals were financially supported to participate in training courses during 2020/21. TETA's longer-term goal for this subsector is to foster formalization and professionalization among taxi drivers in South Africa. One initiative, which targeted female taxi drivers, was concerned with training these drivers, preparation of business plans and registration of their businesses.[205]

5.7. Turning law into practice: Compliance and enforcement

Too often, ILO Member States have legislation in place that follows the normative guidance of ILO standards while in practice the labour protection that workers receive diverges tremendously from that guidance. The divide between law and practice hinges on compliance. Globally, 36 per cent of workers, or

approximately 550 million workers, are informally employed.[206] Being in an informal employment relationship means that the employee is either not covered by the law (as is the case with some agricultural and domestic workers) or, more likely, that the employer is not in compliance with the regulation. While the causes of informality are multifaceted and require a wide range of policy interventions, including sectoral interventions (see Chapter 6), there is a need to address failures in compliance with labour regulation. Indeed, nearly 7 per cent of total informal employment (affecting approximately 140 million workers) is in registered production units ("the formal sector") and yet the employees do not benefit from labour and social protection.

Compliance is the act of obeying a particular law or rule; enforcement is the process of making sure that a law or rule is obeyed.[207] Compliance with the law can be through enforcement, but it also includes employers' and workers' voluntary actions, without the direct intervention of an inspector. Social norms, corporate social responsibility systems, incentive schemes and, most importantly, tripartite collaboration and stakeholder involvement, all support compliance with labour regulations.

Policies, systems and programmes designed to promote labour, OSH, and social security laws more generally, will be radically undermined if adequate enforcement systems are not in place.

Policies, systems and programmes designed to promote labour, OSH, and social security laws more generally, will be radically undermined if adequate enforcement systems are not in place.[208] The establishment of labour inspection is a long-standing recommendation of the ILO, dating to its Constitution. Several ILO standards deal specifically with labour inspection, including two governance Conventions: the Labour Inspection Convention, 1947 (No. 81), and its Protocol of 1995, and the Labour Inspection (Agriculture) Convention, 1969 (No. 129). ILO instruments concerning working conditions also include provisions for labour inspection.[209] Fundamental Convention No. 155 provides that a national system shall include an "adequate and

Box 5.2. The ILO approach to strategic compliance through labour inspection

The traditional model of enforcement is characterized as reactive (complaint-driven) and punitive. It is also not always effective, partly because of long-standing problems with resources, but also because enforcement on its own does not necessarily achieve compliance. Employers subject to enforcement actions may comply initially and then revert to non-compliance, or may persistently not comply despite repeated enforcement actions. In addition, changes in the world of work, such as the proliferation of global supply chains, the diffusion of non-standard employment and new technologies, make the traditional enforcement model – which was better suited to large industrial undertakings – less effective.

Strategic compliance methods use proactive, targeted and tailored strategies based on data-driven diagnoses of compliance influences, which more effectively target priority issues and employers, and engage stakeholders inside and outside governments. The approach combines deterrents, incentives, awareness-raising and guidance interventions to empower workers to exercise their rights and motivate employers to meet their duty to comply.

In 2021, nine countries and territories (Botswana, Colombia, Côte d'Ivoire, Eswatini, Indonesia, Madagascar, the Occupied Palestinian Territory, the United Republic of Tanzania and Zambia) worked in partnership with the ILO to implement strategic compliance plans across various economic sectors. As a result, labour law compliance increased by 39 per cent in the targeted sectors, improving the working conditions of an estimated 108,000 workers.

Source: ILO, 2017e.

appropriate system of inspection"[210] together with appropriate sanctions.[211] States and regulators also have important informational responsibilities in relation to providing guidance to undertakings[212] and, more broadly, in providing OSH content in education and training programmes.[213]

Yet, despite the importance of inspection, inspectorates are under-resourced throughout the world, with many countries reporting a long-term decrease in the resources allocated to inspectorates. In the United States, for example, in fiscal year 2020 there were 774 federal and 1,024 state OSH inspectors to inspect 10.1 million workplaces, or one inspector for every 82,881 workers – the lowest ratio since the federal agency's establishment.[214] In Rwanda, labour inspection is decentralized to the district level; yet there are no OSH specialists working in the districts. There is also no structured training in OSH for new inspection recruits.[215] There is thus a great need to increase staff and financial resources for labour inspection – including investments in digital tools that can support inspectorates[216] – for countries at all levels of income.

The adequacy of resources is not the only aspect of enforcement. *How resources are deployed* is also critical, an aspect which includes enforcement strategy, enforcement mandate and enforcement powers.

- *Enforcement strategy: mixing educative and punitive functions is best.*[217] When inspectorates limit their activities to enforcement, they miss opportunities for educating workplaces on how best to adapt their activities to comply with the law. Where they rely purely on education, they fail to respond to recalcitrant and cynical behaviour by managers who wilfully or recklessly disregard workplace safety and health. According to the ILO *Guidelines on General Principles of Labour Inspection*, "optimal results in terms of compliance can best be achieved by combining broad compliance promotion efforts, including provision of information and technical advice, with well-targeted controls, and the appropriate use of deterrent sanctions and injunctions".[218] In addition, new approaches to inspection, such as the ILO's strategic compliance methodology have proven to be effective for boosting compliance (see box 5.2).

- *Enforcement mandate: comprehensive coverage is needed.* Some labour inspection systems are limited in scope, excluding domestic workers[219] or independent contractors – or, in the case of the United States, small farms.[220] A more extensive jurisdiction is needed to avoid neglecting non-employees, who are often the most vulnerable workers. Indeed, according to the ILO *Guidelines on General Principles of Labour Inspection*, the "mandate of labour inspection should apply equally to all workers and all workplaces in all sectors, whether private or public, in rural and urban areas, in the formal and the informal economy, in respect of which legal provisions relating to conditions of work and the protection of workers while engaged in their work are enforceable by labour inspectors".[221]

- *Enforcement power: broad powers are more effective*. The powers of inspectors vary. In Australia, Brazil, China, Italy and Japan, for instance, inspectors have wide evidence-gathering and enforcement powers, including to prohibit activities and to order improvements or, if necessary, the closure of facilities.[222] In contrast, inspectors of workplaces in general industry (as opposed to mining) in the United States have more limited powers; they must seek court orders to shut down any operations, although they may gather evidence and recommend penalties and required improvements.[223] Broad enforcement powers can more effectively address OSH hazards or labour violations.

In addition to these broad recommendations, there is also a need for *tailored activities for specific groups such as migrant workers*. With respect to migrants who are part of temporary labour migration schemes, there is a need for clearly defined "firewalls" between labour standards enforcement agencies and immigration enforcement agencies. More worrisome is when labour inspectorates are used as a means of enforcing immigration law. In the General Survey of reports concerning Labour

Inspection Conventions and Recommendations (2006), the ILO Committee of Experts on the Application of Conventions and Recommendations recalled that:

> *[T]he primary duty of labour inspectors is to protect workers and not to enforce immigration law. In some cases the Committee has noted that a large proportion of inspection activities are spent on verifying the legality of the immigration status. Since the human and other resources available to labour inspectorates are not unlimited, this would appear to entail a proportionate decrease in inspection of conditions of work.*[224]

Moreover, labour inspectors need to be trained on issues specific to migrant workers, including fair recruitment, and inspections should be carried out on sites that are difficult to reach, such as farms and export processing zones.

Public procurement: An effective tool for boosting compliance

Another tool that can be used to support compliance with legal provisions on working conditions, to the benefit of key workers, is public procurement. The Labour Clauses (Public Contracts) Convention (No. 94) and Recommendation (No. 84), 1949, seek to remove labour costs as an element of competition among bidders for public contracts, thereby ensuring that public contracts do not induce a downward pressure on working conditions.[225] The European Commission Directive on Public Procurement (2014/24/EU) offers an example of a public procurement measure in support of compliance with decent working conditions. The Directive defines a framework to embed labour rights requirements into public contracts tendered by EU Member State authorities, through the obligation of Member States to take measures to ensure compliance, including with respect to subcontractors.[226]

Notes

1 ILO, 2019b.

2 Deakin and Wilkinson, 2005.

3 See Casale, ed., 2011; ILO and European Labour Law Network, 2013; ILO, 2016c.

4 Hayter, 2015.

5 ILO, 2022g.

6 See also the Protocol of 2002 to the Occupational Safety and Health Convention, 1981, and the Occupational Safety and Health Recommendation, 1981 (No. 164).

7 See also the Occupational Health Services Recommendation, 1985 (No. 171).

8 See also the Promotional Framework for Occupational Safety and Health Recommendation, 2006 (No. 197).

9 See also the Violence and Harassment Recommendation, 2019 (No. 206).

10 For a comprehensive account, a key resource is ILO, 2022d. The two most recent General Surveys on work health and safety (2009 and 2017) are also key sources of information.

11 Occupational Safety and Health Convention, 1981 (No. 155), Art. 4(1) and C.187 Art. (1)(a).

12 C.155, Art. 4(2).

13 Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), Art. 3(3).

14 C.155, Art. 5.

15 C.155, Art. 5. See also C.187, Art. 3.

16 C.155, Art. 6.

17 C.155, Arts 4, 6 and 7; ILO, 2017d: para. 92.

18 Occupational Health Services Convention, 1985 (No. 161), Art. 2.

19 C.187, Art. 1(b).

20 C.187, Art. 4 (1).

21 C.187, Art. 4(2); ILO, 2017d, para. 123.

22 See also C.155, Art. 10.

23 See, in particular, C.161, Arts 3 and 5.

24 See also C.155, Art. 11(e).

25 C.187, Art. 4(3); ILO, 2017d, para. 124. See also R.197, Paras 2–5.

26 R.197, Paras 3 and 4.

27 ILO, 2017d, para. 124.

28 C.155, Art. 15. See also R.164, Para. 7; ILO, 2017d, para. 139.

29 C.187, Art. 1(c). Programmes should be formulated on the basis of a national profile, which sets out the key elements of a national OSH framework (R.197, Paras 13–14).

30 C.187, Art. 5(1).

31 C.187, Art. 5(2)(a) and (b).

32 C.187, Art. 5(2)(c) and (d); R.197, Para. 8.

33 For example, for five years: ILO, 2017d, para. 147.

34 Japan, Industrial Safety and Health Law (Law No. 57) of 8 June 1972 as amended, Chapter II.

35 In Rwanda, in addition to an overarching OSH plan, there is a National Occupational Safety and Health Strategy 2019–2024 formulated by the Ministry of Public Service and Labour. The plans in China and the Republic of Korea also have a five-year time frame.

36 Republic of Korea, Act on Designation of Essential Work and Protection and Support for Essential Workers (No. 18182) of 18 May 2021. Article 2 provides that "'Essential work' means work necessary to protect people's lives and bodies or to maintain social functions even in the event of a disaster".

37 Republic of Korea, Act No. 18182, arts 6–8. Regional committees may also be established.

38 Republic of Korea, Act No. 18182, art. 11.

39 C.155, Art. 1(1). See also ILO, 2022d, Chapter 2.

40 C.155, Art. 1(2).

41 C.155, Art. 1(3); ILO, 2017d: para. 131; ILO, 2009, para. 46.

42 ILO, 2009, paras 17–26 and 46.

43 Violence and Harassment Convention, 2019 (No. 190), Art. 2(2).

44 C.190, Art. 2(1).

45 C.190, Art. 3.

46 C.190, Art. 9.

47 C.155, Art. 16(1).

48 Johnstone, 2019. Similar terminology is used in New Zealand. Compare also with Singapore, where the duties of employers have been complemented by parallel duties imposed on an "occupier", which is very broadly defined. Likewise, the term "employee" is given a very expanded meaning, covering volunteers, agency workers and trainees (see Singapore, Workplace Safety and Health Act of 1 March 2006, Parts 4 and 11). Occupier includes "the person who has charge, management or control of those premises" irrespective of ownership.

49 Italy, Consolidated Law on Health and Safety Protection in the Workplace (Legislative Decree No. 81) of 9 April 2008, art. 2.

50 Italy, Legislative Decree No. 81, art. 2: "The holder of the labour relationship with the worker or, in any case, the subject who, according to the type and structure of the organization in which the worker is employed, has the responsibility of the organization itself or of the production unit, exercising decision-making and spending powers".

51 China, Law of the People's Republic of China on Work Safety of 29 June 2002, art. 2 (从事生产 经营活动的单位).

52 See the National People's Congress interpretation of the law.

53 China, Law of the PRC on Work Safety, arts 28 and 61.

54 China, Law of the PRC on Work Safety, art. 4.

55 China, Law of the PRC on Work Safety, art. 49.

56 Chinese labour law is actually based around "labour relationships" which have some significant differences from "employment relationships" in other countries. See Cooney et al., forthcoming.

57 Republic of Korea, Occupational Safety and Health Act (No. 14788) of 18 April 2017 (KOSHAct), Chapter V.

58 This precise applicability is determined by Presidential Decree.

59 Japan, Law No. 57, art. 2(ii).

60 Japan, Law No. 57, arts 15, 29–32.

61 European Council, Council Directive on the introduction of measures to encourage improvements in the safety and health of workers at work (89/391/EEC) of 12 June 1989 (OSH

"Framework Directive"); European Council, Council Directive on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (89/656/EEC) of 30 November 1989.

62 United Kingdom, High Court of Justice, *R (on the application of the IWGB) v. Secretary of State for Work and Pensions and others*, Case No. CO/1887/2020, 13 November 2020.

63 C.187, Arts (1)(d) and 5(2)(a); ILO, 2017d, paras 23, 34 and 312.

64 C.187, Art. (1)(d); ILO, 2017d, 312–352.

65 C.187, Art. 3.

66 See C.187, Art. 3(3); ILO, 2014.

67 See, for example, European Council Directive 89/391/EEC, Art. 6. See also European Agency for Safety and Health at Work, n.d.(b).

68 See ILO, 2022d, 128.

69 Japan, Law No. 57, art. 13.

70 Japan, Law No. 57, arts 18 and 19.

71 Japanese law provides for both separate and consolidated health and safety committees.

72 Japan, Law No. 57, arts 66–66-9.

73 See also R.164, Paras 10, 14 and 15; ILO, 2009, paras 169–204.

74 C.155, Art. 16 (1) and (2).

75 C.155, Art. 16 (3). PPE should be used as either a last resort or to further enhance existing measures (see ILO, 2009: para. 170).

76 C.155, Art. 21; R.164, Para. 10(e).

77 China, Law of the PRC on Work Safety, art. 21; China, Law of the People's Republic of China on the Prevention and Control of Occupational Diseases of 1 May 2002, arts 20 and 34.

78 China, Law of the PRC on Work Safety, Art. 22; China, Law of the PRC on Prevention and Control of Occupational Diseases, art. 26.

79 China, Law of the PRC on Work Safety, art. 23; China, Law of the PRC on Prevention and Control of Occupational Diseases, art. 21.

80 C.155, Arts 19(a) and (b), and 20; R.164, Para. 16.

81 C.155, Art. 19 (c) and (d); R.164, Para. 14.

82 C.155, Art. 13. See also C.155, Arts 5(e) and 19(f).

83 R.164, Para. 17.

84 For example, C.155, Arts 4, 8, and 15; C.187, Arts 2, 3(3), 4 and 5; R.197, Para. 10.

85 Where appropriate. C.187, Art. 4(3)(a).

86 ILO, 2022b.

87 R.197, Paras 2(b) and 9.

88 C.155, Art. 19(e).

89 C.155, Art. 20.

90 "Where appropriate and necessary … in accordance with national practice".

91 R.164, Para. 12(1). See also R.197, Para. 5(f).

92 R.164, Para. 12(2).

93 ILO, 2009, para. 205; ILO, 2017d, para. 195.

94 ILO, 2009, para. 205. Indeed, as discussed above, this insight was a key driver of the Robens reforms that led to our modern OSH frameworks.

95 See, for example, Weil, 1991; Walters, 2006; Gunningham, 2008. See also Harter et al., 2020.

96 On the need for workplace monitoring independent of employer control, see Estlund, 2010.

97 Walters, 2006, 94–95.

98 See for example, United kingdom, Safety Representatives and Safety Committees Regulations (No. 500) of 1 October 1978; United Kingdom, The Health and Safety (Consultation with Employees) Regulations (No. 1513) of 1 October 1996; European Council, OSH "Framework Directive", Arts 10 and 11; Australia, Work Health and Safety Act (No. 137) of 29 November 2011, Part 5; Brazil, Consolidation of Labour Law (CLT) No. 5.452 of 1 May 1943, arts 163–165; Brazil, Regulatory Norm NR5 – Internal Commission for Accident Prevention (CIPA) of 14 July 2011.

99 See, for example Republic of Korea, KOSHAct, art. 24; Rwanda, Ministerial Order N°01/Mifotra/15 Determining Modalities of Establishing and Functioning of Occupational Health and Safety Committees of 15 January 2015.

100 See for example, Brazil, Federal Constitution, art. 11; and Brazil, CLT, art. 510-A et seq.

101 See, for example, Australia, Work Health and Safety Act, Part 5, Division 7; United Kingdom, The Safety Representatives and Safety Committees Regulations 1977.

102 Brazil, Law No. 8.213 of 24 July 1991.

103 China, Law of the PRC on Work Safety, arts 7 and 60; China, Law of the PRC on Prevention and Control of Occupational Diseases, arts 4 and 40.

104 China, Law of the PRC on Work Safety, arts 25 and 26.

105 China, Law of the PRC on Prevention and Control of Occupational Diseases, art. 26.

106 Japan, Law No. 57, Chapter 3.

107 Japan, Law No. 57, arts 17–19.

108 See ILO, 2017d, para. 201.

109 For example, see the Protocol for the prevention and safety of workers in the health, social and welfare services in relation to the health emergency COVID-19, signed on 24 March 2020, and the shared Protocol for transport and logistics, signed on 20 March 2020. See also Benincasca and Tiraboschi, 2020.

110 Interviews by the author of the country study.

111 NHS Employers, n.d.

112 Chinese Ministry of Human Resources and Social Security, n.d. According to some reports, though, several local unions in China appeared to deny that COVID-19 was a work safety issue and did not want to get involved.

113 Australia, Fair Work Commission, *Construction, Forestry, Maritime, Mining and Energy Union, Mr Matthew Howard v Mt Arthur Coal Pty Ltd*, Case No. C2021/7023, 3 December 2021.

114 See ILO, 2015c.

115 See ILO, 2015c.

116 Part-Time Work Convention, 1994 (No. 175), Art. 4.

117 C.175, Art. 5.

118 C.175, Arts 6–7.

119 C.175, Art. 8.

120 The CBR–LRI provides information on labour laws in 117 countries. The maps are prepared on the basis of scores assigned for the year 2020, which are the most recent data available in the CBR–LRI. The CBR–LRI quantifies legal rules according to a leximetric coding methodology that seeks to "measure cross-national and intertemporal variations in the content of legal rules". The term "leximetric" refers to the process of translating legal materials into a form suitable

for statistical analysis. For more details on the CBR–LRI, see Adams et al., 2017.

121 European Commission, 2022.

122 For more details see ILO, 2016c, and Visser, 2022.

123 Employees can also request changes to their schedules and place of work.

124 ILO, 2016c.

125 Quinlan, 2015.

126 Termination of Employment Convention, 1982 (No. 158), Art. 3.

127 Termination of Employment Recommendation, 1982 (No. 166), Para. 3.

128 ILO, 2016c.

129 The score is normalized from 0 to 1, with higher values indicating a shorter permitted duration. The score equals 1 if the maximum limit is less than 1 year and 0 if it is 10 years or more, or if there is no legal limit.

130 Adams et al., 2017.

131 ILO, 2022f.

132 ILO, 2022f.

133 See ILO, 2017a.

134 See Kouba and Baruah, 2017; ILO, 2017a.

135 See United States Department of Homeland Security, Temporary Changes to Requirements affecting H-2A Non-immigrants due to the COVID-19 National Emergency: Partial Extension of Certain Flexibilities, Federal Register 85 (162): 51304–51312.

136 ILO, 2022f.

137 M. Visser, 2023.

138 ILO, 2016c.

139 Weil, 2014; Prassl, 2016.

140 Private Employment Agencies Convention, 1997 (No. 181), Art. 3.

141 C.181, Arts 4 and 5.

142 Eurofound, n.d.

143 Private Employment Agencies Recommendation, 1997 (No. 188), Para. 6.

144 ILO, 2016c.

145 ILO, 2016c.

146 Weil, 2014; Prassl, 2016.

147 C.155, Art. 12.

148 ILO, 2016c.

149 Davidov, 2016.

150 ILO, 2018g.

151 Viscelli, 2022; Heyes and Hastings, 2017.

152 ILO, 2021s.

153 ILO, 2016c.

154 Collective bargaining is defined as a process of voluntary negotiation between one or more employers (or their organizations) and one or more workers' organizations.

155 ILO, 2022g, 14.

156 ILO, 2020i.

157 ILO, 2015b.

158 ILO, 2022g.

159 For more information about the calculation of collective bargaining coverage and other ILO indicators on industrial relations, see ILO, n.d.(b).

160 ILO, 2022g.

161 Garnero, 2021.

162 Hayter and Visser, 2018; Visser, 2013.

163 Bassier, 2021.

164 ILO, 2018e, 172.

165 Pilinger, Schmidt and Wintour, 2016.

166 New Zealand Ministry of Health, n.d.

167 In the studied sample (see Appendix for further information), Egypt, Maldives and Zambia did not have a minimum wage at the time of the survey and are therefore not included in the statistics shown.

168 Analysis based on the methodology used in ILO, 2020i.

169 ILO, 2020i.

170 Morocco, n.d.

171 Morocco, n.d.

172 In its Part V, ILO Recommendation No. 204 stipulates that "through the transition to the formal economy, Members should progressively extend, in law and practice, to all workers in the informal economy, social security, maternity protection, decent working conditions and a minimum wage that takes into account the needs of workers and considers relevant factors, including but not limited to the cost of living and the general level of wages in their country".

173 Souza and Baltar, 1979; Maloney and Nuaez Mendez, 2003; Boeri, Garibaldi and Ribeiro, 2010.

174 Lee and McCann, 2011.

175 Derenoncourt et al., 2021.

176 ILO, 2020j.

177 ILO and ISSA, 2022.

178 ILO and ISSA, 2022.

179 ILO, 2021s.

180 ILO and OECD, 2020.

181 ILO, 2021s.

182 While paid sick leave is remunerated, it is usually limited in duration and provided by an employer. Sickness benefits guarantee an income when earnings, provided during sick leave, are suspended.

183 ILO, 2020o.

184 Income Security Recommendation, 1944 (No. 67), Para. 17.

185 ILO, 2021o.

186 ILO, 2020p.

187 Medical Care and Sickness Benefits Convention, 1969 (No. 130), Art. 26(3).

188 Medical Care and Sickness Benefits Recommendation, 1969 (No. 134), Para. 10.

189 ILO, 2020p.

190 See also ILO, 2021m.

191 Human Resources Development Convention, 1975 (No. 142), Art. 2.

192 C.142, Art. 3, paras 2 and 3.

193 C.142, Art. 1, paras 2, 4 and 5.

194 ILO, 1991.

195 See Human Resources Development Recommendation, 2004 (No. 195), Art. 2.

196 C.195, Art. 11(1).

197 See C.195, Art. 11(3).

198 ILO, 2017b; ILO, 2021a.

199 Eichhorst et al., 2015.

200 ILO, 2022c.

201 ILO, 2022c.

202 ILO, 2017b.

203 Marock, 2017; ILO, 2021a.

204 National Government of South Africa, n.d.

205 Transport Education Training Authority, 2021.

206 ILO, 2018h.

207 Cambridge University Press, n.d.(a); Cambridge University Press, n.d.(b).

208 See, for example, Dickens, ed., 2012; Gunningham and Johnstone, 1999; Weil, 2008.

209 ILO, 2006.

210 C.155, Art. 9 (1).

211 C.155, Art. 9(2).

212 C.155, Art. 10; R.164, Para. 4(d).

213 C.155, Art. 14.

214 Speiler, forthcoming.

215 Cooney et al., forthcoming.

216 See ILO, n.d.(g).

217 Pires, 2008; C.175, Art. 5; Etienne, 2015; Tombs and Whyte, 2013.

218 ILO, 2022f.

219 See, for example, Blackett and Koné-Silué, 2019.

220 Speiler, forthcoming.

221 ILO, 2022f.

222 Australia, Work Health and Safety Act (No. 137), Parts 9 and 10. See Brazil, Regulatory Norm NR3 – Embargo and Prohibition of 19 January 2011; China, Law of the PRC on Work Safety, arts 65 and 70; China, Law of the PRC on Prevention and Control of Occupational Diseases, arts 63, 64 and 77. In China, the powers of inspectors and the penalties were strengthened in 2021. Japan, Law No. 57, Chapter X.

223 United States Department of Labor, OSH Act of 29 December 1970, Section 13(a), 29 USC § 662(a). In the United States, when there is no specific standard, OSHA inspectors may seek enforcement under the employer's general duty, which appears to give the agency broad enforcement powers. However, in fact, proving this type of violation is onerous because judicial decisions now require that the agency provide expert evidence regarding risks and abatement.

224 ILO, 2006.

225 ILO, 2008b.

226 ILO, 2021f.

6

Sectoral investments to support key workers and enterprises

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Main findings

Investments in physical and social infrastructure in key sectors pay off as they create millions of jobs. Not making these investments implies even higher costs to mend the social and economic damage.

In the health and care sectors, investments must address shortfalls in adequate healthcare and health expenditures as well as labour shortages.

Income volatility for agricultural workers can be counterbalanced by minimum guaranteed prices and insurance systems.

Micro and small businesses can become more resilient and productive through supported transitions to the formal sector and improved access to credit.

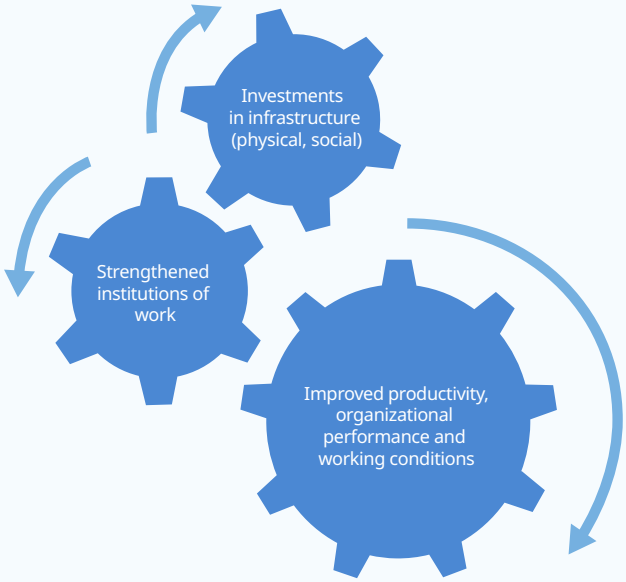
Farmers, health workers, truckers, seafarers, and the many other key workers that ensure the continued delivery of key goods and services during times of crisis, cannot effectively carry out their work if the physical and social infrastructure in the sectors in which they work is lacking or inadequate. Investments in physical and social infrastructure in key sectors are a necessary condition for improving working conditions, as organizations, whether public or private, will struggle to perform without an enabling environment. That said, better working conditions are not the automatic outcome of infrastructure investment; rather, such investments have to be accompanied with strengthened institutions of work, as expressed in figure 6.1. Together, these enabling conditions lay the foundations for improving productivity, organizational performance and working conditions, and for creating resilient economies and societies with the capacity to withstand, adapt and transform in the face of shocks and crises.

In addition to the investments needed in key sectors, including policies to support key businesses, a more proactive approach to disaster management is required. The COVID-19 pandemic showed the benefits of broad participatory processes of consultation and social dialogue in developing pragmatic solutions to manage the effects of the crisis[1] (for example, tripartite agreements negotiated in Kenya, to mitigate the fallout from the pandemic,[2] in addition to numerous bipartite agreements).[3]

Although societal and economic resilience requires investments into all key sectors, this chapter focuses on health and food systems as they were at the heart of pandemic response and are central in any crisis. Past and current pandemics highlight the importance of healthcare and the need for collective solutions to ensure universal access to good-quality, affordable healthcare. Much of key work is in agriculture, which continues to be the principal source of employment and livelihood in many low-income countries. Yet, in 2021, nearly 200 million people in 53 countries experienced acute food insecurity.[4] The vulnerability of food supply chains precipitated by the COVID-19 pandemic worsened in 2022 as a result of the war in Ukraine and unstable weather. Given looming environmental threats, dedicated investments to ensure food security are needed.

Most key goods and services are provided by the private sector. Yet in much of the developing world businesses operate informally, without the infrastructure and resources needed to develop and

Figure 6.1. Building resilience through sectoral investments and strengthened institutions of work



prosper. Enterprises need investments to thrive; they also need an enabling environment that provides opportunities and supports growth. As many key workers work for private firms or are own-account workers or employers in the private sector, investing in sustainable enterprises enables improvements in working conditions.

Since vulnerabilities to shocks such as the COVID-19 pandemic are dependent on physical, social, economic and environmental conditions, a necessary step in building resilience is to identify potential weaknesses and areas for improvement. Hence, this chapter first outlines the main systemic shortfalls faced by health and food systems as well as key enterprises. It then discusses the policies and investments needed for affordable and accessible healthcare and food security, and the policies necessary for creating an enabling environment for sustainable enterprises. It shows that the payoffs to such investments outweigh the costs and that such investments are not just critical for workers and enterprises, but also for resilient societies.

6.1. Investing in resilient health and long-term care systems

> *What … I really don't need, is people clapping … [What would be nice is to work in] an adequately funded NHS [National Health Service], staffed by people listened to by the government. It would be nice to see appropriate remuneration for the low-paid staff holding the service together, to see that the value of immigrants to the NHS is appreciated, and to have a health service integrated with a functioning social care service.*
>
> *NHS doctor, United Kingdom*[5]

Improving working conditions among key health workers requires investments in healthcare systems that allow for adequate staffing in order to guarantee quality services and social health protection for all, in line with ILO standards,[6] in addition to funding physical infrastructure. These necessary investments are an enabling condition for improving job quality among key health workers, which, together with strengthening labour institutions, can deliver decent work.

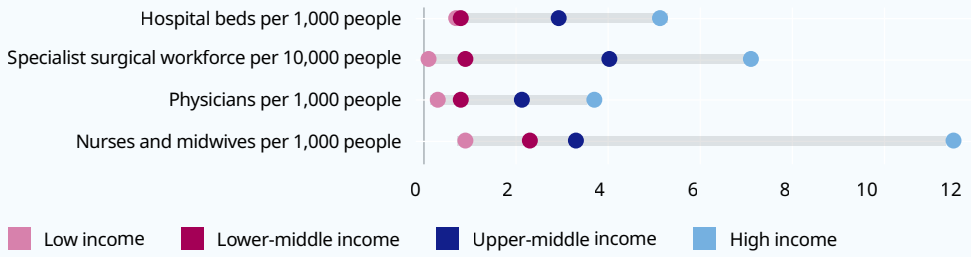
The COVID-19 pandemic and epidemics such as the 2014–16 Ebola outbreak have highlighted the need for more resilient healthcare systems, including long-term care.[7] In many low- and middle-income countries, infectious diseases and health crises are exacerbated by under-resourced and understaffed healthcare systems.[8] To improve access to healthcare without hardship, a commitment to social health protection for all and corollary long-term investments in infrastructure, health workforce and decent working conditions are necessary for ensuring national preparedness and sustainable capacities.[9] Sustainable capacities include training, health information management and essential logistics requirements that allow health systems to handle routine essential services as well as health emergencies.[10] Investment should seek to fill gaps in existing health systems and address the variety of care delivery settings: hospitals, clinics and other care facilities, both private and public, as well as services provided in the community and in the home.[11] The sector covers a range of occupations, from doctors, nurses and personal care workers to orderlies and cleaners, as well as administrators.

Shortfalls in access to adequate healthcare and health expenditures

Across the world, access to healthcare is far from universal. Low- and middle-income countries, in particular, have low service coverage rates, which prevents large segments of the population from accessing quality healthcare (see figure 6.2).[12] There are also significant differences within countries, with rural areas suffering from inadequate access in many parts of the world.[13] During the COVID-19 pandemic, long-standing shortages of healthcare staff and health supplies, such as medicines, ventilators and later vaccines, inhibited the ability of countries to effectively respond to the health needs of their inhabitants.

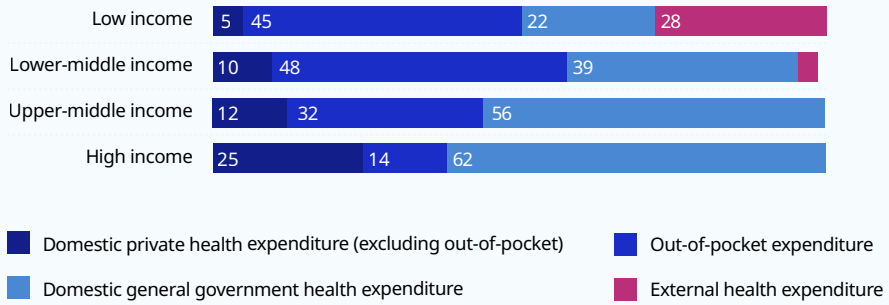
Healthcare systems are structured differently across the world, which is reflected in the composition of health expenditure. As shown in figure 6.3, the higher the income of the country, on average, the higher the share of domestic general government health expenditure. Health expenditure increases from 22 per cent in low-income countries to 39 per cent for lower-middle-income countries, 56 per cent for upper-middle-income countries and 62 per cent for high-income countries. Public funding is clearly correlated with a decreasing share of out-of-pocket expenditure for healthcare.[14] In countries where affordable healthcare and social protection are limited, the dominance of the private sector in healthcare services provision translates into large out-of-pocket payments. In India, out-of-pocket expenditure is among the highest in the world, accounting for as much as 55 per cent of total healthcare

Figure 6.2. Selected health staff and infrastructure indicators, by country income group



Source: WHO, World Health Observatory, latest available year.

Figure 6.3. Composition of health expenditure, by country income group



Source: WHO, Global Health Expenditure Database.

spending in 2019.[15] While various social assistance and social insurance programmes at federal and state levels have tried to lessen this burden, their impact remains hampered by coverage gaps.[16] Other countries with particularly high shares of out-of-pocket expenditure include Armenia (85 per cent), Bangladesh (73 per cent) and Nigeria (71 per cent).[17]

For an effective social health protection system, gaps in coverage and financial protection should be addressed.[18] While there is a level of correlation between the share of public spending and the availability of affordable healthcare services, higher public spending on health is not a guarantee of access to health care. Universal affordable or free care only occur when coverage of social health protection is anchored in the law and there are tangible entitlements realized through healthcare investments.[19] Deficits in access to quality healthcare due to affordability concerns can lead to health problems as well as destitution. Universal healthcare coverage, as well as other social protection policies, such as paid sick leave and disability insurance, are important buffers against such risks. Each year, out-of-pocket expenditures for health push some 100 million people below the poverty line,[20] and many do not seek healthcare for lack of funds.[21] Globally, in 2017, around 996 million people were reported to spend more than 10 per cent of their total annual household income or consumption budget on healthcare, with out-of-pocket expenditures in middle-income countries.[22]

Labour shortages and capacity constraints in health and long-term care

Inadequate investments into healthcare affect the ability of countries to retain trained and qualified health workers. According to the WHO, there is a significant deficit of health workers vis-à-vis the needs, a deficit that is often exacerbated by brain drain. The increasing demand for health workers in high-income countries as a result of ageing populations means that many health workers in low- and middle-income countries will potentially migrate towards higher-paying health jobs, possibly increasing the staffing deficits in origin countries, and thus worsening the quality of service and working conditions of those who stay behind.[23] In 2014, around 84 per cent of the population in low-income countries, and 55 per cent in lower-middle-income countries, did not have access to healthcare as a result of health workforce shortages.[24]

The shortage of health workers is projected to exceed 18 million by 2030, with the biggest shortfall among nurses and midwives.[25] In the OECD, it is countries with weak health systems that experience the greatest relative losses of healthcare workers.[26] Brain drain is a particularly pressing issue in East Africa and the Caribbean, causing significant health workforce shortages.[27] In Eastern Europe, policies have been initiated to attempt to raise salaries and conditions for workers to stem the outflow of healthcare workers who would otherwise migrate to Western Europe for work.[28]

In Africa, inadequacies in resources available for healthcare services are due to insufficient government investment in health that compromises the ability of health workers to fulfil their duties.[29] Many African governments are unable to meet the 2000 Abuja Declaration,[30] in which the Heads of State of the African Union countries pledged to allocate at least 15 per cent of their annual budget to improve the health sector. Unfortunately, healthcare services in Africa continue to be severely under-resourced, with a reliance on imported medicinal and pharmaceutical products, and a lack of facilities including intensive-care units.[31] Underinvestment in health in many low- and middle-income economies is due, in part, to conditionalities imposed by the international financial institutions on borrowing nations.[32] Since the 1980s, lending conditionalities have frequently imposed caps on public spending that have influenced the composition of spending on healthcare. For example, in 2018, the West African Economic and Monetary Union (WAEMU) announced plans to develop a subregional health workforce investment plan, with the aim of boosting employment in the sector.

Inadequate investments into healthcare affect the ability of countries to retain trained and qualified health workers.

However, the plan was subject to limitations imposed as part of the WAEMU convergence criteria for stability, growth and solidarity, which included caps on spending, including spending on wages.[33] Notably, these restrictions, that had been in place since 2015, were lifted at the onset of the COVID-19 pandemic.[34]

The problems in long-term care are even greater than those in healthcare, with deficits in access, quality and working conditions.

The problems in long-term care are even greater than those in healthcare, with deficits in access, quality and working conditions.[35] Long-term care services can be provided by public or private providers with full or partial support from the State, through non-contributory or contributory schemes.[36] Another form of support consists in cash-for-care schemes, whereby beneficiaries receive transfers that can be used either for in-home or institutional care workers, or to compensate unpaid services provided by family members.[37] Only 5.6 per cent of the global population lives in countries where universal long-term care coverage is provided, with major gaps across countries in terms of infrastructure and human resources.[38] For example, in Sweden there are 23.2 residential long-term care beds per 10,000 people, while the ratio is 2.2 in Italy and 0.5 in the Dominican Republic.[39] A highly limited supply of publicly provided, good-quality and affordable care services means that many people have no option but to rely on unpaid family members, who are mostly women. Reliance on unpaid family members for care, in turn, restricts their labour market participation and income security. Furthermore, unpaid care services can mask the extent of need in a country. Thus, acknowledging the gaps in need is a necessary first step in moving away from a reliance on unpaid family members.[40]

The high rates of COVID-19 infections and morbidity in nursing facilities around the world drew attention to the quality and safety of care work and to social protection coverage gaps among key workers.[41] Even though staff shortages and high turnover have been enduring issues in long-term care services, their adverse effects were highlighted with the pandemic. In Israel, the number of formal long-term care workers at home per 100 population aged 65 years and older was 7.4 before the pandemic; in Australia, the figure was 1.1.[42] With the pandemic, shortages of care workers in various countries became starker. For example, it is estimated that in Australia an additional 200,000 full-time care workers will be needed by 2050 on account of ageing, and the gap in the workforce has grown more rapidly than anticipated because of the pandemic.[43] Similarly, in the United Kingdom, the shortage of residential care workers caused delays in the discharge of elderly patients during the pandemic.[44] Low pay and other poor working conditions, including irregular scheduling, contractual instability, and violence and harassment, are the main reasons why care workers are increasingly leaving their jobs.

Investing in health and long-term care: a commitment that pays off

To meet Sustainable Development Goal (SDG) 3 "Good Health and Well-Being" and build resilient societies, countries across the globe need to increase investments in health and long-term care, with respect to infrastructure, staffing and improved working conditions. According to the ILO, an additional US$11.34 trillion (2015 prices) is needed to obtain universal service coverage for health and guarantee a minimum of 4.45 healthcare workers per 1,000 population across developing countries by 2030.[45] The cost of expanding the long-term care workforce, reducing the pay gap between nurses and personal care workers by half and raising the wages of personal care workers to the statutory minimum wage requires an estimated US$2.35 trillion in total.[46] Central to achieving these goals is the realization of universal health coverage, such that tangible social health protection entitlements can translate into these needed investments.

Indeed, the ILO estimates that increased spending to meet the SDG 3 target on health will generate 173 million jobs in the health and social work sector, and in other sectors through backward linkages.[47] Likewise, investing in coverage and improvement of long-term care services could generate up to 50.9 million jobs by 2030 on a global scale, which is much more than the 20.9 million jobs that would be generated if coverage levels and wages remained the same.[48] An additional 13.9 million jobs can be gained in sectors

Improvements in social protection and working conditions are a means to prevent shortages in health and long-term care.

other than health and long-term care by expanding long-term care expenditure.[49] Since there is a significant gender dimension to care work, such investments would reduce the gender gap in employment by an estimated 7.5 percentage points in all regions,[50] as approximately 78 per cent of the new jobs would be held by women.[51] Additionally, investments into care services can boost labour force participation for individuals, particularly women, who otherwise would have to drop out of paid work altogether because of their care responsibilities, or work fewer hours than they would like.

In addition to its negative effect on staffing, underinvestment also contributes to deficits in the education and training of health workers, and thus in quality of care.[52] Correspondingly, investment in education, training and skills is identified as a core recommendation of the United Nations High Level Commission on Health Employment and Economic Growth.[53] Canada, the Netherlands and the United States, for example, have adopted initiatives that focus on bolstering specific skills training for nurses to increase the supply of mid-level providers.[54] Such strategic focus is necessary to respond to changing healthcare needs. Investments in training and education can be particularly beneficial for key workers in healthcare as there are opportunities for upward mobility in the sector.[55]

Improvements in social protection and working conditions are another means to prevent shortages in health and long-term care. Better working conditions and wages will not only increase the attractiveness of these sectors but also boost motivation, productivity and service quality, and ultimately contribute to the retention of qualified personnel.[56, 57] This underscores the importance of working conditions for ensuring quality healthcare, as poor conditions lead to exit, further worsening the quality of care, but also causing a loss to society and economies, given the extensive education and training undertaken by health professionals.

While these investments are needed across countries, the funding gaps in low-income countries are most acute. Yet not addressing these gaps is even more costly. During the Ebola epidemic, for example, the total international aid is estimated to have far exceeded the amount that would have been required to establish universal healthcare in all three of the main countries affected.[58] This highlights the cost of not prioritizing the provision of physical and social infrastructure, and the economic benefit of such investment. Despite fiscal constraints, there are various approaches for financing investments in health and long-term care (see box 6.1).

Box 6.1. Financing health and long-term care

Ensuring sufficient public investment to meet quality universal coverage of health and long-term care services will require several sources of financing, especially in low-income countries. Nevertheless, it is important to bear in mind that part of investment costs can be recouped through the added economic growth and employment generated by such investments, which will then serve to increase government revenues, through taxes and social security contributions, thus offsetting some of the costs.

The main source of financing is public spending financed through social security contributions and taxation. In many developing countries, tax-to-GDP and social security contribution-to-GDP ratios are low, limiting the ability of governments to make necessary investments. Therefore, a first step is to increase government revenues by expanding the tax and social security contribution base, improving enforcement, increasing tax rates, reducing tax breaks, and levying new taxes. This prospect is challenging in low-income countries with large levels of unregistered (informal) enterprises and workers, but nonetheless attainable. Tax policy is most effective if it is progressive, as consumption taxes increase the burden on the poor, and have been associated with adverse health outcomes.[1]

Box 6.1. ***(cont'd)***

For low-income, highly indebted countries, accumulated debts to official creditors such as multi-lateral development banks, bilateral donor governments and international commercial banks can be restructured permanently as an initial step to allow scarce fiscal resources to be invested in healthcare. Given that 25 low-income countries were allocating more money on debt service than on social spending for education, health and social protection combined in 2019,[2] rising indebtedness after the COVID-19 pandemic means that there are even fewer resources for investments into basic services. Indeed, the external debt of developing countries, which was already high before the pandemic, reached record levels of US$11.1 trillion in 2021.[3] In low-income countries, 9.7 per cent of government revenues was needed to meet external public debt obligations, while in sub-Saharan Africa the share was around 15 per cent.[4] This suggests that public funds for investments into health and long-term care will be even more restricted in the upcoming years because of debt servicing, unless needed debt relief is granted.

A temporary overture to debt relief was made at the onset of the pandemic through the Debt Service Suspension Initiative (DSSI), which postponed US$13 billion in debt payments in 48 mostly low-income countries.[5] The suspension, which ran between May 2020 and December 2021, allowed the countries to allocate funds to basic services, as borrowers committed to use freed-up resources to enhance social protection and health spending.[6] In view of the acute need for spending in physical and social infrastructure in low-income countries, more needs to be done to make debt relief permanent.

Another means of financing investment in low-income countries is through the issuance and donation of International Monetary Fund special drawing rights (SDRs). This issuance of US$650 billion worth of SDRs in August 2021 could enable the international community to improve the fiscal space of low-income countries to finance needed investments. Most wealthier countries do not require this additional liquidity and could donate shares to developing countries if there were a coherent international framework for this purpose.[7]

Finally, another avenue for financing public investments into health and long-term care is through the international taxation of tax havens. Such taxation could finance a global fund that could then be redistributed to low-income countries to meet investment needs in healthcare.[8] The amount of assets kept in tax havens and offshore accounts is estimated at more than US$25 trillion, belonging to just 0.1 per cent of the wealthiest individuals.[9] The ability to move financial assets to tax havens indicates that there is enormous tax evasion by the rich and a disproportionate burden of tax payments falling onto enterprises and workers that do not have mobile assets. As of 2021, there were 2,755 billionaires with a total net wealth of US$13.1 trillion; 86 per cent of these billionaires had more wealth compared to pre-pandemic times, and many funnel their income to tax havens.[10] By simply raising the tax rate on these individuals by 1 per cent, US$131 billion could be collected for these much-needed public investments.

[1] Reeves et al., 2015.
[2] UNICEF, 2021.
[3] UNCTAD, n.d.
[4] UNCTAD, n.d.
[5] World Bank, n.d.(a).
[6] World Bank, n.d.(a).
[7] Samans, 2021.
[8] Sachs, 2022.
[9] Henry, 2016.
[10] Dolan, Wang and Peterson-Whithorn, 2021.

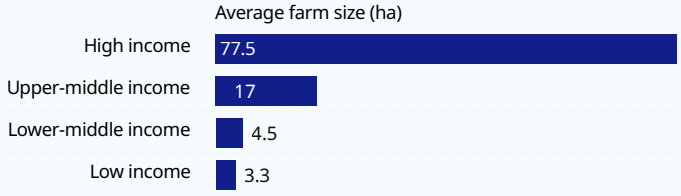
6.2. Investing in resilient food systems

Food systems comprise a complex range of interrelated activities from production (planting and harvesting) to processing, distribution, preparation and, finally, consumption of food.[59] While there are challenges across the food chain and across countries, the greatest decent work deficits concern agricultural workers in low-income countries, who suffer from low and volatile incomes, and generally lack labour and social protection to mitigate difficult times. Thus, in addition to strengthening labour and social protection, as presented in Chapter 5, improving working conditions in food systems requires investments in physical and social infrastructure that can boost productivity, access to markets and incomes. Food systems workers are highly susceptible to income fluctuations, both because of the seasonality in production, which causes variability in earnings, and also because of food price shocks. Energy price fluctuations, weather-related disasters and other crises affect production costs as well as earnings from the sale of commodities.[60] Hence the importance of insurance in reducing price volatility, stabilizing incomes and providing a floor of income support.

Global production in agriculture ranges from smallholder farms of less than 1 hectare to large-scale plantations that can span over 1,000 hectares. As figure 6.4 shows, the average farm size in hectares is much larger in high-income countries, around 77.5 hectares, than in low-income countries, around 3.3 hectares. While this size variation is present across all countries, larger production units (plantations) are associated with more industrialized farming practices that are typically capital-intensive. The type and intensity of risks that small farmers experience can be distinct from those faced by large farms and plantations. However, enhancing the resilience of small farmers does not necessitate scaling up; with adequate investments and supportive institutions, small farmers can be productive and enjoy decent work conditions. In many food systems, agricultural work is comprised of self-employed workers, contributing family workers, small landholders – some of whom are subsistence farmers – and wage workers who work in small and medium-sized firms as well as large, industrialized farms and plantations. Nevertheless, there is a blurring of employment status as many subsistence farmers work as wage agricultural workers on other farms or plantations during certain periods of the year to supplement their incomes.[61] At the same time, smallholder farmers may hire landless plantation workers as casual labourers on an irregular basis for a basic remuneration.[62]

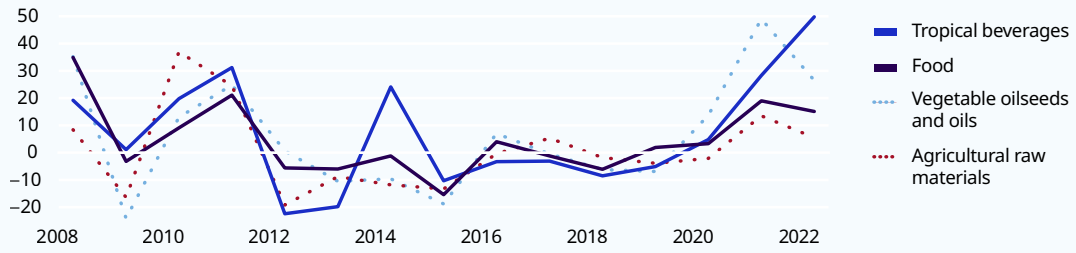
An important feature of agricultural production that affects earnings and wages is fluctuations in agricultural prices. Section 2.3 discussed the challenges facing cardamom producers in India during the pandemic, as the price offered by intermediaries had more than halved. Commodity prices are notoriously volatile, as can be seen in figure 6.5, which shows the percentage change over the previous years of world prices of agricultural commodities. Price volatility coupled with seasonality in production, and thus income, leads to income insecurity for agricultural producers. The insecurity in income

Figure 6.4. Average farm size by country income group, in hectares



Source: ILO calculations based on FAOSTAT.

Figure 6.5. World commodity prices for agriculture, 2008–22, percentage change over previous year



Source: UNCTAD, 2022.

for producers is then passed on to wage workers through practices such as piece-rate systems, which tie payment to the level of production rather than guaranteeing a set, minimum income. Global data on the use of piece-rate work are lacking, but for countries where data are available, its use is shown to be widespread. In Pakistan, for example, the share of employees paid by the piece in agriculture is around 24 per cent, whereas it is 41 per cent in Egypt.

Stabilizing incomes through adequate insurance and compensation schemes

Income volatility is an acute risk for food systems workers, including farm business owners and employees. Unforeseen income loss can result from events, such as natural disasters, or drops in the price of commodity, which may compound the other risks faced by workers and households – unemployment, work injury and disability, maternity, illness, old age and loss of a breadwinner. In part because of climate change, both price volatility and the occurrence of natural disasters are becoming remarkably pressing issues. More frequent and intense extreme events of various nature affect climate variability and are expected to lead to increased production risks and eventually losses of income.[63] In addition, large and unpredictable variations in food prices may decrease capacities for long-term investments, while increases in agricultural prices can reduce the ability of lower-income households to achieve food security and fulfil their other basic needs. Prices were relatively stable between 1990 and 2005, while price volatility appears to have increased from 2005 onwards, with strong price peaks in 2006–08 and 2010–11.[64] In June 2022, the FAO Food Price Index was 64 per cent above its pre-pandemic level.[65]

Mechanisms can be used to strengthen the capacity of food systems workers to cope with shocks and withstand the resulting variations of their income, including through insurance and compensation systems against different kinds of risks. Specifically, the adoption of mechanisms against price volatility and natural disasters appears to be particularly suited to protect farmers against income losses and fallouts affecting farm staff and farming operations. As agricultural work is at the base of food systems, the benefits of such schemes can be far-reaching.

Schemes targeting risks such as price and income volatility improve income security for farmers and their workers. The system of direct payments provided in the framework of the Common Agricultural Policy (CAP) of the European Union helps stabilize farmers' income by offering a form of income protection that complements their more variable revenues coming from market sales.[66] Complementary mechanisms implemented nationally may also help to smooth

In part because of climate change, both price volatility and the occurrence of natural disasters are becoming extremely pressing issues.

Insurance systems that cover natural risks appear to be an increasing necessity in the face of climate change.

European farmers' incomes. Outside Europe, several countries have taken measures to reduce income volatility in the agricultural sector. In Brazil, the tools against price volatility include minimum guaranteed prices, covering a broad range of crops and some livestock products.[67] To enable this policy, the Brazilian government offers premiums to buyers who pay minimum fixed prices to farmers or governmental purchase programmes.

On the other hand, insurance systems that cover natural risks appear to be an increasing necessity in the face of climate change. In India, acknowledging that agriculture is a key sector for the economy and yet largely exposed to natural and climate disasters and other crop-related risks, in 2016 the government introduced the Pradhan Mantri Fasal Bima Yojana (PMFBY) crop insurance scheme to improve insurance coverage among farmers. Brazil is another example of a country that implemented agricultural insurance to support farmers in case of natural disasters, including through specific programmes covering small-scale family farms (for example, Programa de Garantia da Atividade Agropecuária Mais, Garantia Safra).[68] In Europe, almost all countries have crops insurance for single risks, such as hail, and many countries also have insurance covering multiple risks or even all kinds of natural events ("yield insurance").[69]

Nevertheless, more tailored actions are needed to promote take-up by farmers and adequate insurance coverage. For instance, despite the low premium for farmers, many smallholders remained uncovered by the PMFBY in India, owing to a lack of understanding among the farmers about insurance products and their role in improving their capacity for risk management.[70] Appropriate outreach mechanisms to connect with these smallholder farmers were also missing. In this context, the People's Education and Development Organization promoted community-level training and support to excluded farmers, especially women.[71] Similarly, in Mexico, the Red Solidaria de Microseguros Rurales was created to liaise between community organizations and insurance institutions to foster outreach to farmers, especially small-scale producers, and enhance their risk management capacity.[72] Government involvement in the implementation of efficient agricultural insurance is critical, especially for securing coverage in the face of widespread losses ("systemic risks"), or to address informational problems such as those linked to the accurate measurement of risks and the monitoring of farmers' behaviours with regard to risks.[73]

Beyond insurance schemes, measures aiming at preventing the occurrence of risks in the first place should also be considered. For instance, evidence suggests that price volatility of commodities, including food, is partly linked to the financialization of these markets; thus, reforms could be implemented to help reduce the distortions that financial instruments can create.[74] These may include improved transparency and access to information concerning commodity derivative and physical markets, tighter regulations on financial markets (for example, setting of position limits), and increased oversight by market authorities. Moreover, investments in adequate technologies could also contribute to reduce the exposure of food systems jobs to risks. For example, the use of digital technologies, such as remote sensing, could facilitate timely management response and help in mitigating agricultural risks.[75]

Extending social protection coverage to all food systems workers

In addition to mechanisms against natural disasters and income volatility, there is a need to strengthen social protection for food systems workers. As shown in Chapter 4, most employees and farmers in food systems lack social protection in developing countries and only 44 per cent of people in rural areas have access to a form of healthcare, compared to 78 per cent in urban areas.[76] In addition to legal barriers to social protection coverage of agricultural workers, the lack of protection is aggravated by administrative constraints, the difficulties in providing social protection to dispersed populations in rural areas, and by the prevalence of informality in many parts of the global food system. Agri-food workers need access to unemployment benefits, universal healthcare and income support to be cushioned from future shocks and thus ensure continued functioning of the agri-food system.[77]

Social protection can improve educational outcomes and foster innovation and investments among poor households.

There is therefore a need for social protection systems, including a combination of non-contributory and contributory mechanisms, taking into account the specificities of workers in these occupations. In addition to natural risks, seasonality is for instance a critical factor in agriculture, leading to further irregular income and seasonal variations in employment for those who work in this sector.[78] The high prevalence of self-employment and contributing family workers is an important dimension to consider when designing adequate social protection systems. This is especially true for improving gender equality, as women are more likely to work as unpaid contributing family workers, and thus are often overlooked in the design of social protection systems. Likewise, the legal regimes of land tenure are to be considered as they can create precarious land tenure arrangements for farmers who do not own their land.

Many countries have sought to consider the peculiarities of agricultural work when designing social protection programmes. For example, Colombia has allowed insured persons to declare their income throughout the year instead of doing so only in January, to take into account the variations of economic activities over the course of the year.[79] In Mongolia, in 2013 the government launched a one-stop-shop (OSS) that provides delivery services for all social protection programmes, employment counselling, as well as notary and banking services. Through the OSS, residents can access information and avail themselves of services and transfers through a single delivery point, including through a mobile OSS that delivers services at the doorstep of those who cannot travel – a must for the country's many cattle herders. The scheme has also clarified and simplified the application and claims processes.[80] These examples highlight how innovative solutions can be instituted to extend coverage and access to social protection in ways that account for the realities of work in agri-food systems.

The investment in well-designed social protection and mechanisms tackling income volatility may substantially pay off, as these schemes can improve the well-being of food systems workers and their productivity. Evidence suggests that social protection can improve educational outcomes and foster innovation and investments among poor households, in particular because social protection benefits help lift liquidity constraints and reduce risk aversion.[81] With more specific regard to agricultural workers, a research partly based on field studies carried out in Tamil Nadu, India, showed that sugar cane farmers perform cognitive tasks better after harvest than prior to it, possibly because poverty-related concerns consume mental resources.[82] Thus, another benefit of insurance schemes and measures reducing economic volatility in agriculture is that they allow greater cognitive resources.

Infrastructure investments that support productivity and sustainability of food systems

Rural areas often lack general enabling infrastructure such as energy transmission networks, roads and running water, as well as specific food systems infrastructure such as irrigation, storage and processing facilities.[83] Access to irrigation, storage and processing facilities is relevant for strengthening farmers' resilience, and investing in resilient food systems translates into long-term productivity, growth, employment generation and food security.[84] Within a global context of rising food, fuel and fertilizer prices, sustainable agricultural practices could be economically justified as they decrease the dependence on chemicals and other industrial inputs. Many small and medium-sized farms may lack the knowledge, assets and scale to adopt sustainable farming practices and, in this regard, both private and public resources can be mobilized, also to improve the capacity of agricultural extension services. Because of systemic gender inequalities and biases, many women in food systems are poorly equipped to cope with shocks and make investments to increase farm productivity; hence, outreach programmes directed at women can help address some persistent gender inequalities.

Technological change in agriculture has historically been driven by public investment in research and development (R&D). Although recent trends suggest that the private sector is playing an increasingly

The private sector has a crucial role to play in making technologies more accessible and less expensive for farmers.

important role, private R&D investment in developing countries has mainly focused on the needs of large-scale, capital-intensive farm operations that mirror farming systems in industrialized countries and contribute little to pathways out of food insecurity and poverty.[85] The private sector thus has a crucial role to play in making technologies more accessible and less expensive for farmers. Governments have an important role to play in addressing information gaps that might prevent farmers' access to adequate technology. Some integrated participatory approaches for agricultural research are currently being pursued, facilitating the uptake of technological solutions at local level.[86]

Midstream segments of food systems chains, such as processing, storage, transport, wholesale and retail, account for up to 40 per cent of gross production in food value chains.[87] With adequate support, farmers can access higher-value domestic and global markets while meeting higher standards in their products, and small and medium-sized enterprises (SMEs) can add value at the local level (for example, milling, packaging), and benefit from more dynamic market access.[88] Investments into the modernization of midstream segments can have positive effects on productivity. For example, farmers in Guatemala who exported their crops were found to have on average higher productivity after entering these markets.[89] In Senegal, evidence suggests that the increased technical standards imposed on exports raised rural incomes considerably and enhanced welfare.[90] Nonetheless, there is also evidence suggesting that agro-industrial firms and multinationals can reap the benefits from investments into food systems chains at the expense of smallholders and employees.[91] Hence, accompanying institutions and policies described in Chapter 5 are needed to improve working and living conditions of food systems workers.

An important means for expanding market access, and thus improving incomes, is through investments in enabling infrastructure, such as cold storage facilities. Many agricultural products need to meet certain quality standards to be traded in export markets and without cold storage farmers would lose a part of their harvest or have to sell their products at a discount, which significantly decreases their incomes.[92] Proximity to cold storage can reduce the financial risks in cultivating perishables and help decrease methane emissions associated with food waste, while a local processing facility can contribute to adding value and creating jobs in rural areas. In Nigeria, a social enterprise has been providing uninterrupted storage of fresh produce in farms and marketplaces. After two years of operation, it is estimated that the cold storage allowed more than 300 farmers to almost double their monthly income, saved 5,800 tonnes of fruits and vegetables from spoilage, and created jobs, especially for women.[93] Hermetic storage bag provision in two districts of the United Republic of Tanzania is shown to have decreased the share of severely food-insecure households by 20 per cent during the year, suggesting how even inexpensive technological investments can enhance access to food.[94]

By decreasing farmers' costs and enhancing output, infrastructure investments support employment creation. Roads, electricity, telecommunications and other infrastructure investments in rural areas increase agricultural output.[95] For example, in West Africa, a 10 per cent increase in access to electricity is found to lead to 0.25 per cent growth in agricultural employment, while a 10 per cent increase in investment in transport infrastructure generates nearly 6.3 per cent additional jobs.[96] In Indonesia, a one standard-deviation improvement in road quality produces an increase of nearly 20 per cent in total labour earnings and a 5 per cent increase in household consumption. Comparably large effects are also detected in other countries, such as Cameroon and Nepal.[97] When it comes to employment creation for women, several studies show that rural infrastructure, especially transportation, has increased women's ability to find paid work outside of their homes and farms, provided them with opportunities to create SMEs, and increased the number of women entering the labour market.[98] In Nicaragua, after trail bridges were built in various rural areas, the number of female wage employees went up by almost 60 per cent as a result of increased labour force participation.[99]

6.3. Investing in resilient enterprises

Many key goods and services are provided by the private sector, particularly food provision, but also retail, transport, warehouse work and cleaning. Indeed, 85 per cent of key workers work in the private sector either as employees, own-account workers or employers, ranging from a high of 97 per cent in low-income countries to 75 per cent in high-income countries. Private enterprises – whether micro, small, medium-sized (MSMEs) or large enterprises – are at the heart of economic activity in nearly all countries, making them the principal source of economic growth and employment. With most key employment in the private sector, a necessary requirement for attaining decent work for key workers is ensuring that the enterprises they work for have adequate resources and capacities, including during times of crisis. Strengthening institutions and governance systems as well as ensuring sufficient financial, physical and human resources will help business to thrive, improve working conditions and contribute to the resilience of economies and societies. Given the increasing risk of crises, the private sector should also be included as active participants in government disaster management planning, as well as in the design of their own or their sectors' business continuity plans, so as to ensure the delivery of key goods and services at acceptable levels during disasters and subsequent recovery periods.[100]

Key enterprises faced various challenges during the COVID-19 pandemic owing to lockdowns or restricted hours, declines in demand, staffing challenges and disruptions in supply chains. As shown in Chapter 2, the negative effects of the crisis were amplified for micro and small businesses given their more limited financial and human resources, weaker or non-existent digital infrastructure for diversification, and limited access to credit and government support due to informality. To overcome these hurdles and improve working conditions, it is necessary to support enterprises in transitioning to the formal sector, as well as investing in infrastructure and human resources so as to increase access to markets and enhance productivity growth. Such investments support key private sector enterprises, while facilitating improvements in the working conditions of their workers.

Supporting the transition to formalization

Creating resilient enterprises requires, at its most basic, assisting informal enterprises to transition to the formal economy. Across the world, microenterprises (defined as firms with 2–9 employees) account for 342 million jobs – of which two thirds are informal.[101] Many of these enterprises provide key goods and services, hence supporting their transition to formalization can increase productivity and market access, and thus the sustainability of the services and goods they provide. The process of registering these businesses also allows governments to identify those enterprises that provide key goods and services, which is a necessary first step in any disaster management planning.

Formalization is also a necessary condition for adequate labour and social protection of workers[102] and an important means for valuing the contribution of these key employers and workers to society. Supporting informal enterprises in their transition to the formal economy entails addressing a wide range of difficulties that inhibit the growth of enterprises: poor access to credit, limited or non-existent access to markets, lack of access to procurement opportunities, lack of access to public infrastructure, lack of access to technology and lack of voice and representation. There are also wider drivers of informality at the macro level, including inadequate regulatory

Micro and small enterprises often do not have a fixed location and their access to water, electricity, internet and other infrastructural facilities is therefore limited.

frameworks, few incentives to formalize, underdeveloped tax and social security systems, and poor enforcement.

Informal enterprises are particularly constrained with regard to credit, which is a requisite of sustainable enterprises as it better equips them to withstand and weather shocks to demand, business operations and revenue.[103] The financing gaps and lack of access to formal credit are major issues for informal firms and are often cited by SMEs as one of the main constraints to growth.[104] This was also one of the main challenges for enterprises during the COVID-19 pandemic, with SMEs particularly at risk of bankruptcy.[105] Owing to the lack of financial liquidity, owners of informal enterprises are typically dependent on their own savings or family transfers to maintain the operation of their business.[106] As a result, buffers for shocks are thin, such that the extended lockdowns imposed in many countries because of the pandemic forced many informal businesses to close. In Cameroon, around 15 per cent of informal businesses experienced at least temporary closure compared to some 5 per cent of large, formal companies.[107] These temporary closures could easily lead to permanent closures after depletion of personal funds. In Mexico, around 12,000 informal firms stopped operations permanently in April and May 2020, compared to 10,000 formal firms.[108]

Another major obstacle for informal enterprises is low productivity, which can be a result of unequal access to public services, lack of legal protection and contract enforcement, or difficulty in procuring inputs.[109] Micro and small enterprises often do not have a fixed location and their access to water, electricity, internet and other infrastructural facilities is therefore limited. Furthermore, it is harder for informal firms to establish long-term quality relationships with suppliers given the lack of contractual arrangements, which can be a barrier to ensuring a steady supply of needed inputs. As a result, informal firms, and especially smaller ones, suffer from low productivity.[110] The productivity of informal enterprises delivering key goods and services can also be hampered by poor working conditions, as these may prevent workers from performing their tasks effectively and affect their degree of engagement.

One intervention to facilitate the transition to the formal economy is to streamline tax, registration and administrative procedures. Start-up procedures to register a business can be an impediment to MSMEs when overly cumbersome, setting these enterprises off in the informal economy from the outset. There has been progress in streamlining such procedures since the 1990s.[111] In a number of countries, including China, Kazakhstan and Rwanda, micro and small enterprises were exempted from paying a number of administrative fees as part of the registration process.[112] In other cases, one-stop-shops, which combined company registration, tax registration and other components into a single process, have been implemented in a range of countries, including Afghanistan, Benin, Burundi, Egypt, Guatemala, Malaysia, Malta and Mexico.[113]

Reductions in the cost of formalization are most effective when combined with accommodating policies, such as lower tax rates, the possibility to pay different taxes in a single payment, or monetary incentives.[114] For example, in the Monotributo system of Argentina and Uruguay, the governments merged taxes and social security contributions into a single tax to simplify the payment system. Another example is Estonia's Simplified Business Income Taxation Act, which enables certain categories of own-account workers to set up a business bank account that automatically calculates tax owed and facilitates payment.[115] In Brazil, firms registered through the SIMPLES programme increased investment in their enterprises after registration, likely from greater access to formal credit channels.[116] Similarly, in Viet Nam, becoming formal was found to have raised value added and profitability, with the exception of the smallest enterprises.[117] Such firms might have very low levels of capital and excessively high credit constraints to invest further and reap the gains of formalization.[118] This highlights the importance of accommodating policies for informal microenterprises.

In addition to credit, access to public services, infrastructure and contractual relations with other firms are advantages that come with formalization. In Brazil, newly created micro and small enterprises

that opted to be registered were shown to have higher levels of revenue, profits and investments, which is argued to be the result of their choice of permanent location.[119] By operating in a fixed location, formalized enterprises are able to use public services, which allows them to operate on a larger scale and extend capital stock and employment.[120] In Viet Nam, a positive relationship is reported for the manufacturing sector between formalization and increased investment, improved access to credit and a smaller share of casual workers.[121] Firm performance is enhanced by the use of formally contracted labour, which indicates that, besides the positive effects on enterprise performance, formalization also improves working conditions.

Strengthening investments in infrastructure, human resources and innovation

As discussed in the sections on healthcare and agriculture, public investments in physical infrastructure are a necessary condition for businesses to grow and thrive, as well as adapt to exogenous shocks. In addition to investments in transport infrastructure, internet connectivity allows enterprises to diversify to e-commerce and use mobile money, which can have positive effects on enterprise development and performance. In Ethiopia, the productivity of manufacturing firms increased by 13 per cent after fast internet was installed.[122] Similarly, in Rwanda, higher 3G coverage was found to be positively associated with productivity, especially in the service sector.[123]

In addition to public investment, enterprise investments in their human resources have been shown to strengthen the performance of employees and support business development. For example, empirical evidence based on German enterprise survey data found that wage increases were associated with reductions in absenteeism, used in the study as a proxy for work effort.[124] This result can be explained by various causes, such as a "reciprocity" from employees who receive higher wages, or the threat of relatively big losses for workers paid with higher wages if they are dismissed by their employers.

With a focus on employees at the lower end of the wage distribution, further studies highlighted how higher minimum wages can reduce absenteeism within firms, especially due to sickness. In this regard, a US study of low-wage workers found that a US$1 increase in the minimum wage induced a decrease in absenteeism due to illness of between 19 and 32 per cent.[125] Reasons for this include the effects that higher minimum wages may have on the health of these workers – such as, for instance, a reduction in financial stress, higher job satisfaction or increased income that allows workers to invest in their health (for example, health insurance, improved living conditions).[126] Additionally, a recent study conducted on a large US retailer found that raising the wages of warehouse workers and customer service representatives by US$1 increased productivity by more than US$1, with wage increases also associated with a reduction in staff turnover.[127]

Beyond remuneration, investments in training yield important benefits for enterprises, particularly with respect to productivity. For example, a study of industry-level data for the United Kingdom over the period 1983–96 showed that a 1 percentage point increase in the share of employees trained was associated with an increase in value added per hour of 0.6 per cent, and an increase in hourly wage of about 0.3 per cent.[128] A more recent analysis based on Belgian enterprise-level data found similar results in terms of productivity growth, though the productivity premium of a trained worker was substantially higher than the wage premium.[129]

Enterprise investments in their human resources have been shown to strengthen the performance of employees and support business development.

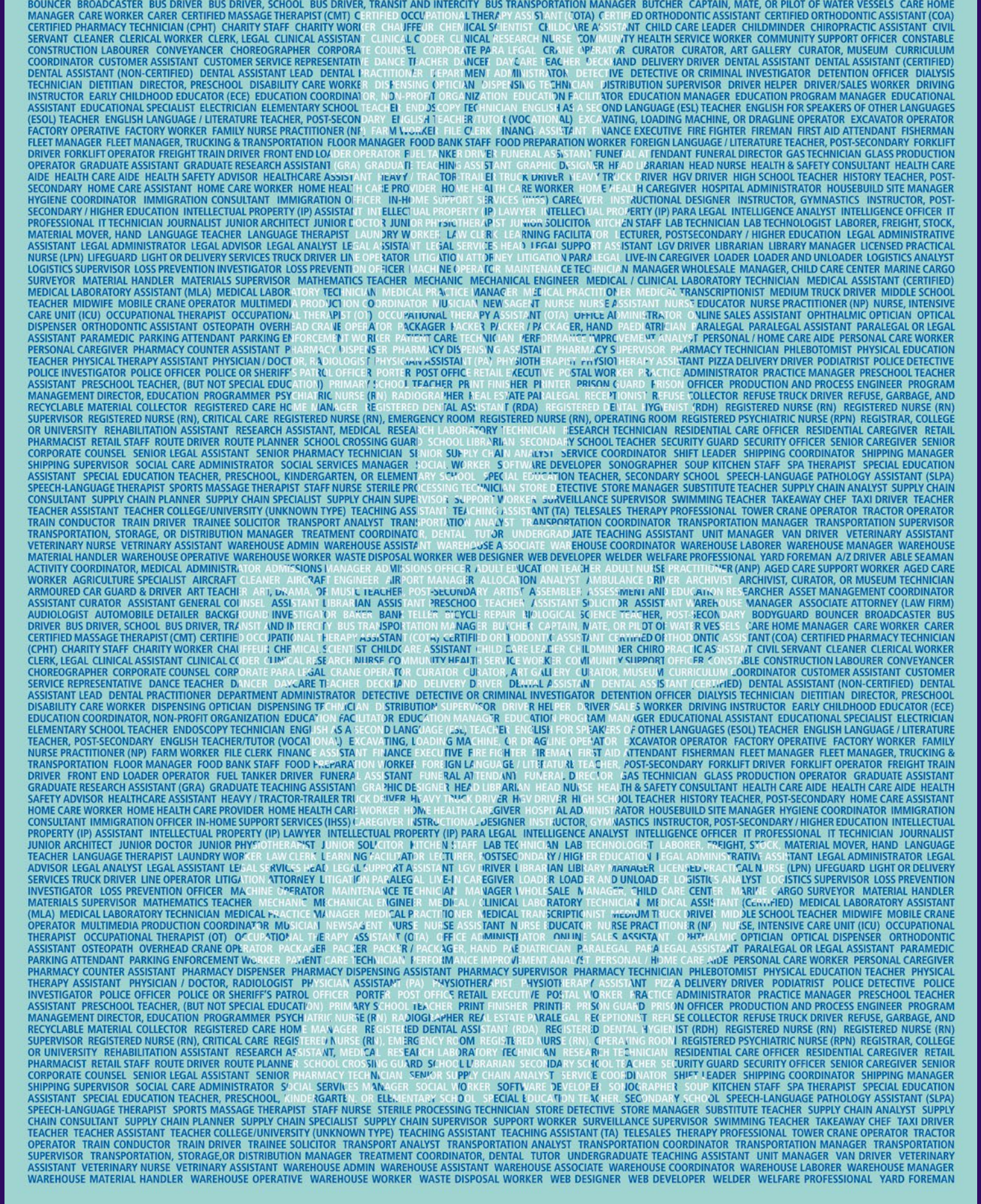
Another important area of investment for enterprises is innovation. Analyses of the performance of manufacturing firms during the Great Recession indicate that firms that had invested in R&D prior to the crisis performed relatively better than other firms when the crisis struck.[130] Possible explanations include the ability of innovative firms to adapt to extremely dynamic environments, for instance by offering new or improved products, and a greater capacity

to take advantage of new opportunities. Furthermore, more dynamic and flexible organizational approaches can facilitate the adaptation of enterprises to exogenous shocks. Among small enterprises especially, clustering and networking appeared, in various contexts, to be positively associated with survival through crisis.[131] Through such strategies, firms may receive support from other businesses and improve their preparedness for future crises.

Notes

1 ILO, 2020a.
2 ILO, 2021j.
3 See ILO, 2022l.
4 Global Network against Food Crises, 2022.
5 *The Guardian*, 2020.
6 ILO standards on social health protection (R.69, C.102, C.130, R.136, R.202) and on working conditions of health personnel (R.69, C.149); ILO, 2020q.
7 OECD, 2021a.
8 Save the Children, 2015.
9 WHO, 2020a.
10 WHO, 2020a.
11 Tessier, De Wulf and Momose, 2022.
12 ILO, 2021s.
13 ILO, 2021s.
14 ILO, 2021s.
15 WHO, n.d.(c).
16 Sriram and Khan, 2020; ILO, 2021d.
17 WHO, n.d.(c).
18 ILO, n.d.(f).
19 ILO, 2021n.
20 WHO, 2010a.
21 Mills, 2014.
22 WHO and World Bank, 2021.
23 WHO, 2016a.
24 ILO, 2017c.
25 WHO, 2016a.
26 Socha-Dietrich and Dumont, 2021.
27 Misau, Al-Sedat and Gerei, 2010.
28 OECD, 2016.
29 Human Rights Watch, 2020.
30 WHO, 2010b.
31 UNECA, 2020.
32 Thomson, Kentikelenis and Stubbs, 2017.
33 WHO, 2018.
34 Togo First, 2020.
35 Tessier, De Wulf and Momose, 2022.
36 De Henau, 2022.
37 De Henau, 2022.
38 Scheil-Adlung, 2015.
39 ILO, 2021n.
40 Unpaid care services are considered in the study by de Henau (2022) as a principal objective of the study is to move away from a system that by default relies on unpaid care workers.
41 ILO, 2020e.
42 WHO, n.d.(d).
43 Australian Government, National Skills Commission, 2022.
44 Booth, 2022.
45 ILO, 2018a.
46 ILO, 2018a.
47 ILO, 2018a.
48 Addati, Cattaneo and Pozzan, 2022.
49 Addati, Cattaneo and Pozzan, 2022.
50 De Henau, 2022.
51 De Henau, 2022.
52 WHO, 2016a.
53 WHO, 2016b.
54 OECD, 2016.
55 Osterman, ed., 2020.
56 ILO, 2017c.
57 ILO, 2021n.
58 Save the Children, 2015.
59 Ambikapathi et al., 2022; Marshall et al., 2021; Borman et al., 2022.
60 World Bank, 2019.
61 Hurst, 2007.
62 ILO, 2018d.
63 World Bank, 2015.
64 Tropea and Devuyst, 2016.
65 UNCTAD, 2022.
66 Tropea, 2016.
67 OECD, 2022.
68 OECD, 2022.
69 Bielza Diaz-Caneja et al., 2009.
70 Pancharatnam et al., n.d.
71 Merry and Pranav, 2020.
72 ILO, Impact Insurance and AMUCSS, 2018; ILO, 2019a.
73 Mahul and Stutley, 2010.
74 UNCTAD, 2022.
75 Bahn et al., 2021.
76 ILO and FAO, 2021.
77 ILO et al., 2020; ILO, 2020f.
78 ILO and FAO, 2021.
79 Durán-Valverde et al., 2013.
80 ILO, 2016a.
81 OECD, 2019b.
82 Mani et al., 2013.
83 ILO, 2008a; ILO, 2019e; ILO, 2022a.
84 FAO, 2021.
85 Naseem, Spielman and Omamo, 2010.
86 OECD, 2020c.
87 Reardon, 2015.
88 Reardon et al., 2009.
89 Von Braun, Hotchkiss and Immink, 1989.
90 Maertens and Swinnen, 2009.
91 FAO, 2016.
92 Twilley, 2022.
93 Makule, Dimoso and Tassou, 2022.

94 Brander, Bernauer and Huss, 2021.
95 Ikenwa, Sulaimon and Kuye, 2017; FAO, 2016.
96 Edeme et al., 2020.
97 Kaiser and Barstow, 2022.
98 Kaiser and Barstow, 2022.
99 Brooks and Donovan, 2020.
100 World Bank, 2020.
101 ILO, 2019d.
102 ILO, 2021q.
103 Asare-Kyei, Barnor and de Witt, 2022.
104 World Bank, n.d.(d).
105 OECD, 2020d.
106 ILO, 2020g.
107 Ndouna et al., 2021.
108 Peter Davies, 2020.
109 Benjamin and Mbaye, 2012; Levy, 2008.
110 Benjamin and Mbaye, 2012.
111 World Bank, n.d.(c).
112 World Bank, n.d.(d).
113 World Bank, n.d.(d).
114 Duman and Zimmerman, forthcoming.
115 Divald, 2021.
116 Berg, 2010.
117 Demenet, Razafindrakoto and Roubaud, 2016.
118 Demenet, Razafindrakoto and Roubaud, 2016.
119 Fajnzylber, Maloney and Montes-Rojas, 2011.
120 Fainzylber, Maloney and Montes-Rojas, 2011.
121 Rand and Torm, 2012.
122 Hjort and Poulsen, 2019.
123 Caldarola et al., 2022.
124 Pfeifer, 2010.
125 Du and Leigh, 2018.
126 Du and Leigh, 2018.
127 Emanuel and Harrington, 2020.
128 Dearden, Reed and Van Reenen, 2006.
129 Konings and Vanormelingen, 2015.
130 Gupta, 2020; Lome, Heggeseth and Moen, 2016.
131 Miklian and Hoelscher, 2022.



In February 2020, Home Secretary, Priti Patel, labelled any person earning under £25k per year 'Low Skilled' or 'Unskilled'. Only one month later, struggling with the COVID-19 crisis, that same government labelled them 'Key Workers', realising just how important they really are. These workers haven't just become key to society, they always have, and will continue to be, Key Workers. **And long may that term live on.**

Occupations based on average UK salary, or average UK salary at entry level for respective professions. List is generalised and not specific to all as you—there are many more Key Workers than listed!

In solidarity with Key Workers.

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7

Policies to build resilience

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Main findings

Credit: © andresr

Markets on their own have not been adequately internalizing the fundamental economic and social contributions of key work.

When difficult working conditions and low pay are systemic, there will be problems with labour shortages, turnover and, ultimately, an inadequate provision of key services.

Shared assessments and planning through social dialogue are needed to strengthen the institutions of work and increase investment in key sectors so as to address underlying resilience risks.

The 'heroes' of this crisis, those who are sustaining our lives, are barely able to sustain theirs.[1]

The COVID-19 pandemic made evident our reliance on key workers. Healthcare workers, supermarket cashiers, delivery workers, postal workers, seafarers, cleaners, and others supplying food and necessities continued to perform their jobs, day in and day out, even at the height of the pandemic, often at great personal risk. Key workers suffered illness and morbidity from COVID-19 at higher rates than non-key workers and were subject to adverse social behaviour and other sources of job strain.

Conscious of the health risks that key workers were undertaking, societies applauded key workers nightly throughout the world and exalted them as heroes. But this heightened public appreciation of their value has not, for the most part, transformed into better working conditions. Key workers remain in the lower echelons of the wage scale and social status. Except for a few cases of hazard pay or one-off bonuses, given mainly to health workers, key workers were not compensated for these additional risks, with the undervaluation of their work remaining unchanged during the pandemic.

Insecurity, limited bargaining power and inadequate renumeration are persistent characteristics of their situation, as detailed in Chapters 3 and 4. Despite their central role to the functioning of our economies and societies, key workers suffer from low levels of remuneration and poor working conditions around the globe. On average, key paid employees are disproportionately represented at the bottom of the wage distribution, earning 26 per cent less than other employees, with one third of the pay gap unexplained. A significant majority of key workers also endure other insecurities ranging from insecure contracts to lack of social protection and training. Many work long and irregular hours and face high OSH risks. The COVID-19 pandemic has made evident the extent to which societies have undervalued most key jobs, raising concerns about the sustainability of these essential activities, especially in the light of future shocks, whether it be from other pandemics, climate change, financial crises or war.

Valuing key work on par with its social contribution

The benefits that key workers generate for economies and societies are higher than the economic compensation and societal recognition they receive.[2] Many low-paid key workers do jobs that have significant positive externalities – they provide value not only to people who receive their services directly but also, more broadly, to the communities in which they live and work. Yet, this is not reflected in their renumeration.[3] For instance, studies on the United Kingdom measuring the social return on investment (SROI) find that for every £1 spent on social care interventions, the return is between £1.20 and £6.50. Another study that uses the SROI approach, and therefore incorporates social, environmental and economic costs and benefits into its analysis, finds that three low-paid occupations – hospital cleaner, recycling plant worker and childcare worker – generate more quantifiable social value than what they receive in pay.[4]

On its own, the market tends to not compensate for the value of these externalities. As noted in this report, care workers experience large pay penalties, reflecting a lack of recognition of the skills needed in care work. The term "care penalty" refers to lower hourly pay than predicted rates based on the qualifications and experience of those holding such jobs.[5] In the United States, the care penalty is estimated to be around 5–6 per cent for both women and men, and for childcare the penalty increases to 41 per cent among female and 12 per cent among male care workers.[6]

The working conditions of cleaning and sanitation workers, who make up nearly 5.4 per cent of all key workers on average, are yet another example of a profession that is undervalued with respect to the social benefits it generates. It is estimated that every US$1 spent on sanitation has a return of US$9 in savings on treatment, healthcare costs, and gains from productivity.[7]

In addition to being stigmatized for doing "dirty work", cleaning workers also constitute one of the lowest-paid occupational groups.

Yet the contribution of these workers is rarely recognized, their working conditions are poor, and the workers are often stigmatized.[8] During the COVID-19 pandemic, many waste pickers experienced repeated acts of violence and harassment by authorities, reflecting their status as "essential but disposable".[9] Alongside the stigmatization that cleaning workers face for doing "dirty work", they also constitute one of the lowest-paid occupational groups.

Despite ensuring the provision of food both in normal times and crises, food systems workers regularly face high levels of working poverty, endure OSH risks, and overall are poorly covered by labour and social protection, both in law and in practice.[10] In the global North, migrant workers are an essential but temporary source of labour, compensating for domestic labour shortages.[11] Yet their social value is far from being recognized in terms of pay and of their contractual arrangements, which not only are short-term but also limit their labour market mobility and give them fewer economic and social rights.[12]

Failure to compensate key workers for the wider value they create has negative effects not only for the people undertaking these jobs but also for society at large.[13] Workers might choose to exit from key occupations that are vital to the functioning of the society given the low social status and poor working conditions associated with many of these jobs. In 2021, the majority of workers who quit their work in the United States cited low pay (63 per cent), lack of advancement opportunities (63 per cent) and feeling disrespected at work (57 per cent) among their main reasons, all of which relate to under-valuation of work.[14] Key occupations such as nursing are facing shortages across countries, with the WHO estimating a global shortfall of 6 million nurses in 2020.[15] Overwork, violence and harassment, unpaid wages, low pay, and the resulting burnout and quits among nursing personnel, have hastened the shortfall.[16] In many OECD countries with ageing populations, the long-term care sector suffers from critical labour shortages, reflecting the poor working conditions.[17]

Heavy truck and lorry drivers, cleaners and helpers, and healthcare assistants are listed among the top occupations with the biggest labour shortages in Europe.[18] In India, the cities of Delhi, Mumbai and Bangalore have reported shortages of bus drivers due to low pay, heavy workloads and highly stressful working conditions.[19] Similar shortages in urban transport services are reported in France as well as in New Zealand, resulting in reduced passenger service, increased wait times and cutbacks in routes.[20] As a result of the astounding growth in e-commerce caused by the pandemic, labour shortages also increased in transport and logistic sectors.[21] Nearly 83 per cent of US manufacturers identified attracting and retaining a quality workforce as their top challenge, and the projections estimated that the lack of experienced and talented labour could cost US$1 trillion by 2030.[22]

Persistent labour shortages and high employee turnover caused by the undervaluation of workers in key economic activities affect the provision of basic services.

Persistent labour shortages and high employee turnover caused by the undervaluation of workers in key economic activities affect the provision of basic services. And these shortages become worse during crises. The COVID-19 pandemic also revealed how the lack of investments in physical and social infrastructure aggravated the negative effects of the pandemic, resulting in preventable deaths – if, for example, there were insufficient ventilators or staff in hospitals. Similarly, greater financial hardship was observed in sectors and organizations with little or no resources to furlough employees or provide them with social protection against income losses. The pandemic made the nexus between physical and social infrastructure and decent work more visible, and it underscored the need for sectoral investments to support better working and living conditions.

The pandemic also made clear that markets are not fully internalizing the social and economic value of resilience, similar to market failures in internalizing environmental externalities. If countries want to strengthen their ability to withstand major shocks, then they need to prepare accordingly, through investments and policy interventions in key sectors, and stronger institutions of work that support key workers.

Towards stronger economic and social resilience

Decent work deficits of key workers weaken the resilience of economies and societies to shocks of various types. Some of the most common areas of concern whose importance was highlighted by the recent pandemic include:

- *Elevated OSH risks.* Physical and biological hazards, as well as psychosocial risks, were more common among key workers even before the pandemic. In security and health, data from Europe and the United States show that key workers experienced verbal abuse at a much higher rate than other workers (one in five prior to the pandemic). During the pandemic, the incidence of verbal abuse and threats increased sharply for all key workers (and more than for non-key workers), with particularly sharp increases recorded for retail workers (in the United States, from 2 per cent in 2015 to 12 per cent in 2021). Key workers faced additional health risks during the COVID-19 pandemic owing to their physical presence at workplaces and contact with clients. Available excess mortality data by occupation indicate that key workers in transportation, security and cleaning had the highest mortality rates, above the already high rate of medical professionals, likely reflecting lax OSH controls and more limited access to healthcare and paid sick leave among these occupations.
- *Over-reliance on temporary contracts.* Nearly one in three key employees is on a temporary contract, though there are considerable country and sectoral differences. In food systems, key employees have a higher incidence of temporary work, at 46 per cent. But temporary employment is also prevalent in retail, cleaning and sanitation, and manual labour, with one in three employees holding a temporary contract. Cleaning and security are commonly outsourced, and other key occupations are routinely staffed with agency workers, especially in warehousing, but also increasingly in healthcare.
- *Long and irregular working hours.* More than 46 per cent of key employees in low-income countries work long hours while a substantial share of key workers around the world has irregular schedules or short hours. Long working hours are more common in transport, where nearly 42 per cent of key workers across the globe work for more than 48 hours a week.
- *Low pay.* On average, 29 per cent of key employees are low-paid regardless of countries' level of development, earning 26 per cent less than other employees, of which only 17 per cent is accounted for by education and experience. In food systems, the share of low-paid key employees is 47 per cent; for key retail workers, it is 37 per cent. These sectors, especially in high-income countries, employ a large share of migrants, which points to the higher incidence of low pay among key migrant workers.
- *Under-representation, especially in a few key sectors*. While unionization and collective bargaining coverage are limited for many workers, unionization rates in several key sectors – including food systems (9 per cent), cleaning and sanitation (13 per cent) and retail (6 per cent) – are significantly lower than average in developed and developing countries alike. This is unfortunate, as representation allowed workers a means to address concerns during the COVID-19 pandemic, and collective bargaining was an effective and flexible tool used by social partners to design workplace regulation to respond to changing needs.
- *Deficits in social protection.* Nearly 60 per cent of key workers in low- and middle-income countries lack some form of social protection. In low-income countries,

social protection is minimal, only reaching 17 per cent of key workers. The picture is even bleaker for key self-employed in developing countries, as they are almost entirely left out of social protection in most countries.

- *Insufficient training.* Less than 3 per cent of key workers in low- and lower-middle-income countries received training during the preceding year, and this share is as low as 1.3 per cent among key self-employed workers.

As explained in Chapter 5, the regulations and policies needed to strengthen the institutions of work are of importance to all workers, and to the world of work in general. To give one example, workers, enterprises and society all benefit when excessive hours over prolonged periods of time are limited, but since key workers in sectors such as transport and security are particularly prone to excessive hours, this policy intervention is of particular benefit to key workers. Given the over-representation of key workers in insecure employment and in low-paid work affording inadequate social protection, general policy interventions in these areas would improve the working conditions of key workers while benefiting other workers as well.

But this is not to imply that specific policies are not needed. To the contrary, many major deficits in working conditions are sector- and occupation-specific, making social dialogue – and particularly collective bargaining – ideal for remedying deficiencies. Collective bargaining enables employers, workers and their representative parties to tailor rules to the unique challenges of the sector, occupation or enterprise, and adapt rules when the circumstances change, such as during the COVID-19 pandemic. Experiences with collective bargaining during the pandemic mentioned in Chapter 3 but detailed at length in the 2022 ILO report on social dialogue,[23] demonstrate the effectiveness of this tool in meeting the immediate needs of employers and workers during the COVID-19 crisis.

Specific policies are also needed for migrant workers, given that many of their challenges arise from the legal implications of their migration status. The COVID-19 pandemic demonstrated the essential role of migrant workers in sustaining key sectors of the economy, especially food security. There is thus a need for laws and policies that can align admission policies with labour legislation to ensure that migrant workers benefit from coverage of labour and social protection.

In other cases, however, the deficits in working conditions stem from a constrained operating environment that encourages employers, whether public or private, to reduce costs at the expense of working conditions. Hence, broader policies that tackle some of the root causes that ultimately affect working conditions need to be considered, such as addressing staff shortages in nursing – which can lead to excessive hours and greater work intensity for those that remain on the job – caused by cuts in government budgets. It is for this reason that policymakers cannot completely disconnect labour policies from broader policies at the macroeconomic and sectoral level.

The resilience deficit prevalent in key sectors and activities warrants a deliberate process of shared assessment and planning through social dialogue.

In many countries, there are significant shortfalls in investment in health systems and food systems, irrespective of their level of income. If societies value the ability of their economies to provide goods and services that are essential to the daily functioning of life, then a first necessary condition is to ensure that organizations, whether public or private, have the resources – physical, financial and human – needed to deliver. Policies to boost resilience concern both the institutions of work and the investments and policies that support the organizations, whether public or private, that deliver key services or goods.

In sum, the resilience deficit prevalent in key sectors and activities warrants a deliberate process of shared assessment and planning through social dialogue. Governments and employers' and workers' organizations would benefit from coming together in each country to institute an actionable roadmap for identifying and addressing specific deficits in their institutions of work and in the productive capacity and resilience of key sectors. The resulting improvement in their economy's capacity to sustain adequate provision of key services and

goods would more than pay for itself when the next crisis hits. This is one of the most important policy lessons to be drawn from the COVID-19 pandemic.

Table 7.1 sets out a checklist of the most salient aspects of such a tripartite process of resilience assessment and proactive policy planning.

Table 7.1. Policy checklist for building resilience

Strengthen the institutions of work	
✔	Ensure a safe and healthy working environment, for all workers, as set forth in the fundamental OSH Conventions, while addressing the specific risks in key work
✔	Strengthen freedom of association and collective bargaining to promote social dialogue and address deficits in working conditions of key workers
✔	Close legal gaps in labour protection, end employment misclassification and institute tailored policies to ensure protection for genuine self-employed workers
✔	Ensure equality of treatment in contractual arrangements and institute other safeguards that prevent the misuse of part-time, temporary, agency or subcontracted work
✔	Limit excessive working hours and unpredictable scheduling
✔	Leverage the benefits of minimum wage and collective bargaining to ensure that key workers' social contribution is duly rewarded
✔	Rectify the undervaluation of "soft skills" in feminized occupations through targeted regulation and policies
✔	Ensure social protection for all, with special attention to paid sick leave
✔	Improve access to training to build competencies and facilitate career progression
✔	Improve compliance to bridge the gap between law and practice
Support key sectors and enterprises through investments in physical and social infrastructure	
✔	Ensure financing of quality and affordable health systems and access to healthcare, including long-term care, sufficient to respond to crises and shocks as well as ensuring the general welfare of society
✔	Support farmers with physical infrastructure that improves their access to markets and productivity
✔	Develop insurance mechanisms to support farmers against commodity price volatility stemming from natural and climate change risks
✔	Develop innovative financing mechanisms and restructure sovereign debt to support low-income countries' investments into health and agriculture
✔	Ensure the adequacy and resilience of the physical infrastructure on which enterprises and organizations depend to operate and thrive
✔	Improve access to credit, with special attention to the needs of MSMEs, particularly in sectors producing key goods and services
✔	Support the transition to formalization through a multi-stakeholder, integrated approach
✔	Undertake assessments of industrial capacity and institute business continuity plans in key sectors to prepare for possible surges in demand or restrictions of supply during shocks and crises

Notes

1 Del Río and Medappa, 2020.
2 Baum and Espinosa, 2021.
3 Lockwood, Nathanson and Weyl, 2017.
4 Lawlor, Kersley and Steed, 2009.
5 England, Budig and Folbre, 2002.
6 England, Budig and Folbre, 2002.
7 P.K. Singh, 2014.
8 Monteiro, 2022.
9 Orleans Reed, 2022.
10 ILO et al., 2020.
11 Weiler, McLaughlin and Cole, 2017.
12 European Parliament, 2021.
13 Bublitz and Regner, 2022; Press, 2021.
14 Parker and Menasce Horowitz, 2022.
15 WHO, 2020c.
16 International Council of Nurses, 2021.
17 OECD, 2021b; Lodovici et al., 2022.
18 European Commission, 2020.
19 ILO, 2021l.
20 ILO, 2021l.
21 ILO, 2021l.
22 Deloitte Insights and Manufacturing Institute, 2021; National Association of Manufacturers, 2021.
23 ILO, 2022g.

Appendix

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A1. Methodology for deriving a global list of key services and workers

At the beginning of the COVID-19 pandemic, 126 countries issued either governmental decrees or announcements designating essential activities or services. Of these, 89 countries (71 per cent of the sample) issued lists that specified key activities that needed to continue operating, 31 countries (25 per cent) designated key services, while the remaining six countries (4 per cent) issued lists specifying activities that were not permitted.

For the purposes of this report, the lists of key activities and services were coded according to the two-digit sectors of the International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC Rev. 4). The compiled list of two-digit sectors was then narrowed down to those sectors that were deemed to be essential by 90 or more of the countries, corresponding to 72 per cent of the sample. To test the validity of this threshold, the limits of 80 or more and 100 or more countries were also considered. The low threshold of 80 resulted only in the additional inclusion of "Activities of extraterritorial organizations and bodies", which represents a minor share of employment in the majority of countries. The higher threshold of 100, on the other hand, led to the exclusion of certain sectors under mining and manufacturing, which are critical parts of supply chains and continued to operate during the pandemic. The reason not to include these sectors was the absence of such activities in some countries, rather than a judgement that the activity was not "essential". Using the threshold of 90 countries, 47 sectors at the two-digit ISIC level were considered key, grouped according to 13 broad categories (see table A1).

Table A1. List of essential sectors

Agriculture; forestry and fishing

01 Crop and animal production, hunting and related service activities
02 Forestry and logging
03 Fishing and aquaculture

Mining and quarrying

05 Mining of coal and lignite
06 Extraction of crude petroleum and natural gas
07 Mining of metal ores
08 Other mining and quarrying
09 Mining support service activities

Manufacturing

10 Manufacture of food products
11 Manufacture of beverages
17 Manufacture of paper and paper products
18 Printing and reproduction of recorded media
19 Manufacture of coke and refined petroleum products
20 Manufacture of chemicals and chemical products
21 Manufacture of pharmaceuticals, medicinal chemical and botanical products
22 Manufacture of rubber and plastic products
23 Manufacture of other non-metallic mineral products
24 Manufacture of basic metals
33 Repair and installation of machinery and equipment

Electricity; gas, steam and air conditioning supply

35 Electricity, gas, steam and air conditioning supply

Water supply; sewerage, waste management and remediation activities

36 Water collection, treatment and supply
37 Sewerage
38 Waste collection, treatment and disposal activities; materials recovery
39 Remediation activities and other waste management services

Wholesale and retail trade; repair of motor vehicles and motorcycles

46 Wholesale trade, except of motor vehicles and motorcycles
47 Retail trade, except of motor vehicles and motorcycles

Transportation and storage

49 Land transport and transport via pipelines
50 Water transport
51 Air transport
52 Warehousing and support activities for transportation
53 Postal and courier activities

Table A1. ***(cont'd)***

Information and communication

58 Publishing activities
60 Programming and broadcasting activities
61 Telecommunications
62 Computer programming, consultancy and related activities
63 Information service activities

Financial and insurance activities

64 Financial service activities, except insurance and pension funding
65 Insurance, reinsurance and pension funding, except compulsory social security
66 Activities auxiliary to financial service and insurance activities

Professional, scientific and technical activities

69 Legal and accounting activities
70 Activities of head offices; management consultancy activities

Administrative and support service activities

80 Security and investigation activities
81 Services to buildings and landscape activities

Public administration and defence; compulsory social security

84 Public administration and defence; compulsory social security

Human health and social work activities

86 Human health activities
87 Residential care activities
88 Social work activities without accommodation

Using the two-digit sectors listed in table A1, the next step was to identify the occupations in each of those sectors based on the International Standard Classification of Occupations (ISCO-08), also at the two-digit level. This exercise resulted in 40 occupational categories, from which were removed those occupations that could be performed remotely from home during the pandemic. While these occupations are critical to the functioning of economies and societies, the ability to work from home meant that these workers were not exposed to the same risk as those whose jobs required physical presence. As mentioned in the introduction, the report focuses on key workers exposed to the risk of the COVID-19 virus as a result of their occupations.

Occupations were identified as teleworkable using global estimates from the ILO[1] and Dingel and Neiman.[2] Dingel and Neiman's analysis applies occupational descriptions from the United States Occupational Information Network (O*NET). Because it is based on US data, it was considered an upper threshold of the ability to work from home. Thus, any occupation that was assumed not to be teleworkable by US standards was also assumed not to be teleworkable in countries at lower levels of economic development. The ILO estimates, which were based on an expert evaluation using a Delphi survey, assigned probabilities to occupations at the three-digit ISCO level for a range of different countries across the world and then aggregated the results by country income groupings. Occupations that were assigned high scores of teleworkability by both the ILO and Dingel and Neiman were excluded from the list of occupations.[3] After removing teleworkable occupations, there remained 25 occupational categories at the ISCO two-digit level.

For the purposes of this report, key workers are defined as workers in the 25 non-teleworkable occupations of table A2, working in the 47 key economic sectors of table A1 (key workers = key occupations ∩ key sectors). The statistical analysis in this report identifies workers at this intersection.[4] For most of the occupations and sectors, there is a substantial overlap between the two categories. Figure A1 provides an overview of the overlap between key sectors and occupations, based on the average for the 90 countries and territories for which two-digit ISCO and ISIC data are available. Thus, for example, only 11 per cent of food systems workers were not employed in key sectors. An example of such an exception would be food preparation assistants employed in the hospitality industry, which was not designated as essential. Food systems, health, retail, security and transport all have a strong overlap with key sectors, upwards of 80 per cent. For the other categories – manual, cleaning and sanitation, and technicians and other support workers – the overlap is less strong (ranging from 32 to 48 per cent), reflecting the significant presence of these occupational categories across economic sectors.

Table A2. Non-teleworkable, key occupations within the eight occupational groupings

Food systems workers

61 Market-oriented skilled agricultural workers
62 Market-oriented skilled forestry, fishery and hunting workers
63 Subsistence farmers, fishers, hunters and gatherers
92 Agricultural, forestry and fishery labourers
94 Food preparation assistants

Health workers

22 Health professionals
32 Health associate professionals
53 Personal care workers

Retail workers

52 Sales workers
95 Street and related sales and service workers

Security workers

54 Protective services workers

Manual workers

71 Building and related trades workers, excluding electricians
72 Metal, machinery and related trades workers
73 Handicraft and printing workers
74 Electrical and electronic trades workers
75 Food processing, wood working, garment and other craft and related trades workers
81 Stationary plant and machine operators
82 Assemblers
93 Labourers in mining, construction, manufacturing and transport

Cleaning and sanitation workers

91 Cleaners and helpers
96 Refuse workers and other elementary workers

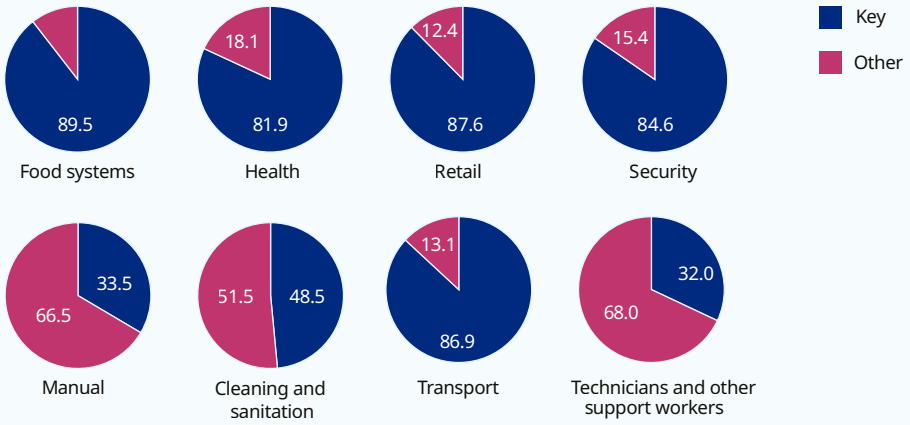
Transport workers

83 Drivers and mobile plant operators

Technicians and clerical workers

31 Science and engineering associate professionals
44 Other clerical support workers
51 Personal service workers

Figure A1. Presence of key occupations within essential and non-essential sectors (percentage)



Source: ILO calculations based on the 90 countries and territories listed in table A6.

Because the list of key workers is wide-ranging, the analysis in the report is sometimes disaggregated to focus on the eight occupational groups grouped in figure A1 and listed in table A2, thereby allowing for a more focused discussion of the experience and concern of a more defined group of workers.

In section 4.8, the analysis is restricted to technicians and clerical workers, and excludes personal service workers (51), as this category covers a wide range of occupations (for example, food systems workers (512); transport conductors (5112, transport workers); cleaning and housekeeping supervisors (5151, cleaning and sanitation workers)) that are key but belong to the other occupational groups. As the data are limited to the

two-digit level and cannot be re-allocated, it was more accurate to remove personal service workers (51) from the analysis of occupational groups. This category is, however, included in the aggregate figures on key workers used in the report. Overall, personal service workers constitute just 1.8 per cent of key workers; their exclusion therefore does not affect the distribution of key workers by occupational group.

Identifying key workers in India

The National Classification of Occupations (NCO 2004) used in the Indian Periodic Labour Force Survey (PLFS) slightly differs from the ISCO-08. A concordance table between the two classifications was therefore built to identify in the PLFS data the non-teleworkable occupations (table A2). For instance, in this concordance table, jobs classified as "Stationary plant and machine operators" (ISCO-08 code 81) are found in the Indian classification under both "Stationary plant and related operators" (NCO-2004 code 81) and "Machine operators and assemblers" (NCO-2004 code 82).

Identifying key workers in China

For China, the survey used to study the population of key workers is the China Family Panel Studies (CFPS) of 2018. As with most household surveys in China, this survey does not include a detailed industry variable based on the ISIC Rev. 4 classification. Instead, it provides an aggregated variable grouping of workers according to China's national economic industry classification (GB/T 4754–2002). This variable divides industries into the following 20 categories:

1 Agriculture, forestry, animal husbandry and fishery;
2 Mining;
3 Manufacturing;
4 Production and supply of electricity, gas and water;
5 Construction;
6 Wholesale and retail trades;
7 Transportation, storage and post;
8 Accommodation and catering services;
9 Information transmission, software and information technology services;
10 Financial industry;
11 Real estate;
12 Leasing and business services;
13 Scientific research and technical services;
14 Management of water conservancy, environment and public facilities;
15 Residential services, repairing and other services;
16 Education;
17 Health and social work;
18 Culture, sports and entertainment;
19 Public management, social securities and social organizations;
20 International organizations.

Since the detailed list of key industries and services used in the definition of key workers given in table A1 is not available in the Chinese data, the analysis was adapted by simply considering all industries and services except the following (according to the Chinese classification): 5 Construction; 8 Accommodation and catering services; 11 Real estate; 16 Education; 18 Culture, sports and entertainment; 20 International organizations.

With such a methodology, some workers surveyed in the CFPS may therefore have been classified as "key", which would not have been the case if the precise definition had been used. For instance, workers in the tobacco industry belong to "3 Manufacturing" in the Chinese classification and could therefore be considered as "key" as they also work in a non-teleworkable occupation.

To measure the overestimation of key workers in China that this methodology may entail, the average share of additional workers included in the Chinese adaptation of the definition of key workers was computed across a sample of upper-middle-income economies (27 countries). On average, 9 per cent of workers would have been added to the population of key workers in these countries if the Chinese adaptation had been applied. Since the population of key workers in China is estimated at 44 per cent, it is likely that around 20 per cent of them (=9/44) were erroneously classified as "key".

Even though the estimates for China do not rely precisely on the population of key workers as defined for the other countries covered by the report, they have been included in the results. Nevertheless, the estimates for China appear to be consistent overall with the findings concerning upper-middle-income countries, along the various dimensions studied.

A2. Data for analysing the experience of key workers and enterprises during the COVID-19 pandemic (Chapter 2)

Analysis of mortality by occupation

The analysis of mortality by occupation in section 2.1 uses published vital statistics from countries that include information on occupation (see table A3). Vital statistics are compiled using death certificates issued by hospitals or coroners. They are not samples and thus have no sample weights.

Table A3. Vital statistics used for analysis of morbidity by occupation

Country	Name	Years
Brazil	Sistema de Informação sobre Mortalidade (SIM)	2019, 2020
Colombia	Defunciones No Fetales	2019, 2020
Costa Rica	Registro Civil: Total de Defunciones	2019, 2020
Mexico	Estadística de Defunciones Generales	2019, 2020
United States	National Vital Statistics System (NVSS)	2020

To calculate occupational mortality rates, the number of deaths per occupation must be divided by the number of workers. The number of workers by occupation is taken from the labour force surveys for the respective countries listed in table A6. Where this could not be done, variations in the number of deaths by occupation were used.

Qualitative interviews

The interviews analysed in Chapter 2 followed a generic open-ended questionnaire for workers, covered their working conditions prior to the pandemic, their experience of working during the pandemic and their hopes and aspirations for the future, in addition to gathering basic socio-demographic information as well as information on their occupation, contractual status and place of work. For interviews with small business owners, including informal self-employed workers, the open-ended questionnaire asked about the difficulties of operating during the pandemic, how they were or were not affected by lockdowns, the effect on sales, supply chain impediments, and challenges in securing the safety and health of their workplace, including the provision of PPE. Table A4 gives the distribution of persons interviewed.

Given the wide range of countries, industries and occupations covered, interviewers adapted the questionnaire to the specific country and sectoral context. Interviewees were chosen using purposeful sampling and participated in either individual interviews or focus groups, with the explicit criteria that they were working in the same position prior to the pandemic. The individuals interviewed represent a cross-section of industries and work arrangements, including informal work. The interviews were analysed by the authors of the background papers, as well as by the authors of this report, who coded a sub-sample of the interviews using qualitative data analysis software Nvivo. The names of interviewees have been changed to protect the anonymity of the respondents.

▶ **Table A4. Number and distribution of workers and small business owners interviewed by sector of activity and country, individual and focus group interviews**

Food systems	Argentina (9), Canada (30), Ghana (4), India (urban) (12), India (rural) (48), Kenya (5), Malaysia (4), Mexico (3), Peru (8), Philippines (7), South Africa (10), Türkiye (14)
Health	Argentina (13), Ghana (16), India (16), Kenya, (7), Mexico (13), Peru (11), Philippines (13), Türkiye (12)
Retail	Argentina (6), India (rural) (1), Kenya (7), Mexico (1), Peru (1)
Security	India (6), Kenya (6), Malaysia (4), Mexico (3), Philippines (2)
Manual	Peru (4), Philippines (2), South Africa (1)
Cleaning and sanitation	Argentina (6), India (12), Malaysia (4), Peru (5), Republic of Korea (8), Türkiye (3)
Transport	Argentina (6), Ghana (7), Kenya (4), Malaysia (4), Mexico (3), Peru (8), Philippines (3), Republic of Korea (6), South Africa (2)
Technicians and clerical	Ghana (5), India (rural) (1), Kenya (1), Mexico (9), Peru (8), Philippines (2), Republic of Korea (2), South Africa (2), Türkiye (1)
Small business owners (key sectors)	Argentina (11), Ghana (13), India (urban) (4), India (rural) (55), Kenya (16), Malaysia (4), Mexico (10), Peru (8), Türkiye (11), Philippines (4)

Note: Data from background studies prepared for the ILO.

Analysis of key enterprises

The analysis of key enterprises during the COVID-19 pandemic uses the World Bank Enterprise Surveys (WBES) and COVID-19 follow-up surveys (COV-ES). WBES is a nationally representative data set of registered firms in the private sector with five or more employees. The sample of the COV-ES consists of enterprises in a baseline WBES between 2016 and 2020, which were re-interviewed. Section 2.3

Table A5. Sample overview and excluded countries

COV-ES countries included in the sample:	
Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Cyprus, Czechia, El Salvador, Estonia, Georgia, Greece, Guatemala, Honduras, Hungary, Italy, Jordan, Lebanon, Mongolia, Montenegro, Mozambique, Republic of Moldova, Romania, Russian Federation, Serbia, Slovenia, South Africa, Zimbabwe	
COV-ES countries excluded from the sample:	
No baseline year	Panama
No essential list	Belarus, Chad, Guinea, Kazakhstan, Latvia, Lithuania, Nicaragua, Niger, North Macedonia, Somalia, Togo, Zambia
No variation in list	Bulgaria, Malta, Morocco, Poland, Portugal, Slovakia

utilizes the first wave of the COV-ES data, which has the largest coverage and is comparable between countries. Lists ranging from official documents to newspapers that include definition of essential sectors are collected and translated into WBES sectoral coding either through crosswalks or by matching sectoral descriptions with the ISIC Rev. 3.1 sector definitions. Responding business owners or managers wrote down a sentence or several keywords to describe the main operation of the firm. Based on the list of key sectors, a variable is created indicating whether the firm operates in a key sector of the respective country, or whether it produces a good or offers a service which is defined to be key. Lebanon is the exception, where the survey data include a variable indicating whether the enterprise is key or not. The final sample consists of 27 countries (see table A5).

WBES excludes firms in the agricultural, mining and several service sectors, such as health and social work, real estate or research and development. The sectoral classification is based on ISIC Rev. 3.1. Included sectors are manufacturing (section D), construction (section F), wholesale and retail (section G), hotels and restaurants (section H), transport, storage and communications (section I), and information technology (division 72). As the agricultural sector is excluded, the data are naturally not representative of all key sectors within the countries.

A3. Microdata for analysing socio-demographic characteristics and working conditions of key workers

For the analysis of socio-demographic characteristics and working conditions, representative and harmonized labour force and household survey data from 90 countries were used. These data were obtained from the ILO's Microdata Repository and Harmonized Microdata.[5] These form the basis of the ILOSTAT repository, which provides comprehensive information, including indicators, on labour market topics. Specifically, the ILO's Department of Statistics identifies, obtains and processes primary national sources of labour statistics in addition to confirming the quality of the data. It also creates variables and indicators in a harmonized way, which implies mapping national microdata to international standard classifications, such as ISCO and ISIC for two-digit occupations and industries, respectively.[6] As such, the ILO's Microdata Repository and

Harmonized Microdata (ILOSTAT) is a key source for this report. For a few countries, the labour force and household survey data were supplemented with microdata sources that were accessed through national consultants. These countries are Australia, China, India, the Russian Federation and Ukraine.

The list in table A6 includes the 90 countries and their national data sources. All of these countries are used in Chapter 1 to classify key occupational categories and analyse the socio-demographic characteristics of key workers. In Chapters 3 and 4, the analysis of the working conditions of key employees is instead based on sub-samples of surveys available from those listed in table A6. For each variable, countries that lack a given survey question or have a high share of missing values are excluded from the descriptive analysis (see table A7). Alternatively, table A8 lists those variables which were included by fewer countries fewer countries and for which those countries had sufficient data in their survey.

Further sources of microdata were used for the descriptive analysis of physical and psychosocial risks in Chapter 3. These are the Sixth European Working Conditions Survey: 2015, the European Working Conditions Telephone Survey 2021, American Life Panel (2015 American Working Conditions Survey 2015) and American Life panel (Omnibus Survey-2021, Wave 10).

For all surveys, the analysis is limited to workers in employment. Most of the labour force surveys are structured according to the International Classification of Status in Employment, 1993 (ICSE-93) which designates six employment statuses: (1) employees, (2) employers, (3) own-account workers, (4) members of producer cooperatives, (5) contributing family workers, and (6) workers not classifiable by status. The report follows the designation developed by ILOSTAT whereby status in employment is grouped into two categories: (a) wage and salaried workers (also known as employees); and (b) self-employed workers (including the subcategories of self-employed workers with employees (employers), self-employed workers without employees (own-account workers), members of producers' cooperatives and contributing family workers. Although contributing family workers are often not paid, they are considered as being in employment given their contribution to family income. Workers in subsistence agriculture (ISCO 63), who are typically classified as self-employed or contributing family workers in labour force surveys, are also included. Other forms of unpaid work, such as care work in the home, fall outside these statistical boundaries, and are thus not considered in the analysis.

In all the cross-country estimates, each country is weighted equally. This choice highlights the importance of country-specific institutions and policies. An alternative, to weight each country by number of working individuals, would give more prominence to countries with a larger number of workers. This would have caused the results to be driven by the more populous countries, blurring cross-country variations.

▶ Table A6. National data sources used to classify and analyse key workers' characteristics and working conditions

Country/territory	Survey	Year	Income group (World Bank classification)
Afghanistan	Living Conditions Survey	2017	Low
Albania	Labour Force Survey (LFS)	2019	Upper-middle
Angola	Employment survey; Inquérito ao emprego	2019	Lower-middle
Australia	Household Income and Labour Dynamics	2019	High
Austria	LFS	2019	High
Bangladesh	LFS	2017	Lower-middle
Barbados	LFS	2019	High

▶ **Table A6.** ***(cont'd)***

Country/territory	Survey	Year	Income group (World Bank classification)
Belarus	LFS	2019	Upper-middle
Plurinational State of Bolivia	Household Survey; Encuesta de Hogares	2019	Lower-middle
Bosnia and Herzegovina	LFS	2019	Upper-middle
Botswana	Multi-topic household survey	2019	Upper-middle
Brazil	Continuous National Household Sample Survey; Pesquisa Nacional por Amostra de Domicílios	2019	Upper-middle
Brunei Darussalam	LFS	2019	High
Burkina Faso	Integrated regional survey on employment and the informal sector; Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel (ERIESI)	2018	Low
Cambodia	LFS	2019	Lower-middle
China	China Family Panel Studies	2018	Upper-middle
Cook Islands	LFS	2019	High
Côte d'Ivoire	National Employment Survey; Enquête Nationale sur l'Emploi	2019	Upper-middle
Cyprus	LFS	2019	High
Czechia	LFS	2019	High
Dominican Republic	Continuous National Labour Force Survey; Encuesta Nacional Continua de Fuerza de Trabajo	2019	Upper-middle
Ecuador	National Survey of Employment, Unemployment and Underemployment; Encuesta Nacional de Empleo, Desempleo y Subempleo	2019	Upper-middle
Egypt	LFS	2019	Lower-middle
El Salvador	Multi-Purpose Household Survey; Encuesta de Hogares de Propósitos Múltiples	2019	Lower-middle
Eswatini	LFS	2016	Lower-middle
Ethiopia	National Labour Force and Migration Survey	2013	Low
Federated States of Micronesia	Household Income and Expenditure Survey	2014	Lower-middle

▶ **Table A6.** ***(cont'd)***

Country/territory	Survey	Year	Income group (World Bank classification)
Fiji	Employment and Unemployment Survey	2016	Upper-middle
France	LFS	2019	High
Gambia	LFS	2012	Low
Georgia	LFS	2019	Upper-middle
Ghana	LFS	2015	Lower-middle
Greece	LFS	2019	High
Guatemala	National Survey of Living Coditions; Encuesta Nacional de Condiciones de Vida	2014	Upper-middle
Guyana	LFS	2018	Upper-middle
Honduras	Permanent Multi-Purpose Household Survey; Encuesta Permanente de Hogares de Propósitos Múltiples	2019	Lower-middle
India	LFS	2019	Lower-middle
Islamic Republic of Iran	LFS	2019	Upper-middle
Israel	LFS	2017	High
Jordan	LFS	2019	Upper-middle
Kenya	Household Budget Survey	2019	Lower-middle
Kiribati	HIES	2019	Lower-middle
Kosovo	LFS	2019	Upper-middle
Kyrgyzstan	LFS	2018	Lower-middle
Lao People's Democratic Republic	LFS	2017	Lower-middle
Lebanon	LFS	2019	Upper-middle
Lesotho	LFS	2019	Lower-middle
Liberia	LFS	2017	Low
Madagascar	National Survey on Employment; Enquête Nationale sur l'Emploi et le Secteur Informel (ENESI)	2015	Low
Maldives	HIES	2019	Upper-middle
Marshall Islands	HIES	2019	Upper-middle
Mexico	National Occupation and Employment Survey; Encuesta Nacional de Ocupación y Empleo	2019	Upper-middle
Mongolia	LFS	2019	Lower-middle

▶ **Table A6.** ***(cont'd)***

Country/territory	Survey	Year	Income group (World Bank classification)
Mozambique	Household budget survey; Inquérito sobre orçamento familiar	2015	Low
Myanmar	LFS	2019	Lower-middle
Nepal	LFS	2017	Lower-middle
Niger	ENESI	2017	Low
Nigeria	Socio Economic Survey	2019	Lower-middle
North Macedonia	LFS	2019	Upper-middle
Occupied Palestinian Territory	LFS	2019	Lower-middle
Pakistan	LFS	2019	Lower-middle
Palau	HIES	2014	High
Panama	Labour Market Survey; Encuesta de Mercado Laboral	2014	High
Philippines	LFS	2019	Lower-middle
Portugal	Employment Survey; Inquérito ao Emprego	2019	High
Russian Federation	LFS and for wage analysis; Survey of Income and Participation in Social Programs	2019	Upper-middle
Samoa	LFS	2017	Upper-middle
Serbia	LFS	2019	Upper-middle
Seychelles	LFS	2019	High
Sierra Leone	Integrated Household Survey	2018	Low
Slovakia	LFS	2019	High
Solomon Islands	HIES	2013	Lower-middle
Sri Lanka	LFS	2019	Lower-middle
Suriname	Survey of Living Conditions	2016	Upper-middle
Switzerland	Labour Force Survey; Enquête suisse sur la population active	2019	High
Thailand	LFS	2019	Upper-middle
Timor-Leste	LFS	2016	Lower-middle
Togo	ERIESI	2017	Low
Tonga	LFS	2018	Upper-middle
Tunisia	Labour Market Panel Survey	2014	Lower-middle
Türkiye	LFS	2019	Upper-middle

▶ **Table A6.** ***(cont'd)***

Country/territory	Survey	Year	Income group (World Bank classification)
Tuvalu	HIES	2016	Upper-middle
Uganda	LFS	2017	Low
Ukraine	Ukranian Longitudinal Monitoring Survey	2012	Lower-middle
United Kingdom	LFS	2019	High
United States	Current Population Survey	2019	High
Uruguay	Continued Household Survey; Encuesta Continua de Hogares	2019	High
Vanuatu	HIES	2019	Lower-middle
Zambia	LFS	2019	Lower-middle
Zimbabwe	LFS	2019	Lower-middle

Note: Data are from the ILO's Microdata Repository and Harmonized Microdata Collection (ILOSTAT), except for Australia, China, India, the Russian Federation and Ukraine, which were accessed through national consultants.

▶ **Table A7. Countries/territories missing from descriptive statistics**

Variable	Countries/territories missing
Occupational groups	Egypt, Fiji, Georgia, Kenya, Kyrgyzstan, Madagascar, Timor-Leste (for security), Ukraine
Age	None
Gender	None
Education	Albania, Kyrgyzstan, Myanmar, Solomon Islands
Employment status	Russian Federation
Migrant status (foreign-born)	Afghanistan, Albania, Australia, Barbados, Belarus, Plurinational State of Bolivia, Botswana, Brazil, China, Egypt, El Salvador, Ethiopia, Georgia, Guatemala, India, Islamic Republic of Iran, Kyrgyzstan, Lebanon, Madagascar, Mozambique, Myanmar, Nepal, Niger, North Macedonia, Occupied Palestinian Territory, Pakistan, Panama, Philippines, Russian Federation, Samoa, Serbia, Seychelles, Sierra Leone, Sri Lanka, Thailand, Timor-Leste, Tunisia, Ukraine, Vanuatu, United Kingdom
Public sector employment	Australia, Belarus, Cyprus, Czechia, Gambia, India, Israel, Kenya, Portugal, Russian Federation, Timor-Leste
Temporary employment	Afghanistan, Australia, Barbados, Plurinational State of Bolivia, Brazil, Brunei Darussalam, Burkina Faso, China, Cook Islands, Côte d'Ivoire, Ecuador, El Salvador, Eswatini, Federated States of Micronesia, Guatemala, Honduras, Islamic Republic of Iran, Israel, Kenya, Kiribati, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Liberia, Madagascar, Marshall Islands, Mexico, Myanmar, Nigeria, Occupied Palestinian Territory, Palau, Panama, Sierra Leone, Solomon Islands, Suriname, Thailand, Timor-Leste, Togo, Tonga, Tuvalu, United States, Uruguay, Vanuatu

▶ **Table A7.** ***(cont'd)***

Variable	Countries/territories missing
Working hours	Barbados, Fiji, Kiribati, Nigeria, Suriname, Mozambique, Samoa, Tunisia, Vanuatu
Social security	Afghanistan, Australia, Austria, Barbados, Belarus, Cyprus, Czechia, Ethiopia, Federated States of Micronesia, France, Greece, Islamic Republic of Iran, Israel, Niger, Nigeria, Palau, Philippines, Portugal, Russian Federation, Slovakia, Solomon Islands, Suriname, Switzerland, Thailand, Timor-Leste, Tunisia, Tuvalu, Ukraine, United Kingdom, United States
Wages	Afghanistan, Angola, Austria, Barbados, Belarus, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Burkina Faso, Cook Islands, Cyprus, Czechia, Eswatini, Ethiopia, Federated States of Micronesia, Fiji, Gambia, Georgia, Islamic Republic of Iran, Israel, Kiribati, Kosovo, Kyrgyzstan, Lesotho, Liberia, Marshall Islands, Mongolia, Mozambique, Myanmar, Niger, Nigeria, North Macedonia, Occupied Palestinian Territory, Pakistan, Palau, Seychelles, Sierra Leone, Slovakia, Solomon Islands, Suriname, Timor-Leste, Tonga, Tunisia, Türkiye, Tuvalu, Vanuatu, Zimbabwe

▶ **Table A8. Countries/territories included in descriptive statistics**

Variable	Countries/territories included
Part-time employment	Bangladesh, Greece, Kyrgyzstan, Lesotho, Occupied Palestinian Territory, Slovakia, Türkiye, United Kingdom, United States, Zambia
Training in the past 12 months	Albania, Austria, Belgium, Bulgaria, Burkina Faso, Côte d'Ivoire, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Pakistan, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Togo, Türkiye, Uganda, United Kingdom
TVET attendance at any point in time	Bangladesh, Burkina Faso, Cambodia, Egypt, Ethiopia, France, Fiji, Jordan, Kenya, Lao People's Democratic Republic, Lebanon, Madagascar, Nepal, Niger, Liberia, Pakistan, Russian Federation, Serbia, Switzerland, Timor-Leste, Togo, Türkiye, United Kingdom, Viet Nam, Zimbabwe

A4. Analysing the difference in pay between key employees and other employees

To estimate the pay gap observed between key wage employees and other wage employees, a Blinder-Oaxaca econometric technique is calculated for each country. First, wage equations are estimated separately for key and other wage employees. Then, the estimated parameters of these equations are used to decompose the average pay gap into a part explained by the observable characteristics considered in the equations, and an unexplained part.

Formally, the wage equations estimated are as follows:

$$W_K = X_K \beta_K + \epsilon_K$$

$$W_O = X_O \beta_O + \epsilon_O$$

where $W\_$ is the logarithm of the hourly wages of key (K) and other (O) wage employees, and $X\_$ is a vector of variables including a constant term and dummies that describe paid employees' observable characteristics: age, education level, number of hours worked per week (below 20, between 20 and 40, above 40), and the sector of work (public/private). In this framework, the average pay gap is calculated as the sum of two components:

$$\bar{W}_O - \bar{W}_K = (\bar{X}_O - \bar{X}_K)\hat{\beta}_O + \bar{X}_K(\hat{\beta}_O - \hat{\beta}_K)$$

where $(\bar{X}_O - \bar{X}_K)\hat{\beta}_O$ is the explained part, attributable to differences in human capital between key and other employees, and $(\hat{\beta}_O - \hat{\beta}_K)\bar{X}_K$, is the unexplained part of the gap. In other words, the explained part of the gap corresponds to the difference in hourly wages, between key employees and other employees, attributable to differences in the composition of the workforce in terms of age, education level, working time and sector of activity. The unexplained part of the wage gap is due to factors not taken into account in the decomposition, such as undervaluation of the work undertaken by key workers.

Notes

1 ILO, 2020r.

2 Dingel and Neiman, 2020.

3 It should be noted that both indicators of ability to work from home are highly correlated, and there are no discrepancies in ranking of jobs across measures.

4 When there are exceptions, they are indicated by a mention in the text or a note to the relevant table or figure.

5 ILO, 2018f; ILO, n.d.(a).

6 Ongoing initiatives at the ILO work towards extending these classifications to more detailed levels of aggregation.

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Advancing social justice, promoting decent work

The International Labour Organization is the United Nations agency for the world of work. We bring together governments, employers and workers to drive a human-centred approach to the future of work through employment creation, rights at work, social protection and social dialogue.

The COVID-19 pandemic has underscored the extent to which economies and societies depend on key workers. It has also highlighted how undervalued most key jobs are. Despite carrying out activities that are indispensable to the functioning of societies – producing, distributing and selling food, cleaning, ensuring public security, transporting essential goods and workers, and caring for and healing the ill – many key workers lack decent working conditions. Key employees earn, on average, 26 per cent less than non-key workers, and one in three is considered low-paid. Overall, key workers have lower rates of unionization, higher incidence of temporary contracts, long and irregular hours, and less access to training. They are also more exposed to physical and biological hazards as well as psychosocial risks – risks that were heightened during the COVID-19 pandemic. Many key workers also lack social protection coverage, particularly in low-income countries.

Markets on their own have not been adequately internalizing the fundamental economic and social contribution of key work. This report calls for a revaluation of key work and greater investment in key sectors to reflect its vital contribution through a deliberate process of shared assessment and planning anchored in social dialogue. In addition to addressing an important, long-standing deficit in social justice, doing so will help to ensure the continuity of essential economic activities during future shocks and crises. This is one of the most important public policy lessons to be drawn from the COVID-19 pandemic.

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